

Schema documentation for spase-1_3_0.xsd

19 november 2010

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Namespace: "http://www.spase-group.org/data/schema"

Schemas

Main schema spase-1_3_0.xsd

Namespace	http://www.spase-group.org/data/schema
Properties	attribute form default: unqualified element form default: qualified
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Elements

Element Spase

Namespace	http://www.spase-group.org/data/schema										
Diagram	<pre> classDiagram class Spase { @lang : xsd:string @Version : xsd:string <<ResourceEntity>> *--> Spase } Spase < -- ResourceEntity ResourceEntity < -- Version </pre>										
Type	Spase										
Properties	content: complex										
Model	Version , ResourceEntity*										
Children	ResourceEntity, Version										
Instance	<Spase lang="en"> <Version>{1,1}</Version> <ResourceEntity>{0,unbounded}</ResourceEntity> </Spase>										
Attributes	<table border="1"> <thead> <tr> <th>QName</th> <th>Type</th> <th>Fixed</th> <th>Default</th> <th>Use</th> </tr> </thead> <tbody> <tr> <td>lang</td> <td>xsd:string</td> <td></td> <td>en</td> <td>optional</td> </tr> </tbody> </table>	QName	Type	Fixed	Default	Use	lang	xsd:string		en	optional
QName	Type	Fixed	Default	Use							
lang	xsd:string		en	optional							
Source	<xsd:element name="Spase" type="Spase" />										
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd										

Element Version

Namespace	http://www.spase-group.org/data/schema
Annotations	<p>Indicates the release identifier. When used to indicate the release of the SPASE data model, it is 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	<pre> classDiagram class Version { @xsd:string } </pre>
Type	xsd:string

Properties	content: simple
Used by	Complex Type Spase
Source	<pre><xsd:element name="Version" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Indicates the release identifier. When used to indicate the release of the SPASE data model, it is 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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ResourceEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class substitutions { Catalog DisplayData Document Extension Granule Instrument NumericalData Observatory Person Registry Repository Service } substitutions < -- Catalog substitutions < -- DisplayData substitutions < -- Document substitutions < -- Extension substitutions < -- Granule substitutions < -- Instrument substitutions < -- NumericalData substitutions < -- Observatory substitutions < -- Person substitutions < -- Registry substitutions < -- Repository substitutions < -- Service </pre>
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> • Catalog • DisplayData • NumericalData • Document • Granule • Instrument • Observatory

	<ul style="list-style-type: none"> • Person • Registry • Repository • Service • Extension
Used by	Complex Type Spase
Source	<xsd:element name="ResourceEntity" abstract="true"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Catalog

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Catalog { ResourceID : xsd:string ResourceHeader : ResourceHeader AccessInformation : AccessInformation ProviderResourceName : xsd:string ProviderVersion : xsd:string InstrumentID : xsd:string PhenomenonType : enumPhenomenonType TimeSpan : TimeSpan Caveats : xsd:string Keyword : xsd:string InputResourceID : xsd:string PhysicalParameter : PhysicalParameter Extension : xsd:string } Catalog < -- ResourceEntity </pre>
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* , PhysicalParameter* , Extension*
Children	AccessInformation, Caveats, Extension, InputResourceID, InstrumentID, Keyword, PhenomenonType, PhysicalParameter, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, TimeSpan

Instance	<pre><Catalog> <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> <PhysicalParameter>{0,unbounded}</PhysicalParameter> <Extension>{0,unbounded}</Extension> </Catalog></pre>
Source	<xsd:element name="Catalog" type="Catalog" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

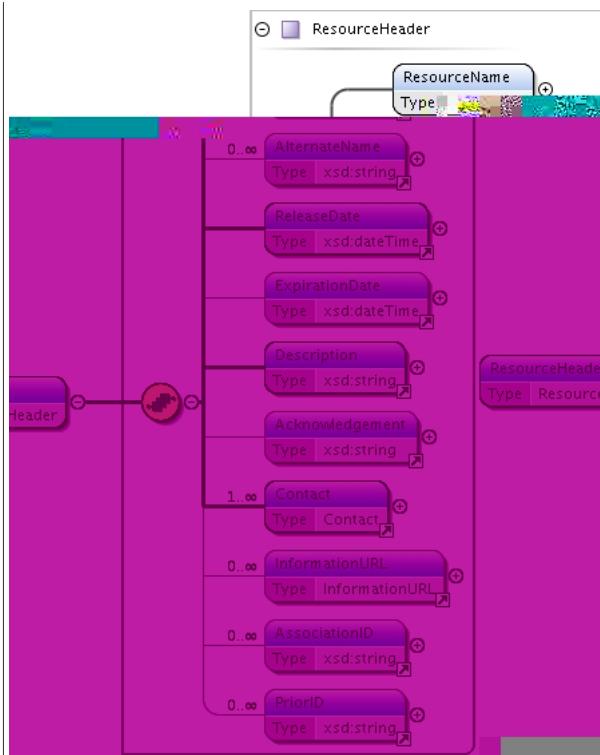
Element ResourceID

Namespace	http://www.spase-group.org/data/schema
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
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, Document, Granule, Instrument, NumericalData, Observatory, Person, Registry, Repository, Service
Source	<pre><xsd:element name="ResourceID" type="xsd:string"> <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:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ResourceHeader

Namespace	http://www.spase-group.org/data/schema
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Diagram



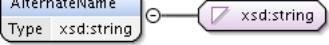
Type	ResourceHeader
Properties	content: complex
Used by	Complex Types Catalog, DisplayData, Document, Instrument, NumericalData, Observatory, Registry, Repository, Service
Model	ResourceName , AlternateName*, ReleaseDate , ExpirationDate{0,1} , Description , Acknowledgement{0,1} , Contact+ , InformationURL* , AssociationID* , PriorID*
Children	Acknowledgement, AlternateName, AssociationID, Contact, Description, ExpirationDate, InformationURL, PriorID, ReleaseDate, ResourceName
Instance	<pre><ResourceHeader> <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> <AssociationID>{0,unbounded}</AssociationID> <PriorID>{0,unbounded}</PriorID> </ResourceHeader></pre>
Source	<code><xsd:element name="ResourceHeader" type="ResourceHeader" /></code>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ResourceName

Namespace	http://www.spase-group.org/data/schema
Annotations	A short textual description of a resource which may be useful when read by a person.
Diagram	
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</pre>

	which may be useful when read by a person.</xsd:documentation>
</xsd:annotation>	
</xsd:element>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element AlternateName

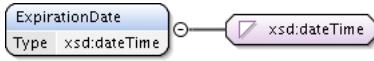
Namespace	http://www.spase-group.org/data/schema
Annotations	An alternative or shortened name used to refer to a resource. This includes acronyms, expanded names or synonym for a resource.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type ResourceHeader
Source	<pre><xsd:element 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 synonym for a resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ReleaseDate

