

Schema documentation for impex-1_0_0.xsd

january 30, 2014

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Namespace: "http://impex-fp7.oeaw.ac.at"

Schema(s)

Main schema impex-1_0_0.xsd

Namespace	http://impex-fp7.oeaw.ac.at
Properties	attribute form default: unqualified element form default: qualified

Element(s)

Element Spase

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Spase
Properties	content: complex

Model	Version , ResourceEntity+				
Children	ResourceEntity, Version				
Instance	<pre><Spase lang="en" xmlns="http://impex-fp7.oeaw.ac.at"> <Version>{1,1}</Version> <ResourceEntity>{1,unbounded}</ResourceEntity> </Spase></pre>				
Attributes	QName	Type	Default	Use	
	lang	xsd:string	en	optional	
Source	<code><xsd:element name="Spase" type="Spase"/></code>				

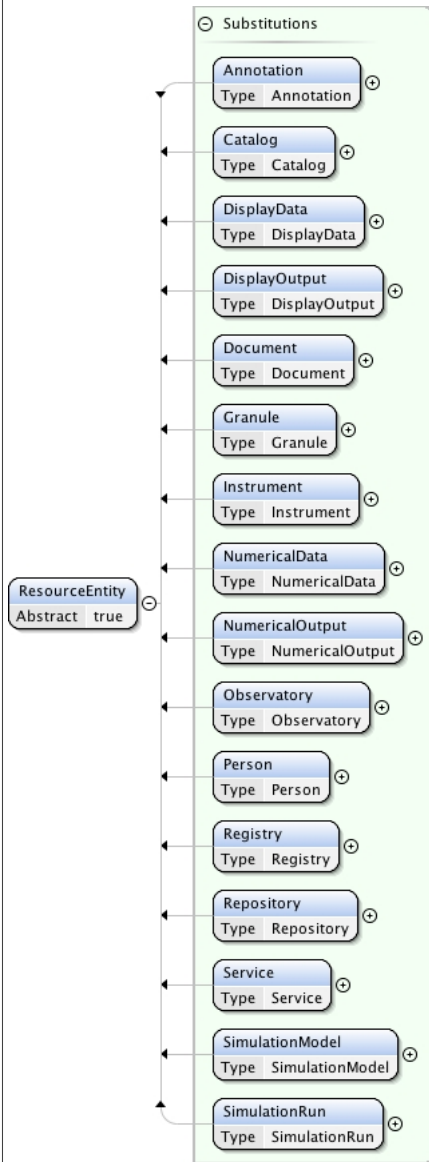
Element Version

Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	<p>Indicates the release identifier. When used to indicate the release of the SPASE data model, it is a in the form Major.Minor.Fix where Major: A significant change in the architecture of the model or rewrite of the implementation. This includes major changes in design or implementation language. This number starts at 0 (zero). Minor: An addition of terms or features that require changes in documentation/external API. This number starts at 0 (zero). Fix: Any change that doesn't require documentation/external API changes. This number starts at 0 (zero).</p>	
Diagram	<p>The diagram shows a class 'Version' with a type 'enumVersion' and an annotation 'enumVersion'. A callout box explains the version identifier format: 'Indicates the release identifier. When used to indicate the release of the SPASE data model, it is a in the form...'</p>	
Type	enumVersion	
Properties	content:	simple
Facets	enumeration	2.2.2
Used by	Complex Type	Spase
Source	<pre><xsd:element name="Version" type="enumVersion"> <xsd:annotation> <xsd:documentation xml:lang="en">Indicates the release identifier. When used to indicate the release of the SPASE data model, it is a in the form Major.Minor.Fix where Major: A significant change in the architecture of the model or rewrite of the implementation. This includes major changes in design or implementation language. This number starts at 0 (zero). Minor: An addition of terms or features that require changes in documentation/external API. This number starts at 0 (zero). Fix: Any change that doesn't require documentation/external API changes. This number starts at 0 (zero).</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element ResourceEntity

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram

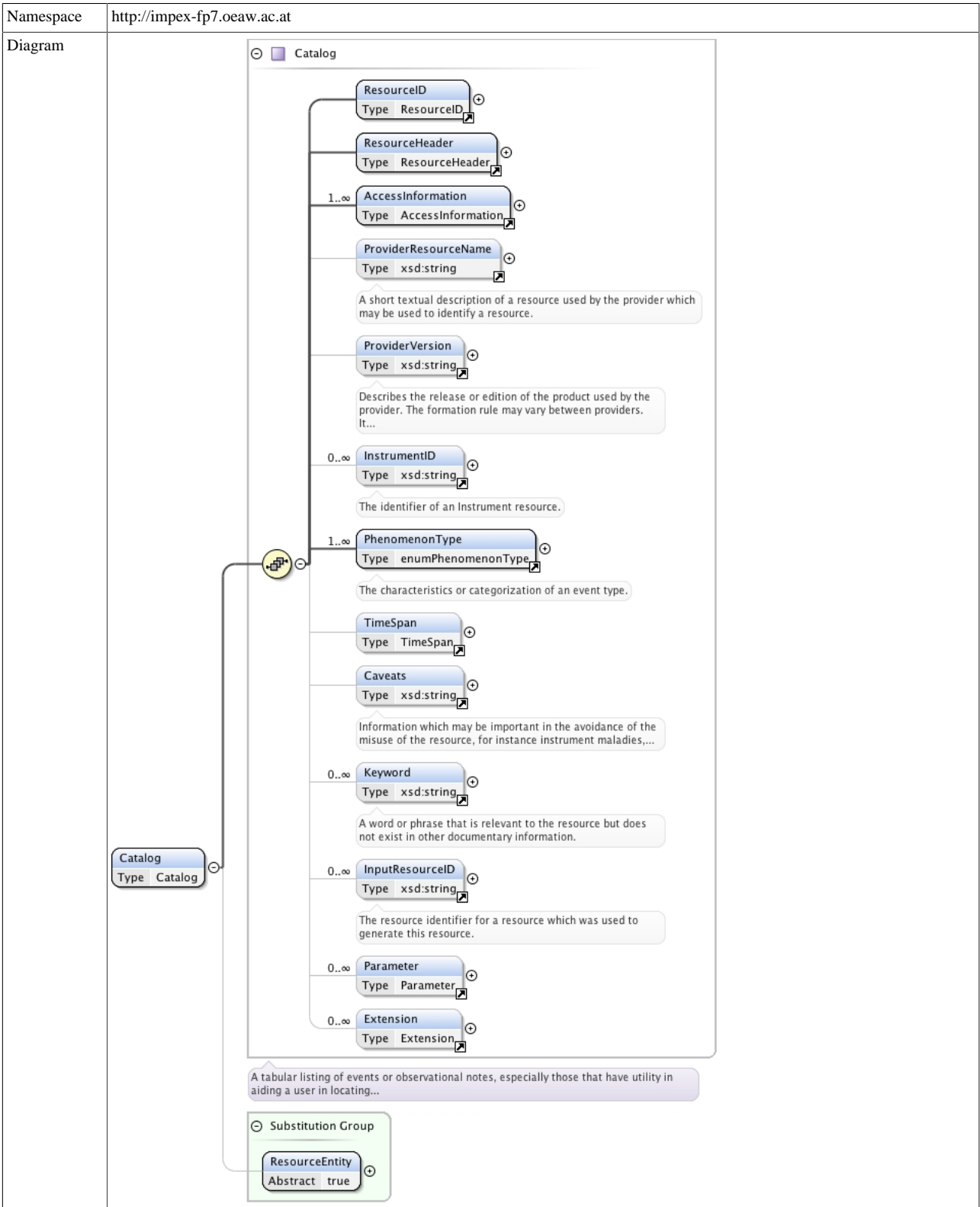


Properties abstract: true

- Substitution Group
- Catalog
 - DisplayData
 - NumericalData
 - Document
 - Instrument
 - Observatory
 - Person
 - Registry
 - Repository
 - Service
 - Annotation
 - Granule
 - NumericalOutput

	<ul style="list-style-type: none"> • DisplayOutput • SimulationModel • SimulationRun
Used by	Complex Type Spase
Source	<code><xsd:element name="ResourceEntity" abstract="true" /></code>

Element Catalog



Type	Catalog
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , AccessInformation+ , ProviderResourceName{0,1} , ProviderVersion{0,1} , InstrumentID* , PhenomenonType+ , TimeSpan{0,1} , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , Extension*
Children	AccessInformation, Caveats, Extension, InputResourceID, InstrumentID, Keyword, Parameter, PhenomenonType, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, TimeSpan
Instance	<pre><Catalog xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessInformation>{1,unbounded}</AccessInformation> <ProviderResourceName>{0,1}</ProviderResourceName> <ProviderVersion>{0,1}</ProviderVersion> <InstrumentID>{0,unbounded}</InstrumentID> <PhenomenonType>{1,unbounded}</PhenomenonType> <TimeSpan>{0,1}</TimeSpan> <Caveats>{0,1}</Caveats> <Keyword>{0,unbounded}</Keyword> <InputResourceID>{0,unbounded}</InputResourceID> <Parameter>{0,unbounded}</Parameter> <Extension>{0,unbounded}</Extension> </Catalog></pre>
Source	<xsd:element name="Catalog" type="Catalog" substitutionGroup="ResourceEntity"/>

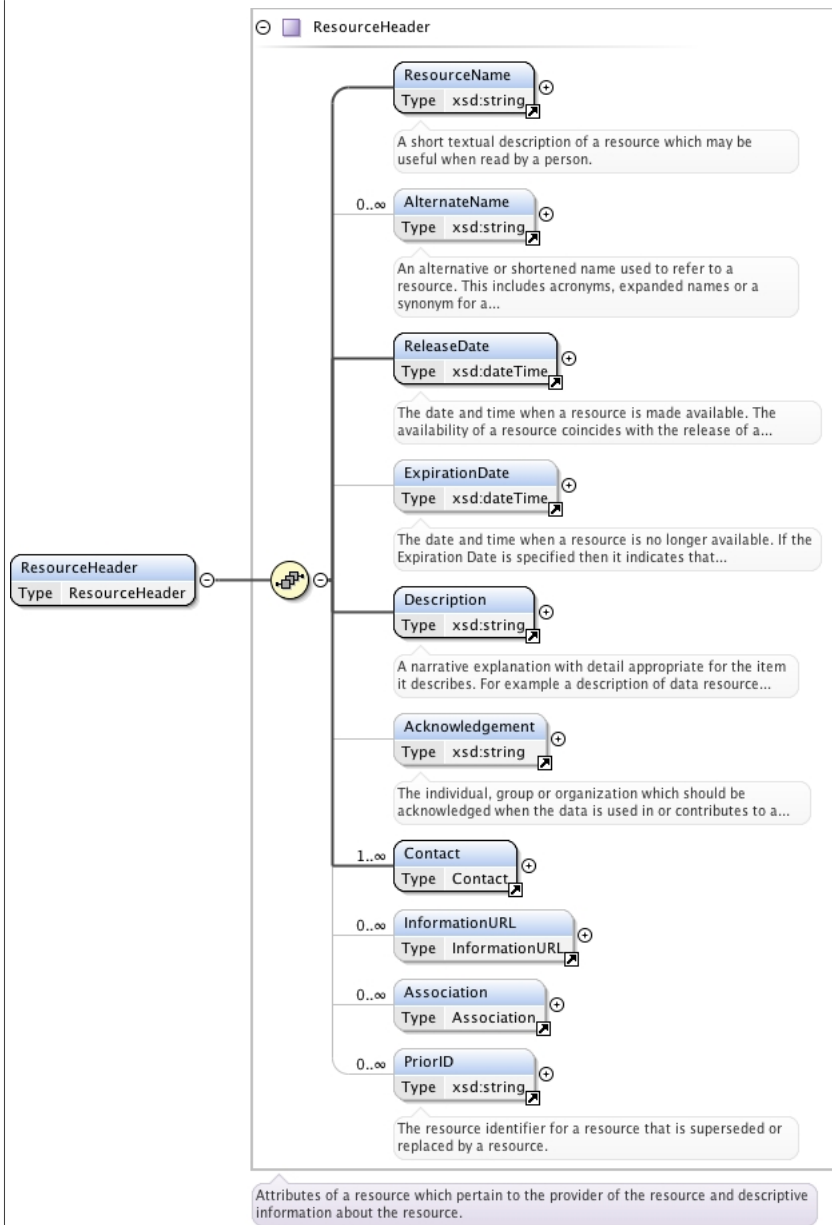
Element ResourceID

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	ResourceID
Properties	content: simple
Used by	Complex Types: Annotation, Catalog, DisplayData, DisplayOutput, Document, Granule, Instrument, NumericalData, NumericalOutput, Observatory, Person, Registry, Repository, Service, SimulationModel, SimulationRun
Source	<xsd:element name="ResourceID" type="ResourceID"/>

Element ResourceHeader

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	ResourceHeader	
Properties	content:	complex
Used by	Complex Types	Annotation, Catalog, DisplayData, DisplayOutput, Document, Instrument, NumericalData, NumericalOutput, Observatory, Registry, Repository, Service, SimulationModel, SimulationRun
Model	ResourceName , AlternateName*, ReleaseDate , ExpirationDate{0,1} , Description , Acknowledgement{0,1} , Contact+ , InformationURL* , Association* , PriorID*	
Children	Acknowledgement, AlternateName, Association, Contact, Description, ExpirationDate, InformationURL, PriorID, ReleaseDate, ResourceName	
Instance	<pre><ResourceHeader xmlns="http://impex-fp7.oew.ac.at"> <ResourceName>{1,1}</ResourceName> <AlternateName>{0,unbounded}</AlternateName> <ReleaseDate>{1,1}</ReleaseDate> <ExpirationDate>{0,1}</ExpirationDate> <Description>{1,1}</Description> <Acknowledgement>{0,1}</Acknowledgement> <Contact>{1,unbounded}</Contact> <InformationURL>{0,unbounded}</InformationURL> <Association>{0,unbounded}</Association> <PriorID>{0,unbounded}</PriorID> </ResourceHeader></pre>	
Source	<code><xsd:element name="ResourceHeader" type="ResourceHeader"/></code>	

Element ResourceName

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A short textual description of a resource which may be useful when read by a person.
Diagram	<p>The diagram shows a box for the ResourceName element with the text "Type xsd:string". A line connects this box to a box for the xsd:string primitive type. Callouts provide the following text:</p> <ul style="list-style-type: none"> ResourceName: A short textual description of a resource which may be useful when read by a person. xsd:string: Built-in primitive type. The string datatype represents character strings in XML.
Type	xsd:string
Properties	content: simple
Used by	Complex Type ResourceHeader
Source	<pre><xsd:element name="ResourceName" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A short textual description of a resource which may be useful when read by a person.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element AlternateName

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	An alternative or shortened name used to refer to a resource. This includes acronyms, expanded names or a synonym for a resource.
Diagram	<p>The diagram shows a box for the AlternateName element with the text "Type xsd:string". A line connects this box to a box for the xsd:string primitive type. Callouts provide the following text:</p> <ul style="list-style-type: none"> AlternateName: An alternative or shortened name used to refer to a resource. This includes acronyms, expanded names or a synonym for a... xsd:string: Built-in primitive type. The string datatype represents character strings in XML.
Type	xsd:string
Properties	content: simple
Used by	Complex Type ResourceHeader
Source	<pre><xsd:element name="AlternateName" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">An alternative or shortened name used to refer to a resource. This includes acronyms, expanded names or a synonym for a resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ReleaseDate

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The date and time when a resource is made available. The availability of a resource coincides with the release of a resource description. If the Release Date is specified as a future date then it indicates that resource should not be made available until that time. However, this is only advisory and in practice the Release Date should be the actual date the resource description was published.
Diagram	<p>The diagram shows a box for the ReleaseDate element with the text "Type xsd:dateTime". A line connects this box to a box for the xsd:dateTime primitive type. Callouts provide the following text:</p> <ul style="list-style-type: none"> ReleaseDate: The date and time when a resource is made available. The availability of a resource coincides with the release of a... xsd:dateTime: Built-in primitive type. The dateTime datatype represents a specific instant of time.
Type	xsd:dateTime
Properties	content: simple

Used by	Complex Types Granule, ModelVersion, Person, ResourceHeader
Source	<pre><xsd:element name="ReleaseDate" type="xsd:dateTime"> <xsd:annotation> <xsd:documentation xml:lang="en">The date and time when a resource is made available. The availability of a resource coincides with the release of a resource description. If the Release Date is specified as a future date then it indicates that resource should not be made available until that time. However, this is only advisory and in practice the Release Date should be the actual date the resource description was published.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ExpirationDate

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The date and time when a resource is no longer available. If the Expiration Date is specified then it indicates that resource should not be made available after that time. However, this is only advisory and in practice a resource description should be unpublished to eliminate access to a resource.
Diagram	
Type	xsd:dateTime
Properties	content: simple
Used by	Complex Types Granule, ResourceHeader
Source	<pre><xsd:element name="ExpirationDate" type="xsd:dateTime"> <xsd:annotation> <xsd:documentation xml:lang="en">The date and time when a resource is no longer available. If the Expiration Date is specified then it indicates that resource should not be made available after that time. However, this is only advisory and in practice a resource description should be unpublished to eliminate access to a resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Description

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A narrative explanation with detail appropriate for the item it describes. For example a description of data resource should include discussions of the main quantities in the resource, possible uses and search terms. A description should also include whether any corrections (i.e, geometry, inertial) have been applied to the resource.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessURL, InformationURL, InputField, InputParameter, InputPopulation, InputProcess, ModelVersion, Parameter, Property, RegionParameter, ResourceHeader, SimulationDomain, SimulationTime, Structure
Source	<pre><xsd:element name="Description" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A narrative explanation with detail appropriate for the item it describes. For example a description of data resource should include discussions of the main quantities in the resource, possible uses and search terms. A description should also</pre>

```

include whether any corrections (i.e, geometry, inertial) have been applied to the resource.</
xsd:documentation>
</xsd:annotation>
</xsd:element>
    
```

Element Acknowledgement

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The individual, group or organization which should be acknowledged when the data is used in or contributes to a presentation or publication.
Diagram	<p>The diagram shows a box for 'Acknowledgement' with 'Type xsd:string'. A callout box explains: 'The individual, group or organization which should be acknowledged when the data is used in or contributes to a...'. Another callout box for 'xsd:string' explains: 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessInformation, ResourceHeader
Source	<pre> <xsd:element name="Acknowledgement" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The individual, group or organization which should be acknowledged when the data is used in or contributes to a presentation or publication.</ xsd:documentation> </xsd:annotation> </xsd:element> </pre>

Element Contact

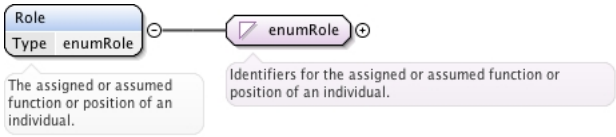
Namespace	http://impex-fp7.oeaw.ac.at
Diagram	<p>The diagram shows a box for 'Contact' with 'Type Contact'. It has two children: 'PersonID' (Type xsd:string) with the annotation 'The identifier assigned to a Person description.', and 'Role' (Type enumRole) with the annotation 'The assigned or assumed function or position of an individual.'. A main callout box for 'Contact' explains: 'The person or organization who may be able to provide special assistance or serve as a channel for communication for...'. The cardinality for Role is 1..∞.</p>
Type	Contact
Properties	content: complex
Used by	Complex Type ResourceHeader
Model	PersonID, Role+
Children	PersonID, Role
Instance	<pre> <Contact xmlns="http://impex-fp7.oeaw.ac.at"> <PersonID>{1,1}</PersonID> <Role>{1,unbounded}</Role> </Contact> </pre>
Source	<pre> <xsd:element name="Contact" type="Contact" /> </pre>

Element PersonID

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The identifier assigned to a Person description.
Diagram	<p>The diagram shows a box for 'PersonID' with 'Type xsd:string'. A callout box explains: 'The identifier assigned to a Person description.'. Another callout box for 'xsd:string' explains: 'Built-in primitive type. The string datatype represents character strings in XML.'</p>

Type	xsd:string
Properties	content: simple
Used by	Complex Type Contact
Source	<pre><xsd:element name="PersonID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The identifier assigned to a Person description.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Role

Namespace	http://impex-fp7.oew.ac.at		
Annotations	The assigned or assumed function or position of an individual.		
Diagram			
Type	enumRole		
Properties	content:	simple	
Facets	enumeration	ArchiveSpecialist	An individual who is an expert on a collection of resources and may also be knowledgeable of the phenomenon and related physics represented by the resources. This includes librarians, curators, archive scientists and other experts.
	enumeration	CoInvestigator	An individual who is a scientific peer and major participant in an investigation.
	enumeration	Contributor	An entity responsible for making contributions to the content of the resource.
	enumeration	DataProducer	An individual who generated the resource and is familiar with its provenance.
	enumeration	DeputyPI	An individual who is an administrative or scientific leader for an investigation operating under the supervision of a Principal Investigator.
	enumeration	FormerPI	An individual who had served as the administrative and scientific lead for an investigation, but no longer assumes that role.
	enumeration	GeneralContact	An individual who can provide information on a range of subjects or who can direct you to a domain expert.
	enumeration	MetadataContact	An individual who can affect a change in the metadata describing a resource.
	enumeration	PrincipalInvestigator	An individual who is the administrative and scientific lead for an investigation.
	enumeration	ProjectScientist	An individual who is an expert in the phenomenon and related physics explored by the project. A project scientist may also have a managerial role within the project.
	enumeration	Publisher	An individual, organization, institution or government department responsible for the production and dissemination of a document.
	enumeration	Scientist	An individual who is an expert in the phenomenon and related physics represented by the resource.
	enumeration	TeamLeader	An individual who is the designated leader of an investigation.
	enumeration	TeamMember	An individual who is a major participant in an investigation.
	enumeration	TechnicalContact	An individual who can provide specific information with regard to the resource or supporting software

Used by	Complex Type Contact
Source	<pre><xsd:element name="Role" type="enumRole"> <xsd:annotation> <xsd:documentation xml:lang="en">The assigned or assumed function or position of an individual.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element InformationURL

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	InformationURL
Properties	content: complex
Used by	Complex Type ResourceHeader
Model	Name{0,1} , URL , Description{0,1} , Language{0,1}
Children	Description, Language, Name, URL
Instance	<pre><InformationURL xmlns="http://impex-fp7.oeaw.ac.at"> <Name>{0,1}</Name> <URL>{1,1}</URL> <Description>{0,1}</Description> <Language>{0,1}</Language> </InformationURL></pre>
Source	<pre><xsd:element name="InformationURL" type="InformationURL"/></pre>

Element Name

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A language unit by which a person or thing is known.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessURL, Element, InformationURL, InputField, InputParameter, InputPopulation, InputProcess, Parameter, Property
Source	<pre><xsd:element name="Name" type="xsd:string"></pre>


```

<xsd:annotation>
  <xsd:documentation xml:lang="en">A language unit by which a person or thing is known.</
xsd:documentation>
</xsd:annotation>
</xsd:element>

```

Element URL

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Uniform Resource Locator (URL) is the global address of documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located followed by the pathname of the resource. A URL is specified in the form protocol://server.domain.name:port/pathname. Example protocols are HTTP or FTP, server domain name is the Internet name.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessURL, InformationURL, Source
Source	<pre> <xsd:element name="URL" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Uniform Resource Locator (URL) is the global address of documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located followed by the pathname of the resource. A URL is specified in the form protocol:// server.domain.name:port/pathname. Example protocols are HTTP or FTP, server domain name is the Internet name.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>

Element Language

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The two character indicator of language selected from the ISO 630-1 codes for the representation of names of languages.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessURL, InformationURL
Source	<pre> <xsd:element name="Language" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The two character indicator of language selected from the ISO 630-1 codes for the representation of names of languages.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>

Element Association

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	
Type	Association
Properties	content: complex
Used by	Complex Type ResourceHeader
Model	AssociationID , AssociationType , Note{0,1}
Children	AssociationID, AssociationType, Note
Instance	<pre><Association xmlns="http://impex-fp7.oeaw.ac.at"> <AssociationID>{1,1}</AssociationID> <AssociationType>{1,1}</AssociationType> <Note>{0,1}</Note> </Association></pre>
Source	<code><xsd:element name="Association" type="Association"/></code>

Element AssociationID

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The resource identifier for a resource with which this resource is closely associated.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Association
Source	<pre><xsd:element name="AssociationID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The resource identifier for a resource with which this resource is closely associated.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element AssociationType

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A characterization of the role or purpose of an associated resource.
Diagram	
Type	enumAssociationType
Properties	content: simple

Facets	enumeration	ChildEventOf	A descendant or caused by another resource.
	enumeration	DerivedFrom	A transformed or altered version of a resource instance.
	enumeration	ObservedBy	Detected or originating from another resource.
	enumeration	Other	Not classified with more specific terms. The context of its usage may be described in related text.
	enumeration	PartOf	A portion of a larger resource.
	enumeration	RevisionOf	A modified version of a resource instance.
Used by	Complex Type	Association	
Source	<pre><xsd:element name="AssociationType" type="enumAssociationType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the role or purpose of an associated resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element Note

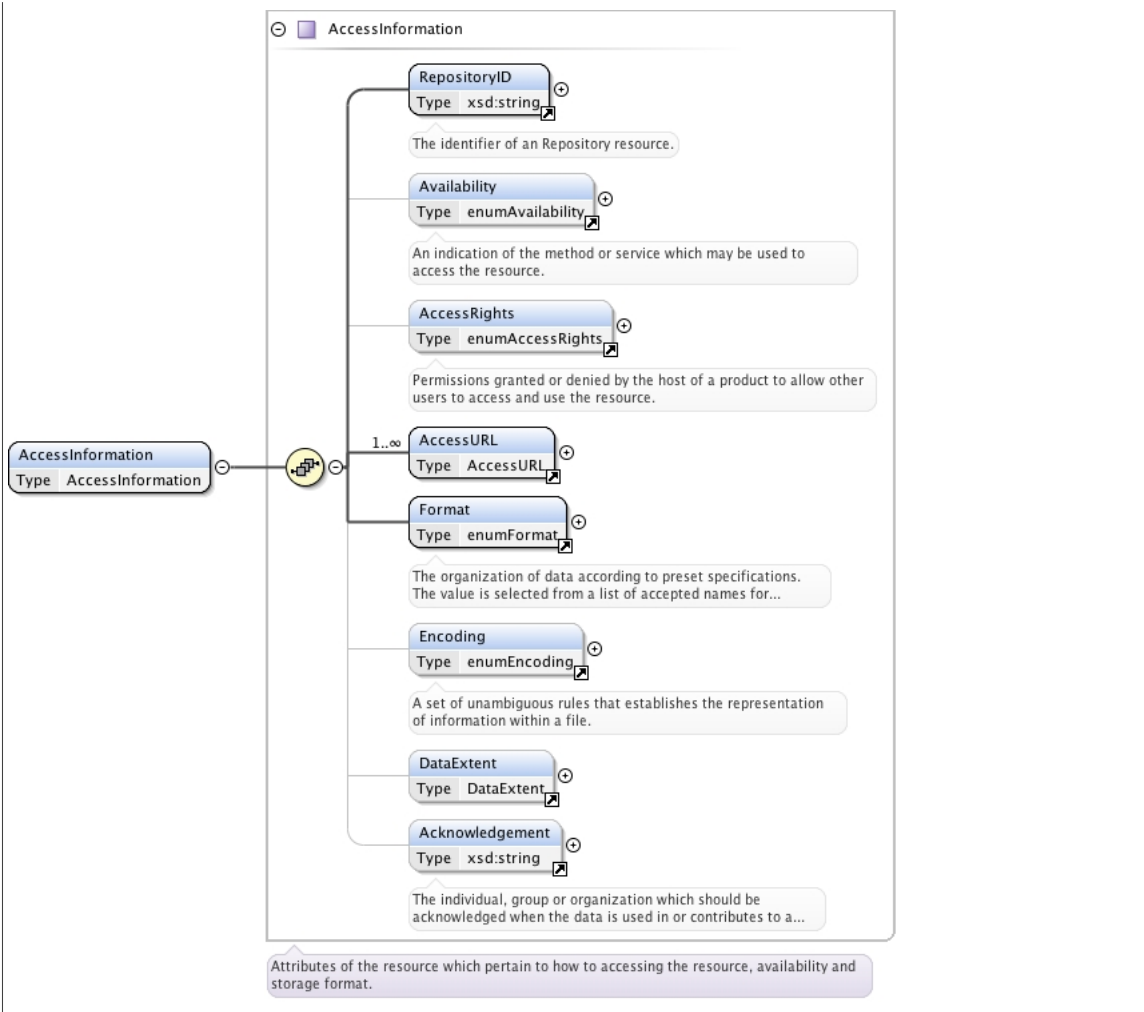
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Information which is useful or important for the understanding of a value or parameter.		
Diagram			
Type	xsd:string		
Properties	content:	simple	
Used by	Complex Types	Association, ObservationExtent, OperatingSpan, Person, TimeSpan	
Source	<pre><xsd:element name="Note" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Information which is useful or important for the understanding of a value or parameter.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element PriorID


Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	The resource identifier for a resource that is superseded or replaced by a resource.		
Diagram			
Type	xsd:string		
Properties	content:	simple	
Used by	Complex Types	Granule, ResourceHeader	
Source	<pre><xsd:element name="PriorID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The resource identifier for a resource that is superseded or replaced by a resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element AccessInformation

Namespace	http://impex-fp7.oeaw.ac.at		
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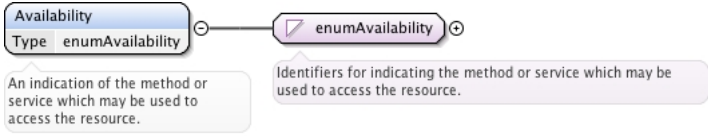
<p>Diagram</p>	
<p>Type</p>	<p>AccessInformation</p>
<p>Properties</p>	<p>content: complex</p>
<p>Used by</p>	<p>Complex Types Catalog, DisplayData, DisplayOutput, Document, NumericalData, NumericalOutput, SimulationRun</p>
<p>Model</p>	<p>RepositoryID , Availability{0,1} , AccessRights{0,1} , AccessURL+ , Format , Encoding{0,1} , DataExtent{0,1} , Acknowledgement{0,1}</p>
<p>Children</p>	<p>AccessRights, AccessURL, Acknowledgement, Availability, DataExtent, Encoding, Format, RepositoryID</p>
<p>Instance</p>	<pre><AccessInformation xmlns="http://impex-fp7.oeaw.ac.at"> <RepositoryID>{1,1}</RepositoryID> <Availability>{0,1}</Availability> <AccessRights>{0,1}</AccessRights> <AccessURL>{1,unbounded}</AccessURL> <Format>{1,1}</Format> <Encoding>{0,1}</Encoding> <DataExtent>{0,1}</DataExtent> <Acknowledgement>{0,1}</Acknowledgement> </AccessInformation></pre>
<p>Source</p>	<pre><xsd:element name="AccessInformation" type="AccessInformation"/></pre>

Element RepositoryID

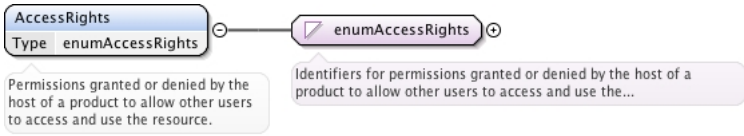
<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
<p>Annotations</p>	<p>The identifier of an Repository resource.</p>
<p>Diagram</p>	
<p>Type</p>	<p>xsd:string</p>

Properties	content: simple
Used by	Complex Type AccessInformation
Source	<pre><xsd:element name="RepositoryID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The identifier of an Repository resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Availability

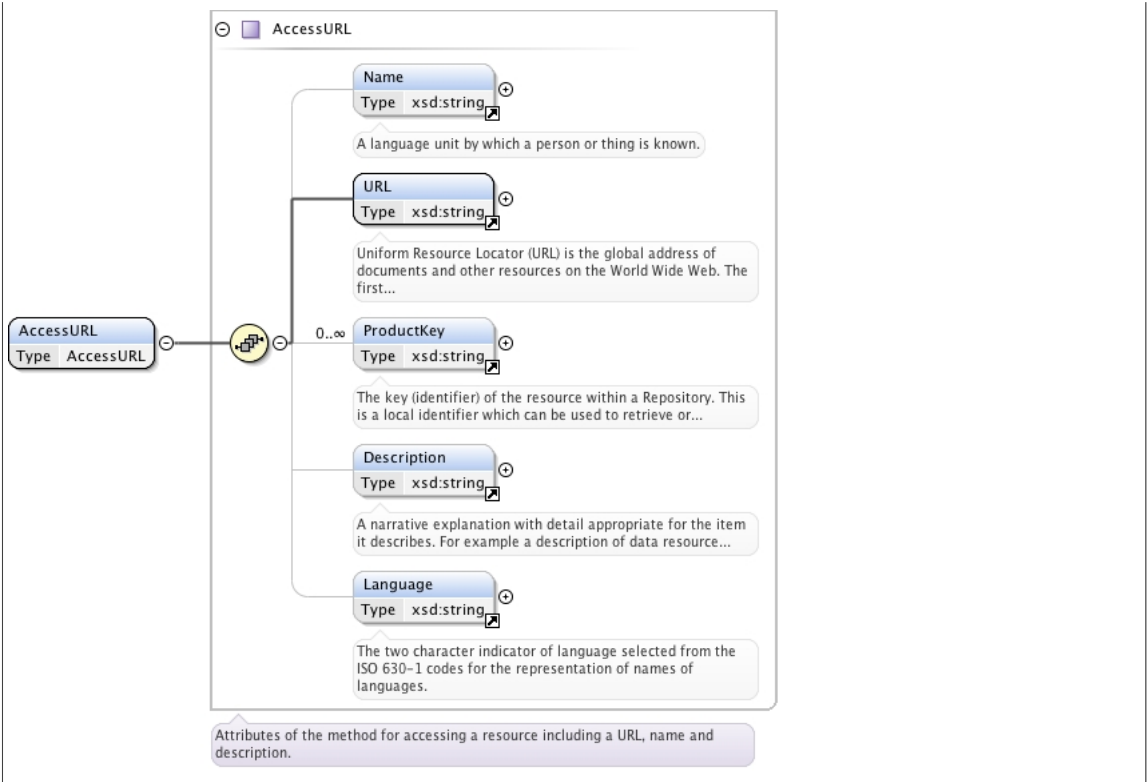
Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	An indication of the method or service which may be used to access the resource.	
Diagram		
Type	enumAvailability	
Properties	content: simple	
Facets	enumeration Offline	Not directly accessible electronically. This includes resources which may to be moved to an on-line status in response to a given request.
	enumeration Online	Directly accessible electronically.
Used by	Complex Type	AccessInformation
Source	<pre><xsd:element name="Availability" type="enumAvailability"> <xsd:annotation> <xsd:documentation xml:lang="en">An indication of the method or service which may be used to access the resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element AccessRights


Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	Permissions granted or denied by the host of a product to allow other users to access and use the resource.	
Diagram		
Type	enumAccessRights	
Properties	content: simple	
Facets	enumeration Open	Access is granted to everyone.
	enumeration Restricted	Access to the product is regulated and requires some form of identification.
Used by	Complex Type	AccessInformation
Source	<pre><xsd:element name="AccessRights" type="enumAccessRights"> <xsd:annotation> <xsd:documentation xml:lang="en">Permissions granted or denied by the host of a product to allow other users to access and use the resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element AccessURL

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	
Type	AccessURL
Properties	content: complex
Used by	Complex Types AccessInformation, Registry, Repository, Service
Model	Name{0,1} , URL , ProductKey* , Description{0,1} , Language{0,1}
Children	Description, Language, Name, ProductKey, URL
Instance	<pre><AccessURL xmlns="http://impex-fp7.oeaw.ac.at"> <Name>{0,1}</Name> <URL>{1,1}</URL> <ProductKey>{0,unbounded}</ProductKey> <Description>{0,1}</Description> <Language>{0,1}</Language> </AccessURL></pre>
Source	<xsd:element name="AccessURL" type="AccessURL" />

Element ProductKey

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The key (identifier) of the resource within a Repository. This is a local identifier which can be used to retrieve or locate the resource.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type AccessURL
Source	<pre><xsd:element name="ProductKey" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The key (identifier) of the resource within a Repository. This is a local identifier which can be used to retrieve or locate the resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Format

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	The organization of data according to preset specifications. The value is selected from a list of accepted names for known, well documented formats.		
Diagram			
Type	enumFormat		
Properties	content:	simple	
Facets	enumeration	AVI	Audio Video Interleave (AVI) a digital format for movies that conforms to the Microsoft Windows Resource Interchange File Format (RIFF).
	enumeration	Binary	A direct representation of the bits which may be stored in memory on a computer.
	enumeration	CDF	Common Data Format (CDF). A binary storage format developed at Goddard Space Flight Center (GSFC).
	enumeration	CEF	Cluster Exchange Format (CEF) is a self-documenting ASCII format designed for the exchange of data. There are two versions of CEF which are not totally compatible.
	enumeration	CEF1	Cluster Exchange Format (CEF), version 1, is a self-documenting ASCII format designed for the exchange of data. The metadata contains information compatible with the ISTP recommendations for CDF.
	enumeration	CEF2	Cluster Exchange Format (CEF), version 2, is a self-documenting ASCII format designed for the exchange of data and introduced for Cluster Active Archive. Compared to version 1, the metadata description of vectors and tensors is different.
	enumeration	Excel	A Microsoft spreadsheet format used to hold a variety of data in tables which can include calculations.
	enumeration	FITS	Flexible Image Transport System (FITS) is a digital format primarily designed to store scientific data sets consisting of multi-dimensional arrays (1-D spectra, 2-D images or 3-D data cubes) and 2-dimensional tables containing rows and columns of data.
	enumeration	GIF	Graphic Interchange Format (GIF) first introduced in 1987 by CompuServe. GIF uses LZW compression and images are limited to 256 colours.
	enumeration	HDF	Hierarchical Data Format
	enumeration	HDF4	Hierarchical Data Format, Version 4
	enumeration	HDF5	Hierarchical Data Format, Version 5
	enumeration	HTML	A text file containing structured information represented in the HyperText Mark-up Language (HTML). See < http://www.w3.org/MarkUp/ >
	enumeration	Hardcopy	A permanent reproduction, or copy in the form of a physical object, of any media suitable for direct use by a person.
	enumeration	Hardcopy.Film	An image recording medium on which usually a "negative" analog image is registered. A "positive" image can be recovered or reproduced from film, which is usually made of flexible materials for ease of storage and transportation.
	enumeration	Hardcopy.Microfiche	A sheet of microfilm on which many pages of

		material have been photographed; a magnification system is used to read the material.
enumeration	Hardcopy.Microfilm	Film rolls on which materials are photographed at greatly reduced size; a magnification system is used to read the material.
enumeration	Hardcopy.Photograph	An image (positive or negative) registered on a piece of photo-sensitive paper
enumeration	Hardcopy.PhotographicPlate	A rigid (typically glass) medium that functions like film. Its rigidity is for guarding against image distortion due to medium deformation (caused by heat and humidity). Photographic plates are often used for astronomical photography.
enumeration	Hardcopy.Print	A sheet of any written or printed material which may include notes or graphics. Multiple printed pages may be bound into a manuscript or book.
enumeration	IDFS	Instrument Data File Set (IDFS) is a set of files written in a prescribed format which contain data, timing data, and meta-data. IDFS was developed at Southwest Research Institute (SwRI).
enumeration	IDL	Interactive Data Language (IDL) save set. IDL is a proprietary format.
enumeration	JPEG	A binary format for still images defined by the Joint Photographic Experts Group
enumeration	MATLAB_4	MATLAB Workspace save set, version 4. MAT-files are double-precision, binary, MATLAB format files. MATLAB is a proprietary product of The MathWorks.
enumeration	MATLAB_6	MATLAB Workspace save set, version 6. MAT-files are double-precision, binary, MATLAB format files. MATLAB is a proprietary product of The MathWorks.
enumeration	MATLAB_7	MATLAB Workspace save set, version 7. MAT-files are double-precision, binary, MATLAB format files. Version 7 includes data compression and Unicode encoding. MATLAB is a proprietary product of The MathWorks.
enumeration	MPEG	A digital format for movies defined by the Motion Picture Experts Group
enumeration	NCAR	The National Center for Atmospheric Research (NCAR) format. A complete description of that standard is given in appendix C of the "Report on Establishment & Operation of the Incoherent-Scatter Data Base", dated August 23, 1984, obtainable from NCAR, P.O. Box 3000 Boulder, Colorado 80307-3000.
enumeration	NetCDF	Unidata Program Center's Network Common Data Form (NetCDF). A self-describing portable data format for array-oriented data access. See < http://my.unidata.ucar.edu/content/software/netcdf >
enumeration	PDF	A document expressed in the Portable Document Format (PDF) as defined by Adobe.
enumeration	PNG	A digital format for still images. Portable Network Graphics (PNG)
enumeration	Postscript	A page description programming language created by Adobe Systems Inc. that is a device-independent industry standard for representing text and graphics.
enumeration	QuickTime	A format for digital movies, as defined by Apple Computer. See < http://developer.apple.com/quicktime/ >
enumeration	TIFF	A binary format for still pictures. Tagged Image Format File (TIFF). Originally developed by Aldus and now controlled by Adobe.
enumeration	Text	A sequence of characters which may have an imposed structure or organization.
enumeration	Text.ASCII	A sequence of characters that adheres to American

		Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.
enumeration	Text.Unicode	Text in multi-byte Unicode format.
enumeration	UDF	Universal Data Format (UDF). The Optical Technology Storage Association's Universal Disk Format, based on ISO 13346. See < http://www.osta.org/specs/index.htm >
enumeration	VOTable	A proposed IVOA standard designed as a flexible storage and exchange format for tabular data.
enumeration	XML	eXtensible Mark-up Language (XML). A structured format for representing information. See < http://www.w3.org/XML/ >
Used by	Complex Type	AccessInformation
Source	<pre><xsd:element name="Format" type="enumFormat"> <xsd:annotation> <xsd:documentation xml:lang="en">The organization of data according to preset specifications. The value is selected from a list of accepted names for known, well documented formats.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element Encoding

Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	A set of unambiguous rules that establishes the representation of information within a file.	
Diagram		
Type	enumEncoding	
Properties	content:	simple
Facets	enumeration	<p>ASCII</p> <p>A sequence of characters that adheres to American Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.</p> <hr/> <p>BZIP2</p> <p>An open standard algorithm by Julian Seward using Burrows-Wheeler block sorting and Huffman coding. See <http://www.bzip.org/></p> <hr/> <p>Base64</p> <p>A data encoding scheme whereby binary-encoded data is converted to printable ASCII characters. It is defined as a MIME content transfer encoding for use in Internet e-mail. The only characters used are the upper- and lower-case Roman alphabet characters (A-Z, a-z), the numerals (0-9), and the "+" and "/" symbols, with the "=" symbol as a special suffix (padding) code.</p> <hr/> <p>GZIP</p> <p>An open standard algorithm distributed by GHU based on LZ77 and Huffman coding. See <http://www.gnu.org/software/gzip/gzip.html> or <http://www.gzip.org/></p> <hr/> <p>None</p> <p>A lack or absence of anything.</p> <hr/> <p>S3_BUCKET</p> <p>A container of objects that comply with the Amazon Simple Storage Service (S3) specifications. A bucket has a unique, user-assigned key (name). A bucket can contain any number of objects with an aggregate size of 5 gigabytes. A bucket may be accompanied by up to 2 kilobytes of metadata.</p> <hr/> <p>TAR</p> <p>A file format used to collate collections of files into one larger file, for distribution or archiving, while preserving file system information such as user and group permissions, dates, and directory structures. The format</p>

		was standardized by POSIX.1-1988 and later POSIX.1-2001.	
	enumeration	Unicode	Text in multi-byte Unicode format.
	enumeration	ZIP	An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.
Used by	Complex Type	AccessInformation	
Source	<pre><xsd:element name="Encoding" type="enumEncoding"> <xsd:annotation> <xsd:documentation xml:lang="en">A set of unambiguous rules that establishes the representation of information within a file.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element DataExtent

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Type	DataExtent		
Properties	content:	complex	
Used by	Complex Types	AccessInformation, Source	
Model	Quantity , Units{0,1} , Per{0,1}		
Children	Per, Quantity, Units		
Instance	<pre><DataExtent xmlns="http://impex-fp7.oeaw.ac.at"> <Quantity>{1,1}</Quantity> <Units>{0,1}</Units> <Per>{0,1}</Per> </DataExtent></pre>		
Source	<code><xsd:element name="DataExtent" type="DataExtent" /></code>		

Element Quantity

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	A value that describes a characteristic of a system.		
Diagram			
Type	xsd:double		
Properties	content:	simple	
Used by	Complex Type	DataExtent	
Source	<code><xsd:element name="Quantity" type="xsd:double"></code>		

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<xsd:annotation>
  <xsd:documentation xml:lang="en">A value that describes a characteristic of a system.</
xsd:documentation>
</xsd:annotation>
</xsd:element>

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Element Units

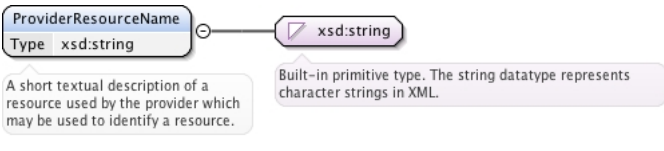
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see <http://www.bipm.fr/>) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: <http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols> and those for common derived units can be found at: <http://www.bipm.fr/en/si/derived_units/2-2-2.html>
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types AzimuthalAngleRange, DataExtent, Element, EnergyRange, FrequencyRange, InputField, InputProcess, Parameter, PolarAngleRange, Property, SimulationDomain, SpatialDescription, WavelengthRange
Source	<pre> <xsd:element name="Units" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see <http://www.bipm.fr/>) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: <http:// www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols> and those for common derived units can be found at: <http://www.bipm.fr/en/si/derived_units/2-2-2.html></xsd:documentation> </xsd:annotation> </xsd:element> </pre>

Element Per

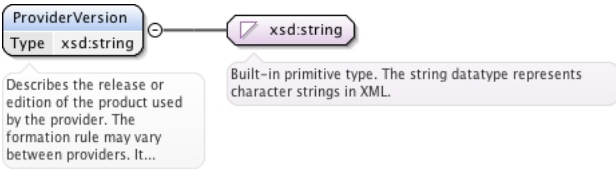
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The time interval over which a characterization applies. For example, the number of bytes generated each day.
Diagram	
Type	xsd:duration
Properties	content: simple
Used by	Complex Type DataExtent

Source	<pre><xsd:element name="Per" type="xsd:duration"> <xsd:annotation> <xsd:documentation xml:lang="en">The time interval over which a characterization applies. For example, the number of bytes generated each day.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
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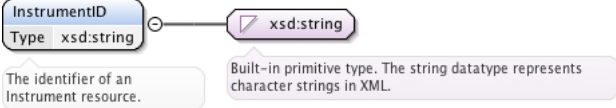
Element ProviderResourceName

Namespace	http://impex-fp7.oew.ac.at
Annotations	A short textual description of a resource used by the provider which may be used to identify a resource.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, DisplayOutput, NumericalData, NumericalOutput, SimulationRun
Source	<pre><xsd:element name="ProviderResourceName" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A short textual description of a resource used by the provider which may be used to identify a resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ProviderVersion

Namespace	http://impex-fp7.oew.ac.at
Annotations	Describes the release or edition of the product used by the provider. The formation rule may vary between providers. It is intended to aid in queries to the provider regarding the product.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, DisplayOutput, NumericalData, NumericalOutput, SimulationRun
Source	<pre><xsd:element name="ProviderVersion" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Describes the release or edition of the product used by the provider. The formation rule may vary between providers. It is intended to aid in queries to the provider regarding the product.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element InstrumentID

Namespace	http://impex-fp7.oew.ac.at
Annotations	The identifier of an Instrument resource.
Diagram	

Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, NumericalData
Source	<pre><xsd:element name="InstrumentID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The identifier of an Instrument resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

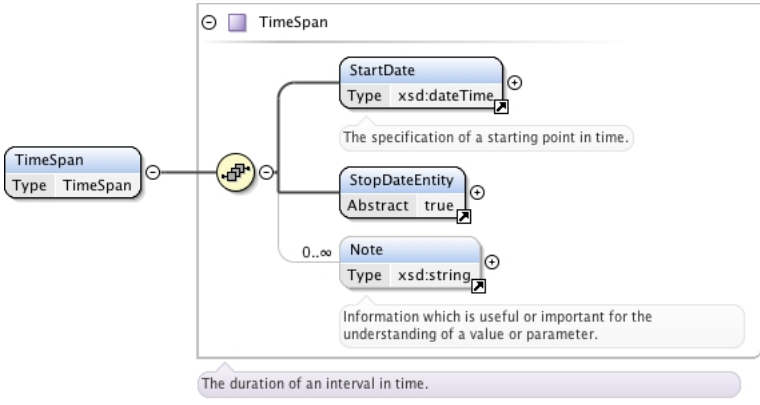
Element PhenomenonType

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	The characteristics or categorization of an event type.		
Diagram			
Type	enumPhenomenonType		
Properties	content:	simple	
Facets	enumeration	ActiveRegion	A localized, transient volume of the solar atmosphere in which PLAGEs, SUNSPOTS, FACULAE, FLAREs, etc. may be observed.
	enumeration	Aurora	An atmospheric phenomenon consisting of bands of light caused by charged solar particles following the earth's magnetic lines of force.
	enumeration	BowShockCrossing	A crossing of the boundary between the undisturbed (except for foreshock effects) solar wind and the shocked, decelerated solar wind of the magnetosheath.
	enumeration	CoronalHole	An extended region of the corona, exceptionally low in density and associated with unipolar photospheric regions. A coronal hole can be an "open" magnetic field in the corona and (perhaps) inner heliosphere which has a faster than average outflow (wind); A region of lower than "quiet" ion and electron density in the corona; or a region of lower peak electron temperature in the corona than in the "quiet" corona.
	enumeration	CoronalMassEjection	A solar event (CME) that involves a burst of plasma ejected into the interplanetary medium. CME's may be observed remotely relatively near the sun or in situ in the interplanetary medium. The latter type of observations are often referred to as Interplanetary CME's (ICME's).
	enumeration	EITWave	A wave in the corona of the Sun which produce shock waves on the Sun's chromosphere (Moreton Waves). EIT Waves are produced by large solar flare and expand outward at about 1,000 km/s. It usually appears as a slowly moving diffuse arc of brightening in H-alpha, and may travel for several hundred thousand km.
	enumeration	EnergeticSolarParticleEvent	An enhancement of interplanetary fluxes of energetic ions accelerated by interplanetary shocks and/or solar flares.
	enumeration	ForbushDecrease	A rapid decrease in the observed galactic cosmic ray intensity following the passage of an outwardly convecting interplanetary magnetic field disturbance, such as those associated with large CME's, that sweep some galactic cosmic rays away from Earth.
	enumeration	GeomagneticStorm	A magnetospheric disturbance typically defined by variations in the horizontal component of the Earth's surface magnetic field. The variation typically starts with a field enhancement

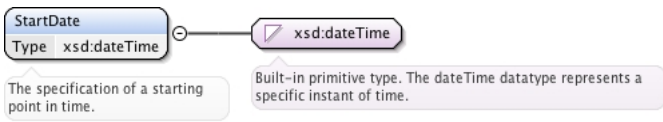
		associated with a solar wind pressure pulse and continues with a field depression associated with an enhancement of the diamagnetic magnetospheric ring current.
enumeration	InterplanetaryShock	A shock propagating generally anti-sunward through the slower solar wind, often seen in front of CME-associated plasma clouds.
enumeration	MagneticCloud	A transient event observed in the solar wind characterized as a region of enhanced magnetic field strength, smooth rotation of the magnetic field vector and low proton density and temperature.
enumeration	MagnetopauseCrossing	A crossing of the interface between the shocked solar wind in the magnetosheath and the magnetic field and plasma in the magnetosphere.
enumeration	RadioBurst	Emissions of the sun in radio wavelengths from centimeters to dekameters, under both quiet and disturbed conditions. Radio Bursts can be "Type I" consisting of many short, narrow-band bursts in the metric range (300 - 50 MHz).; "Type II" consisting of narrow-band emission that begins in the meter range (300 MHz) and sweeps slowly (tens of minutes) toward dekameter wavelengths (10 MHz).; "Type III" consisting of narrow-band bursts that sweep rapidly (seconds) from decimeter to dekameter wavelengths (500 - 0.5 MHz); and "Type IV" consisting of a smooth continuum of broad-band bursts primarily in the meter range (300 - 30 MHz).
enumeration	SectorBoundaryCrossing	A sector boundary crossing is a transit by a spacecraft across the heliospheric current sheet separating the dominantly outward (away-from-the-sun) interplanetary magnetic field of one hemisphere of the heliosphere from the dominantly inward (toward-the-sun) polarity of the other hemisphere. Such crossings have multi-day intervals of opposite IMF dominant polarities on either side.
enumeration	SolarFlare	An explosive event in the Sun's atmosphere which produces electromagnetic radiation across the electromagnetic spectrum at multiple wavelengths from long-wave radio to the shortest wavelength gamma rays.
enumeration	SolarWindExtreme	Intervals of unusually large or small values of solar wind attributes such as flow speed and ion density.
enumeration	StreamInteractionRegion	The region (SIR) where two solar wind streams, typically having differing characteristics and solar sources, abut up against (and possibly partially interpenetrate) each other.
enumeration	Substorm	A process by which plasma in the magnetotail becomes energized at a fast rate.
Used by	Complex Types	Annotation, Catalog
Source	<pre><xsd:element name="PhenomenonType" type="enumPhenomenonType"> <xsd:annotation> <xsd:documentation xml:lang="en">The characteristics or categorization of an event type.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element TimeSpan

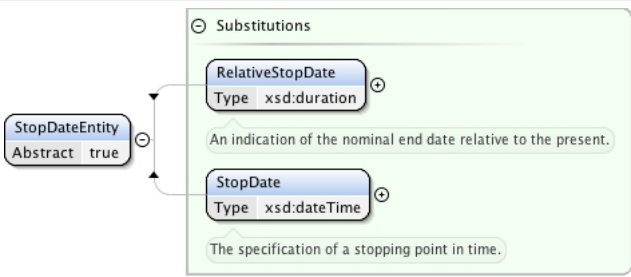
Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	
Type	TimeSpan
Properties	content: complex
Used by	Complex Types Annotation, Catalog, TemporalDescription
Model	StartDate, StopDateEntity, Note*
Children	Note, StartDate, StopDateEntity
Instance	<pre><TimeSpan xmlns="http://impex-fp7.oeaw.ac.at"> <StartDate>{1,1}</StartDate> <StopDateEntity>{1,1}</StopDateEntity> <Note>{0,unbounded}</Note> </TimeSpan></pre>
Source	<code><xsd:element name="TimeSpan" type="TimeSpan" /></code>

Element startDate

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The specification of a starting point in time.
Diagram	
Type	xsd:dateTime
Properties	content: simple
Used by	Complex Types Granule, OperatingSpan, TimeSpan
Source	<pre><xsd:element name="StartDate" type="xsd:dateTime"> <xsd:annotation> <xsd:documentation xml:lang="en">The specification of a starting point in time.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element StopDateEntity

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> RelativeStopDate

	• StopDate
Used by	Complex Type TimeSpan
Source	<code><xsd:element name="StopDateEntity" abstract="true" /></code>

Element Caveats

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Information which may be important in the avoidance of the misuse of the resource, for instance instrument maladies, corruption or contamination.
Diagram	<p>The diagram shows a box labeled 'Caveats' with 'Type xsd:string' below it. A line connects this box to a callout box containing the text: 'Information which may be important in the avoidance of the misuse of the resource, for instance instrument maladies,...'. Another line connects the 'Caveats' box to a callout box for 'xsd:string' with the text: 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, DisplayOutput, ElementBoundary, InputField, InputParameter, InputPopulation, InputProcess, Instrument, ModelVersion, NumericalData, NumericalOutput, Parameter, Property, RegionParameter, SimulationDomain, SimulationRun, SimulationTime
Source	<pre> <xsd:element name="Caveats" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Information which may be important in the avoidance of the misuse of the resource, for instance instrument maladies, corruption or contamination.</ xsd:documentation> </xsd:annotation> </xsd:element> </pre>

Element Keyword

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A word or phrase that is relevant to the resource but does not exist in other documentary information.
Diagram	<p>The diagram shows a box labeled 'Keyword' with 'Type xsd:string' below it. A line connects this box to a callout box containing the text: 'A word or phrase that is relevant to the resource but does not exist in other documentary information.'. Another line connects the 'Keyword' box to a callout box for 'xsd:string' with the text: 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, DisplayOutput, Document, NumericalData, NumericalOutput, SimulationRun
Source	<pre> <xsd:element name="Keyword" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A word or phrase that is relevant to the resource but does not exist in other documentary information.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>

Element InputResourceID

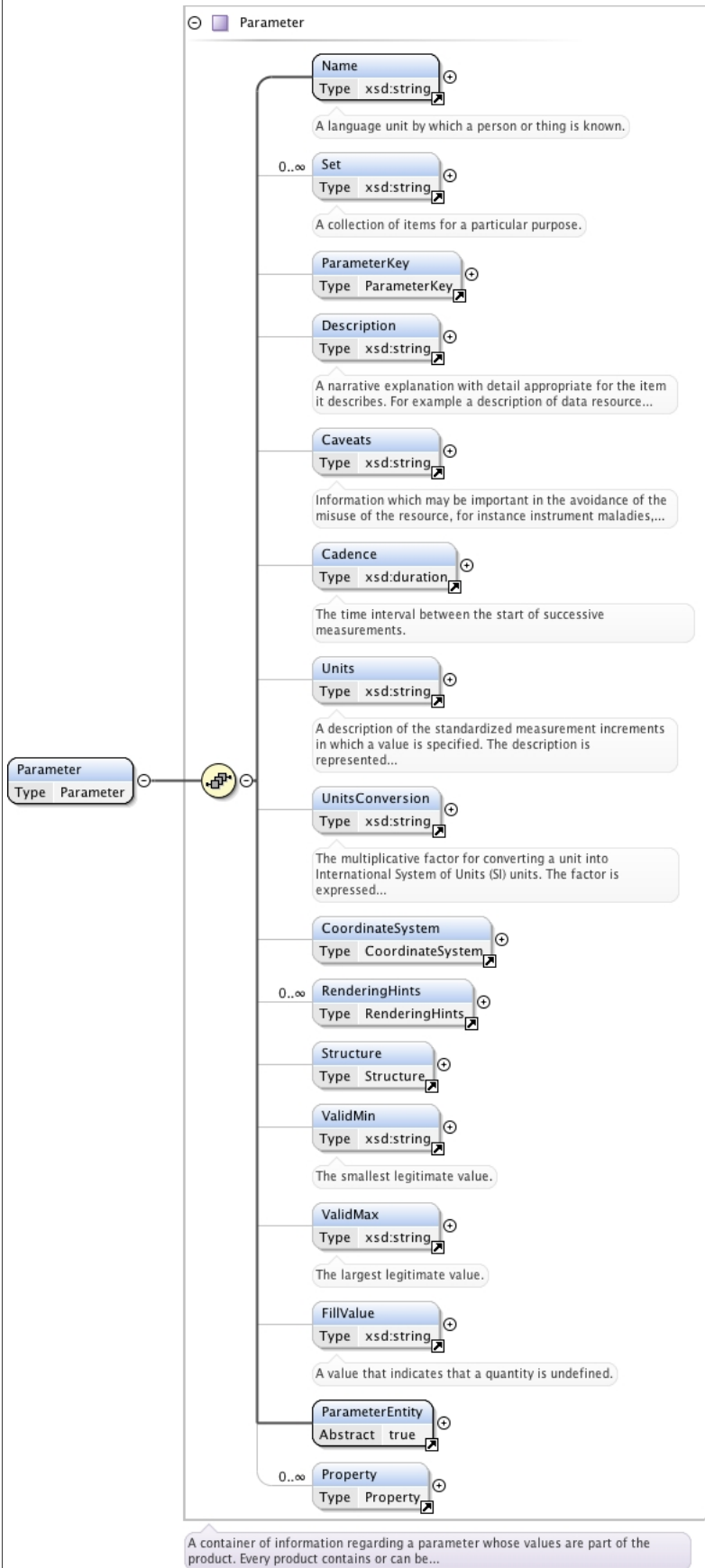
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The resource identifier for a resource which was used to generate this resource.
Diagram	<p>The diagram shows a box labeled 'InputResourceID' with 'Type xsd:string' below it. A line connects this box to a callout box containing the text: 'The resource identifier for a resource which was used to generate this resource.'. Another line connects the 'InputResourceID' box to a callout box for 'xsd:string' with the text: 'Built-in primitive type. The string datatype represents character strings in XML.'</p>

Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, DisplayOutput, Document, NumericalData, NumericalOutput, SimulationRun
Source	<pre><xsd:element name="InputResourceID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The resource identifier for a resource which was used to generate this resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Parameter

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	Parameter
Properties	content: complex

Used by	Complex Types Catalog, DisplayData, DisplayOutput, NumericalData, NumericalOutput, OutputParameters
Model	Name, Set*, ParameterKey{0,1}, Description{0,1}, Caveats{0,1}, Cadence{0,1}, Units{0,1}, UnitsConversion{0,1}, CoordinateSystem{0,1}, RenderingHints*, Structure{0,1}, ValidMin{0,1}, ValidMax{0,1}, FillValue{0,1}, ParameterEntity, Property*
Children	Cadence, Caveats, CoordinateSystem, Description, FillValue, Name, ParameterEntity, ParameterKey, Property, RenderingHints, Set, Structure, Units, UnitsConversion, ValidMax, ValidMin
Instance	<pre><Parameter xmlns="http://impex-fp7.oeaw.ac.at"> <Name>{1,1}</Name> <Set>{0,unbounded}</Set> <ParameterKey>{0,1}</ParameterKey> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> <Cadence>{0,1}</Cadence> <Units>{0,1}</Units> <UnitsConversion>{0,1}</UnitsConversion> <CoordinateSystem>{0,1}</CoordinateSystem> <RenderingHints>{0,unbounded}</RenderingHints> <Structure>{0,1}</Structure> <ValidMin>{0,1}</ValidMin> <ValidMax>{0,1}</ValidMax> <FillValue>{0,1}</FillValue> <ParameterEntity>{1,1}</ParameterEntity> <Property>{0,unbounded}</Property> </Parameter></pre>
Source	<code><xsd:element name="Parameter" type="Parameter" /></code>

Element Set

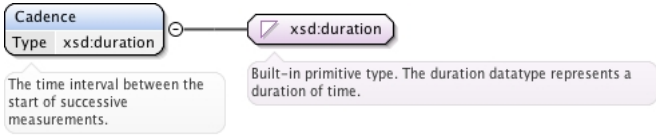
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A collection of items for a particular purpose.
Diagram	<p>The diagram shows a box labeled 'Set' with 'Type xsd:string' below it. A line connects this box to a box labeled 'xsd:string'. A callout bubble points to 'xsd:string' with the text: 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Types InputField, InputPopulation, InputProcess, Parameter
Source	<pre><xsd:element name="Set" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A collection of items for a particular purpose.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ParameterKey

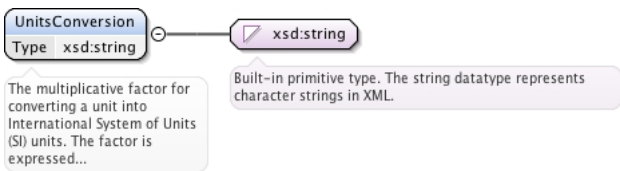
Namespace	http://impex-fp7.oeaw.ac.at
Diagram	<p>The diagram shows a box labeled 'ParameterKey' with 'Type ParameterKey' below it. A line connects this box to another box labeled 'ParameterKey'. A callout bubble points to the second box with the text: 'The name or identifier which can be used to access the parameter in the resource. The associated value is dependent on...'</p>
Type	ParameterKey
Properties	content: simple
Used by	Complex Types Element, InputField, InputPopulation, InputProcess, Parameter
Source	<code><xsd:element name="ParameterKey" type="ParameterKey" /></code>

Element Cadence

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The time interval between the start of successive measurements.

Diagram	
Type	xsd:duration
Properties	content: simple
Used by	Complex Types Parameter, TemporalDescription
Source	<pre><xsd:element name="Cadence" type="xsd:duration"> <xsd:annotation> <xsd:documentation xml:lang="en">The time interval between the start of successive measurements.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element UnitsConversion

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-9>T" which converts the units, presumable nT, to Tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</p>
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Element, InputField, InputProcess, Parameter, Property, SimulationDomain, SpatialDescription
Source	<pre><xsd:element name="UnitsConversion" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-9>T" which converts the units, presumable nT, to Tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element CoordinateSystem

Namespace	http://impex-fp7.oeaw.ac.at
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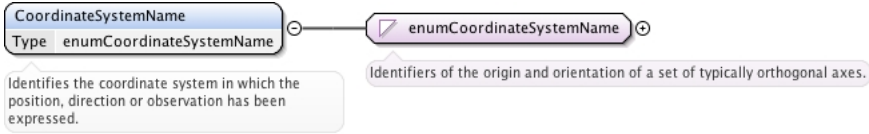
Diagram	
Type	CoordinateSystem
Properties	content: complex
Used by	Complex Types InputField, Parameter, SimulationDomain, SpatialDescription
Model	CoordinateRepresentation , CoordinateSystemName
Children	CoordinateRepresentation, CoordinateSystemName
Instance	<pre><CoordinateSystem xmlns="http://impex-fp7.oeaw.ac.at"> <CoordinateRepresentation>{1,1}</CoordinateRepresentation> <CoordinateSystemName>{1,1}</CoordinateSystemName> </CoordinateSystem></pre>
Source	<code><xsd:element name="CoordinateSystem" type="CoordinateSystem" /></code>

Element CoordinateRepresentation

Namespace	http://impex-fp7.oeaw.ac.at							
Annotations	The method or form for specifying a given point or vector in a given coordinate system.							
Diagram								
Type	enumCoordinateRepresentation							
Properties	content: simple							
Facets	enumeration	<table border="1"> <tr> <td>Cartesian</td> <td>A representation in which a position vector or a measured vector (e.g., field or flow) is specified by its components along the base axes of the coordinate system.</td> </tr> <tr> <td>Cylindrical</td> <td>A coordinate representation of a position vector or measured vector (field or flow) by its k-component, the magnitude of its projection into the i-j plane, and the azimuthal angle of the i-j plane projection.</td> </tr> <tr> <td>Spherical</td> <td>A coordinate representation of a position vector or of a measured vector by its magnitude and two direction angles. The angles are relative to the base axes of the coordinate system used. Typically the angles are phi [azimuth angle, =arctan (j/i)] and theta, where theta may be a polar angle, arctan {[SQRT(i^2+j^2)}/k}, or an elevation angle, arctan [k/SQRT (i^2+j^2)].</td> </tr> </table>	Cartesian	A representation in which a position vector or a measured vector (e.g., field or flow) is specified by its components along the base axes of the coordinate system.	Cylindrical	A coordinate representation of a position vector or measured vector (field or flow) by its k-component, the magnitude of its projection into the i-j plane, and the azimuthal angle of the i-j plane projection.	Spherical	A coordinate representation of a position vector or of a measured vector by its magnitude and two direction angles. The angles are relative to the base axes of the coordinate system used. Typically the angles are phi [azimuth angle, =arctan (j/i)] and theta, where theta may be a polar angle, arctan {[SQRT(i^2+j^2)}/k}, or an elevation angle, arctan [k/SQRT (i^2+j^2)].
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Used by	Complex Type	CoordinateSystem						
Source	<pre><xsd:element name="CoordinateRepresentation" type="enumCoordinateRepresentation"> <xsd:annotation> <xsd:documentation xml:lang="en">The method or form for specifying a given point or vector in a given coordinate system.</xsd:documentation> </xsd:annotation> </xsd:element></pre>							

Element CoordinateSystemName

Namespace	http://impex-fp7.oeaw.ac.at
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Annotations	Identifies the coordinate system in which the position, direction or observation has been expressed.																					
Diagram																						
Type	enumCoordinateSystemName																					
Properties	content:	simple																				
Facets	enumeration	<table border="1"> <tr> <td>CGM</td> <td>Corrected Geomagnetic - A coordinate system from a spatial point with GEO radial distance and geomagnetic latitude and longitude, follow the epoch-appropriate IGRF/DGRF model field vector through to the point where the field line crosses the geomagnetic dipole equatorial plane. Then trace the dipole magnetic field vector Earthward from that point on the equatorial plane, in the same hemisphere as the original point, until the initial radial distance is reached. Designate the dipole latitude and longitude at that point as the CGM latitude and longitude of the original point. See <http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html></td> </tr> <tr> <td>Carrington</td> <td>A coordinate system which is centered at the Sun and is "fixed" with respect to the synodic rotation rate; the mean synodic value is about 27.2753 days. The Astronomical Almanac gives a value for Carrington longitude of 349.03 degrees at 0000 UT on 1 January 1995.</td> </tr> <tr> <td>DM</td> <td>Dipole Meridian - A coordinate system centered at the observation point. Z axis is parallel to the Earth's dipole axis, positive northward. X is in the plane defined by Z and the line linking the observation point with the Earth's center. Y is positive eastward. See <http://cdpp.cnes.fr/00428.pdf></td> </tr> <tr> <td>GEI</td> <td>Geocentric Equatorial Inertial - A coordinate system where the Z axis is along Earth's spin vector, positive northward. X axis points towards the first point of Aries (from the Earth towards the Sun at the vernal equinox). See Russell, 1971</td> </tr> <tr> <td>GEO</td> <td>Geographic - geocentric corotating - A coordinate system where the Z axis is along Earth's spin vector, positive northward. X axis lies in Greenwich meridian, positive towards Greenwich. 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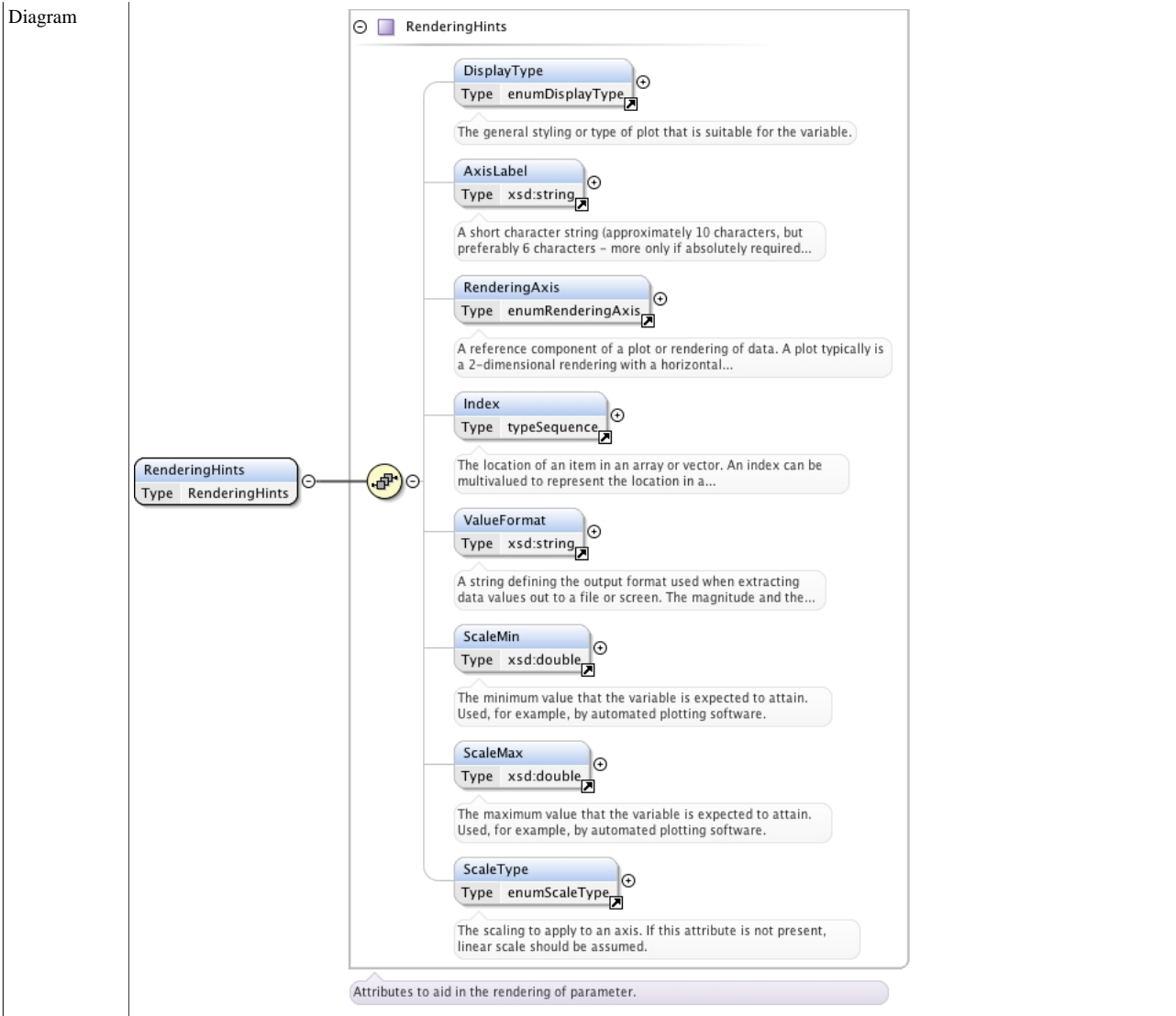
		<p>observer. The Y axis lies in the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward solar west. Standard representation for this system is via the point's x and y values, expressed either as physical distances or as fractions of the solar disk radius.</p>
enumeration	HCI	Heliographic Carrington Inertial.
enumeration	HCR	Heliocentric Radial - A 3-D orthonormal coordinate system that is primarily intended to specify with two dimensions a point on the solar disk. The Z axis points toward the observer. The Y axis lies in the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward solar west. Standard representation for this system is via the point's distance rho from the Z axis [$\text{Rho} = \text{SQRT}(x^2 + y^2)$] and its phase angle psi measured counterclockwise from the +Y axis [$\text{psi} = \text{arctan}(-y/x)$]
enumeration	HEE	Heliocentric Earth Ecliptic - A coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis points from Sun to Earth. See Hapgood, 1992
enumeration	HEEQ	Heliocentric Earth Equatorial - A coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X axis is generally Earthward in the plane defined by the Z axis and the Sun-Earth direction. See Hapgood, 1992.
enumeration	HG	Heliographic - A heliocentric rotating coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X, Y axes rotate with a 25.38 day period. The zero longitude (X axis) is defined as the longitude that passed through the ascending node of the solar equator on the ecliptic plane on 1 January, 1854 at 12 UT. See < http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html >
enumeration	HGI	Heliographic Inertial - A heliocentric coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X axis is along the intersection line between solar equatorial and ecliptic planes. The X axis was positive at SE longitude of 74.367 deg on Jan 1, 1900. (See SE below.) See < http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html >
enumeration	HPC	Helioprojective Cartesian = A 3-D orthonormal (left-handed) coordinate system that is primarily intended to specify with two dimensions a point on the solar disk. The Z axis points from the observer to the center of the solar disk. The Y axis lies in the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward solar west. Given as the distance between the observer and the center of the solar disk, the standard representation of an (x,y) point on the solar disk is via the point's longitude angle [$\text{arctan}(x/d)$] and latitude angle [$\text{arctan}(y/d)$].
enumeration	HPR	Helioprojective Radial - A 3-D orthonormal (left-handed) coordinate system that is primarily intended to specify with two dimensions a point on the solar disk. The Z axis points from the observer to the center of the solar disk. The Y axis lies in the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward solar west. Given as the distance between the observer and the center of the solar disk, the standard representation for this system of an (x,y) point on the solar disk is via the point's latitude angle theta [$= \text{arctan}[\text{SQRT}(x^2 + y^2)/d]$]

		+ y**2)]/d]} or equivalent declination parameter delta (= theta - 90 deg), and its phase angle psi as measured counter-clockwise from the +Y axis [psi = arctan (-y/x)].
enumeration	J2000	An astronomical coordinate system which uses the mean equator and equinox of Julian date 2451545.0 TT (Terrestrial Time), or January 1, 2000, noon TT. (aka J2000) to define a celestial reference frame.
enumeration	LGM	Local Geomagnetic - A coordinate system used mainly for Earth surface or near Earth surface magnetic field data. X axis northward from observation point in a geographic meridian. Z axis downward towards Earth's center. In this system, H (total horizontal component) = SQRT (Bx ² + By ²) and D (declination angle) = arctan (By/Bx)
enumeration	MAG	Geomagnetic - geocentric. Z axis is parallel to the geomagnetic dipole axis, positive north. X is in the plane defined by the Z axis and the Earth's rotation axis. If N is a unit vector from the Earth's center to the north geographic pole, the signs of the X and Y axes are given by Y = N x Z, X = Y x Z.. See Russell, 1971, and < http://cdpp.cnes.fr/00428.pdf >
enumeration	MFA	Magnetic Field Aligned - A coordinate system spacecraft-centered system with Z in the direction of the ambient magnetic field vector. X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	RTN	Radial Tangential Normal. Typically centered at a spacecraft. Used for IMF and plasma V vectors. R (radial) axis is radially away from the Sun, T (tangential) axis is normal to the plane formed by R and the Sun's spin vector, positive in the direction of planetary motion. N (normal) is R x T.
enumeration	SC	Spacecraft - A coordinate system defined by the spacecraft geometry and/or spin. Often has Z axis parallel to spacecraft spin vector. X and Y axes may or may not corotate with the spacecraft. See SR and SR2 below.
enumeration	SE	Solar Ecliptic - A heliocentric coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the first point of Aries (from Earth to Sun at vernal equinox). Same as HAE above. See < http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html >
enumeration	SM	Solar Magnetic - A geocentric coordinate system where the Z axis is northward along Earth's dipole axis, X axis is in plane of z axis and Earth-Sun line, positive sunward. See Russell, 1971.
enumeration	SR	Spin Reference - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X and Y rotate with the spacecraft. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	SR2	Spin Reference 2 - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	SSE	Spacecraft Solar Ecliptic - A coordinate system used for deep space spacecraft, for example Helios. - X axis from spacecraft to Sun. Z axis normal to ecliptic plane, positive northward. Note: Angle between normals to ecliptic and to Helios orbit plane ~ 0.25 deg.

	enumeration	SSE_L	Selenocentric Solar Ecliptic. The X axis points from the center of the Earth's moon to the sun, the Z axis is normal to the ecliptic plane, positive northward. And the Y axis completes the right-handed set of axes.
	enumeration	SpacecraftOrbitPlane	A coordinate system where X lies in the plane normal to and in the direction of motion of the spacecraft, Z is normal to this plane and Y completes the triad in a right-handed coordinate system.
	enumeration	WGS84	The World Geodetic System (WGS) defines a reference frame for the earth, for use in geodesy and navigation. The WGS84 uses the zero meridian as defined by the Bureau International de l'Heure.
	enumeration	MSO	Coordinate Sytem Related to Mars or Mercury Depending on the Targeted Region Mars/Mercury Solar Orbital (X anti-sunward, Y along the orbital velocity direction)
	enumeration	VSO	Coordinate Sytem Related to Venus Venus Solar Orbital (X anti-sunward, Y along the orbital velocity direction)
	enumeration	KSO	Coordinate Sytem Related to Saturn Kronian Solar Orbital (X anti-sunward, Y along the orbital velocity direction)
	enumeration	KSM	Kronian Solar Magnetospheric - A coordinate system where the X axis is from Saturn to Sun, Z axis is northward in a plane containing the X axis and the Kronian dipole axis.
	enumeration	JSO	Coordinate Sytem Related to Jupiter Jovian Solar Orbital (X anti-sunward, Y along the orbital velocity direction)
	enumeration	JSM	Jovian Solar Magnetospheric - A coordinate system where the X axis is from Jupiter to Sun, Z axis is northward in a plane containing the X axis and the Jovian dipole axis.
Used by	Complex Types	CoordinateSystem, Location	
Source	<pre><xsd:element name="CoordinateSystemName" type="enumCoordinateSystemName"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifies the coordinate system in which the position, direction or observation has been expressed.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element RenderingHints

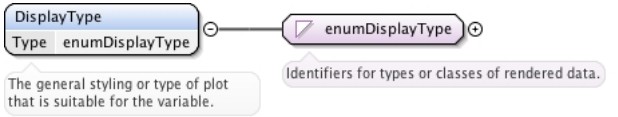
Namespace	http://impex-fp7.oeaw.ac.at
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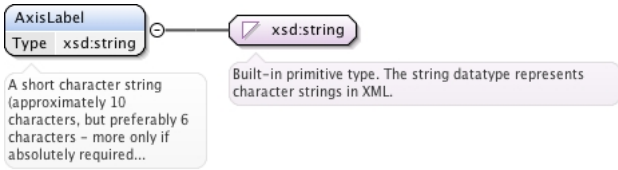
Type	RenderingHints
Properties	content: complex
Used by	Complex Types Element, Parameter
Model	DisplayType{0,1} , AxisLabel{0,1} , RenderingAxis{0,1} , Index{0,1} , ValueFormat{0,1} , ScaleMin{0,1} , ScaleMax{0,1} , ScaleType{0,1}
Children	AxisLabel, DisplayType, Index, RenderingAxis, ScaleMax, ScaleMin, ScaleType, ValueFormat
Instance	<pre><RenderingHints xmlns="http://impex-fp7.oeaw.ac.at"> <DisplayType>{0,1}</DisplayType> <AxisLabel>{0,1}</AxisLabel> <RenderingAxis>{0,1}</RenderingAxis> <Index>{0,1}</Index> <ValueFormat>{0,1}</ValueFormat> <ScaleMin>{0,1}</ScaleMin> <ScaleMax>{0,1}</ScaleMax> <ScaleType>{0,1}</ScaleType> </RenderingHints></pre>
Source	<xsd:element name="RenderingHints" type="RenderingHints"/>

Element DisplayType

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The general styling or type of plot that is suitable for the variable.