Namespace	http://www.spase-group.org/data/schema
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	
Type	xsd:dateTime
Properties	content: simple
Used by	Complex Types Granule, 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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ExpirationDate

Namespace	http://www.spase-group.org/data/schema
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Description

Namespace	http://www.spase-group.org/data/schema
Annotations	A detailed description of the resource which 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 it.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessURL, InformationURL, PhysicalParameter, ResourceHeader, Structure
Source	<pre><xsd:element name="Description" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A detailed description of the resource which 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 it.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Acknowledgement

Namespace	http://www.spase-group.org/data/schema
Annotations	The individual, group or organization which should be acknowledged when the data is used in or contributes to a presentation or publication.
Diagram	
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Contact

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Contact { PersonID : xsd:string Role : enumRole } Contact < -- Contact </pre>
Type	Contact
Properties	content: complex
Used by	Complex Type ResourceHeader
Model	PersonID , Role+
Children	PersonID, Role
Instance	<Contact> <PersonID>{1,1}</PersonID> <Role>{1,unbounded}</Role> </Contact>
Source	<xsd:element name="Contact" type="Contact" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element PersonID

Namespace	http://www.spase-group.org/data/schema
Annotations	The identifier assigned to a Person description.
Diagram	<pre> classDiagram class PersonID { xsd:string } PersonID < -- PersonID </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type Contact
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Role

Namespace	http://www.spase-group.org/data/schema									
Annotations	The assigned or assumed function or position of an individual.									
Diagram	<pre> classDiagram class Role { enumRole } Role < -- Role </pre>									
Type	enumRole									
Properties	content: simple									
Facets	<table border="1"> <tr> <td>enumeration</td> <td>ArchiveSpecialist</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>CoInvestigator</td> <td>An individual who is a scientific peer and major participant for an investigation.</td> </tr> <tr> <td>enumeration</td> <td>Contributor</td> <td>An entity responsible for making contributions</td> </tr> </table>	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 for an investigation.	enumeration	Contributor	An entity responsible for making contributions
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 for 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	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	
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd	

Element InformationURL

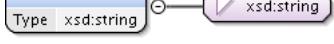
Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class InformationURL { Name : xsd:string URL : xsd:string Description : xsd:string } InformationURL "1" --> "1" InformationURL : InformationURL </pre>
Type	InformationURL
Properties	content: complex
Used by	Complex Type ResourceHeader
Model	Name{0,1} , URL , Description{0,1}
Children	Description, Name, URL
Instance	<pre> <InformationURL> <Name>{0,1}</Name> <URL>{1,1}</URL> <Description>{0,1}</Description> </pre>

	</InformationURL>
Source	<xsd:element name="InformationURL" type="InformationURL"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

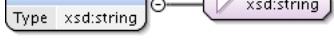
Element Name

Namespace	http://www.spase-group.org/data/schema
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, PhysicalParameter
Source	<pre><xsd:element name="Name" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A language unit by which a person or thing is known.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element URL

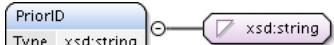
Namespace	http://www.spase-group.org/data/schema
Annotations	Uniform Resource Locator (URL) is the global address of documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where 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, Granule, InformationURL
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element AssociationID

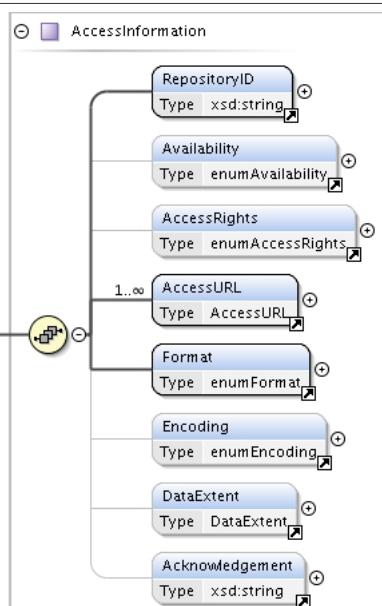
Namespace	http://www.spase-group.org/data/schema
Annotations	The resource identifier for a resource with which this resource is closely associated.
Diagram	
Type	xsd:string

Properties	content: simple
Used by	Complex Type ResourceHeader
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element PriorID

Namespace	http://www.spase-group.org/data/schema
Annotations	The resource identifier for a resource that is superceded or replaced by a resource.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Granule, ResourceHeader
Source	<xsd:element name="PriorID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The resource identifier for a resource that is superceded or replaced by a resource.</xsd:documentation> </xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element AccessInformation

Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	AccessInformation
Properties	content: complex
Used by	Complex Types Catalog, DisplayData, Document, NumericalData
Model	RepositoryID , Availability{0,1} , AccessRights{0,1} , AccessURL+ , Format , Encoding{0,1} , DataExtent{0,1} , Acknowledgement{0,1}
Children	AccessRights, AccessURL, Acknowledgement, Availability, DataExtent, Encoding, Format, RepositoryID
Instance	<AccessInformation> <RepositoryID>{1,1}</RepositoryID>

	<pre><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>
Source	<xsd:element name="AccessInformation" type="AccessInformation" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element RepositoryID

Namespace	http://www.spase-group.org/data/schema
Annotations	
Diagram	<pre>classDiagram class RepositoryID { <<xsd:string>> } RepositoryID < -- xsd:string</pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type AccessInformation
Source	<pre><xsd:element name="RepositoryID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en"> </xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Availability

Namespace	http://www.spase-group.org/data/schema						
Annotations	An indication of the method or service which may be used to access the resource.						
Diagram	<pre>classDiagram class Availability { <<enumAvailability>> } Availability < -- enumAvailability</pre>						
Type	enumAvailability						
Properties	content: simple						
Facets	<table> <tr> <td>enumeration</td> <td>Offline</td> <td>Not directly accessible electronically. This includes resources which may be moved to an online 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 be moved to an online status in response to a given request.	enumeration	Online	Directly accessible electronically.
enumeration	Offline	Not directly accessible electronically. This includes resources which may be moved to an online 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>						
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd						

Element AccessRights

Namespace	http://www.spase-group.org/data/schema
Annotations	Permissions granted or denied by the host of a product to allow other users to access and use the resource.
Diagram	<pre>classDiagram class AccessRights { <<enumAccessRights>> } AccessRights < -- enumAccessRights</pre>
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	<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>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd		

Element AccessURL

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class AccessURL { Name : xsd:string URL : xsd:string Description : xsd:string Language : xsd:string } AccessURL < -- AccessURL </pre>
Type	AccessURL
Properties	content: complex
Used by	Complex Types AccessInformation, Service
Model	Name{0,1} , URL , Description{0,1} , Language{0,1}
Children	Description, Language, Name, URL
Instance	<AccessURL> <Name>{0,1}</Name> <URL>{1,1}</URL> <Description>{0,1}</Description> <Language>{0,1}</Language> </AccessURL>
Source	<xsd:element name="AccessURL" type="AccessURL" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Language

Namespace	http://www.spase-group.org/data/schema
Annotations	The two character indicator of language selected from the ISO 630-1 codes for the representation of names of languages.
Diagram	<pre> classDiagram class Language { xsd:string } Language < -- xsd:string </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type AccessURL
Source	<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>

Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Element Format

Namespace	http://www.spase-group.org/data/schema	
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	<pre> classDiagram class Format { <<Format>> <<Type enumFormat>> } class enumFormat { <<enumFormat>> } Format "1" -- "0..1" enumFormat </pre>	
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).
		Binary A direct representation of the bits which may be stored in memory on a computer.
		CDF Common Data Format (CDF). A binary storage format developed at Goddard Space Flight Center (GSFC).
		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.
		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.
		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.
		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.
		GIF Graphic Interchange Format (GIF) first introduced in 1987 by CompuServe. GIF uses LZW compression and images are limited to 256 colours.
		HDF Hierarchical Data Format
		HDF4 Hierarchical Data Format, Version 4
		HDF5 Hierarchical Data Format, Version 5
		HTML A text file containing structured information represented in the HyperText Mark-up Language (HTML). See < http://www.w3.org/MarkUp/ >
		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).
		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 Centers Network Common Data Form (NetCDF). A self-describing data 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	Text	ASCII text
enumeration	TIFF	A binary format for still pictures. Tagged Image Format File (TIFF). Originally developed by Aldus and now controlled by Adobe.
enumeration	UDF	Universal Data Format (UDF). The Optical Technology Storage Associations Universal Disk Format, based on ISO 13346. See http://www.osta.org/specs/index.htm
enumeration	VOTable	A proposed XML 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	<xsd:element name="Format" type="enumFormat">	

	<pre> <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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Encoding

Namespace	http://www.spase-group.org/data/schema		
Annotations	A set of unambiguous rules that establishes the representation of information within a file.		
Diagram	<pre> classDiagram class Encoding { Type enumEncoding } class enumEncoding Encoding "1" -- "0..1" enumEncoding </pre>		
Type	enumEncoding		
Properties	content: simple		
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	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	BZIP2	An open standard algorithm by Julian Seward using Burrows-Wheeler block sorting and Huffman coding. See < http://www.bzip.org/ >
	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	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.
Used by	Complex Type AccessInformation		
	<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>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd		

Element DataExtent

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class DataExtent { <<DataExtent>> <<Type DataExtent>> +Quantity : xsd:double +Units : xsd:string +Per : xsd:duration } DataExtent < -- DataExtent </pre>
Type	DataExtent
Properties	content: complex
Used by	Complex Types AccessInformation, Granule
Model	Quantity , Units{0,1} , Per{0,1}
Children	Per, Quantity, Units
Instance	<DataExtent> <Quantity>{1,1}</Quantity> <Units>{0,1}</Units> <Per>{0,1}</Per> </DataExtent>
Source	<xsd:element name="DataExtent" type="DataExtent" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Quantity

Namespace	http://www.spase-group.org/data/schema
Annotations	A value that describes a characteristic of a system.
Diagram	<pre> classDiagram class Quantity { <<Quantity>> <<Type xsd:double>> } Quantity < -- xsd:double </pre>
Type	xsd:double
Properties	content: simple
Used by	Complex Type DataExtent
Source	<xsd:element name="Quantity" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">A value that describes a characteristic of a system.</xsd:documentation> </xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Units

Namespace	http://www.spase-group.org/data/schema
Annotations	<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</p>

	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, PhysicalParameter, PolarAngleRange, 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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Per

Namespace	http://www.spase-group.org/data/schema
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ProviderResourceName

Namespace	http://www.spase-group.org/data/schema
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, NumericalData
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ProviderVersion

Namespace	http://www.spase-group.org/data/schema
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, NumericalData
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element InstrumentID

Namespace	http://www.spase-group.org/data/schema
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element PhenomenonType

Namespace	http://www.spase-group.org/data/schema
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 earths 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 which involves a burst of plasma which is ejected from the Sun into the interplanetary medium.
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	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 CMEs, that sweep some galactic cosmic rays away from Earth.
enumeration	GeomagneticStorm	A magnetospheric disturbance typically defined by variations in the horizontal component of the Earths 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 antisunward 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	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	Substorm	A process by which plasma in the magnetotail becomes energized at a fast rate.
Used by	Complex Type	Catalog	
Source	<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>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd		

Element TimeSpan

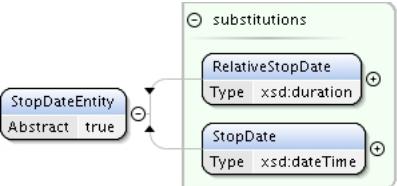
Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class TimeSpan { <<TimeSpan>> StartDate : xsd:dateTime StopDateEntity : Abstract &gt; true Note : xsd:string } TimeSpan < -- TimeSpan TimeSpan --> StartDate TimeSpan --> StopDateEntity TimeSpan --> Note </pre>
Type	TimeSpan
Properties	content: complex
Used by	Complex Types Catalog, TemporalDescription
Model	StartDate , StopDateEntity , Note*
Children	Note, StartDate, StopDateEntity
Instance	<pre> <TimeSpan> <StartDate>{1,1}</StartDate> <StopDateEntity>{1,1}</StopDateEntity> <Note>{0..unbounded}</Note> </TimeSpan> </pre>

Source	<xsd:element name="TimeSpan" type="TimeSpan" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element StartDate

Namespace	http://www.spase-group.org/data/schema
Annotations	The specification of a starting point in time.
Diagram	
Type	xsd:dateTime
Properties	content: simple
Used by	Complex Types Granule, TimeSpan
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element StopDateEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> RelativeStopDate StopDate
Used by	Complex Type TimeSpan
Source	<xsd:element name="StopDateEntity" abstract="true"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Note

Namespace	http://www.spase-group.org/data/schema
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 Type TimeSpan
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Caveats

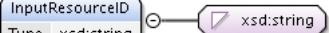
Namespace	http://www.spase-group.org/data/schema
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Annotations	Information which may be important in the avoidance of misuse of the resource. This includes things such as instrument maladies, corruption or contamination.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, Instrument, NumericalData, PhysicalParameter
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 misuse of the resource. This includes things such as instrument maladies, corruption or contamination.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Keyword

Namespace	http://www.spase-group.org/data/schema
Annotations	A word or phrase that is relevant to the resource but does not exist in other documentary information.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, Document, NumericalData
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