Diagram			
Type	enumDisplayType		
Properties	content:	simple	
Facets	enumeration	Image	A two-dimensional representation of data with values at each element of the array related to an intensity or a color.
	enumeration	Plasmagram	The characterization of signal strengths in active sounding measurements as a function of virtual range or signal delay time and sounding frequency. A Plasmagram is also referred to as an Ionogram.
	enumeration	Spectrogram	The characterization of signal strengths as a function of frequency (or energy) and time.
	enumeration	StackPlot	A representation of data showing multiple sets of observations on a single plot, possibly offsetting each plot by some uniform amount.
	enumeration	TimeSeries	A representation of data showing a set of observations taken at different points in time and charted as a time series.
	enumeration	WaveForm	Spatial or temporal variations of wave amplitude over wave-period timescales.
Used by	Complex Type	RenderingHints	
Source	<pre><xsd:element name="DisplayType" type="enumDisplayType"> <xsd:annotation> <xsd:documentation xml:lang="en">The general styling or type of plot that is suitable for the variable.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element AxisLabel

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	A short character string (approximately 10 characters, but preferably 6 characters - more only if absolutely required for clarity) which can be used to label a y-axis for a plot or to provide a heading for a data listing.		
Diagram			
Type	xsd:string		
Properties	content:	simple	
Used by	Complex Type	RenderingHints	
Source	<pre><xsd:element name="AxisLabel" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A short character string (approximately 10 characters, but preferably 6 characters - more only if absolutely required for clarity) which can be used to label a y-axis for a plot or to provide a heading for a data listing.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element RenderingAxis

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	A reference component of a plot or rendering of data. A plot typically is a 2-dimensional rendering with a horizontal and verticle axis.		

	A third dimension can be introduced with a color coding of the rendered data.									
Diagram										
Type	enumRenderingAxis									
Properties	content: simple									
Facets	<table border="1"> <tr> <td>enumeration</td> <td>ColorBar</td> <td>A spectrum or set of colors used to represent data values.</td> </tr> <tr> <td>enumeration</td> <td>Horizontal</td> <td>Parallel to or in the plane of the horizon or a base line.</td> </tr> <tr> <td>enumeration</td> <td>Vertical</td> <td>Perpendicular to the plane of the horizon or a base line.</td> </tr> </table>	enumeration	ColorBar	A spectrum or set of colors used to represent data values.	enumeration	Horizontal	Parallel to or in the plane of the horizon or a base line.	enumeration	Vertical	Perpendicular to the plane of the horizon or a base line.
enumeration	ColorBar	A spectrum or set of colors used to represent data values.								
enumeration	Horizontal	Parallel to or in the plane of the horizon or a base line.								
enumeration	Vertical	Perpendicular to the plane of the horizon or a base line.								
Used by	Complex Type RenderingHints									
Source	<pre><xsd:element name="RenderingAxis" type="enumRenderingAxis"> <xsd:annotation> <xsd:documentation xml:lang="en">A reference component of a plot or rendering of data. A plot typically is a 2-dimensional rendering with a horizontal and verticle axis. A third dimension can be introduced with a color coding of the rendered data.</xsd:documentation> </xsd:annotation> </xsd:element></pre>									

Element Index

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The location of an item in an array or vector. An index can be multivalued to represent the location in a multidimensional object. The index of the first item is "1". A value of "0" is a wild card for all elements at the location in an array. A value of "-1" is a reference to the dimension at the location in the array. A "-1" is used when describing the attributes of the dimension, where as "0" or a positive integer is used to describe attributes of individual elements.
Diagram	
Type	typeSequence
Properties	content: simple
Used by	Complex Types Element, RenderingHints
Source	<pre><xsd:element name="Index" type="typeSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">The location of an item in an array or vector. An index can be multivalued to represent the location in a multidimensional object. The index of the first item is "1". A value of "0" is a wild card for all elements at the location in an array. A value of "-1" is a reference to the dimension at the location in the array. A "-1" is used when describing the attributes of the dimension, where as "0" or a positive integer is used to describe attributes of individual elements.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ValueFormat

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string defining the output format used when extracting data values out to a file or screen. The magnitude and the number of significant figures needed should be carefully considered.

	The output format string can be in either Fortran or C syntax.
Diagram	<p>The diagram shows a box for 'ValueFormat' with 'Type xsd:string' below it. A line connects this box to a box for 'xsd:string'. A callout points to 'ValueFormat' with the text: 'A string defining the output format used when extracting data values out to a file or screen. The magnitude and the...'. Another callout points to 'xsd:string' with the text: 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type RenderingHints
Source	<pre><xsd:element name="ValueFormat" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A string defining the output format used when extracting data values out to a file or screen. The magnitude and the number of significant figures needed should be carefully considered. The output format string can be in either Fortran or C syntax.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ScaleMin

Namespace	http://impex-fp7.oew.ac.at
Annotations	The minimum value that the variable is expected to attain. Used, for example, by automated plotting software.
Diagram	<p>The diagram shows a box for 'ScaleMin' with 'Type xsd:double' below it. A line connects this box to a box for 'xsd:double'. A callout points to 'ScaleMin' with the text: 'The minimum value that the variable is expected to attain. Used, for example, by automated plotting software.'. Another callout points to 'xsd:double' with the text: 'Built-in primitive type. The double datatype corresponds to IEEE double-precision 64-bit floating point type [IEEE...]'.</p>
Type	xsd:double
Properties	content: simple
Used by	Complex Type RenderingHints
Source	<pre><xsd:element name="ScaleMin" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The minimum value that the variable is expected to attain. Used, for example, by automated plotting software.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ScaleMax

Namespace	http://impex-fp7.oew.ac.at
Annotations	The maximum value that the variable is expected to attain. Used, for example, by automated plotting software.
Diagram	<p>The diagram shows a box for 'ScaleMax' with 'Type xsd:double' below it. A line connects this box to a box for 'xsd:double'. A callout points to 'ScaleMax' with the text: 'The maximum value that the variable is expected to attain. Used, for example, by automated plotting software.'. Another callout points to 'xsd:double' with the text: 'Built-in primitive type. The double datatype corresponds to IEEE double-precision 64-bit floating point type [IEEE...]'.</p>
Type	xsd:double
Properties	content: simple
Used by	Complex Type RenderingHints
Source	<pre><xsd:element name="ScaleMax" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The maximum value that the variable is expected to attain. Used, for example, by automated plotting software.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

</xsd:element>

Element ScaleType

Namespace	http://impex-fp7.oeaw.ac.at					
Annotations	The scaling to apply to an axis. If this attribute is not present, linear scale should be assumed.					
Diagram	<p>The scaling to apply to an axis. If this attribute is not present, linear scale should be assumed.</p> <p>Identifiers for scaling applied to a set of numbers.</p>					
Type	enumScaleType					
Properties	content:	simple				
Facets	enumeration	<table border="1"> <tr> <td>LinearScale</td> <td>Intervals which are equally spaced.</td> </tr> <tr> <td>LogScale</td> <td>Intervals which are spaced proportionally to the logarithms of the values being represented.</td> </tr> </table>	LinearScale	Intervals which are equally spaced.	LogScale	Intervals which are spaced proportionally to the logarithms of the values being represented.
LinearScale	Intervals which are equally spaced.					
LogScale	Intervals which are spaced proportionally to the logarithms of the values being represented.					
Used by	Complex Type	RenderingHints				
Source	<pre><xsd:element name="ScaleType" type="enumScaleType"> <xsd:annotation> <xsd:documentation xml:lang="en">The scaling to apply to an axis. If this attribute is not present, linear scale should be assumed.</xsd:documentation> </xsd:annotation> </xsd:element></pre>					

Element Structure

Namespace	http://impex-fp7.oeaw.ac.at	
Diagram	<p>The organization and relationship of individual values within a quantity.</p>	
Type	Structure	
Properties	content:	complex
Used by	Complex Type	Parameter
Model	Size , Description{0,1} , Element*	
Children	Description, Element, Size	
Instance	<pre><Structure xmlns="http://impex-fp7.oeaw.ac.at"> <Size>{1,1}</Size> <Description>{0,1}</Description> <Element>{0,unbounded}</Element> </Structure></pre>	
Source	<pre><xsd:element name="Structure" type="Structure"/></pre>	

Element Size

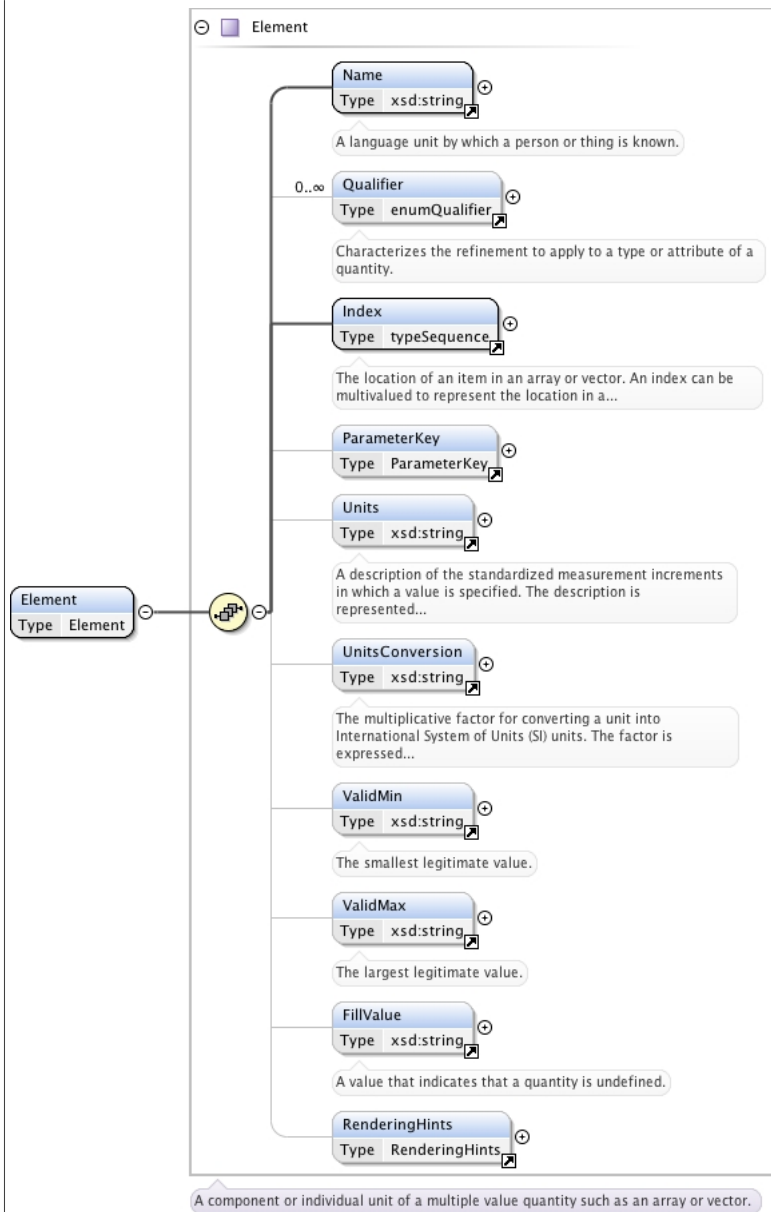
Namespace	http://impex-fp7.oeaw.ac.at
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Annotations	The number of elements in each dimension of a multi-dimensional array. A scalar has a size of 1. A multi-dimensional vector will have a size for each dimension. Note that the number of elements in the size of an N-dimensional array conveys the array's dimensionality while the product of those numbers conveys the total number of elements in the array. When size is used to describe a tensor it is the number of elements in the tensor. As such it has a limited set of values. A tensor of rank 1 has a size of 3, rank 2 a size of 9, rank 3 a size of 27 and rank n a size of 3^n .
Diagram	
Type	typeSequence
Properties	content: simple
Used by	Complex Type Structure
Source	<pre><xsd:element name="Size" type="typeSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">The number of elements in each dimension of a multi-dimensional array. A scalar has a size of 1. A multi-dimensional vector will have a size for each dimension. Note that the number of elements in the size of an N-dimensional array conveys the array's dimensionality while the product of those numbers conveys the total number of elements in the array. When size is used to describe a tensor it is the number of elements in the tensor. As such it has a limited set of values. A tensor of rank 1 has a size of 3, rank 2 a size of 9, rank 3 a size of 27 and rank n a size of 3^n.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Element

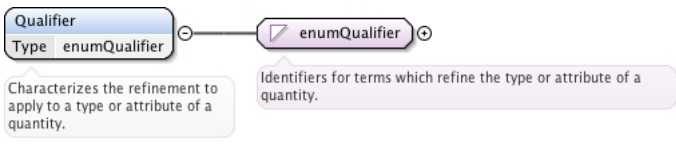
Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	Element
Properties	content: complex
Used by	Complex Type Structure
Model	Name , Qualifier* , Index , ParameterKey{0,1} , Units{0,1} , UnitsConversion{0,1} , ValidMin{0,1} , ValidMax{0,1} , FillValue{0,1} , RenderingHints{0,1}
Children	FillValue, Index, Name, ParameterKey, Qualifier, RenderingHints, Units, UnitsConversion, ValidMax, ValidMin
Instance	<pre><Element xmlns="http://impex-fp7.oeaw.ac.at"> <Name>{1,1}</Name> <Qualifier>{0,unbounded}</Qualifier> <Index>{1,1}</Index> <ParameterKey>{0,1}</ParameterKey> <Units>{0,1}</Units> <UnitsConversion>{0,1}</UnitsConversion> <ValidMin>{0,1}</ValidMin> <ValidMax>{0,1}</ValidMax> <FillValue>{0,1}</FillValue> <RenderingHints>{0,1}</RenderingHints> </Element></pre>
Source	<xsd:element name="Element" type="Element" />

Element Qualifier

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Characterizes the refinement to apply to a type or attribute of a quantity.		
Diagram			
Type	enumQualifier		
Properties	content:	simple	
Facets	enumeration	Anisotropy	Direction-dependent property.
	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.
	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
	enumeration	Characteristic	A quantity which can be easily identified and measured in a given environment.
	enumeration	Circular	Relative to polarization, right-hand circularly polarized light is defined such that the electric field is rotating clockwise as seen by an observer towards whom the wave is moving. Left-hand circularly polarized light is defined such that the electric field is rotating counterclockwise as seen by an observer towards whom the wave is moving. The polarization of magnetohydrodynamic waves is specified with respect to the ambient mean magnetic field : right-hand polarized waves have a transverse electric field component which turns in a right-handed sense (that of the gyrating electrons) around the magnetic field.
	enumeration	Column	A two-dimensional measure of a quantity. The column is the area over which the quantity is measured.
	enumeration	Component	Projection of a vector along one of the base axes of a coordinate system.
	enumeration	Component.I	Projection of a vector along the first named axis of a coordinate system. Typically the X axis, but could be the R axis for an RTN coordinate system.
	enumeration	Component.J	Projection of a vector along the second named axis of a coordinate system. Typically the Y axis, but could be the T axis for an RTN coordinate system.
	enumeration	Component.K	Projection of a vector along the third named axis of a coordinate system. Typically the Z axis, but could be the N axis for an RTN coordinate system.
	enumeration	Core	The central or main part of an object or calculated distribution. For example, the part of a distribution of particles at low energies that is a thermal (Maxwellian) population.
	enumeration	CrossSpectrum	The Fourier transform of the cross correlation of two physical or empirical observations.
	enumeration	Deviation	The difference between an observed value and the expected value of a quantity.
	enumeration	Differential	A measurement within a narrow range of energy and/or solid angle.
	enumeration	Direction	The spatial relation between an object and another object, the orientation of the object or the course along which the object points

		or moves.
enumeration	DirectionAngle	The angle between a position vector or measured vector (or one of its projections onto a plane) and one of the base axes of the coordinate system.
enumeration	DirectionAngle.AzimuthAngle	The angle between the projection into the i-j plane of a position or measured vector and the i-axis of the coordinate system. Mathematically defined as $\arctan(j/i)$.
enumeration	DirectionAngle.ElevationAngle	The angle between the position or measured vector and the i-j plane of the coordinate system. Mathematically defined as $\arctan(k/\sqrt{i^2+j^2})$.
enumeration	DirectionAngle.PolarAngle	The angle between the position or measured vector and the k-axis of the coordinate system. Mathematically defined as $\arctan(\sqrt{i^2+j^2}/k)$.
enumeration	Directional	A measurement within a narrow range of solid angle.
enumeration	FieldAligned	The component of a quantity which is oriented in the same direction of a field.
enumeration	Fit	Values that make an model agree with the data.
enumeration	Group	An assemblage of values that a certain relation or common characteristic.
enumeration	Halo	The part of an object or distribution surrounding some central body or distribution. For example, the particles above the core energies that show enhancements above the thermal population. Typically, a "power law tail" shows a break from the core Maxwellian at a particular energy.
enumeration	Integral	A flux measurement in a broad range of energy and solid angle.
enumeration	Integral.Area	Integration over the extent of a planar region, or of the surface of a solid.
enumeration	Integral.Bandwidth	Integration over the width a frequency band.
enumeration	Integral.SolidAngle	Integration over the angle in three-dimensional space that an object subtends at a point.
enumeration	LineOfSight	The line of sight is the line that connects the observer with the observed object. This expression is often used with measurements of Doppler velocity and magnetic field in magnetograms, where only the component of the vector field directed along the line of sight is measured.
enumeration	Linear	Polarization where the E-field vector is confined to a given plane
enumeration	Magnitude	A measure of the strength of a vector quantity or length of its representational vector.
enumeration	Maximum	The largest value of a batch or sample or the upper bound of a probability distribution.
enumeration	Median	The measure of central tendency of a set of n. values computed by ordering the values and taking the value at position $(n. + 1) / 2$ when n. is odd or the arithmetic mean of the values at positions $n. / 2$ and $(n. / 2) + 1$ when n. is even.
enumeration	Minimum	The smallest value of a batch or sample or the lower bound of a probability distribution.
enumeration	Moment	Parameters determined by integration over a distribution function convolved with a power of velocity.
enumeration	Parallel	Having the same direction as a given direction
enumeration	Peak	The maximum value for the quantity in question, over a period of time which is usually equal to the cadence.
enumeration	Perpendicular	At right angles to a given direction.
enumeration	Perturbation	Variations in the state of a system.

enumeration	Phase	A point or portion in a recurring series of changes.
enumeration	PhaseAngle	Phase difference between two or more waves, normally expressed in degrees.
enumeration	Projection	A measure of the length of a position or measured vector as projected into a plane of the coordinate system.
enumeration	Projection.IJ	A measure of the length of a position or measured vector projected into the i-j (typically X-Y) plane of the coordinate system.
enumeration	Projection.IK	A measure of the length of a position or measured vector projected into the i-k (typically X-Z) plane of the coordinate system.
enumeration	Projection.JK	A measure of the length of a position or measured vector projected into the j-k (typically Y-Z) plane of the coordinate system.
enumeration	Pseudo	Similar to or having the appearance of something else. Can be used to indicate an estimation or approximation of a particular quantity.
enumeration	Ratio	The relative magnitudes of two quantities.
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
enumeration	Spectral	Characterized as a range or continuum of frequencies
enumeration	StandardDeviation	The square root of the average of the squares of deviations about the mean of a set of data. Standard deviation is a statistical measure of spread or variability.
enumeration	StokesParameters	A set of four parameters (usually called I,Q, U and V) which describe the polarization state of an electromagnetic wave propagating through space.
enumeration	Strahl	A distribution of particles concentrated in a narrow energy band. The band may be may be aligned with a secondary feature. For example, it may occur in a narrow cone aligned with the mean magnetic field direction.
enumeration	Superhalo	The part of an object or distribution surrounding some central body or distribution evident in a second break in the distribution function (e.g., a different power law). It consists of a population at a higher energies than for a halo.
enumeration	Symmetric	Equal distribution about one or more axes.
enumeration	Tensor	A generalized linear "quantity" or "geometrical entity" that can be expressed as a multi-dimensional array relative to a choice of basis of the particular space on which it is defined.
enumeration	Total	The summation of quantities over all possible species.
enumeration	Trace	The sum of the elements on the main diagonal (the diagonal from the upper left to the lower right) of a square matrix.
enumeration	Uncertainty	A statistically defined discrepancy between a measured quantity and the true value of that quantity that cannot be corrected by calculation or calibration.
enumeration	Variance	A measure of dispersion of a set of data points around their mean value. The expectation value of the squared deviations from the mean.
enumeration	Vector	A set of parameter values each along some independent variable (e.g., components of a field in three orthogonal spatial directions; atmospheric temperature values at several altitudes, or at a given latitude and longitude;).
Used by	Complex Types	Element, Field, InputField, InputParameter, InputPopulation, Mixed, Particle, Property, Support, Wave

Source	<pre><xsd:element name="Qualifier" type="enumQualifier"> <xsd:annotation> <xsd:documentation xml:lang="en">Characterizes the refinement to apply to a type or attribute of a quantity.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
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Element ValidMin

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The smallest legitimate value.
Diagram	<p>The diagram shows a box for 'ValidMin' with 'Type xsd:string' below it. A line connects it to a box for 'xsd:string'. A callout bubble points to 'ValidMin' with the text 'The smallest legitimate value.' Another callout bubble points to 'xsd:string' with the text 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Types Element, InputField, Parameter, Property, SimulationDomain
Source	<pre><xsd:element name="ValidMin" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The smallest legitimate value.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ValidMax

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The largest legitimate value.
Diagram	<p>The diagram shows a box for 'ValidMax' with 'Type xsd:string' below it. A line connects it to a box for 'xsd:string'. A callout bubble points to 'ValidMax' with the text 'The largest legitimate value.' Another callout bubble points to 'xsd:string' with the text 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Types Element, InputField, Parameter, Property, SimulationDomain
Source	<pre><xsd:element name="ValidMax" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The largest legitimate value.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element FillValue

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A value that indicates that a quantity is undefined.
Diagram	<p>The diagram shows a box for 'FillValue' with 'Type xsd:string' below it. A line connects it to a box for 'xsd:string'. A callout bubble points to 'FillValue' with the text 'A value that indicates that a quantity is undefined.' Another callout bubble points to 'xsd:string' with the text 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Types Element, Parameter
Source	<pre><xsd:element name="FillValue" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A value that indicates that a quantity is undefined.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

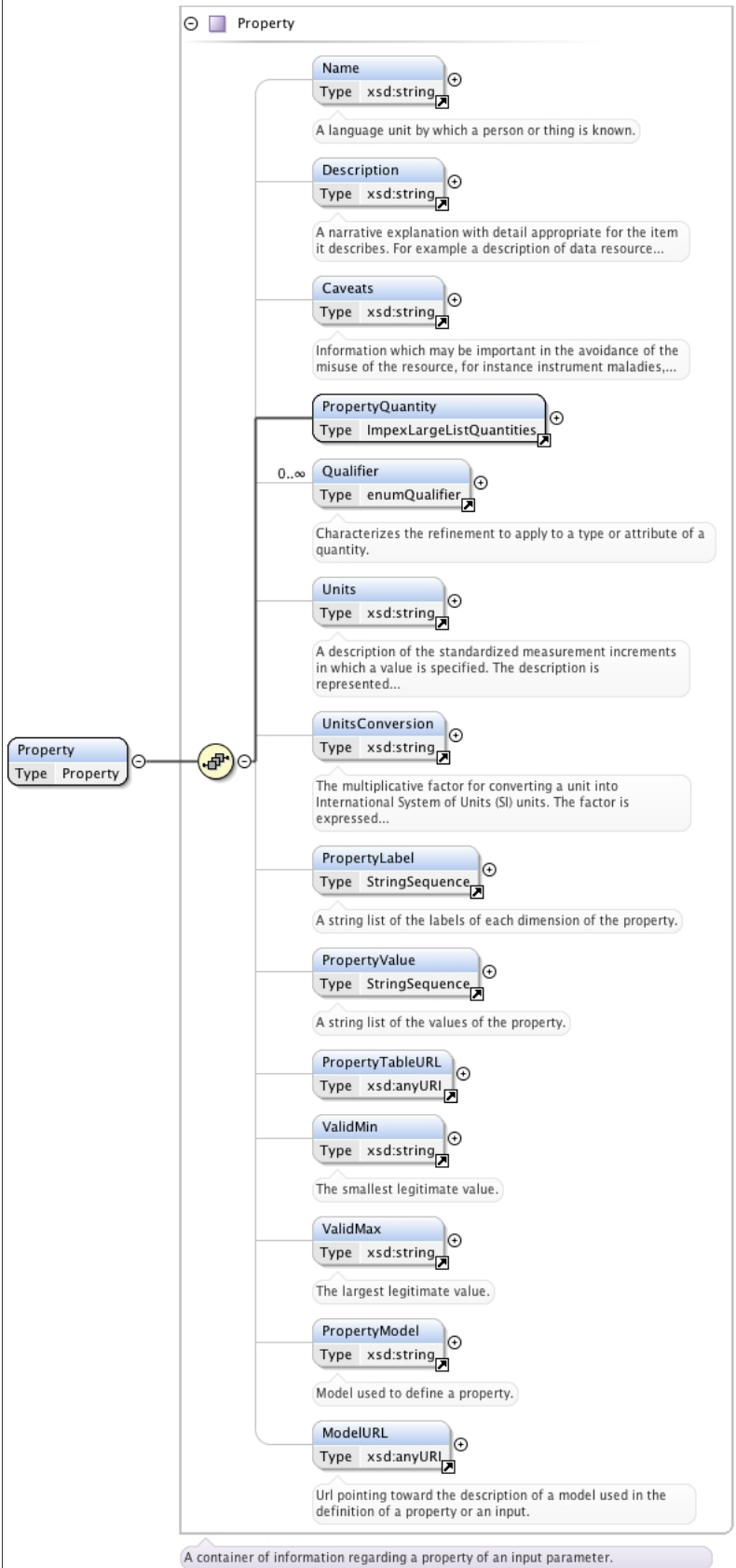
Element ParameterEntity

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	<pre> classDiagram class ParameterEntity { <<abstract>> } class Field class Mixed class Particle class Support class Wave ParameterEntity < -- Field ParameterEntity < -- Mixed ParameterEntity < -- Particle ParameterEntity < -- Support ParameterEntity < -- Wave </pre>
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> • Field • Wave • Mixed • Support • Particle
Used by	Complex Type Parameter
Source	<code><xsd:element name="ParameterEntity" abstract="true"/></code>

Element Property

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	Property	
Properties	content:	complex
Used by	Complex Types	DisplayOutput, InputParameter, InputProperties, NumericalOutput, Parameter, RegionParameter

Model	Name{0,1} , Description{0,1} , Caveats{0,1} , PropertyQuantity , Qualifier* , Units{0,1} , UnitsConversion{0,1} , PropertyLabel{0,1} , PropertyValue{0,1} , PropertyTableURL{0,1} , ValidMin{0,1} , ValidMax{0,1} , PropertyModel{0,1} , ModelURL{0,1}
Children	Caveats, Description, ModelURL, Name, PropertyLabel, PropertyModel, PropertyQuantity, PropertyTableURL, PropertyValue, Qualifier, Units, UnitsConversion, ValidMax, ValidMin
Instance	<pre><Property xmlns="http://impex-fp7.oeaw.ac.at"> <Name>{0,1}</Name> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> <PropertyQuantity>{1,1}</PropertyQuantity> <Qualifier>{0,unbounded}</Qualifier> <Units>{0,1}</Units> <UnitsConversion>{0,1}</UnitsConversion> <PropertyLabel>{0,1}</PropertyLabel> <PropertyValue>{0,1}</PropertyValue> <PropertyTableURL>{0,1}</PropertyTableURL> <ValidMin>{0,1}</ValidMin> <ValidMax>{0,1}</ValidMax> <PropertyModel>{0,1}</PropertyModel> <ModelURL>{0,1}</ModelURL> </Property></pre>
Source	<code><xsd:element name="Property" type="Property" /></code>

Element PropertyQuantity

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	ImpexLargeListQuantities
Properties	content: simple
Used by	Complex Type Property
Source	<code><xsd:element name="PropertyQuantity" type="ImpexLargeListQuantities" /></code>

Element PropertyLabel

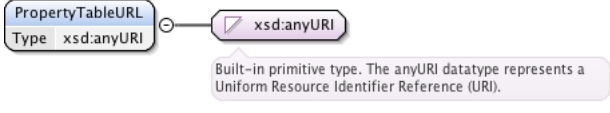
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string list of the labels of each dimension of the property.
Diagram	
Type	StringSequence
Properties	content: simple
Used by	Complex Type Property
Source	<pre><xsd:element name="PropertyLabel" type="StringSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">A string list of the labels of each dimension of the property.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element PropertyValue

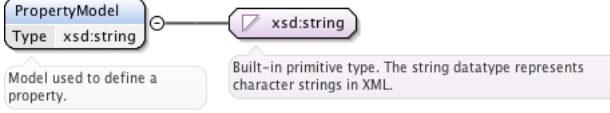
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string list of the values of the property.
Diagram	
Type	StringSequence

Properties	content: simple
Used by	Complex Type Property
Source	<pre><xsd:element name="PropertyValue" type="StringSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">A string list of the values of the property.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>


Element PropertyTableURL

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	xsd:anyURI
Properties	content: simple
Used by	Complex Type Property
Source	<pre><xsd:element name="PropertyTableURL" type="xsd:anyURI" /></pre>

Element PropertyModel

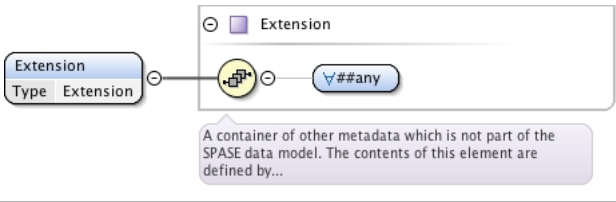
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Model used to define a property.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Property
Source	<pre><xsd:element name="PropertyModel" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Model used to define a property.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ModelURL

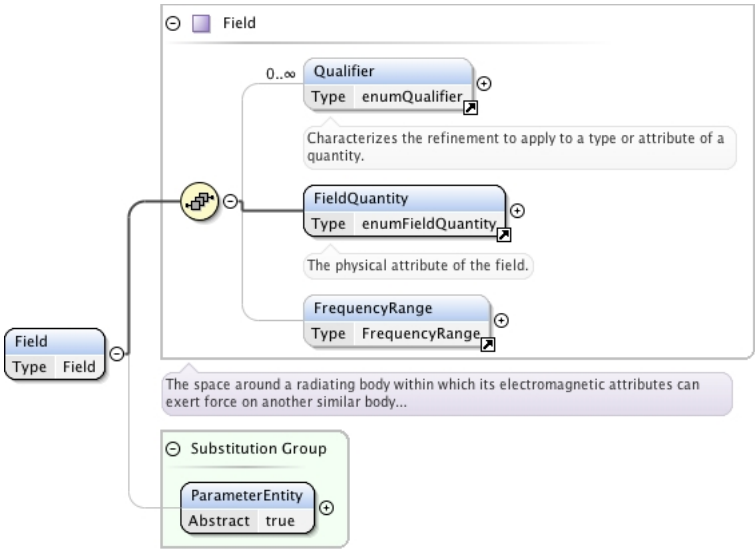
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Url pointing toward the description of a model used in the definition of a property or an input.
Diagram	
Type	xsd:anyURI
Properties	content: simple
Used by	Complex Types InputField, InputPopulation, InputProcess, Property, SimulationModel
Source	<pre><xsd:element name="ModelURL" type="xsd:anyURI"> <xsd:annotation> <xsd:documentation xml:lang="en">Url pointing toward the description of a model used in the definition of a property or an input.</xsd:documentation> </xsd:annotation> </xsd:element></pre>


```
</xsd:annotation>
</xsd:element>
```

Element Extension

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Extension
Properties	content: complex
Used by	Complex Types: Annotation, Catalog, DisplayData, DisplayOutput, Instrument, NumericalData, NumericalOutput, Observatory, Person, Registry, Repository, Service, SimulationRun
Model	ANY element from ANY namespace
Source	<code><xsd:element name="Extension" type="Extension" /></code>

Element Field

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Field
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ParameterEntity
Model	Qualifier*, FieldQuantity, FrequencyRange{0,1}
Children	FieldQuantity, FrequencyRange, Qualifier
Instance	<pre><Field xmlns="http://impex-fp7.oeaw.ac.at"> <Qualifier>{0,unbounded}</Qualifier> <FieldQuantity>{1,1}</FieldQuantity> <FrequencyRange>{0,1}</FrequencyRange> </Field></pre>
Source	<code><xsd:element name="Field" type="Field" substitutionGroup="ParameterEntity" /></code>

Element FieldQuantity

Namespace	http://impex-fp7.oeaw.ac.at
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Annotations	The physical attribute of the field.		
Diagram			
Type	enumFieldQuantity		
Properties	content:	simple	
Facets	enumeration	Current	The flow of electrons through a conductor caused by a potential difference.
	enumeration	Electric	The physical attribute that exerts an electrical force.
	enumeration	Electromagnetic	Electric and magnetic field variations in time and space that propagate through a medium or a vacuum with the wave's propagation, electric field, and magnetic field vectors forming an orthogonal triad. Waves in this category are detected by having their field quantities measured.
	enumeration	Gyrofrequency	The number of gyrations around a magnetic guiding center (field line) a charged particle makes per unit time due to the Lorentz force.
	enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.
	enumeration	PlasmaFrequency	A number-density-dependent characteristic frequency of a plasma.
	enumeration	Potential	A field which obeys Laplace's Equation.
	enumeration	PoyntingFlux	Electromagnetic energy flux transported by a wave characterized as the rate of energy transport per unit area per steradian.
Used by	Complex Types	Field, InputField	
Source	<pre><xsd:element name="FieldQuantity" type="enumFieldQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">The physical attribute of the field.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element FrequencyRange

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Type	FrequencyRange		

Properties	content: complex
Used by	Complex Types Field, Wave
Model	SpectralRange{0,1} , Low , High , Units , Bin*
Children	Bin, High, Low, SpectralRange, Units
Instance	<pre><FrequencyRange xmlns="http://impex-fp7.oeaw.ac.at"> <SpectralRange>{0,1}</SpectralRange> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </FrequencyRange></pre>
Source	<xsd:element name="FrequencyRange" type="FrequencyRange"/>

Element SpectralRange

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	The general term used to describe wavelengths or frequencies within a given span of values for those quantities.		
Diagram			
Type	enumSpectralRange		
Properties	content: simple		
Facets	enumeration	CaK	A spectrum with a wavelength of range centered near 393.5 nm. VSO nickname: Ca-K image with range of 391.9 nm to 395.2 nm.
	enumeration	ExtremeUltraviolet	A spectrum with a wavelength range of 10.0 nm to 125.0nm. VSO nickname: EUV image with a range of of 10.0 nm to 125.0 nm
	enumeration	FarUltraviolet	A spectrum with a wavelength range of 122 nm to 200.0nm. VSO nickname: FUV image with a range of 122.0 nm to 200 nm
	enumeration	GammaRays	Photons with a wavelength range: 0.00001 to 0.001 nm
	enumeration	HalpHa	A spectrum with a wavelength range centered at 656.3 nm. VSO nickname: H-alpha image with a spectrum range of of 655.8 nm to 656.8 nm.
	enumeration	HardXrays	Photons with a wavelength range: 0.001 to 0.1 nm and an energy range of 12 keV to 120 keV
	enumeration	He10830	A spectrum with a wavelength range centered at 1082.9 nm. VSO nickname: He 10830 image with a range of 1082.5 nm to 1083.3 nm.
	enumeration	He304	A spectrum centered around the resonance line of ionised helium at 304 Angstrom (30.4 nm).
	enumeration	Infrared	Photons with a wavelength range: 760 to 1.00x10 ⁶ nm
	enumeration	K7699	A spectrum with a wavelength range centred at 769.9 nm. VSO nickname: K-7699 dopplergram with a range of 769.8 nm to 770.0 nm.
	enumeration	LBHBand	Lyman-Birge-Hopfield band in the far ultraviolet range with wavelength range of 140nm to 170 nm.
	enumeration	Microwave	Photons with a wavelength range: 1.00x10 ⁶ to 1.50x10 ⁷ nm
	enumeration	NaD	A spectrum with a wavelength range of centered at 589.3 nm. VSO nickname: Na-D image with a range of 588.8 nm to 589.8 nm.
	enumeration	Ni6768	A spectrum with a wavelength range centered at 676.8 nm. VSO nickname: Ni-6768 dopplergram with a range of of 676.7 nm to 676.9 nm.

	enumeration	Optical	Photons with a wavelength range: 380 to 760 nm
	enumeration	RadioFrequency	Photons with a wavelength range: 100,000 to 1.00x10 ¹¹ nm
	enumeration	SoftXRays	X-Rays with an energy range of 0.12 keV to 12 keV.
	enumeration	Ultraviolet	Photons with a wavelength range: 10 to 400 nm.
	enumeration	WhiteLight	Photons with a wavelength in the visible range for humans.
	enumeration	XRays	Photons with a wavelength range: 0.001 <= x < 10 nm
Used by	Complex Types	DisplayData, DisplayOutput, FrequencyRange, NumericalData, NumericalOutput, WavelengthRange	
Source	<pre><xsd:element name="SpectralRange" type="enumSpectralRange"> <xsd:annotation> <xsd:documentation xml:lang="en">The general term used to describe wavelengths or frequencies within a given span of values for those quantities.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element Low

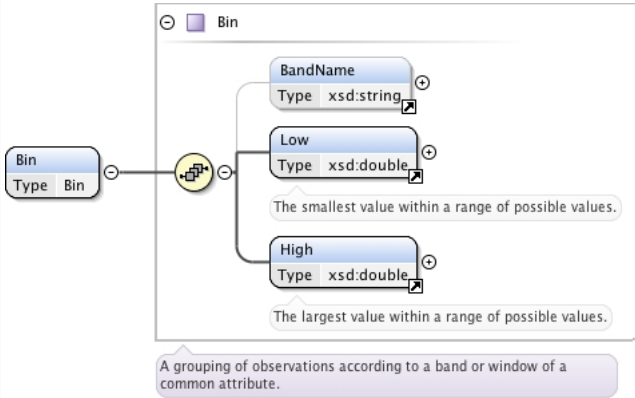
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	The smallest value within a range of possible values.		
Diagram			
Type	xsd:double		
Properties	content:	simple	
Used by	Complex Types	AzimuthalAngleRange, Bin, EnergyRange, FrequencyRange, PolarAngleRange, WavelengthRange	
Source	<pre><xsd:element name="Low" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The smallest value within a range of possible values.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element High

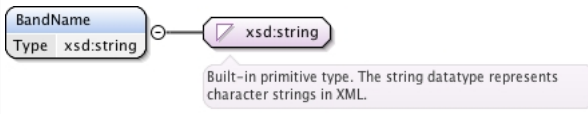
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	The largest value within a range of possible values.		
Diagram			
Type	xsd:double		
Properties	content:	simple	
Used by	Complex Types	AzimuthalAngleRange, Bin, EnergyRange, FrequencyRange, PolarAngleRange, WavelengthRange	
Source	<pre><xsd:element name="High" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The largest value within a range of possible values.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element Bin

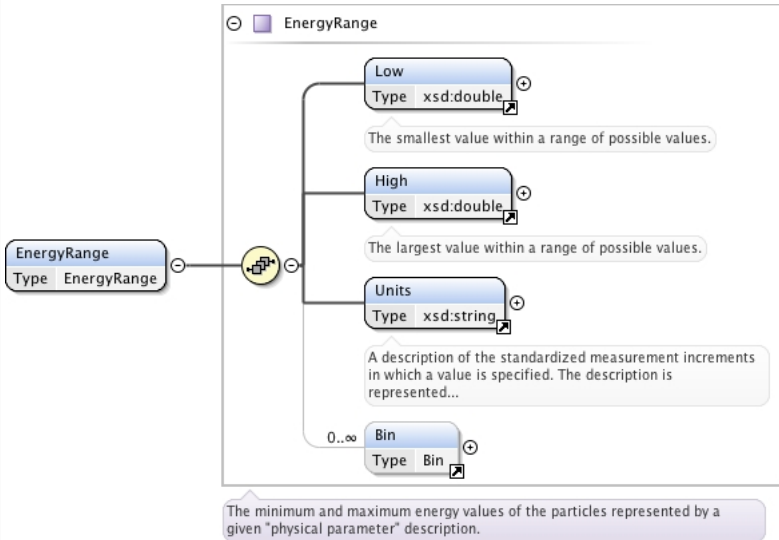
Namespace	http://impex-fp7.oeaw.ac.at		
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Diagram	
Type	Bin
Properties	content: complex
Used by	Complex Types AzimuthalAngleRange, EnergyRange, FrequencyRange, PolarAngleRange, WavelengthRange
Model	BandName{0,1} , Low , High
Children	BandName, High, Low
Instance	<pre><Bin xmlns="http://impex-fp7.oeaw.ac.at"> <BandName>{0,1}</BandName> <Low>{1,1}</Low> <High>{1,1}</High> </Bin></pre>
Source	<code><xsd:element name="Bin" type="Bin" /></code>

Element BandName

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Bin
Source	<code><xsd:element name="BandName" type="xsd:string" /></code>

Element EnergyRange

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	

Type	EnergyRange
Properties	content: complex
Used by	Complex Types Particle, Wave
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<pre><EnergyRange xmlns="http://impex-fp7.oeaw.ac.at"> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </EnergyRange></pre>
Source	<code><xsd:element name="EnergyRange" type="EnergyRange" /></code>

Element AzimuthalAngleRange

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	AzimuthalAngleRange
Properties	content: complex
Used by	Complex Type Particle
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<pre><AzimuthalAngleRange xmlns="http://impex-fp7.oeaw.ac.at"> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </AzimuthalAngleRange></pre>
Source	<code><xsd:element name="AzimuthalAngleRange" type="AzimuthalAngleRange" /></code>

Element PolarAngleRange

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	
Type	PolarAngleRange
Properties	content: complex
Used by	Complex Type Particle
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<pre><PolarAngleRange xmlns="http://impex-fp7.oeaw.ac.at"> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </PolarAngleRange></pre>
Source	<xsd:element name="PolarAngleRange" type="PolarAngleRange" />

Element wave

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	
Type	Wave
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ParameterEntity
Model	WaveType , Qualifier* , WaveQuantity , EnergyRange{0,1} , FrequencyRange{0,1} , WavelengthRange{0,1}
Children	EnergyRange, FrequencyRange, Qualifier, WaveQuantity, WaveType, WavelengthRange
Instance	<pre><Wave xmlns="http://impex-fp7.oeaw.ac.at"> <WaveType>{1,1}</WaveType> <Qualifier>{0,unbounded}</Qualifier> <WaveQuantity>{1,1}</WaveQuantity> <EnergyRange>{0,1}</EnergyRange> <FrequencyRange>{0,1}</FrequencyRange> <WavelengthRange>{0,1}</WavelengthRange> </Wave></pre>
Source	<xsd:element name="Wave" type="Wave" substitutionGroup="ParameterEntity"/>

Element WaveType

Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	A characterization of the carrier or phenomenon of wave information observed by the measurement.	
Diagram		
Type	enumWaveType	
Properties	content: simple	
Facets	enumeration	Electromagnetic Electric and magnetic field variations in time and space that propagate through a medium or a vacuum with the wave's propagation, electric field, and magnetic field vectors forming an orthogonal triad. Waves in this category

		are detected by having their field quantities measured.
enumeration	Electrostatic	Collective longitudinal electric-field and plasma oscillations trapped within a body of plasma.
enumeration	Hydrodynamic	Periodic or quasi-periodic oscillations of fluid quantities.
enumeration	MHD	Hydrodynamic waves in a magnetized plasma in which the background magnetic field plays a key role in controlling the wave propagation characteristics.
enumeration	Photon	Electromagnetic waves detected by techniques that utilize their corpuscular character (e.g., CCD, CMOS, photomultipliers).
enumeration	PlasmaWaves	Self-consistent collective oscillations of particles and fields (electric and magnetic) in a plasma.
Used by	Complex Type	Wave
Source	<pre><xsd:element name="WaveType" type="enumWaveType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the carrier or phenomenon of wave information observed by the measurement.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element WaveQuantity

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	A characterization of the physical properties of a wave.		
Diagram			
Type	enumWaveQuantity		
Properties	content:	simple	
Facets	enumeration	ACElectricField	Alternating electric field component of a wave.
	enumeration	ACMagneticField	Alternating magnetic field component of a wave.
	enumeration	Absorption	Decrease of radiant energy (relative to the background continuum spectrum).
	enumeration	Albedo	The ratio of reflected radiation from the surface to incident radiation upon it.
	enumeration	DopplerFrequency	Change in the frequency of a propagating wave due to motion of the source, the observer, the reflector, or the propagation medium.
	enumeration	Emissivity	The energy emitted spontaneously per unit bandwidth (typically frequency) per unit time per unit mass of source. Emissivity is usually integrated over all directions/solid angles.
	enumeration	EnergyFlux	The amount of energy passing through a unit area in a unit time.
	enumeration	EquivalentWidth	The spectral width of a total absorption line having the amount of absorbed radiant energy being equivalent to that in an observed absorption line.
	enumeration	Frequency	The number of occurrences of a repeating event per unit time.
	enumeration	Gyrofrequency	The number of gyrations around a magnetic guiding center (field line) a charged particle makes per unit time due to the Lorentz force.
	enumeration	Intensity	The measurement of radiant or wave energy per unit detector area per unit bandwidth per unit solid angle per unit time.

	enumeration	LineDepth	The measure of the amount of absorption below the continuum (depth) in a particular wavelength or frequency in an absorption spectrum.
	enumeration	MagneticField	A region of space near a magnetized body where magnetic forces can be detected (as measured by methods such as Zeeman splitting, etc.).
	enumeration	ModeAmplitude	In helioseismology the magnitude of oscillation of waves of a particular geometry.
	enumeration	PlasmaFrequency	A number-density-dependent characteristic frequency of a plasma.
	enumeration	Polarization	Direction of the electric vector of an electromagnetic wave. The wave can be linearly polarized in any direction perpendicular to the direction of travel, circularly polarized (clockwise or counterclockwise), unpolarized, or mixtures of the above.
	enumeration	PoyntingFlux	Electromagnetic energy flux transported by a wave characterized as the rate of energy transport per unit area per steradian.
	enumeration	PropagationTime	Time difference between transmission and reception of a wave in an active wave experiment.
	enumeration	StokesParameters	A set of four parameters (usually called I, Q, U and V) which describe the polarization state of an electromagnetic wave propagating through space.
	enumeration	Velocity	Rate of change of position. Also used for the average velocity of a collection of particles, also referred to as "bulk velocity".
	enumeration	Wavelength	The peak-to-peak distance over one wave period.
Used by	Complex Type	Wave	
Source	<pre><xsd:element name="WaveQuantity" type="enumWaveQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the physical properties of a wave.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element WavelengthRange

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	WavelengthRange

Properties	content: complex
Used by	Complex Type Wave
Model	SpectralRange{0,1} , Low , High , Units , Bin*
Children	Bin, High, Low, SpectralRange, Units
Instance	<pre><WavelengthRange xmlns="http://impex-fp7.oeaw.ac.at"> <SpectralRange>{0,1}</SpectralRange> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </WavelengthRange></pre>
Source	<xsd:element name="WavelengthRange" type="WavelengthRange"/>

Element Mixed

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Mixed
Properties	content: complex
Substitution Group Affiliation	• ParameterEntity
Model	MixedQuantity , ParticleType* , Qualifier*
Children	MixedQuantity, ParticleType, Qualifier
Instance	<pre><Mixed xmlns="http://impex-fp7.oeaw.ac.at"> <MixedQuantity>{1,1}</MixedQuantity> <ParticleType>{0,unbounded}</ParticleType> <Qualifier>{0,unbounded}</Qualifier> </Mixed></pre>
Source	<xsd:element name="Mixed" type="Mixed" substitutionGroup="ParameterEntity"/>

Element MixedQuantity

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A characterization of the combined attributes of a quantity.
Diagram	
Type	enumMixedQuantity

Properties	content:	simple	
Facets	enumeration	AkasofuEpsilon	A measure of the magnetopause energy flux and an indicator of the solar wind power available for subsequent magnetospheric energization. Defined as: $V \cdot B^2 \cdot l^2 \sin(\theta/2)^4$ where B is the IMF, l is an empirical scaling parameter equal to 7 RE, and $\theta = \tan(B_Y / B_Z)^{-1}$ the IMF clock angle.
	enumeration	AlfvenMachNumber	The ratio of the bulk flow speed to the Alfven speed.
	enumeration	AlfvenVelocity	Phase velocity of the Alfven wave; In SI units it is the velocity of the magnetic field divided by the square root of the mass density times the permeability of free space (μ).
	enumeration	FrequencyToGyrofrequencyRatio	The ratio of the characteristic frequency of a medium to gyrofrequency of a particle.
	enumeration	MagnetosonicMachNumber	The ratio of the velocity of fast mode waves to the Alfven velocity.
	enumeration	Other	Not classified with more specific terms. The context of its usage may be described in related text.
	enumeration	PlasmaBeta	The ratio of the plasma pressure (nkT) to the magnetic pressure ($B^2/2\mu_0$) of the $\text{SUM}(nkT) / (B^2/2\mu_0)$.
	enumeration	TotalPressure	In an MHD fluid it is the number density (N) times Boltzmann constant times the temperature in Kelvin.
	enumeration	VCrossB	The cross product of the charge velocity (V) and the magnetic field (B). It is the electric field exerted on a point charge by a magnetic field.
Used by	Complex Type	Mixed	
Source	<pre><xsd:element name="MixedQuantity" type="enumMixedQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the combined attributes of a quantity.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element ParticleType

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	A characterization of the kind of particle observed by the measurement.		
Diagram			
Type	enumParticleType		
Properties	content:	simple	
Facets	enumeration	Aerosol	A suspension of fine solid or liquid particles in a gas.
	enumeration	AlphaParticle	A positively charged nuclear particle that consists of two protons and two neutrons.
	enumeration	Atom	Matter consisting of a nucleus surrounded by electrons which has no net charge.
	enumeration	Dust	Free microscopic particles of solid material.
	enumeration	Electron	An elementary particle consisting of a charge of negative electricity equal to about 1.602×10^{-19} Coulomb and having a mass when at rest of about 9.109534×10^{-28} gram.
	enumeration	Ion	An atom that has acquired a net electric charge by gaining or losing one or more electrons. (Note: $Z > 2$)

	enumeration	Molecule	A group of atoms so united and combined by chemical affinity that they form a complete, integrated whole, being the smallest portion of any particular compound that can exist in a free state
	enumeration	Neutron	An elementary particle that has no net charge and is a constituent of atomic nuclei, and that has a mass slightly large than a proton (1.673 x 10 ⁻²⁴ gram.)
	enumeration	Proton	An elementary particle that is a constituent of all atomic nuclei, that carries a positive charge numerically equal to the charge of an electron, and that has a mass of 1.673 x 10 ⁻²⁴ gram.
Used by	Complex Types	InputPopulation, Mixed, Particle	
Source	<pre><xsd:element name="ParticleType" type="enumParticleType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the kind of particle observed by the measurement.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element Support

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Support
Properties	content: complex
Substitution Group Affiliation	• ParameterEntity
Model	Qualifier*, SupportQuantity
Children	Qualifier, SupportQuantity
Instance	<pre><Support xmlns="http://impex-fp7.oeaw.ac.at"> <Qualifier>{0,unbounded}</Qualifier> <SupportQuantity>{1,1}</SupportQuantity> </Support></pre>
Source	<pre><xsd:element name="Support" type="Support" substitutionGroup="ParameterEntity"/></pre>

Element SupportQuantity

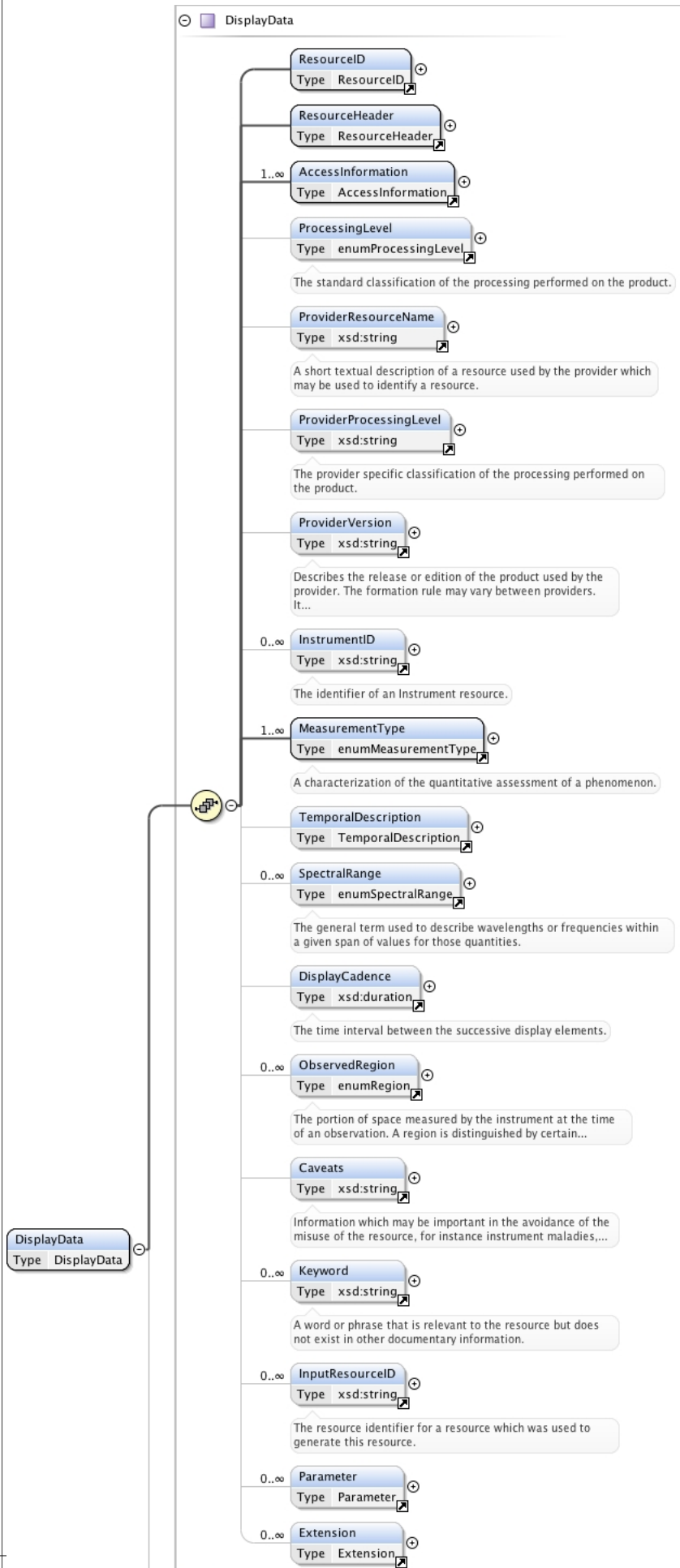
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A characterization of the support information.
Diagram	

Type	enumSupportQuantity		
Properties	content:	simple	
Facets	enumeration	InstrumentMode	An indication of a state (mode) in which the instrument is operating. How a mode influences the interpretation and representation of data is described in instrument related documentation.
	enumeration	Other	Not classified with more specific terms. The context of its usage may be described in related text.
	enumeration	Positional	The specification of the location of an object or measurement within a reference coordinate system. The position is usually expressed as a set of values corresponding to the location along a set of orthogonal axes together with the date/time of the observation.
	enumeration	Temporal	Pertaining to time.
	enumeration	Velocity	Rate of change of position. Also used for the average velocity of a collection of particles, also referred to as "bulk velocity".
Used by	Complex Type	Support	
Source	<pre><xsd:element name="SupportQuantity" type="enumSupportQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the support information.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element DisplayData

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	DisplayData
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , InstrumentID* , MeasurementType+ , TemporalDescription{0,1} , SpectralRange* , DisplayCadence{0,1} , ObservedRegion* , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , Extension*
Children	AccessInformation, Caveats, DisplayCadence, Extension, InputResourceID, InstrumentID, Keyword, MeasurementType, ObservedRegion, Parameter, ProcessingLevel, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SpectralRange, TemporalDescription
Instance	<pre><DisplayData xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessInformation>{1,unbounded}</AccessInformation> <ProcessingLevel>{0,1}</ProcessingLevel> <ProviderResourceName>{0,1}</ProviderResourceName> <ProviderProcessingLevel>{0,1}</ProviderProcessingLevel> <ProviderVersion>{0,1}</ProviderVersion> <InstrumentID>{0,unbounded}</InstrumentID> <MeasurementType>{1,unbounded}</MeasurementType> <TemporalDescription>{0,1}</TemporalDescription> <SpectralRange>{0,unbounded}</SpectralRange> <DisplayCadence>{0,1}</DisplayCadence> <ObservedRegion>{0,unbounded}</ObservedRegion> <Caveats>{0,1}</Caveats> <Keyword>{0,unbounded}</Keyword> <InputResourceID>{0,unbounded}</InputResourceID> <Parameter>{0,unbounded}</Parameter> <Extension>{0,unbounded}</Extension> </DisplayData></pre>
Source	<xsd:element name="DisplayData" type="DisplayData" substitutionGroup="ResourceEntity"/>

Element ProcessingLevel

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	The standard classification of the processing performed on the product.		
Diagram			
Type	enumProcessingLevel		
Properties	content:	simple	
Facets	enumeration	Calibrated	Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield data in physical units.
	enumeration	Raw	Data in its original state with no processing to account for calibration!!!
	enumeration	Uncalibrated	Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.
Used by	Complex Types	DisplayData, DisplayOutput, NumericalData, NumericalOutput	
Source	<pre><xsd:element name="ProcessingLevel" type="enumProcessingLevel"> <xsd:annotation> <xsd:documentation xml:lang="en">The standard classification of the processing performed on the product.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element ProviderProcessingLevel

Namespace	http://impex-fp7.oeaw.ac.at
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Annotations	The provider specific classification of the processing performed on the product.
Diagram	<p>The provider specific classification of the processing performed on the product.</p> <p>Built-in primitive type. The string datatype represents character strings in XML.</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Types DisplayData, DisplayOutput, NumericalData, NumericalOutput, SimulationRun
Source	<pre><xsd:element name="ProviderProcessingLevel" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The provider specific classification of the processing performed on the product.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element MeasurementType

Namespace	http://impex-fp7.oeaw.ac.at																							
Annotations	A characterization of the quantitative assessment of a phenomenon.																							
Diagram	<p>A characterization of the quantitative assessment of a phenomenon.</p> <p>Identifiers for the method of making an estimated value of a quantity that forms the basis of an observation.</p>																							
Type	enumMeasurementType																							
Properties	content:	simple																						
Facets	enumeration	<table border="1"> <tr> <td>Current</td> <td>Direct measurement of the electric curreny</td> </tr> <tr> <td>ActivityIndex</td> <td>An indication, derived from one or more measurements, of the level of activity of an object or region, such as sunspot number, F10.7 flux, Dst, or the Polar Cap Indices.</td> </tr> <tr> <td>Dopplergram</td> <td>A map or image depicting the spatial distribution of line-of-sight velocities of the observed object.</td> </tr> <tr> <td>Dust</td> <td>Free microscopic particles of solid material.</td> </tr> <tr> <td>ElectricField</td> <td>A region of space around a charged particle, or between two voltages within which a force is exerted on charged objects in its vicinity. An electric field is the electric force per unit charge.</td> </tr> <tr> <td>EnergeticParticles</td> <td>Pieces of matter that are moving very fast. Energetic particles include protons, electrons, neutrons, neutrinos, the nuclei of atoms, and other sub-atomic particles.</td> </tr> <tr> <td>Ephemeris</td> <td>The spatial coordinates of a body as a function of time. When used as an Instrument Type it represents the process or methods used to generate spatial coordinates.</td> </tr> <tr> <td>ImageIntensity</td> <td>Measurements of the two-dimensional distribution of the intensity of photons from some region or object such as the Sun or the polar auroral regions; can be in any wavelength band, and polarized, etc.</td> </tr> <tr> <td>InstrumentStatus</td> <td>A quantity directly related to the operation or function of an instrument.</td> </tr> <tr> <td>IonComposition</td> <td>In situ measurements of the relative flux or density of electrically charged particles in the space environment. May give simple fluxes, but full distribution functions are sometimes measured.</td> </tr> <tr> <td>Irradiance</td> <td>Irradiance - A radiometric term for the power of electromagnetic radiation at a surface,</td> </tr> </table>	Current	Direct measurement of the electric curreny	ActivityIndex	An indication, derived from one or more measurements, of the level of activity of an object or region, such as sunspot number, F10.7 flux, Dst, or the Polar Cap Indices.	Dopplergram	A map or image depicting the spatial distribution of line-of-sight velocities of the observed object.	Dust	Free microscopic particles of solid material.	ElectricField	A region of space around a charged particle, or between two voltages within which a force is exerted on charged objects in its vicinity. An electric field is the electric force per unit charge.	EnergeticParticles	Pieces of matter that are moving very fast. Energetic particles include protons, electrons, neutrons, neutrinos, the nuclei of atoms, and other sub-atomic particles.	Ephemeris	The spatial coordinates of a body as a function of time. When used as an Instrument Type it represents the process or methods used to generate spatial coordinates.	ImageIntensity	Measurements of the two-dimensional distribution of the intensity of photons from some region or object such as the Sun or the polar auroral regions; can be in any wavelength band, and polarized, etc.	InstrumentStatus	A quantity directly related to the operation or function of an instrument.	IonComposition	In situ measurements of the relative flux or density of electrically charged particles in the space environment. May give simple fluxes, but full distribution functions are sometimes measured.	Irradiance	Irradiance - A radiometric term for the power of electromagnetic radiation at a surface,
Current	Direct measurement of the electric curreny																							
ActivityIndex	An indication, derived from one or more measurements, of the level of activity of an object or region, such as sunspot number, F10.7 flux, Dst, or the Polar Cap Indices.																							
Dopplergram	A map or image depicting the spatial distribution of line-of-sight velocities of the observed object.																							
Dust	Free microscopic particles of solid material.																							
ElectricField	A region of space around a charged particle, or between two voltages within which a force is exerted on charged objects in its vicinity. An electric field is the electric force per unit charge.																							
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InstrumentStatus	A quantity directly related to the operation or function of an instrument.																							
IonComposition	In situ measurements of the relative flux or density of electrically charged particles in the space environment. May give simple fluxes, but full distribution functions are sometimes measured.																							
Irradiance	Irradiance - A radiometric term for the power of electromagnetic radiation at a surface,																							

		per unit area. "Irradiance" is used when the electromagnetic radiation is incident on the surface. Irradiance data may be reported in any units (i.e. counts/s) due to, for example, being at a particular wavelength, or to being a not-fully-calibrated relative measurement.
enumeration	MagneticField	A region of space near a magnetized body where magnetic forces can be detected (as measured by methods such as Zeeman splitting, etc.).
enumeration	Magnetogram	Measurements of the vector or line-of-sight magnetic field determined from remote sensing measurements of the detailed structure of spectral lines, including their splitting and polarization. ("Magnetogram.")
enumeration	NeutralAtomImages	Measurements of neutral atom fluxes as a function of look direction; often related to remote energetic charged particles that lose their charge through charge-exchange and then reach the detector on a line-of-sight trajectory.
enumeration	NeutralGas	Measurements of neutral atomic and molecular components of a gas.
enumeration	Profile	Measurements of a quantity as a function of height above an object such as the limb of a body.
enumeration	Radiance	A radiometric measurement that describes the amount of electromagnetic radiation that passes through or is emitted from a particular area, and falls within a given solid angle in a specified direction. They are used to characterize both emission from diffuse sources and reflection from diffuse surfaces.
enumeration	Spectrum	The distribution of a characteristic of a physical system or phenomenon, such as the energy emitted by a radiant source, arranged in the order of wavelengths.
enumeration	ThermalPlasma	Measurements of the plasma in the energy regime where the most of the plasma occurs. May be the basic fluxes in the form of distribution functions or the derived bulk parameters (density, flow velocity, etc.).
enumeration	Waves	Data resulting from observations of wave experiments and natural wave phenomena. Wave experiments are typically active and natural wave phenomena are passive. Examples of wave experiments include coherent/incoherent scatter radars, radio soundings, VLF propagation studies, ionospheric scintillation of beacon satellite signals, etc. Examples of natural wave phenomena include micropulsations, mesospheric gravity waves, auroral/plasmaspheric hiss, Langmuir waves, AKR, Jovian decametric radiation, solar radio bursts, etc.
enumeration	Waves.Active	Exerting an influence or producing a change or effect. An active measurement is one which produces a transmission or excitation as a part of the measurement cycle.
enumeration	Waves.Passive	Movement or effect produced by outside influence. A passive measurement is one which does not produce a transmission or excitation as a part of the measurement cycle.
Used by	Complex Types	DisplayData, DisplayOutput, NumericalData, NumericalOutput
Source	<pre><xsd:element name="MeasurementType" type="enumMeasurementType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the quantitative assessment of a phenomenon.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element TemporalDescription

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	
Type	TemporalDescription
Properties	content: complex
Used by	Complex Types DisplayData, DisplayOutput, NumericalData, NumericalOutput
Model	TimeSpan , Cadence{0,1} , Exposure{0,1}
Children	Cadence, Exposure, TimeSpan
Instance	<pre><TemporalDescription xmlns="http://impex-fp7.oeaw.ac.at"> <TimeSpan>{1,1}</TimeSpan> <Cadence>{0,1}</Cadence> <Exposure>{0,1}</Exposure> </TemporalDescription></pre>
Source	<code><xsd:element name="TemporalDescription" type="TemporalDescription"/></code>

Element Exposure

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The time interval over which an individual measurement is taken.
Diagram	
Type	xsd:duration
Properties	content: simple
Used by	Complex Type TemporalDescription
Source	<pre><xsd:element name="Exposure" type="xsd:duration"> <xsd:annotation> <xsd:documentation xml:lang="en">The time interval over which an individual measurement is taken.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element DisplayCadence

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The time interval between the successive display elements.
Diagram	
Type	xsd:duration
Properties	content: simple
Used by	Complex Types DisplayData, DisplayOutput

Source	<pre><xsd:element name="DisplayCadence" type="xsd:duration"> <xsd:annotation> <xsd:documentation xml:lang="en">The time interval between the successive display elements.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>
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Element ObservedRegion

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	The portion of space measured by the instrument at the time of an observation. A region is distinguished by certain natural features or physical characteristics. It is the location of the observatory for in situ data, the location or region sensed by remote sensing observatories and the location-of-relevance for parameters that are derived from observational data.		
Diagram			
Type	enumRegion		
Properties	content:	simple	
Facets	enumeration	Asteroid	A small extraterrestrial body consisting mostly of rock and metal that is in orbit around the sun.
	enumeration	Comet	A relatively small extraterrestrial body consisting of a frozen mass that travels around the sun in a highly elliptical orbit.
	enumeration	Earth	The third planet from the sun in our solar system.
	enumeration	Earth.Magnetosheath	The region between the bow shock and the magnetopause, characterized by very turbulent plasma.
	enumeration	Earth.Magnetosphere	The region of space above the atmosphere or surface of the planet, and bounded by the magnetopause, that is under the direct influence of the planet's magnetic field.
	enumeration	Earth.Magnetosphere.Magnetotail	The region on the night side of the body where the magnetic field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re (X > -10Re).
	enumeration	Earth.Magnetosphere.Main	The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.
	enumeration	Earth.Magnetosphere.Polar	The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the auroral zone.
	enumeration	Earth.Magnetosphere.RadiationBelt	The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.
	enumeration	Earth.NearSurface	The gaseous and possibly ionized environment of a body extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.
	enumeration	Earth.NearSurface.Atmosphere	The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.
	enumeration	Earth.NearSurface.AuroralOrb	The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.

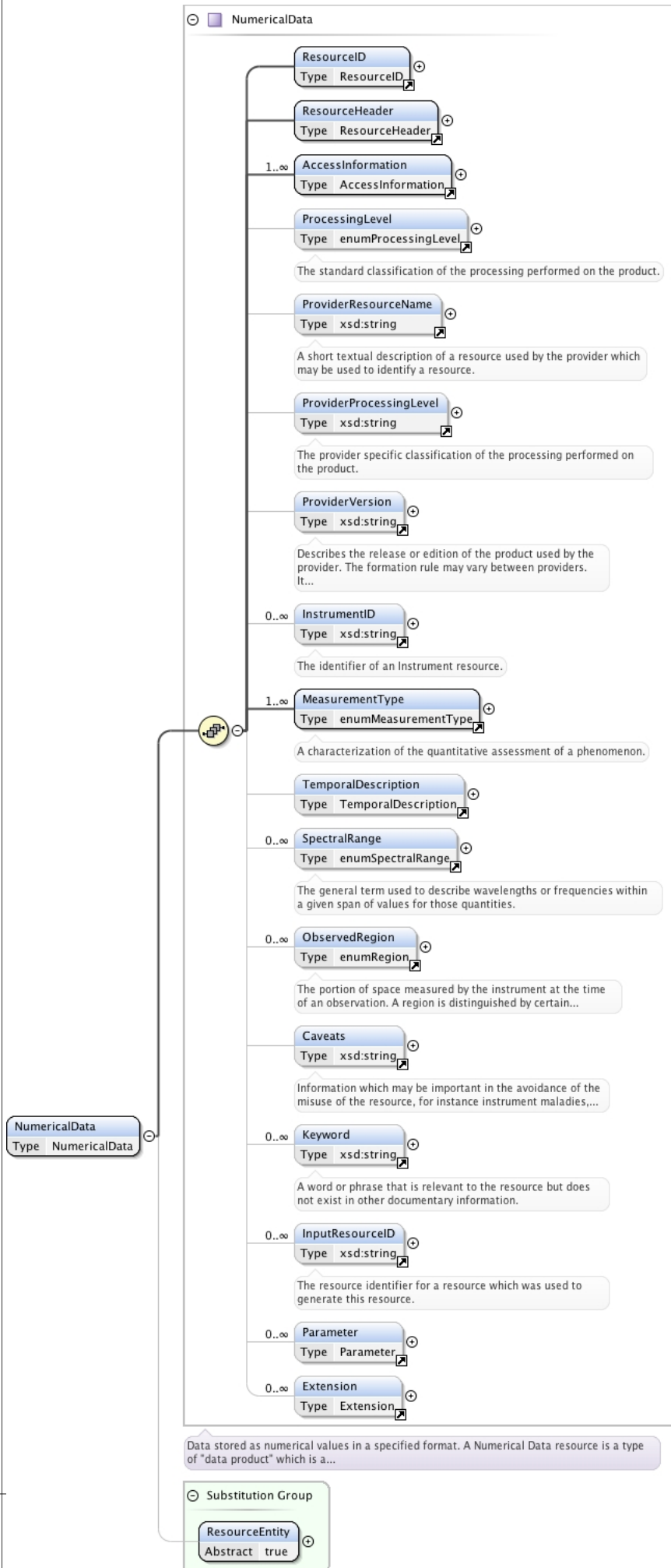
enumeration	Earth.NearSurface.EquatorialRegion	A Region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.
enumeration	Earth.NearSurface.Ionosphere	The charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction.
enumeration	Earth.NearSurface.Ionosphere.DRegion	The D Region of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
enumeration	Earth.NearSurface.Ionosphere.ERegion	The E Region of ionized gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the Kennelly-Heaviside layer.
enumeration	Earth.NearSurface.Ionosphere.FRegion	The F Region contains ionized gases at a height of around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.
enumeration	Earth.NearSurface.Ionosphere.HRegion	The H Region at the upper most areas of the ionosphere.
enumeration	Earth.NearSurface.Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	Earth.NearSurface.Plasmasphere	The region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the plasmopause, which is defined by an order of magnitude drop in plasma density.
enumeration	Earth.NearSurface.PolarCap	The areas of the globe surrounding the poles and consisting of the region north of 60 degrees north latitude and the region south of 60 degrees south latitude.
enumeration	Earth.NearSurface.SouthAtlanticAnomalyRegion	The South Atlantic Anomaly Region Earth's inner van Allen radiation belt makes its closest approach to the planet's surface. The result is that, for a given altitude, the radiation intensity is higher over this region than elsewhere.
enumeration	Earth.NearSurface.Stratosphere	The layer of the atmosphere that extends from the troposphere to about 30 km, temperature increases with height. The stratosphere contains the ozone layer.
enumeration	Earth.NearSurface.Thermosphere	The layer of the atmosphere that extends from the Mesosphere to 640+ km, temperature increasing with height.
enumeration	Earth.NearSurface.Troposphere	The lowest layer of the atmosphere which begins at the surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with some variation due to weather factors.
enumeration	Earth.Surface	The outermost area of a solid object.
enumeration	Heliosphere	The solar atmosphere extending roughly from the outer corona to the edge of the solar plasma at the heliopause separating primarily solar plasma from interstellar plasma.
enumeration	Heliosphere.Heliosheath	The region extending radially outward from the heliospheric termination shock and in which the decelerated solar wind plasma is still significant.
enumeration	Heliosphere.Inner	The region of the heliosphere extending radially outward from the solar coronal base to just inside 1 AU.
enumeration	Heliosphere.NearEarth	The heliospheric region near the Earth which extends to and includes the area near the L1 and L2 Lagrange point.
enumeration	Heliosphere.Outer	The region of the heliosphere extending radially

		outward from just outside 1 AU to the heliospheric termination shock.
enumeration	Heliosphere.RemotelAU	A roughly toroidal region that includes the Earth's orbit, but exclusive of the region near the Earth.
enumeration	Interstellar	The region between stars outside of the star's heliopause.
enumeration	Jupiter	The fifth planet from the sun in our solar system.
enumeration	Mars	The fourth planet from the sun in our solar system.
enumeration	Mercury	The first planet from the sun in our solar system.
enumeration	Neptune	The seventh planet from the sun in our solar system.
enumeration	Pluto	The ninth (sub)planet from the sun in our solar system.
enumeration	Saturn	The sixth planet from the sun in our solar system.
enumeration	Sun	The star upon which our solar system is centered.
enumeration	Sun.Chromosphere	The region of the Sun's (or a star's) atmosphere above the temperature minimum and below the Transition Region. The solar chromosphere is approximately 400 km to 2100 km above the photosphere, and characterized by temperatures from 4500 - 28000 K.
enumeration	Sun.Corona	The outermost atmospheric region of the Sun or a star, characterized by ionization temperatures above 10 ⁵ K. The solar corona starts at about 2100 km above the photosphere; there is no generally defined upper limit.
enumeration	Sun.Interior	The region inside the body which is not visible from outside the body.
enumeration	Sun.Photosphere	The atmospheric layer of the Sun or a star from which continuum radiation, especially optical, is emitted to space. For the Sun, the photosphere is about 500 km thick.
enumeration	Sun.TransitionRegion	A very narrow (<100 km) layer between the chromosphere and the corona where the temperature rises abruptly from about 8000 to about 500,000 K.
enumeration	Uranus	The eighth planet from the sun in our solar system.
enumeration	Venus	The second planet from the sun in our solar system.
Used by	Complex Types	DisplayData, NumericalData, ObservationExtent
Source	<pre><xsd:element name="ObservedRegion" type="enumRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">The portion of space measured by the instrument at the time of an observation. A region is distinguished by certain natural features or physical characteristics. It is the location of the observatory for in situ data, the location or region sensed by remote sensing observatories and the location-of-relevance for parameters that are derived from observational data.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element NumericalData

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram

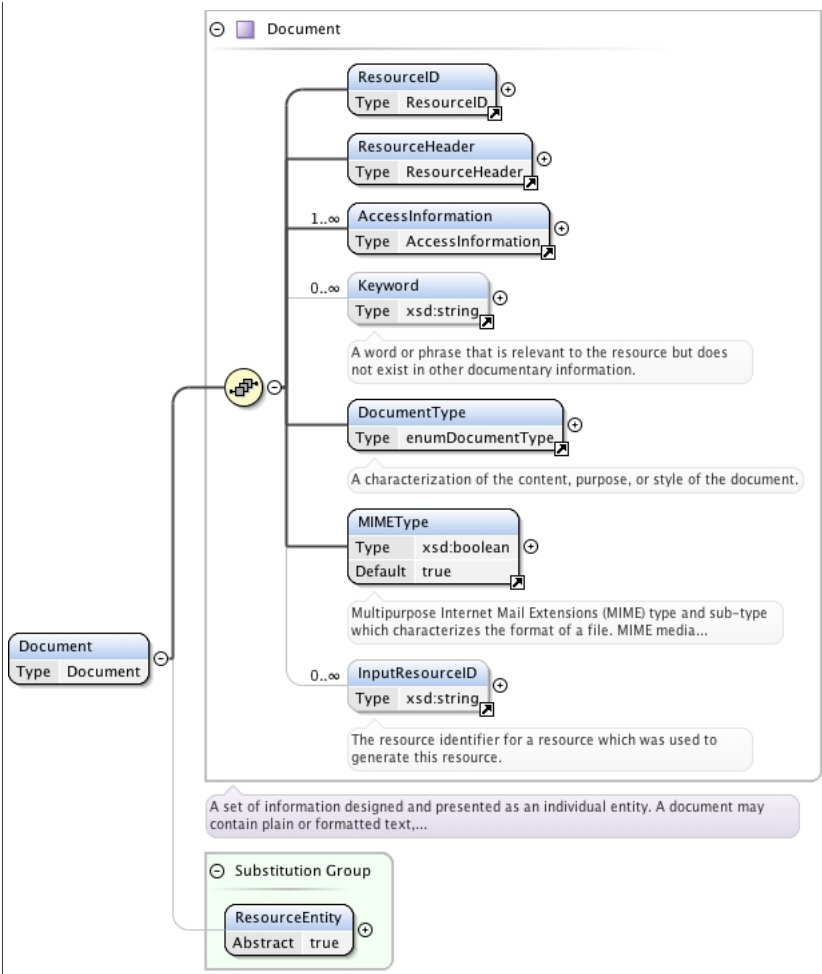


Type	NumericalData
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , InstrumentID* , MeasurementType+ , TemporalDescription{0,1} , SpectralRange* , ObservedRegion* , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , Extension*
Children	AccessInformation, Caveats, Extension, InputResourceID, InstrumentID, Keyword, MeasurementType, ObservedRegion, Parameter, ProcessingLevel, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SpectralRange, TemporalDescription
Instance	<pre><NumericalData xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessInformation>{1,unbounded}</AccessInformation> <ProcessingLevel>{0,1}</ProcessingLevel> <ProviderResourceName>{0,1}</ProviderResourceName> <ProviderProcessingLevel>{0,1}</ProviderProcessingLevel> <ProviderVersion>{0,1}</ProviderVersion> <InstrumentID>{0,unbounded}</InstrumentID> <MeasurementType>{1,unbounded}</MeasurementType> <TemporalDescription>{0,1}</TemporalDescription> <SpectralRange>{0,unbounded}</SpectralRange> <ObservedRegion>{0,unbounded}</ObservedRegion> <Caveats>{0,1}</Caveats> <Keyword>{0,unbounded}</Keyword> <InputResourceID>{0,unbounded}</InputResourceID> <Parameter>{0,unbounded}</Parameter> <Extension>{0,unbounded}</Extension> </NumericalData></pre>
Source	<xsd:element name="NumericalData" type="NumericalData" substitutionGroup="ResourceEntity"/>

Element Document

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	Document
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , AccessInformation+ , Keyword* , DocumentType , MIMETYPE , InputResourceID*
Children	AccessInformation, DocumentType, InputResourceID, Keyword, MIMETYPE, ResourceHeader, ResourceID
Instance	<pre><Document xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessInformation>{1,unbounded}</AccessInformation> <Keyword>{0,unbounded}</Keyword> <DocumentType>{1,1}</DocumentType> <MIMETYPE>{1,1}</MIMETYPE> <InputResourceID>{0,unbounded}</InputResourceID> </Document></pre>
Source	<xsd:element name="Document" type="Document" substitutionGroup="ResourceEntity"/>

Element DocumentType

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A characterization of the content, purpose, or style of the document.
Diagram	
Type	enumDocumentType

Properties	content:	simple	
Facets	enumeration	Other	
	enumeration	Poster	A set of information arranged on a single page or sheet, typically in a large format.
	enumeration	Presentation	A set of information that is used when communicating to an audience.
	enumeration	Report	A document which describes the findings of some individual or group.
	enumeration	Specification	A detailed description of the requirements and other aspects of an object or component that may be used to develop an implementation.
	enumeration	TechnicalNote	A document summarizing the performance and other technical characteristics of a product, machine, component, subsystem or software in sufficient detail to be used by an engineer or researcher.
	enumeration	WhitePaper	An authoritative report giving information or proposals on an issue.
Used by	Complex Type	Document	
Source	<pre><xsd:element name="DocumentType" type="enumDocumentType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the content, purpose, or style of the document.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element MIMETYPE

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	<p>Multipurpose Internet Mail Extensions (MIME) type and sub-type which characterizes the format of a file. MIME media types are define in RFC memorandum RFC 2046. Current MIME types are maintained by Internet Assigned Numbers Authority (IANA) at http://www.iana.org/assignments/media-types/index.html. Commonly used MIME types are: application/vnd.ms-powerpoint (ppt, pptx), application/vnd.ms-excel (xls, xlsx), text/richtext (rtx), application/postscript (eps, ps), application/pdf (pdf), application/xml-dtd (dtd), text/html (htm, html), text/xml (xsl, xml, xsd), application/x-dvi (dvi). If a document is compressed the specified MIME type should be for the uncompressed document.</p>		
Diagram	<p>The diagram illustrates the MIMETYPE element and its relationship to the xsd:boolean primitive type. The MIMETYPE element is shown with Type xsd:boolean and Default true. A callout box explains that xsd:boolean is a built-in primitive type defining true and false values.</p>		
Type	xsd:boolean		
Properties	content:	simple	
	default:	true	
Used by	Complex Type	Document	
Source	<pre><xsd:element name="MIMETYPE" type="xsd:boolean" default="true"> <xsd:annotation> <xsd:documentation xml:lang="en">Multipurpose Internet Mail Extensions (MIME) type and sub-type which characterizes the format of a file. MIME media types are define in RFC memorandum RFC 2046. Current MIME types are maintained by Internet Assigned Numbers Authority (IANA) at http://www.iana.org/assignments/media-types/index.html. Commonly used MIME types are: application/vnd.ms-powerpoint (ppt, pptx), application/vnd.ms-excel (xls, xlsx), text/richtext (rtx), application/postscript (eps, ps), application/pdf (pdf), application/xml-dtd (dtd), text/html (htm, html), text/xml (xsl, xml, xsd), application/x-dvi (dvi). If a document is compressed the specified MIME type should be for the uncompressed document.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element Source

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Source
Properties	content: complex
Used by	Complex Type Granule
Model	SourceType , URL , MirrorURL* , Checksum{0,1} , DataExtent{0,1}
Children	Checksum, DataExtent, MirrorURL, SourceType, URL
Instance	<pre><Source xmlns="http://impex-fp7.oeaw.ac.at"> <SourceType>{1,1}</SourceType> <URL>{1,1}</URL> <MirrorURL>{0,unbounded}</MirrorURL> <Checksum>{0,1}</Checksum> <DataExtent>{0,1}</DataExtent> </Source></pre>
Source	<xsd:element name="Source" type="Source"/>

Element SourceType

Namespace	http://impex-fp7.oeaw.ac.at									
Annotations	A characterization of the function or purpose of the source.									
Diagram										
Type	enumSourceType									
Properties	content: simple									
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Ancillary</td> <td>A complementary item which can be subordinate, subsidiary, auxiliary, supplementary to the primary item.</td> </tr> <tr> <td>enumeration</td> <td>Browse</td> <td>A representation of an image which is suitable to reveal most or all of the details of the image.</td> </tr> <tr> <td>enumeration</td> <td>Data</td> <td>A collection of organized information, usually the results of experience, observation or experiment, or a set of premises. This may consist of numbers, words, or images, particularly as measurements or observations of a set of</td> </tr> </table>	enumeration	Ancillary	A complementary item which can be subordinate, subsidiary, auxiliary, supplementary to the primary item.	enumeration	Browse	A representation of an image which is suitable to reveal most or all of the details of the image.	enumeration	Data	A collection of organized information, usually the results of experience, observation or experiment, or a set of premises. This may consist of numbers, words, or images, particularly as measurements or observations of a set of
enumeration	Ancillary	A complementary item which can be subordinate, subsidiary, auxiliary, supplementary to the primary item.								
enumeration	Browse	A representation of an image which is suitable to reveal most or all of the details of the image.								
enumeration	Data	A collection of organized information, usually the results of experience, observation or experiment, or a set of premises. This may consist of numbers, words, or images, particularly as measurements or observations of a set of								

			variables.
	enumeration	Layout	The structured arrangement of items in a collection.
	enumeration	Thumbnail	A small representation of an image which is suitable to infer what the full-sized imaged is like.
Used by	Complex Type	Source	
Source	<pre><xsd:element name="SourceType" type="enumSourceType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the function or purpose of the source.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element MirrorURL

Namespace	http://impex-fp7.oew.ac.at		
Annotations	A Uniform Resource Locator (URL) to an alternate location of a resource.		
Diagram			
Type	xsd:string		
Properties	content:	simple	
Used by	Complex Type	Source	
Source	<pre><xsd:element name="MirrorURL" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A Uniform Resource Locator (URL) to an alternate location of a resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element Checksum

Namespace	http://impex-fp7.oew.ac.at		
Diagram			
Type	Checksum		
Properties	content:	complex	
Used by	Complex Type	Source	
Model	HashValue , HashFunction		
Children	HashFunction, HashValue		
Instance	<pre><Checksum xmlns="http://impex-fp7.oew.ac.at"> <HashValue>{1,1}</HashValue> <HashFunction>{1,1}</HashFunction> </Checksum></pre>		
Source	<pre><xsd:element name="Checksum" type="Checksum" /></pre>		

Element HashValue

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The value calculated by a hash function, e.g. the message digest of a digital data object.
Diagram	<p>The diagram shows a box for 'HashValue' with 'Type xsd:string' below it. A line connects this box to a box for 'xsd:string'. A callout bubble for 'xsd:string' contains the text: 'Built-in primitive type. The string datatype represents character strings in XML.' Another callout bubble for 'HashValue' contains the text: 'The value calculated by a hash function, e.g. the message digest of a digital data object.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type Checksum
Source	<pre><xsd:element name="HashValue" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The value calculated by a hash function, e.g. the message digest of a digital data object.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

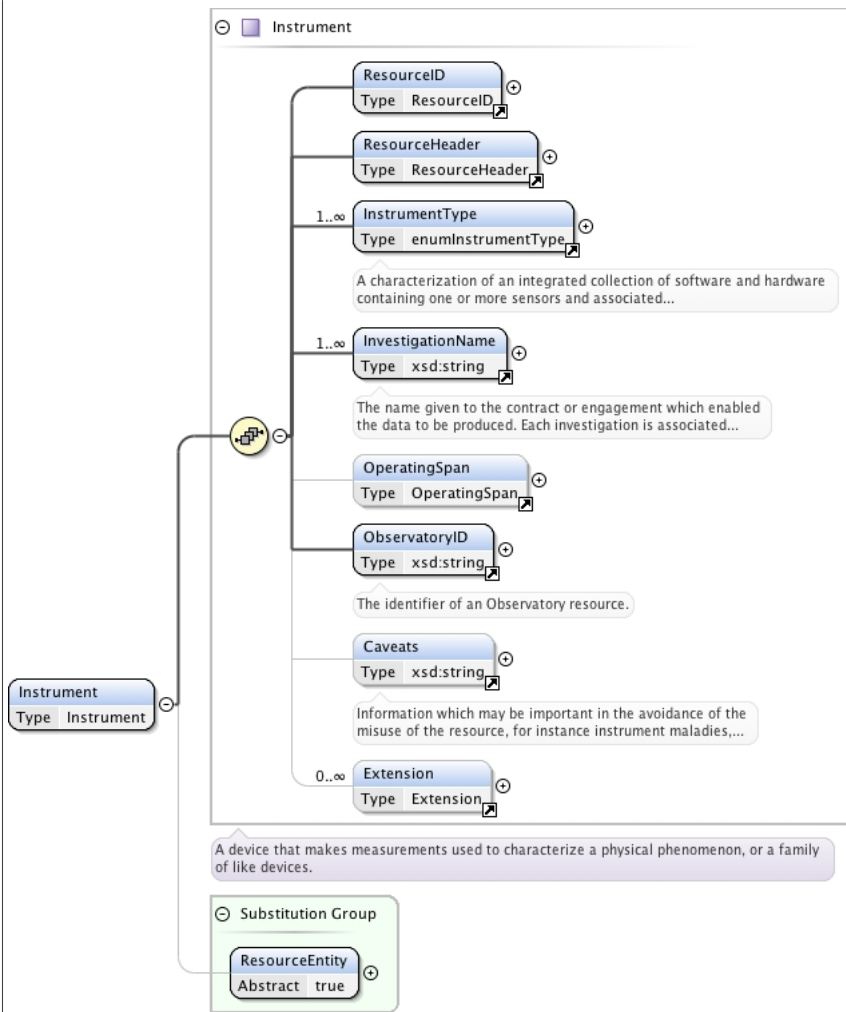
Element HashFunction

Namespace	http://impex-fp7.oeaw.ac.at									
Annotations	A function or algorithm that converts a digital data object into a hash value. Typically the hash value is small and concise when compared to the digital data object.									
Diagram	<p>The diagram shows a box for 'HashFunction' with 'Type enumHashFunction' below it. A line connects this box to a box for 'enumHashFunction'. A callout bubble for 'enumHashFunction' contains the text: 'Identifiers for functions or algorithms that convert a digital data object into a hash value.' Another callout bubble for 'HashFunction' contains the text: 'A function or algorithm that converts a digital data object into a hash value. Typically the hash value is small and...'.</p>									
Type	enumHashFunction									
Properties	content: simple									
Facets	<table border="1"> <tr> <td>enumeration</td> <td>MD5</td> <td>Message Digest 5 (MD5) is a 128-bit message digest algorithm created in 1991 by Professor Ronald Rivest.</td> </tr> <tr> <td>enumeration</td> <td>SHA1</td> <td>Secure Hash Algorithm (SHA), a 160-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.</td> </tr> <tr> <td>enumeration</td> <td>SHA256</td> <td>Secure Hash Algorithm (SHA), a 256-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.</td> </tr> </table>	enumeration	MD5	Message Digest 5 (MD5) is a 128-bit message digest algorithm created in 1991 by Professor Ronald Rivest.	enumeration	SHA1	Secure Hash Algorithm (SHA), a 160-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.	enumeration	SHA256	Secure Hash Algorithm (SHA), a 256-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.
enumeration	MD5	Message Digest 5 (MD5) is a 128-bit message digest algorithm created in 1991 by Professor Ronald Rivest.								
enumeration	SHA1	Secure Hash Algorithm (SHA), a 160-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.								
enumeration	SHA256	Secure Hash Algorithm (SHA), a 256-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.								
Used by	Complex Type Checksum									
Source	<pre><xsd:element name="HashFunction" type="enumHashFunction"> <xsd:annotation> <xsd:documentation xml:lang="en">A function or algorithm that converts a digital data object into a hash value. Typically the hash value is small and concise when compared to the digital data object.</xsd:documentation> </xsd:annotation> </xsd:element></pre>									

Element Instrument

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	Instrument
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , InstrumentType+ , InvestigationName+ , OperatingSpan{0,1} , ObservatoryID , Caveats{0,1} , Extension*
Children	Caveats, Extension, InstrumentType, InvestigationName, ObservatoryID, OperatingSpan, ResourceHeader, ResourceID
Instance	<pre><Instrument xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <InstrumentType>{1,unbounded}</InstrumentType> <InvestigationName>{1,unbounded}</InvestigationName> <OperatingSpan>{0,1}</OperatingSpan> <ObservatoryID>{1,1}</ObservatoryID> <Caveats>{0,1}</Caveats> <Extension>{0,unbounded}</Extension> </Instrument></pre>
Source	<xsd:element name="Instrument" type="Instrument" substitutionGroup="ResourceEntity"/>

Element InstrumentType

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A characterization of an integrated collection of software and hardware containing one or more sensors and associated controls used to produce data on an environment.