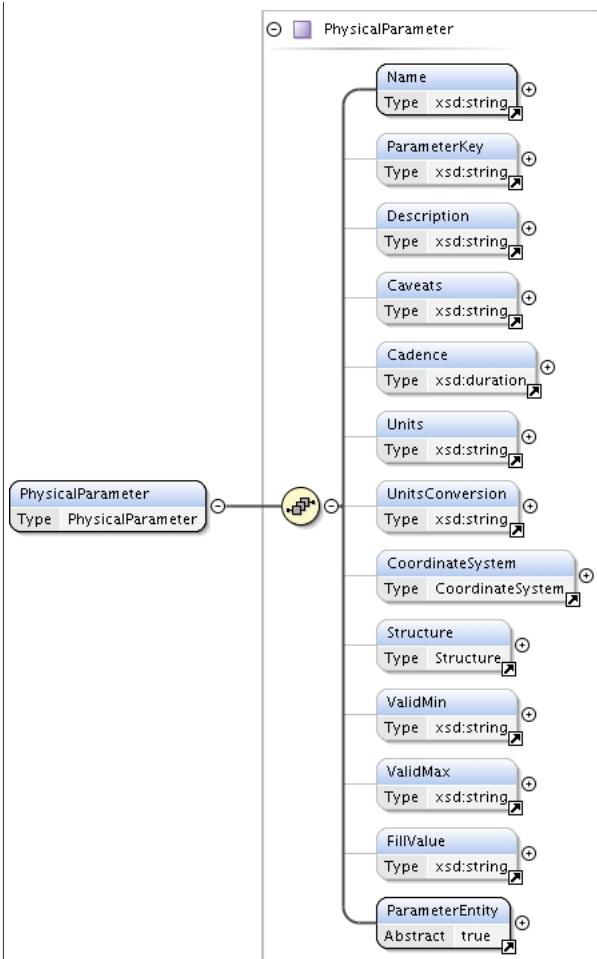
Element InputResourceID

Namespace	http://www.spase-group.org/data/schema
Annotations	The resource identifier for a resource which was used to generate this resource.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, Document, NumericalData
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element PhysicalParameter

Namespace	http://www.spase-group.org/data/schema
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Diagram



Type	PhysicalParameter
Properties	content: complex
Used by	Complex Types Catalog, DisplayData, NumericalData
Model	Name , ParameterKey{0,1} , Description{0,1} , Caveats{0,1} , Cadence{0,1} , Units{0,1} , UnitsConversion{0,1} , CoordinateSystem{0,1} , Structure{0,1} , ValidMin{0,1} , ValidMax{0,1} , FillValue{0,1} , ParameterEntity
Children	Cadence, Caveats, CoordinateSystem, Description, FillValue, Name, ParameterEntity, ParameterKey, Structure, Units, UnitsConversion, ValidMax, ValidMin
Instance	<pre><PhysicalParameter> <Name>{1,1}</Name> <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> <Structure>{0,1}</Structure> <ValidMin>{0,1}</ValidMin> <ValidMax>{0,1}</ValidMax> <FillValue>{0,1}</FillValue> <ParameterEntity>{1,1}</ParameterEntity> </PhysicalParameter></pre>
Source	<code><xsd:element name="PhysicalParameter" type="PhysicalParameter" /></code>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ParameterKey

Namespace	http://www.spase-group.org/data/schema
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.
Diagram	<pre> classDiagram class ParameterKey { <<ParameterKey>> <<xsd:string>> } ParameterKey "1" -- "2" xsd:string </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Types Element, PhysicalParameter
Source	<pre> <xsd:element name="ParameterKey" type="xsd:string"> <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.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Cadence

Namespace	http://www.spase-group.org/data/schema
Annotations	The time interval between the start of successive measurements.
Diagram	<pre> classDiagram class Cadence { <<Cadence>> <<xsd:duration>> } Cadence "1" -- "2" xsd:duration </pre>
Type	xsd:duration
Properties	content: simple
Used by	Complex Types PhysicalParameter, 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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element UnitsConversion

Namespace	http://www.spase-group.org/data/schema
Annotations	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, presumably nT, to tesla. Another example is: "1.0e-1>km/s" which converts a velocity expressed in meters per second to kilometers per second.
Diagram	<pre> classDiagram class UnitsConversion { <<UnitsConversion>> <<xsd:string>> } UnitsConversion "1" -- "2" xsd:string </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Types Element, PhysicalParameter
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) </xsd:documentation> </xsd:element> </pre>

	<p>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 seimons), 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, presumably nT, to tesla. Another example is: "1.0e-1>km/s" which converts a velocity expressed in meters per second to kilometers per second.</xsd:documentation></p> <pre></xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element CoordinateSystem

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class CoordinateSystem { CoordinateRepresentation CoordinateSystemName CoordinateSystem *--> CoordinateSystem } class CoordinateRepresentation { enumCoordinateRepresentation } class CoordinateSystemName { enumCoordinateSystemName } </pre>
Type	CoordinateSystem
Properties	content: complex
Used by	Complex Type PhysicalParameter
Model	CoordinateRepresentation{0,1} , CoordinateSystemName{0,1}
Children	CoordinateRepresentation, CoordinateSystemName
Instance	<pre><CoordinateSystem> <CoordinateRepresentation>{0,1}</CoordinateRepresentation> <CoordinateSystemName>{0,1}</CoordinateSystemName> </CoordinateSystem></pre>
Source	<xsd:element name="CoordinateSystem" type="CoordinateSystem"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element CoordinateRepresentation

Namespace	http://www.spase-group.org/data/schema									
Annotations	The method or form for specifying a given point in a given coordinate system									
Diagram	<pre> classDiagram class CoordinateRepresentation { enumCoordinateRepresentation } class enumCoordinateRepresentation CoordinateRepresentation *--> enumCoordinateRepresentation </pre>									
Type	enumCoordinateRepresentation									
Properties	content: simple									
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Cartesian</td> <td>A coordinate system in which the position of a point is determined by its distance from two or three mutually perpendicular axes.</td> </tr> <tr> <td>enumeration</td> <td>Cylindrical</td> <td>A system of curvilinear coordinates in which the position of a point in space is determined by its perpendicular distance from a given line, its distance from a selected reference plane perpendicular to this line, and its angular distance from a selected reference line when projected onto this plane.</td> </tr> <tr> <td>enumeration</td> <td>Spherical</td> <td>A system of curvilinear coordinates characterized by an azimuthal angle (longitude), a polar</td> </tr> </table>	enumeration	Cartesian	A coordinate system in which the position of a point is determined by its distance from two or three mutually perpendicular axes.	enumeration	Cylindrical	A system of curvilinear coordinates in which the position of a point in space is determined by its perpendicular distance from a given line, its distance from a selected reference plane perpendicular to this line, and its angular distance from a selected reference line when projected onto this plane.	enumeration	Spherical	A system of curvilinear coordinates characterized by an azimuthal angle (longitude), a polar
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enumeration	Cylindrical	A system of curvilinear coordinates in which the position of a point in space is determined by its perpendicular distance from a given line, its distance from a selected reference plane perpendicular to this line, and its angular distance from a selected reference line when projected onto this plane.								
enumeration	Spherical	A system of curvilinear coordinates characterized by an azimuthal angle (longitude), a polar								

	angle (latitude), and a distance (radius) from a point to the origin.
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 in a given coordinate system</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element CoordinateSystemName

Namespace	http://www.spase-group.org/data/schema																	
Annotations	Identifies the coordinate system in which the position, direction or observation has been expressed.																	
Diagram	<pre> classDiagram class CoordinateSystemName { <<enumCoordinateSystemName>> } class enumCoordinateSystemName { <<CoordinateSystemName>> } CoordinateSystemName "1" -- "1" enumCoordinateSystemName </pre>																	
Type	enumCoordinateSystemName																	
Properties	content: simple																	
Facets	<table border="1"> <tr> <td>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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.</td> </tr> </table>			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	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	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	GEI	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.
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		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	HCI	Heliographic Carrington Inertial.
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	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 Earths center. In this system, H (total horizontal component) = $\text{SQRT} (Bx^{**2} + By^{**2})$ 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 Earths rotation axis. If N is a unit vector from the Earths center to the north geographic pole, the signs of the X and Y axes are given by $Y = N \times Z$, $X = Y \times Z$. 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 Suns 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 Earths dipole axis, X axis is in plane of z axis and Earth-Sun line, positive sunward. See Russell, 1971.
enumeration	SpacecraftOrbitPlane	A coordinate system where X lies in the orbit plane normal to and in the direction of motion of the spacecraft, Z is normal to the orbit plane and Y completes the triad in a right-handed coordinate system.
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 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.
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>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd	

Element Structure

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Structure { <<Structure>> <<Type>> Structure } class Size { <<Size>> <<Type>> typeSequence } class Description { <<Description>> <<Type>> xsd:string } class Element { <<Element>> <<Type>> Element } Structure "1" -- "0..1" Size Structure "1" -- "0..1" Description Structure "1" -- "0..1" Element </pre>
Type	Structure
Properties	content: complex
Used by	Complex Type PhysicalParameter
Model	Size{0,1} , Description{0,1} , Element*
Children	Description, Element, Size
Instance	<pre> <Structure> <Size>{0,1}</Size> <Description>{0,1}</Description> <Element>{0,unbounded}</Element> </Structure> </pre>
Source	<code><xsd:element name="Structure" type="Structure"/></code>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Size

Namespace	http://www.spase-group.org/data/schema
Annotations	<p>The number of elements in each dimension of a multi-dimensional array. =1 for a scalar; = n for a vector, the number of vector elements; = (m, n, p ...), Note that the number of elements in the size of an N-dimensional array conveys the arrays 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</p>

	3 a size of 27 and rank n a size of 3^n .
Diagram	<pre> classDiagram class Size { <<Size>> <<Type typeSequence>> } class typeSequence { <<typeSequence>> } Size "1" --> "1" typeSequence </pre>
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. =1 for a scalar; = n for a vector, the number of vector elements; = (m, n, p ...), 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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Element

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Element { <<Element>> <<Type Element>> } class <composite> { class Name { <<Name>> <<Type xsd:string>> } class Component { <<Component>> <<Type enumComponent>> } class Index { <<Index>> <<Type typeSequence>> } class ParameterKey { <<ParameterKey>> <<Type xsd:string>> } class Units { <<Units>> <<Type xsd:string>> } class UnitsConversion { <<UnitsConversion>> <<Type xsd:string>> } class ValidMin { <<ValidMin>> <<Type xsd:string>> } class ValidMax { <<ValidMax>> <<Type xsd:string>> } class FillValue { <<FillValue>> <<Type xsd:string>> } } Element "1" --> "<composite>" </pre>
Type	Element
Properties	content: complex
Used by	Complex Type Structure
Model	Name , Component{0,1} , Index , ParameterKey{0,1} , Units{0,1} , UnitsConversion{0,1} , ValidMin{0,1} , ValidMax{0,1} , FillValue{0,1}
Children	Component, FillValue, Index, Name, ParameterKey, Units, UnitsConversion, ValidMax, ValidMin
Instance	<pre> <Element> <Name>{1,1}</Name> <Component>{0,1}</Component> <Index>{1,1}</Index> <ParameterKey>{0,1}</ParameterKey> <Units>{0,1}</Units> </pre>

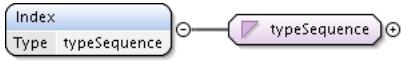
	<pre><UnitsConversion>{0,1}</UnitsConversion> <ValidMin>{0,1}</ValidMin> <ValidMax>{0,1}</ValidMax> <FillValue>{0,1}</FillValue> </Element></pre>
Source	<xsd:element name="Element" type="Element"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Component

Namespace	http://www.spase-group.org/data/schema																				
Annotations	A part of a multi-part entity, e.g., the components of a vector.																				
Diagram	<pre> classDiagram class Component { <<Component>> <<Type enumComponent>> } class enumComponent { <<enumComponent>> } Component "3" -- "1" enumComponent </pre>																				
Type	enumComponent																				
Properties	content: simple																				
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Phi</td> <td>The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)</td> </tr> <tr> <td>enumeration</td> <td>R</td> <td>The component of a vector in the radial direction from the center of the coordinate system.</td> </tr> <tr> <td>enumeration</td> <td>Theta</td> <td>For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole. Mathematically: Theta = arctan(sqrt(x^2 + y^2)/z)</td> </tr> <tr> <td>enumeration</td> <td>X</td> <td>The component of a vector along the X-axis in a cartesian coordinate system.</td> </tr> <tr> <td>enumeration</td> <td>Y</td> <td>The component of a vector along the Y-axis in a cartesian coordinate system.</td> </tr> <tr> <td>enumeration</td> <td>Z</td> <td>The component of a vector along the Z-axis in a cartesian coordinate system.</td> </tr> </table>			enumeration	Phi	The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)	enumeration	R	The component of a vector in the radial direction from the center of the coordinate system.	enumeration	Theta	For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole. Mathematically: Theta = arctan(sqrt(x^2 + y^2)/z)	enumeration	X	The component of a vector along the X-axis in a cartesian coordinate system.	enumeration	Y	The component of a vector along the Y-axis in a cartesian coordinate system.	enumeration	Z	The component of a vector along the Z-axis in a cartesian coordinate system.
enumeration	Phi	The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)																			
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enumeration	Z	The component of a vector along the Z-axis in a cartesian coordinate system.																			
Used by	Complex Type	Element																			
Source	<pre><xsd:element name="Component" type="enumComponent"> <xsd:annotation> <xsd:documentation xml:lang="en">A part of a multi-part entity, e.g., the components of a vector.</xsd:documentation> </xsd:annotation> </xsd:element></pre>																				
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd																				

Element Index

Namespace	http://www.spase-group.org/data/schema
Annotations	The location of an item in an array or vector. An index can be multivalued to represent the location in a multidimensional object.