Diagram			
Type	enumInstrumentType		
Properties	content:	simple	
Facets	enumeration	<p>Antenna</p> <p>Channeltron</p> <p>Coronagraph</p> <p>DoubleSphere</p> <p>DustDetector</p> <p>ElectronDriftInstrument</p> <p>ElectrostaticAnalyser</p> <p>EnergeticParticleInstrument</p> <p>FaradayCup</p> <p>FluxFeedback</p> <p>FourierTransformSpectrograph</p> <p>GeigerMuellerTube</p> <p>Imager</p> <p>ImagingSpectrometer</p> <p>Interferometer</p> <p>IonChamber</p> <p>IonDrift</p>	<p>A sensor used to measure electric potential.</p> <p>An instrument that detects electrons, ions, and UV-radiation, according to the principle of a secondary emission multiplier. It is typically used in electron spectroscopy and mass spectrometry.</p> <p>An instrument which can image things very close to the Sun by using a disk to block the Sun's bright corona which reveals the faint solar corona and other celestial objects.</p> <p>A dipole antenna of which the active (sensor) elements are small spheres located at the ends of two wires deployed in the equatorial plane, on opposite sides of a spinning spacecraft.</p> <p>An instrument which determines the mass and speed of ambient dust particles.</p> <p>An active experiment to measure the electron drift velocity based on sensing the displacement of a weak beam of electrons after one gyration in the ambient magnetic field.</p> <p>An instrument which uses charged plates to analyze the mass, charge and kinetic energies of charged particles which enter the instrument.</p> <p>An instrument that measures fluxes of charged particles as a function of time, direction of motion, mass, charge and/or species.</p> <p>An instrument consisting of an electrode from which electrical current is measured while a charged particle beam (electrons or ions) impinges on it. Used to determine energy spectrum and sometimes ion composition of the impinging particles.</p> <p>A search coil whose bandwidth and signal/noise ratio are increased by the application of negative feedback at the sensor (flux) level by driving a collocated coil with a signal from the preamplifier.</p> <p>An instrument that determines the spectra of a radiative source, using time-domain measurements and a Fourier transform.</p> <p>An instrument which measures density of ionizing radiation based on interactions with a gas.</p> <p>An instrument which samples the radiation from an area at one or more spectral ranges emitted or reflected by an object.</p> <p>An instrument which is a multispectral scanner with a very large number of channels (64-256 channels) with very narrow band widths.</p> <p>An instrument to study the properties of two or more waves from the pattern of interference created by their superposition.</p> <p>A device in which the collected electrical charge from ionization in a gas-filled cavity is taken to be the proportion to some parameter (e.g. dose or exposure) of radiation field</p> <p>A device which measures the current produced by the displacement of ambient ions on a grid, thereby allowing the determination of the ion trajectory and velocity.</p>

enumeration	LangmuirProbe	A monopole antenna associated with an instrument. The instrument applies a potential to the antenna which is swept to determine the voltage/current characteristic. This provides information about the plasma surrounding the probe and spacecraft.
enumeration	LongWire	A dipole antenna whose active (sensor) elements are two wires deployed in the equatorial plane on opposite sides of a spinning spacecraft, and whose length is several times greater than the spacecraft diameter.
enumeration	Magnetometer	An instrument which measures the ambient magnetic field.
enumeration	MassSpectrometer	An instrument which distinguishes chemical species in terms of their different isotopic masses.
enumeration	MicrochannelPlate	An instrument used for the detection of elementary particles, ions, ultraviolet rays and soft X-rays constructed from very thin conductive glass capillaries.
enumeration	MultispectralImager	An instrument which captures images at multiple spectral ranges.
enumeration	NeutralAtomImager	An instrument which measures the quantity and properties of neutral particles over a range of angles. Measured properties can include mass and energy.
enumeration	NeutralParticleDetector	An instrument which measures the quantity and properties of neutral particles. Measured properties can include mass and plasma bulk densities.
enumeration	ParticleCorrelator	An instrument which correlates particle flux to help identify wave/particle interactions.
enumeration	ParticleDetector	An instrument which detects particle flux!!!
enumeration	Photometer	An instrument which measures the strength of electromagnetic radiation within a spectral band which can range from ultraviolet to infrared and includes the visible spectrum.
enumeration	Photopolarimeter	An instrument which measures the intensity and polarization or radiant energy. A photopolarimeter is a combination of a photometer and a polarimeter.
enumeration	Platform	A collection of components which can be positioned and oriented as a single unit. A platform may contain other platforms. For example, a spacecraft is a platform which may have components that can be articulated and are also considered platforms.
enumeration	ProportionalCounter	An instrument which measures energy of ionization radiation based on interactions with a gas.
enumeration	QuadrisphericalAnalyser	An instrument used for the 3-D detection of plasma, energetic electrons and ions, and for positive-ion composition measurements.
enumeration	Radar	An instrument that uses directional properties of returned power to infer spatial and/or other characteristics of a remote object.
enumeration	Radiometer	An instrument for detecting or measuring radiant energy. Radiometers are commonly limited to infrared radiation.
enumeration	ResonanceSounder	A combination of a radio receiver and a pulsed transmitter used to study the plasma surrounding a spacecraft by identifying resonances or cut-offs (of the wave dispersion relation), whose frequencies are related to the ambient plasma density and magnetic field. When the transmitter is off it is essentially a high frequency-resolution spectral power receiver.
enumeration	RetardingPotentialAnalyser	An instrument which measures ion temperatures and ion concentrations using a planar ion

		trap.
enumeration	Riometer	An instrument which measure the signal strength in various directions of the galactic radio signals. Variations in these signals are influenced by solar flare activity and geomagnetic storm and substorm processes.
enumeration	ScintillationDetector	An instrument which detects flourescences of a material which is excited by high energy (ionizing) electromagnetic or charged particle radiation.
enumeration	SearchCoil	An instrument which measures the time variation of the magnetic flux threading a loop by measurement of the electric potential difference induced between the ends of the wire.
enumeration	Sounder	An instrument which measures the radiances from an object. A sounder may measure radiances at multiple spectral ranges.
enumeration	SpacecraftPotentialControl	An instrument to control the electric potential of a spacecraft with respect to the ambient plasma by emitting a variable current of positive ions.
enumeration	SpectralPowerReceiver	A radio receiver which determines the power spectral density of the electric or magnetic field, or both, at one or more frequencies.
enumeration	Spectrometer	An instrument that measures the component wavelengths of light (or other electromagnetic radiation) by splitting the light up into its component wavelengths.
enumeration	TimeOfFlight	An instrument which measures the time it takes for a particle to travel between two detectors.
enumeration	Unspecified	A value which is not provided.
enumeration	WaveformReceiver	A radio receiver which outputs the value of one or more components of the electric and/or magnetic field as a function of time.
Used by	Complex Type	Instrument
Source	<pre><xsd:element name="InstrumentType" type="enumInstrumentType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of an integrated collection of software and hardware containing one or more sensors and associated controls used to produce data on an environment.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element InvestigationName

Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	The name given to the contract or engagement which enabled the data to be produced. Each investigation is associated with a Principal Investigator or Guest Investigator who was responsible for the original proposal. For single PI missions each major subsystem having its own identified Team Leader may also be classed as an "Investigation" for the purposes of data archiving.	
Diagram		
Type	xsd:string	
Properties	content:	simple
Used by	Complex Type	Instrument
Source	<pre><xsd:element name="InvestigationName" type="xsd:string"> <xsd:annotation></pre>	

```

<xsd:documentation xml:lang="en">The name given to the contract or engagement which enabled
the data to be produced. Each investigation is associated with a Principal Investigator or Guest
Investigator who was responsible for the original proposal. For single PI missions each major
subsystem having its own identified Team Leader may also be classed as an "Investigation" for the
purposes of data archiving.</xsd:documentation>
</xsd:annotation>
</xsd:element>

```

Element OperatingSpan

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	OperatingSpan
Properties	content: complex
Used by	Complex Types Instrument, Observatory
Model	StartDate, StopDate{0,1}, Note*
Children	Note, StartDate, StopDate
Instance	<pre> <OperatingSpan xmlns="http://impex-fp7.oeaw.ac.at"> <StartDate>{1,1}</StartDate> <StopDate>{0,1}</StopDate> <Note>{0,unbounded}</Note> </OperatingSpan> </pre>
Source	<xsd:element name="OperatingSpan" type="OperatingSpan" />

Element StopDate

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The specification of a stopping point in time.
Diagram	
Type	xsd:dateTime
Properties	content: simple
Substitution Group Affiliation	• StopDateEntity
Used by	Complex Types Granule, OperatingSpan
Source	<pre> <xsd:element name="StopDate" type="xsd:dateTime" substitutionGroup="StopDateEntity"> <xsd:annotation> <xsd:documentation xml:lang="en">The specification of a stopping point in time.</ xsd:documentation> </xsd:annotation> </pre>

</xsd:element>

Element ObservatoryID

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The identifier of an Observatory resource.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Instrument
Source	<pre><xsd:element name="ObservatoryID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The identifier of an Observatory resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Observatory

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Observatory
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , ObservatoryGroupID* , Location , OperatingSpan{0,1} , Extension*
Children	Extension, Location, ObservatoryGroupID, OperatingSpan, ResourceHeader, ResourceID
Instance	<pre><Observatory xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <ObservatoryGroupID>{0,unbounded}</ObservatoryGroupID> <Location>{1,1}</Location> <OperatingSpan>{0,1}</OperatingSpan> <Extension>{0,unbounded}</Extension> </Observatory></pre>

Source `<xsd:element name="Observatory" type="Observatory" substitutionGroup="ResourceEntity" />`

Element ObservatoryGroupID

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The identifier of an Observatory resource which the referring resource is a member of.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Observatory
Source	<pre> <xsd:element name="ObservatoryGroupID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The identifier of an Observatory resource which the referring resource is a member of.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>

Element Location

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Location
Properties	content: complex
Used by	Complex Type Observatory
Model	ObservatoryRegion+, CoordinateSystemName{0,1}, Latitude{0,1}, Longitude{0,1}, Elevation{0,1}
Children	CoordinateSystemName, Elevation, Latitude, Longitude, ObservatoryRegion
Instance	<pre> <Location xmlns="http://impex-fp7.oeaw.ac.at"> <ObservatoryRegion>{1,unbounded}</ObservatoryRegion> <CoordinateSystemName>{0,1}</CoordinateSystemName> <Latitude>{0,1}</Latitude> <Longitude>{0,1}</Longitude> <Elevation>{0,1}</Elevation> </Location> </pre>

Source `<xsd:element name="Location" type="Location"/>`

Element ObservatoryRegion

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	A spatial location distinguished by certain natural features or physical characteristics where an observatory is located.		
Diagram			
Type	enumRegion		
Properties	content:	simple	
Facets	enumeration	Asteroid	A small extraterrestrial body consisting mostly of rock and metal that is in orbit around the sun.
	enumeration	Comet	A relatively small extraterrestrial body consisting of a frozen mass that travels around the sun in a highly elliptical orbit.
	enumeration	Earth	The third planet from the sun in our solar system.
	enumeration	Earth.Magnetosheath	The region between the bow shock and the magnetopause, characterized by very turbulent plasma.
	enumeration	Earth.Magnetosphere	The region of space above the atmosphere or surface of the planet, and bounded by the magnetopause, that is under the direct influence of the planet's magnetic field.
	enumeration	Earth.Magnetosphere.Magnetotail	The region on the night side of the body where the magnetic field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re (X > -10Re).
	enumeration	Earth.Magnetosphere.Main	The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.
	enumeration	Earth.Magnetosphere.Polar	The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the auroral zone.
	enumeration	Earth.Magnetosphere.RadiationBelt	The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.
	enumeration	Earth.NearSurface	The gaseous and possibly ionized environment of a body extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.
	enumeration	Earth.NearSurface.Atmosphere	The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.
	enumeration	Earth.NearSurface.AuroralRegion	A region in the atmosphere where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.
	enumeration	Earth.NearSurface.EquatorialRegion	A region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.
	enumeration	Earth.NearSurface.Ionosphere	The charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction.
	enumeration	Earth.NearSurface.Ionosphere.DRegion	The D region of the ionosphere that exists approximately

		50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
enumeration	Earth.NearSurface.Ionosphere.ERegion	The E region is ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the Kennelly-Heaviside layer.
enumeration	Earth.NearSurface.Ionosphere.FRegion	The F region contains ionized gases at a height of around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.
enumeration	Earth.NearSurface.Ionosphere.HRegion	The H region is at the upper most areas of the ionosphere.
enumeration	Earth.NearSurface.Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	Earth.NearSurface.Plasmasphere	The region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the plasmapause, which is defined by an order of magnitude drop in plasma density.
enumeration	Earth.NearSurface.PolarCap	The areas of the globe surrounding the poles and consisting of the region north of 60 degrees north latitude and the region south of 60 degrees south latitude.
enumeration	Earth.NearSurface.SouthAtlanticAnomalyRegion	The South Atlantic Anomaly is the region on Earth's inner van Allen radiation belt makes its closest approach to the planet's surface. The result is that, for a given altitude, the radiation intensity is higher over this region than elsewhere.
enumeration	Earth.NearSurface.Stratosphere	The layer of the atmosphere that extends from the troposphere to about 30 km, temperature increases with height. The stratosphere contains the ozone layer.
enumeration	Earth.NearSurface.Thermosphere	The layer of the atmosphere that extends from the Mesosphere to 640+ km, temperature increasing with height.
enumeration	Earth.NearSurface.Troposphere	The lowest layer of the atmosphere which begins at the surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with some variation due to weather factors.
enumeration	Earth.Surface	The outermost area of a solid object.
enumeration	Heliosphere	The solar atmosphere extending roughly from the outer corona to the edge of the solar plasma at the heliopause separating primarily solar plasma from interstellar plasma.
enumeration	Heliosphere.Heliosheath	The region extending radially outward from the heliospheric termination shock and in which the decelerated solar wind plasma is still significant.
enumeration	Heliosphere.Inner	The region of the heliosphere extending radially outward from the solar coronal base to just inside 1 AU.
enumeration	Heliosphere.NearEarth	The heliospheric region near the Earth which extends to and includes the area near the L1 and L2 Lagrange point.
enumeration	Heliosphere.Outer	The region of the heliosphere extending radially outward from just outside 1 AU to the heliospheric termination shock.
enumeration	Heliosphere.Remote1AU	A roughly toroidal region that includes the Earth's orbit, but exclusive of the region near the Earth.
enumeration	Interstellar	The region between stars outside of the star's heliopause.

	enumeration	Jupiter	The fifth planet from the sun in our solar system.
	enumeration	Mars	The forth planet from the sun in our solar system.
	enumeration	Mercury	The first planet from the sun in our solar system.
	enumeration	Neptune	The seventh planet from the sun in our solar system.
	enumeration	Pluto	The ninth (sub)planet from the sun in our solar system.
	enumeration	Saturn	The sixth planet from the sun in our solar system.
	enumeration	Sun	The star upon which our solar system is centered.
	enumeration	Sun.Chromosphere	The region of the Sun's (or a star's) atmosphere above the temperature minimum and below the Transition Region. The solar chromosphere is approximately 400 km to 2100 km above the photosphere, and characterized by temperatures from 4500 - 28000 K.
	enumeration	Sun.Corona	The outermost atmospheric region of the Sun or a star, characterized by ionization temperatures above 10 ⁵ K. The solar corona starts at about 2100 km above the photosphere; there is no generally defined upper limit.
	enumeration	Sun.Interior	The region inside the body which is not visible from outside the body.
	enumeration	Sun.Photosphere	The atmospheric layer of the Sun or a star from which continuum radiation, especially optical, is emitted to space. For the Sun, the photosphere is about 500 km thick.
	enumeration	Sun.TransitionRegion	A very narrow (<100 km) layer between the chromosphere and the corona where the temperature rises abruptly from about 8000 to about 500,000 K.
	enumeration	Uranus	The eighth planet from the sun in our solar system.
	enumeration	Venus	The second planet from the sun in our solar system.
Used by	Complex Type	Location	
Source	<pre><xsd:element name="ObservatoryRegion" type="enumRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">A spatial location distinguished by certain natural features or physical characteristics where an observatory is located.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element Latitude

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	The angular distance north (positive) or south (negative) from the equator, measured along the meridian passing through the point.		
Diagram			
Type	xsd:double		
Properties	content:	simple	
Used by	Complex Type	Location	
Source	<pre><xsd:element name="Latitude" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The angular distance north (positive) or south (negative) from the equator, measured along the meridian passing through the point.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