Diagram	
Type	typeSequence
Properties	content: simple
Used by	Complex Type Element
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.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ValidMin

Namespace	http://www.spase-group.org/data/schema
Annotations	The smallest legitimate value.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Element, PhysicalParameter
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ValidMax

Namespace	http://www.spase-group.org/data/schema
Annotations	The largest legitimate value.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Element, PhysicalParameter
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element FillValue

Namespace	http://www.spase-group.org/data/schema
Annotations	A value that indicates that a quantity is undefined.
Diagram	
Type	xsd:string
Properties	content: simple

Used by	Complex Types Element, PhysicalParameter
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ParameterEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class ParameterEntity { <<Abstract true>> } class SubstitutionGroup { <<substitutions>> } class Measured { <<Measured>> Type Measured } class Support { <<Support>> Type Support } ParameterEntity < -- Measured ParameterEntity < -- Support Measured < -- SubstitutionGroup Support < -- SubstitutionGroup </pre>
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> • Measured • Support
Used by	Complex Type PhysicalParameter
Source	<xsd:element name="ParameterEntity" abstract="true"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Extension

Namespace	http://www.spase-group.org/data/schema
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	<pre> classDiagram class Extension { <<Extension>> } class SubstitutionGroup { <<Substitution Group>> } class ResourceEntity { <<ResourceEntity>> Abstract true } Extension < -- SubstitutionGroup SubstitutionGroup < -- ResourceEntity </pre>
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> • ResourceEntity
Used by	Complex Types Catalog, DisplayData, Granule, Instrument, NumericalData, Observatory, Person, Registry, Repository, Service
Model	ANY element from ANY namespace OTHER than 'http://www.spase-group.org/data/schema'
Source	<pre><xsd:element name="Extension" substitutionGroup="ResourceEntity"> <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:complexType> <xsd:sequence> <xsd:any namespace="##other" processContents="lax" minOccurs="0" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType> </xsd:element></pre>

	<pre> </xsd:sequence> </xsd:complexType> </xsd:element> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Measured

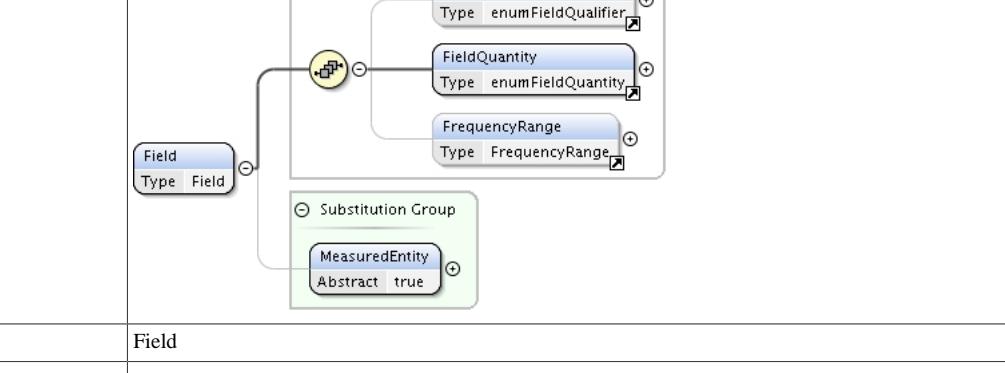
Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Measured { <<Measured>> <<Type Measured>> } class MeasuredEntity { <<MeasuredEntity>> <<Abstract true>> } class ParameterEntity { <<ParameterEntity>> <<Abstract true>> } Measured < -- MeasuredEntity Measured < -- ParameterEntity MeasuredEntity < -- ParameterEntity </pre>
Type	Measured
Properties	content: complex
Substitution Group Affiliation	• ParameterEntity
Model	MeasuredEntity
Children	MeasuredEntity
Instance	<Measured> <MeasuredEntity>{1,1}</MeasuredEntity> </Measured>
Source	<xsd:element name="Measured" type="Measured" substitutionGroup="ParameterEntity" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element MeasuredEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class MeasuredEntity { <<MeasuredEntity>> <<Abstract true>> } class Field { <<Field>> <<Type Field>> } class Mixed { <<Mixed>> <<Type xsd:string>> } class Particle { <<Particle>> <<Type Particle>> } class Photon { <<Photon>> <<Type Photon>> } MeasuredEntity < -- Field MeasuredEntity < -- Mixed MeasuredEntity < -- Particle MeasuredEntity < -- Photon </pre>
Properties	abstract: true
Substitution Group	• Field • Particle • Photon • Mixed
Used by	Complex Type Measured
Source	<xsd:element name="MeasuredEntity" abstract="true" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Field

Namespace	http://www.spase-group.org/data/schema
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Diagram	 <pre> classDiagram class Field { <<Field>> <<Type>> Field <<FieldQualifier*>> <<FieldQuantity>> <<FrequencyRange{0,1}>> <<Substitution Group>> <<MeasuredEntity>> <<Abstract>> true } </pre>
Type	Field
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> MeasuredEntity
Model	FieldQualifier*, FieldQuantity , FrequencyRange{0,1}
Children	FieldQualifier, FieldQuantity, FrequencyRange
Instance	<Field> <FieldQualifier>{0,unbounded}</FieldQualifier> <FieldQuantity>{1,1}</FieldQuantity> <FrequencyRange>{0,1}</FrequencyRange> </Field>
Source	<xsd:element name="Field" type="Field" substitutionGroup="MeasuredEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element FieldQualifier

Namespace	http://www.spase-group.org/data/schema		
Annotations	Characterizes the directional and statistical aspects of the field observation.		
Diagram	<pre> classDiagram class FieldQualifier { <<FieldQualifier>> } class enumFieldQualifier { <<enumFieldQualifier>> } FieldQualifier "1" -- "1" enumFieldQualifier : Type FieldQualifier "1" -- "1" enumFieldQualifier : enumFieldQualifier "1" -- "1" enumFieldQualifier : </pre>		
Type	enumFieldQualifier		
Properties	content: simple		
Facets	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
		Component	A part of a multi-part entity, e.g., the components of a vector.
		Component.Phi	<p>The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed.</p> <p>Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude".</p> <p>Mathematically:</p> $\text{Phi} = \arctan(y/x)$
		Component.R	The component of a vector in the radial direction from the center of the coordinate system.
		Component.Theta	For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with

		<p>zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole.</p> <p>Mathematically:</p> $\Theta = \arctan(\sqrt{x^2 + y^2}/z)$
enumeration	Component.X	The component of a vector along the X-axis in a cartesian coordinate system.
enumeration	Component.Y	The component of a vector along the Y-axis in a cartesian coordinate system.
enumeration	Component.Z	The component of a vector along the Z-axis in a cartesian coordinate system.
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	Magnitude	A measure of the strength or size of a vector quantity.
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	PhaseAngle	Phase difference between two or more waves, normally expressed in degrees.
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
enumeration	StandardDeviation	<p>The square root of the average of the squares of deviations about the mean of a set of data.</p> <p>Standard deviation is a statistical measure of spread or variability.</p>
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	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 Type	Field
Source	<pre><xsd:element name="FieldQualifier" type="enumFieldQualifier"> <xsd:annotation> <xsd:documentation xml:lang="en">Characterizes the directional and statistical aspects of the field observation.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd	

Element FieldQuantity

Namespace	http://www.spase-group.org/data/schema																									
Annotations	The physical attribute of the field.																									
Diagram	<pre> classDiagram class FieldQuantity { <<Type enumFieldQuantity>> } class enumFieldQuantity { <<Type>> } FieldQuantity o-- enumFieldQuantity </pre>																									
Type	enumFieldQuantity																									
Properties	content: simple																									
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>The physical attribute that is or is caused by a mutual interaction of electric and magnetic fields.</td> </tr> <tr> <td>enumeration</td> <td>Gyrofrequency</td> <td>The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field</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></td> </tr> <tr> <td>enumeration</td> <td>Potential</td> <td>A field which obeys Laplaces Equation.</td> </tr> <tr> <td>enumeration</td> <td>PoyntingFlux</td> <td>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	The physical attribute that is or is caused by a mutual interaction of electric and magnetic fields.	enumeration	Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field	enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.	enumeration	Plasmafrequency		enumeration	Potential	A field which obeys Laplaces Equation.	enumeration	PoyntingFlux	The rate of energy transport per unit area per steradian.
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Used by	Complex Type	Field																								
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>																									
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd																									

Element FrequencyRange

Namespace	http://www.spase-group.org/data/schema	
Diagram	<pre> classDiagram class FrequencyRange { <<Type FrequencyRange>> } class SpectralRange { <<Type enumSpectralRange>> } class Low { <<Type xsd:double>> } class High { <<Type xsd:double>> } class Units { <<Type xsd:string>> } class Bin { <<Type Bin>> } FrequencyRange o-- SpectralRange FrequencyRange o-- Low FrequencyRange o-- High FrequencyRange o-- Units FrequencyRange o-- Bin </pre>	
Type	FrequencyRange	
Properties	content: complex	
Used by	Complex Types	Field, Photon
Model	SpectralRange{0,1} , Low , High , Units , Bin*	
Children	Bin, High, Low, SpectralRange, Units	
Instance	<pre> <FrequencyRange> <SpectralRange>{0,1}</SpectralRange> <Low>{1,1}</Low> ... </pre>	

	<pre><High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </FrequencyRange></pre>
Source	<xsd:element name="FrequencyRange" type="FrequencyRange" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element SpectralRange

Namespace	http://www.spase-group.org/data/schema																																																	
Annotations	The general term used to describe wavelengths or frequencies within a given span of values for those quantities.																																																	
Diagram	<pre> classDiagram class SpectralRange { <<High>>{1,1}</High> <<Units>>{1,1}</Units> <<Bin>>{0,unbounded}</Bin> } class enumSpectralRange { <<Type>>{1,1}</Type> } SpectralRange < -- enumSpectralRange </pre>																																																	
Type	enumSpectralRange																																																	
Properties	content: simple																																																	
Facets	<table border="1"> <tr> <td>enumeration</td> <td>CaK</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>ExtremeUltraviolet</td> <td>A spectrum with a wavelength range of 10.0 nm to 125.0 nm. VSO nickname: EUV image with a range of 10.0 nm to 125.0 nm</td> </tr> <tr> <td>enumeration</td> <td>GammaRays</td> <td>Photons with a wavelength range: 0.00001 to 0.001 nm</td> </tr> <tr> <td>enumeration</td> <td>Halpha</td> <td>A spectrum with a wavelength range centered at 656.3 nm. VSO nickname: H-alpha image with a spectrum range of 655.8 nm to 656.8 nm.</td> </tr> <tr> <td>enumeration</td> <td>HardXrays</td> <td>Photons with a wavelength range: 0.001 to 0.1 nm</td> </tr> <tr> <td>enumeration</td> <td>He10830</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Infrared</td> <td>Photons with a wavelength range: 760 to 1.00x10^6 nm</td> </tr> <tr> <td>enumeration</td> <td>K7699</td> <td>A spectrum with a wavelength range centered at 769.9 nm. VSO nickname: K-7699 dopplergram with a range of 769.8 nm to 770.0 nm.</td> </tr> <tr> <td>enumeration</td> <td>Microwave</td> <td>Photons with a wavelength range: 1.00x10^6 to 1.50x10^7 nm</td> </tr> <tr> <td>enumeration</td> <td>NaD</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Ni6768</td> <td>A spectrum with a wavelength range centered at 676.8 nm. VSO nickname: Ni-6768 dopplergram with a range of 676.7 nm to 676.9 nm.</td> </tr> <tr> <td>enumeration</td> <td>Optical</td> <td>Photons with a wavelength range: 380 to 760 nm</td> </tr> <tr> <td>enumeration</td> <td>RadioFrequency</td> <td>Photons with a wavelength range: 100,000 to 1.00x10^11 nm</td> </tr> <tr> <td>enumeration</td> <td>Ultraviolet</td> <td>Photons with a wavelength range: 10 to 400 nm.</td> </tr> <tr> <td>enumeration</td> <td>Whitelight</td> <td></td> </tr> <tr> <td>enumeration</td> <td>XRays</td> <td>Photons with a wavelength range: 0.001 <= x < 10 nm</td> </tr> </table>		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 125.0 nm. VSO nickname: EUV image with a range of 10.0 nm to 125.0 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 655.8 nm to 656.8 nm.	enumeration	HardXrays	Photons with a wavelength range: 0.001 to 0.1 nm	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	Infrared	Photons with a wavelength range: 760 to 1.00x10^6 nm	enumeration	K7699	A spectrum with a wavelength range centered at 769.9 nm. VSO nickname: K-7699 dopplergram with a range of 769.8 nm to 770.0 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 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	Ultraviolet	Photons with a wavelength range: 10 to 400 nm.	enumeration	Whitelight		enumeration	XRays	Photons with a wavelength range: 0.001 <= x < 10 nm
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Used by	Complex Types	DisplayData, EnergyRange, FrequencyRange, NumericalData, 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</pre>																																																	

	<pre>for those quantities.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Low

Namespace	http://www.spase-group.org/data/schema	
Annotations	The smallest value within a range of possible values.	
Diagram	<pre> classDiagram class Low { <<xsd:double>> } class xsd_double { <<xsd:double>> } Low "1" -- "0..1" xsd_double </pre>	
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>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd	