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</xsd:annotation>
</xsd:element>
```

Element Longitude

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The angular distance measured west (positive) or east (negative) from a north-south line called the Prime Meridian.
Diagram	
Type	xsd:double
Properties	content: simple
Used by	Complex Type Location
Source	<pre><xsd:element name="Longitude" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The angular distance measured west (positive) or east (negative) from a north-south line called the Prime Meridian.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

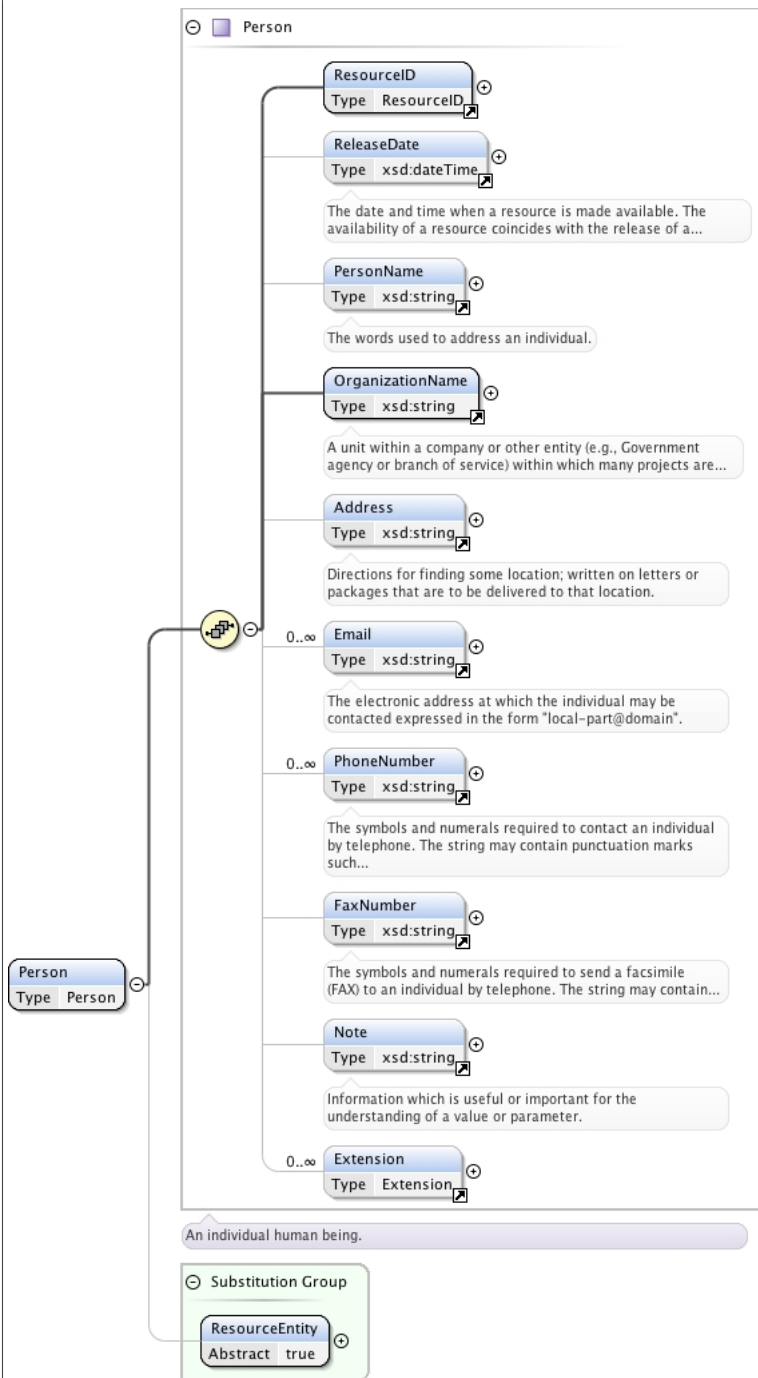
Element Elevation

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The distance in meters above (positive) or below (negative) the "zero elevation" defined by the World Geodetic System reference frame (WGS84).
Diagram	
Type	xsd:double
Properties	content: simple
Used by	Complex Type Location
Source	<pre><xsd:element name="Elevation" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The distance in meters above (positive) or below (negative) the "zero elevation" defined by the World Geodetic System reference frame (WGS84).</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Person

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	Person
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ReleaseDate{0,1} , PersonName{0,1} , OrganizationName , Address{0,1} , Email* , PhoneNumber* , FaxNumber{0,1} , Note{0,1} , Extension*
Children	Address, Email, Extension, FaxNumber, Note, OrganizationName, PersonName, PhoneNumber, ReleaseDate, ResourceID
Instance	<pre><Person xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ReleaseDate>{0,1}</ReleaseDate> <PersonName>{0,1}</PersonName> <OrganizationName>{1,1}</OrganizationName> <Address>{0,1}</Address> <Email>{0,unbounded}</Email> <PhoneNumber>{0,unbounded}</PhoneNumber></pre>

	<pre><FaxNumber>{0,1}</FaxNumber> <Note>{0,1}</Note> <Extension>{0,unbounded}</Extension> </Person></pre>
Source	<code><xsd:element name="Person" type="Person" substitutionGroup="ResourceEntity"/></code>

Element **PersonName**

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The words used to address an individual.
Diagram	<p>The diagram shows a box for 'PersonName' with 'Type xsd:string' below it. A line connects this box to a box for 'xsd:string'. A callout bubble points to the 'PersonName' box with the text 'The words used to address an individual.' Another callout bubble points to the 'xsd:string' box with the text 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<pre><xsd:element name="PersonName" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The words used to address an individual.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element **OrganizationName**

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A unit within a company or other entity (e.g., Government agency or branch of service) within which many projects are managed as a whole.
Diagram	<p>The diagram shows a box for 'OrganizationName' with 'Type xsd:string' below it. A line connects this box to a box for 'xsd:string'. A callout bubble points to the 'OrganizationName' box with the text 'A unit within a company or other entity (e.g., Government agency or branch of service) within which many projects are...'. Another callout bubble points to the 'xsd:string' box with the text 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<pre><xsd:element name="OrganizationName" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A unit within a company or other entity (e.g., Government agency or branch of service) within which many projects are managed as a whole.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element **Address**

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Directions for finding some location; written on letters or packages that are to be delivered to that location.
Diagram	<p>The diagram shows a box for 'Address' with 'Type xsd:string' below it. A line connects this box to a box for 'xsd:string'. A callout bubble points to the 'Address' box with the text 'Directions for finding some location; written on letters or packages that are to be delivered to that location.' Another callout bubble points to the 'xsd:string' box with the text 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<code><xsd:element name="Address" type="xsd:string"></code>

	<pre> <xsd:annotation> <xsd:documentation xml:lang="en">Directions for finding some location; written on letters or packages that are to be delivered to that location.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>
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Element Email

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The electronic address at which the individual may be contacted expressed in the form "local-part@domain".
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<pre> <xsd:element name="Email" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The electronic address at which the individual may be contacted expressed in the form "local-part@domain".</xsd:documentation> </xsd:annotation> </xsd:element> </pre>

Element PhoneNumber

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The symbols and numerals required to contact an individual by telephone. The string may contain punctuation marks such as dash (-) or dot (.) to separate fields within the string.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<pre> <xsd:element name="PhoneNumber" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The symbols and numerals required to contact an individual by telephone. The string may contain punctuation marks such as dash (-) or dot (.) to separate fields within the string.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>

Element FaxNumber

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The symbols and numerals required to send a facsimile (FAX) to an individual by telephone. The string may contain punctuation marks such as dash (-) or dot (.) to separate fields within the string.
Diagram	

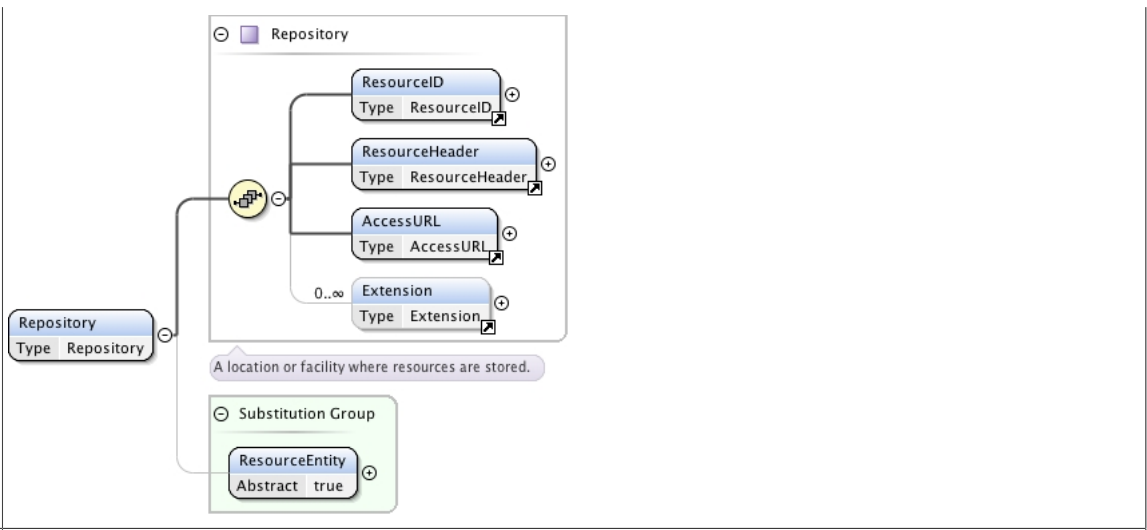
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<pre><xsd:element name="FaxNumber" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The symbols and numerals required to send a facsimile (FAX) to an individual by telephone. The string may contain punctuation marks such as dash (-) or dot (.) to separate fields within the string.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Registry

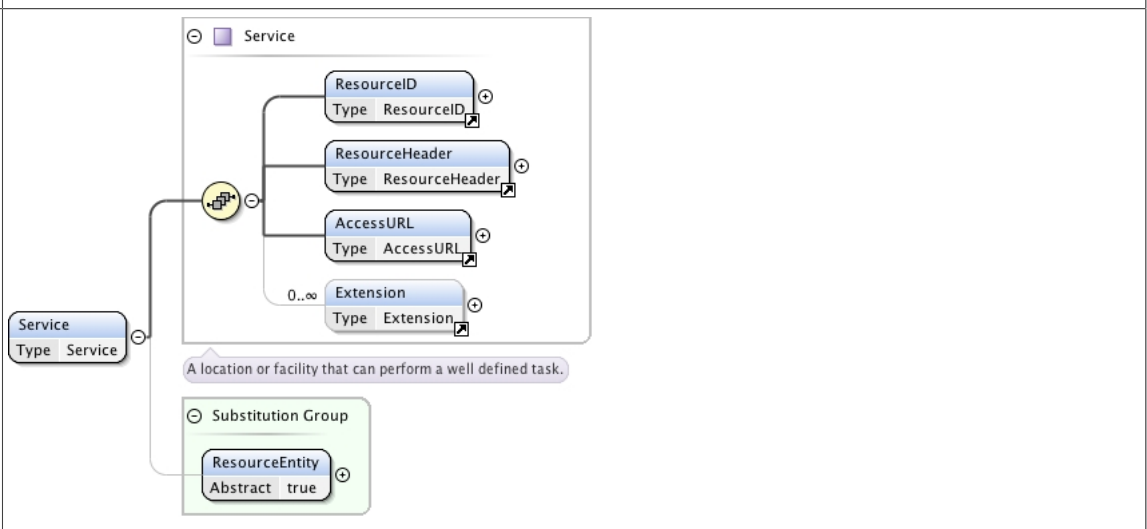
Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Registry
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , AccessURL , Extension*
Children	AccessURL, Extension, ResourceHeader, ResourceID
Instance	<pre><Registry xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessURL>{1,1}</AccessURL> <Extension>{0,unbounded}</Extension> </Registry></pre>
Source	<pre><xsd:element name="Registry" type="Registry" substitutionGroup="ResourceEntity"/></pre>

Element Repository

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	
Type	Repository
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , AccessURL , Extension*
Children	AccessURL, Extension, ResourceHeader, ResourceID
Instance	<pre><Repository xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessURL>{1,1}</AccessURL> <Extension>{0,unbounded}</Extension> </Repository></pre>
Source	<pre><xsd:element name="Repository" type="Repository" substitutionGroup="ResourceEntity" /></pre>

Element Service

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Service
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , AccessURL , Extension*
Children	AccessURL, Extension, ResourceHeader, ResourceID
Instance	<pre><Service xmlns="http://impex-fp7.oeaw.ac.at"></pre>

	<pre><ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessURL>{1,1}</AccessURL> <Extension>{0,unbounded}</Extension> </Service></pre>
Source	<code><xsd:element name="Service" type="Service" substitutionGroup="ResourceEntity"/></code>

Element Annotation

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Annotation
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , ImageURL{0,1} , AnnotationType , PhenomenonType{0,1} , ClassificationMethod{0,1} , ConfidenceRating{0,1} , TimeSpan* , ObservationExtent* , Extension*
Children	AnnotationType, ClassificationMethod, ConfidenceRating, Extension, ImageURL, ObservationExtent, PhenomenonType, ResourceHeader, ResourceID, TimeSpan
Instance	<pre><Annotation xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <ImageURL>{0,1}</ImageURL> <AnnotationType>{1,1}</AnnotationType> <PhenomenonType>{0,1}</PhenomenonType></pre>

	<pre><ClassificationMethod>{0,1}</ClassificationMethod> <ConfidenceRating>{0,1}</ConfidenceRating> <TimeSpan>{0,unbounded}</TimeSpan> <ObservationExtent>{0,unbounded}</ObservationExtent> <Extension>{0,unbounded}</Extension> </Annotation></pre>
Source	<code><xsd:element name="Annotation" type="Annotation" substitutionGroup="ResourceEntity"/></code>

Element ImageURL

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A URL to graphic, image or movie.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Annotation
Source	<pre><xsd:element name="ImageURL" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A URL to graphic, image or movie.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element AnnotationType

Namespace	http://impex-fp7.oeaw.ac.at									
Annotations	A classification for an annotation.									
Diagram										
Type	enumAnnotationType									
Properties	content: simple									
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Anomaly</td> <td>An interval where measurements or observations may be adversely affected.</td> </tr> <tr> <td>enumeration</td> <td>Event</td> <td>An action or observation which occurs at a point in time.</td> </tr> <tr> <td>enumeration</td> <td>Feature</td> <td>A prominent or distinctive characteristic that occurs at a location or persists over a period of time.</td> </tr> </table>	enumeration	Anomaly	An interval where measurements or observations may be adversely affected.	enumeration	Event	An action or observation which occurs at a point in time.	enumeration	Feature	A prominent or distinctive characteristic that occurs at a location or persists over a period of time.
enumeration	Anomaly	An interval where measurements or observations may be adversely affected.								
enumeration	Event	An action or observation which occurs at a point in time.								
enumeration	Feature	A prominent or distinctive characteristic that occurs at a location or persists over a period of time.								
Used by	Complex Type Annotation									
Source	<pre><xsd:element name="AnnotationType" type="enumAnnotationType"> <xsd:annotation> <xsd:documentation xml:lang="en">A classification for an annotation.</xsd:documentation> </xsd:annotation> </xsd:element></pre>									

Element ClassificationMethod

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The technique used to determine the characteristics of an object.
Diagram	
Type	enumClassificationMethod
Properties	content: simple

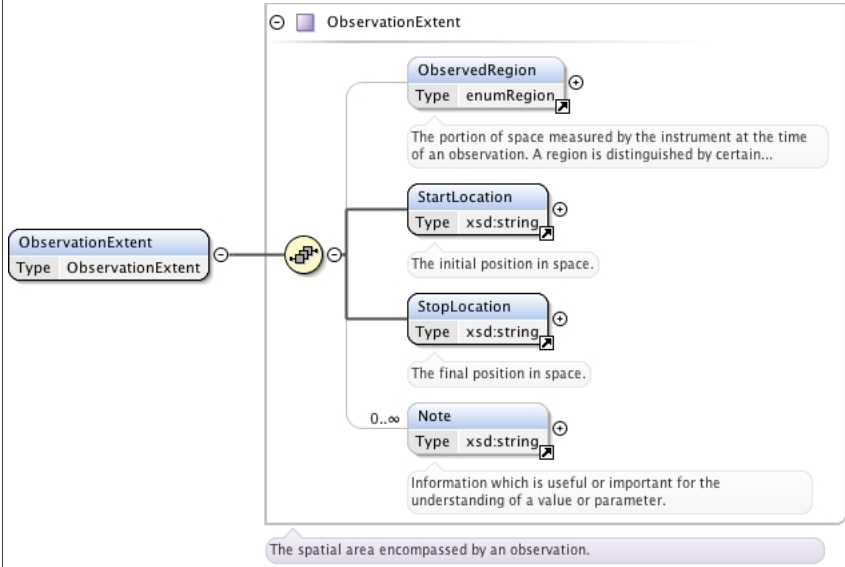
Facets	enumeration	Automatic	Determined by the analysis or assessment performed by a program or server.
	enumeration	Inferred	Determined by the analysis of other information or resources.
	enumeration	Inspection	Determined by the analysis or assessment performed by a person.
Used by	Complex Type	Annotation	
Source	<pre><xsd:element name="ClassificationMethod" type="enumClassificationMethod"> <xsd:annotation> <xsd:documentation xml:lang="en">The technique used to determine the characteristics of an object.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element ConfidenceRating

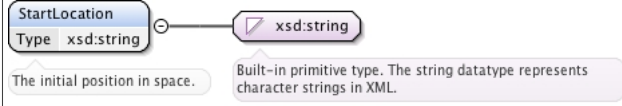
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	A classification of the certainty of an assertion.		
Diagram			
Type	enumConfidenceRating		
Properties	content:	simple	
Facets	enumeration	Probable	Likely given the available evidence. Considered in the range of 4-7 on a scale of 0-10.
	enumeration	Strong	Highly likely given the available evidence. Considered in the range of 7-10 on a scale of 0-10.
	enumeration	Unlikely	Not likely given the available evidence. Considered in the range of 0 on a scale of 0-10.
	enumeration	Weak	Slightly likely given the available evidence. Considered in the range of 1-4 on a scale of 0-10.
Used by	Complex Type	Annotation	
Source	<pre><xsd:element name="ConfidenceRating" type="enumConfidenceRating"> <xsd:annotation> <xsd:documentation xml:lang="en">A classification of the certainty of an assertion.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element ObservationExtent

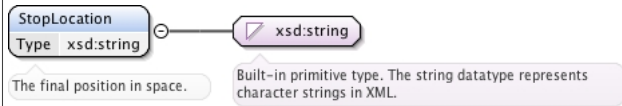
Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	
Type	ObservationExtent
Properties	content: complex
Used by	Complex Type Annotation
Model	ObservedRegion{0,1} , StartLocation , StopLocation , Note*
Children	Note, ObservedRegion, StartLocation, StopLocation
Instance	<pre><ObservationExtent xmlns="http://impex-fp7.oeaw.ac.at"> <ObservedRegion>{0,1}</ObservedRegion> <StartLocation>{1,1}</StartLocation> <StopLocation>{1,1}</StopLocation> <Note>{0,unbounded}</Note> </ObservationExtent></pre>
Source	<code><xsd:element name="ObservationExtent" type="ObservationExtent"/></code>

Element StartLocation

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The initial position in space.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type ObservationExtent
Source	<pre><xsd:element name="StartLocation" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The initial position in space.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element StopLocation

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The final position in space.
Diagram	
Type	xsd:string
Properties	content: simple

Used by	Complex Type ObservationExtent
Source	<pre><xsd:element name="StopLocation" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The final position in space.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element AtomicNumber

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The number of protons in the nucleus of an atom.
Diagram	<p>The diagram shows a box for the AtomicNumber element with the text "Type xsd:double". A line connects it to a box for the xsd:double primitive type. A callout for AtomicNumber says: "The number of protons in the nucleus of an atom." A callout for xsd:double says: "Built-in primitive type. The double datatype corresponds to IEEE double-precision 64-bit floating point type [IEEE...".</p>
Type	xsd:double
Properties	content: simple
Used by	Complex Types InputPopulation, Particle
Source	<pre><xsd:element name="AtomicNumber" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The number of protons in the nucleus of an atom.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ParentID

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The resource identifier for a resource that a resource is a part of. The resource inherits the attributes of the referenced resource. Attributes defined in the resource override attributes of the parent in the manner prescribed by the containing resource.
Diagram	<p>The diagram shows a box for the ParentID element with the text "Type xsd:string". A line connects it to a box for the xsd:string primitive type. A callout for ParentID says: "The resource identifier for a resource that a resource is a part of. The resource inherits the attributes of the...". A callout for xsd:string says: "Built-in primitive type. The string datatype represents character strings in XML."</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type Granule
Source	<pre><xsd:element name="ParentID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The resource identifier for a resource that a resource is a part of. The resource inherits the attributes of the referenced resource. Attributes defined in the resource override attributes of the parent in the manner prescribed by the containing resource.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ParticleQuantity

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A characterization of the physical properties of the particle.
Diagram	<p>The diagram shows a box for the ParticleQuantity element with the text "Type enumParticleQuantity". A line connects it to a box for the enumParticleQuantity primitive type. A callout for ParticleQuantity says: "A characterization of the physical properties of the particle." A callout for enumParticleQuantity says: "Identifiers for the characterization of the physical properties of the particle."</p>
Type	enumParticleQuantity

Properties	content:	simple	
Facets	enumeration	ArrivalDirection	An angular measure of the direction from which an energetic particle or photon was incident on a detector. The angles may be measured in any coordinate system.
	enumeration	AtomicNumberDetected	The number of protons in the nucleus of an atom as determined by a detector.
	enumeration	AverageChargeState	A measure of the composite deficit (positive) or excess (negative) of electrons with respect to protons.
	enumeration	ChargeState	Charge of a fully or partially stripped ion, in units of the charge of a proton. Charge state of a bare proton = 1.
	enumeration	CountRate	The number of events per unit time.
	enumeration	Counts	The number of detection events occurring in a detector over the detector accumulation time.
	enumeration	Energy	The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy)
	enumeration	EnergyDensity	The amount of energy per unit volume.
	enumeration	EnergyFlux	The amount of energy passing through a unit area in a unit time.
	enumeration	FlowSpeed	The rate at which particles or energy is passing through a unit area in a unit time.
	enumeration	FlowVelocity	The volume of matter passing through a unit area perpendicular to the direction of flow in a unit of time.
	enumeration	Fluence	The time integral of a flux. A fluence does not have any "per unit time" in its units.
	enumeration	Gyrofrequency	The number of gyrations around a magnetic guiding center (field line) a charged particle makes per unit time due to the Lorentz force.
	enumeration	HeatFlux	Flow of thermal energy through a gas or plasma; typically computed as third moment of a distribution function.
	enumeration	Mass	The measure of inertia (mass) of individual objects (e.g., aerosols).
	enumeration	MassDensity	The mass of particles per unit volume.
	enumeration	MassNumber	The total number of protons and neutrons (together known as nucleons) in an atomic nucleus.
	enumeration	NumberDensity	The number of particles per unit volume.
	enumeration	NumberFlux	The number of particles passing a unit area in unit time, possibly also per unit energy (or equivalent) and/or per unit look direction.
	enumeration	ParticleRadius	The mean radius for a Gaussian distribution of particles with an axial ratio of 2 and a distribution width that varies as 0.5 radius. A value of zero means no cloud was detected.
	enumeration	PhaseSpaceDensity	The number of particles per unit volume in the six-dimensional space of position and velocity.
	enumeration	PlasmaFrequency	A number-density-dependent characteristic frequency of a plasma.
	enumeration	Pressure	The force per unit area exerted by a particle distribution or field.
	enumeration	SonicMachNumber	The ratio of the bulk flow speed to the speed of sound in the medium.
	enumeration	SoundSpeed	The speed at which sound travels through a medium.
	enumeration	Temperature	A measure of the kinetic energy of random motion with respect to the average. Temperature is properly defined only for an equilibrium particle distribution (Maxwellian distribution).

	enumeration	ThermalSpeed	For a Maxwellian distribution, the difference between the mean speed and the speed within which ~69% (one sigma) of all the members of the speed distribution occur.
	enumeration	Velocity	Rate of change of position. Also used for the average velocity of a collection of particles, also referred to as "bulk velocity".
Used by	Complex Type	Particle	
Source	<pre><xsd:element name="ParticleQuantity" type="enumParticleQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the physical properties of the particle.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

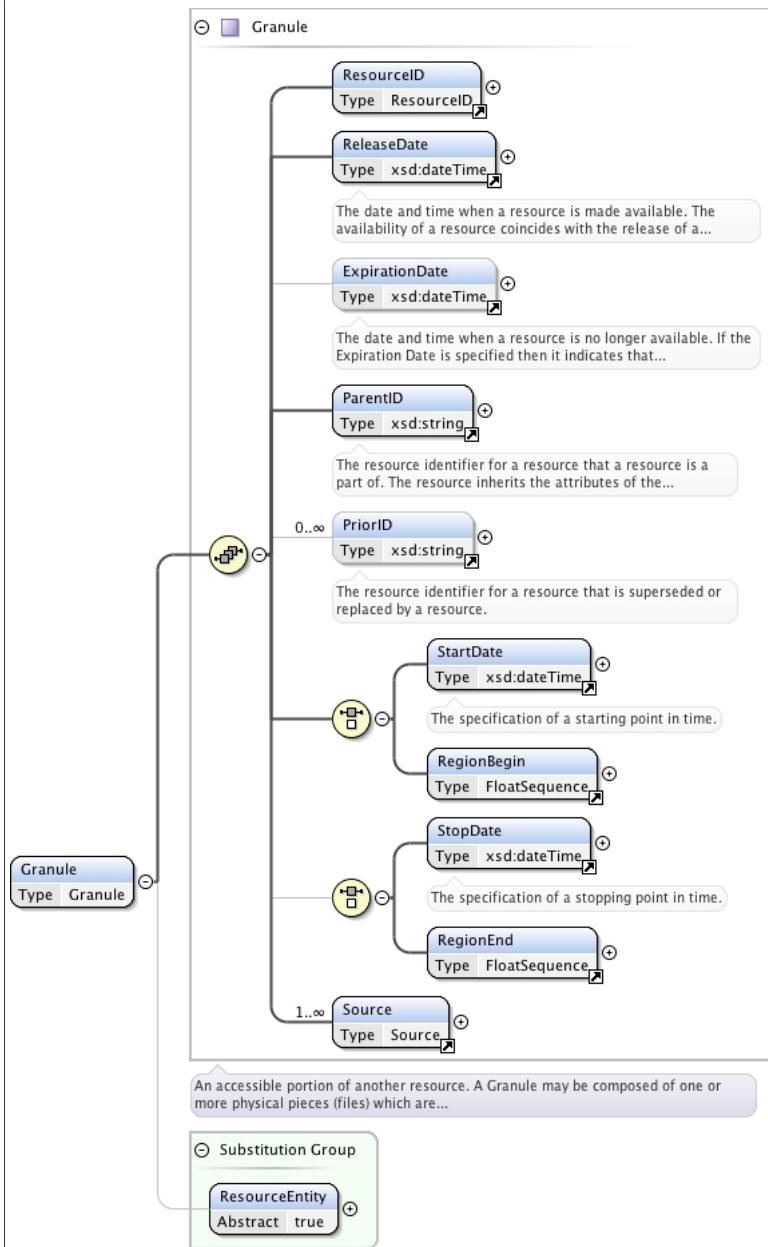
Element RelativeStopDate

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	An indication of the nominal end date relative to the present.
Diagram	<p>The diagram illustrates the following relationships:</p> <ul style="list-style-type: none"> RelativeStopDate (Type: xsd:duration) is connected to the xsd:duration primitive type. RelativeStopDate is also connected to a Substitution Group. The Substitution Group contains the StopDateEntity (Abstract: true). A callout for xsd:duration states: "Built-in primitive type. The duration datatype represents a duration of time." A callout for RelativeStopDate states: "An indication of the nominal end date relative to the present."
Type	xsd:duration
Properties	content: simple
Substitution Group Affiliation	<ul style="list-style-type: none"> StopDateEntity
Source	<pre><xsd:element name="RelativeStopDate" type="xsd:duration" substitutionGroup="StopDateEntity"> <xsd:annotation> <xsd:documentation xml:lang="en">An indication of the nominal end date relative to the present.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Granule

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	Granule
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ReleaseDate , ExpirationDate{0,1} , ParentID , PriorID* , (StartDate RegionBegin) , (StopDate RegionEnd) , Source+
Children	ExpirationDate, ParentID, PriorID, RegionBegin, RegionEnd, ReleaseDate, ResourceID, Source, StartDate, StopDate
Instance	<pre><Granule xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ReleaseDate>{1,1}</ReleaseDate> <ExpirationDate>{0,1}</ExpirationDate> <ParentID>{1,1}</ParentID> <PriorID>{0,unbounded}</PriorID> <StartDate>{1,1}</StartDate> <RegionBegin>{1,1}</RegionBegin> <StopDate>{1,1}</StopDate> <RegionEnd>{1,1}</RegionEnd> <Source>{1,unbounded}</Source> </Granule></pre>
Source	<code><xsd:element name="Granule" type="Granule" substitutionGroup="ResourceEntity"/></code>

Element RegionBegin

Namespace	http://impex-fp7.oeaw.ac.at	
Diagram		
Type	FloatSequence	
Properties	content:	simple
Used by	Complex Type	Granule
	Element Group	CubesDescription
Source	<code><xsd:element name="RegionBegin" type="FloatSequence"/></code>	

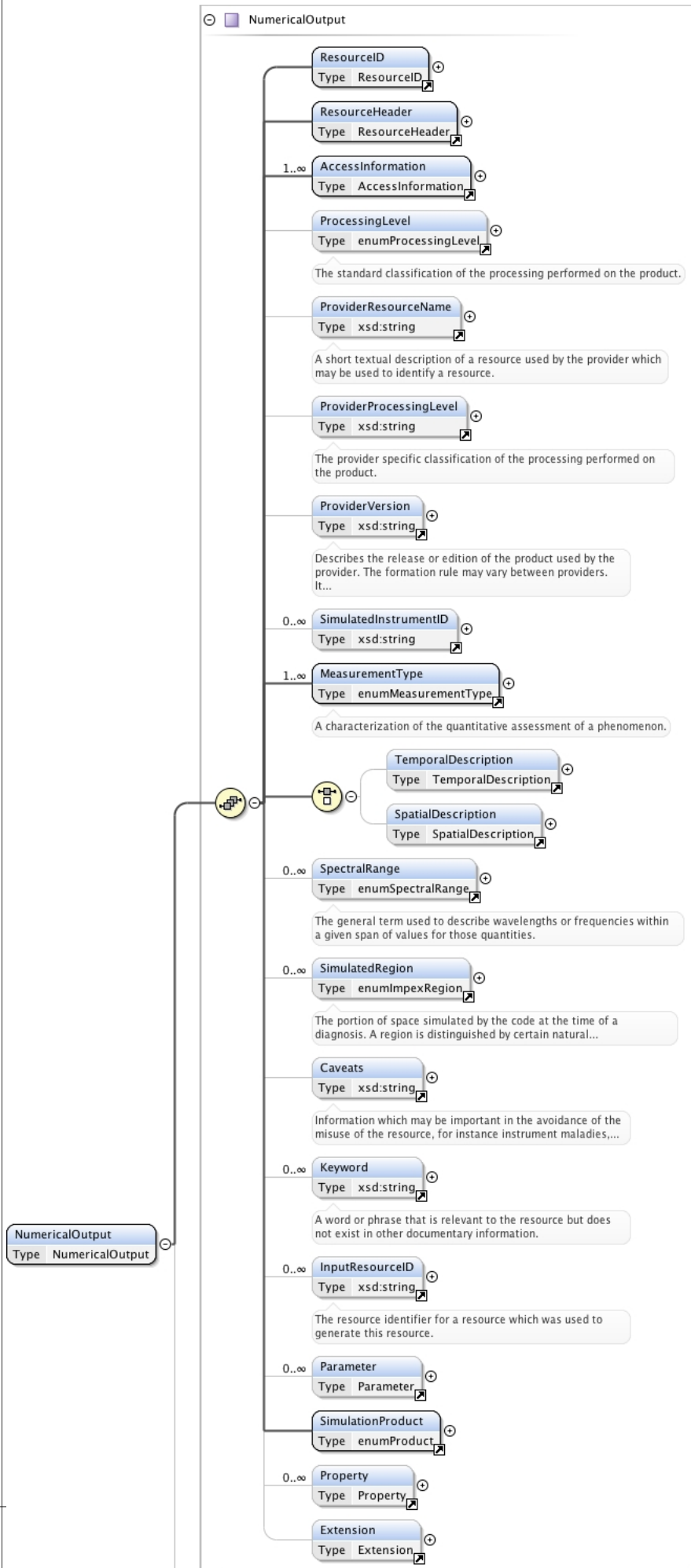
Element RegionEnd

Namespace	http://impex-fp7.oeaw.ac.at	
Diagram		
Type	FloatSequence	
Properties	content:	simple
Used by	Complex Type	Granule
	Element Group	CubesDescription
Source	<code><xsd:element name="RegionEnd" type="FloatSequence"/></code>	

Element NumericalOutput

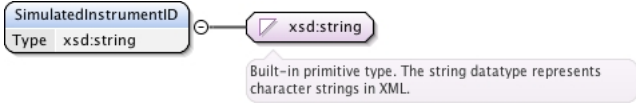
Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	NumericalOutput
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , SimulatedInstrumentID* , MeasurementType+ , (TemporalDescription{0,1} SpatialDescription{0,1}) , SpectralRange* , SimulatedRegion* , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , SimulationProduct , Property* , Extension{0,1}
Children	AccessInformation, Caveats, Extension, InputResourceID, Keyword, MeasurementType, Parameter, ProcessingLevel, Property, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SimulatedInstrumentID, SimulatedRegion, SimulationProduct, SpatialDescription, SpectralRange, TemporalDescription
Instance	<pre><NumericalOutput xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessInformation>{1,unbounded}</AccessInformation> <ProcessingLevel>{0,1}</ProcessingLevel> <ProviderResourceName>{0,1}</ProviderResourceName> <ProviderProcessingLevel>{0,1}</ProviderProcessingLevel> <ProviderVersion>{0,1}</ProviderVersion> <SimulatedInstrumentID>{0,unbounded}</SimulatedInstrumentID> <MeasurementType>{1,unbounded}</MeasurementType> <TemporalDescription>{0,1}</TemporalDescription> <SpatialDescription>{0,1}</SpatialDescription> <SpectralRange>{0,unbounded}</SpectralRange> <SimulatedRegion>{0,unbounded}</SimulatedRegion> <Caveats>{0,1}</Caveats> <Keyword>{0,unbounded}</Keyword> <InputResourceID>{0,unbounded}</InputResourceID> <Parameter>{0,unbounded}</Parameter> <SimulationProduct>{1,1}</SimulationProduct> <Property>{0,unbounded}</Property> <Extension>{0,1}</Extension> </NumericalOutput></pre>
Source	<xsd:element name="NumericalOutput" type="NumericalOutput" substitutionGroup="ResourceEntity"/>

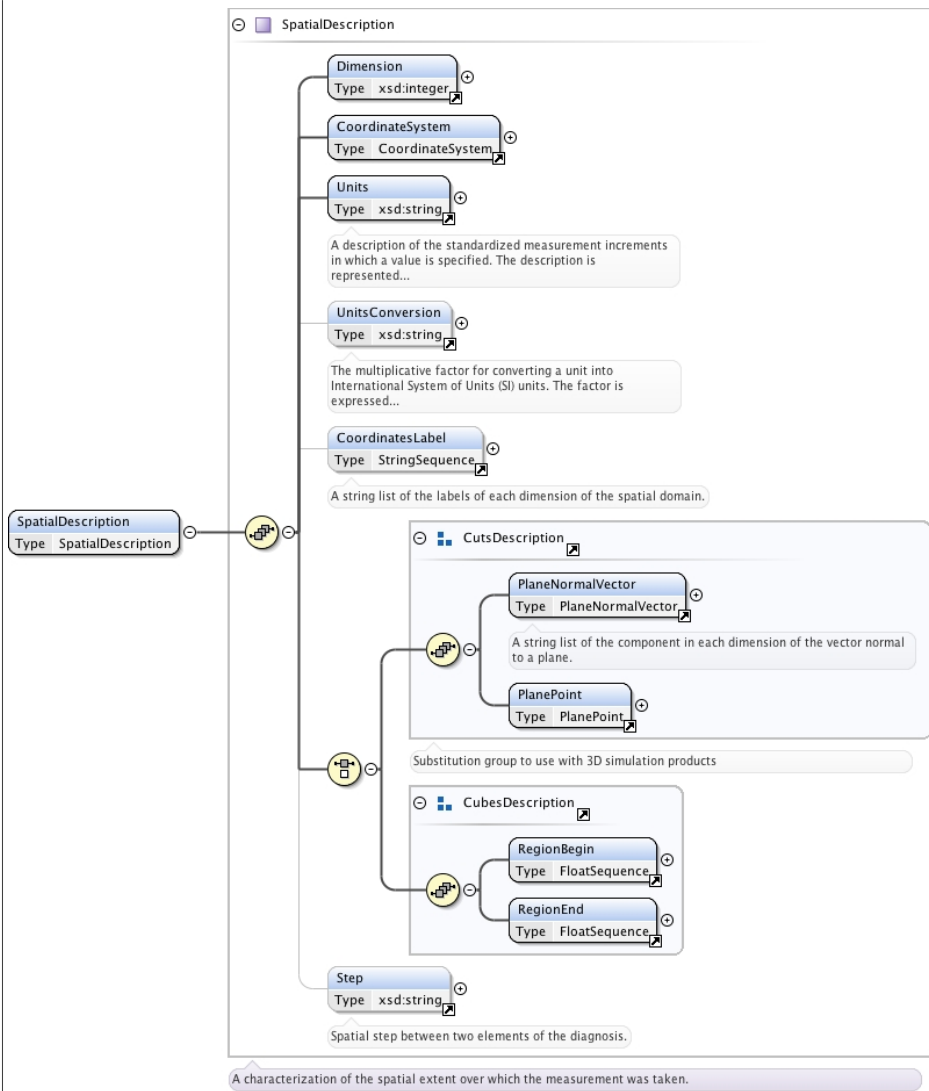
Element SimulatedInstrumentID

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types DisplayOutput, NumericalOutput
Source	<xsd:element name="SimulatedInstrumentID" type="xsd:string"/>

Element SpatialDescription

Namespace	http://impex-fp7.oeaw.ac.at
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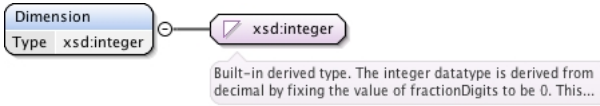
Diagram



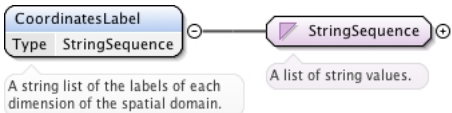
Type	SpatialDescription
Properties	content: complex
Used by	Complex Types DisplayOutput, NumericalOutput, SimulationModel
Model	Dimension , CoordinateSystem , Units , UnitsConversion{0,1} , CoordinatesLabel{0,1} , ((PlaneNormalVector , PlanePoint) (RegionBegin , RegionEnd)) , Step{0,1}
Children	CoordinateSystem, CoordinatesLabel, Dimension, PlaneNormalVector, PlanePoint, RegionBegin, RegionEnd, Step, Units, UnitsConversion
Instance	<pre><SpatialDescription xmlns="http://impex-fp7.oeaw.ac.at"> <Dimension>{1,1}</Dimension> <CoordinateSystem>{1,1}</CoordinateSystem> <Units>{1,1}</Units> <UnitsConversion>{0,1}</UnitsConversion> <CoordinatesLabel>{0,1}</CoordinatesLabel> <PlaneNormalVector>{1,1}</PlaneNormalVector> <PlanePoint>{1,1}</PlanePoint> <RegionBegin>{1,1}</RegionBegin> <RegionEnd>{1,1}</RegionEnd> <Step>{0,1}</Step> </SpatialDescription></pre>
Source	<xsd:element name="SpatialDescription" type="SpatialDescription"/>

Element Dimension

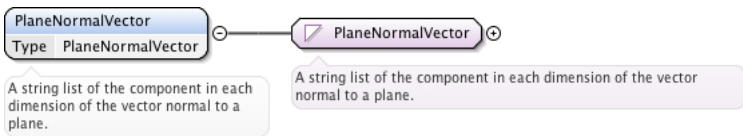
Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	
Type	xsd:integer
Properties	content: simple
Used by	Complex Type SpatialDescription
Source	<code><xsd:element name="Dimension" type="xsd:integer"/></code>

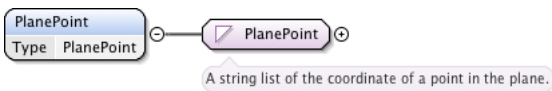
Element CoordinatesLabel

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string list of the labels of each dimension of the spatial domain.
Diagram	
Type	StringSequence
Properties	content: simple
Used by	Complex Types SimulationDomain, SpatialDescription
Source	<pre><xsd:element name="CoordinatesLabel" type="StringSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">A string list of the labels of each dimension of the spatial domain.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element PlaneNormalVector

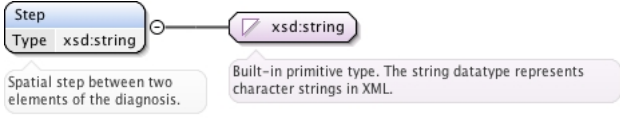
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string list of the component in each dimension of the vector normal to a plane.
Diagram	
Type	PlaneNormalVector
Type hierarchy	<ul style="list-style-type: none"> • xsd:float • FloatSequence • PlaneNormalVector
Properties	content: simple
Used by	Element Group CutsDescription
Source	<pre><xsd:element name="PlaneNormalVector" type="PlaneNormalVector"> <xsd:annotation> <xsd:documentation xml:lang="en">A string list of the component in each dimension of the vector normal to a plane.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element PlanePoint

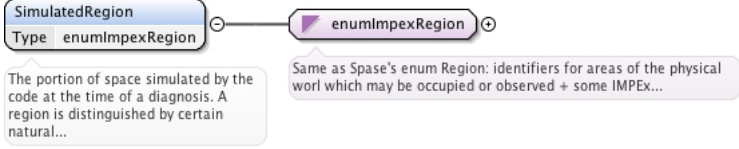
Namespace	http://impex-fp7.oeaw.ac.at
Diagram	

Type	PlanePoint
Type hierarchy	<ul style="list-style-type: none"> • xsd:float • FloatSequence • PlanePoint
Properties	content: simple
Used by	Element Group CutsDescription
Source	<code><xsd:element name="PlanePoint" type="PlanePoint"/></code>

Element Step

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Spatial step between two elements of the diagnosis.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type SpatialDescription
Source	<pre><xsd:element name="Step" type="xsd:string"> <xsd:annotation> <xsd:documentation>Spatial step between two elements of the diagnosis.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element simulatedRegion

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The portion of space simulated by the code at the time of a diagnosis. A region is distinguished by certain natural features or physical characteristics. It is the location of the observatory for in situ data, the location or region sensed by remote sensing observatories and the location-of-relevance for parameters that are derived from observational data.
Diagram	
Type	enumImpexRegion
Properties	content: simple
Used by	Complex Types DisplayOutput, InputField, InputParameter, InputPopulation, InputProcess, NumericalOutput, RegionParameter, SimulationModel, SimulationRun
Source	<pre><xsd:element name="SimulatedRegion" type="enumImpexRegion"> <xsd:annotation> <xsd:documentation>The portion of space simulated by the code at the time of a diagnosis. A region is distinguished by certain natural features or physical characteristics. It is the location of the observatory for in situ data, the location or region sensed by remote sensing observatories and the location-of-relevance for parameters that are derived from observational data.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element simulationProduct

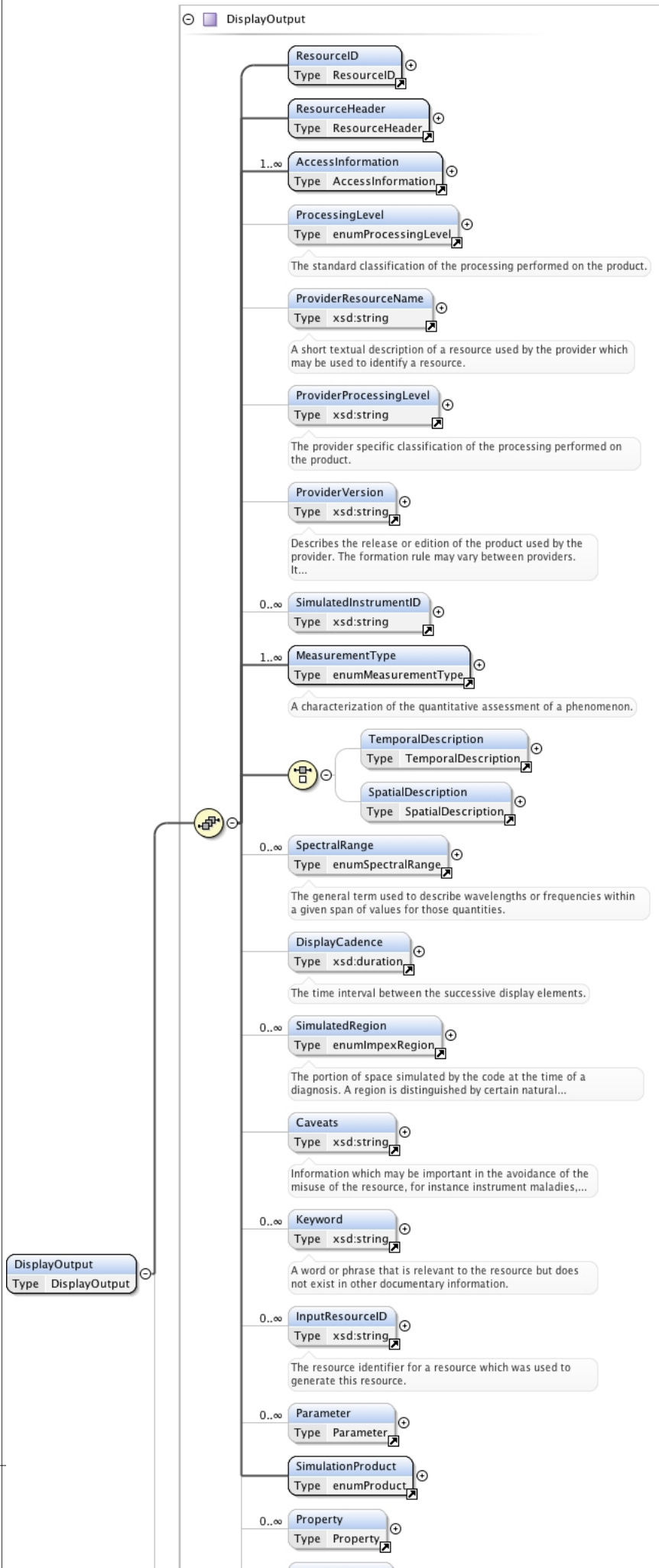
Namespace	http://impex-fp7.oeaw.ac.at
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Diagram	<pre> classDiagram class SimulationProduct { Type enumProduct } class enumProduct SimulationProduct --> enumProduct </pre> <p>Product type of the simulation results</p>	
Type	enumProduct	
Properties	content:	simple
Facets	enumeration	3DCubes
	enumeration	2DCuts
	enumeration	TimeSeries
	enumeration	SpatialSeries
	enumeration	Lines
	enumeration	Spectra
Used by	Complex Types	DisplayOutput, NumericalOutput
Source	<code><xsd:element name="SimulationProduct" type="enumProduct"/></code>	

Element DisplayOutput

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram

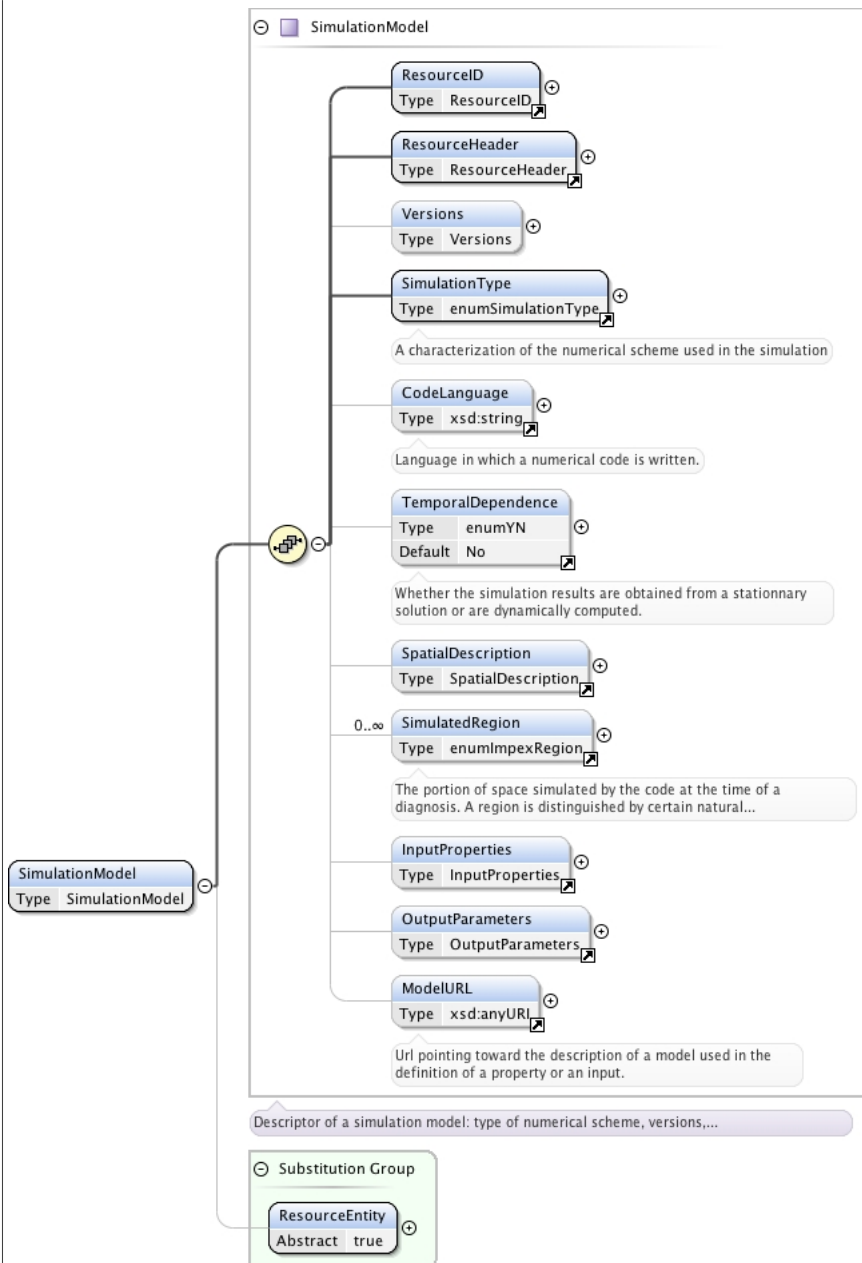


Type	DisplayOutput
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , SimulatedInstrumentID* , MeasurementType+ , (TemporalDescription{0,1} SpatialDescription{0,1}) , SpectralRange* , DisplayCadence{0,1} , SimulatedRegion* , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , SimulationProduct , Property* , Extension{0,1}
Children	AccessInformation, Caveats, DisplayCadence, Extension, InputResourceID, Keyword, MeasurementType, Parameter, ProcessingLevel, Property, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SimulatedInstrumentID, SimulatedRegion, SimulationProduct, SpatialDescription, SpectralRange, TemporalDescription
Instance	<pre><DisplayOutput xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessInformation>{1,unbounded}</AccessInformation> <ProcessingLevel>{0,1}</ProcessingLevel> <ProviderResourceName>{0,1}</ProviderResourceName> <ProviderProcessingLevel>{0,1}</ProviderProcessingLevel> <ProviderVersion>{0,1}</ProviderVersion> <SimulatedInstrumentID>{0,unbounded}</SimulatedInstrumentID> <MeasurementType>{1,unbounded}</MeasurementType> <TemporalDescription>{0,1}</TemporalDescription> <SpatialDescription>{0,1}</SpatialDescription> <SpectralRange>{0,unbounded}</SpectralRange> <DisplayCadence>{0,1}</DisplayCadence> <SimulatedRegion>{0,unbounded}</SimulatedRegion> <Caveats>{0,1}</Caveats> <Keyword>{0,unbounded}</Keyword> <InputResourceID>{0,unbounded}</InputResourceID> <Parameter>{0,unbounded}</Parameter> <SimulationProduct>{1,1}</SimulationProduct> <Property>{0,unbounded}</Property> <Extension>{0,1}</Extension> </DisplayOutput></pre>
Source	<xsd:element name="DisplayOutput" type="DisplayOutput" substitutionGroup="ResourceEntity"/>

Element simulationModel

Namespace	http://impex-fp7.oeaw.ac.at
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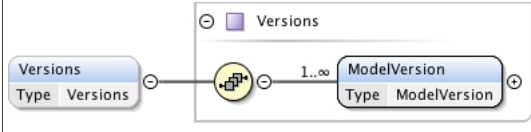
Diagram



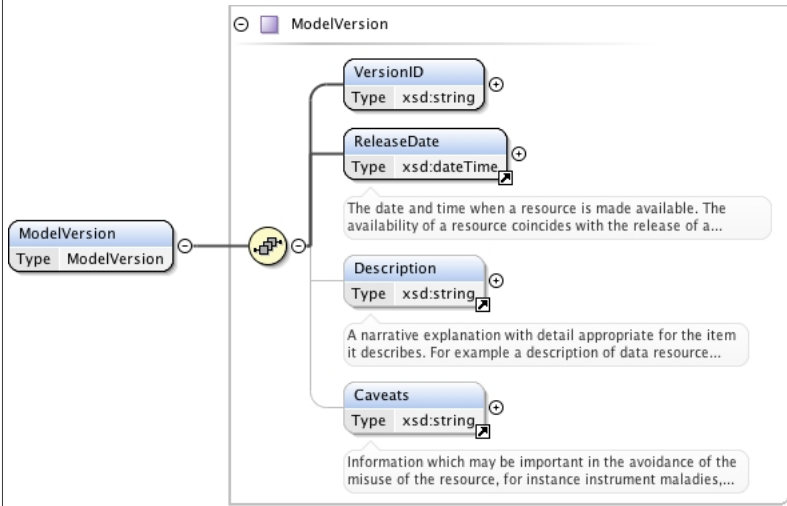
Type	SimulationModel
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , Versions{0,1} , SimulationType , CodeLanguage{0,1} , TemporalDependence{0,1} , SpatialDescription{0,1} , SimulatedRegion* , InputProperties{0,1} , OutputParameters{0,1} , ModelURL{0,1}
Children	CodeLanguage, InputProperties, ModelURL, OutputParameters, ResourceHeader, ResourceID, SimulatedRegion, SimulationType, SpatialDescription, TemporalDependence, Versions
Instance	<pre><SimulationModel xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <Versions>{0,1}</Versions> <SimulationType>{1,1}</SimulationType> <CodeLanguage>{0,1}</CodeLanguage> <TemporalDependence>{0,1}</TemporalDependence> <SpatialDescription>{0,1}</SpatialDescription> <SimulatedRegion>{0,unbounded}</SimulatedRegion> <InputProperties>{0,1}</InputProperties> <OutputParameters>{0,1}</OutputParameters> <ModelURL>{0,1}</ModelURL></pre>

	</SimulationModel>
Source	<xsd:element name="SimulationModel" type="SimulationModel" substitutionGroup="ResourceEntity"/>

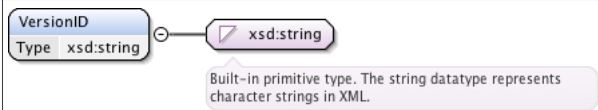
Element SimulationModel / Versions

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Versions
Properties	content: complex minOccurs: 0
Model	ModelVersion+
Children	ModelVersion
Instance	<pre><Versions xmlns="http://impex-fp7.oeaw.ac.at"> <ModelVersion>{1,unbounded}</ModelVersion> </Versions></pre>
Source	<xsd:element name="Versions" type="Versions" minOccurs="0"/>

Element Versions / ModelVersion

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	ModelVersion
Properties	content: complex maxOccurs: unbounded
Model	VersionID , ReleaseDate , Description{0,1} , Caveats{0,1}
Children	Caveats, Description, ReleaseDate, VersionID
Instance	<pre><ModelVersion xmlns="http://impex-fp7.oeaw.ac.at"> <VersionID>{1,1}</VersionID> <ReleaseDate>{1,1}</ReleaseDate> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> </ModelVersion></pre>
Source	<xsd:element name="ModelVersion" type="ModelVersion" maxOccurs="unbounded"/>

Element ModelVersion / VersionID

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	

Type	xsd:string
Properties	content: simple
Source	<code><xsd:element name="VersionID" type="xsd:string"/></code>

Element SimulationType

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	A characterization of the numerical scheme used in the simulation		
Diagram			
Type	enumSimulationType		
Properties	content:	simple	
Facets	enumeration	Hybrid	A numerical scheme simulating ions as particles and electrons as a fluid.
	enumeration	MHD	A numerical scheme simulating the plasma as a fluid.
	enumeration	PIC	A numerical scheme simulating ions and electrons as macroparticles.
	enumeration	Test_Particle	A numerical scheme simulating the motion of charged particles in a prescribed field.
	enumeration	Paraboloid	
Used by	Complex Type	SimulationModel	
Source	<pre><xsd:element name="SimulationType" type="enumSimulationType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the numerical scheme used in the simulation</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element CodeLanguage

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Language in which a numerical code is written.		
Diagram			
Type	xsd:string		
Properties	content:	simple	
Used by	Complex Type	SimulationModel	
Source	<pre><xsd:element name="CodeLanguage" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Language in which a numerical code is written.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element TemporalDependence

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Whether the simulation results are obtained from a stationary solution or are dynamically computed.		

Diagram					
Type	enumYN				
Properties	<table border="1"> <tr> <td>content:</td> <td>simple</td> </tr> <tr> <td>default:</td> <td>No</td> </tr> </table>	content:	simple	default:	No
content:	simple				
default:	No				
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Yes</td> </tr> <tr> <td>enumeration</td> <td>No</td> </tr> </table>	enumeration	Yes	enumeration	No
enumeration	Yes				
enumeration	No				
Used by	Complex Types SimulationModel, SimulationRun				
Source	<pre><xsd:element name="TemporalDependence" type="enumYN" default="No"> <xsd:annotation> <xsd:documentation xml:lang="en">Whether the simulation results are obtained from a stationary solution or are dynamically computed.</xsd:documentation> </xsd:annotation> </xsd:element></pre>				

Element InputProperties

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Type	InputProperties		
Properties	<table border="1"> <tr> <td>content:</td> <td>complex</td> </tr> </table>	content:	complex
content:	complex		
Used by	Complex Type SimulationModel		
Model	Property*		
Children	Property		
Instance	<pre><InputProperties xmlns="http://impex-fp7.oeaw.ac.at"> <Property>{0,unbounded}</Property> </InputProperties></pre>		
Source	<pre><xsd:element name="InputProperties" type="InputProperties" /></pre>		

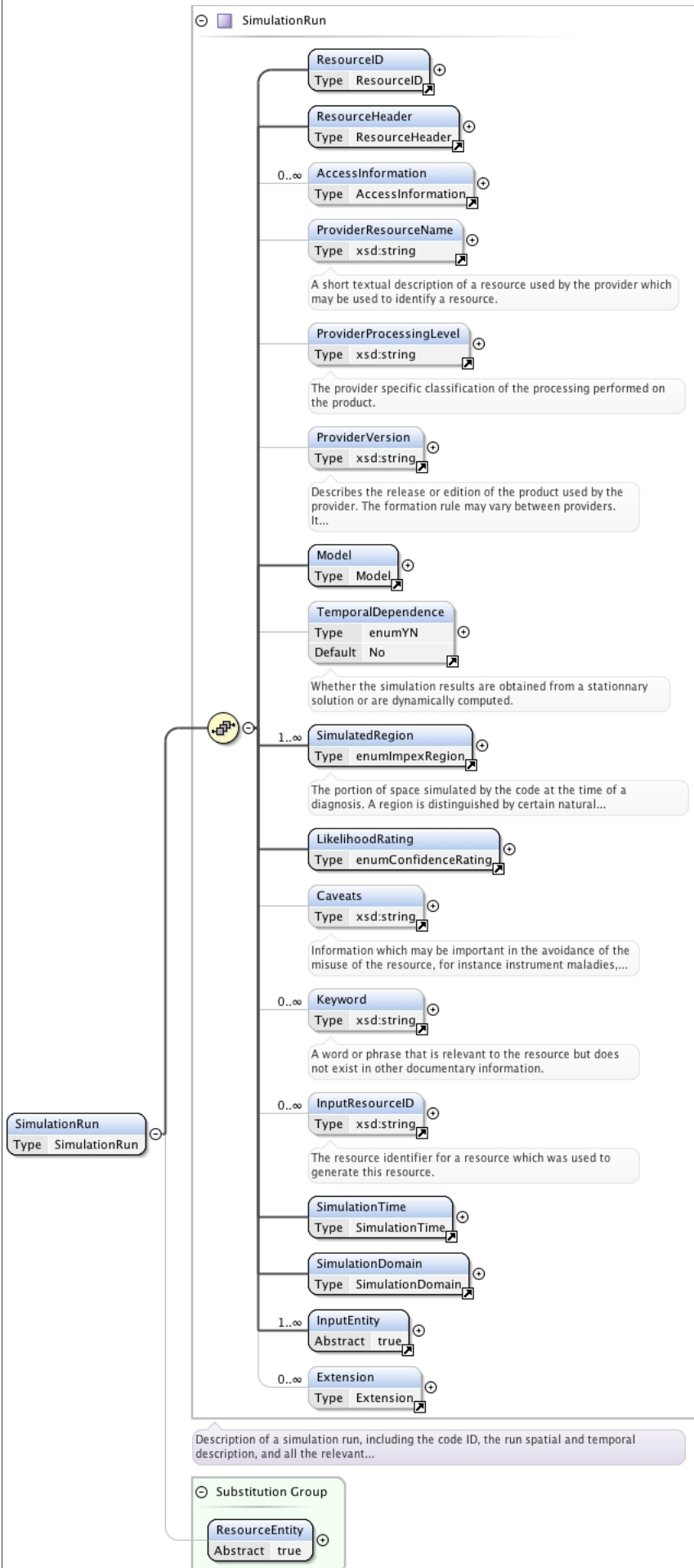
Element OutputParameters

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Type	OutputParameters		
Properties	<table border="1"> <tr> <td>content:</td> <td>complex</td> </tr> </table>	content:	complex
content:	complex		
Used by	Complex Type SimulationModel		
Model	Parameter*		
Children	Parameter		
Instance	<pre><OutputParameters xmlns="http://impex-fp7.oeaw.ac.at"> <Parameter>{0,unbounded}</Parameter> </OutputParameters></pre>		
Source	<pre><xsd:element name="OutputParameters" type="OutputParameters" /></pre>		

Element SimulationRun

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	SimulationRun
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , AccessInformation* , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , Model , TemporalDependence{0,1} , SimulatedRegion+ , LikelihoodRating , Caveats{0,1} , Keyword* , InputResourceID* , SimulationTime , SimulationDomain , InputEntity+ , Extension*
Children	AccessInformation, Caveats, Extension, InputEntity, InputResourceID, Keyword, LikelihoodRating, Model, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SimulatedRegion, SimulationDomain, SimulationTime, TemporalDependence
Instance	<pre><SimulationRun xmlns="http://impex-fp7.oeaw.ac.at"> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessInformation>{0,unbounded}</AccessInformation> <ProviderResourceName>{0,1}</ProviderResourceName> <ProviderProcessingLevel>{0,1}</ProviderProcessingLevel> <ProviderVersion>{0,1}</ProviderVersion> <Model>{1,1}</Model> <TemporalDependence>{0,1}</TemporalDependence> <SimulatedRegion>{1,unbounded}</SimulatedRegion> <LikelihoodRating>{1,1}</LikelihoodRating> <Caveats>{0,1}</Caveats> <Keyword>{0,unbounded}</Keyword> <InputResourceID>{0,unbounded}</InputResourceID> <SimulationTime>{1,1}</SimulationTime> <SimulationDomain>{1,1}</SimulationDomain> <InputEntity>{1,unbounded}</InputEntity> <Extension>{0,unbounded}</Extension> </SimulationRun></pre>
Source	<xsd:element name="SimulationRun" type="SimulationRun" substitutionGroup="ResourceEntity"/>

Element Model1

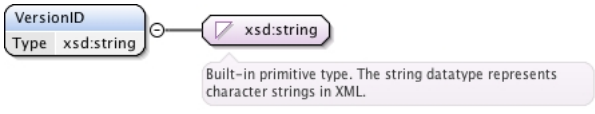
Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	Model
Properties	content: complex
Used by	Complex Type SimulationRun
Model	ModelID , VersionID{0,1}
Children	ModelID, VersionID
Instance	<pre><Model xmlns="http://impex-fp7.oeaw.ac.at"> <ModelID>{1,1}</ModelID> <VersionID>{0,1}</VersionID> </Model></pre>
Source	<xsd:element name="Model" type="Model"/>

Element ModelID

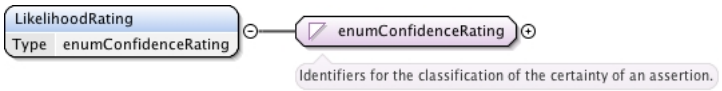
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string defining the ID of the model.
Diagram	

Type	xsd:string
Properties	content: simple
Used by	Complex Type Model
Source	<pre><xsd:element name="ModelID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A string defining the ID of the model.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element VersionID

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Model
Source	<pre><xsd:element name="VersionID" type="xsd:string" /></pre>

Element LikelihoodRating

Namespace	http://impex-fp7.oeaw.ac.at												
Diagram													
Type	enumConfidenceRating												
Properties	content: simple												
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Probable</td> <td>Likely given the available evidence. Considered in the range of 4-7 on a scale of 0-10.</td> </tr> <tr> <td>enumeration</td> <td>Strong</td> <td>Highly likely given the available evidence. Considered in the range of 7-10 on a scale of 0-10.</td> </tr> <tr> <td>enumeration</td> <td>Unlikely</td> <td>Not likely given the available evidence. Considered in the range of 0 on a scale of 0-10.</td> </tr> <tr> <td>enumeration</td> <td>Weak</td> <td>Slightly likely given the available evidence. Considered in the range of 1-4 on a scale of 0-10.</td> </tr> </table>	enumeration	Probable	Likely given the available evidence. Considered in the range of 4-7 on a scale of 0-10.	enumeration	Strong	Highly likely given the available evidence. Considered in the range of 7-10 on a scale of 0-10.	enumeration	Unlikely	Not likely given the available evidence. Considered in the range of 0 on a scale of 0-10.	enumeration	Weak	Slightly likely given the available evidence. Considered in the range of 1-4 on a scale of 0-10.
enumeration	Probable	Likely given the available evidence. Considered in the range of 4-7 on a scale of 0-10.											
enumeration	Strong	Highly likely given the available evidence. Considered in the range of 7-10 on a scale of 0-10.											
enumeration	Unlikely	Not likely given the available evidence. Considered in the range of 0 on a scale of 0-10.											
enumeration	Weak	Slightly likely given the available evidence. Considered in the range of 1-4 on a scale of 0-10.											
Used by	Complex Type SimulationRun												
Source	<pre><xsd:element name="LikelihoodRating" type="enumConfidenceRating" /></pre>												

Element SimulationTime

Namespace	http://impex-fp7.oeaw.ac.at
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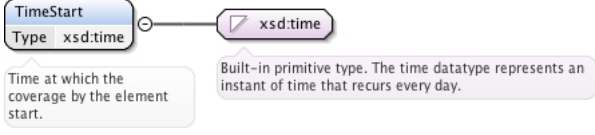
Diagram	
Type	SimulationTime
Properties	content: complex
Used by	Complex Type SimulationRun
Model	Description{0,1} , Caveats{0,1} , Duration{0,1} , TimeStart{0,1} , TimeStop{0,1} , TimeStep{0,1} , DiagnosisTimeStep{0,1}
Children	Caveats, Description, DiagnosisTimeStep, Duration, TimeStart, TimeStep, TimeStop
Instance	<pre><SimulationTime xmlns="http://impex-fp7.oeaw.ac.at"> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> <Duration>{0,1}</Duration> <TimeStart>{0,1}</TimeStart> <TimeStop>{0,1}</TimeStop> <TimeStep>{0,1}</TimeStep> <DiagnosisTimeStep Duration=" " TimeStart=" ">{0,1}</DiagnosisTimeStep> </SimulationTime></pre>
Source	<pre><xsd:element name="SimulationTime" type="SimulationTime"/></pre>

Element Duration

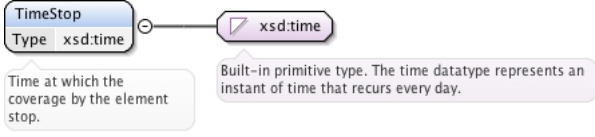
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Duration of the simulation.
Diagram	
Type	xsd:duration
Properties	content: simple
Used by	Complex Type SimulationTime
Source	<pre><xsd:element name="Duration" type="xsd:duration"> <xsd:annotation> <xsd:documentation xml:lang="en">Duration of the simulation.</xsd:documentation> </xsd:annotation></pre>

</xsd:element>

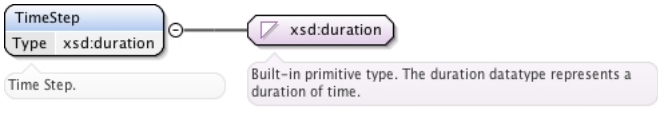
Element TimeStart

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Time at which the coverage by the element start.
Diagram	
Type	xsd:time
Properties	content: simple
Used by	Complex Type SimulationTime
Source	<pre><xsd:element name="TimeStart" type="xsd:time"> <xsd:annotation> <xsd:documentation xml:lang="en">Time at which the coverage by the element start.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element TimeStop

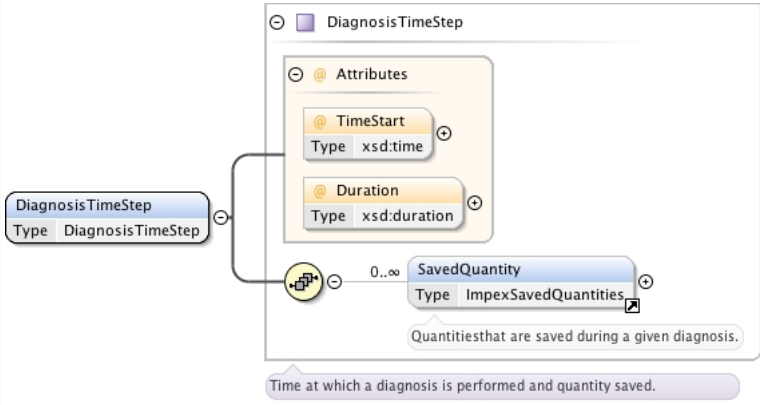
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Time at which the coverage by the element stop.
Diagram	
Type	xsd:time
Properties	content: simple
Used by	Complex Type SimulationTime
Source	<pre><xsd:element name="TimeStop" type="xsd:time"> <xsd:annotation> <xsd:documentation xml:lang="en">Time at which the coverage by the element stop.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element TimeStep

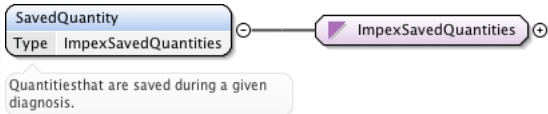
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Time Step.
Diagram	
Type	xsd:duration
Properties	content: simple
Used by	Complex Type SimulationTime
Source	<pre><xsd:element name="TimeStep" type="xsd:duration"> <xsd:annotation> <xsd:documentation xml:lang="en">Time Step.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element DiagnosisTimeStep

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram												
Type	DiagnosisTimeStep											
Properties	content:	complex										
Used by	Complex Type	SimulationTime										
Model	SavedQuantity*											
Children	SavedQuantity											
Instance	<pre><DiagnosisTimeStep Duration=" " TimeStart=" " xmlns="http://impex-fp7.oeaw.ac.at"> <SavedQuantity{0,unbounded}</SavedQuantity> </DiagnosisTimeStep></pre>											
Attributes	<table border="1"> <thead> <tr> <th>QName</th> <th>Type</th> <th>Use</th> </tr> </thead> <tbody> <tr> <td>Duration</td> <td>xsd:duration</td> <td>optional</td> </tr> <tr> <td>TimeStart</td> <td>xsd:time</td> <td>optional</td> </tr> </tbody> </table>	QName	Type	Use	Duration	xsd:duration	optional	TimeStart	xsd:time	optional		
QName	Type	Use										
Duration	xsd:duration	optional										
TimeStart	xsd:time	optional										
Source	<pre><xsd:element name="DiagnosisTimeStep" type="DiagnosisTimeStep"/></pre>											

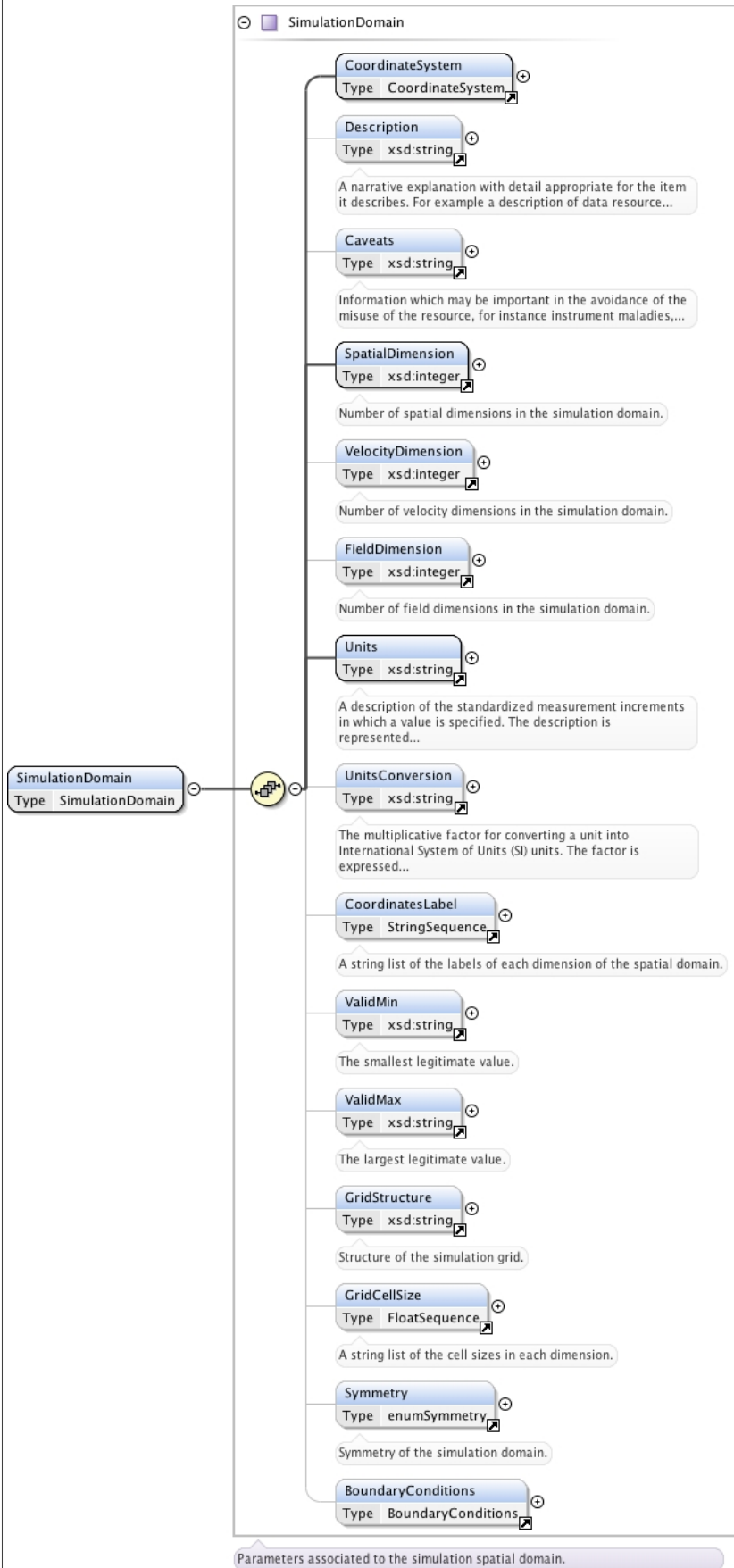
Element SavedQuantity

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Quantities that are saved during a given diagnosis.		
Diagram			
Type	ImpexSavedQuantities		
Properties	content:	simple	
Used by	Complex Type	DiagnosisTimeStep	
Source	<pre><xsd:element name="SavedQuantity" type="ImpexSavedQuantities"> <xsd:annotation> <xsd:documentation>Quantities that are saved during a given diagnosis.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element SimulationDomain

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type

SimulationDomain

Properties	content: complex
Used by	Complex Type SimulationRun
Model	CoordinateSystem , Description{0,1} , Caveats{0,1} , SpatialDimension , VelocityDimension{0,1} , FieldDimension{0,1} , Units , UnitsConversion{0,1} , CoordinatesLabel{0,1} , ValidMin{0,1} , ValidMax{0,1} , GridStructure{0,1} , GridCellSize{0,1} , Symmetry{0,1} , BoundaryConditions{0,1}
Children	BoundaryConditions, Caveats, CoordinateSystem, CoordinatesLabel, Description, FieldDimension, GridCellSize, GridStructure, SpatialDimension, Symmetry, Units, UnitsConversion, ValidMax, ValidMin, VelocityDimension
Instance	<pre><SimulationDomain xmlns="http://impex-fp7.oeaw.ac.at"> <CoordinateSystem>{1,1}</CoordinateSystem> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> <SpatialDimension>{1,1}</SpatialDimension> <VelocityDimension>{0,1}</VelocityDimension> <FieldDimension>{0,1}</FieldDimension> <Units>{1,1}</Units> <UnitsConversion>{0,1}</UnitsConversion> <CoordinatesLabel>{0,1}</CoordinatesLabel> <ValidMin>{0,1}</ValidMin> <ValidMax>{0,1}</ValidMax> <GridStructure>{0,1}</GridStructure> <GridCellSize>{0,1}</GridCellSize> <Symmetry>{0,1}</Symmetry> <BoundaryConditions>{0,1}</BoundaryConditions> </SimulationDomain></pre>
Source	<code><xsd:element name="SimulationDomain" type="SimulationDomain"/></code>

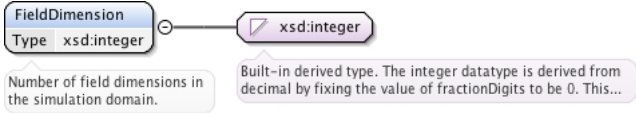
Element SpatialDimension

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Number of spatial dimensions in the simulation domain.
Diagram	
Type	xsd:integer
Properties	content: simple
Used by	Complex Type SimulationDomain
Source	<pre><xsd:element name="SpatialDimension" type="xsd:integer"> <xsd:annotation> <xsd:documentation xml:lang="en">Number of spatial dimensions in the simulation domain.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

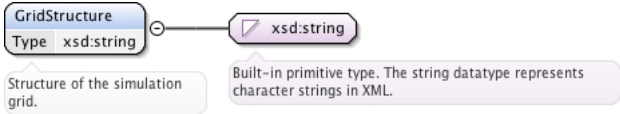
Element VelocityDimension

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Number of velocity dimensions in the simulation domain.
Diagram	
Type	xsd:integer
Properties	content: simple
Used by	Complex Type SimulationDomain
Source	<pre><xsd:element name="VelocityDimension" type="xsd:integer"> <xsd:annotation> <xsd:documentation xml:lang="en">Number of velocity dimensions in the simulation domain.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

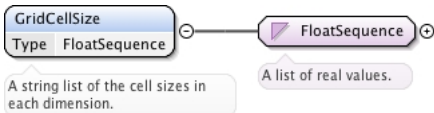
Element FieldDimension

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Number of field dimensions in the simulation domain.
Diagram	
Type	xsd:integer
Properties	content: simple
Used by	Complex Type SimulationDomain
Source	<pre><xsd:element name="FieldDimension" type="xsd:integer"> <xsd:annotation> <xsd:documentation xml:lang="en">Number of field dimensions in the simulation domain.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element GridStructure

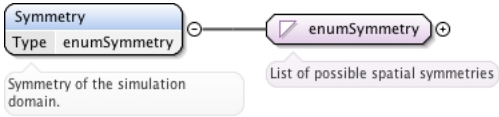
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Structure of the simulation grid.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type SimulationDomain
Source	<pre><xsd:element name="GridStructure" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Structure of the simulation grid.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element GridCellSize

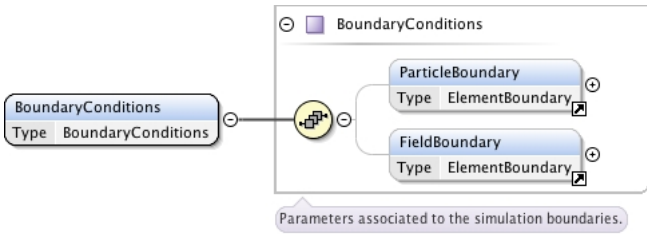
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string list of the cell sizes in each dimension.
Diagram	
Type	FloatSequence
Properties	content: simple
Used by	Complex Type SimulationDomain
Source	<pre><xsd:element name="GridCellSize" type="FloatSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">A string list of the cell sizes in each dimension.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Symmetry

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Symmetry of the simulation domain.

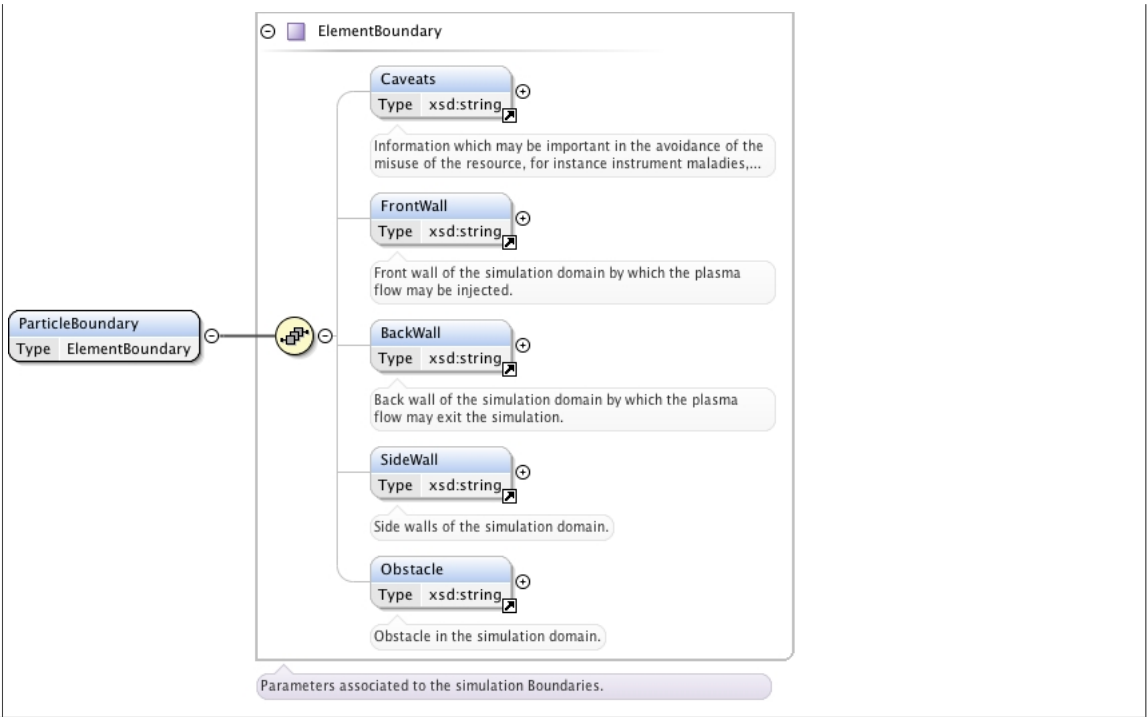
Diagram										
Type	enumSymmetry									
Properties	content:	simple								
Facets	enumeration	<table border="1"> <tr> <td>None</td> <td>No Symmetry.</td> </tr> <tr> <td>Axial</td> <td>Axial symmetry.</td> </tr> <tr> <td>Plane</td> <td>Symmetry across a plane.</td> </tr> <tr> <td>Central</td> <td>Central Symmetry.</td> </tr> </table>	None	No Symmetry.	Axial	Axial symmetry.	Plane	Symmetry across a plane.	Central	Central Symmetry.
None	No Symmetry.									
Axial	Axial symmetry.									
Plane	Symmetry across a plane.									
Central	Central Symmetry.									
Used by	Complex Type	SimulationDomain								
Source	<pre><xsd:element name="Symmetry" type="enumSymmetry"> <xsd:annotation> <xsd:documentation xml:lang="en">Symmetry of the simulation domain.</xsd:documentation> </xsd:annotation> </xsd:element></pre>									

Element BoundaryConditions


Namespace	http://impex-fp7.oeaw.ac.at	
Diagram		
Type	BoundaryConditions	
Properties	content:	complex
Used by	Complex Type	SimulationDomain
Model	ParticleBoundary{0,1} , FieldBoundary{0,1}	
Children	FieldBoundary, ParticleBoundary	
Instance	<pre><BoundaryConditions xmlns="http://impex-fp7.oeaw.ac.at"> <ParticleBoundary>{0,1}</ParticleBoundary> <FieldBoundary>{0,1}</FieldBoundary> </BoundaryConditions></pre>	
Source	<pre><xsd:element name="BoundaryConditions" type="BoundaryConditions"/></pre>	

Element ParticleBoundary

Namespace	http://impex-fp7.oeaw.ac.at
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<p>Diagram</p>	
<p>Type</p>	<p>ElementBoundary</p>
<p>Properties</p>	<p>content: complex</p>
<p>Used by</p>	<p>Complex Type BoundaryConditions</p>
<p>Model</p>	<p>Caveats{0,1} , FrontWall{0,1} , BackWall{0,1} , SideWall{0,1} , Obstacle{0,1}</p>
<p>Children</p>	<p>BackWall, Caveats, FrontWall, Obstacle, SideWall</p>
<p>Instance</p>	<pre><ParticleBoundary xmlns="http://impex-fp7.oeaw.ac.at"> <Caveats>{0,1}</Caveats> <FrontWall>{0,1}</FrontWall> <BackWall>{0,1}</BackWall> <SideWall>{0,1}</SideWall> <Obstacle>{0,1}</Obstacle> </ParticleBoundary></pre>
<p>Source</p>	<pre><xsd:element name="ParticleBoundary" type="ElementBoundary"/></pre>

Element FrontWall

<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
<p>Annotations</p>	<p>Front wall of the simulation domain by which the plasma flow may be injected.</p>
<p>Diagram</p>	
<p>Type</p>	<p>xsd:string</p>
<p>Properties</p>	<p>content: simple</p>
<p>Used by</p>	<p>Complex Type ElementBoundary</p>
<p>Source</p>	<pre><xsd:element name="FrontWall" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Front wall of the simulation domain by which the plasma flow may be injected.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element BackWall

<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
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Annotations	Back wall of the simulation domain by which the plasma flow may exit the simulation.
Diagram	<p>Back wall of the simulation domain by which the plasma flow may exit the simulation.</p> <p>Built-in primitive type. The string datatype represents character strings in XML.</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type ElementBoundary
Source	<pre><xsd:element name="BackWall" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Back wall of the simulation domain by which the plasma flow may exit the simulation.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element sidewall

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Side walls of the simulation domain.
Diagram	<p>Side walls of the simulation domain.</p> <p>Built-in primitive type. The string datatype represents character strings in XML.</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type ElementBoundary
Source	<pre><xsd:element name="SideWall" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Side walls of the simulation domain.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element Obstacle

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Obstacle in the simulation domain.
Diagram	<p>Obstacle in the simulation domain.</p> <p>Built-in primitive type. The string datatype represents character strings in XML.</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type ElementBoundary
Source	<pre><xsd:element name="Obstacle" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Obstacle in the simulation domain.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element FieldBoundary

Namespace	http://impex-fp7.oeaw.ac.at
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<p>Diagram</p>	
<p>Type</p>	<p>ElementBoundary</p>
<p>Properties</p>	<p>content: complex</p>
<p>Used by</p>	<p>Complex Type BoundaryConditions</p>
<p>Model</p>	<p>Caveats{0,1} , FrontWall{0,1} , BackWall{0,1} , SideWall{0,1} , Obstacle{0,1}</p>
<p>Children</p>	<p>BackWall, Caveats, FrontWall, Obstacle, SideWall</p>
<p>Instance</p>	<pre><FieldBoundary xmlns="http://impex-fp7.oeaw.ac.at"> <Caveats>{0,1}</Caveats> <FrontWall>{0,1}</FrontWall> <BackWall>{0,1}</BackWall> <SideWall>{0,1}</SideWall> <Obstacle>{0,1}</Obstacle> </FieldBoundary></pre>
<p>Source</p>	<pre><xsd:element name="FieldBoundary" type="ElementBoundary"/></pre>

Element InputEntity

<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
<p>Diagram</p>	
<p>Properties</p>	<p>abstract: true</p>
<p>Substitution Group</p>	<ul style="list-style-type: none"> • RegionParameter • InputParameter • InputPopulation

	<ul style="list-style-type: none"> • InputField • InputProcess
Used by	Complex Type SimulationRun
Source	<code><xsd:element name="InputEntity" abstract="true" /></code>

Element RegionParameter

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	RegionParameter
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> • InputEntity
Model	SimulatedRegion , Description{0,1} , Caveats{0,1} , Radius{0,1} , SubLongitude{0,1} , Period{0,1} , ObjectMass{0,1} , InputTableURL{0,1} , Property*
Children	Caveats, Description, InputTableURL, ObjectMass, Period, Property, Radius, SimulatedRegion, SubLongitude
Instance	<code><RegionParameter xmlns="http://impex-fp7.oeaw.ac.at"></code>

	<pre> <SimulatedRegion>{1,1}</SimulatedRegion> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> <Radius Units="" UnitsConversion="">{0,1}</Radius> <SubLongitude Units="" UnitsConversion="">{0,1}</SubLongitude> <Period Units="" UnitsConversion="">{0,1}</Period> <ObjectMass Units="" UnitsConversion="">{0,1}</ObjectMass> <InputTableURL>{0,1}</InputTableURL> <Property>{0,unbounded}</Property> </RegionParameter> </pre>
Source	<code><xsd:element name="RegionParameter" substitutionGroup="InputEntity" type="RegionParameter"/></code>

Element Radius

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Type	InputValue		
Properties	content:	complex	
	mixed:	true	
Used by	Complex Type	RegionParameter	
Model			
Attributes	QName	Type	Use
	Units	xsd:string	optional
	<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see http://www.bipm.fr/) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols and those for common derived units can be found at: http://www.bipm.fr/en/si/derived_units/2-2-2.html</p>		
	UnitsConversion	xsd:string	optional
	<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and</p>		

QName	Type	Use
	F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.	
Source	<code><xsd:element name="Radius" type="InputValue" /></code>	

Element SubLongitude

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Type	InputValue		
Properties	content:	complex	
	mixed:	true	
Used by	Complex Type	RegionParameter	
Model			
Attributes	QName	Type	Use
	Units	xsd:string	optional
	<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see http://www.bipm.fr/) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols and those for common derived units can be found at: http://www.bipm.fr/en/si/derived_units/2-2-2.html</p>		
	UnitsConversion	xsd:string	optional
	<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not</p>		

QName	Type	Use
	SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.	
Source	<code><xsd:element name="SubLongitude" type="InputValue"/></code>	

Element Period

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Type	InputValue		
Properties	content:	complex	
	mixed:	true	
Used by	Complex Type	RegionParameter	
Model			
Attributes	QName	Type	Use
	Units	xsd:string	optional
	<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see http://www.bipm.fr/) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols and those for common derived units can be found at: http://www.bipm.fr/en/si/derived_units/2-2-2.html</p>		
	UnitsConversion	xsd:string	optional
	<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless</p>		

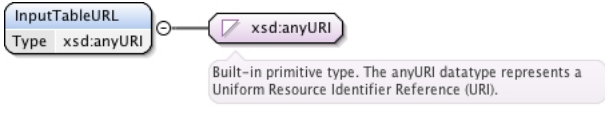
QName	Type	Use
	(no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.	
Source	<code><xsd:element name="Period" type="InputValue"/></code>	

Element ObjectMass

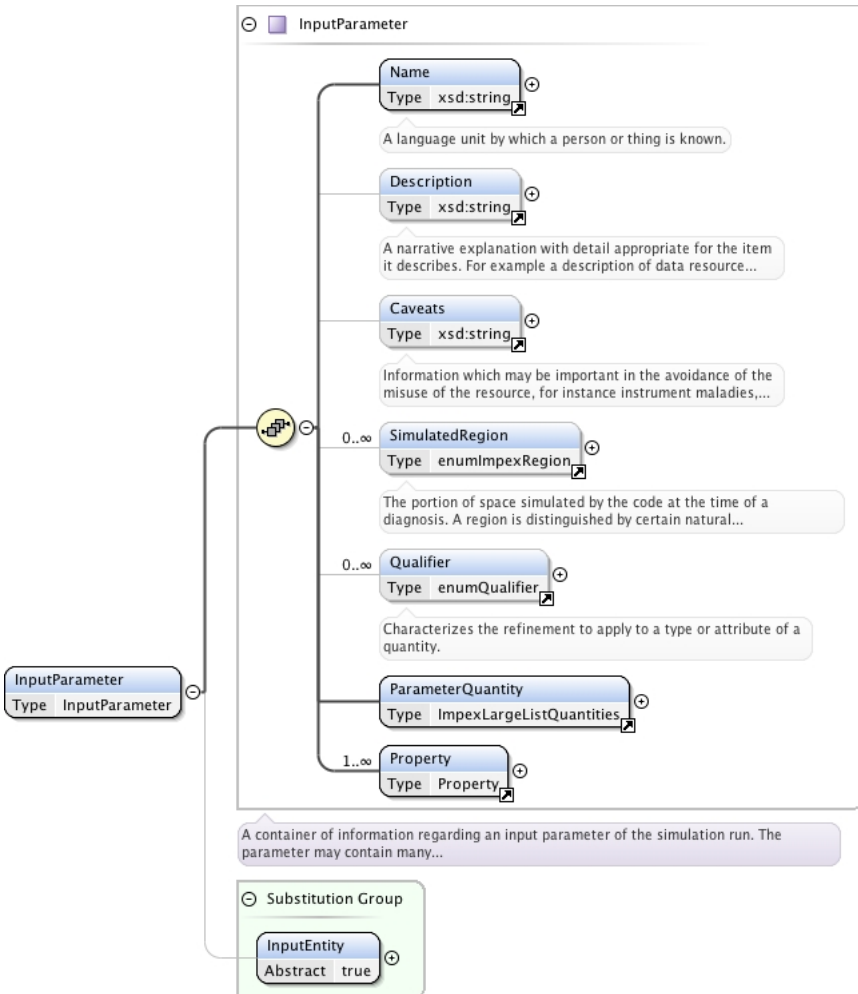
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Mass of an object referenced as a simulated region.		
Diagram			
Type	InputValue		
Properties	content:	complex	
	mixed:	true	
Used by	Complex Type	RegionParameter	
Model			
Attributes	QName	Type	Use
	Units	xsd:string	optional
		<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see http://www.bipm.fr/) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols and those for common derived units can be found at: http://www.bipm.fr/en/si/derived_units/2-2-2.html</p>	
	UnitsConversion	xsd:string	optional
		<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless</p>	

QName	Type	Use
	(no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.	
Source	<pre><xsd:element name="ObjectMass" type="InputValue"> <xsd:annotation> <xsd:documentation>Mass of an object referenced as a simulated region.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element InputTableURL

Namespace	http://impex-fp7.oeaw.ac.at	
Diagram		
Type	xsd:anyURI	
Properties	content:	simple
Used by	Complex Types	InputField, InputPopulation, RegionParameter
Source	<pre><xsd:element name="InputTableURL" type="xsd:anyURI" /></pre>	

Element InputParameter

Namespace	http://impex-fp7.oeaw.ac.at	
Diagram		

Type	InputParameter
Properties	content: complex
Substitution Group Affiliation	• InputEntity
Model	Name , Description{0,1} , Caveats{0,1} , SimulatedRegion* , Qualifier* , ParameterQuantity , Property+
Children	Caveats, Description, Name, ParameterQuantity, Property, Qualifier, SimulatedRegion
Instance	<pre><InputParameter xmlns="http://impex-fp7.oeaw.ac.at"> <Name>{1,1}</Name> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> <SimulatedRegion>{0,unbounded}</SimulatedRegion> <Qualifier>{0,unbounded}</Qualifier> <ParameterQuantity>{1,1}</ParameterQuantity> <Property>{1,unbounded}</Property> </InputParameter></pre>
Source	<code><xsd:element name="InputParameter" type="InputParameter" substitutionGroup="InputEntity" /></code>

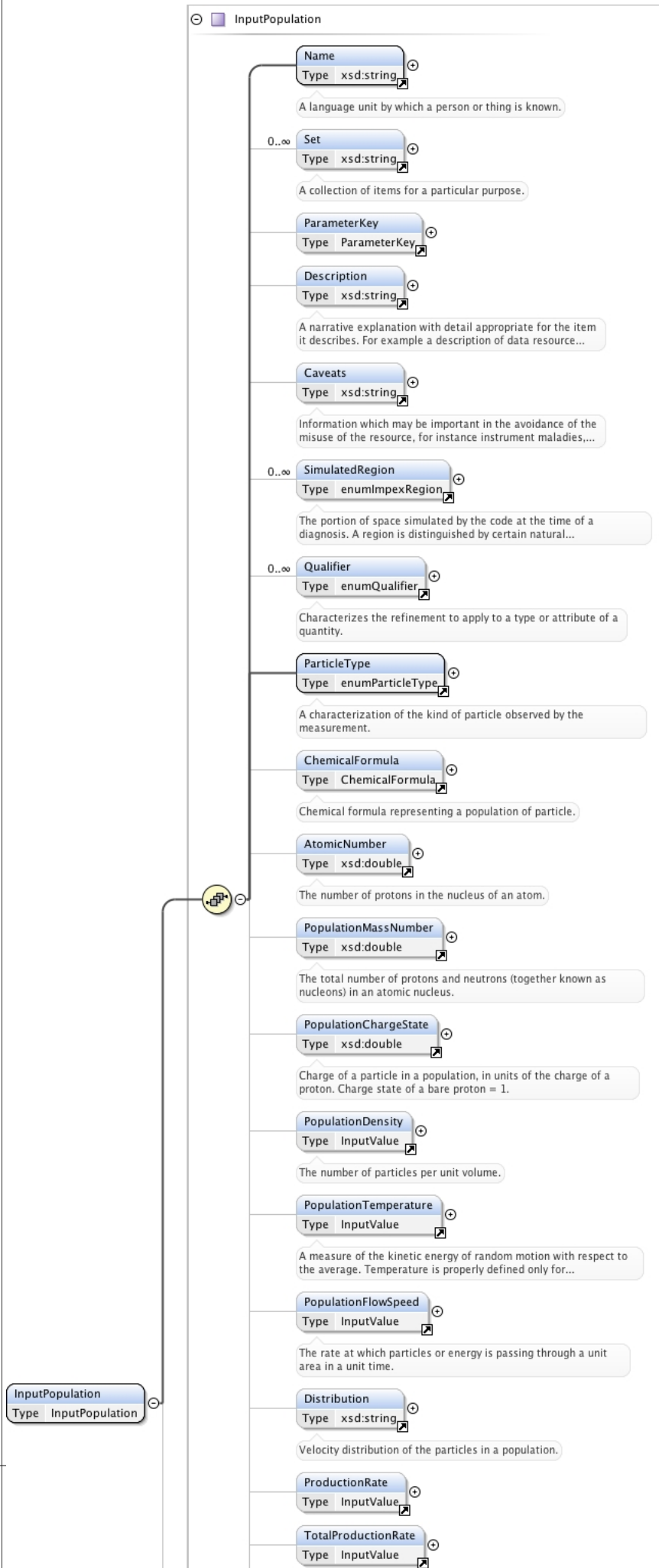
Element ParameterQuantity

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	ImpexLargeListQuantities
Properties	content: simple
Used by	Complex Type InputParameter
Source	<code><xsd:element name="ParameterQuantity" type="ImpexLargeListQuantities" /></code>

Element InputPopulation

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	InputPopulation
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> InputEntity
Model	Name, Set*, ParameterKey{0,1}, Description{0,1}, Caveats{0,1}, SimulatedRegion*, Qualifier*, ParticleType, ChemicalFormula{0,1}, AtomicNumber{0,1}, PopulationMassNumber{0,1}, PopulationChargeState{0,1}, PopulationDensity{0,1}, PopulationTemperature{0,1}, PopulationFlowSpeed{0,1}, Distribution{0,1}, ProductionRate{0,1}, TotalProductionRate{0,1}, InputTableURL{0,1}, Profile{0,1}, ModelURL{0,1}
Children	AtomicNumber, Caveats, ChemicalFormula, Description, Distribution, InputTableURL, ModelURL, Name, ParameterKey, ParticleType, PopulationChargeState, PopulationDensity, PopulationFlowSpeed, PopulationMassNumber, PopulationTemperature, ProductionRate, Profile, Qualifier, Set, SimulatedRegion, TotalProductionRate
Instance	<pre><InputPopulation xmlns="http://impex-fp7.oeaw.ac.at"> <Name>{1,1}</Name> <Set>{0,unbounded}</Set> <ParameterKey>{0,1}</ParameterKey> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> <SimulatedRegion>{0,unbounded}</SimulatedRegion> <Qualifier>{0,unbounded}</Qualifier> <ParticleType>{1,1}</ParticleType> <ChemicalFormula>{0,1}</ChemicalFormula> <AtomicNumber>{0,1}</AtomicNumber> <PopulationMassNumber>{0,1}</PopulationMassNumber> <PopulationChargeState>{0,1}</PopulationChargeState> <PopulationDensity Units=" " UnitsConversion=" ">{0,1}</PopulationDensity> <PopulationTemperature Units=" " UnitsConversion=" ">{0,1}</PopulationTemperature> <PopulationFlowSpeed Units=" " UnitsConversion=" ">{0,1}</PopulationFlowSpeed> <Distribution>{0,1}</Distribution> <ProductionRate Units=" " UnitsConversion=" ">{0,1}</ProductionRate> <TotalProductionRate Units=" " UnitsConversion=" ">{0,1}</TotalProductionRate> <InputTableURL>{0,1}</InputTableURL> <Profile>{0,1}</Profile> <ModelURL>{0,1}</ModelURL> </InputPopulation></pre>
Source	<xsd:element name="InputPopulation" type="InputPopulation" substitutionGroup="InputEntity"/>

Element ChemicalFormula

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Chemical formula representing a population of particle.
Diagram	<p>The diagram shows a class 'ChemicalFormula' with a type 'ChemicalFormula'. It has an annotation 'Chemical formula representing a population of particle. Should only contain Chemical Symbols of th elements, numbers...'. There is also a note 'Chemical formula representing a population of particle.'</p>
Type	ChemicalFormula
Properties	content: simple
Used by	Complex Types InputPopulation, Particle
Source	<pre><xsd:element name="ChemicalFormula" type="ChemicalFormula"> <xsd:annotation> <xsd:documentation>Chemical formula representing a population of particle.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element PopulationMassNumber

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The total number of protons and neutrons (together known as nucleons) in an atomic nucleus.
Diagram	<p>The diagram shows a class 'PopulationMassNumber' with a type 'xsd:double'. It has an annotation 'The total number of protons and neutrons (together known as nucleons) in an atomic nucleus.' There is also a note 'Built-in primitive type. The double datatype corresponds to IEEE double-precision 64-bit floating point type (IEEE...)'</p>
Type	xsd:double

Properties	content: simple
Used by	Complex Types InputPopulation, Particle
Source	<pre><xsd:element name="PopulationMassNumber" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The total number of protons and neutrons (together known as nucleons) in an atomic nucleus.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element PopulationChargeState

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Charge of a particle in a population, in units of the charge of a proton. Charge state of a bare proton = 1.
Diagram	<p>The diagram shows a box for 'PopulationChargeState' with 'Type xsd:double'. A line connects it to a box for 'xsd:double' with a checkmark icon. A tooltip for 'xsd:double' reads: 'Built-in primitive type. The double datatype corresponds to IEEE double-precision 64-bit floating point type [IEEE...]'</p>
Type	xsd:double
Properties	content: simple
Used by	Complex Types InputPopulation, Particle
Source	<pre><xsd:element name="PopulationChargeState" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">Charge of a particle in a population, in units of the charge of a proton. Charge state of a bare proton = 1.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element PopulationDensity

Namespace	http://impex-fp7.oeaw.ac.at								
Annotations	The number of particles per unit volume.								
Diagram	<p>The diagram shows a box for 'PopulationDensity' with 'Type InputValue'. A line connects it to a larger box for 'InputValue' with 'Mixed true'. Inside the 'InputValue' box, there are two attribute boxes: 'Units' (Type xsd:string) and 'UnitsConversion' (Type xsd:string). A tooltip for 'Units' reads: 'A description of the standardized measurement increments in which a value is specified. The description is represented...'. A tooltip for 'UnitsConversion' reads: 'The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed...'</p>								
Type	InputValue								
Properties	content: complex	mixed: true							
Used by	Complex Type	InputPopulation							
Model									
Attributes	<table border="1"> <thead> <tr> <th>QName</th> <th>Type</th> <th>Use</th> </tr> </thead> <tbody> <tr> <td>Units</td> <td>xsd:string</td> <td>optional</td> </tr> </tbody> </table>	QName	Type	Use	Units	xsd:string	optional	<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical</p>	
QName	Type	Use							
Units	xsd:string	optional							

QName	Type	Use
	<p>phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see <http://www.bipm.fr/>) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: <http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols> and those for common derived units can be found at: <http://www.bipm.fr/en/si/derived_units/2-2-2.html></p>	
UnitsConversion	xsd:string	optional
	<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</p>	
Source	<pre><xsd:element name="PopulationDensity" type="InputValue"> <xsd:annotation> <xsd:documentation xml:lang="en">The number of particles per unit volume.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element PopulationTemperature

Namespace	http://impex-fp7.oeaw.ac.at				
Annotations	A measure of the kinetic energy of random motion with respect to the average. Temperature is properly defined only for an equilibrium particle distribution (Maxwellian distribution).				
Diagram	<p>The diagram illustrates the structure of the PopulationTemperature element. It is an InputValue type with mixed content and true. It contains two attributes: Units (xsd:string) and UnitsConversion (xsd:string). The Units attribute is described as "A description of the standardized measurement increments in which a value is specified. The description is represented...". The UnitsConversion attribute is described as "The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed...".</p>				
Type	InputValue				
Properties	<table border="1"> <tr> <td>content:</td> <td>complex</td> </tr> <tr> <td>mixed:</td> <td>true</td> </tr> </table>	content:	complex	mixed:	true
content:	complex				
mixed:	true				
Used by	Complex Type InputPopulation				
Model					

Attributes	QName	Type	Use
	Units	xsd:string	optional
		<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see <http://www.bipm.fr/>) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: <http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols> and those for common derived units can be found at: <http://www.bipm.fr/en/si/derived_units/2-2-2.html></p>	
	UnitsConversion	xsd:string	optional
		<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</p>	
Source	<pre><xsd:element name="PopulationTemperature" type="InputValue"> <xsd:annotation> <xsd:documentation xml:lang="en">A measure of the kinetic energy of random motion with respect to the average. Temperature is properly defined only for an equilibrium particle distribution (Maxwellian distribution).</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element PopulationFlowSpeed

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The rate at which particles or energy is passing through a unit area in a unit time.
Diagram	
Type	InputValue
Properties	content: complex

	mixed:	true	
Used by	Complex Type	InputPopulation	
Model			
Attributes	QName	Type	Use
	Units	xsd:string	optional
		<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see <http://www.bipm.fr/>) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: <http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols> and those for common derived units can be found at: <http://www.bipm.fr/en/si/derived_units/2-2-2.html></p>	
	UnitsConversion	xsd:string	optional
		<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</p>	
Source	<pre><xsd:element name="PopulationFlowSpeed" type="InputValue"> <xsd:annotation> <xsd:documentation xml:lang="en">The rate at which particles or energy is passing through a unit area in a unit time.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		

Element Distribution

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Velocity distribution of the particles in a population.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type InputPopulation
Source	<pre><xsd:element name="Distribution" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Velocity distribution of the particles in a population.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ProductionRate

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Type	InputValue		
Properties	content:	complex	
	mixed:	true	
Used by	Complex Type	InputPopulation	
Model			
Attributes	QName	Type	Use
	Units	xsd:string	optional
		<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see http://www.bipm.fr/)) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols and those for common derived units can be found at: http://www.bipm.fr/en/si/derived_units/2-2-2.html</p>	
	UnitsConversion	xsd:string	optional
		<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</p>	
Source	<code><xsd:element name="ProductionRate" type="InputValue"/></code>		


Element TotalProductionRate

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram			
Type	InputValue		
Properties	content:	complex	
	mixed:	true	
Used by	Complex Type	InputPopulation	
Model			
Attributes	QName	Type	Use
	Units	xsd:string	optional
		<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see http://www.bipm.fr/) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols and those for common derived units can be found at: http://www.bipm.fr/en/si/derived_units/2-2-2.html</p>	
	UnitsConversion	xsd:string	optional
		<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</p>	
Source	<code><xsd:element name="TotalProductionRate" type="InputValue" /></code>		

Element Profile

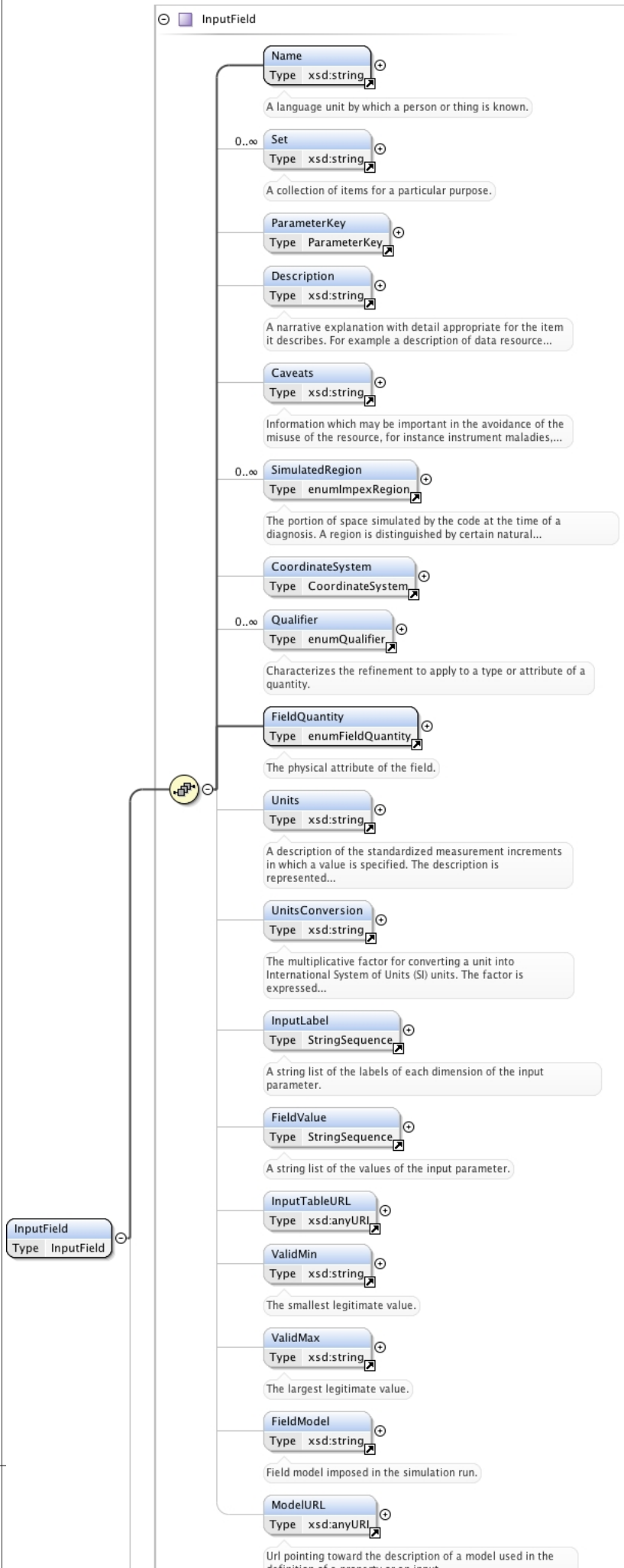
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Density profile of the particles in a population.

Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type InputPopulation
Source	<pre data-bbox="306 448 1445 600"><xsd:element name="Profile" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Density profile of the particles in a population.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element InputField

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type	InputField
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> InputEntity
Model	Name , Set* , ParameterKey{0,1} , Description{0,1} , Caveats{0,1} , SimulatedRegion* , CoordinateSystem{0,1} , Qualifier* , FieldQuantity , Units{0,1} , UnitsConversion{0,1} , InputLabel{0,1} , FieldValue{0,1} , InputTableURL{0,1} , ValidMin{0,1} , ValidMax{0,1} , FieldModel{0,1} , ModelURL{0,1}
Children	Caveats, CoordinateSystem, Description, FieldModel, FieldQuantity, FieldValue, InputLabel, InputTableURL, ModelURL, Name, ParameterKey, Qualifier, Set, SimulatedRegion, Units, UnitsConversion, ValidMax, ValidMin
Instance	<pre><InputField xmlns="http://impex-fp7.oeaw.ac.at"> <Name>{1,1}</Name> <Set>{0,unbounded}</Set> <ParameterKey>{0,1}</ParameterKey> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> <SimulatedRegion>{0,unbounded}</SimulatedRegion> <CoordinateSystem>{0,1}</CoordinateSystem> <Qualifier>{0,unbounded}</Qualifier> <FieldQuantity>{1,1}</FieldQuantity> <Units>{0,1}</Units> <UnitsConversion>{0,1}</UnitsConversion> <InputLabel>{0,1}</InputLabel> <FieldValue>{0,1}</FieldValue> <InputTableURL>{0,1}</InputTableURL> <ValidMin>{0,1}</ValidMin> <ValidMax>{0,1}</ValidMax> <FieldModel>{0,1}</FieldModel> <ModelURL>{0,1}</ModelURL> </InputField></pre>
Source	<xsd:element name="InputField" type="InputField" substitutionGroup="InputEntity"/>

Element InputLabel

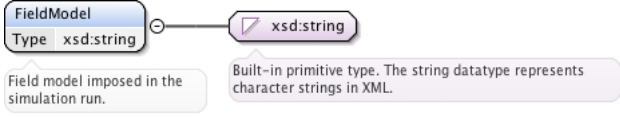
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string list of the labels of each dimension of the input parameter.
Diagram	<p>The diagram shows a box for 'InputLabel' with 'Type StringSequence' below it. A line connects this box to a box for 'StringSequence' with 'A list of string values.' below it. A callout bubble points to the 'InputLabel' box with the text 'A string list of the labels of each dimension of the input parameter.'</p>
Type	StringSequence
Properties	content: simple
Used by	Complex Type InputField
Source	<pre><xsd:element name="InputLabel" type="StringSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">A string list of the labels of each dimension of the input parameter.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element FieldValue

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string list of the values of the input parameter.
Diagram	<p>The diagram shows a box for 'FieldValue' with 'Type StringSequence' below it. A line connects this box to a box for 'StringSequence' with 'A list of string values.' below it. A callout bubble points to the 'FieldValue' box with the text 'A string list of the values of the input parameter.'</p>
Type	StringSequence
Properties	content: simple
Used by	Complex Type InputField

Source	<pre><xsd:element name="FieldValue" type="StringSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">A string list of the values of the input parameter.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>
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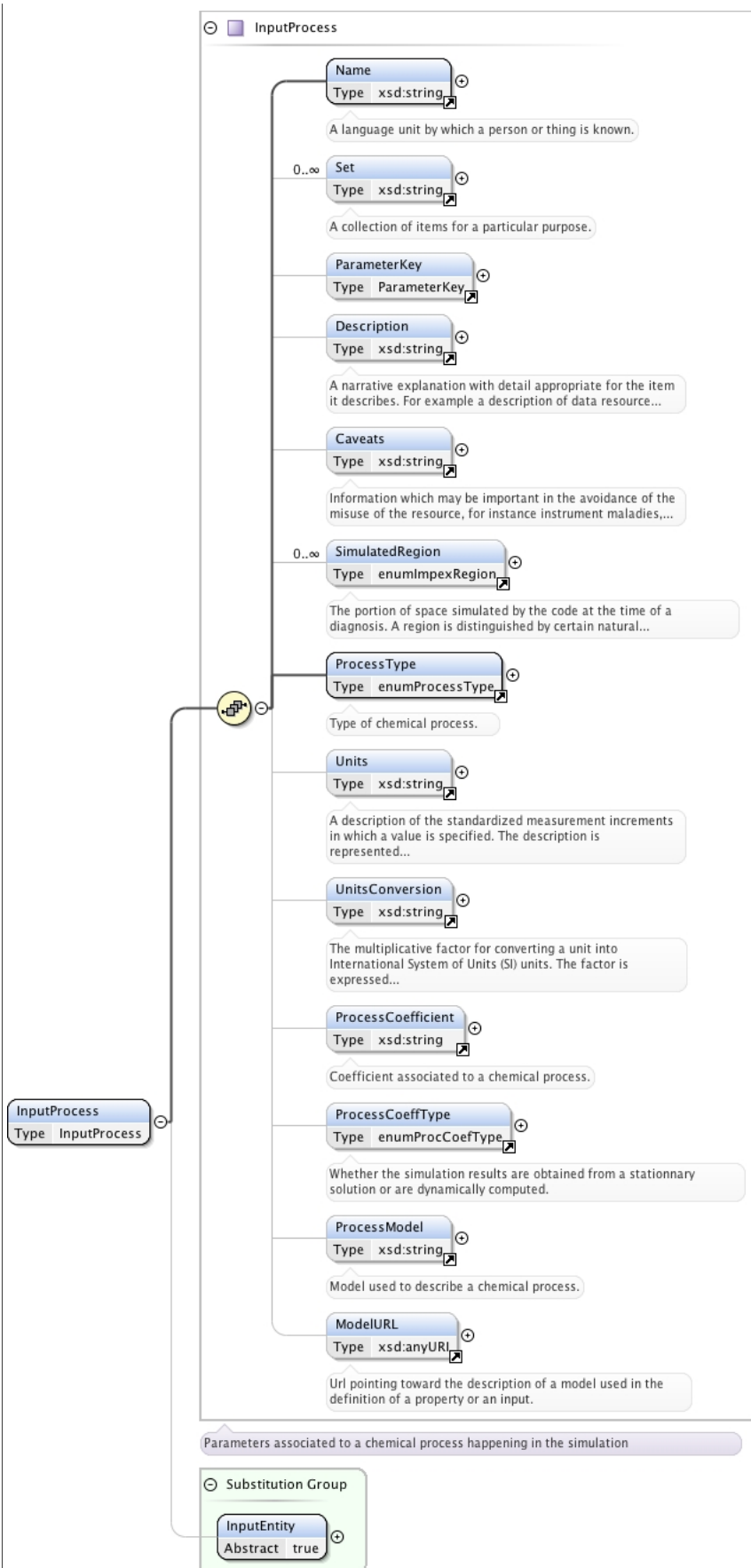
Element FieldModel

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Field model imposed in the simulation run.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type InputField
Source	<pre><xsd:element name="FieldModel" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Field model imposed in the simulation run.</xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element InputProcess

Namespace	http://impex-fp7.oeaw.ac.at
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Diagram



Type

InputProcess

Properties	content: complex
Substitution Group Affiliation	• InputEntity
Model	Name , Set* , ParameterKey{0,1} , Description{0,1} , Caveats{0,1} , SimulatedRegion* , ProcessType , Units{0,1} , UnitsConversion{0,1} , ProcessCoefficient{0,1} , ProcessCoeffType{0,1} , ProcessModel{0,1} , ModelURL{0,1}
Children	Caveats, Description, ModelURL, Name, ParameterKey, ProcessCoeffType, ProcessCoefficient, ProcessModel, ProcessType, Set, SimulatedRegion, Units, UnitsConversion
Instance	<pre><InputProcess xmlns="http://impex-fp7.oeaw.ac.at"> <Name>{1,1}</Name> <Set>{0,unbounded}</Set> <ParameterKey>{0,1}</ParameterKey> <Description>{0,1}</Description> <Caveats>{0,1}</Caveats> <SimulatedRegion>{0,unbounded}</SimulatedRegion> <ProcessType>{1,1}</ProcessType> <Units>{0,1}</Units> <UnitsConversion>{0,1}</UnitsConversion> <ProcessCoefficient>{0,1}</ProcessCoefficient> <ProcessCoeffType>{0,1}</ProcessCoeffType> <ProcessModel>{0,1}</ProcessModel> <ModelURL>{0,1}</ModelURL> </InputProcess></pre>
Source	<xsd:element name="InputProcess" type="InputProcess" substitutionGroup="InputEntity"/>

Element ProcessType

Namespace	http://impex-fp7.oeaw.ac.at									
Annotations	Type of chemical process.									
Diagram										
Type	enumProcessType									
Properties	content: simple									
Facets	enumeration	<table border="0"> <tr> <td>ChargeExchange</td> <td>Chemical process involving a charge transfer from an ion (which becomes neutral) to a neutral (which becomes ionized).</td> </tr> <tr> <td>ElectronImpact</td> <td>Chemical process by which a neutral is ionized thanks to the energy from the impact of an electron.</td> </tr> <tr> <td>PhotoIonization</td> <td>Chemical process by which a neutral is ionized thanks to the energy from a photon.</td> </tr> <tr> <td>DissociativeRecombination</td> <td>Chemical process by which an ion is neutralized by capturing an electron, and splits in two new neutral species.</td> </tr> </table>	ChargeExchange	Chemical process involving a charge transfer from an ion (which becomes neutral) to a neutral (which becomes ionized).	ElectronImpact	Chemical process by which a neutral is ionized thanks to the energy from the impact of an electron.	PhotoIonization	Chemical process by which a neutral is ionized thanks to the energy from a photon.	DissociativeRecombination	Chemical process by which an ion is neutralized by capturing an electron, and splits in two new neutral species.
ChargeExchange	Chemical process involving a charge transfer from an ion (which becomes neutral) to a neutral (which becomes ionized).									
ElectronImpact	Chemical process by which a neutral is ionized thanks to the energy from the impact of an electron.									
PhotoIonization	Chemical process by which a neutral is ionized thanks to the energy from a photon.									
DissociativeRecombination	Chemical process by which an ion is neutralized by capturing an electron, and splits in two new neutral species.									
Used by	Complex Type	InputProcess								
Source	<pre><xsd:element name="ProcessType" type="enumProcessType"> <xsd:annotation> <xsd:documentation xml:lang="en">Type of chemical process.</xsd:documentation> </xsd:annotation> </xsd:element></pre>									

Element ProcessCoefficient

Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	Coefficient associated to a chemical process.	
Diagram		
Type	xsd:string	

Properties	content: simple
Used by	Complex Type InputProcess
Source	<pre><xsd:element name="ProcessCoefficient" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Coefficient associated to a chemical process.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>

Element ProcessCoeffType

Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	Whether the simulation results are obtained from a stationary solution or are dynamically computed.	
Diagram		
Type	enumProcCoeffType	
Properties	content: simple	
Facets	enumeration	CrossSection Cross section of the reaction, when the reaction implies the collision of two particles.
	enumeration	Frequency Reaction frequency: number of reaction per unit of time.
	enumeration	Rate Reaction rate: reaction production per unit of time.
	enumeration	Other Anything else.
Used by	Complex Type	InputProcess
Source	<pre><xsd:element name="ProcessCoeffType" type="enumProcCoeffType"> <xsd:annotation> <xsd:documentation xml:lang="en">Whether the simulation results are obtained from a stationary solution or are dynamically computed.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

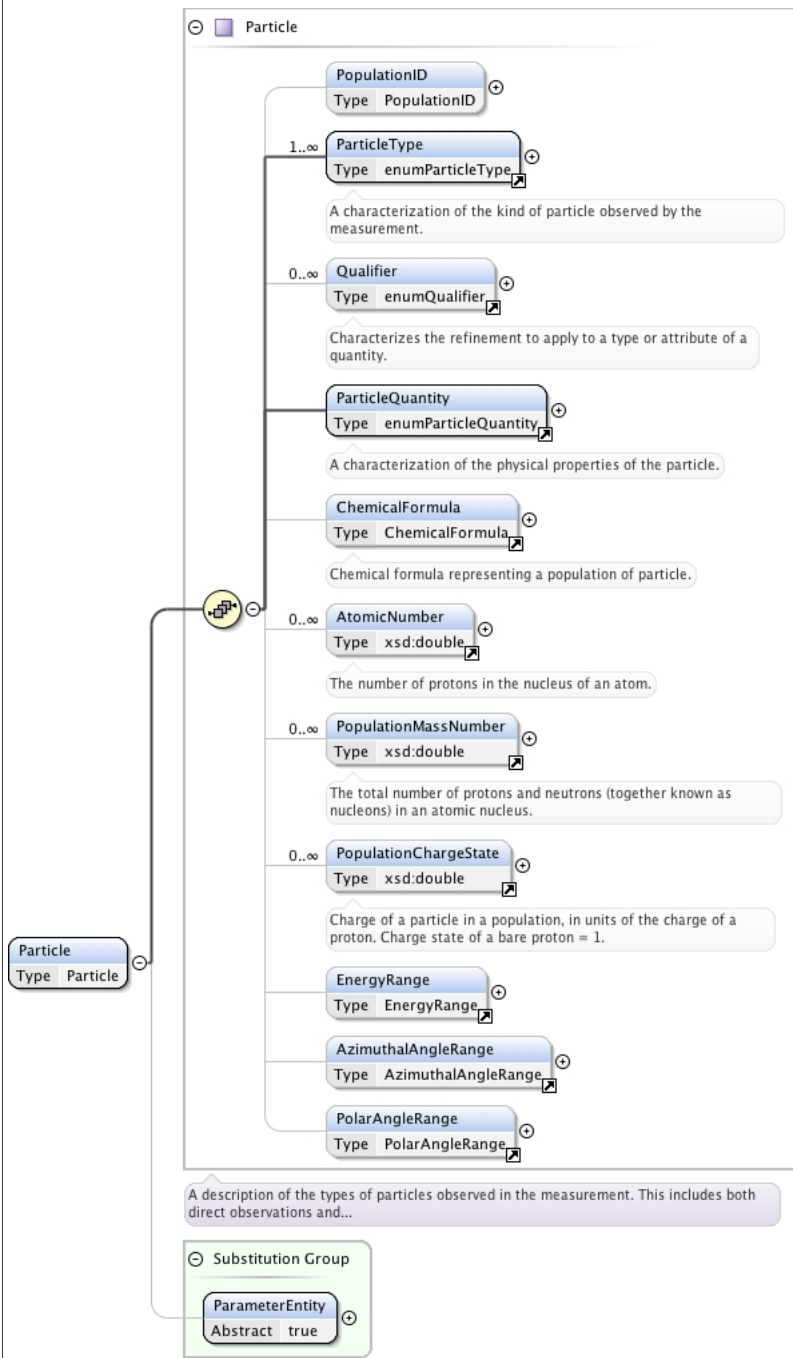
Element ProcessModel

Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	Model used to describe a chemical process.	
Diagram		
Type	xsd:string	
Properties	content: simple	
Used by	Complex Type	InputProcess
Source	<pre><xsd:element name="ProcessModel" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Model used to describe a chemical process.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	

Element Particle

Namespace	http://impex-fp7.oeaw.ac.at
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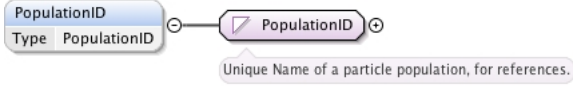
Diagram



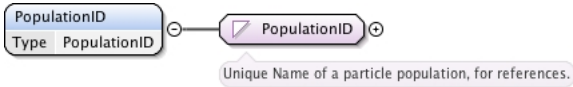
Type	Particle
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ParameterEntity
Model	PopulationID{0,1} , ParticleType+ , Qualifier* , ParticleQuantity , ChemicalFormula{0,1} , AtomicNumber* , PopulationMassNumber* , PopulationChargeState* , EnergyRange{0,1} , AzimuthalAngleRange{0,1} , PolarAngleRange{0,1}
Children	AtomicNumber, AzimuthalAngleRange, ChemicalFormula, EnergyRange, ParticleQuantity, ParticleType, PolarAngleRange, PopulationChargeState, PopulationID, PopulationMassNumber, Qualifier
Instance	<pre><Particle xmlns="http://impex-fp7.oeaw.ac.at"> <PopulationID>{0,1}</PopulationID> <ParticleType>{1,unbounded}</ParticleType> <Qualifier>{0,unbounded}</Qualifier> <ParticleQuantity>{1,1}</ParticleQuantity> <ChemicalFormula>{0,1}</ChemicalFormula> <AtomicNumber>{0,unbounded}</AtomicNumber> <PopulationMassNumber>{0,unbounded}</PopulationMassNumber></pre>

	<pre><PopulationChargeState>{0,unbounded}</PopulationChargeState> <EnergyRange>{0,1}</EnergyRange> <AzimuthalAngleRange>{0,1}</AzimuthalAngleRange> <PolarAngleRange>{0,1}</PolarAngleRange> </Particle></pre>
Source	<code><xsd:element name="Particle" substitutionGroup="ParameterEntity" type="Particle"/></code>

Element Particle / PopulationID

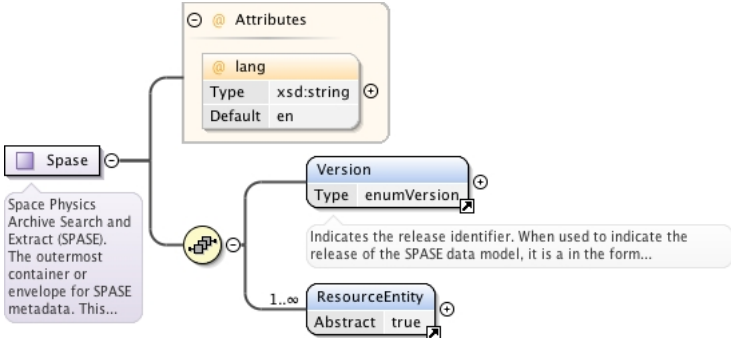
Namespace	http://impex-fp7.oeaw.ac.at				
Diagram					
Type	PopulationID				
Properties	<table border="1"> <tr> <td>content:</td> <td>simple</td> </tr> <tr> <td>minOccurs:</td> <td>0</td> </tr> </table>	content:	simple	minOccurs:	0
content:	simple				
minOccurs:	0				
Source	<code><xsd:element minOccurs="0" name="PopulationID" type="PopulationID"/></code>				

Element PopulationID

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Type	PopulationID		
Properties	<table border="1"> <tr> <td>content:</td> <td>simple</td> </tr> </table>	content:	simple
content:	simple		
Source	<code><xsd:element name="PopulationID" type="PopulationID"/></code>		

Complex Type(s)

Complex Type Spase

Namespace	http://impex-fp7.oeaw.ac.at			
Annotations	Space Physics Archive Search and Extract (SPASE). The outermost container or envelope for SPASE metadata. This indicates the start of the SPASE metadata.			
Diagram				
Used by	Element	Spase		
Model	Version , ResourceEntity+			
Children	ResourceEntity, Version			
Attributes	QName	Type	Default	Use
	lang	xsd:string	en	optional
Source	<pre><xsd:complexType name="Spase" > <xsd:annotation> <xsd:documentation xml:lang="en">Space Physics Archive Search and Extract (SPASE). The outermost container or envelope for SPASE metadata. This indicates the start of the SPASE metadata.</ xsd:documentation> </xsd:annotation></pre>			

```

<xsd:sequence>
  <xsd:element ref="Version" minOccurs="1" maxOccurs="1" />
  <xsd:element ref="ResourceEntity" minOccurs="1" maxOccurs="unbounded" />
</xsd:sequence>
<xsd:attribute name="lang" type="xsd:string" default="en" />
</xsd:complexType>
    
```

Complex Type Catalog

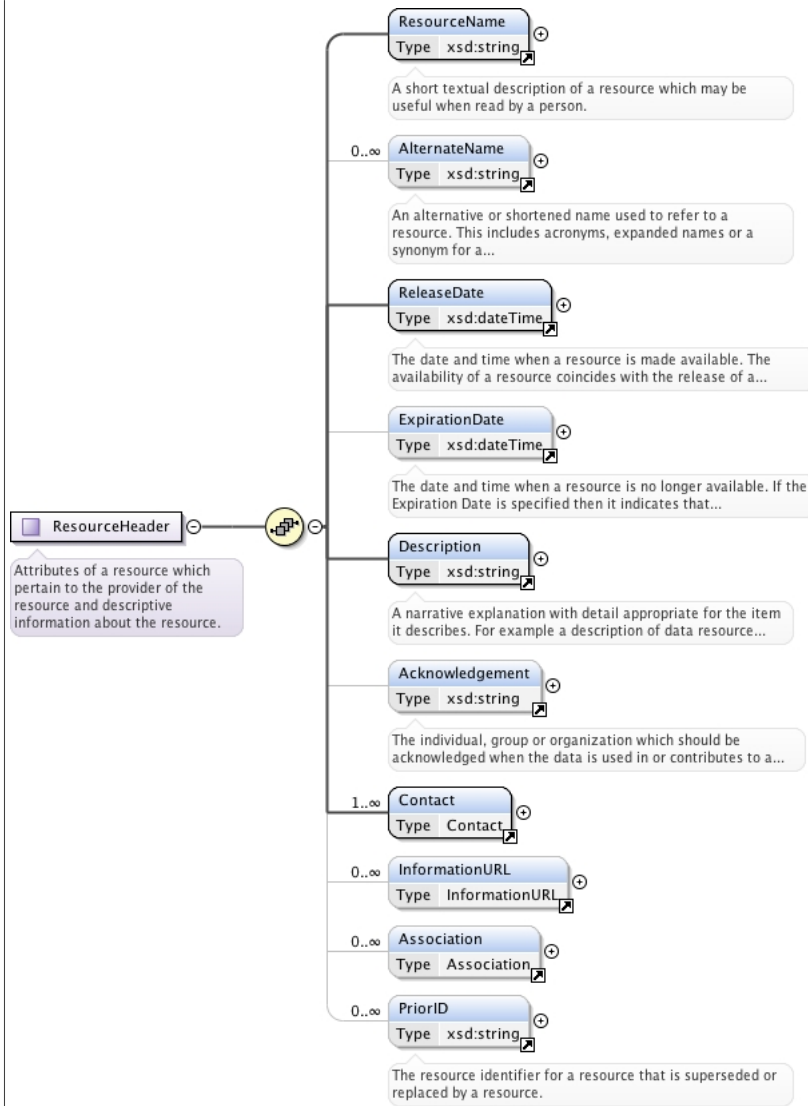
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	<p>A tabular listing of events or observational notes, especially those that have utility in aiding a user in locating data. Catalogues include lists of events, files in a product, and data availability. A Catalog resource is a type of "data product" which is a set of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.</p>
Diagram	<p>Catalog Type: Catalog Cardinality: 1..*</p> <p>ResourceID Type: ResourceID Cardinality: 1..*</p> <p>ResourceHeader Type: ResourceHeader Cardinality: 1..*</p> <p>AccessInformation Type: AccessInformation Cardinality: 1..*</p> <p>ProviderResourceName Type: xsd:string Cardinality: 1..*</p> <p>A short textual description of a resource used by the provider which may be used to identify a resource.</p> <p>ProviderVersion Type: xsd:string Cardinality: 1..*</p> <p>Describes the release or edition of the product used by the provider. The formation rule may vary between providers. It...</p> <p>InstrumentID Type: xsd:string Cardinality: 0..*</p> <p>The identifier of an Instrument resource.</p> <p>PhenomenonType Type: enumPhenomenonType Cardinality: 1..*</p> <p>The characteristics or categorization of an event type.</p> <p>TimeSpan Type: TimeSpan Cardinality: 1..*</p> <p>Caveats Type: xsd:string Cardinality: 1..*</p> <p>Information which may be important in the avoidance of the misuse of the resource, for instance instrument malades,...</p> <p>Keyword Type: xsd:string Cardinality: 0..*</p> <p>A word or phrase that is relevant to the resource but does not exist in other documentary information.</p> <p>InputResourceID Type: xsd:string Cardinality: 0..*</p> <p>The resource identifier for a resource which was used to generate this resource.</p> <p>Parameter Type: Parameter Cardinality: 0..*</p> <p>Extension Type: Extension Cardinality: 0..*</p>

Used by	Element Catalog
Model	ResourceID , ResourceHeader , AccessInformation+ , ProviderResourceName{0,1} , ProviderVersion{0,1} , InstrumentID* , PhenomenonType+ , TimeSpan{0,1} , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , Extension*
Children	AccessInformation, Caveats, Extension, InputResourceID, InstrumentID, Keyword, Parameter, PhenomenonType, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, TimeSpan
Source	<pre> <xsd:complexType name="Catalog"> <xsd:annotation> <xsd:documentation xml:lang="en">A tabular listing of events or observational notes, especially those that have utility in aiding a user in locating data. Catalogues include lists of events, files in a product, and data availability. A Catalog resource is a type of "data product" which is a set of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/> <xsd:element ref="AccessInformation" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="ProviderResourceName" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderVersion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="InstrumentID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="PhenomenonType" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="TimeSpan" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Keyword" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Parameter" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type ResourceHeader

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Attributes of a resource which pertain to the provider of the resource and descriptive information about the resource.

Diagram



Used by	Element ResourceHeader
Model	ResourceName , AlternateName* , ReleaseDate , ExpirationDate{0,1} , Description , Acknowledgement{0,1} , Contact+ , InformationURL* , Association* , PriorID*
Children	Acknowledgement, AlternateName, Association, Contact, Description, ExpirationDate, InformationURL, PriorID, ReleaseDate, ResourceName
Source	<pre> <xsd:complexType name="ResourceHeader"> <xsd:annotation> <xsd:documentation xml:lang="en">Attributes of a resource which pertain to the provider of the resource and descriptive information about the resource.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceName" minOccurs="1" maxOccurs="1"/> <xsd:element ref="AlternateName" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="ReleaseDate" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ExpirationDate" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Acknowledgement" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Contact" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="InformationURL" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Association" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="PriorID" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Contact

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The person or organization who may be able

	to provide special assistance or serve as a channel for communication for additional information about a resource.
Diagram	
Used by	Element Contact
Model	PersonID , Role+
Children	PersonID, Role
Source	<pre><xsd:complexType name="Contact"> <xsd:annotation> <xsd:documentation xml:lang="en">The person or organization who may be able to provide special assistance or serve as a channel for communication for additional information about a resource.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="PersonID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Role" minOccurs="1" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type InformationURL

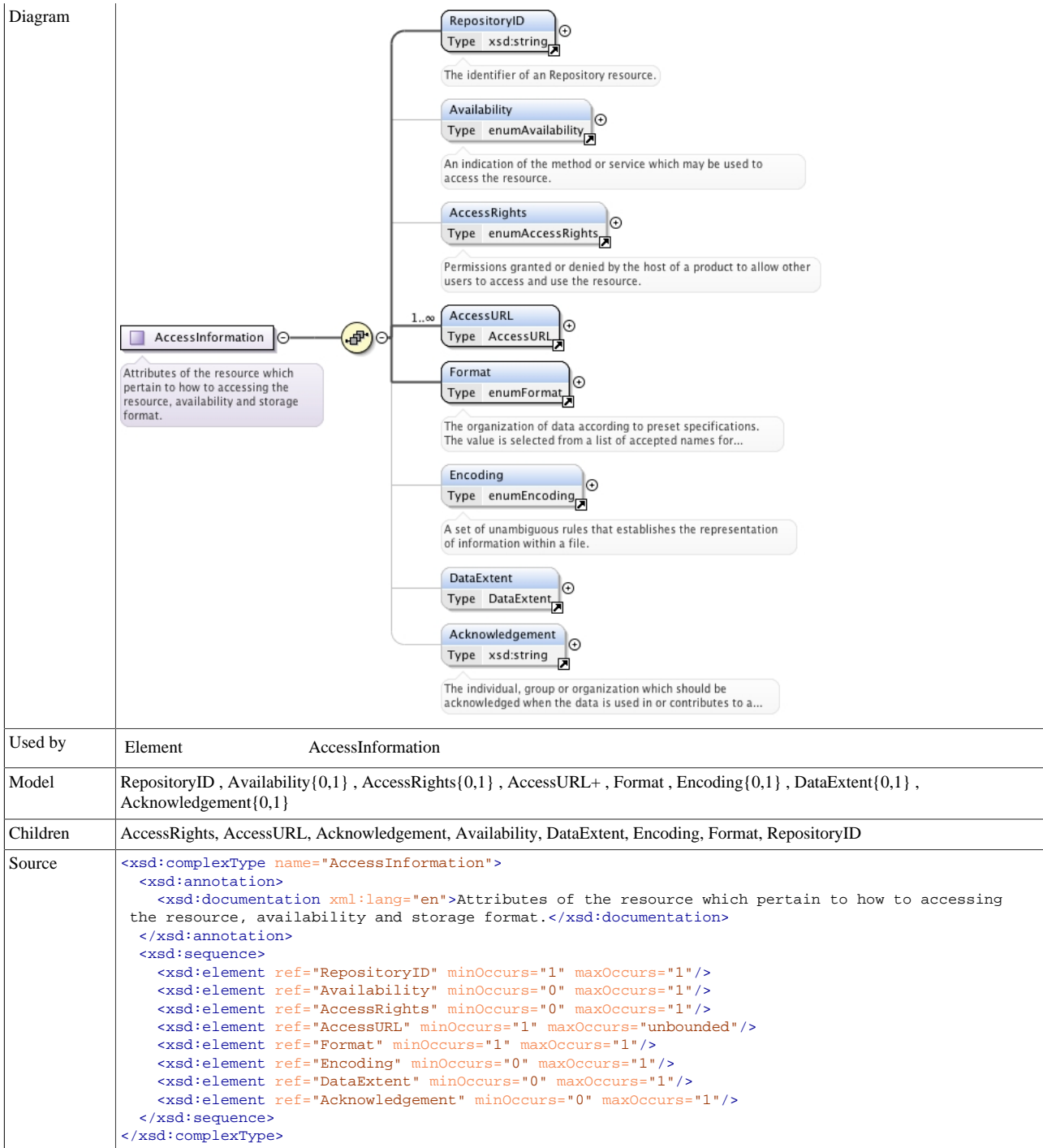
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Attributes of the method of acquiring additional information.
Diagram	
Used by	Element InformationURL
Model	Name{0,1} , URL , Description{0,1} , Language{0,1}
Children	Description, Language, Name, URL
Source	<pre><xsd:complexType name="InformationURL"> <xsd:annotation> <xsd:documentation xml:lang="en">Attributes of the method of acquiring additional information.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Name" minOccurs="0" maxOccurs="1"/> <xsd:element ref="URL" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Language" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type Association

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Attributes of a relationship a resource has with another resource.
Diagram	
Used by	Element Association
Model	AssociationID , AssociationType , Note{0,1}
Children	AssociationID, AssociationType, Note
Source	<pre><xsd:complexType name="Association"> <xsd:annotation> <xsd:documentation xml:lang="en">Attributes of a relationship a resource has with another resource.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="AssociationID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="AssociationType" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Note" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>

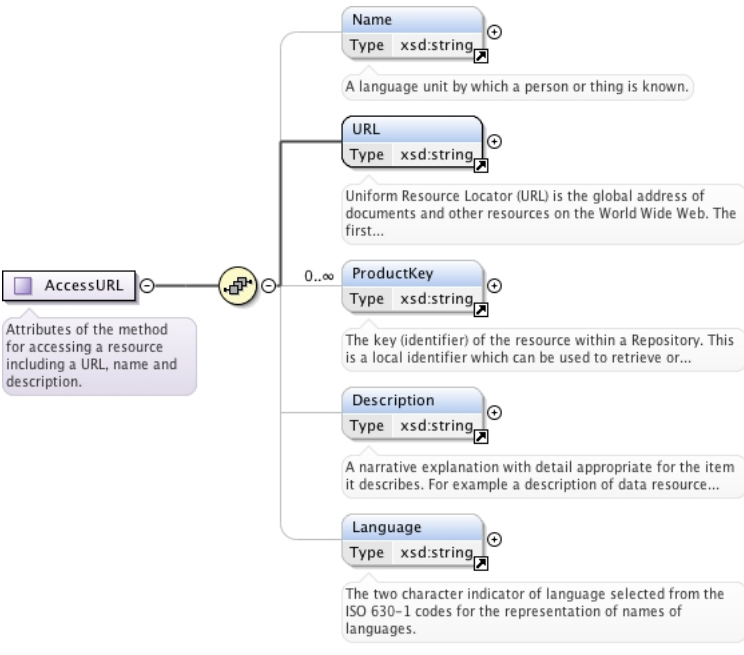
Complex Type AccessInformation

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Attributes of the resource which pertain to how to accessing the resource, availability and storage format.

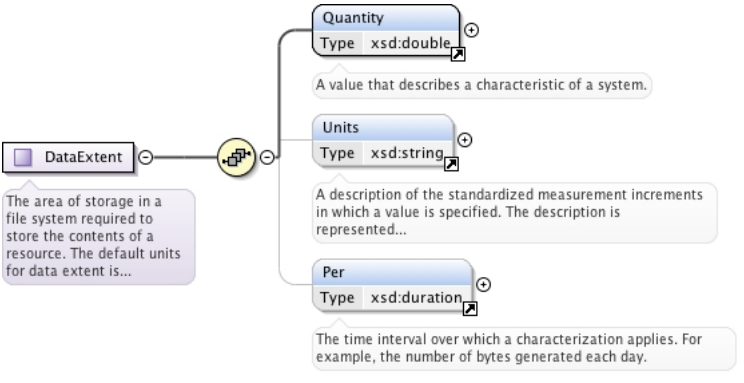


Complex Type AccessURL

<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
<p>Annotations</p>	<p>Attributes of the method for accessing a resource including a URL, name and description.</p>

<p>Diagram</p> 	<p>Name Type xsd:string</p> <p>A language unit by which a person or thing is known.</p> <p>URL Type xsd:string</p> <p>Uniform Resource Locator (URL) is the global address of documents and other resources on the World Wide Web. The first...</p> <p>ProductKey Type xsd:string</p> <p>The key (identifier) of the resource within a Repository. This is a local identifier which can be used to retrieve or...</p> <p>Description Type xsd:string</p> <p>A narrative explanation with detail appropriate for the item it describes. For example a description of data resource...</p> <p>Language Type xsd:string</p> <p>The two character indicator of language selected from the ISO 630-1 codes for the representation of names of languages.</p>
<p>Used by</p>	<p>Element AccessURL</p>
<p>Model</p>	<p>Name{0,1} , URL , ProductKey* , Description{0,1} , Language{0,1}</p>
<p>Children</p>	<p>Description, Language, Name, ProductKey, URL</p>
<p>Source</p>	<pre><xsd:complexType name="AccessURL"> <xsd:annotation> <xsd:documentation xml:lang="en">Attributes of the method for accessing a resource including a URL, name and description.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Name" minOccurs="0" maxOccurs="1"/> <xsd:element ref="URL" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ProductKey" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Language" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type DataExtent

<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
<p>Annotations</p>	<p>The area of storage in a file system required to store the contents of a resource. The default units for data extent is bytes.</p>
<p>Diagram</p> 	<p>Quantity Type xsd:double</p> <p>A value that describes a characteristic of a system.</p> <p>Units Type xsd:string</p> <p>A description of the standardized measurement increments in which a value is specified. The description is represented...</p> <p>Per Type xsd:duration</p> <p>The time interval over which a characterization applies. For example, the number of bytes generated each day.</p>
<p>Used by</p>	<p>Element DataExtent</p>
<p>Model</p>	<p>Quantity , Units{0,1} , Per{0,1}</p>
<p>Children</p>	<p>Per, Quantity, Units</p>
<p>Source</p>	<pre><xsd:complexType name="DataExtent"> <xsd:annotation></pre>

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<xsd:documentation xml:lang="en">The area of storage in a file system required to store the
contents of a resource. The default units for data extent is bytes.</xsd:documentation>
</xsd:annotation>
<xsd:sequence>
  <xsd:element ref="Quantity" minOccurs="1" maxOccurs="1"/>
  <xsd:element ref="Units" minOccurs="0" maxOccurs="1"/>
  <xsd:element ref="Per" minOccurs="0" maxOccurs="1"/>
</xsd:sequence>
</xsd:complexType>

```

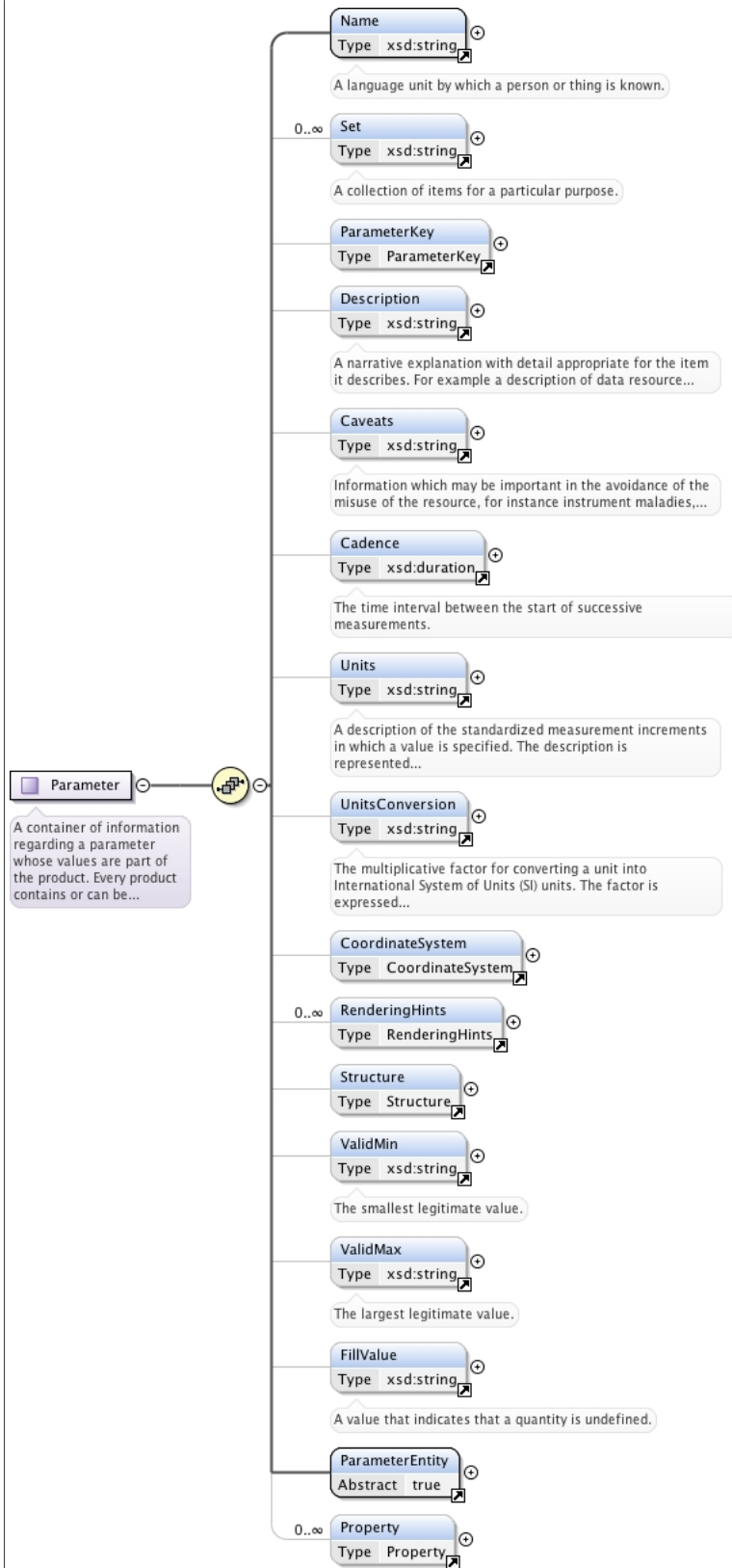
Complex Type TimeSpan

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The duration of an interval in time.
Diagram	
Used by	Element TimeSpan
Model	StartDate , StopDateEntity , Note*
Children	Note, StartDate, StopDateEntity
Source	<pre> <xsd:complexType name="TimeSpan"> <xsd:annotation> <xsd:documentation xml:lang="en">The duration of an interval in time.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="StartDate" minOccurs="1" maxOccurs="1"/> <xsd:element ref="StopDateEntity" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Note" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Parameter

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A container of information regarding a parameter whose values are part of the product. Every product contains or can be related to one or more parameters.

Diagram



Used by	Element	Parameter
Model	Name , Set* , ParameterKey{0,1} , Description{0,1} , Caveats{0,1} , Cadence{0,1} , Units{0,1} , UnitsConversion{0,1} , CoordinateSystem{0,1} , RenderingHints* , Structure{0,1} , ValidMin{0,1} , ValidMax{0,1} , FillValue{0,1} , ParameterEntity , Property*	
Children	Cadence, Caveats, CoordinateSystem, Description, FillValue, Name, ParameterEntity, ParameterKey, Property, RenderingHints, Set, Structure, Units, UnitsConversion, ValidMax, ValidMin	

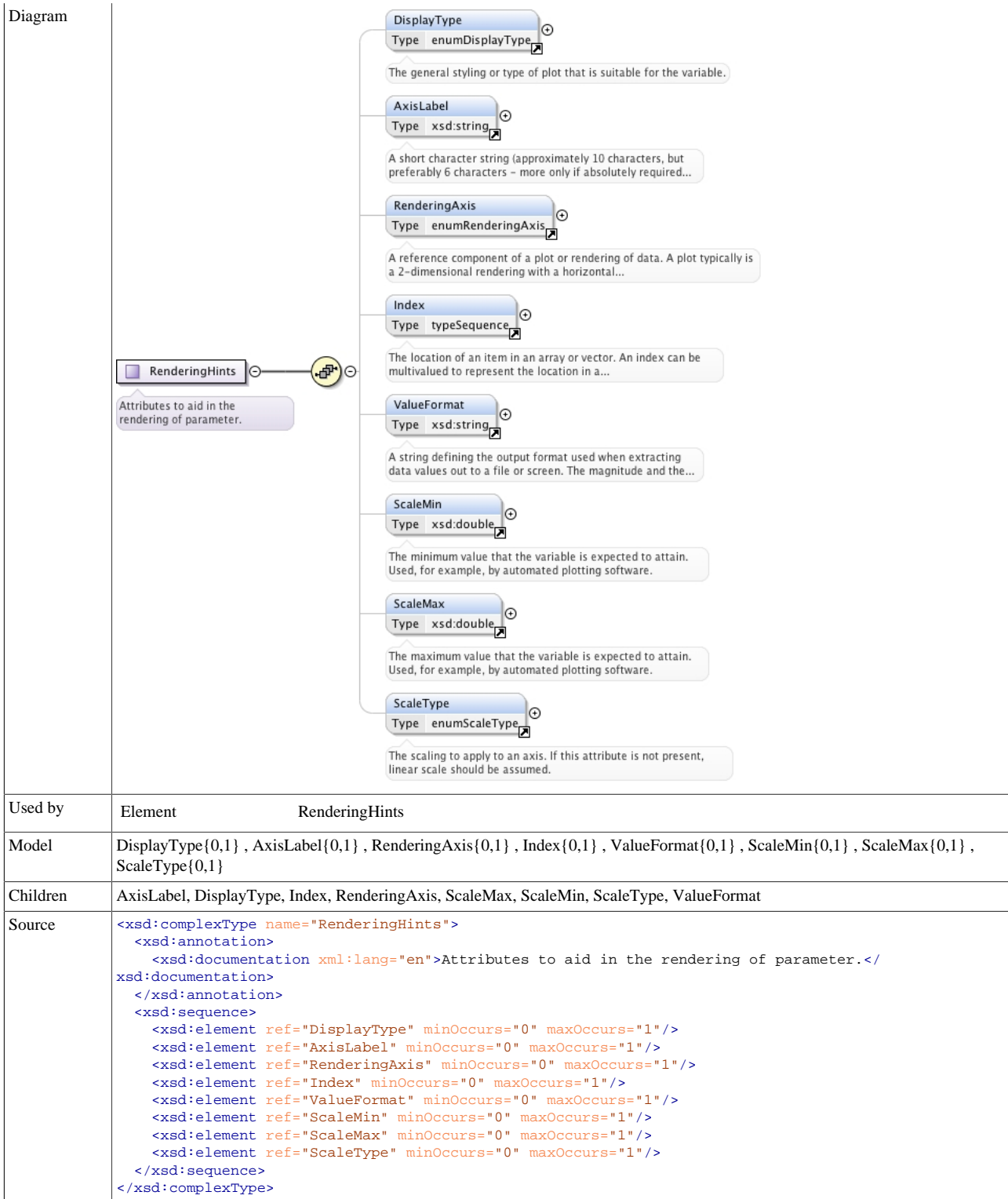
Source	<pre> <xsd:complexType name="Parameter"> <xsd:annotation> <xsd:documentation xml:lang="en">A container of information regarding a parameter whose values are part of the product. Every product contains or can be related to one or more parameters.</ xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Name" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Set" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="ParameterKey" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Cadence" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="0" maxOccurs="1"/> <xsd:element ref="UnitsConversion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="CoordinateSystem" minOccurs="0" maxOccurs="1"/> <xsd:element ref="RenderingHints" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Structure" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ValidMin" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ValidMax" minOccurs="0" maxOccurs="1"/> <xsd:element ref="FillValue" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ParameterEntity" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Property" maxOccurs="unbounded" minOccurs="0"/> </xsd:sequence> </xsd:complexType> </pre>
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Complex Type CoordinateSystem

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The specification of the orientation of a set of (typically) orthogonal base axes.
Diagram	
Used by	Element CoordinateSystem
Model	CoordinateRepresentation , CoordinateSystemName
Children	CoordinateRepresentation, CoordinateSystemName
Source	<pre> <xsd:complexType name="CoordinateSystem"> <xsd:annotation> <xsd:documentation xml:lang="en">The specification of the orientation of a set of (typically) orthogonal base axes.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="CoordinateRepresentation" minOccurs="1" maxOccurs="1"/> <xsd:element ref="CoordinateSystemName" minOccurs="1" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type RenderingHints

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Attributes to aid in the rendering of parameter.



Complex Type Structure

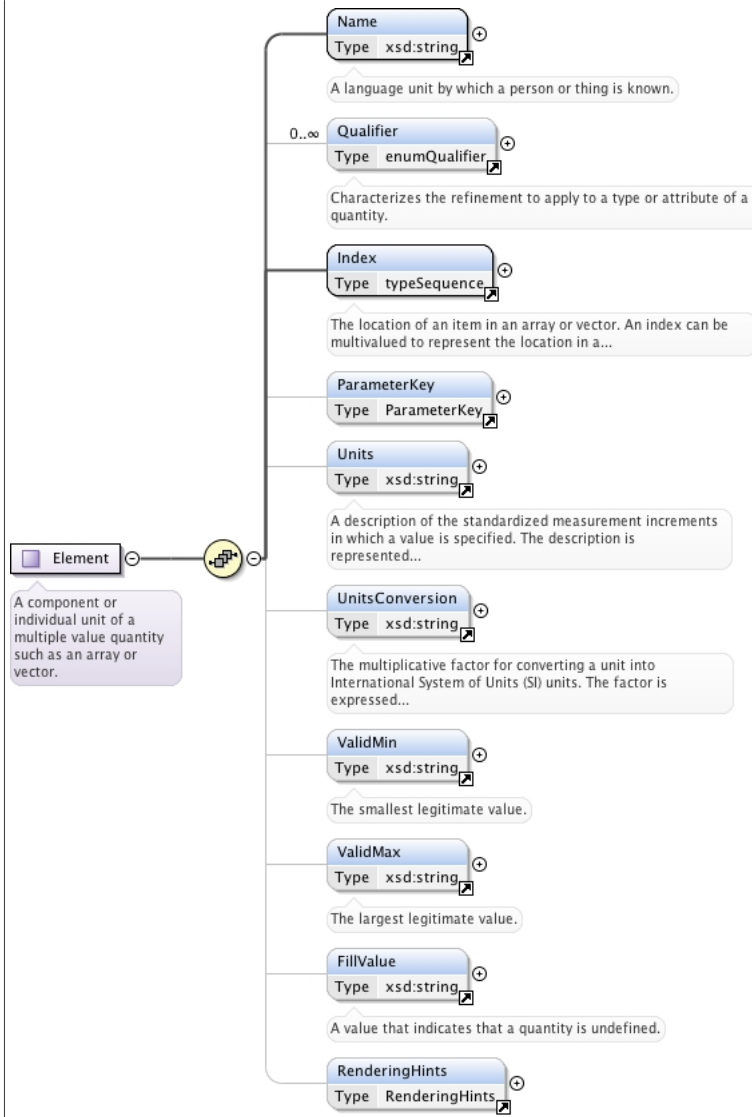
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The organization and relationship of individual values within a quantity.

Diagram	
Used by	Element Structure
Model	Size , Description{0,1} , Element*
Children	Description, Element, Size
Source	<pre> <xsd:complexType name="Structure"> <xsd:annotation> <xsd:documentation xml:lang="en">The organization and relationship of individual values within a quantity.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Size" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Element" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Element

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A component or individual unit of a multiple value quantity such as an array or vector.

Diagram

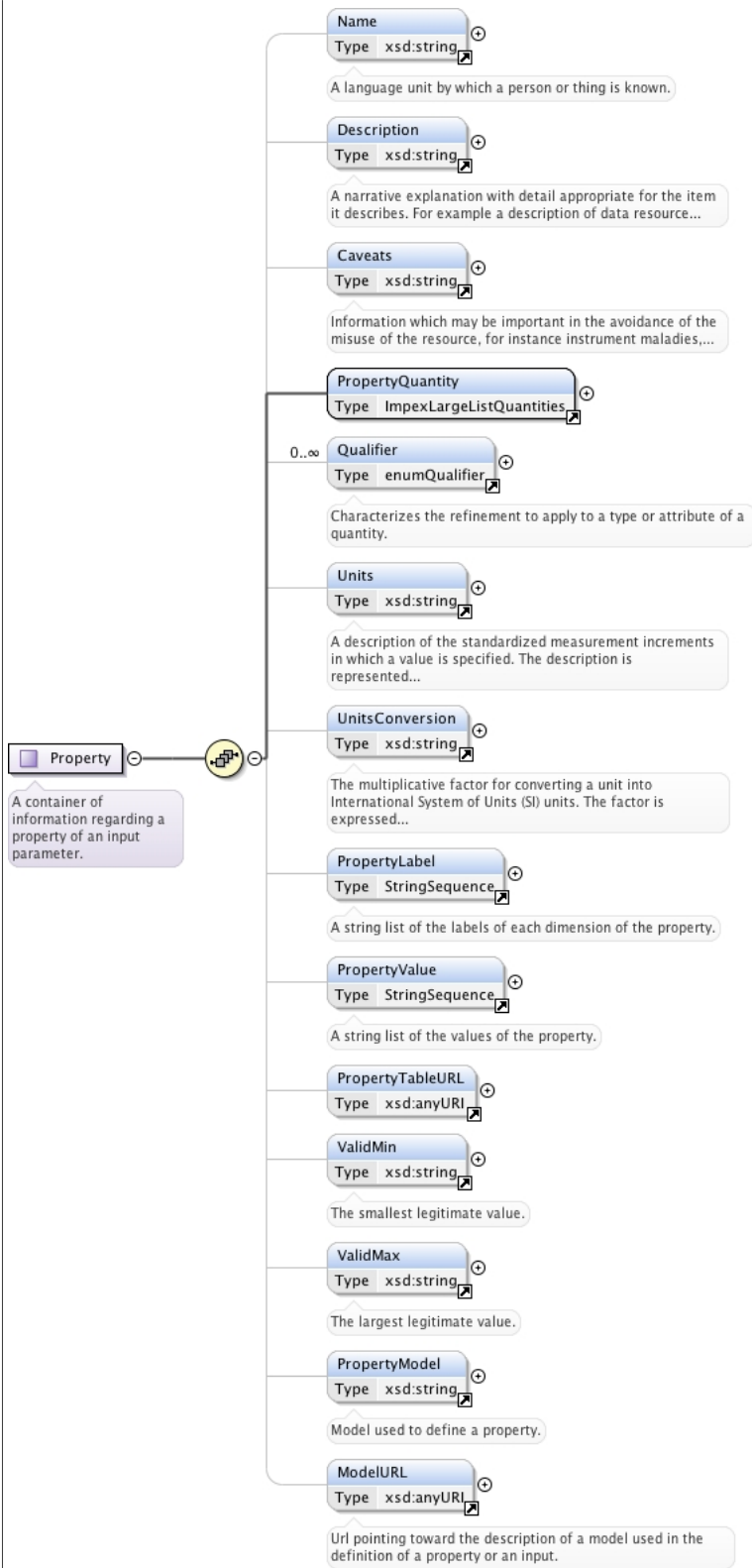


Used by	Element Element
Model	Name , Qualifier* , Index , ParameterKey{0,1} , Units{0,1} , UnitsConversion{0,1} , ValidMin{0,1} , ValidMax{0,1} , FillValue{0,1} , RenderingHints{0,1}
Children	FillValue, Index, Name, ParameterKey, Qualifier, RenderingHints, Units, UnitsConversion, ValidMax, ValidMin
Source	<pre> <xsd:complexType name="Element"> <xsd:annotation> <xsd:documentation xml:lang="en">A component or individual unit of a multiple value quantity such as an array or vector.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Name" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Qualifier" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Index" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ParameterKey" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="0" maxOccurs="1"/> <xsd:element ref="UnitsConversion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ValidMin" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ValidMax" minOccurs="0" maxOccurs="1"/> <xsd:element ref="FillValue" minOccurs="0" maxOccurs="1"/> <xsd:element ref="RenderingHints" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Property

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A container of information regarding a property of an input parameter.

Diagram



Used by	Element Property
Model	Name{0,1} , Description{0,1} , Caveats{0,1} , PropertyQuantity , Qualifier* , Units{0,1} , UnitsConversion{0,1} , PropertyLabel{0,1} , PropertyValue{0,1} , PropertyTableURL{0,1} , ValidMin{0,1} , ValidMax{0,1} , PropertyModel{0,1} , ModelURL{0,1}
Children	Caveats, Description, ModelURL, Name, PropertyLabel, PropertyModel, PropertyQuantity, PropertyTableURL, PropertyValue, Qualifier, Units, UnitsConversion, ValidMax, ValidMin
Source	<code><xsd:complexType name="Property"> <xsd:annotation></code>

	<pre> <xsd:documentation xml:lang="en">A container of information regarding a property of an input parameter.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Name" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="PropertyQuantity" minOccurs="1" maxOccurs="1"/> <xsd:element maxOccurs="unbounded" minOccurs="0" ref="Qualifier"/> <xsd:element ref="Units" minOccurs="0" maxOccurs="1"/> <xsd:element ref="UnitsConversion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="PropertyLabel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="PropertyValue" minOccurs="0" maxOccurs="1"/> <xsd:element minOccurs="0" ref="PropertyTableURL"/> <xsd:element ref="ValidMin" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ValidMax" minOccurs="0" maxOccurs="1"/> <xsd:element ref="PropertyModel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ModelURL" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>
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Complex Type Extension

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A container of other metadata which is not part of the SPASE data model. The contents of this element are defined by individual usage. The organization and content are constrained by the implementation. For example, in an XML representation of the SPASE metadata the content must conform to the XML specifications.
Diagram	<p>A container of other metadata which is not part of the SPASE data model. The contents of this element are defined by...</p>
Used by	Element Extension
Model	ANY element from ANY namespace
Source	<pre> <xsd:complexType name="Extension"> <xsd:annotation> <xsd:documentation xml:lang="en">A container of other metadata which is not part of the SPASE data model. The contents of this element are defined by individual usage. The organization and content are constrained by the implementation. For example, in an XML representation of the SPASE metadata the content must conform to the XML specifications.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:any minOccurs="0"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Field

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The space around a radiating body within which its electromagnetic attributes can exert force on another similar body that is not in direct contact.
Diagram	<p>The space around a radiating body within which its electromagnetic attributes can exert force on another similar body...</p> <p>0..∞ Qualifier Type enumQualifier Characterizes the refinement to apply to a type or attribute of a quantity.</p> <p>FieldQuantity Type enumFieldQuantity The physical attribute of the field.</p> <p>FrequencyRange Type FrequencyRange</p>

Used by	Element Field
Model	Qualifier* , FieldQuantity , FrequencyRange{0,1}
Children	FieldQuantity, FrequencyRange, Qualifier
Source	<pre><xsd:complexType name="Field"> <xsd:annotation> <xsd:documentation xml:lang="en">The space around a radiating body within which its electromagnetic attributes can exert force on another similar body that is not in direct contact.</ xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Qualifier" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="FieldQuantity" minOccurs="1" maxOccurs="1"/> <xsd:element ref="FrequencyRange" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type FrequencyRange

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The range of possible values for the observed frequency.
Diagram	
Used by	Element FrequencyRange
Model	SpectralRange{0,1} , Low , High , Units , Bin*
Children	Bin, High, Low, SpectralRange, Units
Source	<pre><xsd:complexType name="FrequencyRange"> <xsd:annotation> <xsd:documentation xml:lang="en">The range of possible values for the observed frequency.</ xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="SpectralRange" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Low" minOccurs="1" maxOccurs="1"/> <xsd:element ref="High" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type Bin

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A grouping of observations according to a band or window of a common attribute.

Diagram	
Used by	Element Bin
Model	BandName{0,1} , Low , High
Children	BandName, High, Low
Source	<pre> <xsd:complexType name="Bin"> <xsd:annotation> <xsd:documentation xml:lang="en">A grouping of observations according to a band or window of a common attribute.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="BandName" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Low" minOccurs="1" maxOccurs="1"/> <xsd:element ref="High" minOccurs="1" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type EnergyRange

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The minimum and maximum energy values of the particles represented by a given "physical parameter" description.
Diagram	
Used by	Element EnergyRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre> <xsd:complexType name="EnergyRange"> <xsd:annotation> <xsd:documentation xml:lang="en">The minimum and maximum energy values of the particles represented by a given "physical parameter" description.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Low" minOccurs="1" maxOccurs="1"/> <xsd:element ref="High" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type AzimuthalAngleRange

Namespace	http://impex-fp7.oeaw.ac.at
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Annotations	The range of possible azimuthal angles for a group of energy observations. Default units are degrees.
Diagram	
Used by	Element AzimuthalAngleRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre> <xsd:complexType name="AzimuthalAngleRange"> <xsd:annotation> <xsd:documentation xml:lang="en">The range of possible azimuthal angles for a group of energy observations. Default units are degrees.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Low" minOccurs="1" maxOccurs="1"/> <xsd:element ref="High" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type PolarAngleRange

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The range of possible polar angles for a group of energy observations. Defaults units are degrees.
Diagram	
Used by	Element PolarAngleRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre> <xsd:complexType name="PolarAngleRange"> <xsd:annotation> <xsd:documentation xml:lang="en">The range of possible polar angles for a group of energy observations. Defaults units are degrees.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Low" minOccurs="1" maxOccurs="1"/> <xsd:element ref="High" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

```

<xsd:element ref="High" minOccurs="1" maxOccurs="1"/>
<xsd:element ref="Units" minOccurs="1" maxOccurs="1"/>
<xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/>
</xsd:sequence>
</xsd:complexType>
    
```

Complex Type Wave

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Periodic or quasi-periodic (AC) variations of physical quantities in time and space, capable of propagating or being trapped within particular regimes.
Diagram	<pre> classDiagram class Wave { WaveType Qualifier WaveQuantity EnergyRange FrequencyRange WavelengthRange } class WaveType { Type enumWaveType } class Qualifier { Type enumQualifier } class WaveQuantity { Type enumWaveQuantity } class EnergyRange { Type EnergyRange } class FrequencyRange { Type FrequencyRange } class WavelengthRange { Type WavelengthRange } Wave "1" -- "0..∞" Qualifier Wave "1" -- "1" WaveType Wave "1" -- "1" WaveQuantity Wave "1" -- "1" EnergyRange Wave "1" -- "1" FrequencyRange Wave "1" -- "1" WavelengthRange </pre>
Used by	Element Wave
Model	WaveType , Qualifier* , WaveQuantity , EnergyRange{0,1} , FrequencyRange{0,1} , WavelengthRange{0,1}
Children	EnergyRange, FrequencyRange, Qualifier, WaveQuantity, WaveType, WavelengthRange
Source	<pre> <xsd:complexType name="Wave"> <xsd:annotation> <xsd:documentation xml:lang="en">Periodic or quasi-periodic (AC) variations of physical quantities in time and space, capable of propagating or being trapped within particular regimes.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="WaveType" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Qualifier" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="WaveQuantity" minOccurs="1" maxOccurs="1"/> <xsd:element ref="EnergyRange" minOccurs="0" maxOccurs="1"/> <xsd:element ref="FrequencyRange" minOccurs="0" maxOccurs="1"/> <xsd:element ref="WavelengthRange" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type WavelengthRange

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The range of possible values for the observed wavelength.

Diagram	
Used by	Element WavelengthRange
Model	SpectralRange{0,1} , Low , High , Units , Bin*
Children	Bin, High, Low, SpectralRange, Units
Source	<pre> <xsd:complexType name="WavelengthRange"> <xsd:annotation> <xsd:documentation xml:lang="en">The range of possible values for the observed wavelength.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="SpectralRange" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Low" minOccurs="1" maxOccurs="1"/> <xsd:element ref="High" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Mixed

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A parameter derived from more than one of the type of parameter. For example, plasma beta, the ratio of plasma particle energy density to the energy density of the magnetic field permeating the plasma, is "mixed."
Diagram	
Used by	Element Mixed
Model	MixedQuantity , ParticleType* , Qualifier*
Children	MixedQuantity, ParticleType, Qualifier
Source	<pre> <xsd:complexType name="Mixed"> <xsd:annotation> <xsd:documentation xml:lang="en">A parameter derived from more than one of the type of parameter. For example, plasma beta, the ratio of plasma particle energy density to the energy density of the magnetic field permeating the plasma, is "mixed."</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="MixedQuantity" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="ParticleType" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Qualifier" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

```

</xsd:annotation>
<xsd:sequence>
  <xsd:element ref="MixedQuantity" minOccurs="1" maxOccurs="1"/>
  <xsd:element ref="ParticleType" minOccurs="0" maxOccurs="unbounded"/>
  <xsd:element ref="Qualifier" minOccurs="0" maxOccurs="unbounded"/>
</xsd:sequence>
</xsd:complexType>

```

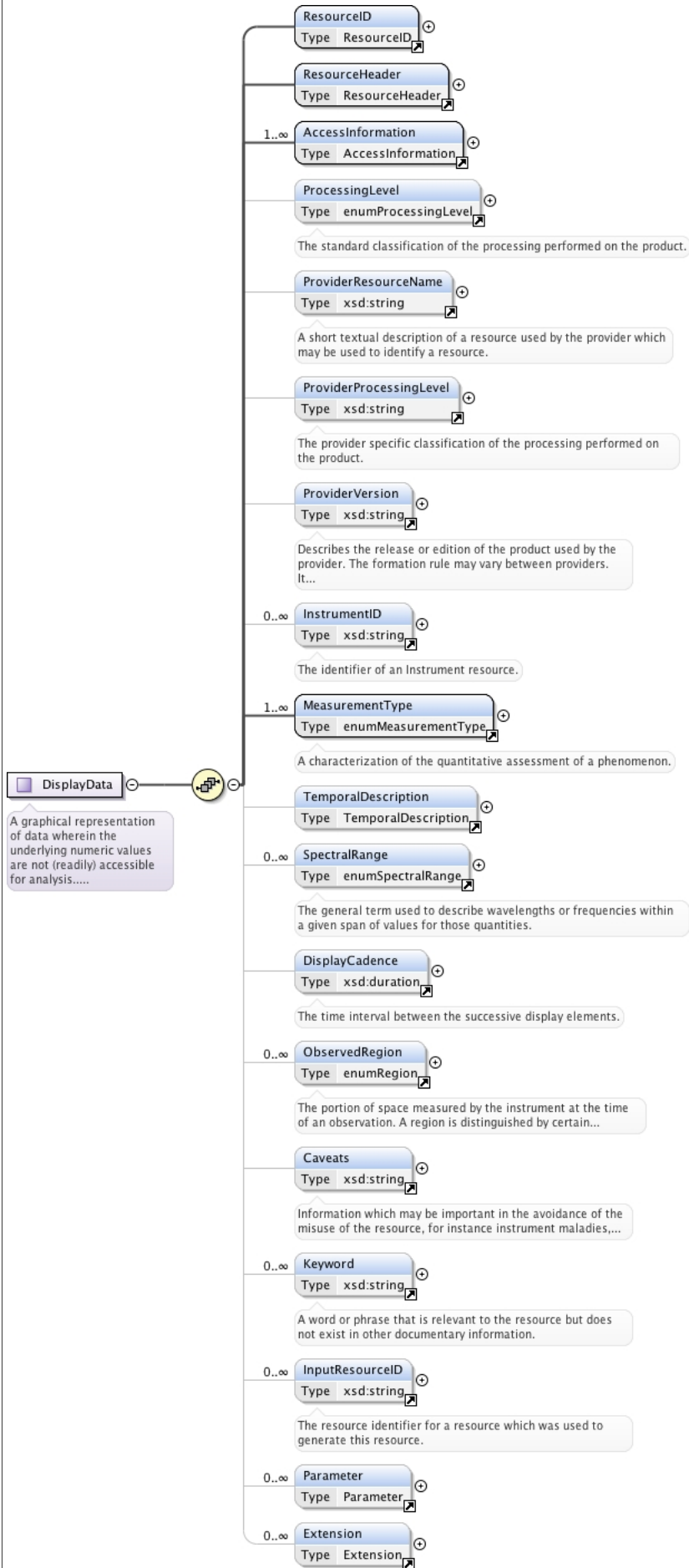
Complex Type Support

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Information useful in understanding the context of an observation, typically observed or measured coincidentally with a physical observation.
Diagram	
Used by	Element Support
Model	Qualifier*, SupportQuantity
Children	Qualifier, SupportQuantity
Source	<pre> <xsd:complexType name="Support"> <xsd:annotation> <xsd:documentation xml:lang="en">Information useful in understanding the context of an observation, typically observed or measured coincidentally with a physical observation.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Qualifier" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="SupportQuantity" minOccurs="1" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type DisplayData

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A graphical representation of data wherein the underlying numeric values are not (readily) accessible for analysis.. Examples are line plots and spectrograms. A Display Data resource is a type of "data product" which is a set of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.

Diagram



Used by	Element DisplayData
Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , InstrumentID* , MeasurementType+ , TemporalDescription{0,1} , SpectralRange* , DisplayCadence{0,1} , ObservedRegion* , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , Extension*
Children	AccessInformation, Caveats, DisplayCadence, Extension, InputResourceID, InstrumentID, Keyword, MeasurementType, ObservedRegion, Parameter, ProcessingLevel, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SpectralRange, TemporalDescription
Source	<pre> <xsd:complexType name="DisplayData"> <xsd:annotation> <xsd:documentation xml:lang="en">A graphical representation of data wherein the underlying numeric values are not (readily) accessible for analysis.. Examples are line plots and spectrograms. A Display Data resource is a type of "data product" which is a set of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.</ xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/> <xsd:element ref="AccessInformation" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="ProcessingLevel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderResourceName" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderProcessingLevel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderVersion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="InstrumentID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="MeasurementType" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="TemporalDescription" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SpectralRange" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="DisplayCadence" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ObservedRegion" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Keyword" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Parameter" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

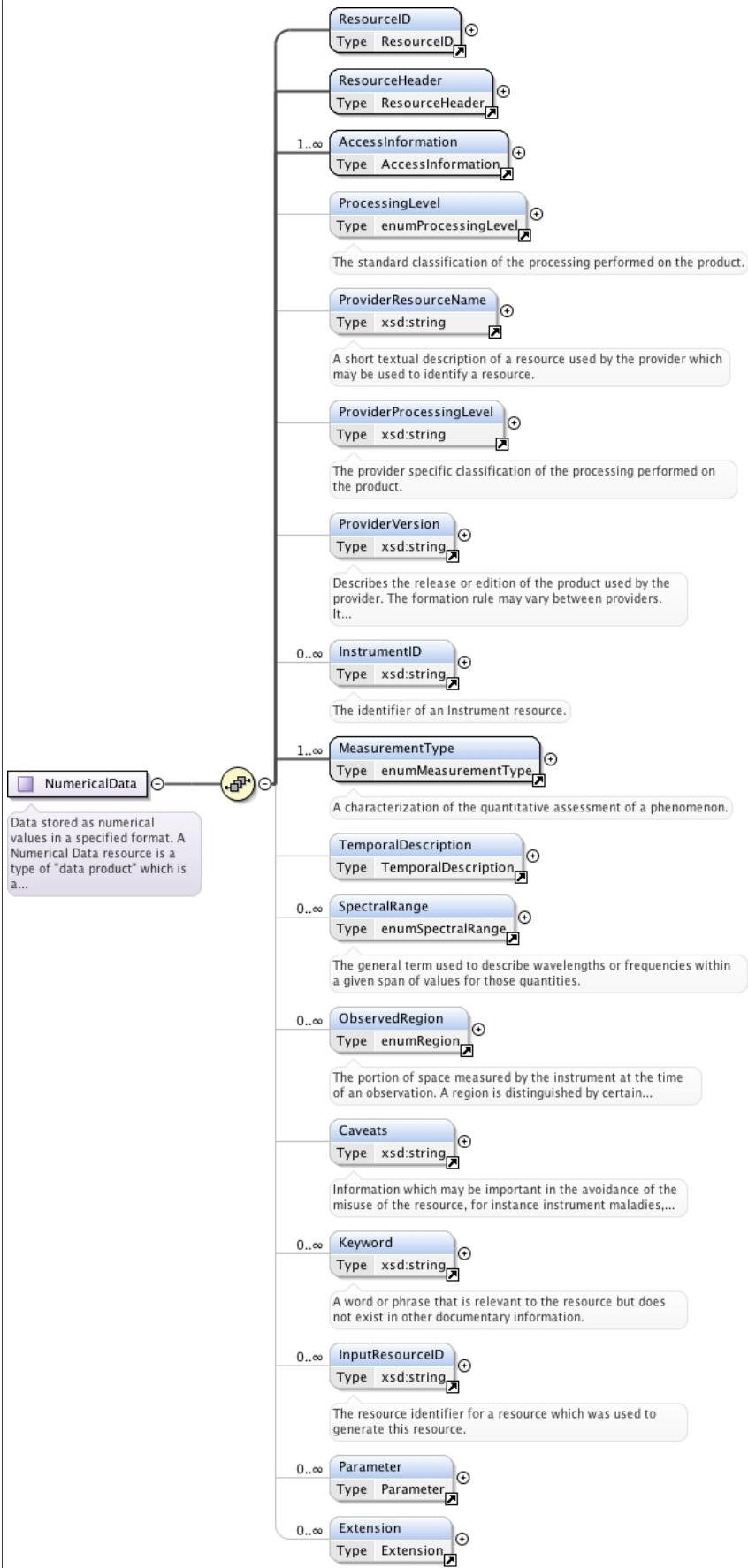
Complex Type TemporalDescription

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A characterization of the time over which the measurement was taken.
Diagram	
Used by	Element TemporalDescription
Model	TimeSpan , Cadence{0,1} , Exposure{0,1}
Children	Cadence, Exposure, TimeSpan
Source	<pre> <xsd:complexType name="TemporalDescription"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the time over which the measurement was taken.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="TimeSpan" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Cadence" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Exposure" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type NumericalData

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Data stored as numerical values in a specified format. A Numerical Data resource is a type of "data product" which is a set of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.

Diagram



Used by

Element

NumericalData

Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , InstrumentID* , MeasurementType+ , TemporalDescription{0,1} , SpectralRange* , ObservedRegion* , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , Extension*
Children	AccessInformation, Caveats, Extension, InputResourceID, InstrumentID, Keyword, MeasurementType, ObservedRegion, Parameter, ProcessingLevel, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SpectralRange, TemporalDescription
Source	<pre> <xsd:complexType name="NumericalData"> <xsd:annotation> <xsd:documentation xml:lang="en">Data stored as numerical values in a specified format. A Numerical Data resource is a type of "data product" which is a set of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/> <xsd:element ref="AccessInformation" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="ProcessingLevel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderResourceName" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderProcessingLevel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderVersion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="InstrumentID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="MeasurementType" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="TemporalDescription" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SpectralRange" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="ObservedRegion" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Keyword" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Parameter" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Document

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A set of information designed and presented as an individual entity. A document may contain plain or formatted text, in-line graphics, sound, other multimedia data, or hypermedia references. A Document resource is intended for use on digital objects that have no other identifier (e.g., DOI or ISBN).
Diagram	

Used by	Element Document
Model	ResourceID , ResourceHeader , AccessInformation+ , Keyword* , DocumentType , MIMeType , InputResourceID*
Children	AccessInformation, DocumentType, InputResourceID, Keyword, MIMeType, ResourceHeader, ResourceID
Source	<pre><xsd:complexType name="Document"> <xsd:annotation> <xsd:documentation xml:lang="en">A set of information designed and presented as an individual entity. A document may contain plain or formatted text, in-line graphics, sound, other multimedia data, or hypermedia references. A Document resource is intended for use on digital objects that have no other identifier (e.g., DOI or ISBN).</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1" /> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1" /> <xsd:element ref="AccessInformation" minOccurs="1" maxOccurs="unbounded" /> <xsd:element ref="Keyword" minOccurs="0" maxOccurs="unbounded" /> <xsd:element ref="DocumentType" minOccurs="1" maxOccurs="1" /> <xsd:element ref="MIMeType" minOccurs="1" maxOccurs="1" /> <xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType></pre>

Complex Type Source

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The location and attributes of an object.
Diagram	
Used by	Element Source
Model	SourceType , URL , MirrorURL* , Checksum{0,1} , DataExtent{0,1}
Children	Checksum, DataExtent, MirrorURL, SourceType, URL
Source	<pre><xsd:complexType name="Source"> <xsd:annotation> <xsd:documentation xml:lang="en">The location and attributes of an object.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="SourceType" minOccurs="1" maxOccurs="1" /> <xsd:element ref="URL" minOccurs="1" maxOccurs="1" /> <xsd:element ref="MirrorURL" minOccurs="0" maxOccurs="unbounded" /> <xsd:element ref="Checksum" minOccurs="0" maxOccurs="1" /> <xsd:element ref="DataExtent" minOccurs="0" maxOccurs="1" /> </xsd:sequence> </xsd:complexType></pre>

Complex Type Checksum

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A computed value that is dependent upon the contents of a digital data object. Primarily used to check whether errors or alterations have occurred during the transmission or storage

	of a data object.
Diagram	
Used by	Element Checksum
Model	HashValue , HashFunction
Children	HashFunction, HashValue
Source	<pre><xsd:complexType name="Checksum"> <xsd:annotation> <xsd:documentation xml:lang="en">A computed value that is dependent upon the contents of a digital data object. Primarily used to check whether errors or alterations have occurred during the transmission or storage of a data object.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="HashValue" minOccurs="1" maxOccurs="1"/> <xsd:element ref="HashFunction" minOccurs="1" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type Instrument

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A device that makes measurements used to characterize a physical phenomenon, or a family of like devices.
Diagram	
Used by	Element Instrument
Model	ResourceID , ResourceHeader , InstrumentType+ , InvestigationName+ , OperatingSpan{0,1} , ObservatoryID , Caveats{0,1} , Extension*
Children	Caveats, Extension, InstrumentType, InvestigationName, ObservatoryID, OperatingSpan, ResourceHeader, ResourceID
Source	<pre><xsd:complexType name="Instrument"> <xsd:annotation></pre>

```

<xsd:documentation xml:lang="en">A device that makes measurements used to characterize a
physical phenomenon, or a family of like devices.</xsd:documentation>
</xsd:annotation>
<xsd:sequence>
  <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1" />
  <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1" />
  <xsd:element ref="InstrumentType" minOccurs="1" maxOccurs="unbounded" />
  <xsd:element ref="InvestigationName" minOccurs="1" maxOccurs="unbounded" />
  <xsd:element ref="OperatingSpan" minOccurs="0" maxOccurs="1" />
  <xsd:element ref="ObservatoryID" minOccurs="1" maxOccurs="1" />
  <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1" />
  <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded" />
</xsd:sequence>
</xsd:complexType>

```

Complex Type OperatingSpan

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The interval in time from the first point at which an instrument or spacecraft was producing and sending data until the last such time, ignoring possible gaps.
Diagram	
Used by	Element OperatingSpan
Model	StartDate , StopDate{0,1} , Note*
Children	Note, StartDate, StopDate
Source	<pre> <xsd:complexType name="OperatingSpan"> <xsd:annotation> <xsd:documentation xml:lang="en">The interval in time from the first point at which an instrument or spacecraft was producing and sending data until the last such time, ignoring possible gaps.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="StartDate" minOccurs="1" maxOccurs="1" /> <xsd:element ref="StopDate" minOccurs="0" maxOccurs="1" /> <xsd:element ref="Note" minOccurs="0" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Observatory

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The host (spacecraft, network, facility) for instruments making observations, or a family of closely related hosts.

Diagram	
Used by	Element Observatory
Model	ResourceID , ResourceHeader , ObservatoryGroupID* , Location , OperatingSpan{0,1} , Extension*
Children	Extension, Location, ObservatoryGroupID, OperatingSpan, ResourceHeader, ResourceID
Source	<pre> <xsd:complexType name="Observatory"> <xsd:annotation> <xsd:documentation xml:lang="en">The host (spacecraft, network, facility) for instruments making observations, or a family of closely related hosts.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1" /> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1" /> <xsd:element ref="ObservatoryGroupID" minOccurs="0" maxOccurs="unbounded" /> <xsd:element ref="Location" minOccurs="1" maxOccurs="1" /> <xsd:element ref="OperatingSpan" minOccurs="0" maxOccurs="1" /> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Location

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A position in space definable by a regional referencing system and geographic coordinates.
Diagram	
Used by	Element Location
Model	ObservatoryRegion+ , CoordinateSystemName{0,1} , Latitude{0,1} , Longitude{0,1} , Elevation{0,1}

Children	CoordinateSystemName, Elevation, Latitude, Longitude, ObservatoryRegion
Source	<pre><xsd:complexType name="Location"> <xsd:annotation> <xsd:documentation xml:lang="en">A position in space definable by a regional referencing system and geographic coordinates.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ObservatoryRegion" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="CoordinateSystemName" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Latitude" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Longitude" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Elevation" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type Person

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	An individual human being.
Diagram	
Used by	Element Person
Model	ResourceID , ReleaseDate{0,1} , PersonName{0,1} , OrganizationName , Address{0,1} , Email* , PhoneNumber* , FaxNumber{0,1} , Note{0,1} , Extension*
Children	Address, Email, Extension, FaxNumber, Note, OrganizationName, PersonName, PhoneNumber, ReleaseDate, ResourceID
Source	<pre><xsd:complexType name="Person"></pre>

```

<xsd:annotation>
  <xsd:documentation xml:lang="en">An individual human being.</xsd:documentation>
</xsd:annotation>
<xsd:sequence>
  <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1" />
  <xsd:element ref="ReleaseDate" minOccurs="0" maxOccurs="1" />
  <xsd:element ref="PersonName" minOccurs="0" maxOccurs="1" />
  <xsd:element ref="OrganizationName" minOccurs="1" maxOccurs="1" />
  <xsd:element ref="Address" minOccurs="0" maxOccurs="1" />
  <xsd:element ref="Email" minOccurs="0" maxOccurs="unbounded" />
  <xsd:element ref="PhoneNumber" minOccurs="0" maxOccurs="unbounded" />
  <xsd:element ref="FaxNumber" minOccurs="0" maxOccurs="1" />
  <xsd:element ref="Note" minOccurs="0" maxOccurs="1" />
  <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded" />
</xsd:sequence>
</xsd:complexType>
  
```

Complex Type Registry

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A location or facility where resources are cataloged.
Diagram	
Used by	Element Registry
Model	ResourceID , ResourceHeader , AccessURL , Extension*
Children	AccessURL, Extension, ResourceHeader, ResourceID
Source	<pre> <xsd:complexType name="Registry"> <xsd:annotation> <xsd:documentation xml:lang="en">A location or facility where resources are cataloged.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1" /> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1" /> <xsd:element ref="AccessURL" minOccurs="1" maxOccurs="1" /> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Repository

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A location or facility where resources are stored.
Diagram	
Used by	Element Repository
Model	ResourceID , ResourceHeader , AccessURL , Extension*
Children	AccessURL, Extension, ResourceHeader, ResourceID

Source	<pre> <xsd:complexType name="Repository"> <xsd:annotation> <xsd:documentation xml:lang="en">A location or facility where resources are stored.</ xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1" /> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1" /> <xsd:element ref="AccessURL" minOccurs="1" maxOccurs="1" /> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType> </pre>
--------	--

Complex Type Service

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A location or facility that can perform a well defined task.
Diagram	
Used by	Element Service
Model	ResourceID , ResourceHeader , AccessURL , Extension*
Children	AccessURL, Extension, ResourceHeader, ResourceID
Source	<pre> <xsd:complexType name="Service"> <xsd:annotation> <xsd:documentation xml:lang="en">A location or facility that can perform a well defined task.</ xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1" /> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1" /> <xsd:element ref="AccessURL" minOccurs="1" maxOccurs="1" /> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Annotation

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Information which is explanatory or descriptive which is associated with another resource.

<p>Diagram</p>	
<p>Used by</p>	<p>Element Annotation</p>
<p>Model</p>	<p>ResourceID , ResourceHeader , ImageURL{0,1} , AnnotationType , PhenomenonType{0,1} , ClassificationMethod{0,1} , ConfidenceRating{0,1} , TimeSpan* , ObservationExtent* , Extension*</p>
<p>Children</p>	<p>AnnotationType, ClassificationMethod, ConfidenceRating, Extension, ImageURL, ObservationExtent, PhenomenonType, ResourceHeader, ResourceID, TimeSpan</p>
<p>Source</p>	<pre><xsd:complexType name="Annotation"> <xsd:annotation> <xsd:documentation xml:lang="en">Information which is explanatory or descriptive which is associated with another resource.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ImageURL" minOccurs="0" maxOccurs="1"/> <xsd:element ref="AnnotationType" minOccurs="1" maxOccurs="1"/> <xsd:element ref="PhenomenonType" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ClassificationMethod" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ConfidenceRating" minOccurs="0" maxOccurs="1"/> <xsd:element ref="TimeSpan" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="ObservationExtent" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type ObservationExtent

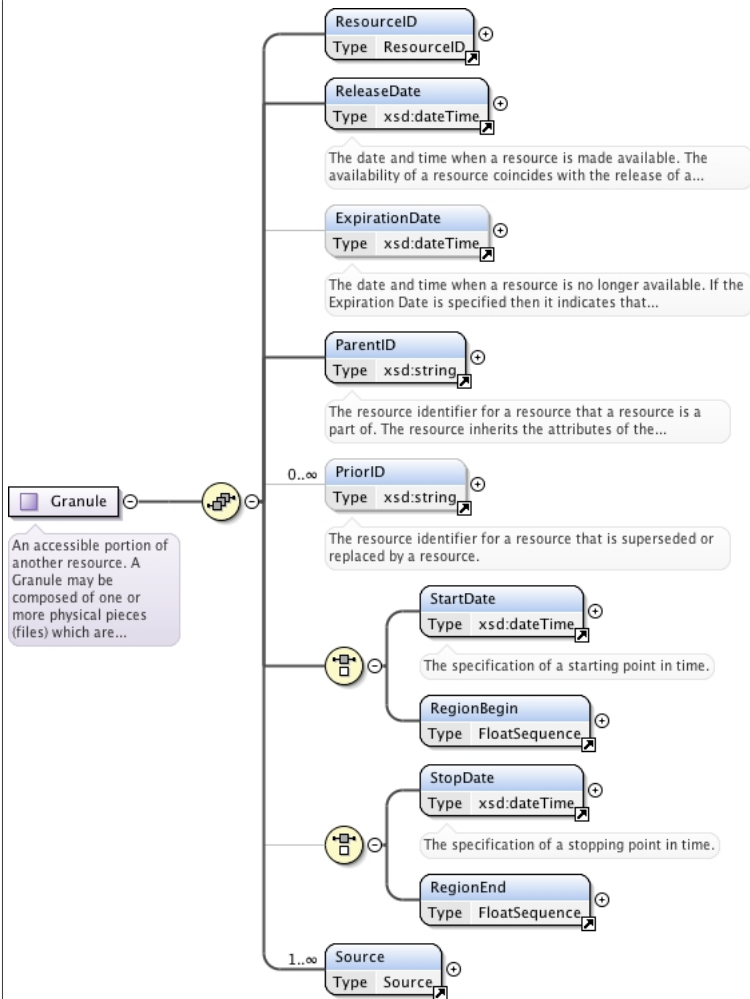
<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
<p>Annotations</p>	<p>The spatial area encompassed by an observation.</p>

<p>Diagram</p>	
<p>Used by</p>	<p>Element ObservationExtent</p>
<p>Model</p>	<p>ObservedRegion{0,1} , StartLocation , StopLocation , Note*</p>
<p>Children</p>	<p>Note, ObservedRegion, StartLocation, StopLocation</p>
<p>Source</p>	<pre><xsd:complexType name="ObservationExtent"> <xsd:annotation> <xsd:documentation xml:lang="en">The spatial area encompassed by an observation.</ xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ObservedRegion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="StartLocation" minOccurs="1" maxOccurs="1"/> <xsd:element ref="StopLocation" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Note" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type Granule

<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
<p>Annotations</p>	<p>An accessible portion of another resource. A Granule may be composed of one or more physical pieces (files) which are considered inseparable. For example, a data storage format that maintains metadata and binary data in separate, but tightly coupled files. Granules should not be used to group files that have simple relationships or which are associated through a parent resource. For example, each file containing a time interval data for a Numerical Data resource would each be considered a Granule. The ParentID of a Granule resource must be a NumericalData resource. The attributes of a Granule supersede the corresponding attributes in the NumericalData resource.</p>

Diagram

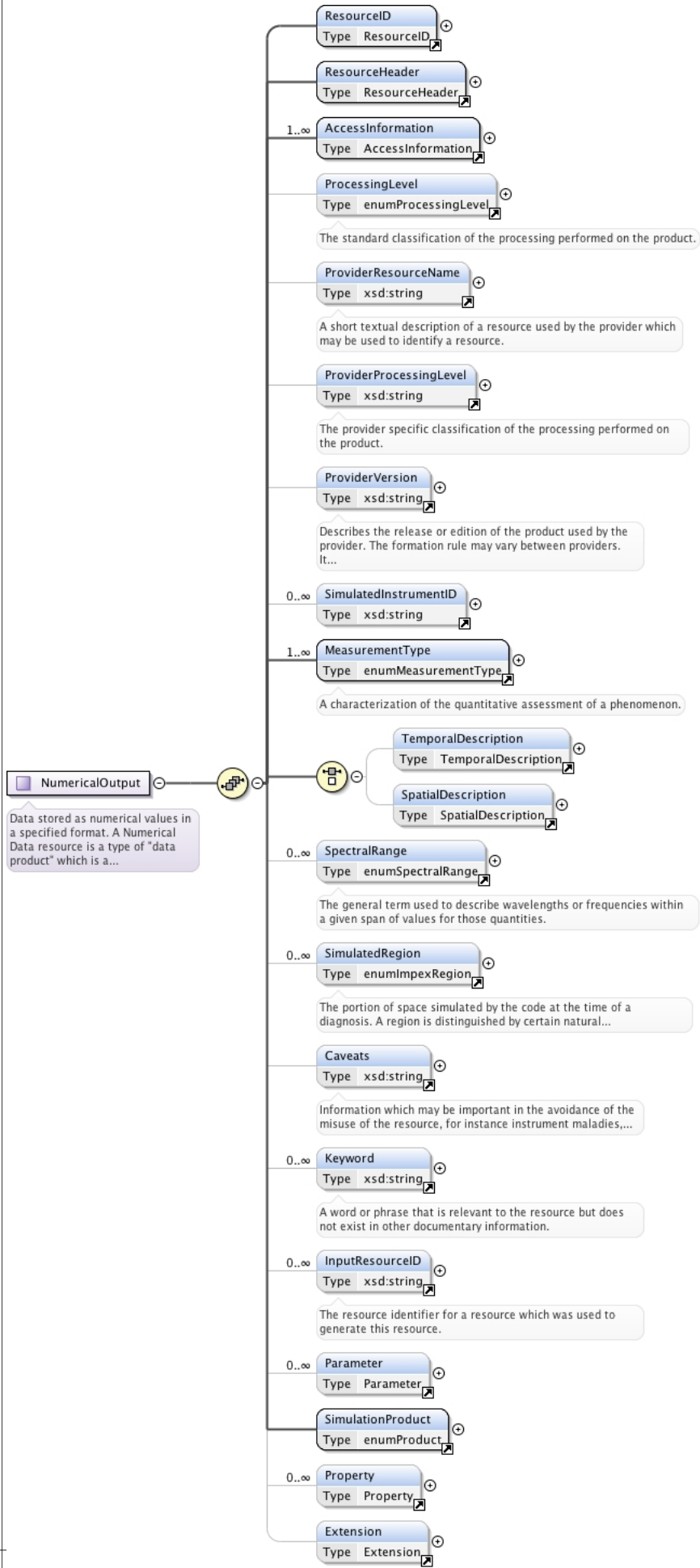


Used by	Element Granule
Model	ResourceID , ReleaseDate , ExpirationDate{0,1} , ParentID , PriorID* , (StartDate RegionBegin) , (StopDate RegionEnd) , Source+
Children	ExpirationDate, ParentID, PriorID, RegionBegin, RegionEnd, ReleaseDate, ResourceID, Source, StartDate, StopDate
Source	<pre> <xsd:complexType name="Granule"> <xsd:annotation> <xsd:documentation xml:lang="en">An accessible portion of another resource. A Granule may be composed of one or more physical pieces (files) which are considered inseparable. For example, a data storage format that maintains metadata and binary data in separate, but tightly coupled files. Granules should not be used to group files that have simple relationships or which are associated through a parent resource. For example, each file containing a time interval data for a Numerical Data resource would each be considered a Granule. The ParentID of a Granule resource must be a NumericalData resource. The attributes of a Granule supersede the corresponding attributes in the NumericalData resource.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1" /> <xsd:element ref="ReleaseDate" minOccurs="1" maxOccurs="1" /> <xsd:element ref="ExpirationDate" minOccurs="0" maxOccurs="1" /> <xsd:element ref="ParentID" minOccurs="1" maxOccurs="1" /> <xsd:element ref="PriorID" minOccurs="0" maxOccurs="unbounded" /> <xsd:choice> <xsd:element ref="StartDate" minOccurs="1" maxOccurs="1" /> <xsd:element ref="RegionBegin" /> </xsd:choice> <xsd:choice minOccurs="0"> <xsd:element ref="StopDate" minOccurs="1" maxOccurs="1" /> <xsd:element ref="RegionEnd" minOccurs="1" /> </xsd:choice> <xsd:element ref="Source" minOccurs="1" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType> </pre>

Complex Type NumericalOutput

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Data stored as numerical values in a specified format. A Numerical Data resource is a type of "data product" which is a set of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.

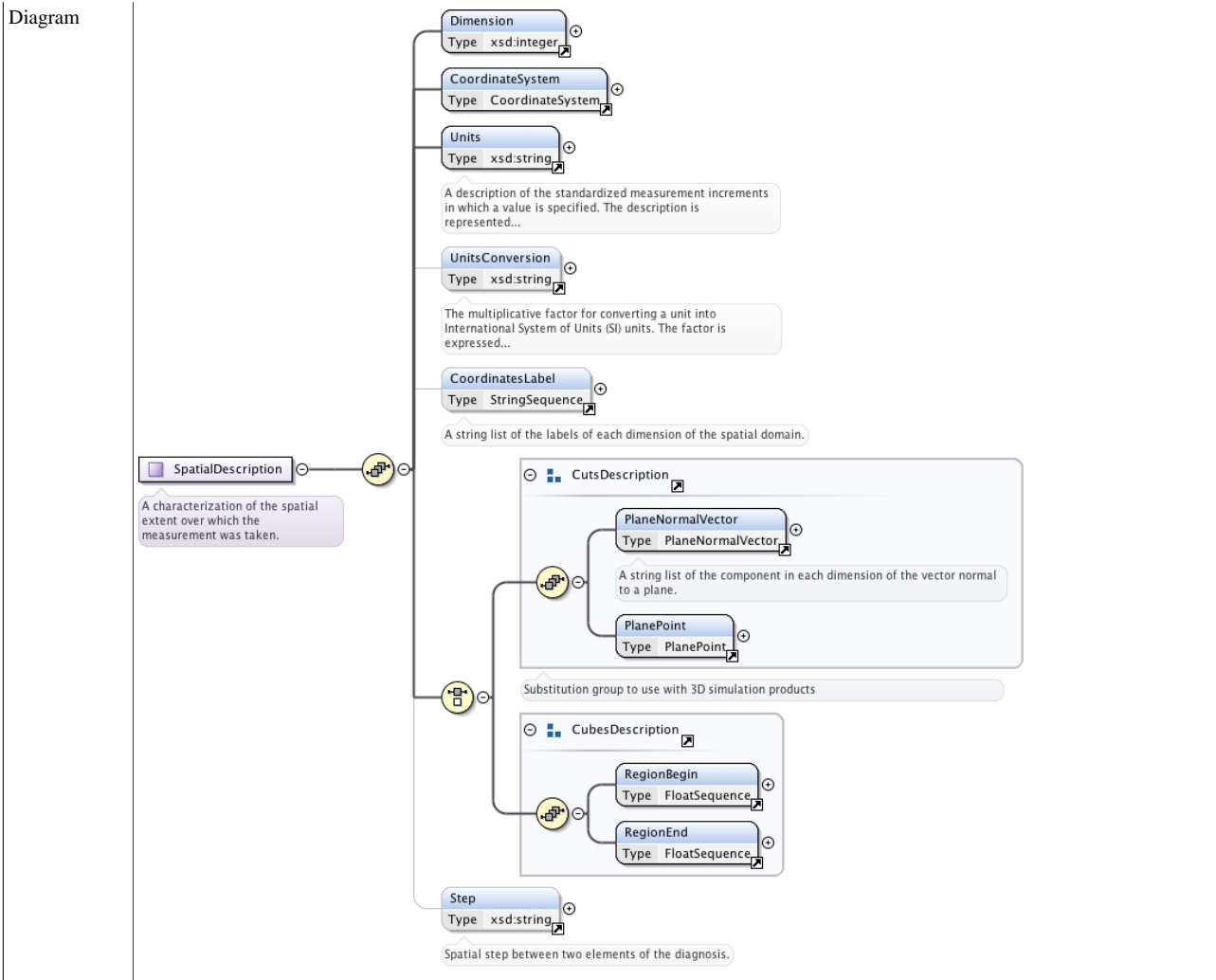
Diagram



Used by	Element NumericalOutput
Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , SimulatedInstrumentID* , MeasurementType+ , (TemporalDescription{0,1} SpatialDescription{0,1}) , SpectralRange* , SimulatedRegion* , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , SimulationProduct , Property* , Extension{0,1}
Children	AccessInformation, Caveats, Extension, InputResourceID, Keyword, MeasurementType, Parameter, ProcessingLevel, Property, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SimulatedInstrumentID, SimulatedRegion, SimulationProduct, SpatialDescription, SpectralRange, TemporalDescription
Source	<pre> <xsd:complexType name="NumericalOutput"> <xsd:annotation> <xsd:documentation xml:lang="en">Data stored as numerical values in a specified format. A Numerical Data resource is a type of "data product" which is a set of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/> <xsd:element ref="AccessInformation" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="ProcessingLevel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderResourceName" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderProcessingLevel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderVersion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SimulatedInstrumentID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="MeasurementType" minOccurs="1" maxOccurs="unbounded"/> <xsd:choice> <xsd:element ref="TemporalDescription" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SpatialDescription" minOccurs="0" maxOccurs="1"/> </xsd:choice> <xsd:element ref="SpectralRange" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="SimulatedRegion" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Keyword" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Parameter" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="SimulationProduct"/> <xsd:element maxOccurs="unbounded" minOccurs="0" ref="Property"/> <xsd:element minOccurs="0" ref="Extension"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type SpatialDescription

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A characterization of the spatial extent over which the measurement was taken.



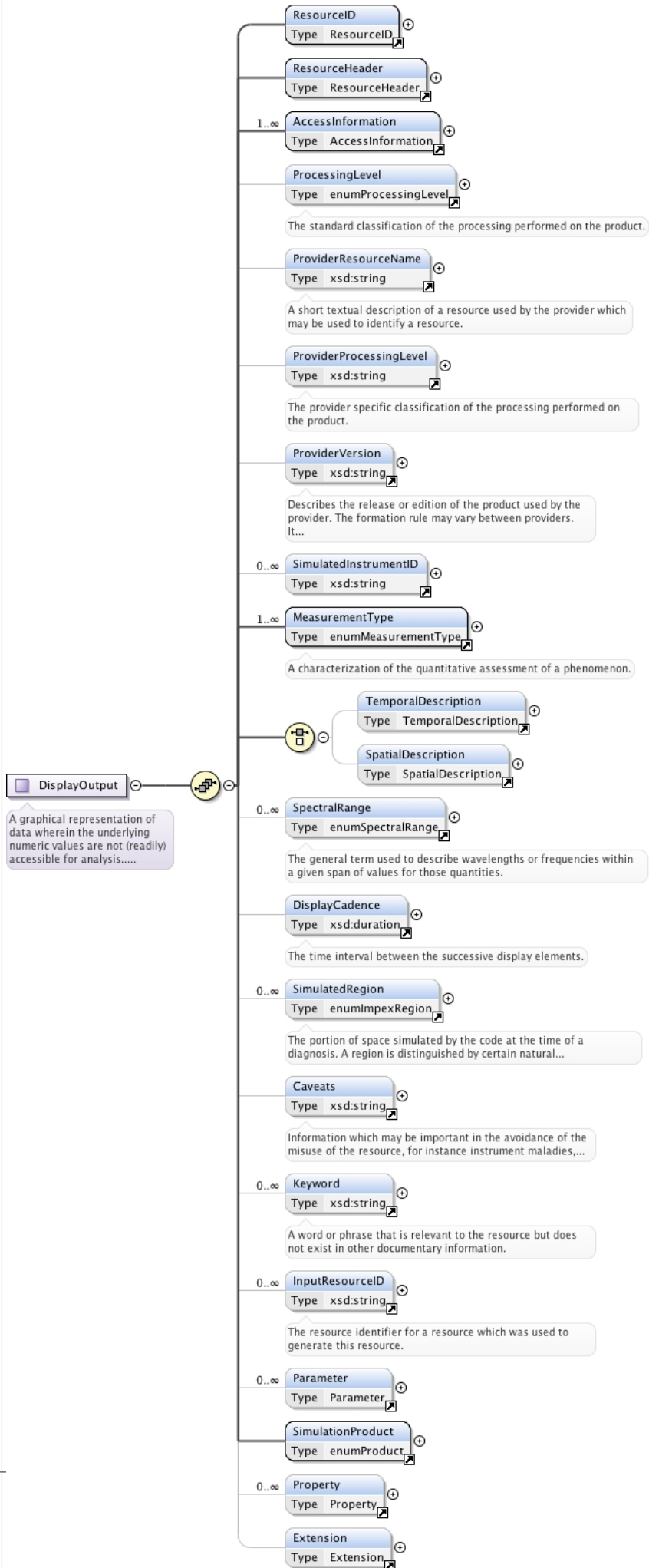
Used by	Element SpatialDescription
Model	Dimension , CoordinateSystem , Units , UnitsConversion{0,1} , CoordinatesLabel{0,1} , ((PlaneNormalVector , PlanePoint) (RegionBegin , RegionEnd)) , Step{0,1}
Children	CoordinateSystem, CoordinatesLabel, Dimension, PlaneNormalVector, PlanePoint, RegionBegin, RegionEnd, Step, Units, UnitsConversion
Source	<pre> <xsd:complexType name="SpatialDescription"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the spatial extent over which the measurement was taken.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Dimension" minOccurs="1" maxOccurs="1"/> <xsd:element ref="CoordinateSystem" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="1" maxOccurs="1"/> <xsd:element ref="UnitsConversion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="CoordinatesLabel" minOccurs="0" maxOccurs="1"/> <xsd:choice> <xsd:group ref="CutsDescription"/> <xsd:group ref="CubesDescription"/> </xsd:choice> <xsd:element ref="Step" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type DisplayOutput

Namespace	http://impex-fp7.oew.ac.at
Annotations	A graphical representation of data wherein the underlying numeric values are not (readily) accessible for analysis.. Examples are line plots and spectrograms. A Display Data resource is a type of "data product" which is a set

of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.

Diagram



Used by	Element DisplayOutput
Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , SimulatedInstrumentID* , MeasurementType+ , (TemporalDescription{0,1} SpatialDescription{0,1}) , SpectralRange* , DisplayCadence{0,1} , SimulatedRegion* , Caveats{0,1} , Keyword* , InputResourceID* , Parameter* , SimulationProduct , Property* , Extension{0,1}
Children	AccessInformation, Caveats, DisplayCadence, Extension, InputResourceID, Keyword, MeasurementType, Parameter, ProcessingLevel, Property, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SimulatedInstrumentID, SimulatedRegion, SimulationProduct, SpatialDescription, SpectralRange, TemporalDescription
Source	<pre> <xsd:complexType name="DisplayOutput"> <xsd:annotation> <xsd:documentation xml:lang="en">A graphical representation of data wherein the underlying numeric values are not (readily) accessible for analysis.. Examples are line plots and spectrograms. A Display Data resource is a type of "data product" which is a set of data that is uniformly processed and formatted, from one or more instruments, typically spanning the full duration of the observations of the relevant instrument(s). A data product may consist of a collection of granules of successive time spans, but may be a single high-level entity.</ xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/> <xsd:element ref="AccessInformation" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="ProcessingLevel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderResourceName" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderProcessingLevel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderVersion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SimulatedInstrumentID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="MeasurementType" minOccurs="1" maxOccurs="unbounded"/> <xsd:choice> <xsd:element ref="TemporalDescription" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SpatialDescription" minOccurs="0" maxOccurs="1"/> </xsd:choice> <xsd:element ref="SpectralRange" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="DisplayCadence" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SimulatedRegion" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Keyword" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Parameter" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="SimulationProduct"/> <xsd:element maxOccurs="unbounded" minOccurs="0" ref="Property"/> <xsd:element minOccurs="0" ref="Extension"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type SimulationModel

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Descriptor of a simulation model: type of numerical scheme, versions,...

Diagram	
Used by	Element SimulationModel
Model	ResourceID , ResourceHeader , Versions{0,1} , SimulationType , CodeLanguage{0,1} , TemporalDependence{0,1} , SpatialDescription{0,1} , SimulatedRegion* , InputProperties{0,1} , OutputParameters{0,1} , ModelURL{0,1}
Children	CodeLanguage, InputProperties, ModelURL, OutputParameters, ResourceHeader, ResourceID, SimulatedRegion, SimulationType, SpatialDescription, TemporalDependence, Versions
Source	<pre> <xsd:complexType name="SimulationModel"> <xsd:annotation> <xsd:documentation>Descriptor of a simulation model: type of numerical scheme, versions,...</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID"/> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/> <xsd:element name="Versions" type="Versions" minOccurs="0"/> <xsd:element ref="SimulationType" minOccurs="1" maxOccurs="1"/> <xsd:element ref="CodeLanguage" minOccurs="0" maxOccurs="1"/> <xsd:element minOccurs="0" ref="TemporalDependence"/> <xsd:element minOccurs="0" ref="SpatialDescription"/> <xsd:element maxOccurs="unbounded" minOccurs="0" ref="SimulatedRegion"/> <xsd:element minOccurs="0" ref="InputProperties"/> <xsd:element minOccurs="0" ref="OutputParameters"/> <xsd:element minOccurs="0" ref="ModelURL"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Versions

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	

Used by	Element SimulationModel/Versions
Model	ModelVersion+
Children	ModelVersion
Source	<pre><xsd:complexType name="Versions"> <xsd:sequence> <xsd:element name="ModelVersion" type="ModelVersion" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType></pre>

Complex Type ModelVersion

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Used by	Element Versions/ModelVersion
Model	VersionID , ReleaseDate , Description{0,1} , Caveats{0,1}
Children	Caveats, Description, ReleaseDate, VersionID
Source	<pre><xsd:complexType name="ModelVersion"> <xsd:sequence> <xsd:element name="VersionID" type="xsd:string" /> <xsd:element ref="ReleaseDate" minOccurs="1" maxOccurs="1" /> <xsd:element minOccurs="0" ref="Description" /> <xsd:element minOccurs="0" ref="Caveats" /> </xsd:sequence> </xsd:complexType></pre>

Complex Type InputProperties

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Used by	Element InputProperties
Model	Property*
Children	Property
Source	<pre><xsd:complexType name="InputProperties"> <xsd:sequence> <xsd:element maxOccurs="unbounded" minOccurs="0" ref="Property" /> </xsd:sequence> </xsd:complexType></pre>

Complex Type OutputParameters

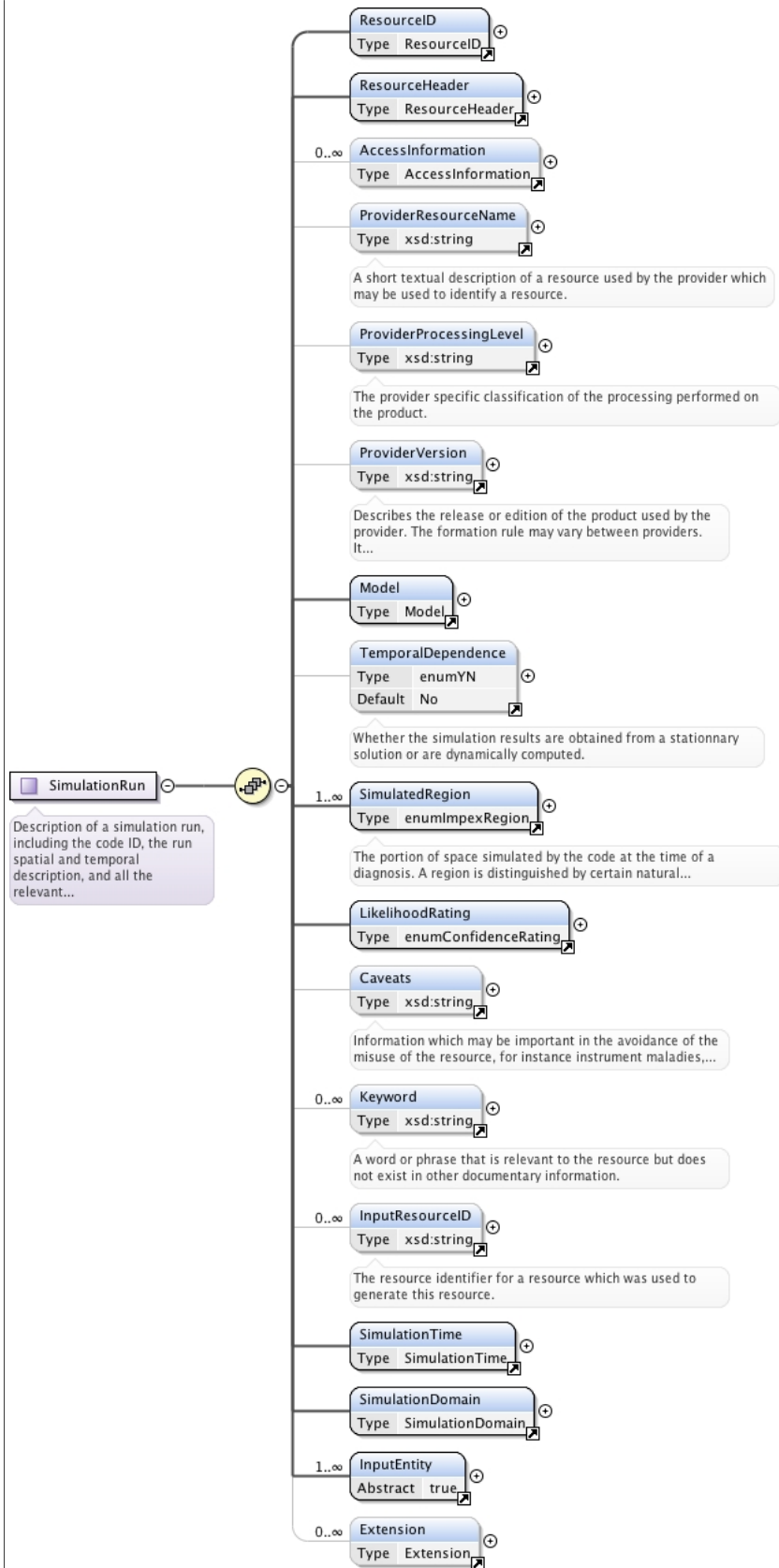
Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Used by	Element OutputParameters

Model	Parameter*
Children	Parameter
Source	<pre><xsd:complexType name="OutputParameters"> <xsd:sequence> <xsd:element ref="Parameter" maxOccurs="unbounded" minOccurs="0" /> </xsd:sequence> </xsd:complexType></pre>

Complex Type SimulationRun

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Description of a simulation run, including the code ID, the run spatial and temporal description, and all the relevant inputs.

Diagram



Used by Element SimulationRun

Model ResourceID , ResourceHeader , AccessInformation* , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , Model , TemporalDependence{0,1} , SimulatedRegion+ , LikelihoodRating , Caveats{0,1} , Keyword* , InputResourceID* , SimulationTime , SimulationDomain , InputEntity+ , Extension*

Children	AccessInformation, Caveats, Extension, InputEntity, InputResourceID, Keyword, LikelihoodRating, Model, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SimulatedRegion, SimulationDomain, SimulationTime, TemporalDependence
Source	<pre> <xsd:complexType name="SimulationRun"> <xsd:annotation> <xsd:documentation xml:lang="en">Description of a simulation run, including the code ID, the run spatial and temporal description, and all the relevant inputs.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/> <xsd:element ref="AccessInformation" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="ProviderResourceName" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderProcessingLevel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProviderVersion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Model"/> <xsd:element ref="TemporalDependence" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SimulatedRegion" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="LikelihoodRating"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Keyword" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="SimulationTime"/> <xsd:element ref="SimulationDomain"/> <xsd:element ref="InputEntity" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type Model

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Used by	Element Model
Model	ModelID , VersionID{0,1}
Children	ModelID, VersionID
Source	<pre> <xsd:complexType name="Model"> <xsd:sequence> <xsd:element ref="ModelID"/> <xsd:element minOccurs="0" ref="VersionID"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type SimulationTime

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Parameters associated to the simulation time.

<p>Diagram</p>	
<p>Used by</p>	<p>Element SimulationTime</p>
<p>Model</p>	<p>Description{0,1} , Caveats{0,1} , Duration{0,1} , TimeStart{0,1} , TimeStop{0,1} , TimeStep{0,1} , DiagnosisTimeStep{0,1}</p>
<p>Children</p>	<p>Caveats, Description, DiagnosisTimeStep, Duration, TimeStart, TimeStep, TimeStop</p>
<p>Source</p>	<pre> <xsd:complexType name="SimulationTime"> <xsd:annotation> <xsd:documentation xml:lang="en">Parameters associated to the simulation time.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Duration" minOccurs="0" maxOccurs="1"/> <xsd:element ref="TimeStart" minOccurs="0" maxOccurs="1"/> <xsd:element ref="TimeStop" minOccurs="0" maxOccurs="1"/> <xsd:element ref="TimeStep" minOccurs="0" maxOccurs="1"/> <xsd:element ref="DiagnosisTimeStep" minOccurs="0"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type DiagnosisTimeStep

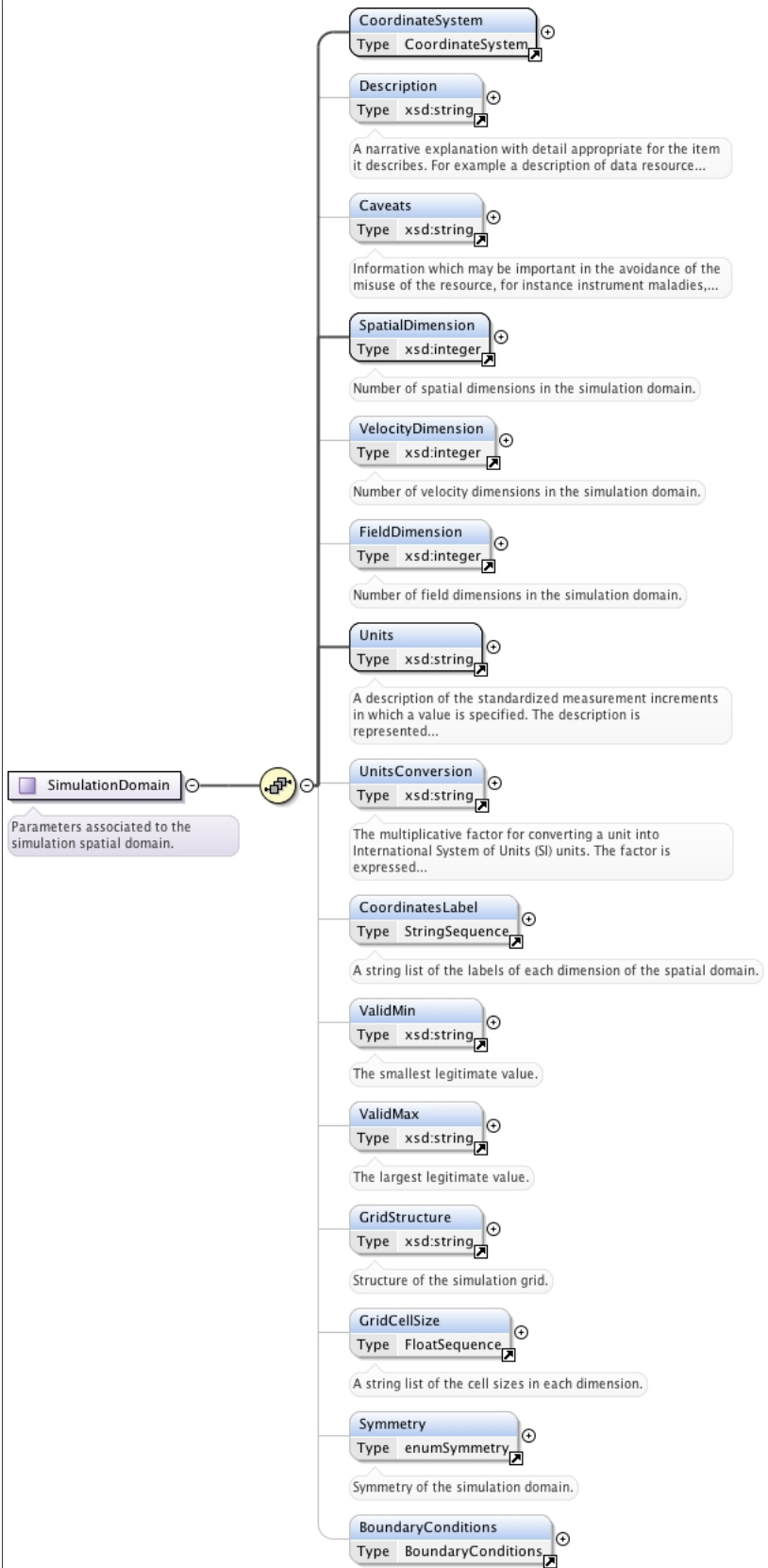
<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
<p>Annotations</p>	<p>Time at which a diagnosis is performed and quantity saved.</p>
<p>Diagram</p>	
<p>Used by</p>	<p>Element DiagnosisTimeStep</p>
<p>Model</p>	<p>SavedQuantity*</p>
<p>Children</p>	<p>SavedQuantity</p>

Attributes	QName	Type	Use
	Duration	xsd:duration	optional
	TimeStart	xsd:time	optional
Source	<pre> <xsd:complexType name="DiagnosisTimeStep"> <xsd:annotation> <xsd:documentation xml:lang="en">Time at which a diagnosis is performed and quantity saved.</ xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="SavedQuantity" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> <xsd:attribute name="TimeStart" type="xsd:time"/> <xsd:attribute name="Duration" type="xsd:duration"/> </xsd:complexType> </pre>		

Complex Type simulationDomain

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Parameters associated to the simulation spatial domain.

Diagram



Used by

Element SimulationDomain

Model

CoordinateSystem , Description{0,1} , Caveats{0,1} , SpatialDimension , VelocityDimension{0,1} , FieldDimension{0,1} , Units , UnitsConversion{0,1} , CoordinatesLabel{0,1} , ValidMin{0,1} , ValidMax{0,1} , GridStructure{0,1} , GridCellSize{0,1} , Symmetry{0,1} , BoundaryConditions{0,1}

Children	BoundaryConditions, Caveats, CoordinateSystem, CoordinatesLabel, Description, FieldDimension, GridCellSize, GridStructure, SpatialDimension, Symmetry, Units, UnitsConversion, ValidMax, ValidMin, VelocityDimension
Source	<pre> <xsd:complexType name="SimulationDomain"> <xsd:annotation> <xsd:documentation xml:lang="en">Parameters associated to the simulation spatial domain.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="CoordinateSystem" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SpatialDimension" minOccurs="1" maxOccurs="1"/> <xsd:element ref="VelocityDimension" minOccurs="0" maxOccurs="1"/> <xsd:element ref="FieldDimension" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="1" maxOccurs="1"/> <xsd:element ref="UnitsConversion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="CoordinatesLabel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ValidMin" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ValidMax" minOccurs="0" maxOccurs="1"/> <xsd:element ref="GridStructure" minOccurs="0" maxOccurs="1"/> <xsd:element ref="GridCellSize" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Symmetry" minOccurs="0" maxOccurs="1"/> <xsd:element ref="BoundaryConditions" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type BoundaryConditions

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Parameters associated to the simulation boundaries.
Diagram	<pre> classDiagram class BoundaryConditions { Parameters associated to the simulation boundaries. } class ParticleBoundary { Type ElementBoundary } class FieldBoundary { Type ElementBoundary } BoundaryConditions -- ParticleBoundary BoundaryConditions -- FieldBoundary </pre>
Used by	Element BoundaryConditions
Model	ParticleBoundary{0,1} , FieldBoundary{0,1}
Children	FieldBoundary, ParticleBoundary
Source	<pre> <xsd:complexType name="BoundaryConditions"> <xsd:annotation> <xsd:documentation xml:lang="en">Parameters associated to the simulation boundaries.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="ParticleBoundary" minOccurs="0" maxOccurs="1"/> <xsd:element ref="FieldBoundary" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type ElementBoundary

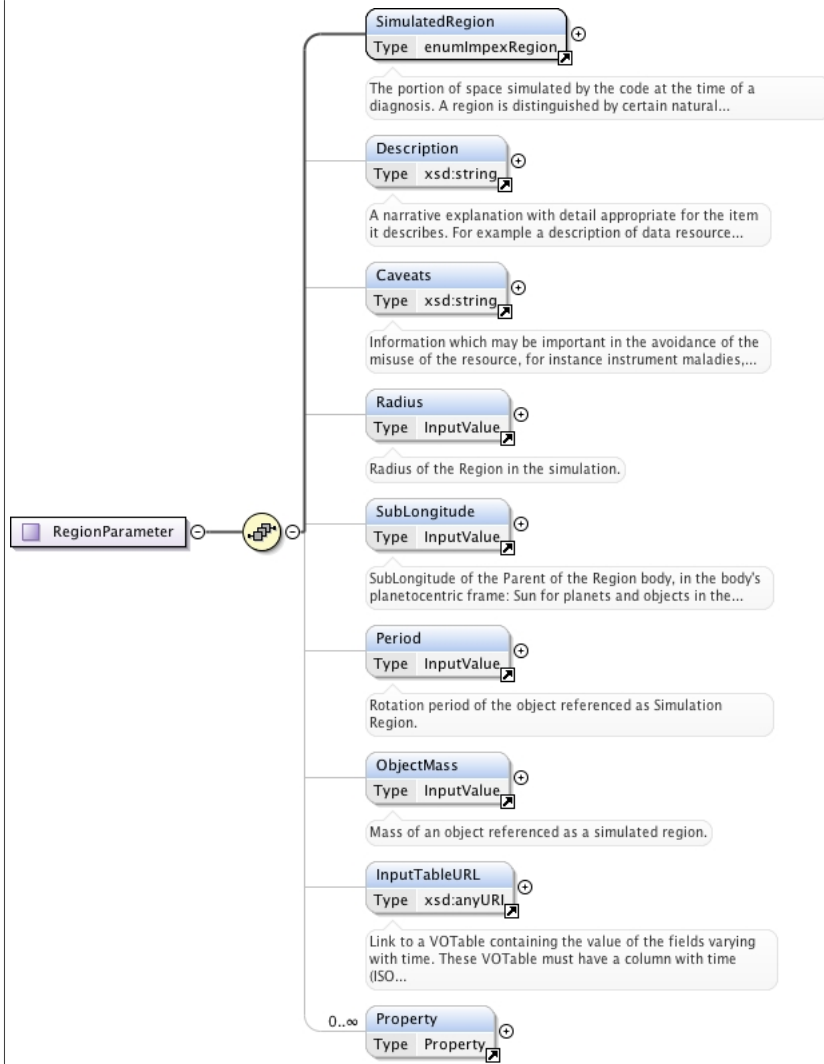
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Parameters associated to the simulation Boundaries.

<p>Diagram</p>	
<p>Used by</p>	<p>Elements FieldBoundary, ParticleBoundary</p>
<p>Model</p>	<p>Caveats{0,1} , FrontWall{0,1} , BackWall{0,1} , SideWall{0,1} , Obstacle{0,1}</p>
<p>Children</p>	<p>BackWall, Caveats, FrontWall, Obstacle, SideWall</p>
<p>Source</p>	<pre><xsd:complexType name="ElementBoundary"> <xsd:annotation> <xsd:documentation xml:lang="en">Parameters associated to the simulation Boundaries.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="FrontWall" minOccurs="0" maxOccurs="1"/> <xsd:element ref="BackWall" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SideWall" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Obstacle" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>

Complex Type RegionParameter

<p>Namespace</p>	<p>http://impex-fp7.oeaw.ac.at</p>
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Diagram



Used by	Element RegionParameter
Model	SimulatedRegion , Description{0,1} , Caveats{0,1} , Radius{0,1} , SubLongitude{0,1} , Period{0,1} , ObjectMass{0,1} , InputTableURL{0,1} , Property*
Children	Caveats, Description, InputTableURL, ObjectMass, Period, Property, Radius, SimulatedRegion, SubLongitude
Source	<pre> <xsd:complexType name="RegionParameter"> <xsd:sequence> <xsd:element ref="SimulatedRegion"/> <xsd:element minOccurs="0" ref="Description"/> <xsd:element minOccurs="0" ref="Caveats"/> <xsd:element minOccurs="0" ref="Radius"> <xsd:annotation> <xsd:documentation>Radius of the Region in the simulation.</xsd:documentation> </xsd:annotation> </xsd:element> <xsd:element minOccurs="0" ref="SubLongitude"> <xsd:annotation> <xsd:documentation>SubLongitude of the Parent of the Region body, in the body's planetocentric frame: Sun for planets and objects in the solar wind, Parent planet for satellites.</xsd:documentation> </xsd:annotation> </xsd:element> <xsd:element minOccurs="0" ref="Period"> <xsd:annotation> <xsd:documentation>Rotation period of the object referenced as Simulation Region.</ xsd:documentation> </xsd:annotation> </xsd:element> <xsd:element minOccurs="0" ref="ObjectMass"/> <xsd:element minOccurs="0" ref="InputTableURL"> <xsd:annotation> <xsd:documentation>Link to a VOTable containing the value of the fields varying with time. These VOTable must have a column with time (ISO or Julian), defined by the correct ucd and </pre>

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xtype, and columns for each time-varying field which names corresponding to that of the field.</
xsd:documentation>
  </xsd:annotation>
</xsd:element>
<xsd:element maxOccurs="unbounded" minOccurs="0" ref="Property"/>
</xsd:sequence>
</xsd:complexType>

```

Complex Type InputValue

Namespace	http://impex-fp7.oeaw.ac.at		
Diagram			
Properties	mixed:	true	
Used by	Elements	ObjectMass, Period, PopulationDensity, PopulationFlowSpeed, PopulationTemperature, ProductionRate, Radius, SubLongitude, TotalProductionRate	
Model			
Attributes	QName	Type	Use
	Units	xsd:string	optional
		<p>A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see <http://www.bipm.fr/>) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: <http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols> and those for common derived units can be found at: <http://www.bipm.fr/en/si/derived_units/2-2-2.html></p>	
	UnitsConversion	xsd:string	optional
		<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</p>	
Source	<pre> <xsd:complexType mixed="true" name="InputValue"> <xsd:attribute name="Units" type="xsd:string"> <xsd:annotation> </pre>		

```

<xsd:documentation xml:lang="en">A description of the standardized measurement increments
in which a value is specified. The description is represented as a mathematical phrase. Units
should be represented by widely accepted representation. For example, units should conform to the
International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et
Mesures (see <http://www.bipm.fr/> ) when appropriate or use tokens like "Re" to represent units of
the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*)
is used to indicate multiplication and a slash (/) division. When symbols are not separated by a
mathematical operator, multiplication is assumed. Symbols for base units can be found at: <http://
www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols> and those for common derived units can be found
at: <http://www.bipm.fr/en/si/derived_units/2-2-2.html></xsd:documentation>
</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="UnitsConversion" type="xsd:string">
<xsd:documentation xml:lang="en">The multiplicative factor for converting a unit into
International System of Units (SI) units. The factor is expressed in the form "number > x",
where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are
Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere),
V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla),
ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units
are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units,
presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in
kilometers per second to meters per second.</xsd:documentation>
</xsd:annotation>
</xsd:attribute>
</xsd:complexType>

```

Complex Type InputParameter

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A container of information regarding an input parameter of the simulation run. The parameter may contain many properties.
Diagram	
Used by	Element InputParameter
Model	Name , Description{0,1} , Caveats{0,1} , SimulatedRegion* , Qualifier* , ParameterQuantity , Property+
Children	Caveats, Description, Name, ParameterQuantity, Property, Qualifier, SimulatedRegion
Source	<pre> <xsd:complexType name="InputParameter"> <xsd:annotation> <xsd:documentation xml:lang="en">A container of information regarding an input parameter of the simulation run. The parameter may contain many properties.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Name" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> </pre>

```

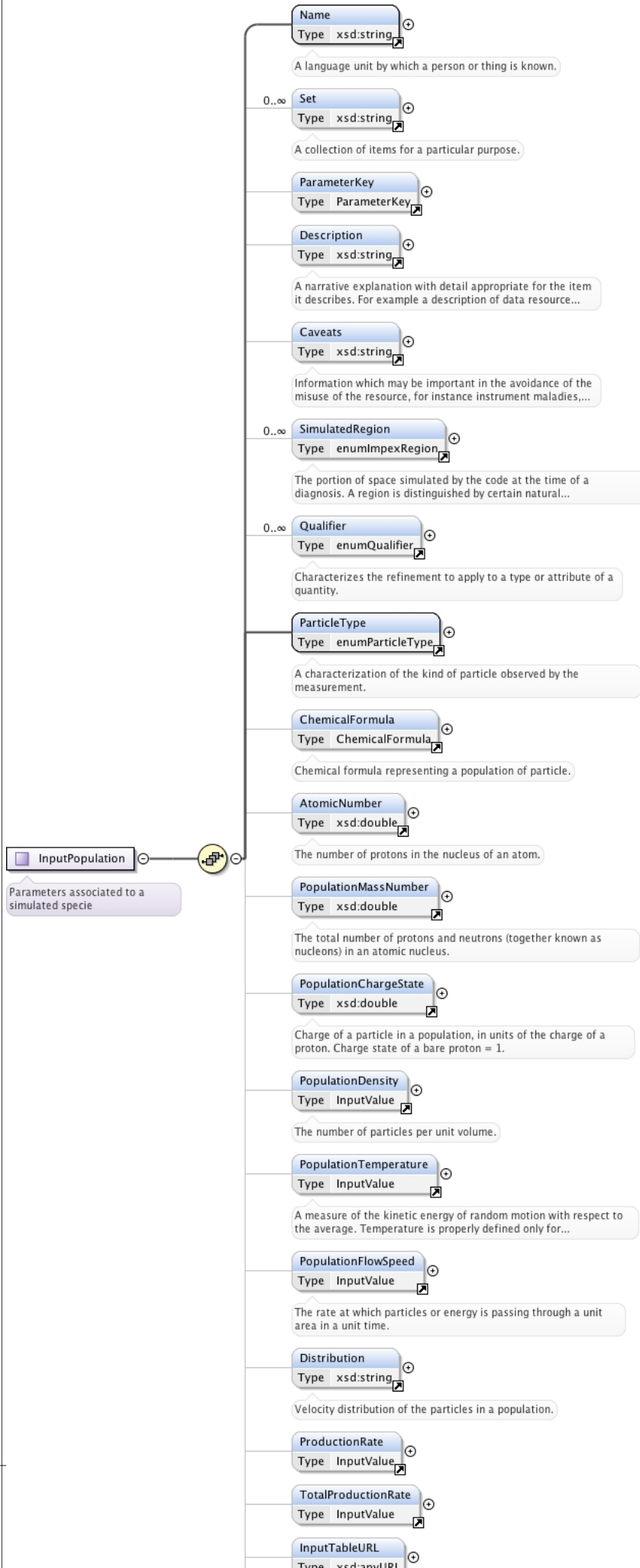
<xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/>
<xsd:element ref="SimulatedRegion" minOccurs="0" maxOccurs="unbounded"/>
<xsd:element maxOccurs="unbounded" minOccurs="0" ref="Qualifier"/>
<xsd:element ref="ParameterQuantity"/>
<xsd:element ref="Property" minOccurs="1" maxOccurs="unbounded"/>
</xsd:sequence>
</xsd:complexType>

```

Complex Type InputPopulation

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Parameters associated to a simulated specie

Diagram

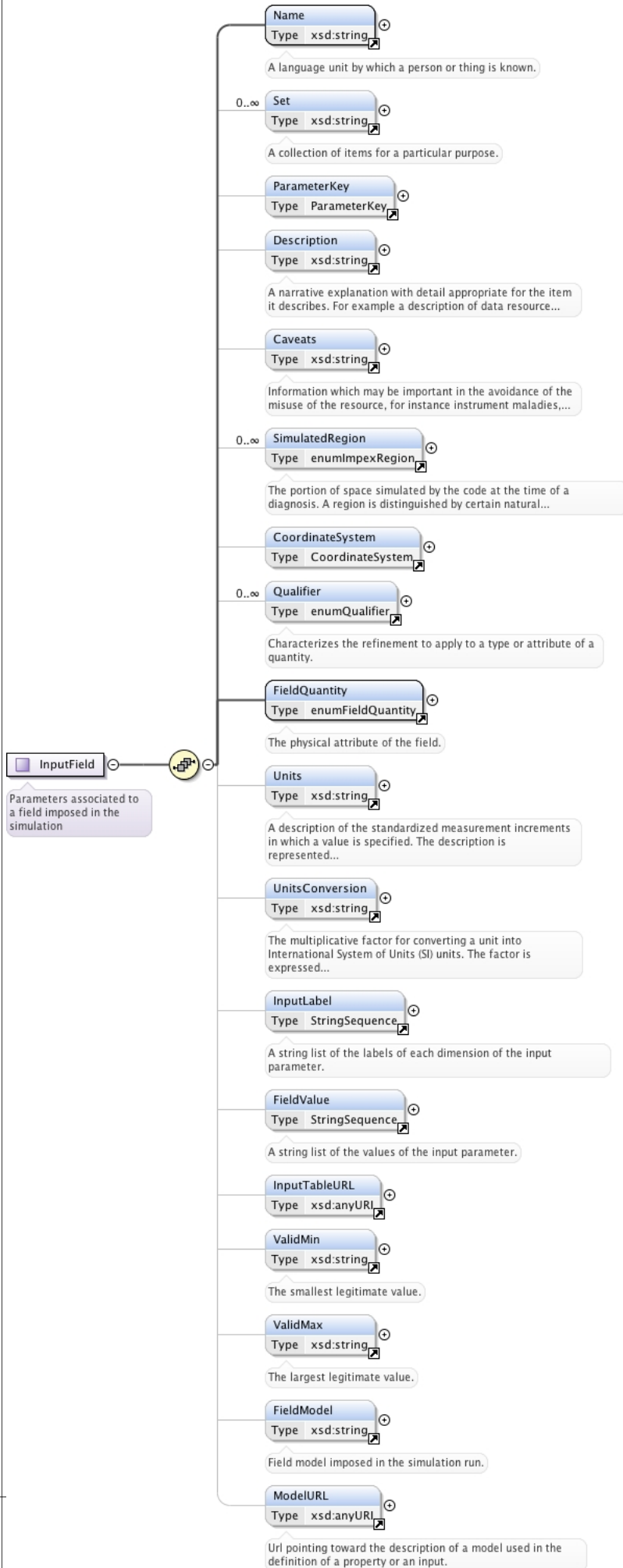


Used by	Element InputPopulation
Model	Name , Set* , ParameterKey{0,1} , Description{0,1} , Caveats{0,1} , SimulatedRegion* , Qualifier* , ParticleType , ChemicalFormula{0,1} , AtomicNumber{0,1} , PopulationMassNumber{0,1} , PopulationChargeState{0,1} , PopulationDensity{0,1} , PopulationTemperature{0,1} , PopulationFlowSpeed{0,1} , Distribution{0,1} , ProductionRate{0,1} , TotalProductionRate{0,1} , InputTableURL{0,1} , Profile{0,1} , ModelURL{0,1}
Children	AtomicNumber, Caveats, ChemicalFormula, Description, Distribution, InputTableURL, ModelURL, Name, ParameterKey, ParticleType, PopulationChargeState, PopulationDensity, PopulationFlowSpeed, PopulationMassNumber, PopulationTemperature, ProductionRate, Profile, Qualifier, Set, SimulatedRegion, TotalProductionRate
Source	<pre> <xsd:complexType name="InputPopulation"> <xsd:annotation> <xsd:documentation xml:lang="en">Parameters associated to a simulated specie</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Name" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Set" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="ParameterKey" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SimulatedRegion" minOccurs="0" maxOccurs="unbounded"/> <xsd:element maxOccurs="unbounded" minOccurs="0" ref="Qualifier"/> <xsd:element ref="ParticleType"/> <xsd:element minOccurs="0" ref="ChemicalFormula"/> <xsd:element minOccurs="0" ref="AtomicNumber"/> <xsd:element ref="PopulationMassNumber" minOccurs="0" maxOccurs="1"/> <xsd:element ref="PopulationChargeState" minOccurs="0" maxOccurs="1"/> <xsd:element ref="PopulationDensity" minOccurs="0" maxOccurs="1"/> <xsd:element ref="PopulationTemperature" minOccurs="0" maxOccurs="1"/> <xsd:element ref="PopulationFlowSpeed" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Distribution" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ProductionRate" minOccurs="0" maxOccurs="1"/> <xsd:element ref="TotalProductionRate" minOccurs="0" maxOccurs="1"/> <xsd:element ref="InputTableURL" minOccurs="0"/> <xsd:element ref="Profile" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ModelURL" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type InputField

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Parameters associated to a field imposed in the simulation

Diagram

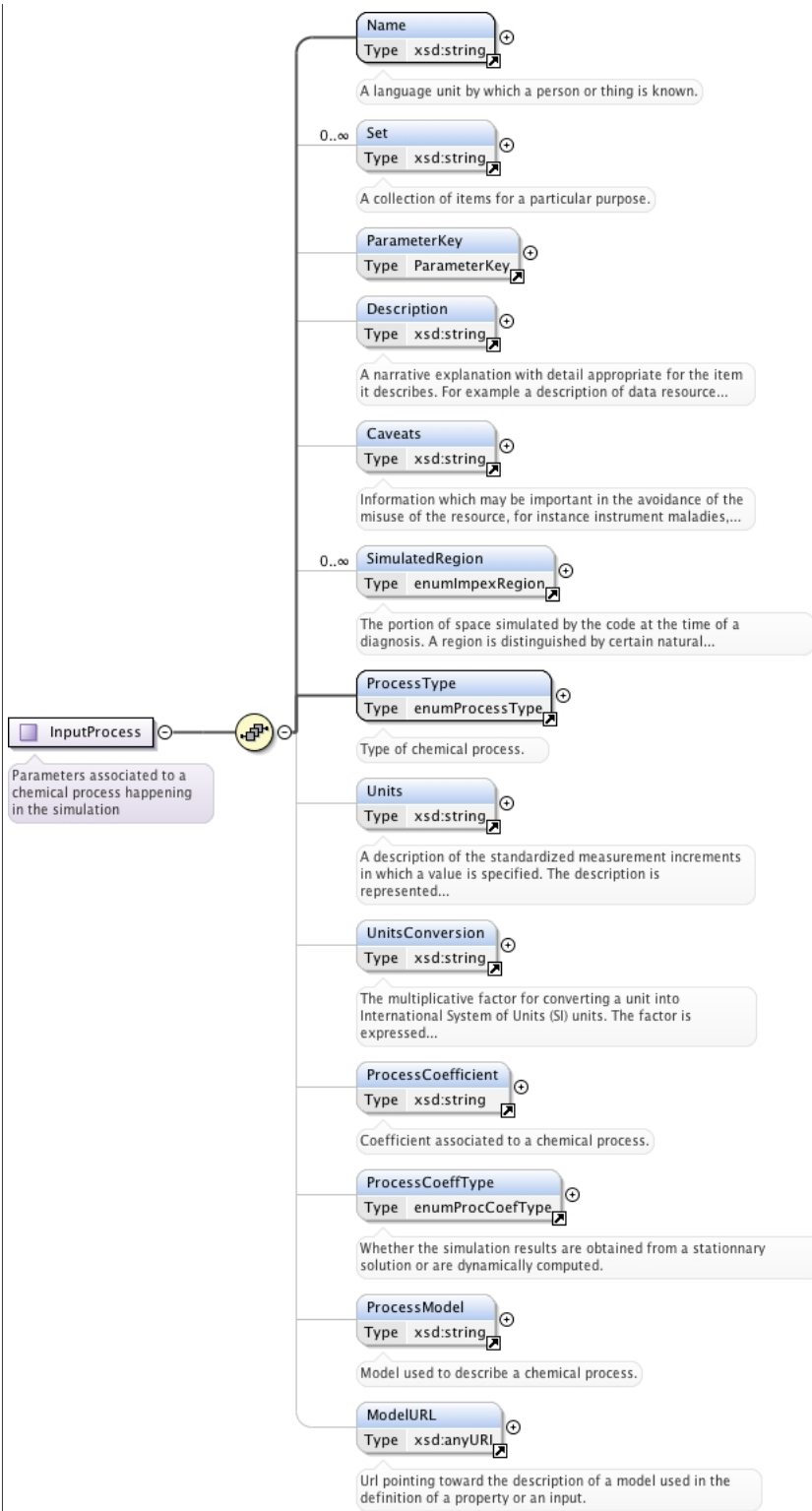


Used by	Element InputField
Model	Name , Set* , ParameterKey{0,1} , Description{0,1} , Caveats{0,1} , SimulatedRegion* , CoordinateSystem{0,1} , Qualifier* , FieldQuantity , Units{0,1} , UnitsConversion{0,1} , InputLabel{0,1} , FieldValue{0,1} , InputTableURL{0,1} , ValidMin{0,1} , ValidMax{0,1} , FieldModel{0,1} , ModelURL{0,1}
Children	Caveats, CoordinateSystem, Description, FieldModel, FieldQuantity, FieldValue, InputLabel, InputTableURL, ModelURL, Name, ParameterKey, Qualifier, Set, SimulatedRegion, Units, UnitsConversion, ValidMax, ValidMin
Source	<pre> <xsd:complexType name="InputField"> <xsd:annotation> <xsd:documentation xml:lang="en">Parameters associated to a field imposed in the simulation</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Name" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Set" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="ParameterKey" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> <xsd:element ref="SimulatedRegion" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="CoordinateSystem" minOccurs="0" maxOccurs="1"/> <xsd:element maxOccurs="unbounded" minOccurs="0" ref="Qualifier"/> <xsd:element ref="FieldQuantity" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="0" maxOccurs="1"/> <xsd:element ref="UnitsConversion" minOccurs="0" maxOccurs="1"/> <xsd:element ref="InputLabel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="FieldValue" minOccurs="0" maxOccurs="1"/> <xsd:element minOccurs="0" ref="InputTableURL"/> <xsd:element ref="ValidMin" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ValidMax" minOccurs="0" maxOccurs="1"/> <xsd:element ref="FieldModel" minOccurs="0" maxOccurs="1"/> <xsd:element ref="ModelURL" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>

Complex Type InputProcess

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Parameters associated to a chemical process happening in the simulation

Diagram



Used by	Element InputProcess
Model	Name , Set* , ParameterKey{0,1} , Description{0,1} , Caveats{0,1} , SimulatedRegion* , ProcessType , Units{0,1} , UnitsConversion{0,1} , ProcessCoefficient{0,1} , ProcessCoeffType{0,1} , ProcessModel{0,1} , ModelURL{0,1}
Children	Caveats, Description, ModelURL, Name, ParameterKey, ProcessCoeffType, ProcessCoefficient, ProcessModel, ProcessType, Set, SimulatedRegion, Units, UnitsConversion
Source	<pre><xsd:complexType name="InputProcess" > <xsd:annotation> <xsd:documentation xml:lang="en">Parameters associated to a chemical process happening in the simulation</xsd:documentation> </xsd:annotation></pre>

```

<xsd:sequence>
  <xsd:element ref="Name" minOccurs="1" maxOccurs="1"/>
  <xsd:element ref="Set" minOccurs="0" maxOccurs="unbounded"/>
  <xsd:element ref="ParameterKey" minOccurs="0" maxOccurs="1"/>
  <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/>
  <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/>
  <xsd:element ref="SimulatedRegion" minOccurs="0" maxOccurs="unbounded"/>
  <xsd:element ref="ProcessType" minOccurs="1" maxOccurs="1"/>
  <xsd:element ref="Units" minOccurs="0" maxOccurs="1"/>
  <xsd:element ref="UnitsConversion" minOccurs="0" maxOccurs="1"/>
  <xsd:element ref="ProcessCoefficient" minOccurs="0" maxOccurs="1"/>
  <xsd:element ref="ProcessCoeffType" minOccurs="0" maxOccurs="1"/>
  <xsd:element ref="ProcessModel" minOccurs="0" maxOccurs="1"/>
  <xsd:element ref="ModelURL" minOccurs="0" maxOccurs="1"/>
</xsd:sequence>
</xsd:complexType>
    
```

Complex Type Particle

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A description of the types of particles observed in the measurement. This includes both direct observations and inferred observations.
Diagram	
Used by	Element Particle
Model	PopulationID{0,1} , ParticleType+ , Qualifier* , ParticleQuantity , ChemicalFormula{0,1} , AtomicNumber* , PopulationMassNumber* , PopulationChargeState* , EnergyRange{0,1} , AzimuthalAngleRange{0,1} , PolarAngleRange{0,1}
Children	AtomicNumber, AzimuthalAngleRange, ChemicalFormula, EnergyRange, ParticleQuantity, ParticleType, PolarAngleRange, PopulationChargeState, PopulationID, PopulationMassNumber, Qualifier

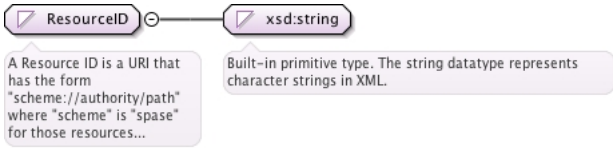
Source	<pre> <xsd:complexType name="Particle"> <xsd:annotation> <xsd:documentation xml:lang="en">A description of the types of particles observed in the measurement. This includes both direct observations and inferred observations.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element minOccurs="0" name="PopulationID" type="PopulationID"/> <xsd:element maxOccurs="unbounded" minOccurs="1" ref="ParticleType"/> <xsd:element maxOccurs="unbounded" minOccurs="0" ref="Qualifier"/> <xsd:element maxOccurs="1" minOccurs="1" ref="ParticleQuantity"/> <xsd:element minOccurs="0" ref="ChemicalFormula"/> <xsd:element maxOccurs="unbounded" minOccurs="0" ref="AtomicNumber"/> <xsd:element minOccurs="0" ref="PopulationMassNumber" maxOccurs="unbounded"/> <xsd:element minOccurs="0" ref="PopulationChargeState" maxOccurs="unbounded"/> <xsd:element maxOccurs="1" minOccurs="0" ref="EnergyRange"/> <xsd:element maxOccurs="1" minOccurs="0" ref="AzimuthalAngleRange"/> <xsd:element maxOccurs="1" minOccurs="0" ref="PolarAngleRange"/> </xsd:sequence> </xsd:complexType> </pre>
--------	--

Simple Type(s)

Simple Type enumVersion

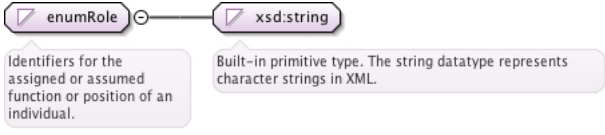
Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Version number.
Diagram	
Type	restriction of xsd:string
Facets	enumeration 2.2.2
Used by	Element Version
Source	<pre> <xsd:simpleType name="enumVersion"> <xsd:annotation> <xsd:documentation xml:lang="en">Version number.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="2.2.2"/> </xsd:restriction> </xsd:simpleType> </pre>

Simple Type ResourceID

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A Resource ID is a URI that has the form "scheme://authority/path" where "scheme" is "spase" for those resources administered through the SPASE framework, "authority" is the unique identifier for the resource provider registered within the SPASE framework and "path" is the unique identifier of the resource within the context of the "authority". The resource ID must be unique within the SPASE framework.
Diagram	
Type	xsd:string
Used by	Element ResourceID
Source	<pre> <xsd:simpleType name="ResourceID"> <xsd:annotation> <xsd:documentation xml:lang="en">A Resource ID is a URI that has the form "scheme:// authority/path" where "scheme" is "spase" for those resources administered through the SPASE framework, "authority" is the unique identifier for the resource provider registered within the SPASE framework and "path" is the unique identifier of the resource within the context of the "authority". The resource ID must be unique within the SPASE framework.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"/> </pre>

</xsd:simpleType>

Simple Type enumRole

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the assigned or assumed function or position of an individual.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	ArchiveSpecialist	An individual who is an expert on a collection of resources and may also be knowledgeable of the phenomenon and related physics represented by the resources. This includes librarians, curators, archive scientists and other experts.
	enumeration	CoInvestigator	An individual who is a scientific peer and major participant in an investigation.
	enumeration	Contributor	An entity responsible for making contributions to the content of the resource.
	enumeration	DataProducer	An individual who generated the resource and is familiar with its provenance.
	enumeration	DeputyPI	An individual who is an administrative or scientific leader for an investigation operating under the supervision of a Principal Investigator.
	enumeration	FormerPI	An individual who had served as the administrative and scientific lead for an investigation, but no longer assumes that role.
	enumeration	GeneralContact	An individual who can provide information on a range of subjects or who can direct you to a domain expert.
	enumeration	MetadataContact	An individual who can affect a change in the metadata describing a resource.
	enumeration	PrincipalInvestigator	An individual who is the administrative and scientific lead for an investigation.
	enumeration	ProjectScientist	An individual who is an expert in the phenomenon and related physics explored by the project. A project scientist may also have a managerial role within the project.
	enumeration	Publisher	An individual, organization, institution or government department responsible for the production and dissemination of a document.
	enumeration	Scientist	An individual who is an expert in the phenomenon and related physics represented by the resource.
	enumeration	TeamLeader	An individual who is the designated leader of an investigation.
	enumeration	TeamMember	An individual who is a major participant in an investigation.
	enumeration	TechnicalContact	An individual who can provide specific information with regard to the resource or supporting software
Used by	Element	Role	
Source	<pre> <xsd:simpleType name="enumRole"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the assigned or assumed function or position of an individual.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="ArchiveSpecialist"> <xsd:annotation> <xsd:documentation xml:lang="en">An individual who is an expert on a collection of resources and may also be knowledgeable of the phenomenon and related physics represented by the resources. This includes librarians, curators, archive scientists and other experts.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		


```

</xsd:enumeration>
<xsd:enumeration value="CoInvestigator">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who is a scientific peer and major
participant in an investigation.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Contributor">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An entity responsible for making contributions to the
content of the resource.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DataProducer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who generated the resource and is familiar
with its provenance.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="DeputyPI">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who is an administrative or scientific
leader for an investigation operating under the supervision of a Principal Investigator.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="FormerPI">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who had served as the administrative and
scientific lead for an investigation, but no longer assumes that role.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="GeneralContact">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who can provide information on a range of
subjects or who can direct you to a domain expert.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MetadataContact">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who can affect a change in the metadata
describing a resource.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PrincipalInvestigator">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who is the administrative and scientific lead
for an investigation.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ProjectScientist">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who is an expert in the phenomenon and
related physics explored by the project. A project scientist may also have a managerial role within
the project.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Publisher">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual, organization, institution or government
department responsible for the production and dissemination of a document.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Scientist">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who is an expert in the phenomenon and
related physics represented by the resource.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TeamLeader">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who is the designated leader of an
investigation.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TeamMember">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An individual who is a major participant in an
investigation.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TechnicalContact">
  <xsd:annotation>

```

```

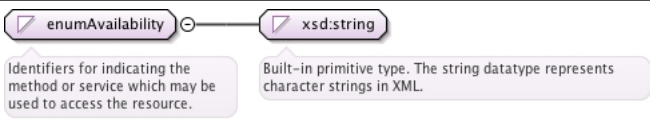
        <xsd:documentation xml:lang="en">An individual who can provide specific information with
        regard to the resource or supporting software</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
    
```

Simple Type enumAssociationType

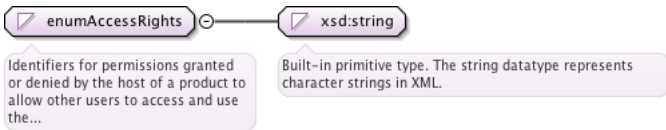
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for resource associations.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	ChildEventOf	A descendant or caused by another resource.
	enumeration	DerivedFrom	A transformed or altered version of a resource instance.
	enumeration	ObservedBy	Detected or originating from another resource.
	enumeration	Other	Not classified with more specific terms. The context of its usage may be described in related text.
	enumeration	PartOf	A portion of a larger resource.
	enumeration	RevisionOf	A modified version of a resource instance.
Used by	Element	AssociationType	
Source	<pre> <xsd:simpleType name="enumAssociationType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for resource associations.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="ChildEventOf"> <xsd:annotation> <xsd:documentation xml:lang="en">A descendant or caused by another resource.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="DerivedFrom"> <xsd:annotation> <xsd:documentation xml:lang="en">A transformed or altered version of a resource instance.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ObservedBy"> <xsd:annotation> <xsd:documentation xml:lang="en">Detected or originating from another resource.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Other"> <xsd:annotation> <xsd:documentation xml:lang="en">Not classified with more specific terms. The context of its usage may be described in related text.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="PartOf"> <xsd:annotation> <xsd:documentation xml:lang="en">A portion of a larger resource.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="RevisionOf"> <xsd:annotation> <xsd:documentation xml:lang="en">A modified version of a resource instance.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumAvailability

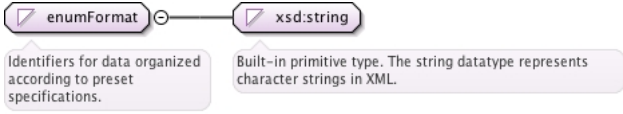
Namespace	http://impex-fp7.oeaw.ac.at
-----------	-----------------------------

Annotations	Identifiers for indicating the method or service which may be used to access the resource.						
Diagram							
Type	restriction of xsd:string						
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Offline</td> <td>Not directly accessible electronically. This includes resources which may to be moved to an on-line status in response to a given request.</td> </tr> <tr> <td>enumeration</td> <td>Online</td> <td>Directly accessible electronically.</td> </tr> </table>	enumeration	Offline	Not directly accessible electronically. This includes resources which may to be moved to an on-line status in response to a given request.	enumeration	Online	Directly accessible electronically.
enumeration	Offline	Not directly accessible electronically. This includes resources which may to be moved to an on-line status in response to a given request.					
enumeration	Online	Directly accessible electronically.					
Used by	Element Availability						
Source	<pre> <xsd:simpleType name="enumAvailability"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for indicating the method or service which may be used to access the resource.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Offline"> <xsd:annotation> <xsd:documentation xml:lang="en">Not directly accessible electronically. This includes resources which may to be moved to an on-line status in response to a given request.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Online"> <xsd:annotation> <xsd:documentation xml:lang="en">Directly accessible electronically.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>						

Simple Type enumAccessRights

Namespace	http://impex-fp7.oeaw.ac.at						
Annotations	Identifiers for permissions granted or denied by the host of a product to allow other users to access and use the resource.						
Diagram							
Type	restriction of xsd:string						
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Open</td> <td>Access is granted to everyone.</td> </tr> <tr> <td>enumeration</td> <td>Restricted</td> <td>Access to the product is regulated and requires some form of identification.</td> </tr> </table>	enumeration	Open	Access is granted to everyone.	enumeration	Restricted	Access to the product is regulated and requires some form of identification.
enumeration	Open	Access is granted to everyone.					
enumeration	Restricted	Access to the product is regulated and requires some form of identification.					
Used by	Element AccessRights						
Source	<pre> <xsd:simpleType name="enumAccessRights"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for permissions granted or denied by the host of a product to allow other users to access and use the resource.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Open"> <xsd:annotation> <xsd:documentation xml:lang="en">Access is granted to everyone.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Restricted"> <xsd:annotation> <xsd:documentation xml:lang="en">Access to the product is regulated and requires some form of identification.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>						

Simple Type enumFormat

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for data organized according to preset specifications.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	AVI	Audio Video Interleave (AVI) a digital format for movies that conforms to the Microsoft Windows Resource Interchange File Format (RIFF).
	enumeration	Binary	A direct representation of the bits which may be stored in memory on a computer.
	enumeration	CDF	Common Data Format (CDF). A binary storage format developed at Goddard Space Flight Center (GSFC).
	enumeration	CEF	Cluster Exchange Format (CEF) is a self-documenting ASCII format designed for the exchange of data. There are two versions of CEF which are not totally compatible.
	enumeration	CEF1	Cluster Exchange Format (CEF), version 1, is a self-documenting ASCII format designed for the exchange of data. The metadata contains information compatible with the ISTP recommendations for CDF.
	enumeration	CEF2	Cluster Exchange Format (CEF), version 2, is a self-documenting ASCII format designed for the exchange of data and introduced for Cluster Active Archive. Compared to version 1, the metadata description of vectors and tensors is different.
	enumeration	Excel	A Microsoft spreadsheet format used to hold a variety of data in tables which can include calculations.
	enumeration	FITS	Flexible Image Transport System (FITS) is a digital format primarily designed to store scientific data sets consisting of multi-dimensional arrays (1-D spectra, 2-D images or 3-D data cubes) and 2-dimensional tables containing rows and columns of data.
	enumeration	GIF	Graphic Interchange Format (GIF) first introduced in 1987 by CompuServe. GIF uses LZW compression and images are limited to 256 colours.
	enumeration	HDF	Hierarchical Data Format
	enumeration	HDF4	Hierarchical Data Format, Version 4
	enumeration	HDF5	Hierarchical Data Format, Version 5
	enumeration	HTML	A text file containing structured information represented in the HyperText Mark-up Language (HTML). See < http://www.w3.org/MarkUp/ >
	enumeration	Hardcopy	A permanent reproduction, or copy in the form of a physical object, of any media suitable for direct use by a person.
	enumeration	Hardcopy.Film	An image recording medium on which usually a "negative" analog image is registered. A "positive" image can be recovered or reproduced from film, which is usually made of flexible materials for ease of storage and transportation.
	enumeration	Hardcopy.Microfiche	A sheet of microfilm on which many pages of material have been photographed; a magnification system is used to read the material.
	enumeration	Hardcopy.Microfilm	Film rolls on which materials are photographed at greatly reduced size; a magnification system is used to read the material.
	enumeration	Hardcopy.Photograph	An image (positive or negative) registered

		on a piece of photo-sensitive paper
enumeration	Hardcopy.PhotographicPlate	A rigid (typically glass) medium that functions like film. Its rigidity is for guarding against image distortion due to medium deformation (caused by heat and humidity). Photographic plates are often used for astronomical photography.
enumeration	Hardcopy.Print	A sheet of any written or printed material which may include notes or graphics. Multiple printed pages may be bound into a manuscript or book.
enumeration	IDFS	Instrument Data File Set (IDFS) is a set of files written in a prescribed format which contain data, timing data, and meta-data. IDFS was developed at Southwest Research Institute (SwRI).
enumeration	IDL	Interactive Data Language (IDL) save set. IDL is a proprietary format.
enumeration	JPEG	A binary format for still images defined by the Joint Photographic Experts Group
enumeration	MATLAB_4	MATLAB Workspace save set, version 4. MAT-files are double-precision, binary, MATLAB format files. MATLAB is a proprietary product of The MathWorks.
enumeration	MATLAB_6	MATLAB Workspace save set, version 6. MAT-files are double-precision, binary, MATLAB format files. MATLAB is a proprietary product of The MathWorks.
enumeration	MATLAB_7	MATLAB Workspace save set, version 7. MAT-files are double-precision, binary, MATLAB format files. Version 7 includes data compression and Unicode encoding. MATLAB is a proprietary product of The MathWorks.
enumeration	MPEG	A digital format for movies defined by the Motion Picture Experts Group
enumeration	NCAR	The National Center for Atmospheric Research (NCAR) format. A complete description of that standard is given in appendix C of the "Report on Establishment & Operation of the Incoherent-Scatter Data Base", dated August 23, 1984, obtainable from NCAR, P.O. Box 3000 Boulder, Colorado 80307-3000.
enumeration	NetCDF	Unidata Program Center's Network Common Data Form (NetCDF). A self-describing portable data format for array-oriented data access. See < http://my.unidata.ucar.edu/content/software/netcdf >
enumeration	PDF	A document expressed in the Portable Document Format (PDF) as defined by Adobe.
enumeration	PNG	A digital format for still images. Portable Network Graphics (PNG)
enumeration	Postscript	A page description programming language created by Adobe Systems Inc. that is a device-independent industry standard for representing text and graphics.
enumeration	QuickTime	A format for digital movies, as defined by Apple Computer. See < http://developer.apple.com/quicktime/ >
enumeration	TIFF	A binary format for still pictures. Tagged Image Format File (TIFF). Originally developed by Aldus and now controlled by Adobe.
enumeration	Text	A sequence of characters which may have an imposed structure or organization.
enumeration	Text.ASCII	A sequence of characters that adheres to American Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.
enumeration	Text.Unicode	Text in multi-byte Unicode format.
enumeration	UDF	Universal Data Format (UDF). The Optical Technology

		Storage Association's Universal Disk Format, based on ISO 13346. See < http://www.osta.org/specs/index.htm >
	enumeration	VOTable A proposed IVOA standard designed as a flexible storage and exchange format for tabular data.
	enumeration	XML eXtensible Mark-up Language (XML). A structured format for representing information. See < http://www.w3.org/XML/ >
Used by	Element	Format
Source	<pre> <xsd:simpleType name="enumFormat"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for data organized according to preset specifications.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="AVI"> <xsd:annotation> <xsd:documentation xml:lang="en">Audio Video Interleave (AVI) a digital format for movies that conforms to the Microsoft Windows Resource Interchange File Format (RIFF).</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Binary"> <xsd:annotation> <xsd:documentation xml:lang="en">A direct representation of the bits which may be stored in memory on a computer.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="CDF"> <xsd:annotation> <xsd:documentation xml:lang="en">Common Data Format (CDF). A binary storage format developed at Goddard Space Flight Center (GSFC).</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="CEF"> <xsd:annotation> <xsd:documentation xml:lang="en">Cluster Exchange Format (CEF) is a self-documenting ASCII format designed for the exchange of data. There are two versions of CEF which are not totally compatible.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="CEF1"> <xsd:annotation> <xsd:documentation xml:lang="en">Cluster Exchange Format (CEF), version 1, is a self-documenting ASCII format designed for the exchange of data. The metadata contains information compatible with the ISTEP recommendations for CDF.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="CEF2"> <xsd:annotation> <xsd:documentation xml:lang="en">Cluster Exchange Format (CEF), version 2, is a self-documenting ASCII format designed for the exchange of data and introduced for Cluster Active Archive. Compared to version 1, the metadata description of vectors and tensors is different.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Excel"> <xsd:annotation> <xsd:documentation xml:lang="en">A Microsoft spreadsheet format used to hold a variety of data in tables which can include calculations.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="FITS"> <xsd:annotation> <xsd:documentation xml:lang="en">Flexible Image Transport System (FITS) is a digital format primarily designed to store scientific data sets consisting of multi-dimensional arrays (1-D spectra, 2-D images or 3-D data cubes) and 2-dimensional tables containing rows and columns of data.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="GIF"> <xsd:annotation> <xsd:documentation xml:lang="en">Graphic Interchange Format (GIF) first introduced in 1987 by CompuServe. GIF uses LZW compression and images are limited to 256 colours.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="HDF"> <xsd:annotation> <xsd:documentation xml:lang="en">Hierarchical Data Format</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>	

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<xsd:enumeration value="HDF4">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Hierarchical Data Format, Version 4</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HDF5">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Hierarchical Data Format, Version 5</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
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  <xsd:annotation>
    <xsd:documentation xml:lang="en">A text file containing structured information represented
in the HyperText Mark-up Language (HTML). See <http://www.w3.org/Markup/></xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Hardcopy">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A permanent reproduction, or copy in the form of a physical
object, of any media suitable for direct use by a person.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Hardcopy.Film">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An image recording medium on which usually a "negative"
analog image is registered. A "positive" image can be recovered or reproduced from film, which is
usually made of flexible materials for ease of storage and transportation.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Hardcopy.Microfiche">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A sheet of microfilm on which many pages of material have
been photographed; a magnification system is used to read the material.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Hardcopy.Microfilm">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Film rolls on which materials are photographed at greatly
reduced size; a magnification system is used to read the material.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Hardcopy.Photograph">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An image (positive or negative) registered on a piece of
photo-sensitive paper</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Hardcopy.PhotographicPlate">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A rigid (typically glass) medium that functions like film.
Its rigidity is for guarding against image distortion due to medium deformation (caused by heat and
humidity). Photographic plates are often used for astronomical photography.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Hardcopy.Print">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A sheet of any written or printed material which may
include notes or graphics. Multiple printed pages may be bound into a manuscript or book.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="IDFS">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Instrument Data File Set (IDFS) is a set of files written
in a prescribed format which contain data, timing data, and meta-data. IDFS was developed at
Southwest Research Institute (SwRI).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="IDL">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Interactive Data Language (IDL) save set. IDL is a
proprietary format.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="JPEG">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A binary format for still images defined by the Joint
Photographic Experts Group</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MATLAB_4">
  <xsd:annotation>

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        <xsd:documentation xml:lang="en">MATLAB Workspace save set, version 4. MAT-files are
double-precision, binary, MATLAB format files. MATLAB is a proprietary product of The MathWorks.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MATLAB_6">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">MATLAB Workspace save set, version 6. MAT-files are
double-precision, binary, MATLAB format files. MATLAB is a proprietary product of The MathWorks.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MATLAB_7">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">MATLAB Workspace save set, version 7. MAT-files are double-
precision, binary, MATLAB format files. Version 7 includes data compression and Unicode encoding.
MATLAB is a proprietary product of The MathWorks.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MPEG">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A digital format for movies defined by the Motion Picture
Experts Group</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NCAR">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The National Center for Atmospheric Research (NCAR) format.
A complete description of that standard is given in appendix C of the "Report on Establishment &
Operation of the Incoherent- Scatter Data Base", dated August 23, 1984, obtainable from NCAR, P.O.
Box 3000 Boulder, Colorado 80307-3000.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NetCDF">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Unidata Program Center's Network Common Data Form
(NetCDF). A self-describing portable data format for array-oriented data access. See <http://
my.unidata.ucar.edu/content/software/netcdf/></xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PDF">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A document expressed in the Portable Document Format (PDF)
as defined by Adobe.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PNG">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A digital format for still images. Portable Network
Graphics (PNG)</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Postscript">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A page description programming language created by Adobe
Systems Inc. that is a device-independent industry standard for representing text and graphics.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="QuickTime">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A format for digital movies, as defined by Apple Computer.
See <http://developer.apple.com/quicktime/></xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TIFF">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A binary format for still pictures. Tagged Image Format
File (TIFF). Originally developed by Aldus and now controlled by Adobe.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Text">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A sequence of characters which may have an imposed
structure or organization.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Text.ASCII">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A sequence of characters that adheres to American
Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.</
xsd:documentation>
    </xsd:annotation>

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</xsd:enumeration>
<xsd:enumeration value="Text.Unicode">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Text in multi-byte Unicode format.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="UDF">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Universal Data Format (UDF). The Optical Technology
Storage Association's Universal Disk Format, based on ISO 13346. See <http://www.osta.org/specs/
index.htm></xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="VOTable">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A proposed IVOA standard designed as a flexible storage and
exchange format for tabular data.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="XML">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">eXtensible Mark-up Language (XML). A structured format for
representing information. See <http://www.w3.org/XML/></xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

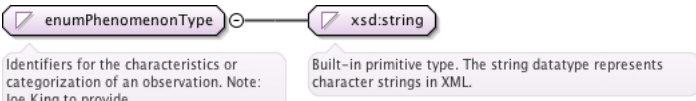
Simple Type enumEncoding

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for unambiguous rules that establishes the representation of information within a file.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	ASCII	A sequence of characters that adheres to American Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.
	enumeration	BZIP2	An open standard algorithm by Julian Seward using Burrows-Wheeler block sorting and Huffman coding. See <http://www.bzip.org/>
	enumeration	Base64	A data encoding scheme whereby binary-encoded data is converted to printable ASCII characters. It is defined as a MIME content transfer encoding for use in Internet e-mail. The only characters used are the upper- and lower-case Roman alphabet characters (A-Z, a-z), the numerals (0-9), and the "+" and "/" symbols, with the "=" symbol as a special suffix (padding) code.
	enumeration	GZIP	An open standard algorithm distributed by GHU based on LZ77 and Huffman coding. See <http://www.gnu.org/software/gzip/gzip.html> or <http://www.gzip.org/>
	enumeration	None	A lack or absence of anything.
	enumeration	S3_BUCKET	A container of objects that comply with the Amazon Simple Storage Service (S3) specifications. A bucket has a unique, user-assigned key (name). A bucket can contain any number of objects with an aggregate size of 5 gigabytes. A bucket may be accompanied by up to 2 kilobytes of metadata.
	enumeration	TAR	A file format used to collate collections of files into one larger file, for distribution or archiving, while preserving file system information such as user and group permissions, dates, and directory structures. The format was standardized by POSIX.1-1988 and later POSIX.1-2001.

	enumeration	Unicode	Text in multi-byte Unicode format.
	enumeration	ZIP	An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.
Used by	Element	Encoding	
Source	<pre> <xsd:simpleType name="enumEncoding"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for unambiguous rules that establishes the representation of information within a file.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="ASCII"> <xsd:annotation> <xsd:documentation xml:lang="en">A sequence of characters that adheres to American Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="BZIP2"> <xsd:annotation> <xsd:documentation xml:lang="en">An open standard algorithm by Julian Seward using Burrows- Wheeler block sorting and Huffman coding. See <http://www.bzip.org/></xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Base64"> <xsd:annotation> <xsd:documentation xml:lang="en">A data encoding scheme whereby binary-encoded data is converted to printable ASCII characters. It is defined as a MIME content transfer encoding for use in Internet e-mail. The only characters used are the upper- and lower-case Roman alphabet characters (A-Z, a-z), the numerals (0-9), and the "+" and "/" symbols, with the "=" symbol as a special suffix (padding) code.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="GZIP"> <xsd:annotation> <xsd:documentation xml:lang="en">An open standard algorithm distributed by GHU based on LZ77 and Huffman coding. See <http://www.gnu.org/software/gzip/gzip.html> or <http://www.gzip.org/></ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="None"> <xsd:annotation> <xsd:documentation xml:lang="en">A lack or absence of anything.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="S3_BUCKET"> <xsd:annotation> <xsd:documentation xml:lang="en">A container of objects that comply with the Amazon Simple Storage Service (S3) specifications. A bucket has a unique, user-assigned key (name). A bucket can contain any number of objects with an aggregate size of 5 gigabytes. A bucket may be accompanied by up to 2 kilobytes of metadata.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="TAR"> <xsd:annotation> <xsd:documentation xml:lang="en">A file format used to collate collections of files into one larger file, for distribution or archiving, while preserving file system information such as user and group permissions, dates, and directory structures. The format was standardized by POSIX.1-1988 and later POSIX.1-2001.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Unicode"> <xsd:annotation> <xsd:documentation xml:lang="en">Text in multi-byte Unicode format.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ZIP"> <xsd:annotation> <xsd:documentation xml:lang="en">An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumPhenomenonType

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Identifiers for the characteristics or categorization

Diagram	<p>of an observation. Note: Joe King to provide.</p> 		
Type	restriction of xsd:string		
Facets	enumeration	ActiveRegion	A localized, transient volume of the solar atmosphere in which PLAGEs, SUNSPOTS, FACULAE, FLAREs, etc. may be observed.
	enumeration	Aurora	An atmospheric phenomenon consisting of bands of light caused by charged solar particles following the earth's magnetic lines of force.
	enumeration	BowShockCrossing	A crossing of the boundary between the undisturbed (except for foreshock effects) solar wind and the shocked, decelerated solar wind of the magnetosheath.
	enumeration	CoronalHole	An extended region of the corona, exceptionally low in density and associated with unipolar photospheric regions. A coronal hole can be an "open" magnetic field in the corona and (perhaps) inner heliosphere which has a faster than average outflow (wind); A region of lower than "quiet" ion and electron density in the corona; or a region of lower peak electron temperature in the corona than in the "quiet" corona.
	enumeration	CoronalMassEjection	A solar event (CME) that involves a burst of plasma ejected into the interplanetary medium. CME's may be observed remotely relatively near the sun or in situ in the interplanetary medium. The latter type of observations are often referred to as Interplanetary CME's (ICME's).
	enumeration	EITWave	A wave in the corona of the Sun which produce shock waves on the Sun's chromosphere (Moreton Waves). EIT Waves are produced by large solar flare and expand outward at about 1,000 km/s. It usually appears as a slowly moving diffuse arc of brightening in H-alpha, and may travel for several hundred thousand km.
	enumeration	EnergeticSolarParticleEvent	An enhancement of interplanetary fluxes of energetic ions accelerated by interplanetary shocks and/or solar flares.
	enumeration	ForbushDecrease	A rapid decrease in the observed galactic cosmic ray intensity following the passage of an outwardly convecting interplanetary magnetic field disturbance, such as those associated with large CME's, that sweep some galactic cosmic rays away from Earth.
	enumeration	GeomagneticStorm	A magnetospheric disturbance typically defined by variations in the horizontal component of the Earth's surface magnetic field. The variation typically starts with a field enhancement associated with a solar wind pressure pulse and continues with a field depression associated with an enhancement of the diamagnetic magnetospheric ring current.
	enumeration	InterplanetaryShock	A shock propagating generally anti-sunward through the slower solar wind, often seen in front of CME-associated plasma clouds.
	enumeration	MagneticCloud	A transient event observed in the solar wind characterized as a region of enhanced magnetic field strength, smooth rotation of the magnetic field vector and low proton density and temperature.
	enumeration	MagnetopauseCrossing	A crossing of the interface between the shocked solar wind in the magnetosheath and the magnetic field and plasma in the magnetosphere.
	enumeration	RadioBurst	Emissions of the sun in radio wavelengths from centimeters to dekameters, under both

		<p>quiet and disturbed conditions. Radio Bursts can be "Type I" consisting of many short, narrow-band bursts in the metric range (300 - 50 MHz).; "Type II" consisting of narrow-band emission that begins in the meter range (300 MHz) and sweeps slowly (tens of minutes) toward dekameter wavelengths (10 MHz).; "Type III" consisting of narrow-band bursts that sweep rapidly (seconds) from decimeter to dekameter wavelengths (500 - 0.5 MHz); and "Type IV" consisting of a smooth continuum of broad-band bursts primarily in the meter range (300 - 30 MHz).</p>
enumeration	SectorBoundaryCrossing	<p>A sector boundary crossing is a transit by a spacecraft across the heliospheric current sheet separating the dominantly outward (away-from-the-sun) interplanetary magnetic field of one hemisphere of the heliosphere from the dominantly inward (toward-the-sun) polarity of the other hemisphere. Such crossings have multi-day intervals of opposite IMF dominant polarities on either side.</p>
enumeration	SolarFlare	<p>An explosive event in the Sun's atmosphere which produces electromagnetic radiation across the electromagnetic spectrum at multiple wavelengths from long-wave radio to the shortest wavelength gamma rays.</p>
enumeration	SolarWindExtreme	<p>Intervals of unusually large or small values of solar wind attributes such as flow speed and ion density.</p>
enumeration	StreamInteractionRegion	<p>The region (SIR) where two solar wind streams, typically having differing characteristics and solar sources, abut up against (and possibly partially interpenetrate) each other.</p>
enumeration	Substorm	<p>A process by which plasma in the magnetotail becomes energized at a fast rate.</p>
Used by	Element	PhenomenonType
Source	<pre> <xsd:simpleType name="enumPhenomenonType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the characteristics or categorization of an observation. Note: Joe King to provide.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="ActiveRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">A localized, transient volume of the solar atmosphere in which PLAGES, SUNSPOTS, FACULAE, FLARES, etc. may be observed.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Aurora"> <xsd:annotation> <xsd:documentation xml:lang="en">An atmospheric phenomenon consisting of bands of light caused by charged solar particles following the earth's magnetic lines of force.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="BowShockCrossing"> <xsd:annotation> <xsd:documentation xml:lang="en">A crossing of the boundary between the undisturbed (except for foreshock effects) solar wind and the shocked, decelerated solar wind of the magnetosheath.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="CoronalHole"> <xsd:annotation> <xsd:documentation xml:lang="en">An extended region of the corona, exceptionally low in density and associated with unipolar photospheric regions. A coronal hole can be an "open" magnetic field in the corona and (perhaps) inner heliosphere which has a faster than average outflow (wind); A region of lower than "quiet" ion and electron density in the corona; or a region of lower peak electron temperature in the corona than in the "quiet" corona.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="CoronalMassEjection"> <xsd:annotation> </pre>	

```

        <xsd:documentation xml:lang="en">A solar event (CME) that involves a burst of plasma
ejected into the interplanetary medium. CME's may be observed remotely relatively near the sun
or in situ in the interplanetary medium. The latter type of observations are often referred to as
Interplanetary CME's (ICME's).</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EITWave">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A wave in the corona of the Sun which produce shock waves
on the Sun's chromosphere (Moreton Waves). EIT Waves are produced by large solar flare and expand
outward at about 1,000 km/s. It usually appears as a slowly moving diffuse arc of brightening in H-
alpha, and may travel for several hundred thousand km.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EnergeticSolarParticleEvent">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An enhancement of interplanetary fluxes of energetic ions
accelerated by interplanetary shocks and/or solar flares.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ForbushDecrease">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A rapid decrease in the observed galactic cosmic
ray intensity following the passage of an outwardly convecting interplanetary magnetic field
disturbance, such as those associated with large CME's, that sweep some galactic cosmic rays away
from Earth.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="GeomagneticStorm">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A magnetospheric disturbance typically defined by
variations in the horizontal component of the Earth's surface magnetic field. The variation
typically starts with a field enhancement associated with a solar wind pressure pulse and continues
with a field depression associated with an enhancement of the diamagnetic magnetospheric ring
current.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="InterplanetaryShock">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A shock propagating generally anti-sunward through the
slower solar wind, often seen in front of CME-associated plasma clouds.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MagneticCloud">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A transient event observed in the solar wind characterized
as a region of enhanced magnetic field strength, smooth rotation of the magnetic field vector and
low proton density and temperature.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MagnetopauseCrossing">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A crossing of the interface between the shocked solar wind
in the magnetosheath and the magnetic field and plasma in the magnetosphere.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RadioBurst">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Emissions of the sun in radio wavelengths from centimeters
to dekameters, under both quiet and disturbed conditions. Radio Bursts can be "Type I" consisting
of many short, narrow-band bursts in the metric range (300 - 50 MHz).; "Type II" consisting
of narrow-band emission that begins in the meter range (300 MHz) and sweeps slowly (tens of
minutes) toward dekameter wavelengths (10 MHz).; "Type III" consisting of narrow-band bursts
that sweep rapidly (seconds) from decimeter to dekameter wavelengths (500 - 0.5 MHz); and "Type
IV" consisting of a smooth continuum of broad-band bursts primarily in the meter range (300 - 30
MHz).</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SectorBoundaryCrossing">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A sector boundary crossing is a transit by a spacecraft
across the heliospheric current sheet separating the dominantly outward (away-from-the-sun)
interplanetary magnetic field of one hemisphere of the heliosphere from the dominantly inward
(toward-the-sun) polarity of the other hemisphere. Such crossings have multi-day intervals of
opposite IMF dominant polarities on either side.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SolarFlare">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An explosive event in the Sun's atmosphere which produces
electromagnetic radiation across the electromagnetic spectrum at multiple wavelengths from long-
wave radio to the shortest wavelength gamma rays.</xsd:documentation>
    </xsd:annotation>

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</xsd:enumeration>
<xsd:enumeration value="SolarWindExtreme">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Intervals of unusually large or small values of solar wind
attributes such as flow speed and ion density.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="StreamInteractionRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region (SIR) where two solar wind streams, typically
having differing characteristics and solar sources, abut up against (and possibly partially
interpenetrate) each other.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Substorm">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A process by which plasma in the magnetotail becomes
energized at a fast rate.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type ParameterKey

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	The name or identifier which can be used to access the parameter in the resource. The associated value is dependent on the service used to access the resource. For columnar ASCII data, use "Column_X" for a single-element parameter and "Column_X-Column_Y" for a multi-element parameter, where X and Y are the relevant column index. The first column index is 1.
Diagram	
Type	xsd:string
Used by	Element ParameterKey
Source	<pre> <xsd:simpleType name="ParameterKey"> <xsd:annotation> <xsd:documentation xml:lang="en">The name or identifier which can be used to access the parameter in the resource. The associated value is dependent on the service used to access the resource. For columnar ASCII data, use "Column_X" for a single-element parameter and "Column_X- Column_Y" for a multi-element parameter, where X and Y are the relevant column index. The first column index is 1.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"/> </xsd:simpleType> </pre>

Simple Type enumCoordinateRepresentation

Namespace	http://impex-fp7.oeaw.ac.at						
Annotations	Identifiers of the method or form for specifying a given point or vector in a given coordinate system.						
Diagram							
Type	restriction of xsd:string						
Facets	<table border="0"> <tr> <td>enumeration</td> <td>Cartesian</td> <td>A representation in which a position vector or a measured vector (e.g., field or flow) is specified by its components along the base axes of the coordinate system.</td> </tr> <tr> <td>enumeration</td> <td>Cylindrical</td> <td>A coordinate representation of a position vector or measured vector (field or flow) by its k-component, the magnitude of its projection into the i-j plane, and the azimuthal angle</td> </tr> </table>	enumeration	Cartesian	A representation in which a position vector or a measured vector (e.g., field or flow) is specified by its components along the base axes of the coordinate system.	enumeration	Cylindrical	A coordinate representation of a position vector or measured vector (field or flow) by its k-component, the magnitude of its projection into the i-j plane, and the azimuthal angle
enumeration	Cartesian	A representation in which a position vector or a measured vector (e.g., field or flow) is specified by its components along the base axes of the coordinate system.					
enumeration	Cylindrical	A coordinate representation of a position vector or measured vector (field or flow) by its k-component, the magnitude of its projection into the i-j plane, and the azimuthal angle					

	enumeration	Spherical	of the i-j plane projection. A coordinate representation of a position vector or of a measured vector by its magnitude and two direction angles. The angles are relative to the base axes of the coordinate system used. Typically the angles are phi [azimuth angle, =arctan (j/i)] and theta, where theta may be a polar angle, arctan {[SQRT(i^2+j^2)}/k}, or an elevation angle, arctan [k/SQRT (i^2+j^2)].
Used by	Element	CoordinateRepresentation	
Source	<pre> <xsd:simpleType name="enumCoordinateRepresentation"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers of the method or form for specifying a given point or vector in a given coordinate system.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Cartesian"> <xsd:annotation> <xsd:documentation xml:lang="en">A representation in which a position vector or a measured vector (e.g., field or flow) is specified by its components along the base axes of the coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Cylindrical"> <xsd:annotation> <xsd:documentation xml:lang="en">A coordinate representation of a position vector or measured vector (field or flow) by its k-component, the magnitude of its projection into the i-j plane, and the azimuthal angle of the i-j plane projection.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Spherical"> <xsd:annotation> <xsd:documentation xml:lang="en">A coordinate representation of a position vector or of a measured vector by its magnitude and two direction angles. The angles are relative to the base axes of the coordinate system used. Typically the angles are phi [azimuth angle, =arctan (j/i)] and theta, where theta may be a polar angle, arctan {[SQRT(i^2+j^2)}/k}, or an elevation angle, arctan [k/SQRT (i^2+j^2)].</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumCoordinateSystemName

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers of the origin and orientation of a set of typically orthogonal axes.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	CGM	Corrected Geomagnetic - A coordinate system from a spatial point with GEO radial distance and geomagnetic latitude and longitude, follow the epoch-appropriate IGRF/DGRF model field vector through to the point where the field line crosses the geomagnetic dipole equatorial plane. Then trace the dipole magnetic field vector Earthward from that point on the equatorial plane, in the same hemisphere as the original point, until the initial radial distance is reached. Designate the dipole latitude and longitude at that point as the CGM latitude and longitude of the original point. See <http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html>
	enumeration	Carrington	A coordinate system which is centered at the Sun and is "fixed" with respect to the synodic rotation rate; the mean synodic value is about 27.2753 days. The Astronomical Almanac gives a value for Carrington longitude of 349.03 degrees at 0000 UT on 1 January 1995.
	enumeration	DM	Dipole Meridian - A coordinate system centered at the observation point. Z axis is parallel

		to the Earth's dipole axis, positive northward. X is in the plane defined by Z and the line linking the observation point with the Earth's center. Y is positive eastward. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	GEO	Geocentric Equatorial Inertial - A coordinate system where the Z axis is along Earth's spin vector, positive northward. X axis points towards the first point of Aries (from the Earth towards the Sun at the vernal equinox). See Russell, 1971
enumeration	GEO	Geographic - geocentric corotating - A coordinate system where the Z axis is along Earth's spin vector, positive northward. X axis lies in Greenwich meridian, positive towards Greenwich. See Russell, 1971.
enumeration	GSE	Geocentric Solar Ecliptic - A coordinate system where the X axis is from Earth to Sun. Z axis is normal to the ecliptic, positive northward. See Russell, 1971.
enumeration	GSEQ	Geocentric Solar Equatorial - A coordinate system where the X axis is from Earth to Sun. Y axis is parallel to solar equatorial plane. Z axis is positive northward. See Russell, 1971
enumeration	GSM	Geocentric Solar Magnetospheric - A coordinate system where the X axis is from Earth to Sun, Z axis is northward in a plane containing the X axis and the geomagnetic dipole axis. See Russell, 1971
enumeration	HAE	Heliocentric Aries Ecliptic - A coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the first point of Aries (from Earth to Sun at vernal equinox). Same as SE below. See Hapgood, 1992.
enumeration	HCC	Heliocentric Cartesian - A 3-D orthonormal coordinate system that is primarily intended to specify with two dimensions a point on the solar disk. The Z axis points toward the observer. The Y axis lies in the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward solar west. Standard representation for this system is via the point's x and y values, expressed either as physical distances or as fractions of the solar disk radius.
enumeration	HCI	Heliographic Carrington Inertial.
enumeration	HCR	Heliocentric Radial - A 3-D orthonormal coordinate system that is primarily intended to specify with two dimensions a point on the solar disk. The Z axis points toward the observer. The Y axis lies in the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward solar west. Standard representation for this system is via the point's distance rho from the Z axis [$\rho = \sqrt{x^2 + y^2}$] and its phase angle psi measured counterclockwise from the +Y axis [$\psi = \arctan(-y/x)$]
enumeration	HEE	Heliocentric Earth Ecliptic - A coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis points from Sun to Earth. See Hapgood, 1992
enumeration	HEEQ	Heliocentric Earth Equatorial - A coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X axis is generally Earthward in the plane defined by the Z axis and the Sun-Earth direction. See Hapgood, 1992.
enumeration	HG	Heliographic - A heliocentric rotating coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X, Y

		axes rotate with a 25.38 day period. The zero longitude (X axis) is defined as the longitude that passed through the ascending node of the solar equator on the ecliptic plane on 1 January, 1854 at 12 UT. See < http://nssdc.gsfc.nasa.gov/space/helios/coord_des.html >
enumeration	HGI	Heliographic Inertial - A heliocentric coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X axis is along the intersection line between solar equatorial and ecliptic planes. The X axis was positive at SE longitude of 74.367 deg on Jan 1, 1900. (See SE below.) See < http://nssdc.gsfc.nasa.gov/space/helios/coord_des.html >
enumeration	HPC	Helioprojective Cartesian = A 3-D orthonormal (left-handed) coordinate system that is primarily intended to specify with two dimensions a point on the solar disk. The Z axis points from the observer to the center of the solar disk. The Y axis lies in the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward solar west. Given as the distance between the observer and the center of the solar disk, the standard representation of an (x,y) point on the solar disk is via the point's longitude angle [arctan (x/d)] and latitude angle [arctan y/d].
enumeration	HPR	Helioprojective Radial - A 3-D orthonormal (left-handed) coordinate system that is primarily intended to specify with two dimensions a point on the solar disk. The Z axis points from the observer to the center of the solar disk. The Y axis lies in the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward solar west. Given as the distance between the observer and the center of the solar disk, the standard representation for this system of an (x,y) point on the solar disk is via the point's latitude angle theta {= arctan [SQRT(x**2 + y**2)]/d]} or equivalent declination parameter delta (= theta - 90 deg), and its phase angle psi as measured counter-clockwise from the +Y axis [psi = arctan (-y/x)].
enumeration	J2000	An astronomical coordinate system which uses the mean equator and equinox of Julian date 2451545.0 TT (Terrestrial Time), or January 1, 2000, noon TT. (aka J2000) to define a celestial reference frame.
enumeration	LGM	Local Geomagnetic - A coordinate system used mainly for Earth surface or near Earth surface magnetic field data. X axis northward from observation point in a geographic meridian. Z axis downward towards Earth's center. In this system, H (total horizontal component) = SQRT (Bx ² + By ²) and D (declination angle) = arctan (By/Bx)
enumeration	MAG	Geomagnetic - geocentric. Z axis is parallel to the geomagnetic dipole axis, positive north. X is in the plane defined by the Z axis and the Earth's rotation axis. If N is a unit vector from the Earth's center to the north geographic pole, the signs of the X and Y axes are given by Y = N x Z, X = Y x Z.. See Russell, 1971, and < http://cdpp.cnes.fr/00428.pdf >
enumeration	MFA	Magnetic Field Aligned - A coordinate system spacecraft-centered system with Z in the direction of the ambient magnetic field vector. X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	RTN	Radial Tangential Normal. Typically centered at a spacecraft. Used for IMF and plasma V vectors. R (radial) axis is radially away

		from the Sun, T (tangential) axis is normal to the plane formed by R and the Sun's spin vector, positive in the direction of planetary motion. N (normal) is $R \times T$.
enumeration	SC	Spacecraft - A coordinate system defined by the spacecraft geometry and/or spin. Often has Z axis parallel to spacecraft spin vector. X and Y axes may or may not corotate with the spacecraft. See SR and SR2 below.
enumeration	SE	Solar Ecliptic - A heliocentric coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the first point of Aries (from Earth to Sun at vernal equinox). Same as HAE above. See < http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html >
enumeration	SM	Solar Magnetic - A geocentric coordinate system where the Z axis is northward along Earth's dipole axis, X axis is in plane of z axis and Earth-Sun line, positive sunward. See Russell, 1971.
enumeration	SR	Spin Reference - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X and Y rotate with the spacecraft. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	SR2	Spin Reference 2 - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	SSE	Spacecraft Solar Ecliptic - A coordinate system used for deep space spacecraft, for example Helios. - X axis from spacecraft to Sun. Z axis normal to ecliptic plane, positive northward. Note: Angle between normals to ecliptic and to Helios orbit plane ~ 0.25 deg.
enumeration	SSE_L	Selenocentric Solar Ecliptic. The X axis points from the center of the Earth's moon to the sun, the Z axis is normal to the ecliptic plane, positive northward. And the Y axis completes the right-handed set of axes.
enumeration	SpacecraftOrbitPlane	A coordinate system where X lies in the plane normal to and in the direction of motion of the spacecraft, Z is normal to this plane and Y completes the triad in a right-handed coordinate system.
enumeration	WGS84	The World Geodetic System (WGS) defines a reference frame for the earth, for use in geodesy and navigation. The WGS84 uses the zero meridian as defined by the Bureau International de l'Heure.
enumeration	MSO	Coordinate Sytem Related to Mars or Mercury Depending on the Targeted Region Mars/Mercury Solar Orbital (X anti-sunward, Y along the orbital velocity direction)
enumeration	VSO	Coordinate Sytem Related to Venus Venus Solar Orbital (X anti-sunward, Y along the orbital velocity direction)
enumeration	KSO	Coordinate Sytem Related to Saturn Kronian Solar Orbital (X anti-sunward, Y along the orbital velocity direction)
enumeration	KSM	Kronian Solar Magnetospheric - A coordinate system where the X axis is from Saturn to Sun, Z axis is northward in a plane containing the X axis and the Kronian dipole axis.
enumeration	JSO	Coordinate Sytem Related to Jupiter Jovian Solar Orbital (X anti-sunward, Y along the orbital velocity direction)
enumeration	JSM	Jovian Solar Magnetospheric - A coordinate system where the X axis is from Jupiter to Sun,

		Z axis is northward in a plane containing the X axis and the Jovian dipole axis.
Used by	Element	CoordinateSystemName
Source	<pre> <xsd:simpleType name="enumCoordinateSystemName"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers of the origin and orientation of a set of typically orthogonal axes.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="CGM"> <xsd:annotation> <xsd:documentation xml:lang="en">Corrected Geomagnetic - A coordinate system from a spatial point with GEO radial distance and geomagnetic latitude and longitude, follow the epoch-appropriate IGRF/DGRF model field vector through to the point where the field line crosses the geomagnetic dipole equatorial plane. Then trace the dipole magnetic field vector Earthward from that point on the equatorial plane, in the same hemisphere as the original point, until the initial radial distance is reached. Designate the dipole latitude and longitude at that point as the CGM latitude and longitude of the original point. See <http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html></ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Carrington"> <xsd:annotation> <xsd:documentation xml:lang="en">A coordinate system which is centered at the Sun and is "fixed" with respect to the synodic rotation rate; the mean synodic value is about 27.2753 days. The Astronomical Almanac gives a value for Carrington longitude of 349.03 degrees at 0000 UT on 1 January 1995.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="DM"> <xsd:annotation> <xsd:documentation xml:lang="en">Dipole Meridian - A coordinate system centered at the observation point. Z axis is parallel to the Earth's dipole axis, positive northward. X is in the plane defined by Z and the line linking the observation point with the Earth's center. Y is positive eastward. See <http://cdpp.cnes.fr/00428.pdf></xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="GEI"> <xsd:annotation> <xsd:documentation xml:lang="en">Geocentric Equatorial Inertial - A coordinate system where the Z axis is along Earth's spin vector, positive northward. X axis points towards the first point of Aries (from the Earth towards the Sun at the vernal equinox). See Russell, 1971</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="GEO"> <xsd:annotation> <xsd:documentation xml:lang="en">Geographic - geocentric corotating - A coordinate system where the Z axis is along Earth's spin vector, positive northward. X axis lies in Greenwich meridian, positive towards Greenwich. See Russell, 1971.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="GSE"> <xsd:annotation> <xsd:documentation xml:lang="en">Geocentric Solar Ecliptic - A coordinate system where the X axis is from Earth to Sun. Z axis is normal to the ecliptic, positive northward. See Russell, 1971.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="GSEQ"> <xsd:annotation> <xsd:documentation xml:lang="en">Geocentric Solar Equatorial - A coordinate system where the X axis is from Earth to Sun. Y axis is parallel to solar equatorial plane. Z axis is positive northward. See Russell, 1971</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="GSM"> <xsd:annotation> <xsd:documentation xml:lang="en">Geocentric Solar Magnetospheric - A coordinate system where the X axis is from Earth to Sun, Z axis is northward in a plane containing the X axis and the geomagnetic dipole axis. See Russell, 1971</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="HAE"> <xsd:annotation> <xsd:documentation xml:lang="en">Heliocentric Aries Ecliptic - A coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the first point of Aries (from Earth to Sun at vernal equinox). Same as SE below. See Hapgood, 1992.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>	

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<xsd:enumeration value="HCC">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Heliocentric Cartesian - A 3-D orthonormal coordinate
system that is primarily intended to specify with two dimensions a point on the solar disk. The Z
axis points toward the observer. The Y axis lies in the plane defined by the solar spin vector and
the Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward
solar west. Standard representation for this system is via the point's x and y values, expressed
either as physical distances or as fractions of the solar disk radius.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HCI">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Heliographic Carrington Inertial.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HCR">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Heliocentric Radial - A 3-D orthonormal coordinate
system that is primarily intended to specify with two dimensions a point on the solar disk. The Z
axis points toward the observer. The Y axis lies in the plane defined by the solar spin vector and the
Z axis, positive northward. The X axis is perpendicular to the Y and Z axes, positive toward solar
west. Standard representation for this system is via the point's distance rho from the Z axis [rho
= SQRT(x**2 + y**2)] and its phase angle psi measured counterclockwise from the +Y axis [psi =
arctan (-y/x)]</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HEE">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Heliocentric Earth Ecliptic - A coordinate system where the
Z axis is normal to the ecliptic plane, positive northward. X axis points from Sun to Earth. See
Hapgood, 1992</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HEEQ">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Heliocentric Earth Equatorial - A coordinate system
where the Z axis is normal to the solar equatorial plane, positive northward. X axis is generally
Earthward in the plane defined by the Z axis and the Sun-Earth direction. See Hapgood, 1992.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HG">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Heliographic - A heliocentric rotating coordinate system
where the Z axis is normal to the solar equatorial plane, positive northward. X, Y axes rotate with
a 25.38 day period. The zero longitude (X axis) is defined as the longitude that passed through the
ascending node of the solar equator on the ecliptic plane on 1 January, 1854 at 12 UT. See <http://
nssdc.gsfc.nasa.gov/space/helios/coord_des.html></xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HGI">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Heliographic Inertial - A heliocentric coordinate system
where the Z axis is normal to the solar equatorial plane, positive northward. X axis is along
the intersection line between solar equatorial and ecliptic planes. The X axis was positive at
SE longitude of 74.367 deg on Jan 1, 1900. (See SE below.) See <http://nssdc.gsfc.nasa.gov/space/
helios/coord_des.html></xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HPC">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Helioprojective Cartesian = A 3-D orthonormal (left-
handed) coordinate system that is primarily intended to specify with two dimensions a point on the
solar disk. The Z axis points from the observer to the center of the solar disk. The Y axis lies
in the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is
perpendicular to the Y and Z axes, positive toward solar west. Given as the distance between the
observer and the center of the solar disk, the standard representation of an (x,y) point on the
solar disk is via the point's longitude angle [arctan (x/d)] and latitude angle [arctan y/d].</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HPR">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Helioprojective Radial - A 3-D orthonormal (left-handed)
coordinate system that is primarily intended to specify with two dimensions a point on the solar
disk. The Z axis points from the observer to the center of the solar disk. The Y axis lies in
the plane defined by the solar spin vector and the Z axis, positive northward. The X axis is
perpendicular to the Y and Z axes, positive toward solar west. Given as the distance between the
observer and the center of the solar disk, the standard representation for this system of an (x,y)
point on the solar disk is via the point's latitude angle theta {= arctan [SQRT(x**2 + y**2)]/d}
or equivalent declination parameter delta (= theta - 90 deg), and its phase angle psi as measured
counter- clockwise from the +Y axis [psi = arctan (-y/x)].</xsd:documentation>
  </xsd:annotation>

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</xsd:enumeration>
<xsd:enumeration value="J2000">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An astronomical coordinate system which uses the mean
    equator and equinox of Julian date 2451545.0 TT (Terrestrial Time), or January 1, 2000, noon TT.
    (aka J2000) to define a celestial reference frame.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LGM">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Local Geomagnetic - A coordinate system used mainly for
    Earth surface or near Earth surface magnetic field data. X axis northward from observation point in
    a geographic meridian. Z axis downward towards Earth's center. In this system, H (total horizontal
    component) = SQRT (Bx^2 + By^2) and D (declination angle) = arctan (By/Bx)</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MAG">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Geomagnetic - geocentric. Z axis is parallel to the
    geomagnetic dipole axis, positive north. X is in the plane defined by the Z axis and the Earth's
    rotation axis. If N is a unit vector from the Earth's center to the north geographic pole, the
    signs of the X and Y axes are given by Y = N x Z, X = Y x Z.. See Russell, 1971, and <http://
    cdpp.cnes.fr/00428.pdf></xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MFA">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Magnetic Field Aligned - A coordinate system spacecraft-
    centered system with Z in the direction of the ambient magnetic field vector. X is in the plane
    defined by Z and the spacecraft-Sun line, positive sunward. See <http://cdpp.cnes.fr/00428.pdf></
    xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RTN">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Radial Tangential Normal. Typically centered at a
    spacecraft. Used for IMF and plasma V vectors. R (radial) axis is radially away from the Sun, T
    (tangential) axis is normal to the plane formed by R and the Sun's spin vector, positive in the
    direction of planetary motion. N (normal) is R x T.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SC">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Spacecraft - A coordinate system defined by the spacecraft
    geometry and/or spin. Often has Z axis parallel to spacecraft spin vector. X and Y axes may or may
    not corotate with the spacecraft. See SR and SR2 below.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SE">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Solar Ecliptic - A heliocentric coordinate system where
    the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the
    first point of Aries (from Earth to Sun at vernal equinox). Same as HAE above. See <http://
    nssdc.gsfc.nasa.gov/space/helios/coor_des.html></xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SM">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Solar Magnetic - A geocentric coordinate system where the
    Z axis is northward along Earth's dipole axis, X axis is in plane of z axis and Earth-Sun line,
    positive sunward. See Russell, 1971.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SR">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Spin Reference - A special case of a Spacecraft (SC)
    coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X and Y
    rotate with the spacecraft. See <http://cdpp.cnes.fr/00428.pdf></xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SR2">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Spin Reference 2 - A special case of a Spacecraft
    (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector.
    X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See <http://
    cdpp.cnes.fr/00428.pdf></xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SSE">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Spacecraft Solar Ecliptic - A coordinate system used
    for deep space spacecraft, for example Helios. - X axis from spacecraft to Sun. Z axis normal to

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ecliptic plane, positive northward. Note: Angle between normals to ecliptic and to Helios orbit
plane ~ 0.25 deg.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SSE_L">
<xsd:annotation>
<xsd:documentation xml:lang="en">Selenocentric Solar Ecliptic. The X axis points from
the center of the Earth's moon to the sun, the Z axis is normal to the ecliptic plane, positive
northward. And the Y axis completes the right-handed set of axes.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SpacecraftOrbitPlane">
<xsd:annotation>
<xsd:documentation xml:lang="en">A coordinate system where X lies in the plane normal to and
in the direction of motion of the spacecraft, Z is normal to this plane and Y completes the triad
in a right-handed coordinate system.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="WGS84">
<xsd:annotation>
<xsd:documentation xml:lang="en">The World Geodetic System (WGS) defines a reference frame
for the earth, for use in geodesy and navigation. The WGS84 uses the zero meridian as defined by
the Bureau International de l'Heure.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MSO">
<xsd:annotation>
<xsd:documentation xml:lang="en">Coordinate Sytem Related to Mars or Mercury Depending
on the Targeted Region Mars/Mercury Solar Orbital (X anti-sunward, Y along the orbital velocity
direction)</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="VSO">
<xsd:annotation>
<xsd:documentation xml:lang="en">Coordinate Sytem Related to Venus Venus Solar Orbital (X
anti-sunward, Y along the orbital velocity direction)</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="KSO">
<xsd:annotation>
<xsd:documentation xml:lang="en">Coordinate Sytem Related to Saturn Kronian Solar Orbital (X
anti-sunward, Y along the orbital velocity direction)</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="KSM">
<xsd:annotation>
<xsd:documentation xml:lang="en">Kronian Solar Magnetospheric - A coordinate system where
the X axis is from Saturn to Sun, Z axis is northward in a plane containing the X axis and the
Kronian dipole axis.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="JSO">
<xsd:annotation>
<xsd:documentation xml:lang="en">Coordinate Sytem Related to Jupiter Jovian Solar Orbital (X
anti-sunward, Y along the orbital velocity direction)</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="JSM">
<xsd:annotation>
<xsd:documentation xml:lang="en">Jovian Solar Magnetospheric - A coordinate system where the
X axis is from Jupiter to Sun, Z axis is northward in a plane containing the X axis and the Jovian
dipole axis.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

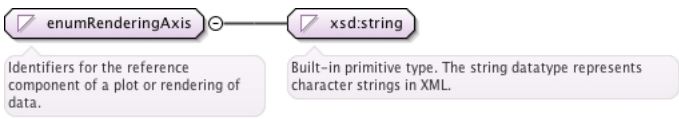
```

Simple Type enumDisplayType

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for types or classes of rendered data.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Image	A two-dimensional representation of data with values at each element of the array related

		to an intensity or a color.
enumeration	Plasmagram	The characterization of signal strengths in active sounding measurements as a function of virtual range or signal delay time and sounding frequency. A Plasmagram is also referred to as an Ionogram.
enumeration	Spectrogram	The characterization of signal strengths as a function of frequency (or energy) and time.
enumeration	StackPlot	A representation of data showing multiple sets of observations on a single plot, possibly offsetting each plot by some uniform amount.
enumeration	TimeSeries	A representation of data showing a set of observations taken at different points in time and charted as a time series.
enumeration	WaveForm	Spatial or temporal variations of wave amplitude over wave-period timescales.
Used by	Element	DisplayType
Source	<pre> <xsd:simpleType name="enumDisplayType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for types or classes of rendered data.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Image"> <xsd:annotation> <xsd:documentation xml:lang="en">A two-dimensional representation of data with values at each element of the array related to an intensity or a color.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Plasmagram"> <xsd:annotation> <xsd:documentation xml:lang="en">The characterization of signal strengths in active sounding measurements as a function of virtual range or signal delay time and sounding frequency. A Plasmagram is also referred to as an Ionogram.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Spectrogram"> <xsd:annotation> <xsd:documentation xml:lang="en">The characterization of signal strengths as a function of frequency (or energy) and time.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="StackPlot"> <xsd:annotation> <xsd:documentation xml:lang="en">A representation of data showing multiple sets of observations on a single plot, possibly offsetting each plot by some uniform amount.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="TimeSeries"> <xsd:annotation> <xsd:documentation xml:lang="en">A representation of data showing a set of observations taken at different points in time and charted as a time series.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="WaveForm"> <xsd:annotation> <xsd:documentation xml:lang="en">Spatial or temporal variations of wave amplitude over wave-period timescales.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>	

Simple Type enumRenderingAxis

Namespace	http://impex-fp7.oceaw.ac.at
Annotations	Identifiers for the reference component of a plot or rendering of data.
Diagram	
Type	restriction of xsd:string

Facets	enumeration	ColorBar	A spectrum or set of colors used to represent data values.
	enumeration	Horizontal	Parallel to or in the plane of the horizon or a base line.
	enumeration	Vertical	Perpendicular to the plane of the horizon or a base line.
Used by	Element	RenderingAxis	
Source	<pre> <xsd:simpleType name="enumRenderingAxis"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the reference component of a plot or rendering of data.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="ColorBar"> <xsd:annotation> <xsd:documentation xml:lang="en">A spectrum or set of colors used to represent data values.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Horizontal"> <xsd:annotation> <xsd:documentation xml:lang="en">Parallel to or in the plane of the horizon or a base line.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Vertical"> <xsd:annotation> <xsd:documentation xml:lang="en">Perpendicular to the plane of the horizon or a base line.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type typeSequence

Namespace	http://impex-fp7.oew.ac.at
Diagram	
Type	list of xsd:integer
Used by	Elements Index, Size
Source	<pre> <xsd:simpleType name="typeSequence"> <xsd:list itemType="xsd:integer" /> </xsd:simpleType> </pre>

Simple Type enumScaleType

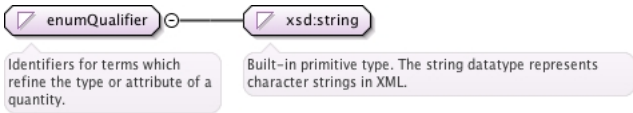
Namespace	http://impex-fp7.oew.ac.at						
Annotations	Identifiers for scaling applied to a set of numbers.						
Diagram							
Type	restriction of xsd:string						
Facets	<table border="1"> <tr> <td>enumeration</td> <td>LinearScale</td> <td>Intervals which are equally spaced.</td> </tr> <tr> <td>enumeration</td> <td>LogScale</td> <td>Intervals which are spaced proportionally to the logarithms of the values being represented.</td> </tr> </table>	enumeration	LinearScale	Intervals which are equally spaced.	enumeration	LogScale	Intervals which are spaced proportionally to the logarithms of the values being represented.
enumeration	LinearScale	Intervals which are equally spaced.					
enumeration	LogScale	Intervals which are spaced proportionally to the logarithms of the values being represented.					
Used by	Element ScaleType						
Source	<pre> <xsd:simpleType name="enumScaleType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for scaling applied to a set of numbers.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="LinearScale"> </pre>						


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<xsd:annotation>
  <xsd:documentation xml:lang="en">Intervals which are equally spaced.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LogScale">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Intervals which are spaced proportionally to the logarithms
of the values being represented.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

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Simple Type enumQualifier

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for terms which refine the type or attribute of a quantity.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Anisotropy	Direction-dependent property.
	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.
	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
	enumeration	Characteristic	A quantity which can be easily identified and measured in a given environment.
	enumeration	Circular	Relative to polarization, right-hand circularly polarized light is defined such that the electric field is rotating clockwise as seen by an observer towards whom the wave is moving. Left-hand circularly polarized light is defined such that the electric field is rotating counterclockwise as seen by an observer towards whom the wave is moving. The polarization of magnetohydrodynamic waves is specified with respect to the ambient mean magnetic field : right-hand polarized waves have a transverse electric field component which turns in a right-handed sense (that of the gyrating electrons) around the magnetic field.
	enumeration	Column	A two-dimensional measure of a quantity. The column is the area over which the quantity is measured.
	enumeration	Component	Projection of a vector along one of the base axes of a coordinate system.
	enumeration	Component.I	Projection of a vector along the first named axis of a coordinate system. Typically the X axis, but could be the R axis for an RTN coordinate system.
	enumeration	Component.J	Projection of a vector along the second named axis of a coordinate system. Typically the Y axis, but could be the T axis for an RTN coordinate system.
	enumeration	Component.K	Projection of a vector along the third named axis of a coordinate system. Typically the Z axis, but could be the N axis for an RTN coordinate system.
	enumeration	Core	The central or main part of an object or calculated distribution. For example, the part of a distribution of particles at low energies that is a thermal (Maxwellian) population.
	enumeration	CrossSpectrum	The Fourier transform of the cross correlation

		of two physical or empirical observations.
enumeration	Deviation	The difference between an observed value and the expected value of a quantity.
enumeration	Differential	A measurement within a narrow range of energy and/or solid angle.
enumeration	Direction	The spatial relation between an object and another object, the orientation of the object or the course along which the object points or moves.
enumeration	DirectionAngle	The angle between a position vector or measured vector (or one of its projections onto a plane) and one of the base axes of the coordinate system.
enumeration	DirectionAngle.AzimuthAngle	The angle between the projection into the i-j plane of a position or measured vector and the i-axis of the coordinate system. Mathematically defined as $\arctan(j/i)$.
enumeration	DirectionAngle.ElevationAngle	The angle between the position or measured vector and the i-j plane of the coordinate system. Mathematically defined as $\arctan(k/\sqrt{i^2+j^2})$.
enumeration	DirectionAngle.PolarAngle	The angle between the position or measured vector and the k-axis of the coordinate system. Mathematically defined as $\arctan(\sqrt{i^2+j^2}/k)$.
enumeration	Directional	A measurement within a narrow range of solid angle.
enumeration	FieldAligned	The component of a quantity which is oriented in the same direction of a field.
enumeration	Fit	Values that make an model agree with the data.
enumeration	Group	An assemblage of values that a certain relation or common characteristic.
enumeration	Halo	The part of an object or distribution surrounding some central body or distribution. For example, the particles above the core energies that show enhancements above the thermal population. Typically, a "power law tail" shows a break from the core Maxwellian at a particular energy.
enumeration	Integral	A flux measurement in a broad range of energy and solid angle.
enumeration	Integral.Area	Integration over the extent of a planar region, or of the surface of a solid.
enumeration	Integral.Bandwidth	Integration over the width a frequency band.
enumeration	Integral.SolidAngle	Integration over the angle in three-dimensional space that an object subtends at a point.
enumeration	LineOfSight	The line of sight is the line that connects the observer with the observed object. This expression is often used with measurements of Doppler velocity and magnetic field in magnetograms, where only the component of the vector field directed along the line of sight is measured.
enumeration	Linear	Polarization where the E-field vector is confined to a given plane
enumeration	Magnitude	A measure of the strength of a vector quantity or length of its representational vector.
enumeration	Maximum	The largest value of a batch or sample or the upper bound of a probability distribution.
enumeration	Median	The measure of central tendency of a set of n. values computed by ordering the values and taking the value at position $(n. + 1) / 2$ when n. is odd or the arithmetic mean of the values at positions $n. / 2$ and $(n. / 2) + 1$ when n. is even.
enumeration	Minimum	The smallest value of a batch or sample or the lower bound of a probability distribution.
enumeration	Moment	Parameters determined by integration over a distribution function convolved with a power of velocity.

enumeration	Parallel	Having the same direction as a given direction
enumeration	Peak	The maximum value for the quantity in question, over a period of time which is usually equal to the cadence.
enumeration	Perpendicular	At right angles to a given direction.
enumeration	Perturbation	Variations in the state of a system.
enumeration	Phase	A point or portion in a recurring series of changes.
enumeration	PhaseAngle	Phase difference between two or more waves, normally expressed in degrees.
enumeration	Projection	A measure of the length of a position or measured vector as projected into a plane of the coordinate system.
enumeration	Projection.IJ	A measure of the length of a position or measured vector projected into the i-j (typically X-Y) plane of the coordinate system.
enumeration	Projection.IK	A measure of the length of a position or measured vector projected into the i-k (typically X-Z) plane of the coordinate system.
enumeration	Projection.JK	A measure of the length of a position or measured vector projected into the j-k (typically Y-Z) plane of the coordinate system.
enumeration	Pseudo	Similar to or having the appearance of something else. Can be used to indicate an estimation or approximation of a particular quantity.
enumeration	Ratio	The relative magnitudes of two quantities.
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
enumeration	Spectral	Characterized as a range or continuum of frequencies
enumeration	StandardDeviation	The square root of the average of the squares of deviations about the mean of a set of data. Standard deviation is a statistical measure of spread or variability.
enumeration	StokesParameters	A set of four parameters (usually called I,Q, U and V) which describe the polarization state of an electromagnetic wave propagating through space.
enumeration	Strahl	A distribution of particles concentrated in a narrow energy band. The band may be may be aligned with a secondary feature. For example, it may occur in a narrow cone aligned with the mean magnetic field direction.
enumeration	Superhalo	The part of an object or distribution surrounding some central body or distribution evident in a second break in the distribution function (e.g., a different power law). It consists of a population at a higher energies than for a halo.
enumeration	Symmetric	Equal distribution about one or more axes.
enumeration	Tensor	A generalized linear "quantity" or "geometrical entity" that can be expressed as a multi-dimensional array relative to a choice of basis of the particular space on which it is defined.
enumeration	Total	The summation of quantities over all possible species.
enumeration	Trace	The sum of the elements on the main diagonal (the diagonal from the upper left to the lower right) of a square matrix.
enumeration	Uncertainty	A statistically defined discrepancy between a measured quantity and the true value of that quantity that cannot be corrected by calculation or calibration.
enumeration	Variance	A measure of dispersion of a set of data points around their mean value. The expectation value of the squared deviations from the mean.
enumeration	Vector	A set of parameter values each along some

		independent variable (e.g., components of a field in three orthogonal spatial directions; atmospheric temperature values at several altitudes, or at a given latitude and longitude;).
Used by	Element	Qualifier
Source	<pre> <xsd:simpleType name="enumQualifier"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for terms which refine the type or attribute of a quantity.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Anisotropy"> <xsd:annotation> <xsd:documentation xml:lang="en">Direction-dependent property.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Array"> <xsd:annotation> <xsd:documentation xml:lang="en">A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Average"> <xsd:annotation> <xsd:documentation xml:lang="en">The statistical mean; the sum of a set of values divided by the number of values in the set.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Characteristic"> <xsd:annotation> <xsd:documentation xml:lang="en">A quantity which can be easily identified and measured in a given environment.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Circular"> <xsd:annotation> <xsd:documentation xml:lang="en">Relative to polarization, right-hand circularly polarized light is defined such that the electric field is rotating clockwise as seen by an observer towards whom the wave is moving. Left-hand circularly polarized light is defined such that the electric field is rotating counterclockwise as seen by an observer towards whom the wave is moving. The polarization of magnetohydrodynamic waves is specified with respect to the ambient mean magnetic field : right-hand polarized waves have a transverse electric field component which turns in a right-handed sense (that of the gyrating electrons) around the magnetic field.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Column"> <xsd:annotation> <xsd:documentation xml:lang="en">A two-dimensional measure of a quantity. The column is the area over which the quantity is measured.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Component"> <xsd:annotation> <xsd:documentation xml:lang="en">Projection of a vector along one of the base axes of a coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Component.I"> <xsd:annotation> <xsd:documentation xml:lang="en">Projection of a vector along the first named axis of a coordinate system. Typically the X axis, but could be the R axis for an RTN coordinate system.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Component.J"> <xsd:annotation> <xsd:documentation xml:lang="en">Projection of a vector along the second named axis of a coordinate system. Typically the Y axis, but could be the T axis for an RTN coordinate system.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Component.K"> <xsd:annotation> <xsd:documentation xml:lang="en">Projection of a vector along the third named axis of a coordinate system. Typically the Z axis, but could be the N axis for an RTN coordinate system.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Core"> </pre>	

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    <xsd:annotation>
      <xsd:documentation xml:lang="en">The central or main part of an object or calculated
distribution. For example, the part of a distribution of particles at low energies that is a
thermal (Maxwellian) population.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="CrossSpectrum">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The Fourier transform of the cross correlation of two
physical or empirical observations.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Deviation">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The difference between an observed value and the expected
value of a quantity.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Differential">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A measurement within a narrow range of energy and/or solid
angle.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Direction">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The spatial relation between an object and another
object, the orientation of the object or the course along which the object points or moves.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="DirectionAngle">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The angle between a position vector or measured vector
(or one of its projections onto a plane) and one of the base axes of the coordinate system.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="DirectionAngle.AzimuthAngle">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The angle between the projection into the i-j plane of
a position or measured vector and the i-axis of the coordinate system. Mathematically defined as
 $\arctan(j/i)$ .</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="DirectionAngle.ElevationAngle">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The angle between the position or measured vector and
the i-j plane of the coordinate system. Mathematically defined as  $\arctan(k/\sqrt{i^2+j^2})$ .</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="DirectionAngle.PolarAngle">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The angle between the position or measured vector and
the k-axis of the coordinate system. Mathematically defined as  $\arctan(\sqrt{i^2+j^2}/k)$ .</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Directional">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A measurement within a narrow range of solid angle.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="FieldAligned">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The component of a quantity which is oriented in the same
direction of a field.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Fit">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Values that make an model agree with the data.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Group">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An assemblage of values that a certain relation or common
characteristic.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>

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<xsd:enumeration value="Halo">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The part of an object or distribution surrounding some
central body or distribution. For example, the particles above the core energies that show
enhancements above the thermal population. Typically, a "power law tail" shows a break from the
core Maxwellian at a particular energy.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Integral">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A flux measurement in a broad range of energy and solid
angle.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Integral.Area">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Integration over the extent of a planar region, or of the
surface of a solid.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Integral.Bandwidth">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Integration over the width a frequency band.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Integral.SolidAngle">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Integration over the angle in three-dimensional space that
an object subtends at a point.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LineOfSight">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The line of sight is the line that connects the observer
with the observed object. This expression is often used with measurements of Doppler velocity and
magnetic field in magnetograms, where only the component of the vector field directed along the
line of sight is measured.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Linear">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Polarization where the E-field vector is confined to a
given plane</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Magnitude">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of the strength of a vector quantity or length of
its representational vector.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Maximum">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The largest value of a batch or sample or the upper bound
of a probability distribution.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Median">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The measure of central tendency of a set of n. values
computed by ordering the values and taking the value at position  $(n. + 1) / 2$  when n. is odd
or the arithmetic mean of the values at positions  $n. / 2$  and  $(n. / 2) + 1$  when n. is even.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Minimum">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The smallest value of a batch or sample or the lower bound
of a probability distribution.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Moment">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Parameters determined by integration over a distribution
function convolved with a power of velocity.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Parallel">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Having the same direction as a given direction</
xsd:documentation>
  </xsd:annotation>

```

```

</xsd:enumeration>
<xsd:enumeration value="Peak">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The maximum value for the quantity in question, over a
period of time which is usually equal to the cadence.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Perpendicular">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">At right angles to a given direction.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Perturbation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Variations in the state of a system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Phase">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A point or portion in a recurring series of changes.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PhaseAngle">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Phase difference between two or more waves, normally
expressed in degrees.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Projection">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of the length of a position or measured vector as
projected into a plane of the coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Projection.IJ">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of the length of a position or measured vector
projected into the i-j (typically X-Y) plane of the coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Projection.IK">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of the length of a position or measured vector
projected into the i-k (typically X-Z) plane of the coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Projection.JK">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of the length of a position or measured vector
projected into the j-k (typically Y-Z) plane of the coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Pseudo">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Similar to or having the appearance of something else. Can
be used to indicate an estimation or approximation of a particular quantity.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ratio">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The relative magnitudes of two quantities.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Scalar">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A quantity that is completely specified by its magnitude
and has no direction.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Spectral">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Characterized as a range or continuum of frequencies</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="StandardDeviation">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The square root of the average of the squares of deviations
about the mean of a set of data. Standard deviation is a statistical measure of spread or
variability.</xsd:documentation>
  </xsd:annotation>

```

```

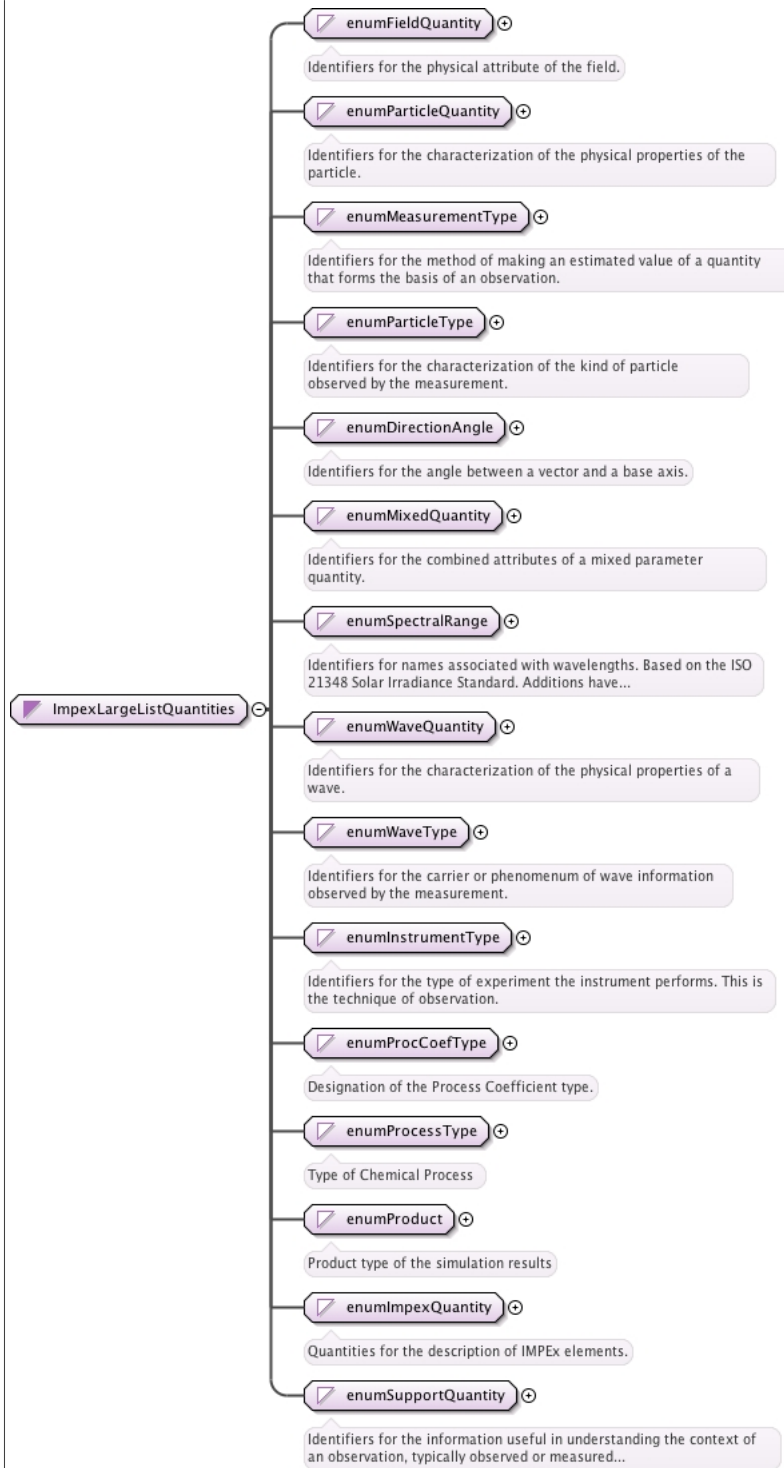
</xsd:enumeration>
<xsd:enumeration value="StokesParameters">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A set of four parameters (usually called I,Q, U and V)
    which describe the polarization state of an electromagnetic wave propagating through space.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Strahl">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A distribution of particles concentrated in a narrow energy
    band. The band may be may be aligned with a secondary feature. For example, it may occur in a
    narrow cone aligned with the mean magnetic field direction.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Superhalo">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The part of an object or distribution surrounding some
    central body or distribution evident in a second break in the distribution function (e.g.,
    a different power law). It consists of a population at a higher energies than for a halo.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Symmetric">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Equal distribution about one or more axes.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Tensor">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A generalized linear "quantity" or "geometrical entity"
    that can be expressed as a multi-dimensional array relative to a choice of basis of the particular
    space on which it is defined.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Total">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The summation of quantities over all possible species.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Trace">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The sum of the elements on the main diagonal (the diagonal
    from the upper left to the lower right) of a square matrix.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Uncertainty">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A statistically defined discrepancy between a measured
    quantity and the true value of that quantity that cannot be corrected by calculation or
    calibration.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Variance">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of dispersion of a set of data points
    around their mean value. The expectation value of the squared deviations from the mean.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Vector">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A set of parameter values each along some independent
    variable (e.g., components of a field in three orthogonal spatial directions; atmospheric
    temperature values at several altitudes, or at a given latitude and longitude;).</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type ImpexLargeListQuantities

Namespace	http://impex-fp7.oeaw.ac.at
-----------	-----------------------------

Diagram

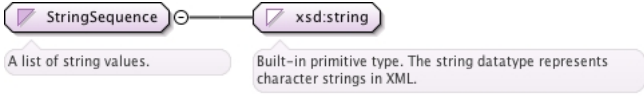


Type union of(enumFieldQuantity, enumParticleQuantity, enumMeasurementType, enumParticleType, enumDirectionAngle, enumMixedQuantity, enumSpectralRange, enumWaveQuantity, enumWaveType, enumInstrumentType, enumProcCoeftype, enumProcessType, enumProduct, enumImpexQuantity, enumSupportQuantity)

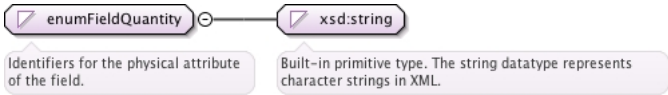
Used by Elements ParameterQuantity, PropertyQuantity

Source `<xsd:simpleType name="ImpexLargeListQuantities">
<xsd:union memberTypes="enumFieldQuantity enumParticleQuantity enumMeasurementType
enumParticleType enumDirectionAngle enumMixedQuantity enumSpectralRange enumWaveQuantity
enumWaveType enumInstrumentType enumProcCoeftype enumProcessType enumProduct enumImpexQuantity
enumSupportQuantity"/>
</xsd:simpleType>`

Simple Type StringSequence

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A list of string values.
Diagram	
Type	list of xsd:string
Used by	Elements CoordinatesLabel, FieldValue, InputLabel, PropertyLabel, PropertyValue
Source	<pre><xsd:simpleType name="StringSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">A list of string values.</xsd:documentation> </xsd:annotation> <xsd:list itemType="xsd:string"/> </xsd:simpleType></pre>

Simple Type enumFieldQuantity

Namespace	http://impex-fp7.oeaw.ac.at																								
Annotations	Identifiers for the physical attribute of the field.																								
Diagram																									
Type	restriction of xsd:string																								
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Current</td> <td>The flow of electrons through a conductor caused by a potential difference.</td> </tr> <tr> <td>enumeration</td> <td>Electric</td> <td>The physical attribute that exerts an electrical force.</td> </tr> <tr> <td>enumeration</td> <td>Electromagnetic</td> <td>Electric and magnetic field variations in time and space that propagate through a medium or a vacuum with the wave's propagation, electric field, and magnetic field vectors forming an orthogonal triad. Waves in this category are detected by having their field quantities measured.</td> </tr> <tr> <td>enumeration</td> <td>Gyrofrequency</td> <td>The number of gyrations around a magnetic guiding center (field line) a charged particle makes per unit time due to the Lorentz force.</td> </tr> <tr> <td>enumeration</td> <td>Magnetic</td> <td>The physical attribute attributed to a magnet or its equivalent.</td> </tr> <tr> <td>enumeration</td> <td>PlasmaFrequency</td> <td>A number-density-dependent characteristic frequency of a plasma.</td> </tr> <tr> <td>enumeration</td> <td>Potential</td> <td>A field which obeys Laplace's Equation.</td> </tr> <tr> <td>enumeration</td> <td>PoyntingFlux</td> <td>Electromagnetic energy flux transported by a wave characterized as the rate of energy transport per unit area per steradian.</td> </tr> </table>	enumeration	Current	The flow of electrons through a conductor caused by a potential difference.	enumeration	Electric	The physical attribute that exerts an electrical force.	enumeration	Electromagnetic	Electric and magnetic field variations in time and space that propagate through a medium or a vacuum with the wave's propagation, electric field, and magnetic field vectors forming an orthogonal triad. Waves in this category are detected by having their field quantities measured.	enumeration	Gyrofrequency	The number of gyrations around a magnetic guiding center (field line) a charged particle makes per unit time due to the Lorentz force.	enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.	enumeration	PlasmaFrequency	A number-density-dependent characteristic frequency of a plasma.	enumeration	Potential	A field which obeys Laplace's Equation.	enumeration	PoyntingFlux	Electromagnetic energy flux transported by a wave characterized as the rate of energy transport per unit area per steradian.
enumeration	Current	The flow of electrons through a conductor caused by a potential difference.																							
enumeration	Electric	The physical attribute that exerts an electrical force.																							
enumeration	Electromagnetic	Electric and magnetic field variations in time and space that propagate through a medium or a vacuum with the wave's propagation, electric field, and magnetic field vectors forming an orthogonal triad. Waves in this category are detected by having their field quantities measured.																							
enumeration	Gyrofrequency	The number of gyrations around a magnetic guiding center (field line) a charged particle makes per unit time due to the Lorentz force.																							
enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.																							
enumeration	PlasmaFrequency	A number-density-dependent characteristic frequency of a plasma.																							
enumeration	Potential	A field which obeys Laplace's Equation.																							
enumeration	PoyntingFlux	Electromagnetic energy flux transported by a wave characterized as the rate of energy transport per unit area per steradian.																							
Used by	Element FieldQuantity																								
Source	<pre><xsd:simpleType name="enumFieldQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the physical attribute of the field.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Current"> <xsd:annotation> <xsd:documentation xml:lang="en">The flow of electrons through a conductor caused by a potential difference.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Electric"> <xsd:annotation> <xsd:documentation xml:lang="en">The physical attribute that exerts an electrical force.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>																								

```

<xsd:enumeration value="Electromagnetic">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Electric and magnetic field variations in time and space
that propagate through a medium or a vacuum with the wave's propagation, electric field, and
magnetic field vectors forming an orthogonal triad. Waves in this category are detected by having
their field quantities measured.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Gyrofrequency">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The number of gyrations around a magnetic guiding center
(field line) a charged particle makes per unit time due to the Lorentz force.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Magnetic">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The physical attribute attributed to a magnet or its
equivalent.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PlasmaFrequency">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A number-density-dependent characteristic frequency of a
plasma.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Potential">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A field which obeys Laplace's Equation.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PoyntingFlux">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Electromagnetic energy flux transported by a wave
characterized as the rate of energy transport per unit area per steradian.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type enumSpectralRange

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for names associated with wavelengths. Based on the ISO 21348 Solar Irradiance Standard. Additions have been made to extend the frequency ranges to include those used in space physics. Those additions are indicated in blue text. The "Total Solar Irradiance" category has not been included since it is a type of measurement and not a specific spectral range. See Appendix A - Comparison of Spectrum Domains for a comparison of the spectral ranges with other systems.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	CaK	A spectrum with a wavelength of range centered near 393.5 nm. VSO nickname: Ca-K image with range of 391.9 nm to 395.2 nm.
	enumeration	ExtremeUltraviolet	A spectrum with a wavelength range of 10.0 nm to 125.0nm. VSO nickname: EUV image with a range of of 10.0 nm to 125.0 nm
	enumeration	FarUltraviolet	A spectrum with a wavelength range of 122 nm to 200.0nm. VSO nickname: FUV image with a range of 122.0 nm to 200 nm
	enumeration	GammaRays	Photons with a wavelength range: 0.00001 to 0.001 nm
	enumeration	Halpna	A spectrum with a wavelength range centered at 656.3 nm. VSO nickname: H-alpha image with a spectrum range of of 655.8 nm to 656.8 nm.
	enumeration	HardXrays	Photons with a wavelength range: 0.001 to 0.1 nm and an energy range of 12 keV to 120

		keV
enumeration	He10830	A spectrum with a wavelength range centered at 1082.9 nm. VSO nickname: He 10830 image with a range of 1082.5 nm to 1083.3 nm.
enumeration	He304	A spectrum centered around the resonance line of ionised helium at 304 Angstrom (30.4 nm).
enumeration	Infrared	Photons with a wavelength range: 760 to 1.00x10 ⁶ nm
enumeration	K7699	A spectrum with a wavelength range centred at 769.9 nm. VSO nickname: K-7699 dopplergram with a range of 769.8 nm to 770.0 nm.
enumeration	LBHBand	Lyman-Birge-Hopfield band in the far ultraviolet range with wavelength range of 140nm to 170 nm.
enumeration	Microwave	Photons with a wavelength range: 1.00x10 ⁶ to 1.50x10 ⁷ nm
enumeration	NaD	A spectrum with a wavelength range of centered at 589.3 nm. VSO nickname: Na-D image with a range of 588.8 nm to 589.8 nm.
enumeration	Ni6768	A spectrum with a wavelength range centered at 676.8 nm. VSO nickname: Ni-6768 dopplergram with a range of of 676.7 nm to 676.9 nm.
enumeration	Optical	Photons with a wavelength range: 380 to 760 nm
enumeration	RadioFrequency	Photons with a wavelength range: 100,000 to 1.00x10 ¹¹ nm
enumeration	SoftXRays	X-Rays with an energy range of 0.12 keV to 12 keV.
enumeration	Ultraviolet	Photons with a wavelength range: 10 to 400 nm.
enumeration	WhiteLight	Photons with a wavelength in the visible range for humans.
enumeration	XRays	Photons with a wavelength range: 0.001 <= x < 10 nm
Used by	Element	SpectralRange
Source	<pre> <xsd:simpleType name="enumSpectralRange"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for names associated with wavelengths. Based on the ISO 21348 Solar Irradiance Standard. Additions have been made to extend the frequency ranges to include those used in space physics. Those additions are indicated in blue text. The "Total Solar Irradiance" category has not been included since it is a type of measurement and not a specific spectral range. See Appendix A - Comparison of Spectrum Domains for a comparison of the spectral ranges with other systems.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="CaK"> <xsd:annotation> <xsd:documentation xml:lang="en">A spectrum with a wavelength of range centered near 393.5 nm. VSO nickname: Ca-K image with range of 391.9 nm to 395.2 nm.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ExtremeUltraviolet"> <xsd:annotation> <xsd:documentation xml:lang="en">A spectrum with a wavelength range of 10.0 nm to 125.0nm. VSO nickname: EUV image with a range of of 10.0 nm to 125.0 nm</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="FarUltraviolet"> <xsd:annotation> <xsd:documentation xml:lang="en">A spectrum with a wavelength range of 122 nm to 200.0nm. VSO nickname: FUV image with a range of 122.0 nm to 200 nm</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="GammaRays"> <xsd:annotation> <xsd:documentation xml:lang="en">Photons with a wavelength range: 0.00001 to 0.001 nm</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Halpna"> <xsd:annotation> <xsd:documentation xml:lang="en">A spectrum with a wavelength range centered at 656.3 nm. VSO nickname: H-alpha image with a spectrum range of of 655.8 nm to 656.8 nm.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>	

```

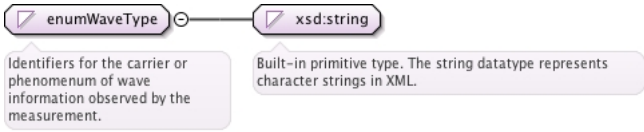
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="HardXrays">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Photons with a wavelength range: 0.001 to 0.1 nm and an
energy range of 12 keV to 120 keV</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="He10830">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A spectrum with a wavelength range centered at 1082.9 nm.
VSO nickname: He 10830 image with a range of 1082.5 nm to 1083.3 nm.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="He304">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A spectrum centered around the resonance line of ionised
helium at 304 Angstrom (30.4 nm).</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Infrared">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Photons with a wavelength range: 760 to 1.00x10^6 nm</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="K7699">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A spectrum with a wavelength range centred at 769.9 nm. VSO
nickname: K-7699 dopplergram with a range of 769.8 nm to 770.0 nm.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="LBHBand">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Lyman-Birge-Hopfield band in the far ultraviolet range with
wavelength range of 140nm to 170 nm.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Microwave">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Photons with a wavelength range: 1.00x10^6 to 1.50x10^7
nm</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="NaD">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A spectrum with a wavelength range of centered at 589.3 nm.
VSO nickname: Na-D image with a range of 588.8 nm to 589.8 nm.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Ni6768">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A spectrum with a wavelength range centered at 676.8 nm.
VSO nickname: Ni-6768 dopplergram with a range of of 676.7 nm to 676.9 nm.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Optical">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Photons with a wavelength range: 380 to 760 nm</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="RadioFrequency">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Photons with a wavelength range: 100,000 to 1.00x10^11 nm</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="SoftXRays">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">X-Rays with an energy range of 0.12 keV to 12 keV.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Ultraviolet">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Photons with a wavelength range: 10 to 400 nm.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="WhiteLight">
    <xsd:annotation>

```

```

        <xsd:documentation xml:lang="en">Photons with a wavelength in the visible range for
humans.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="XRays">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Photons with a wavelength range: 0.001 <= x < 10 nm</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
    
```

Simple Type enumWaveType

Namespace	http://impex-fp7.oew.ac.at		
Annotations	Identifiers for the carrier or phenomenon of wave information observed by the measurement.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Electromagnetic	Electric and magnetic field variations in time and space that propagate through a medium or a vacuum with the wave's propagation, electric field, and magnetic field vectors forming an orthogonal triad. Waves in this category are detected by having their field quantities measured.
	enumeration	Electrostatic	Collective longitudinal electric-field and plasma oscillations trapped within a body of plasma.
	enumeration	Hydrodynamic	Periodic or quasi-periodic oscillations of fluid quantities.
	enumeration	MHD	Hydrodynamic waves in a magnetized plasma in which the background magnetic field plays a key role in controlling the wave propagation characteristics.
	enumeration	Photon	Electromagnetic waves detected by techniques that utilize their corpuscular character (e.g., CCD, CMOS, photomultipliers).
	enumeration	PlasmaWaves	Self-consistent collective oscillations of particles and fields (electric and magnetic) in a plasma.
Used by	Element	WaveType	
Source	<pre> <xsd:simpleType name="enumWaveType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the carrier or phenomenon of wave information observed by the measurement.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Electromagnetic"> <xsd:annotation> <xsd:documentation xml:lang="en">Electric and magnetic field variations in time and space that propagate through a medium or a vacuum with the wave's propagation, electric field, and magnetic field vectors forming an orthogonal triad. Waves in this category are detected by having their field quantities measured.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Electrostatic"> <xsd:annotation> <xsd:documentation xml:lang="en">Collective longitudinal electric-field and plasma oscillations trapped within a body of plasma.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Hydrodynamic"> <xsd:annotation> <xsd:documentation xml:lang="en">Periodic or quasi-periodic oscillations of fluid quantities.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="MHD"> </pre>		

```

<xsd:annotation>
  <xsd:documentation xml:lang="en">Hydrodynamic waves in a magnetized plasma in which the
  background magnetic field plays a key role in controlling the wave propagation characteristics.</
xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Photon">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Electromagnetic waves detected by techniques that utilize
    their corpuscular character (e.g., CCD, CMOS, photomultipliers).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PlasmaWaves">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Self-consistent collective oscillations of particles and
    fields (electric and magnetic) in a plasma.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type enumWaveQuantity

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the characterization of the physical properties of a wave.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	ACElectricField	Alternating electric field component of a wave.
	enumeration	ACMagneticField	Alternating magnetic field component of a wave.
	enumeration	Absorption	Decrease of radiant energy (relative to the background continuum spectrum).
	enumeration	Albedo	The ratio of reflected radiation from the surface to incident radiation upon it.
	enumeration	DopplerFrequency	Change in the frequency of a propagating wave due to motion of the source, the observer, the reflector, or the propagation medium.
	enumeration	Emissivity	The energy emitted spontaneously per unit bandwidth (typically frequency) per unit time per unit mass of source. Emissivity is usually integrated over all directions/solid angles.
	enumeration	EnergyFlux	The amount of energy passing through a unit area in a unit time.
	enumeration	EquivalentWidth	The spectral width of a total absorption line having the amount of absorbed radiant energy being equivalent to that in an observed absorption line.
	enumeration	Frequency	The number of occurrences of a repeating event per unit time.
	enumeration	Gyrofrequency	The number of gyrations around a magnetic guiding center (field line) a charged particle makes per unit time due to the Lorentz force.
	enumeration	Intensity	The measurement of radiant or wave energy per unit detector area per unit bandwidth per unit solid angle per unit time.
	enumeration	LineDepth	The measure of the amount of absorption below the continuum (depth) in a particular wavelength or frequency in an absorption spectrum.
	enumeration	MagneticField	A region of space near a magnetized body where magnetic forces can be detected (as measured by methods such as Zeeman splitting, etc.).
	enumeration	ModeAmplitude	In helioseismology the magnitude of oscillation of waves of a particular geometry.
	enumeration	PlasmaFrequency	A number-density-dependent characteristic frequency of a plasma.

	enumeration	Polarization	Direction of the electric vector of an electromagnetic wave. The wave can be linearly polarized in any direction perpendicular to the direction of travel, circularly polarized (clockwise or counterclockwise), unpolarized, or mixtures of the above.
	enumeration	PoyntingFlux	Electromagnetic energy flux transported by a wave characterized as the rate of energy transport per unit area per steradian.
	enumeration	PropagationTime	Time difference between transmission and reception of a wave in an active wave experiment.
	enumeration	StokesParameters	A set of four parameters (usually called I, Q, U and V) which describe the polarization state of an electromagnetic wave propagating through space.
	enumeration	Velocity	Rate of change of position. Also used for the average velocity of a collection of particles, also referred to as "bulk velocity".
	enumeration	Wavelength	The peak-to-peak distance over one wave period.
Used by	Element	WaveQuantity	
Source	<pre> <xsd:simpleType name="enumWaveQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the characterization of the physical properties of a wave.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="ACElectricField"> <xsd:annotation> <xsd:documentation xml:lang="en">Alternating electric field component of a wave.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ACMagneticField"> <xsd:annotation> <xsd:documentation xml:lang="en">Alternating magnetic field component of a wave.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Absorption"> <xsd:annotation> <xsd:documentation xml:lang="en">Decrease of radiant energy (relative to the background continuum spectrum).</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Albedo"> <xsd:annotation> <xsd:documentation xml:lang="en">The ratio of reflected radiation from the surface to incident radiation upon it.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="DopplerFrequency"> <xsd:annotation> <xsd:documentation xml:lang="en">Change in the frequency of a propagating wave due to motion of the source, the observer, the reflector, or the propagation medium.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Emissivity"> <xsd:annotation> <xsd:documentation xml:lang="en">The energy emitted spontaneously per unit bandwidth (typically frequency) per unit time per unit mass of source. Emissivity is usually integrated over all directions/solid angles.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="EnergyFlux"> <xsd:annotation> <xsd:documentation xml:lang="en">The amount of energy passing through a unit area in a unit time.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="EquivalentWidth"> <xsd:annotation> <xsd:documentation xml:lang="en">The spectral width of a total absorption line having the amount of absorbed radiant energy being equivalent to that in an observed absorption line.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

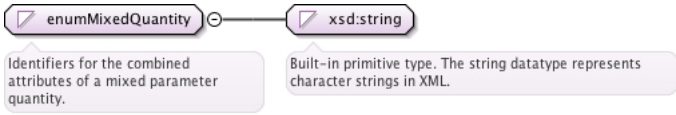

```

</xsd:enumeration>
<xsd:enumeration value="Frequency">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The number of occurrences of a repeating event per unit
time.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Gyrofrequency">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The number of gyrations around a magnetic guiding center
(field line) a charged particle makes per unit time due to the Lorentz force.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Intensity">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The measurement of radiant or wave energy per unit detector
area per unit bandwidth per unit solid angle per unit time.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LineDepth">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The measure of the amount of absorption below the continuum
(depth) in a particular wavelength or frequency in an absorption spectrum.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MagneticField">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A region of space near a magnetized body where magnetic
forces can be detected (as measured by methods such as Zeeman splitting, etc.).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ModeAmplitude">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">In helioseismology the magnitude of oscillation of waves of
a particular geometry.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PlasmaFrequency">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A number-density-dependent characteristic frequency of a
plasma.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Polarization">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Direction of the electric vector of an electromagnetic
wave. The wave can be linearly polarized in any direction perpendicular to the direction of travel,
circularly polarized (clockwise or counterclockwise), unpolarized, or mixtures of the above.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PoyntingFlux">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Electromagnetic energy flux transported by a wave
characterized as the rate of energy transport per unit area per steradian.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PropagationTime">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Time difference between transmission and reception of a
wave in an active wave experiment.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="StokesParameters">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A set of four parameters (usually called I,Q, U and V)
which describe the polarization state of an electromagnetic wave propagating through space.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Velocity">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Rate of change of position. Also used for the average
velocity of a collection of particles, also referred to as "bulk velocity".</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Wavelength">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The peak-to-peak distance over one wave period.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>

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</xsd:simpleType>
```

Simple Type enumMixedQuantity

Namespace	http://impex-fp7.oeaw.ac.at	
Annotations	Identifiers for the combined attributes of a mixed parameter quantity.	
Diagram		
Type	restriction of xsd:string	
Facets	enumeration	<p>AkasofuEpsilon</p> <p>A measure of the magnetopause energy flux and an indicator of the solar wind power available for subsequent magnetospheric energization. Defined as: $V \cdot B^2 \cdot l^2 \cdot \sin(\theta/2)^4$ where B is the IMF, l is an empirical scaling parameter equal to 7 RE, and $\theta = \tan(BY / BZ)^{-1}$ the IMF clock angle.</p>
	enumeration	<p>AlfvenMachNumber</p> <p>The ratio of the bulk flow speed to the Alfven speed.</p>
	enumeration	<p>AlfvenVelocity</p> <p>Phase velocity of the Alfven wave; In SI units it is the velocity of the magnetic field divided by the square root of the mass density times the permeability of free space (μ).</p>
	enumeration	<p>FrequencyToGyrofrequencyRatio</p> <p>The ratio of the characteristic frequency of a medium to gyrofrequency of a particle.</p>
	enumeration	<p>MagnetosonicMachNumber</p> <p>The ratio of the velocity of fast mode waves to the Alfven velocity.</p>
	enumeration	<p>Other</p> <p>Not classified with more specific terms. The context of its usage may be described in related text.</p>
	enumeration	<p>PlasmaBeta</p> <p>The ratio of the plasma pressure (nkT) to the magnetic pressure ($B^2/2\mu_0$) of the $\text{SUM}(nkT) / (B^2/2\mu_0)$.</p>
	enumeration	<p>TotalPressure</p> <p>In an MHD fluid it is the number density (N) times Boltzmann constant times the temperature in Kelvin.</p>
	enumeration	<p>VCrossB</p> <p>The cross product of the charge velocity (V) and the magnetic field (B). It is the electric field exerted on a point charge by a magnetic field.</p>
Used by	Element	MixedQuantity
Source	<pre><xsd:simpleType name="enumMixedQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the combined attributes of a mixed parameter quantity.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="AkasofuEpsilon"> <xsd:annotation> <xsd:documentation xml:lang="en">A measure of the magnetopause energy flux and an indicator of the solar wind power available for subsequent magnetospheric energization. Defined as: $V \cdot B^2 \cdot l^2 \cdot \sin(\theta/2)^4$ where B is the IMF, l is an empirical scaling parameter equal to 7 RE, and $\theta = \tan(BY / BZ)^{-1}$ the IMF clock angle.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="AlfvenMachNumber"> <xsd:annotation> <xsd:documentation xml:lang="en">The ratio of the bulk flow speed to the Alfven speed.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="AlfvenVelocity"> <xsd:annotation> <xsd:documentation xml:lang="en">Phase velocity of the Alfven wave; In SI units it is the velocity of the magnetic field divided by the square root of the mass density times the permeability of free space (μ).</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>	

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<xsd:enumeration value="FrequencyToGyrofrequencyRatio">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The ratio of the characteristic frequency of a medium to gyrofrequency of a particle.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MagnetosonicMachNumber">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The ratio of the velocity of fast mode waves to the Alfven velocity.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Other">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Not classified with more specific terms. The context of its usage may be described in related text.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PlasmaBeta">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The ratio of the plasma pressure (nkT) to the magnetic pressure (B^2/2mu0) of the SUM(nkT)/(B^2/2mu0).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TotalPressure">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">In an MHD fluid it is the number density (N) times Boltzmann constant times the temperature in Kelvin.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="VCrossB">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The cross product of the charge velocity (V) and the magnetic field (B). It is the electric field exerted on a point charge by a magnetic field.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type enumParticleType

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the characterization of the kind of particle observed by the measurement.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Aerosol	A suspension of fine solid or liquid particles in a gas.
	enumeration	AlphaParticle	A positively charged nuclear particle that consists of two protons and two neutrons.
	enumeration	Atom	Matter consisting of a nucleus surrounded by electrons which has no net charge.
	enumeration	Dust	Free microscopic particles of solid material.
	enumeration	Electron	An elementary particle consisting of a charge of negative electricity equal to about 1.602 x 10 ⁽⁻¹⁹⁾ Coulomb and having a mass when at rest of about 9.109534 x 10 ⁽⁻²⁸⁾ gram.
	enumeration	Ion	An atom that has acquired a net electric charge by gaining or losing one or more electrons.(Note: Z>2)
	enumeration	Molecule	A group of atoms so united and combined by chemical affinity that they form a complete, integrated whole, being the smallest portion of any particular compound that can exist in a free state
	enumeration	Neutron	An elementary particle that has no net charge and is a constituent of atomic nuclei, and that has a mass slightly large than a proton (1.673 x 10 ⁽⁻²⁴⁾ gram.)

	enumeration	Proton	An elementary particle that is a constituent of all atomic nuclei, that carries a positive charge numerically equal to the charge of an electron, and that has a mass of 1.673 x 10 ⁽⁻²⁴⁾ gram.
Used by	Element	ParticleType	
Source	<pre> <xsd:simpleType name="enumParticleType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the characterization of the kind of particle observed by the measurement.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Aerosol"> <xsd:annotation> <xsd:documentation xml:lang="en">A suspension of fine solid or liquid particles in a gas.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="AlphaParticle"> <xsd:annotation> <xsd:documentation xml:lang="en">A positively charged nuclear particle that consists of two protons and two neutrons.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Atom"> <xsd:annotation> <xsd:documentation xml:lang="en">Matter consisting of a nucleus surrounded by electrons which has no net charge.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Dust"> <xsd:annotation> <xsd:documentation xml:lang="en">Free microscopic particles of solid material.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Electron"> <xsd:annotation> <xsd:documentation xml:lang="en">An elementary particle consisting of a charge of negative electricity equal to about 1.602 x 10⁽⁻¹⁹⁾ Coulomb and having a mass when at rest of about 9.109534 x 10⁽⁻²⁸⁾ gram.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Ion"> <xsd:annotation> <xsd:documentation xml:lang="en">An atom that has acquired a net electric charge by gaining or losing one or more electrons.(Note: Z>2)</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Molecule"> <xsd:annotation> <xsd:documentation xml:lang="en">A group of atoms so united and combined by chemical affinity that they form a complete, integrated whole, being the smallest portion of any particular compound that can exist in a free state</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Neutron"> <xsd:annotation> <xsd:documentation xml:lang="en">An elementary particle that has no net charge and is a constituent of atomic nuclei, and that has a mass slightly large than a proton (1.673 x 10⁽⁻²⁴⁾ gram.)</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Proton"> <xsd:annotation> <xsd:documentation xml:lang="en">An elementary particle that is a constituent of all atomic nuclei, that carries a positive charge numerically equal to the charge of an electron, and that has a mass of 1.673 x 10⁽⁻²⁴⁾ gram.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

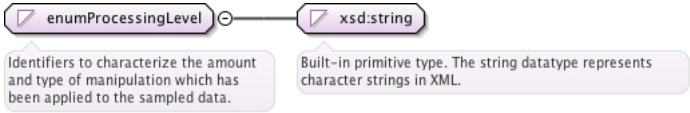
Simple Type enumSupportQuantity

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Identifiers for the information useful in understanding the context of an observation, typically observed or measured coincidentally

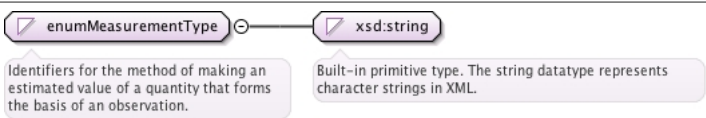
	with a physical observation.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	InstrumentMode	An indication of a state (mode) in which the instrument is operating. How a mode influences the interpretation and representation of data is described in instrument related documentation.
	enumeration	Other	Not classified with more specific terms. The context of its usage may be described in related text.
	enumeration	Positional	The specification of the location of an object or measurement within a reference coordinate system. The position is usually expressed as a set of values corresponding to the location along a set of orthogonal axes together with the date/time of the observation.
	enumeration	Temporal	Pertaining to time.
	enumeration	Velocity	Rate of change of position. Also used for the average velocity of a collection of particles, also referred to as "bulk velocity".
Used by	Element	SupportQuantity	
Source	<pre> <xsd:simpleType name="enumSupportQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the information useful in understanding the context of an observation, typically observed or measured coincidentally with a physical observation.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="InstrumentMode"> <xsd:annotation> <xsd:documentation xml:lang="en">An indication of a state (mode) in which the instrument is operating. How a mode influences the interpretation and representation of data is described in instrument related documentation.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Other"> <xsd:annotation> <xsd:documentation xml:lang="en">Not classified with more specific terms. The context of its usage may be described in related text.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Positional"> <xsd:annotation> <xsd:documentation xml:lang="en">The specification of the location of an object or measurement within a reference coordinate system. The position is usually expressed as a set of values corresponding to the location along a set of orthogonal axes together with the date/time of the observation.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Temporal"> <xsd:annotation> <xsd:documentation xml:lang="en">Pertaining to time.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Velocity"> <xsd:annotation> <xsd:documentation xml:lang="en">Rate of change of position. Also used for the average velocity of a collection of particles, also referred to as "bulk velocity".</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumProcessingLevel

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Identifiers to characterize the amount and type of manipulation which has been applied to the sampled data.

Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Calibrated	Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield data in physical units.
	enumeration	Raw	Data in its original state with no processing to account for calibration!!!
	enumeration	Uncalibrated	Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.
Used by	Element	ProcessingLevel	
Source	<pre> <xsd:simpleType name="enumProcessingLevel"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers to characterize the amount and type of manipulation which has been applied to the sampled data.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Calibrated"> <xsd:annotation> <xsd:documentation xml:lang="en">Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield data in physical units.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Raw"> <xsd:annotation> <xsd:documentation xml:lang="en">Data in its original state with no processing to account for calibration!!!</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Uncalibrated"> <xsd:annotation> <xsd:documentation xml:lang="en">Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumMeasurementType

Namespace	http://impex-fp7.oew.ac.at		
Annotations	Identifiers for the method of making an estimated value of a quantity that forms the basis of an observation.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Current	Direct measurement of the electric curreny
	enumeration	ActivityIndex	An indication, derived from one or more measurements, of the level of activity of an object or region, such as sunspot number, F10.7 flux, Dst, or the Polar Cap Indices.
	enumeration	Dopplergram	A map or image depicting the spatial distribution of line-of-sight velocities of the observed object.
	enumeration	Dust	Free microscopic particles of solid material.
	enumeration	ElectricField	A region of space around a charged particle, or between two voltages within which a force is exerted on charged objects in its vicinity. An electric field is the electric force per

		unit charge.
enumeration	EnergeticParticles	Pieces of matter that are moving very fast. Energetic particles include protons, electrons, neutrons, neutrinos, the nuclei of atoms, and other sub-atomic particles.
enumeration	Ephemeris	The spatial coordinates of a body as a function of time. When used as an Instrument Type it represents the process or methods used to generate spatial coordinates.
enumeration	ImageIntensity	Measurements of the two-dimensional distribution of the intensity of photons from some region or object such as the Sun or the polar auroral regions; can be in any wavelength band, and polarized, etc.
enumeration	InstrumentStatus	A quantity directly related to the operation or function of an instrument.
enumeration	IonComposition	In situ measurements of the relative flux or density of electrically charged particles in the space environment. May give simple fluxes, but full distribution functions are sometimes measured.
enumeration	Irradiance	Irradiance - A radiometric term for the power of electromagnetic radiation at a surface, per unit area. "Irradiance" is used when the electromagnetic radiation is incident on the surface. Irradiance data may be reported in any units (i.e. counts/s) due to, for example, being at a particular wavelength, or to being a not-fully-calibrated relative measurement.
enumeration	MagneticField	A region of space near a magnetized body where magnetic forces can be detected (as measured by methods such as Zeeman splitting, etc.).
enumeration	Magnetogram	Measurements of the vector or line-of-sight magnetic field determined from remote sensing measurements of the detailed structure of spectral lines, including their splitting and polarization. ("Magnetogram.")
enumeration	NeutralAtomImages	Measurements of neutral atom fluxes as a function of look direction; often related to remote energetic charged particles that lose their charge through charge-exchange and then reach the detector on a line-of-sight trajectory.
enumeration	NeutralGas	Measurements of neutral atomic and molecular components of a gas.
enumeration	Profile	Measurements of a quantity as a function of height above an object such as the limb of a body.
enumeration	Radiance	A radiometric measurement that describes the amount of electromagnetic radiation that passes through or is emitted from a particular area, and falls within a given solid angle in a specified direction. They are used to characterize both emission from diffuse sources and reflection from diffuse surfaces.
enumeration	Spectrum	The distribution of a characteristic of a physical system or phenomenon, such as the energy emitted by a radiant source, arranged in the order of wavelengths.
enumeration	ThermalPlasma	Measurements of the plasma in the energy regime where the most of the plasma occurs. May be the basic fluxes in the form of distribution functions or the derived bulk parameters (density, flow velocity, etc.).
enumeration	Waves	Data resulting from observations of wave experiments and natural wave phenomena. Wave experiments are typically active and natural wave phenomena are passive. Examples of wave experiments include coherent/incoherent scatter radars, radio soundings, VLF propagation studies, ionospheric scintillation of beacon satellite signals, etc. Examples of natural wave phenomena include micropulsations, mesospheric gravity

		waves, auroral/plasmaspheric hiss, Langmuir waves, AKR, Jovian decametric radiation, solar radio bursts, etc.
	enumeration	Waves.Active Exerting an influence or producing a change or effect. An active measurement is one which produces a transmission or excitation as a part of the measurement cycle.
	enumeration	Waves.Passive Movement or effect produced by outside influence. A passive measurement is one which does not produce a transmission or excitation as a part of the measurement cycle.
Used by	Element	MeasurementType
Source	<pre> <xsd:simpleType name="enumMeasurementType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the method of making an estimated value of a quantity that forms the basis of an observation.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Current"> <xsd:annotation> <xsd:documentation xml:lang="en">Direct measurement of the electric curreny</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ActivityIndex"> <xsd:annotation> <xsd:documentation xml:lang="en">An indication, derived from one or more measurements, of the level of activity of an object or region, such as sunspot number, F10.7 flux, Dst, or the Polar Cap Indices.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Dopplergram"> <xsd:annotation> <xsd:documentation xml:lang="en">A map or image depicting the spatial distribution of line-of-sight velocities of the observed object.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Dust"> <xsd:annotation> <xsd:documentation xml:lang="en">Free microscopic particles of solid material.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ElectricField"> <xsd:annotation> <xsd:documentation xml:lang="en">A region of space around a charged particle, or between two voltages within which a force is exerted on charged objects in its vicinity. An electric field is the electric force per unit charge.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="EnergeticParticles"> <xsd:annotation> <xsd:documentation xml:lang="en">Pieces of matter that are moving very fast. Energetic particles include protons, electrons, neutrons, neutrinos, the nuclei of atoms, and other sub-atomic particles.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Ephemeris"> <xsd:annotation> <xsd:documentation xml:lang="en">The spatial coordinates of a body as a function of time. When used as an Instrument Type it represents the process or methods used to generate spatial coordinates.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ImageIntensity"> <xsd:annotation> <xsd:documentation xml:lang="en">Measurements of the two-dimensional distribution of the intensity of photons from some region or object such as the Sun or the polar auroral regions; can be in any wavelength band, and polarized, etc.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="InstrumentStatus"> <xsd:annotation> <xsd:documentation xml:lang="en">A quantity directly related to the operation or function of an instrument.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="IonComposition"> <xsd:annotation> </pre>	


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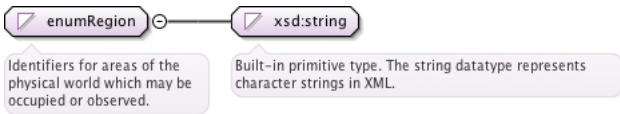
    <xsd:documentation xml:lang="en">In situ measurements of the relative flux or density
of electrically charged particles in the space environment. May give simple fluxes, but full
distribution functions are sometimes measured.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Irradiance">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Irradiance - A radiometric term for the power
of electromagnetic radiation at a surface, per unit area. "Irradiance" is used when the
electromagnetic radiation is incident on the surface. Irradiance data may be reported in any units
(i.e. counts/s) due to, for example, being at a particular wavelength, or to being a not-fully-
calibrated relative measurement.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MagneticField">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A region of space near a magnetized body where magnetic
forces can be detected (as measured by methods such as Zeeman splitting, etc.).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Magnetogram">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Measurements of the vector or line-of-sight magnetic field
determined from remote sensing measurements of the detailed structure of spectral lines, including
their splitting and polarization. ("Magnetogram.")</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NeutralAtomImages">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Measurements of neutral atom fluxes as a function of look
direction; often related to remote energetic charged particles that lose their charge through
charge-exchange and then reach the detector on a line-of-sight trajectory.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NeutralGas">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Measurements of neutral atomic and molecular components of
a gas.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Profile">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Measurements of a quantity as a function of height above an
object such as the limb of a body.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Radiance">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A radiometric measurement that describes the amount of
electromagnetic radiation that passes through or is emitted from a particular area, and falls
within a given solid angle in a specified direction. They are used to characterize both emission
from diffuse sources and reflection from diffuse surfaces.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Spectrum">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The distribution of a characteristic of a physical
system or phenomenon, such as the energy emitted by a radiant source, arranged in the order of
wavelengths.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ThermalPlasma">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Measurements of the plasma in the energy regime where the
most of the plasma occurs. May be the basic fluxes in the form of distribution functions or the
derived bulk parameters (density, flow velocity, etc.).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Waves">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Data resulting from observations of wave experiments
and natural wave phenomena. Wave experiments are typically active and natural wave phenomena
are passive. Examples of wave experiments include coherent/incoherent scatter radars, radio
soundings, VLF propagation studies, ionospheric scintillation of beacon satellite signals, etc.
Examples of natural wave phenomena include micropulsations, mesospheric gravity waves, auroral/
plasmaospheric hiss, Langmuir waves, AKR, Jovian decametric radiation, solar radio bursts, etc.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Waves.Active">
  <xsd:annotation>

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<xsd:documentation xml:lang="en">Exerting an influence or producing a change or effect. An
active measurement is one which produces a transmission or excitation as a part of the measurement
cycle.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Waves.Passive">
<xsd:annotation>
<xsd:documentation xml:lang="en">Movement or effect produced by outside influence. A passive
measurement is one which does not produce a transmission or excitation as a part of the measurement
cycle.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
    
```

Simple Type enumRegion

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for areas of the physical world which may be occupied or observed.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Asteroid	A small extraterrestrial body consisting mostly of rock and metal that is in orbit around the sun.
	enumeration	Comet	A relatively small extraterrestrial body consisting of a frozen mass that travels around the sun in a highly elliptical orbit.
	enumeration	Earth	The third planet from the sun in our solar system.
	enumeration	Earth.Magnetosheath	The region between the bow shock and the magnetopause, characterized by very turbulent plasma.
	enumeration	Earth.Magnetosphere	The region of space above the atmosphere or surface of the planet, and bounded by the magnetopause, that is under the direct influence of the planet's magnetic field.
	enumeration	Earth.Magnetosphere.Magnetotail	The region on the night side of the body where the magnetic field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re (X > -10Re).
	enumeration	Earth.Magnetosphere.Main	The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.
	enumeration	Earth.Magnetosphere.Polar	The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the auroral zone.
	enumeration	Earth.Magnetosphere.RadiationBelt	The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.
	enumeration	Earth.NearSurface	The gaseous and possibly ionized environment of a body extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.
	enumeration	Earth.NearSurface.Atmosphere	The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.
	enumeration	Earth.NearSurface.AuroralRegion	The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.
	enumeration	Earth.NearSurface.EquatorialRegion	A region centered on the equator and limited in latitude by approximately 23 degrees north

		and south of the equator.
enumeration	Earth.NearSurface.Ionosphere	The charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction.
enumeration	Earth.NearSurface.Ionosphere.DRegion	The D region of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
enumeration	Earth.NearSurface.Ionosphere.E1Region	The E1 region ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.
enumeration	Earth.NearSurface.Ionosphere.E2Region	The E2 region contains ionized gases at a height of around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.
enumeration	Earth.NearSurface.Ionosphere.FRegion	The F region at the upper most areas of the ionosphere.
enumeration	Earth.NearSurface.Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	Earth.NearSurface.Plasmasphere	The region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the plasmopause, which is defined by an order of magnitude drop in plasma density.
enumeration	Earth.NearSurface.PolarCap	The areas of the globe surrounding the poles and consisting of the region north of 60 degrees north latitude and the region south of 60 degrees south latitude.
enumeration	Earth.NearSurface.SouthAtlanticAnomalyRegion	The South Atlantic Anomaly Region Earth's inner van Allen radiation belt makes its closest approach to the planet's surface. The result is that, for a given altitude, the radiation intensity is higher over this region than elsewhere.
enumeration	Earth.NearSurface.Stratosphere	The layer of the atmosphere that extends from the troposphere to about 30 km, temperature increases with height. The stratosphere contains the ozone layer.
enumeration	Earth.NearSurface.Thermosphere	The layer of the atmosphere that extends from the Mesosphere to 640+ km, temperature increasing with height.
enumeration	Earth.NearSurface.Troposphere	The lowest layer of the atmosphere which begins at the surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with some variation due to weather factors.
enumeration	Earth.Surface	The outermost area of a solid object.
enumeration	Heliosphere	The solar atmosphere extending roughly from the outer corona to the edge of the solar plasma at the heliopause separating primarily solar plasma from interstellar plasma.
enumeration	Heliosphere.Heliosheath	The region extending radially outward from the heliospheric termination shock and in which the decelerated solar wind plasma is still significant.
enumeration	Heliosphere.Inner	The region of the heliosphere extending radially outward from the solar coronal base to just inside 1 AU.
enumeration	Heliosphere.NearEarth	The heliospheric region near the Earth which extends to and includes the area near the L1 and L2 Lagrange point.
enumeration	Heliosphere.Outer	The region of the heliosphere extending radially outward from just outside 1 AU to the heliospheric termination shock.

	enumeration	Heliosphere.RemotelAU	A roughly toroidal region that includes the Earth's orbit, but exclusive of the region near the Earth.
	enumeration	Interstellar	The region between stars outside of the star's heliopause.
	enumeration	Jupiter	The fifth planet from the sun in our solar system.
	enumeration	Mars	The forth planet from the sun in our solar system.
	enumeration	Mercury	The first planet from the sun in our solar system.
	enumeration	Neptune	The seventh planet from the sun in our solar system.
	enumeration	Pluto	The ninth (sub)planet from the sun in our solar system.
	enumeration	Saturn	The sixth planet from the sun in our solar system.
	enumeration	Sun	The star upon which our solar system is centered.
	enumeration	Sun.Chromosphere	The region of the Sun's (or a star's) atmosphere above the temperature minimum and below the Transition Region. The solar chromosphere is approximately 400 km to 2100 km above the photosphere, and characterized by temperatures from 4500 - 28000 K.
	enumeration	Sun.Corona	The outermost atmospheric region of the Sun or a star, characterized by ionization temperatures above 10^5 K. The solar corona starts at about 2100 km above the photosphere; there is no generally defined upper limit.
	enumeration	Sun.Interior	The region inside the body which is not visible from outside the body.
	enumeration	Sun.Photosphere	The atmospheric layer of the Sun or a star from which continuum radiation, especially optical, is emitted to space. For the Sun, the photosphere is about 500 km thick.
	enumeration	Sun.TransitionRegion	A very narrow (<100 km) layer between the chromosphere and the corona where the temperature rises abruptly from about 8000 to about 500,000 K.
	enumeration	Uranus	The eighth planet from the sun in our solar system.
	enumeration	Venus	The second planet from the sun in our solar system.
Used by	Elements	ObservatoryRegion, ObservedRegion	
Source	<pre> <xsd:simpleType name="enumRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for areas of the physical world which may be occupied or observed.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Asteroid"> <xsd:annotation> <xsd:documentation xml:lang="en">A small extraterrestrial body consisting mostly of rock and metal that is in orbit around the sun.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Comet"> <xsd:annotation> <xsd:documentation xml:lang="en">A relatively small extraterrestrial body consisting of a frozen mass that travels around the sun in a highly elliptical orbit.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Earth"> <xsd:annotation> <xsd:documentation xml:lang="en">The third planet from the sun in our solar system.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Earth.Magnetosheath"> <xsd:annotation> </pre>		

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        <xsd:documentation xml:lang="en">The region between the bow shock and the magnetopause,
        characterized by very turbulent plasma.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.Magnetosphere">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The region of space above the atmosphere or surface of
        the planet, and bounded by the magnetopause, that is under the direct influence of the planet's
        magnetic field.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.Magnetosphere.Magnetotail">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The region on the night side of the body where the magnetic
        field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a
        night-side radial distance of 10 Re (X > -10Re).</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.Magnetosphere.Main">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The region of the magnetosphere where the magnetic field
        lines are closed, but does not include the gaseous region gravitationally bound to the body.</
        xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.Magnetosphere.Polar">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The region near the pole of a body. For a magnetosphere
        the polar region is the area where magnetic field lines are open and includes the auroral zone.</
        xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.Magnetosphere.RadiationBelt">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The region within a magnetosphere where high-energy
        particles could potentially be trapped in a magnetic field.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The gaseous and possibly ionized environment of a body
        extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.</
        xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Atmosphere">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The neutral gases surrounding a body that extends from the
        surface and is bound to the body by virtue of the gravitational attraction.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.AuroralRegion">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The region in the atmospheric where electrically-charged
        particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce
        an optical phenomenon.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.EquatorialRegion">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A region centered on the equator and limited in latitude by
        approximately 23 degrees north and south of the equator.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Ionosphere">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The charged or ionized gases surrounding a body that are
        nominally bound to the body by virtue of the gravitational attraction.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Ionosphere.DRegion">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The layer of the ionosphere that exists approximately 50 to
        95 km above the surface of the Earth. One of several layers in the ionosphere.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Ionosphere.ERegion">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A layer of ionised gas occurring at 90-150km above the
        ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.</
        xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>

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<xsd:enumeration value="Earth.NearSurface.Ionosphere.FRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A layer that contains ionized gases at a height of
around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest
concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as
comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as
the Appleton layer.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Ionosphere.Topside">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region at the upper most areas of the ionosphere.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Mesosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from the
Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Plasmasphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A region of the magnetosphere consisting of low energy
(cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is
known as the plasmopause, which is defined by an order of magnitude drop in plasma density.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.PolarCap">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The areas of the globe surrounding the poles and consisting
of the region north of 60 degrees north latitude an the region south of 60 degrees south
latitude.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.SouthAtlanticAnomalyRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region where the Earth's inner van Allen radiation belt
makes its closest approach to the planet's surface. The result is that, for a given altitude, the
radiation intensity is higher over this region than elsewhere.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Stratosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from the
troposphere to about 30 km, temperature increases with height. The stratosphere contains the ozone
layer.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Thermosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from the
Mesosphere to 640+ km, temperature increasing with height.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Troposphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The lowest layer of the atmosphere which begins at the
surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with
some variation due to weather factors.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.Surface">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The outermost area of a solid object.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Heliosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The solar atmosphere extending roughly from the outer
corona to the edge of the solar plasma at the heliopause separating primarily solar plasma from
interstellar plasma.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Heliosphere.Heliosheath">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region extending radially outward from the heliospheric
termination shock and in which the decelerated solar wind plasma is still significant.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Heliosphere.Inner">

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```

    <xsd:annotation>
      <xsd:documentation xml:lang="en">The region of the heliosphere extending radially outward
from the solar coronal base to just inside 1 AU.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Heliosphere.NearEarth">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The heliospheric region near the Earth which extends to and
includes the area near the L1 and L2 Lagrange point.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Heliosphere.Outer">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The region of the heliosphere extending radially outward
from just outside 1 AU to the heliospheric termination shock.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Heliosphere.Remote1AU">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A roughly toroidal region that includes the Earth's orbit,
but exclusive of the region near the Earth.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Interstellar">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The region between stars outside of the star's
heliopause.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Jupiter">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The fifth planet from the sun in our solar system.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Mars">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The forth planet from the sun in our solar system.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Mercury">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The first planet from the sun in our solar system.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Neptune">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The seventh planet from the sun in our solar system.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Pluto">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The ninth (sub)planet from the sun in our solar system.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Saturn">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The sixth planet from the sun in our solar system.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Sun">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The star upon which our solar system is centered.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Sun.Chromosphere">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The region of the Sun's (or a star's) atmosphere above
the temperature minimum and below the Transition Region. The solar chromosphere is approximately
400 km to 2100 km above the photosphere, and characterized by temperatures from 4500 - 28000 K.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Sun.Corona">
    <xsd:annotation>


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        <xsd:documentation xml:lang="en">The outermost atmospheric region of the Sun or a star,
        characterized by ionization temperatures above 105 K. The solar corona starts at about 2100 km
        above the photosphere; there is no generally defined upper limit.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Sun.Interior">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The region inside the body which is not visible from
        outside the body.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Sun.Photosphere">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The atmospheric layer of the Sun or a star from which
        continuum radiation, especially optical, is emitted to space. For the Sun, the photosphere is about
        500 km thick.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Sun.TransitionRegion">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A very narrow (<100 km) layer between the chromosphere
        and the corona where the temperature rises abruptly from about 8000 to about 500,000 K.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Uranus">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The eighth planet from the sun in our solar system.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Venus">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The second planet from the sun in our solar system.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type enumDocumentType

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the characterization of the content or purpose of a document.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Other	
	enumeration	Poster	A set of information arranged on a single page or sheet, typically in a large format.
	enumeration	Presentation	A set of information that is used when communicating to an audience.
	enumeration	Report	A document which describes the findings of some individual or group.
	enumeration	Specification	A detailed description of the requirements and other aspects of an object or component that may be used to develop an implementation.
	enumeration	TechnicalNote	A document summarizing the performance and other technical characteristics of a product, machine, component, subsystem or software in sufficient detail to be used by an engineer or researcher.
	enumeration	WhitePaper	An authoritative report giving information or proposals on an issue.
Used by	Element	DocumentType	
Source	<pre> <xsd:simpleType name="enumDocumentType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the characterization of the content or purpose of a document.</xsd:documentation> </xsd:annotation> </pre>		


```

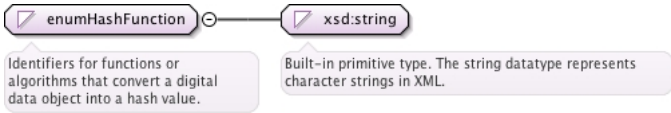
<xsd:restriction base="xsd:string">
  <xsd:enumeration value="Other">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">
        </xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Poster">
      <xsd:annotation>
        <xsd:documentation xml:lang="en">A set of information arranged on a single page or sheet,
        typically in a large format.</xsd:documentation>
        </xsd:annotation>
      </xsd:enumeration>
      <xsd:enumeration value="Presentation">
        <xsd:annotation>
          <xsd:documentation xml:lang="en">A set of information that is used when communicating to an
          audience.</xsd:documentation>
          </xsd:annotation>
        </xsd:enumeration>
        <xsd:enumeration value="Report">
          <xsd:annotation>
            <xsd:documentation xml:lang="en">A document which describes the findings of some individual
            or group.</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="Specification">
            <xsd:annotation>
              <xsd:documentation xml:lang="en">A detailed description of the requirements and
              other aspects of an object or component that may be used to develop an implementation.</
              xsd:documentation>
              </xsd:annotation>
            </xsd:enumeration>
            <xsd:enumeration value="TechnicalNote">
              <xsd:annotation>
                <xsd:documentation xml:lang="en">A document summarizing the performance and other technical
                characteristics of a product, machine, component, subsystem or software in sufficient detail to be
                used by an engineer or researcher.</xsd:documentation>
                </xsd:annotation>
              </xsd:enumeration>
              <xsd:enumeration value="WhitePaper">
                <xsd:annotation>
                  <xsd:documentation xml:lang="en">An authoritative report giving information or proposals on
                  an issue.</xsd:documentation>
                  </xsd:annotation>
                </xsd:enumeration>
              </xsd:restriction>
            </xsd:simpleType>
  
```

Simple Type enumSourceType

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the characterization of the function or purpose of a source.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Ancillary	A complementary item which can be subordinate, subsidiary, auxiliary, supplementary to the primary item.
	enumeration	Browse	A representation of an image which is suitable to reveal most or all of the details of the image.
	enumeration	Data	A collection of organized information, usually the results of experience, observation or experiment, or a set of premises. This may consist of numbers, words, or images, particularly as measurements or observations of a set of variables.
	enumeration	Layout	The structured arrangement of items in a collection.
	enumeration	Thumbnail	A small representation of an image which is suitable to infer what the full-sized imaged is like.

Used by	Element SourceType
Source	<pre> <xsd:simpleType name="enumSourceType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the characterization of the function or purpose of a source.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Ancillary"> <xsd:annotation> <xsd:documentation xml:lang="en">A complementary item which can be subordinate, subsidiary, auxiliary, supplementary to the primary item.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Browse"> <xsd:annotation> <xsd:documentation xml:lang="en">A representation of an image which is suitable to reveal most or all of the details of the image.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Data"> <xsd:annotation> <xsd:documentation xml:lang="en">A collection of organized information, usually the results of experience, observation or experiment, or a set of premises. This may consist of numbers, words, or images, particularly as measurements or observations of a set of variables.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Layout"> <xsd:annotation> <xsd:documentation xml:lang="en">The structured arrangement of items in a collection.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Thumbnail"> <xsd:annotation> <xsd:documentation xml:lang="en">A small representation of an image which is suitable to infer what the full-sized imaged is like.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>

Simple Type enumHashFunction

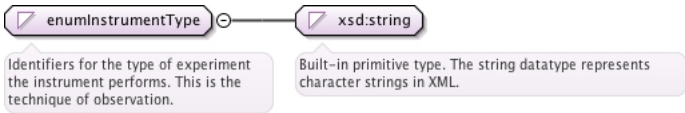
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for functions or algorithms that convert a digital data object into a hash value.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	MD5	Message Digest 5 (MD5) is a 128-bit message digest algorithm created in 1991 by Professor Ronald Rivest.
	enumeration	SHA1	Secure Hash Algorithm (SHA), a 160-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.
	enumeration	SHA256	Secure Hash Algorithm (SHA), a 256-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.
Used by	Element HashFunction		
Source	<pre> <xsd:simpleType name="enumHashFunction"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for functions or algorithms that convert a digital data object into a hash value.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="MD5"> <xsd:annotation> <xsd:documentation xml:lang="en">Message Digest 5 (MD5) is a 128-bit message digest algorithm created in 1991 by Professor Ronald Rivest.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

```

</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SHA1">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Secure Hash Algorithm (SHA), a 160-bit message digest
algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS)
publication 180-1.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SHA256">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Secure Hash Algorithm (SHA), a 256-bit message digest
algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS)
publication 180-1.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type enumInstrumentType

Namespace	http://impex-fp7.oeaw.ac.at																							
Annotations	Identifiers for the type of experiment the instrument performs. This is the technique of observation.																							
Diagram																								
Type	restriction of xsd:string																							
Facets	enumeration	<table border="1"> <tr> <td>Antenna</td> <td>A sensor used to measure electric potential.</td> </tr> <tr> <td>Channeltron</td> <td>An instrument that detects electrons, ions, and UV-radiation, according to the principle of a secondary emission multiplier. It is typically used in electron spectroscopy and mass spectrometry.</td> </tr> <tr> <td>Coronagraph</td> <td>An instrument which can image things very close to the Sun by using a disk to block the Sun's bright surface which reveals the faint solar corona and other celestial objects.</td> </tr> <tr> <td>DoubleSphere</td> <td>A dipole antenna of which the active (sensor) elements are small spheres located at the ends of two wires deployed in the equatorial plane, on opposite sides of a spinning spacecraft.</td> </tr> <tr> <td>DustDetector</td> <td>An instrument which determines the mass and speed of ambient dust particles.</td> </tr> <tr> <td>ElectronDriftInstrument</td> <td>An active experiment to measure the electron drift velocity based on sensing the displacement of a weak beam of electrons after one gyration in the ambient magnetic field.</td> </tr> <tr> <td>ElectrostaticAnalyser</td> <td>An instrument which uses charged plates to analyze the mass, charge and kinetic energies of charged particles which enter the instrument.</td> </tr> <tr> <td>EnergeticParticleInstrument</td> <td>An instrument that measures fluxes of charged particles as a function of time, direction of motion, mass, charge and/or species.</td> </tr> <tr> <td>FaradayCup</td> <td>An instrument consisting of an electrode from which electrical current is measured while a charged particle beam (electrons or ions) impinges on it. Used to determine energy spectrum and sometimes ion composition of the impinging particles.</td> </tr> <tr> <td>FluxFeedback</td> <td>A search coil whose bandwidth and signal/noise ratio are increased by the application of negative feedback at the sensor (flux) level by driving a collocated coil with a signal from the preamplifier.</td> </tr> <tr> <td>FourierTransformSpectrograph</td> <td>An instrument that determines the spectra of a radiative source, using time-domain measurements and a Fourier transform.</td> </tr> </table>	Antenna	A sensor used to measure electric potential.	Channeltron	An instrument that detects electrons, ions, and UV-radiation, according to the principle of a secondary emission multiplier. It is typically used in electron spectroscopy and mass spectrometry.	Coronagraph	An instrument which can image things very close to the Sun by using a disk to block the Sun's bright surface which reveals the faint solar corona and other celestial objects.	DoubleSphere	A dipole antenna of which the active (sensor) elements are small spheres located at the ends of two wires deployed in the equatorial plane, on opposite sides of a spinning spacecraft.	DustDetector	An instrument which determines the mass and speed of ambient dust particles.	ElectronDriftInstrument	An active experiment to measure the electron drift velocity based on sensing the displacement of a weak beam of electrons after one gyration in the ambient magnetic field.	ElectrostaticAnalyser	An instrument which uses charged plates to analyze the mass, charge and kinetic energies of charged particles which enter the instrument.	EnergeticParticleInstrument	An instrument that measures fluxes of charged particles as a function of time, direction of motion, mass, charge and/or species.	FaradayCup	An instrument consisting of an electrode from which electrical current is measured while a charged particle beam (electrons or ions) impinges on it. Used to determine energy spectrum and sometimes ion composition of the impinging particles.	FluxFeedback	A search coil whose bandwidth and signal/noise ratio are increased by the application of negative feedback at the sensor (flux) level by driving a collocated coil with a signal from the preamplifier.	FourierTransformSpectrograph	An instrument that determines the spectra of a radiative source, using time-domain measurements and a Fourier transform.
Antenna	A sensor used to measure electric potential.																							
Channeltron	An instrument that detects electrons, ions, and UV-radiation, according to the principle of a secondary emission multiplier. It is typically used in electron spectroscopy and mass spectrometry.																							
Coronagraph	An instrument which can image things very close to the Sun by using a disk to block the Sun's bright surface which reveals the faint solar corona and other celestial objects.																							
DoubleSphere	A dipole antenna of which the active (sensor) elements are small spheres located at the ends of two wires deployed in the equatorial plane, on opposite sides of a spinning spacecraft.																							
DustDetector	An instrument which determines the mass and speed of ambient dust particles.																							
ElectronDriftInstrument	An active experiment to measure the electron drift velocity based on sensing the displacement of a weak beam of electrons after one gyration in the ambient magnetic field.																							
ElectrostaticAnalyser	An instrument which uses charged plates to analyze the mass, charge and kinetic energies of charged particles which enter the instrument.																							
EnergeticParticleInstrument	An instrument that measures fluxes of charged particles as a function of time, direction of motion, mass, charge and/or species.																							
FaradayCup	An instrument consisting of an electrode from which electrical current is measured while a charged particle beam (electrons or ions) impinges on it. Used to determine energy spectrum and sometimes ion composition of the impinging particles.																							
FluxFeedback	A search coil whose bandwidth and signal/noise ratio are increased by the application of negative feedback at the sensor (flux) level by driving a collocated coil with a signal from the preamplifier.																							
FourierTransformSpectrograph	An instrument that determines the spectra of a radiative source, using time-domain measurements and a Fourier transform.																							

enumeration	GeigerMuellerTube	An instrument which measures density of ionizing radiation based on interactions with a gas.
enumeration	Imager	An instrument which samples the radiation from an area at one or more spectral ranges emitted or reflected by an object.
enumeration	ImagingSpectrometer	An instrument which is a multispectral scanner with a very large number of channels (64-256 channels) with very narrow band widths.
enumeration	Interferometer	An instrument to study the properties of two or more waves from the pattern of interference created by their superposition.
enumeration	IonChamber	A device in which the collected electrical charge from ionization in a gas-filled cavity is taken to be the proportion to some parameter (e.g. dose or exposure) of radiation field
enumeration	IonDrift	A device which measures the current produced by the displacement of ambient ions on a grid, thereby allowing the determination of the ion trajectory and velocity.
enumeration	LangmuirProbe	A monopole antenna associated with an instrument. The instrument applies a potential to the antenna which is swept to determine the voltage/current characteristic. This provides information about the plasma surrounding the probe and spacecraft.
enumeration	LongWire	A dipole antenna whose active (sensor) elements are two wires deployed in the equatorial plane on opposite sides of a spinning spacecraft, and whose length is several times greater than the spacecraft diameter.
enumeration	Magnetometer	An instrument which measures the ambient magnetic field.
enumeration	MassSpectrometer	An instrument which distinguishes chemical species in terms of their different isotopic masses.
enumeration	MicrochannelPlate	An instrument used for the detection of elementary particles, ions, ultraviolet rays and soft X-rays constructed from very thin conductive glass capillaries.
enumeration	MultispectralImager	An instrument which captures images at multiple spectral ranges.
enumeration	NeutralAtomImager	An instrument which measures the quantity and properties of neutral particles over a range of angles. Measured properties can include mass and energy.
enumeration	NeutralParticleDetector	An instrument which measures the quantity and properties of neutral particles. Measured properties can include mass and plasma bulk densities.
enumeration	ParticleCorrelator	An instrument which correlates particle flux to help identify wave/particle interactions.
enumeration	ParticleDetector	An instrument which detects particle flux!!!
enumeration	Photometer	An instrument which measures the strength of electromagnetic radiation within a spectral band which can range from ultraviolet to infrared and includes the visible spectrum.
enumeration	Photopolarimeter	An instrument which measures the intensity and polarization or radiant energy. A photopolarimeter is a combination of a photometer and a polarimeter.
enumeration	Platform	A collection of components which can be positioned and oriented as a single unit. A platform may contain other platforms. For example, a spacecraft is a platform which may have components that can be articulated and are also considered platforms.
enumeration	ProportionalCounter	An instrument which measures energy of ionization radiation based on interactions with a gas.

enumeration	QuadrisphericalAnalyser	An instrument used for the 3-D detection of plasma, energetic electrons and ions, and for positive-ion composition measurements.
enumeration	Radar	An instrument that uses directional properties of returned power to infer spatial and/or other characteristics of a remote object.
enumeration	Radiometer	An instrument for detecting or measuring radiant energy. Radiometers are commonly limited to infrared radiation.
enumeration	ResonanceSounder	A combination of a radio receiver and a pulsed transmitter used to study the plasma surrounding a spacecraft by identifying resonances or cut-offs (of the wave dispersion relation), whose frequencies are related to the ambient plasma density and magnetic field. When the transmitter is off it is essentially a high frequency-resolution spectral power receiver.
enumeration	RetardingPotentialAnalyser	An instrument which measures ion temperatures and ion concentrations using a planar ion trap.
enumeration	Riometer	An instrument which measure the signal strength in various directions of the galactic radio signals. Variations in these signals are influenced by solar flare activity and geomagnetic storm and substorm processes.
enumeration	ScintillationDetector	An instrument which detects flourescences of a material which is excited by high energy (ionizing) electromagnetic or charged particle radiation.
enumeration	SearchCoil	An instrument which measures the time variation of the magnetic flux threading a loop by measurement of the electric potential difference induced between the ends of the wire.
enumeration	Sounder	An instrument which measures the radiances from an object. A sounder may measure radiances at multiple spectral ranges.
enumeration	SpacecraftPotentialControl	An instrument to control the electric potential of a spacecraft with respect to the ambient plasma by emitting a variable current of positive ions.
enumeration	SpectralPowerReceiver	A radio receiver which determines the power spectral density of the electric or magnetic field, or both, at one or more frequencies.
enumeration	Spectrometer	An instrument that measures the component wavelengths of light (or other electromagnetic radiation) by splitting the light up into its component wavelengths.
enumeration	TimeOfFlight	An instrument which measures the time it takes for a particle to travel between two detectors.
enumeration	Unspecified	A value which is not provided.
enumeration	WaveformReceiver	A radio receiver which outputs the value of one or more components of the electric and/or magnetic field as a function of time.

Used by	Element	InstrumentType
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Source	<pre> <xsd:simpleType name="enumInstrumentType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the type of experiment the instrument performs. This is the technique of observation.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Antenna"> <xsd:annotation> <xsd:documentation xml:lang="en">A sensor used to measure electric potential.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Channeltron"> <xsd:annotation> <xsd:documentation xml:lang="en">An instrument that detects electrons, ions, and UV-radiation, according to the principle of a secondary emission multiplier. It is typically used in electron spectroscopy and mass spectrometry.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>
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    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Coronagraph">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An instrument which can image things very close to the Sun
by using a disk to block the Sun's bright surface which reveals the faint solar corona and other
celestial objects.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="DoubleSphere">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A dipole antenna of which the active (sensor) elements are
small spheres located at the ends of two wires deployed in the equatorial plane, on opposite sides
of a spinning spacecraft.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="DustDetector">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An instrument which determines the mass and speed of
ambient dust particles.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="ElectronDriftInstrument">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An active experiment to measure the electron drift velocity
based on sensing the displacement of a weak beam of electrons after one gyration in the ambient
magnetic field.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="ElectrostaticAnalyser">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An instrument which uses charged plates to analyze
the mass, charge and kinetic energies of charged particles which enter the instrument.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="EnergeticParticleInstrument">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An instrument that measures fluxes of charged particles as
a function of time, direction of motion, mass, charge and/or species.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="FaradayCup">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An instrument consisting of an electrode from which
electrical current is measured while a charged particle beam (electrons or ions) impinges on it.
Used to determine energy spectrum and sometimes ion composition of the impinging particles.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="FluxFeedback">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A search coil whose bandwidth and signal/noise ratio
are increased by the application of negative feedback at the sensor (flux) level by driving a
collocated coil with a signal from the preamplifier.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="FourierTransformSpectrograph">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An instrument that determines the spectra of a radiative
source, using time-domain measurements and a Fourier transform.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="GeigerMuellerTube">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An instrument which measures density of ionizing radiation
based on interactions with a gas.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Imager">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An instrument which samples the radiation from an area at
one or more spectral ranges emitted or reflected by an object.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="ImagingSpectrometer">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An instrument which is a multispectral scanner with a very
large number of channels (64-256 channels) with very narrow band widths.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Interferometer">
    <xsd:annotation>

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        <xsd:documentation xml:lang="en">An instrument to study the properties of two or more waves
from the pattern of interference created by their superposition.</xsd:documentation>
    </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="IonChamber">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">A device in which the collected electrical charge from
ionization in a gas-filled cavity is taken to be the proportion to some parameter (e.g. dose or
exposure) of radiation field</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="IonDrift">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">A device which measures the current produced by the
displacement of ambient ions on a grid, thereby allowing the determination of the ion trajectory
and velocity.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="LangmuirProbe">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">A monopole antenna associated with an instrument. The
instrument applies a potential to the antenna which is swept to determine the voltage/current
characteristic. This provides information about the plasma surrounding the probe and spacecraft.</
xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="LongWire">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">A dipole antenna whose active (sensor) elements are two
wires deployed in the equatorial plane on opposite sides of a spinning spacecraft, and whose length
is several times greater than the spacecraft diameter.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Magnetometer">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">An instrument which measures the ambient magnetic field.</
xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="MassSpectrometer">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">An instrument which distinguishes chemical species in terms
of their different isotopic masses.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="MicrochannelPlate">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">An instrument used for the detection of elementary
particles, ions, ultraviolet rays and soft X-rays constructed from very thin conductive glass
capillaries.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="MultispectralImager">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">An instrument which captures images at multiple spectral
ranges.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="NeutralAtomImager">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">An instrument which measures the quantity and properties
of neutral particles over a range of angles. Measured properties can include mass and energy.</
xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="NeutralParticleDetector">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">An instrument which measures the quantity and properties
of neutral particles. Measured properties can include mass and plasma bulk densities.</
xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="ParticleCorrelator">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">An instrument which correlates particle flux to help
identify wave/particle interactions.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="ParticleDetector">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">An instrument which detects particle flux!!!</
xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>

```

```

</xsd:enumeration>
<xsd:enumeration value="Photometer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the strength of
electromagnetic radiation within a spectral band which can range from ultraviolet to infrared and
includes the visible spectrum.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Photopolarimeter">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the intensity and polarization
or radiant energy. A photopolarimeter is a combination of a photometer and a polarimeter.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Platform">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A collection of components which can be positioned and
oriented as a single unit. A platform may contain other platforms. For example, a spacecraft is
a platform which may have components that can be articulated and are also considered platforms.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ProportionalCounter">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures energy of ionization radiation
based on interactions with a gas.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="QuadrisphericalAnalyser">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument used for the 3-D detection of plasma,
energetic electrons and ions, and for positive-ion composition measurements.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Radar">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument that uses directional properties of returned
power to infer spatial and/or other characteristics of a remote object.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Radiometer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument for detecting or measuring radiant energy.
Radiometers are commonly limited to infrared radiation.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ResonanceSounder">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A combination of a radio receiver and a pulsed transmitter
used to study the plasma surrounding a spacecraft by identifying resonances or cut-offs (of the
wave dispersion relation), whose frequencies are related to the ambient plasma density and magnetic
field. When the transmitter is off it is essentially a high frequency-resolution spectral power
receiver.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RetardingPotentialAnalyser">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures ion temperatures and ion
concentrations using a planar ion trap.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Riometer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measure the signal strength in various
directions of the galactic radio signals. Variations in these signals are influenced by solar flare
activity and geomagnetic storm and substorm processes.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ScintillationDetector">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which detects flourescences of a material
which is excited by high energy (ionizing) electromagnetic or charged particle radiation.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SearchCoil">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the time variation of the
magnetic flux threading a loop by measurement of the electric potential difference induced between
the ends of the wire.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>

```

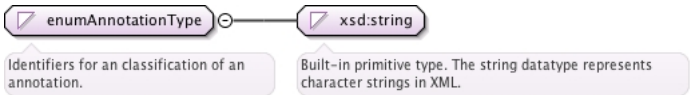


```

<xsd:enumeration value="Sounder">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the radiances from an object.
    A sounder may measure radiances at multiple spectral ranges.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SpacecraftPotentialControl">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument to control the electric potential of a
    spacecraft with respect to the ambient plasma by emitting a variable current of positive ions.</
    xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SpectralPowerReceiver">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A radio receiver which determines the power spectral
    density of the electric or magnetic field, or both, at one or more frequencies.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Spectrometer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument that measures the component wavelengths
    of light (or other electromagnetic radiation) by splitting the light up into its component
    wavelengths.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TimeOfFlight">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the time it takes for a
    particle to travel between two detectors.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Unspecified">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A value which is not provided.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="WaveformReceiver">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A radio receiver which outputs the value of one or more
    components of the electric and/or magnetic field as a function of time.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type enumAnnotationType

Namespace	http://impex-fp7.oceaw.ac.at		
Annotations	Identifiers for an classification of an annotation.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Anomaly	An interval where measurements or observations may be adversely affected.
	enumeration	Event	An action or observation which occurs at a point in time.
	enumeration	Feature	A prominent or distinctive characteristic that occurs at a location or persists over a period of time.
Used by	Element	AnnotationType	
Source	<pre> <xsd:simpleType name="enumAnnotationType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for an classification of an annotation.</ xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Anomaly"> <xsd:annotation> <xsd:documentation xml:lang="en">An interval where measurements or observations may be adversely affected.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Event"> </pre>		

```

<xsd:annotation>
  <xsd:documentation xml:lang="en">An action or observation which occurs at a point in time.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Feature">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A prominent or distinctive characteristic that occurs at a location or persists over a period of time.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type enumClassificationMethod

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the technique used to determine the characteristics of an object.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Automatic	Determined by the analysis or assessment performed by a program or server.
	enumeration	Inferred	Determined by the analysis of other information or resources.
	enumeration	Inspection	Determined by the analysis or assessment performed by a person.
Used by	Element	ClassificationMethod	
Source	<pre> <xsd:simpleType name="enumClassificationMethod"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the technique used to determine the characteristics of an object.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Automatic"> <xsd:annotation> <xsd:documentation xml:lang="en">Determined by the analysis or assessment performed by a program or server.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Inferred"> <xsd:annotation> <xsd:documentation xml:lang="en">Determined by the analysis of other information or resources.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Inspection"> <xsd:annotation> <xsd:documentation xml:lang="en">Determined by the analysis or assessment performed by a person.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumConfidenceRating

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the classification of the certainty of an assertion.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Probable	Likely given the available evidence. Considered in the range of 4-7 on a scale of 0-10.

	enumeration	Strong	Highly likely given the available evidence. Considered in the range of 7-10 on a scale of 0-10.
	enumeration	Unlikely	Not likely given the available evidence. Considered in the range of 0 on a scale of 0-10.
	enumeration	Weak	Slightly likely given the available evidence. Considered in the range of 1-4 on a scale of 0-10.
Used by	Elements	ConfidenceRating, LikelihoodRating	
Source	<pre> <xsd:simpleType name="enumConfidenceRating"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the classification of the certainty of an assertion.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Probable"> <xsd:annotation> <xsd:documentation xml:lang="en">Likely given the available evidence. Considered in the range of 4-7 on a scale of 0-10.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Strong"> <xsd:annotation> <xsd:documentation xml:lang="en">Highly likely given the available evidence. Considered in the range of 7-10 on a scale of 0-10.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Unlikely"> <xsd:annotation> <xsd:documentation xml:lang="en">Not likely given the available evidence. Considered in the range of 0 on a scale of 0-10.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Weak"> <xsd:annotation> <xsd:documentation xml:lang="en">Slightly likely given the available evidence. Considered in the range of 1-4 on a scale of 0-10.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type BandName

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A common or provider assigned name for a range of values.
Diagram	<p>The diagram shows a box for 'BandName' with a restriction symbol (a circle with a horizontal line) pointing to a box for 'xsd:string'. Below 'BandName' is a callout: 'A common or provider assigned name for a range of values.' Below 'xsd:string' is a callout: 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	xsd:string
Source	<pre> <xsd:simpleType name="BandName"> <xsd:annotation> <xsd:documentation xml:lang="en">A common or provider assigned name for a range of values.</ xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"/> </xsd:simpleType> </pre>

Simple Type enumParticleQuantity

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Identifiers for the characterization of the physical properties of the particle.
Diagram	<p>The diagram shows a box for 'enumParticleQuantity' with a restriction symbol (a circle with a horizontal line) pointing to a box for 'xsd:string'. Below 'enumParticleQuantity' is a callout: 'Identifiers for the characterization of the physical properties of the particle.' Below 'xsd:string' is a callout: 'Built-in primitive type. The string datatype represents character strings in XML.'</p>
Type	restriction of xsd:string

Facets

enumeration	ArrivalDirection	An angular measure of the direction from which an energetic particle or photon was incident on a detector. The angles may be measured in any coordinate system.
enumeration	AtomicNumberDetected	The number of protons in the nucleus of an atom as determined by a detector.
enumeration	AverageChargeState	A measure of the composite deficit (positive) or excess (negative) of electrons with respect to protons.
enumeration	ChargeState	Charge of a fully or partially stripped ion, in units of the charge of a proton. Charge state of a bare proton = 1.
enumeration	CountRate	The number of events per unit time.
enumeration	Counts	The number of detection events occurring in a detector over the detector accumulation time.
enumeration	Energy	The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy)
enumeration	EnergyDensity	The amount of energy per unit volume.
enumeration	EnergyFlux	The amount of energy passing through a unit area in a unit time.
enumeration	FlowSpeed	The rate at which particles or energy is passing through a unit area in a unit time.
enumeration	FlowVelocity	The volume of matter passing through a unit area perpendicular to the direction of flow in a unit of time.
enumeration	Fluence	The time integral of a flux. A fluence does not have any "per unit time" in its units.
enumeration	Gyrofrequency	The number of gyrations around a magnetic guiding center (field line) a charged particle makes per unit time due to the Lorentz force.
enumeration	HeatFlux	Flow of thermal energy through a gas or plasma; typically computed as third moment of a distribution function.
enumeration	Mass	The measure of inertia (mass) of individual objects (e.g., aerosols).
enumeration	MassDensity	The mass of particles per unit volume.
enumeration	MassNumber	The total number of protons and neutrons (together known as nucleons) in an atomic nucleus.
enumeration	NumberDensity	The number of particles per unit volume.
enumeration	NumberFlux	The number of particles passing a unit area in unit time, possibly also per unit energy (or equivalent) and/or per unit look direction.
enumeration	ParticleRadius	The mean radius for a Gaussian distribution of particles with an axial ratio of 2 and a distribution width that varies as 0.5 radius. A value of zero means no cloud was detected.
enumeration	PhaseSpaceDensity	The number of particles per unit volume in the six-dimensional space of position and velocity.
enumeration	PlasmaFrequency	A number-density-dependent characteristic frequency of a plasma.
enumeration	Pressure	The force per unit area exerted by a particle distribution or field.
enumeration	SonicMachNumber	The ratio of the bulk flow speed to the speed of sound in the medium.
enumeration	SoundSpeed	The speed at which sound travels through a medium.
enumeration	Temperature	A measure of the kinetic energy of random motion with respect to the average. Temperature is properly defined only for an equilibrium particle distribution (Maxwellian distribution).
enumeration	ThermalSpeed	For a Maxwellian distribution, the difference between the mean speed and the speed within

		which ~69% (one sigma) of all the members of the speed distribution occur.
	enumeration	Velocity Rate of change of position. Also used for the average velocity of a collection of particles, also referred to as "bulk velocity".
Used by	Element	ParticleQuantity
Source	<pre> <xsd:simpleType name="enumParticleQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the characterization of the physical properties of the particle.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="ArrivalDirection"> <xsd:annotation> <xsd:documentation xml:lang="en">An angular measure of the direction from which an energetic particle or photon was incident on a detector. The angles may be measured in any coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="AtomicNumberDetected"> <xsd:annotation> <xsd:documentation xml:lang="en">The number of protons in the nucleus of an atom as determined by a detector.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="AverageChargeState"> <xsd:annotation> <xsd:documentation xml:lang="en">A measure of the composite deficit (positive) or excess (negative) of electrons with respect to protons.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ChargeState"> <xsd:annotation> <xsd:documentation xml:lang="en">Charge of a fully or partially stripped ion, in units of the charge of a proton. Charge state of a bare proton = 1.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="CountRate"> <xsd:annotation> <xsd:documentation xml:lang="en">The number of events per unit time.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Counts"> <xsd:annotation> <xsd:documentation xml:lang="en">The number of detection events occurring in a detector over the detector accumulation time.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Energy"> <xsd:annotation> <xsd:documentation xml:lang="en">The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy)</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="EnergyDensity"> <xsd:annotation> <xsd:documentation xml:lang="en">The amount of energy per unit volume.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="EnergyFlux"> <xsd:annotation> <xsd:documentation xml:lang="en">The amount of energy passing through a unit area in a unit time.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="FlowSpeed"> <xsd:annotation> <xsd:documentation xml:lang="en">The rate at which particles or energy is passing through a unit area in a unit time.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="FlowVelocity"> <xsd:annotation> <xsd:documentation xml:lang="en">The volume of matter passing through a unit area perpendicular to the direction of flow in a unit of time.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Fluence"> </pre>	

```

    <xsd:annotation>
      <xsd:documentation xml:lang="en">The time integral of a flux. A fluence does not have any
"per unit time" in its units.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Gyrofrequency">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The number of gyrations around a magnetic guiding center
(field line) a charged particle makes per unit time due to the Lorentz force.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="HeatFlux">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Flow of thermal energy through a gas or plasma; typically
computed as third moment of a distribution function.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Mass">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The measure of inertia (mass) of individual objects (e.g.,
aerosols).</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="MassDensity">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The mass of particles per unit volume.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="MassNumber">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The total number of protons and neutrons (together known as
nucleons) in an atomic nucleus.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="NumberDensity">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The number of particles per unit volume.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="NumberFlux">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The number of particles passing a unit area in unit time,
possibly also per unit energy (or equivalent) and/or per unit look direction.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="ParticleRadius">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The mean radius for a Gaussian distribution of particles
with an axial ratio of 2 and a distribution width that varies as 0.5 radius. A value of zero means
no cloud was detected.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="PhaseSpaceDensity">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The number of particles per unit volume in the six-
dimensional space of position and velocity.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="PlasmaFrequency">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A number-density-dependent characteristic frequency of a
plasma.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="Pressure">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The force per unit area exerted by a particle distribution
or field.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="SonicMachNumber">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The ratio of the bulk flow speed to the speed of sound in
the medium.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="SoundSpeed">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">The speed at which sound travels through a medium.</
xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>

```

```

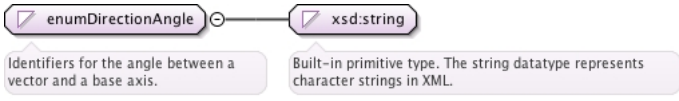
<xsd:enumeration value="Temperature">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of the kinetic energy of random motion
with respect to the average. Temperature is properly defined only for an equilibrium particle
distribution (Maxwellian distribution).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ThermalSpeed">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">For a Maxwellian distribution, the difference between the
mean speed and the speed within which ~69% (one sigma) of all the members of the speed distribution
occur.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Velocity">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Rate of change of position. Also used for the average
velocity of a collection of particles, also referred to as "bulk velocity".</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

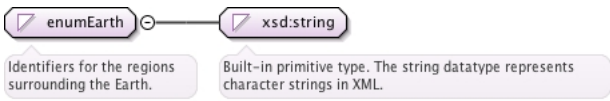
Simple Type enumComponent

Namespace	http://impex-fp7.oeaw.ac.at							
Annotations	Identifiers for the axis of coordinate systems.							
Diagram								
Type	restriction of xsd:string							
Facets	enumeration	<table border="0"> <tr> <td style="text-align: center;">I</td> <td>Projection of a vector along the first named axis of a coordinate system. Typically the X axis, but could be the R axis for an RTN coordinate system.</td> </tr> <tr> <td style="text-align: center;">J</td> <td>Projection of a vector along the second named axis of a coordinate system. Typically the Y axis, but could be the T axis for an RTN coordinate system.</td> </tr> <tr> <td style="text-align: center;">K</td> <td>Projection of a vector along the third named axis of a coordinate system. Typically the Z axis, but could be the N axis for an RTN coordinate system.</td> </tr> </table>	I	Projection of a vector along the first named axis of a coordinate system. Typically the X axis, but could be the R axis for an RTN coordinate system.	J	Projection of a vector along the second named axis of a coordinate system. Typically the Y axis, but could be the T axis for an RTN coordinate system.	K	Projection of a vector along the third named axis of a coordinate system. Typically the Z axis, but could be the N axis for an RTN coordinate system.
I	Projection of a vector along the first named axis of a coordinate system. Typically the X axis, but could be the R axis for an RTN coordinate system.							
J	Projection of a vector along the second named axis of a coordinate system. Typically the Y axis, but could be the T axis for an RTN coordinate system.							
K	Projection of a vector along the third named axis of a coordinate system. Typically the Z axis, but could be the N axis for an RTN coordinate system.							
Source	<pre> <xsd:simpleType name="enumComponent"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the axis of coordinate systems.</ xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="I"> <xsd:annotation> <xsd:documentation xml:lang="en">Projection of a vector along the first named axis of a coordinate system. Typically the X axis, but could be the R axis for an RTN coordinate system.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="J"> <xsd:annotation> <xsd:documentation xml:lang="en">Projection of a vector along the second named axis of a coordinate system. Typically the Y axis, but could be the T axis for an RTN coordinate system.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="K"> <xsd:annotation> <xsd:documentation xml:lang="en">Projection of a vector along the third named axis of a coordinate system. Typically the Z axis, but could be the N axis for an RTN coordinate system.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>							

Simple Type enumDirectionAngle

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the angle between a vector and a base axis.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	AzimuthAngle	The angle between the projection into the i-j plane of a position or measured vector and the i-axis of the coordinate system. Mathematically defined as $\arctan(j/i)$.
	enumeration	ElevationAngle	The angle between the position or measured vector and the i-j plane of the coordinate system. Mathematically defined as $\arctan(k/\sqrt{i^2+j^2})$.
	enumeration	PolarAngle	The angle between the position or measured vector and the k-axis of the coordinate system. Mathematically defined as $\arctan([\sqrt{i^2+j^2}]/k)$.
Source	<pre> <xsd:simpleType name="enumDirectionAngle"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the angle between a vector and a base axis.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="AzimuthAngle"> <xsd:annotation> <xsd:documentation xml:lang="en">The angle between the projection into the i-j plane of a position or measured vector and the i-axis of the coordinate system. Mathematically defined as $\arctan(j/i)$.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ElevationAngle"> <xsd:annotation> <xsd:documentation xml:lang="en">The angle between the position or measured vector and the i-j plane of the coordinate system. Mathematically defined as $\arctan(k/\sqrt{i^2+j^2})$.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="PolarAngle"> <xsd:annotation> <xsd:documentation xml:lang="en">The angle between the position or measured vector and the k-axis of the coordinate system. Mathematically defined as $\arctan([\sqrt{i^2+j^2}]/k)$.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumEarth

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the regions surrounding the Earth.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Magnetosheath	The region between the bow shock and the magnetopause, characterized by very turbulent plasma.
	enumeration	Magnetosphere	The region of space above the atmosphere or surface of the planet, and bounded by the magnetopause, that is under the direct influence of the planet's magnetic field.
	enumeration	Magnetosphere.Magnetotail	The region on the night side of the body where the magnetic field is stretched backwards

		by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re ($X > -10R_e$).
enumeration	Magnetosphere.Main	The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.
enumeration	Magnetosphere.Polar	The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the auroral zone.
enumeration	Magnetosphere.RadiationBelt	The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.
enumeration	NearSurface	The gaseous and possibly ionized environment of a body extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.
enumeration	NearSurface.Atmosphere	The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.
enumeration	NearSurface.AuroralRegion	The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.
enumeration	NearSurface.EquatorialRegion	A region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.
enumeration	NearSurface.Ionosphere	The charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction.
enumeration	NearSurface.Ionosphere.DRegion	The layer of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
enumeration	NearSurface.Ionosphere.ERegion	A layer of ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.
enumeration	NearSurface.Ionosphere.FRegion	A layer that contains ionized gases at a height of around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.
enumeration	NearSurface.Ionosphere.TopSide	The region at the upper most areas of the ionosphere.
enumeration	NearSurface.Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	NearSurface.Plasmasphere	A region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the plasmopause, which is defined by an order of magnitude drop in plasma density.
enumeration	NearSurface.PolarCap	The areas of the globe surrounding the poles and consisting of the region north of 60 degrees north latitude and the region south of 60 degrees south latitude.
enumeration	NearSurface.SouthAtlanticAnomalyRegion	The region where the Earth's inner van Allen radiation belt makes its closest approach to the planet's surface. The result is that, for a given altitude, the radiation intensity is higher over this region than elsewhere.
enumeration	NearSurface.Stratosphere	The layer of the atmosphere that extends from the troposphere to about 30 km, temperature

		increases with height. The stratosphere contains the ozone layer.
enumeration	NearSurface.Thermosphere	The layer of the atmosphere that extends from the Mesosphere to 640+ km, temperature increasing with height.
enumeration	NearSurface.Troposphere	The lowest layer of the atmosphere which begins at the surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with some variation due to weather factors.
enumeration	Surface	The outermost area of a solid object.
Source	<pre> <xsd:simpleType name="enumEarth"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the regions surrounding the Earth.</ xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Magnetosheath"> <xsd:annotation> <xsd:documentation xml:lang="en">The region between the bow shock and the magnetopause, characterized by very turbulent plasma.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Magnetosphere"> <xsd:annotation> <xsd:documentation xml:lang="en">The region of space above the atmosphere or surface of the planet, and bounded by the magnetopause, that is under the direct influence of the planet's magnetic field.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Magnetosphere.Magnetotail"> <xsd:annotation> <xsd:documentation xml:lang="en">The region on the night side of the body where the magnetic field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re (X > -10Re).</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Magnetosphere.Main"> <xsd:annotation> <xsd:documentation xml:lang="en">The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Magnetosphere.Polar"> <xsd:annotation> <xsd:documentation xml:lang="en">The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the auroral zone.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Magnetosphere.RadiationBelt"> <xsd:annotation> <xsd:documentation xml:lang="en">The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="NearSurface"> <xsd:annotation> <xsd:documentation xml:lang="en">The gaseous and possibly ionized environment of a body extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="NearSurface.Atmosphere"> <xsd:annotation> <xsd:documentation xml:lang="en">The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="NearSurface.AuroralRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="NearSurface.EquatorialRegion"> <xsd:annotation> </pre>	

```

    <xsd:documentation xml:lang="en">A region centered on the equator and limited in latitude by
    approximately 23 degrees north and south of the equator.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The charged or ionized gases surrounding a body that are
    nominally bound to the body by virtue of the gravitational attraction.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere.DRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the ionosphere that exists approximately 50 to
    95 km above the surface of the Earth. One of several layers in the ionosphere.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere.ERegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A layer of ionised gas occurring at 90-150km above the
    ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.</
    xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere.FRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A layer that contains ionized gases at a height of
    around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest
    concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as
    comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as
    the Appleton layer.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere.Topside">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region at the upper most areas of the ionosphere.</
    xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Mesosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from the
    Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Plasmasphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A region of the magnetosphere consisting of low energy
    (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is
    known as the plasmopause, which is defined by an order of magnitude drop in plasma density.</
    xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.PolarCap">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The areas of the globe surrounding the poles and consisting
    of the region north of 60 degrees north latitude an the region south of 60 degrees south
    latitude.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.SouthAtlanticAnomalyRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region where the Earth's inner van Allen radiation belt
    makes its closest approach to the planet's surface. The result is that, for a given altitude, the
    radiation intensity is higher over this region than elsewhere.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Stratosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from the
    troposphere to about 30 km, temperature increases with height. The stratosphere contains the ozone
    layer.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Thermosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from the
    Mesosphere to 640+ km, temperature increasing with height.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Troposphere">
  <xsd:annotation>

```

```

        <xsd:documentation xml:lang="en">The lowest layer of the atmosphere which begins at the
        surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with
        some variation due to weather factors.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Surface">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The outermost area of a solid object.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
    
```

Simple Type enumHardcopy

Namespace	http://impex-fp7.oew.ac.at		
Annotations	Identifiers for permanent reproductions, or copy in the form of a physical object, of any media suitable for direct use by a person.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Film	An image recording medium on which usually a "negative" analog image is registered. A "positive" image can be recovered or reproduced from film, which is usually made of flexible materials for ease of storage and transportation.
	enumeration	Microfiche	A sheet of microfilm on which many pages of material have been photographed; a magnification system is used to read the material.
	enumeration	Microfilm	Film rolls on which materials are photographed at greatly reduced size; a magnification system is used to read the material.
	enumeration	Photograph	An image (positive or negative) registered on a piece of photo-sensitive paper
	enumeration	PhotographicPlate	A rigid (typically glass) medium that functions like film. Its rigidity is for guarding against image distortion due to medium deformation (caused by heat and humidity). Photographic plates are often used for astronomical photography.
	enumeration	Print	A sheet of any written or printed material which may include notes or graphics. Multiple printed pages may be bound into a manuscript or book.
Source	<pre> <xsd:simpleType name="enumHardcopy"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for permanent reproductions, or copy in the form of a physical object, of any media suitable for direct use by a person.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Film"> <xsd:annotation> <xsd:documentation xml:lang="en">An image recording medium on which usually a "negative" analog image is registered. A "positive" image can be recovered or reproduced from film, which is usually made of flexible materials for ease of storage and transportation.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Microfiche"> <xsd:annotation> <xsd:documentation xml:lang="en">A sheet of microfilm on which many pages of material have been photographed; a magnification system is used to read the material.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Microfilm"> <xsd:annotation> <xsd:documentation xml:lang="en">Film rolls on which materials are photographed at greatly reduced size; a magnification system is used to read the material.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Photograph"> </pre>		

```

<xsd:annotation>
  <xsd:documentation xml:lang="en">An image (positive or negative) registered on a piece of
photo-sensitive paper</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PhotographicPlate">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A rigid (typically glass) medium that functions like film.
Its rigidity is for guarding against image distortion due to medium deformation (caused by heat and
humidity). Photographic plates are often used for astronomical photography.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Print">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A sheet of any written or printed material which may
include notes or graphics. Multiple printed pages may be bound into a manuscript or book.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type enumHeliosphere

Namespace	http://impex-fp7.oew.ac.at		
Annotations	Identifiers for regions of the solar atmosphere which extends roughly from the inner corona to the edge of the solar plasma at the heliopause separating primarily solar plasma from interstellar plasma.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Heliosheath	The region extending radially outward from the heliospheric termination shock and in which the decelerated solar wind plasma is still significant.
	enumeration	Inner	The region of the heliosphere extending radially outward from the solar coronal base to just inside 1 AU.
	enumeration	NearEarth	The heliospheric region near the Earth which extends to and includes the area near the L1 and L2 Lagrange point.
	enumeration	Outer	The region of the heliosphere extending radially outward from just outside 1 AU to the heliospheric termination shock.
	enumeration	RemotelAU	A roughly toroidal region that includes the Earth's orbit, but exclusive of the region near the Earth.
Source	<pre> <xsd:simpleType name="enumHeliosphere"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for regions of the solar atmosphere which extends roughly from the inner corona to the edge of the solar plasma at the heliopause separating primarily solar plasma from interstellar plasma.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Heliosheath"> <xsd:annotation> <xsd:documentation xml:lang="en">The region extending radially outward from the heliospheric termination shock and in which the decelerated solar wind plasma is still significant.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Inner"> <xsd:annotation> <xsd:documentation xml:lang="en">The region of the heliosphere extending radially outward from the solar coronal base to just inside 1 AU.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="NearEarth"> <xsd:annotation> </pre>		

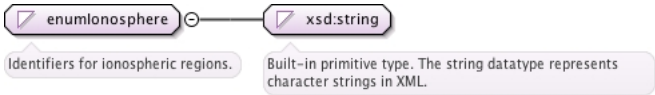
```

        <xsd:documentation xml:lang="en">The heliospheric region near the Earth which extends to and
        includes the area near the L1 and L2 Lagrange point.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Outer">
    <xsd:documentation xml:lang="en">The region of the heliosphere extending radially outward
    from just outside 1 AU to the heliospheric termination shock.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RemotelAU">
    <xsd:documentation xml:lang="en">A roughly toroidal region that includes the Earth's orbit,
    but exclusive of the region near the Earth.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>
    
```

Simple Type enumIntegral

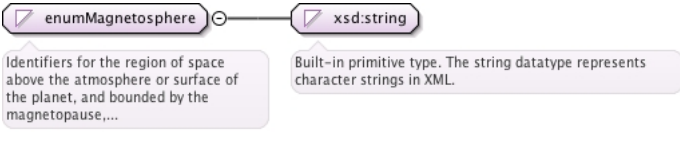
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for values above a given threshold and over area or solid-angle range.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Area	Integration over the extent of a planar region, or of the surface of a solid.
	enumeration	Bandwidth	Integration over the width a frequency band.
	enumeration	SolidAngle	Integration over the angle in three-dimensional space that an object subtends at a point.
Source	<pre> <xsd:simpleType name="enumIntegral"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for values above a given threshold and over area or solid-angle range.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Area"> <xsd:documentation xml:lang="en">Integration over the extent of a planar region, or of the surface of a solid.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Bandwidth"> <xsd:documentation xml:lang="en">Integration over the width a frequency band.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="SolidAngle"> <xsd:documentation xml:lang="en">Integration over the angle in three-dimensional space that an object subtends at a point.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumIonosphere

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for ionospheric regions.		
Diagram			
Type	restriction of xsd:string		

Facets	<table border="1"> <tr> <td>enumeration</td> <td>DRegion</td> <td>The layer of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.</td> </tr> <tr> <td>enumeration</td> <td>ERegion</td> <td>A layer of ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.</td> </tr> <tr> <td>enumeration</td> <td>FRegion</td> <td>A layer that contains ionized gases at a height of around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.</td> </tr> <tr> <td>enumeration</td> <td>Topside</td> <td>The region at the upper most areas of the ionosphere.</td> </tr> </table>	enumeration	DRegion	The layer of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.	enumeration	ERegion	A layer of ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.	enumeration	FRegion	A layer that contains ionized gases at a height of around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.	enumeration	Topside	The region at the upper most areas of the ionosphere.
enumeration	DRegion	The layer of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.											
enumeration	ERegion	A layer of ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.											
enumeration	FRegion	A layer that contains ionized gases at a height of around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.											
enumeration	Topside	The region at the upper most areas of the ionosphere.											
Source	<pre> <xsd:simpleType name="enumIonosphere"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for ionospheric regions.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="DRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">The layer of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ERegion"> <xsd:annotation> <xsd:documentation xml:lang="en">A layer of ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="FRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">A layer that contains ionized gases at a height of around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Topside"> <xsd:annotation> <xsd:documentation xml:lang="en">The region at the upper most areas of the ionosphere.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>												

Simple Type enumMagnetosphere

Namespace	http://impex-fp7.oeaw.ac.at			
Annotations	Identifiers for the region of space above the atmosphere or surface of the planet, and bounded by the magnetopause, that is under the direct influence of planet's magnetic field.			
Diagram				
Type	restriction of xsd:string			
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Magnetotail</td> <td>The region on the night side of the body where the magnetic field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re (X > -10Re).</td> </tr> </table>	enumeration	Magnetotail	The region on the night side of the body where the magnetic field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re (X > -10Re).
enumeration	Magnetotail	The region on the night side of the body where the magnetic field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re (X > -10Re).		

	enumeration	Main	The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.
	enumeration	Polar	The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the auroral zone.
	enumeration	RadiationBelt	The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.
Source	<pre> <xsd:simpleType name="enumMagnetosphere"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the region of space above the atmosphere or surface of the planet, and bounded by the magnetopause, that is under the direct influence of planet's magnetic field.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Magnetotail"> <xsd:annotation> <xsd:documentation xml:lang="en">The region on the night side of the body where the magnetic field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re (X > -10Re).</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Main"> <xsd:annotation> <xsd:documentation xml:lang="en">The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Polar"> <xsd:annotation> <xsd:documentation xml:lang="en">The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the auroral zone.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="RadiationBelt"> <xsd:annotation> <xsd:documentation xml:lang="en">The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumNearSurface

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for regions of the gaseous and possibly ionized environment of a body extending from the surface to some specified altitude.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Atmosphere	The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.
	enumeration	AuroralRegion	The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.
	enumeration	EquatorialRegion	A region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.
	enumeration	Ionosphere	The charged or ionized gases surrounding a body that are nominally bound to the body

		by virtue of the gravitational attraction.
enumeration	Ionosphere.DRegion	The layer of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
enumeration	Ionosphere.ERegion	A layer of ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.
enumeration	Ionosphere.FRegion	A layer that contains ionized gases at a height of around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.
enumeration	Ionosphere.Topside	The region at the upper most areas of the ionosphere.
enumeration	Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	Plasmasphere	A region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the plasmopause, which is defined by an order of magnitude drop in plasma density.
enumeration	PolarCap	The areas of the globe surrounding the poles and consisting of the region north of 60 degrees north latitude an the region south of 60 degrees south latitude.
enumeration	SouthAtlanticAnomalyRegion	The region where the Earth's inner van Allen radiation belt makes its closest approach to the planet's surface. The result is that, for a given altitude, the radiation intensity is higher over this region than elsewhere.
enumeration	Stratosphere	The layer of the atmosphere that extends from the troposphere to about 30 km, temperature increases with height. The stratosphere contains the ozone layer.
enumeration	Thermosphere	The layer of the atmosphere that extends from the Mesosphere to 640+ km, temperature increasing with height.
enumeration	Troposphere	The lowest layer of the atmosphere which begins at the surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with some variation due to weather factors.

Source	<pre> <xsd:simpleType name="enumNearSurface"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for regions of the gaseous and possibly ionized environment of a body extending from the surface to some specified altitude.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Atmosphere"> <xsd:annotation> <xsd:documentation xml:lang="en">The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="AuroralRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="EquatorialRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">A region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>
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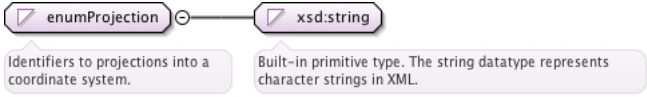
```

<xsd:enumeration value="Ionosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The charged or ionized gases surrounding a body that are
nominally bound to the body by virtue of the gravitational attraction.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ionosphere.DRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the ionosphere that exists approximately 50 to
95 km above the surface of the Earth. One of several layers in the ionosphere.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ionosphere.ERegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A layer of ionised gas occurring at 90-150km above the
ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ionosphere.FRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A layer that contains ionized gases at a height of
around 150-800 km above sea level, placing it in the thermosphere. the F region has the highest
concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as
comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as
the Appleton layer.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ionosphere.Topside">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region at the upper most areas of the ionosphere.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Mesosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from the
Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Plasmasphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A region of the magnetosphere consisting of low energy
(cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is
known as the plasmapause, which is defined by an order of magnitude drop in plasma density.</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PolarCap">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The areas of the globe surrounding the poles and consisting
of the region north of 60 degrees north latitude an the region south of 60 degrees south
latitude.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SouthAtlanticAnomalyRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region where the Earth's inner van Allen radiation belt
makes its closest approach to the planet's surface. The result is that, for a given altitude, the
radiation intensity is higher over this region than elsewhere.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Stratosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from the
troposphere to about 30 km, temperature increases with height. The stratosphere contains the ozone
layer.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Thermosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from the
Mesosphere to 640+ km, temperature increasing with height.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Troposphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The lowest layer of the atmosphere which begins at the
surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with
some variation due to weather factors.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>

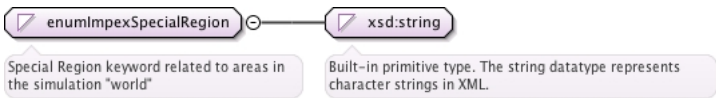
```

</xsd:simpleType>

Simple Type enumProjection

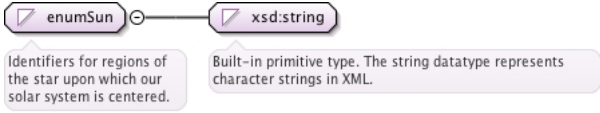
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers to projections into a coordinate system.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	IJ	A measure of the length of a position or measured vector projected into the i-j (typically X-Y) plane of the coordinate system.
	enumeration	IK	A measure of the length of a position or measured vector projected into the i-k (typically X-Z) plane of the coordinate system.
	enumeration	JK	A measure of the length of a position or measured vector projected into the j-k (typically Y-Z) plane of the coordinate system.
Source	<pre> <xsd:simpleType name="enumProjection"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers to projections into a coordinate system.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="IJ"> <xsd:annotation> <xsd:documentation xml:lang="en">A measure of the length of a position or measured vector projected into the i-j (typically X-Y) plane of the coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="IK"> <xsd:annotation> <xsd:documentation xml:lang="en">A measure of the length of a position or measured vector projected into the i-k (typically X-Z) plane of the coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="JK"> <xsd:annotation> <xsd:documentation xml:lang="en">A measure of the length of a position or measured vector projected into the j-k (typically Y-Z) plane of the coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumImpexSpecialRegion

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Special Region keyword related to areas in the simulation "world"		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Incident	Direction-dependent property.
Source	<pre> <xsd:simpleType name="enumImpexSpecialRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">Special Region keyword related to areas in the simulation "world"</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Incident"> <xsd:annotation> <xsd:documentation xml:lang="en">Direction-dependent property.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

</xsd:simpleType>

Simple Type enumSun

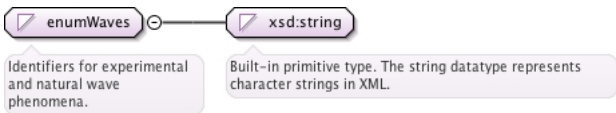
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for regions of the star upon which our solar system is centered.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Chromosphere	The region of the Sun's (or a star's) atmosphere above the temperature minimum and below the Transition Region. The solar chromosphere is approximately 400 km to 2100 km above the photosphere, and characterized by temperatures from 4500 - 28000 K.
	enumeration	Corona	The outermost atmospheric region of the Sun or a star, characterized by ionization temperatures above 10 ⁵ K. The solar corona starts at about 2100 km above the photosphere; there is no generally defined upper limit.
	enumeration	Interior	The region inside the body which is not visible from outside the body.
	enumeration	Photosphere	The atmospheric layer of the Sun or a star from which continuum radiation, especially optical, is emitted to space. For the Sun, the photosphere is about 500 km thick.
	enumeration	TransitionRegion	A very narrow (<100 km) layer between the chromosphere and the corona where the temperature rises abruptly from about 8000 to about 500,000 K.
Source	<pre> <xsd:simpleType name="enumSun"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for regions of the star upon which our solar system is centered.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Chromosphere"> <xsd:annotation> <xsd:documentation xml:lang="en">The region of the Sun's (or a star's) atmosphere above the temperature minimum and below the Transition Region. The solar chromosphere is approximately 400 km to 2100 km above the photosphere, and characterized by temperatures from 4500 - 28000 K.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Corona"> <xsd:annotation> <xsd:documentation xml:lang="en">The outermost atmospheric region of the Sun or a star, characterized by ionization temperatures above 10^5 K. The solar corona starts at about 2100 km above the photosphere; there is no generally defined upper limit.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Interior"> <xsd:annotation> <xsd:documentation xml:lang="en">The region inside the body which is not visible from outside the body.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Photosphere"> <xsd:annotation> <xsd:documentation xml:lang="en">The atmospheric layer of the Sun or a star from which continuum radiation, especially optical, is emitted to space. For the Sun, the photosphere is about 500 km thick.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="TransitionRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">A very narrow (<100 km) layer between the chromosphere and the corona where the temperature rises abruptly from about 8000 to about 500,000 K.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

```
</xsd:restriction>
</xsd:simpleType>
```

Simple Type enumText

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the encoding of sequences of characters.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	ASCII	A sequence of characters that adheres to American Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.
	enumeration	Unicode	Text in multi-byte Unicode format.
Source	<pre><xsd:simpleType name="enumText"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the encoding of sequences of characters.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="ASCII"> <xsd:annotation> <xsd:documentation xml:lang="en">A sequence of characters that adheres to American Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Unicode"> <xsd:annotation> <xsd:documentation xml:lang="en">Text in multi-byte Unicode format.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>		

Simple Type enumWaves

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for experimental and natural wave phenomena.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Active	Exerting an influence or producing a change or effect. An active measurement is one which produces a transmission or excitation as a part of the measurement cycle.
	enumeration	Passive	Movement or effect produced by outside influence. A passive measurement is one which does not produce a transmission or excitation as a part of the measurement cycle.
Source	<pre><xsd:simpleType name="enumWaves"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for experimental and natural wave phenomena.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Active"> <xsd:annotation> <xsd:documentation xml:lang="en">Exerting an influence or producing a change or effect. An active measurement is one which produces a transmission or excitation as a part of the measurement cycle.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>		

```

</xsd:enumeration>
<xsd:enumeration value="Passive">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Movement or effect produced by outside influence. A passive
    measurement is one which does not produce a transmission or excitation as a part of the measurement
    cycle.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type FloatSequence

Namespace	http://impex-fp7.oeaw.ac.at				
Annotations	A list of real values.				
Diagram					
Type	list of xsd:float				
Used by	<table border="0"> <tr> <td>Elements</td> <td>GridCellSize, RegionBegin, RegionEnd</td> </tr> <tr> <td>Simple Types</td> <td>PlaneNormalVector, PlanePoint</td> </tr> </table>	Elements	GridCellSize, RegionBegin, RegionEnd	Simple Types	PlaneNormalVector, PlanePoint
Elements	GridCellSize, RegionBegin, RegionEnd				
Simple Types	PlaneNormalVector, PlanePoint				
Source	<pre> <xsd:simpleType name="FloatSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">A list of real values.</xsd:documentation> </xsd:annotation> <xsd:list itemType="xsd:float"/> </xsd:simpleType> </pre>				

Simple Type PlaneNormalVector

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string list of the component in each dimension of the vector normal to a plane.
Diagram	
Type	FloatSequence
Type hierarchy	<ul style="list-style-type: none"> • xsd:float • FloatSequence • PlaneNormalVector
Used by	Element PlaneNormalVector
Source	<pre> <xsd:simpleType name="PlaneNormalVector"> <xsd:annotation> <xsd:documentation>A string list of the component in each dimension of the vector normal to a plane.</xsd:documentation> </xsd:annotation> <xsd:restriction base="FloatSequence"/> </xsd:simpleType> </pre>

Simple Type PlanePoint

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	A string list of the coordinate of a point in the plane.
Diagram	
Type	FloatSequence
Type hierarchy	<ul style="list-style-type: none"> • xsd:float

	<ul style="list-style-type: none"> • FloatSequence • PlanePoint
Used by	Element PlanePoint
Source	<pre><xsd:simpleType name="PlanePoint"> <xsd:annotation> <xsd:documentation>A string list of the coordinate of a point in the plane.</xsd:documentation> </xsd:annotation> <xsd:restriction base="FloatSequence"/> </xsd:simpleType></pre>

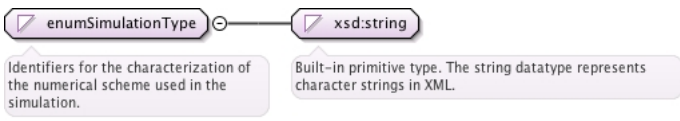
Simple Type enumImpexRegion

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Same as Spase's enum Region: identifiers for areas of the physical worl which may be occupied or observed + some IMPEX Special Region keyword related to areas in the simulation "world"
Diagram	
Type	union of(enumRegion, enumImpexSpecialRegion)
Used by	Element SimulatedRegion
Source	<pre><xsd:simpleType name="enumImpexRegion"> <xsd:annotation> <xsd:documentation>Same as Spase's enum Region: identifiers for areas of the physical worl which may be occupied or observed + some IMPEX Special Region keyword related to areas in the simulation "world"</xsd:documentation> </xsd:annotation> <xsd:union memberTypes="enumRegion enumImpexSpecialRegion"/> </xsd:simpleType></pre>

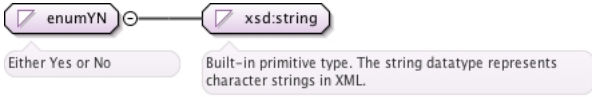
Simple Type enumProduct

Namespace	http://impex-fp7.oeaw.ac.at												
Annotations	Product type of the simulation results												
Diagram													
Type	restriction of xsd:string												
Facets	<table border="1"> <tr> <td>enumeration</td> <td>3DCubes</td> </tr> <tr> <td>enumeration</td> <td>2DCuts</td> </tr> <tr> <td>enumeration</td> <td>TimeSeries</td> </tr> <tr> <td>enumeration</td> <td>SpatialSeries</td> </tr> <tr> <td>enumeration</td> <td>Lines</td> </tr> <tr> <td>enumeration</td> <td>Spectra</td> </tr> </table>	enumeration	3DCubes	enumeration	2DCuts	enumeration	TimeSeries	enumeration	SpatialSeries	enumeration	Lines	enumeration	Spectra
enumeration	3DCubes												
enumeration	2DCuts												
enumeration	TimeSeries												
enumeration	SpatialSeries												
enumeration	Lines												
enumeration	Spectra												
Used by	Element SimulationProduct												
Source	<pre><xsd:simpleType name="enumProduct"> <xsd:annotation> <xsd:documentation xml:lang="en">Product type of the simulation results</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="3DCubes"/> <xsd:enumeration value="2DCuts"/> <xsd:enumeration value="TimeSeries"/> <xsd:enumeration value="SpatialSeries"/> <xsd:enumeration value="Lines"/> <xsd:enumeration value="Spectra"/> </xsd:restriction> </xsd:simpleType></pre>												

Simple Type enumSimulationType

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Identifiers for the characterization of the numerical scheme used in the simulation.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Hybrid	A numerical scheme simulating ions as particles and electrons as a fluid.
	enumeration	MHD	A numerical scheme simulating the plasma as a fluid.
	enumeration	PIC	A numerical scheme simulating ions and electrons as macroparticles.
	enumeration	Test_Particle	A numerical scheme simulating the motion of charged particles in a prescribed field.
	enumeration	Paraboloid	
Used by	Element	SimulationType	
Source	<pre> <xsd:simpleType name="enumSimulationType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the characterization of the numerical scheme used in the simulation.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Hybrid"> <xsd:annotation> <xsd:documentation xml:lang="en">A numerical scheme simulating ions as particles and electrons as a fluid.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="MHD"> <xsd:annotation> <xsd:documentation xml:lang="en">A numerical scheme simulating the plasma as a fluid.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="PIC"> <xsd:annotation> <xsd:documentation xml:lang="en">A numerical scheme simulating ions and electrons as macroparticles.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Test_Particle"> <xsd:annotation> <xsd:documentation xml:lang="en">A numerical scheme simulating the motion of charged particles in a prescribed field.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Paraboloid"> <xsd:annotation> <xsd:documentation xml:lang="en"> </xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

Simple Type enumYN

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Either Yes or No		
Diagram			
Type	restriction of xsd:string		

Facets	enumeration	Yes
	enumeration	No
Used by	Element	TemporalDependence
Source	<pre><xsd:simpleType name="enumYN" > <xsd:annotation> <xsd:documentation xml:lang="en">Either Yes or No</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Yes"/> <xsd:enumeration value="No"/> </xsd:restriction> </xsd:simpleType></pre>	

Simple Type ImpexSavedQuantities

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	
Type	union of(enumFieldQuantity, enumParticleQuantity, enumMixedQuantity, enumWaveQuantity, enumProduct)
Used by	Element SavedQuantity
Source	<pre><xsd:simpleType name="ImpexSavedQuantities" > <xsd:union memberTypes="enumFieldQuantity enumParticleQuantity enumMixedQuantity enumWaveQuantity enumProduct" /> </xsd:simpleType></pre>

Simple Type enumSymmetry

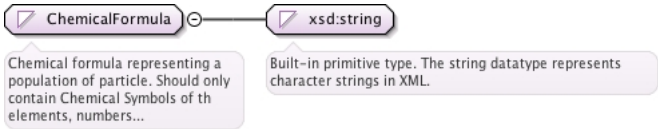
Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	List of possible spatial symmetries		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	None	No Symmetry.
	enumeration	Axial	Axial symmetry.
	enumeration	Plane	Symmetry across a plane.
	enumeration	Central	Central Symmetry.
Used by	Element	Symmetry	
Source	<pre><xsd:simpleType name="enumSymmetry"> <xsd:annotation> <xsd:documentation xml:lang="en">List of possible spatial symmetries</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="None"> <xsd:annotation> <xsd:documentation xml:lang="en">No Symmetry.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>		

```

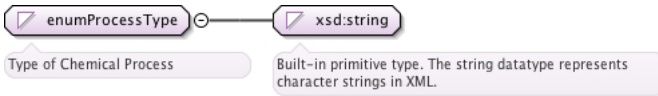
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Axial">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Axial symmetry.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Plane">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Symmetry across a plane.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Central">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Central Symmetry.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type ChemicalFormula

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Chemical formula representing a population of particle. Should only contain Chemical Symbols of th elements, numbers and Parenthesis: exemple O, O2, CO2,... Charge should be specified elsewhere. Note: use small case x, for undefined number of a given atom in a molecule (e.g. NOx), and W for water group if needed (H2O, OH, H3O,...).
Diagram	
Type	xsd:string
Used by	Element ChemicalFormula
Source	<pre> <xsd:simpleType name="ChemicalFormula"> <xsd:annotation> <xsd:documentation>Chemical formula representing a population of particle. Should only contain Chemical Symbols of th elements, numbers and Parenthesis: exemple O, O2, CO2,... Charge should be specified elsewhere. Note: use small case x, for undefined number of a given atom in a molecule (e.g. NOx), and W for water group if needed (H2O, OH, H3O,...).</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"/> </xsd:simpleType> </pre>

Simple Type enumProcessType

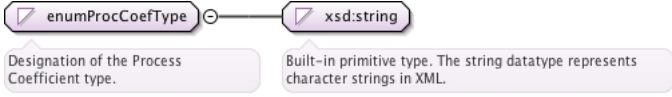
Namespace	http://impex-fp7.oeaw.ac.at												
Annotations	Type of Chemical Process												
Diagram													
Type	restriction of xsd:string												
Facets	<table border="1"> <tr> <td>enumeration</td> <td>ChargeExchange</td> <td>Chemical process involving a charge transfer from an ion (which becomes neutral) to a neutral (which becomes ionized).</td> </tr> <tr> <td>enumeration</td> <td>ElectronImpact</td> <td>Chemical process by which a neutral is ionized thanks to the energy from the impact of an electron.</td> </tr> <tr> <td>enumeration</td> <td>PhotoIonization</td> <td>Chemical process by which a neutral is ionized thanks to the energy from a photon.</td> </tr> <tr> <td>enumeration</td> <td>DissociativeRecombination</td> <td>Chemical process by which an ion is neutralized by capturing an electron, and splits in two new neutral species.</td> </tr> </table>	enumeration	ChargeExchange	Chemical process involving a charge transfer from an ion (which becomes neutral) to a neutral (which becomes ionized).	enumeration	ElectronImpact	Chemical process by which a neutral is ionized thanks to the energy from the impact of an electron.	enumeration	PhotoIonization	Chemical process by which a neutral is ionized thanks to the energy from a photon.	enumeration	DissociativeRecombination	Chemical process by which an ion is neutralized by capturing an electron, and splits in two new neutral species.
enumeration	ChargeExchange	Chemical process involving a charge transfer from an ion (which becomes neutral) to a neutral (which becomes ionized).											
enumeration	ElectronImpact	Chemical process by which a neutral is ionized thanks to the energy from the impact of an electron.											
enumeration	PhotoIonization	Chemical process by which a neutral is ionized thanks to the energy from a photon.											
enumeration	DissociativeRecombination	Chemical process by which an ion is neutralized by capturing an electron, and splits in two new neutral species.											
Used by	Element ProcessType												
Source	<pre> <xsd:simpleType name="enumProcessType"> <xsd:annotation> <xsd:documentation xml:lang="en">Type of Chemical Process</xsd:documentation> </pre>												

```

</xsd:annotation>
<xsd:restriction base="xsd:string">
  <xsd:enumeration value="ChargeExchange">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Chemical process involving a charge transfer from an ion
      (which becomes neutral) to a neutral (which becomes ionized).</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="ElectronImpact">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Chemical process by which a neutral is ionized thanks to
      the energy from the impact of an electron.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="PhotoIonization">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Chemical process by which a neutral is ionized thanks to
      the energy from a photon.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="DissociativeRecombination">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Chemical process by which an ion is neutralized by
      capturing an electron, and splits in two new neutral species.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Simple Type enumProcCoeftType

Namespace	http://impex-fp7.oeaw.ac.at		
Annotations	Designation of the Process Coefficient type.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	CrossSection	Cross section of the reaction, when the reaction implies the collision of two particles.
	enumeration	Frequency	Reaction frequency: number of reaction per unit of time.
	enumeration	Rate	Reaction rate: reaction production per unit of time.
	enumeration	Other	Anything else.
Used by	Element	ProcessCoeftType	
Source	<pre> <xsd:simpleType name="enumProcCoeftType"> <xsd:annotation> <xsd:documentation xml:lang="en">Designation of the Process Coefficient type.</ xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="CrossSection"> <xsd:annotation> <xsd:documentation xml:lang="en">Cross section of the reaction, when the reaction implies the collision of two particles.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Frequency"> <xsd:annotation> <xsd:documentation xml:lang="en">Reaction frequency: number of reaction per unit of time.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Rate"> <xsd:annotation> <xsd:documentation xml:lang="en">Reaction rate: reaction production per unit of time.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Other"> <xsd:annotation> <xsd:documentation xml:lang="en">Anything else.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		

```
</xsd:restriction>
</xsd:simpleType>
```

Simple Type enumImpexQuantity

Namespace	http://impex-fp7.oeaw.ac.at				
Annotations	Quantities for the description of IMPEX elements.				
Diagram					
Type	restriction of xsd:string				
Facets	<table border="0"> <tr> <td>enumeration</td> <td>SolarUVFlux</td> </tr> <tr> <td>enumeration</td> <td>IMFClockAngle</td> </tr> </table>	enumeration	SolarUVFlux	enumeration	IMFClockAngle
enumeration	SolarUVFlux				
enumeration	IMFClockAngle				
Source	<pre><xsd:simpleType name="enumImpexQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">Quantities for the description of IMPEX elements.</ xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="SolarUVFlux"/> <xsd:enumeration value="IMFClockAngle"/> </xsd:restriction> </xsd:simpleType></pre>				

Simple Type PopulationID

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Unique Name of a particle population, for references.
Diagram	
Type	xsd:string
Used by	Elements Particle/PopulationID, PopulationID
Source	<pre><xsd:simpleType name="PopulationID"> <xsd:annotation> <xsd:documentation xml:lang="en">Unique Name of a particle population, for references.</ xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"/> </xsd:simpleType></pre>

Element Group(s)

Element Group CutsDescription

Namespace	http://impex-fp7.oeaw.ac.at
Annotations	Substitution group to use with 3D simulation products
Diagram	
Used by	Complex Type SpatialDescription
Model	PlaneNormalVector, PlanePoint
Children	PlaneNormalVector, PlanePoint
Source	<pre><xsd:group name="CutsDescription"> <xsd:annotation> <xsd:documentation>Substitution group to use with 3D simulation products</xsd:documentation> </xsd:annotation> <xsd:sequence></pre>

```
<xsd:element ref="PlaneNormalVector" minOccurs="1" maxOccurs="1" />
<xsd:element ref="PlanePoint" />
</xsd:sequence>
</xsd:group>
```

Element Group CubesDescription

Namespace	http://impex-fp7.oeaw.ac.at
Diagram	<pre> graph LR CubesDescription --> S((Sequence)) S --> RegionBegin[RegionBegin] S --> RegionEnd[RegionEnd] RegionBegin --- TS1[Type FloatSequence] RegionEnd --- TS2[Type FloatSequence] </pre>
Used by	Complex Type SpatialDescription
Model	RegionBegin , RegionEnd
Children	RegionBegin, RegionEnd
Source	<pre><xsd:group name="CubesDescription"> <xsd:sequence> <xsd:element ref="RegionBegin" minOccurs="1" maxOccurs="1" /> <xsd:element ref="RegionEnd" minOccurs="1" maxOccurs="1" /> </xsd:sequence> </xsd:group></pre>

Namespace: ""

Attribute(s)

Attribute Spase / @lang

Namespace	No namespace
Type	xsd:string
Properties	default: en
Used by	Complex Type Spase
Source	<pre><xsd:attribute name="lang" type="xsd:string" default="en" /></pre>

Attribute DiagnosisTimeStep / @TimeStart

Namespace	No namespace
Type	xsd:time
Properties	content: simple
Used by	Complex Type DiagnosisTimeStep
Source	<pre><xsd:attribute name="TimeStart" type="xsd:time" /></pre>

Attribute DiagnosisTimeStep / @Duration

Namespace	No namespace
Type	xsd:duration
Properties	content: simple
Used by	Complex Type DiagnosisTimeStep
Source	<pre><xsd:attribute name="Duration" type="xsd:duration" /></pre>

Attribute InputValue / @Units

Namespace	No namespace
Annotations	A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System

	<p>of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see http://www.bipm.fr/) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols and those for common derived units can be found at: http://www.bipm.fr/en/si/derived_units/2-2-2.html</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type InputValue
Source	<pre><xsd:attribute name="Units" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see http://www.bipm.fr/) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: http:// www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols> and those for common derived units can be found at: http://www.bipm.fr/en/si/derived_units/2-2-2.html</xsd:documentation> </xsd:annotation> </xsd:attribute></pre>

Attribute InputValue / @UnitsConversion

Namespace	No namespace
Annotations	<p>The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type InputValue
Source	<pre><xsd:attribute name="UnitsConversion" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number > x", where "number" is a numerical value and "x" is the appropriate SI units. The basic SI units are Enumerated: m (meter), N (newton), kg (kilogram), Pa (pascal), s (second), Hz (hertz), A (ampere), V (volt), K (kelvin), W (watt), rad (radian), J (joule), sr (steradian), C (coulomb), T (tesla), ohm (ohm), mho (mho or seimens), H (henry), and F (farad). Two useful units which are not SI units are: degree (angle), and unitless (no units). An example is: "1.0E-5>T" which converts the units, presumable nT, to tesla. Another example is: "1.0e+3>m/s" which converts a velocity expressed in kilometers per second to meters per second.</xsd:documentation> </xsd:annotation> </xsd:attribute></pre>