Element High

Namespace	http://www.spase-group.org/data/schema	
Annotations	The largest value within a range of possible values.	
Diagram	<pre> classDiagram class High { <<xsd:double>> } class xsd_double { <<xsd:double>> } High "1" -- "0..1" xsd_double </pre>	
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>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd	

Element Bin

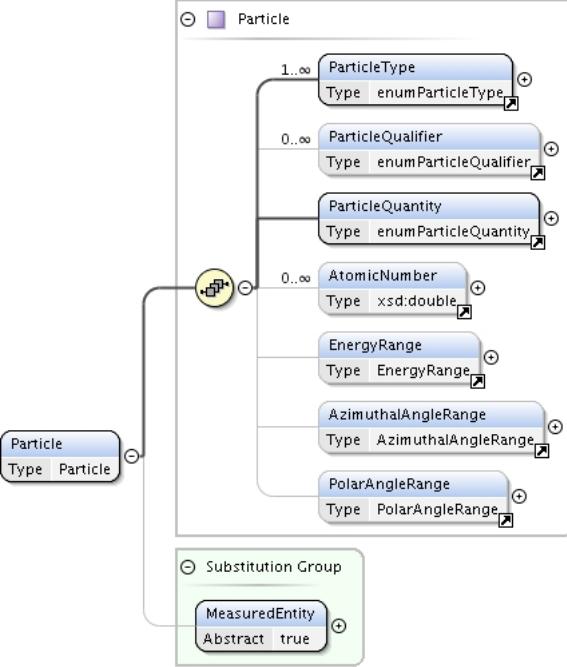
Namespace	http://www.spase-group.org/data/schema	
Diagram	<pre> classDiagram class Bin { BandName Low High } class BandName { <<xsd:string>> } class Low { <<xsd:double>> } class High { <<xsd:double>> } BandName "1" -- "0..1" Bin Low "1" -- "0..1" Bin High "1" -- "0..1" Bin </pre>	
Type	Bin	
Properties	content: complex	
Used by	Complex Types	AzimuthalAngleRange, EnergyRange, FrequencyRange, PolarAngleRange, WavelengthRange
Model	BandName{0,1} , Low , High	

Children	BandName, High, Low
Instance	<pre><Bin> <BandName>{0,1}</BandName> <Low>{1,1}</Low> <High>{1,1}</High> </Bin></pre>
Source	<xsd:element name="Bin" type="Bin" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element BandName

Namespace	http://www.spase-group.org/data/schema
Annotations	A common or provider assigned name for a range of values.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Bin
Source	<pre><xsd:element name="BandName" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A common or provider assigned name for a range of values.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Particle

Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	Particle
Properties	content: complex
Substitution Group Affiliation	• MeasuredEntity
Model	ParticleType+, ParticleQualifier*, ParticleQuantity, AtomicNumber*, EnergyRange{0,1}, AzimuthalAngleRange{0,1}, PolarAngleRange{0,1}
Children	AtomicNumber, AzimuthalAngleRange, EnergyRange, ParticleQualifier, ParticleQuantity, ParticleType, PolarAngleRange

Instance	<pre><Particle> <ParticleType>{1,unbounded}</ParticleType> <ParticleQualifier>{0,unbounded}</ParticleQualifier> <ParticleQuantity>{1,1}</ParticleQuantity> <AtomicNumber>{0,unbounded}</AtomicNumber> <EnergyRange>{0,1}</EnergyRange> <AzimuthalAngleRange>{0,1}</AzimuthalAngleRange> <PolarAngleRange>{0,1}</PolarAngleRange> </Particle></pre>
Source	<xsd:element name="Particle" type="Particle" substitutionGroup="MeasuredEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ParticleType

Namespace	http://www.spase-group.org/data/schema																										
Annotations	A characterization of the kind of particle observed by the measurement.																										
Diagram	<pre> classDiagram class ParticleType { <<ParticleType>> <<Type>> } class enumParticleType { <<enumParticleType>> } ParticleType < -- enumParticleType </pre>																										
Type	enumParticleType																										
Properties	content: simple																										
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Aerosol</td> <td>A suspension of fine solid or liquid particles in gas.</td> </tr> <tr> <td>enumeration</td> <td>AlphaParticle</td> <td>A positively charged nuclear particle that consists of two protons and two neutrons.</td> </tr> <tr> <td>enumeration</td> <td>Dust</td> <td>Free microscopic particles of solid material.</td> </tr> <tr> <td>enumeration</td> <td>Electron</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Ion</td> <td>An atom that has acquired a net electric charge by gaining or losing one or more electrons. (Note: Z>2)</td> </tr> <tr> <td>enumeration</td> <td>Molecule</td> <td>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</td> </tr> <tr> <td>enumeration</td> <td>Neutral</td> <td>Either a particle, an object, or a system that has a net electric charge of zero</td> </tr> <tr> <td>enumeration</td> <td>Proton</td> <td>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.</td> </tr> </table>			enumeration	Aerosol	A suspension of fine solid or liquid particles in gas.	enumeration	AlphaParticle	A positively charged nuclear particle that consists of two protons and two neutrons.	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	Neutral	Either a particle, an object, or a system that has a net electric charge of zero	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.
enumeration	Aerosol	A suspension of fine solid or liquid particles in gas.																									
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Used by	Complex Type	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>																										
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd																										

Element ParticleQualifier

Namespace	http://www.spase-group.org/data/schema		
Annotations	Characterizes the directional and statistical aspects of the particle observation.		
Diagram	<pre> classDiagram class ParticleQualifier { <<ParticleQualifier>> <<Type>> } class enumParticleQualifier { <<enumParticleQualifier>> } ParticleQualifier < -- enumParticleQualifier </pre>		

Type	enumParticleQualifier	
Properties	content: simple	
Facets	enumeration	Anisotropy Direction-dependent property.
	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	Component A part of a multi-part entity, e.g., the components of a vector.
	enumeration	Component.Phi The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: $\text{Phi} = \arctan(y/x)$
	enumeration	Component.R The component of a vector in the radial direction from the center of the coordinate system.
	enumeration	Component.Theta For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole. Mathematically: $\text{Theta} = \arctan(\sqrt{x^2 + y^2}/z)$
	enumeration	Component.X The component of a vector along the X-axis in a cartesian coordinate system.
	enumeration	Component.Y The component of a vector along the Y-axis in a cartesian coordinate system.
	enumeration	Component.Z The component of a vector along the Z-axis in a cartesian coordinate system.
	enumeration	Deviation The difference between an observed value and the expected value of a quantity.
	enumeration	Differential A flux measurement within a given energy and solid-angle range.
	enumeration	Fit Values that make a model agree with the data.
	enumeration	Integral The summation of values above a given threshold and over area or solid-angle range.
	enumeration	Magnitude A measure of the strength or size of a vector quantity.
	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.

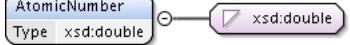
	enumeration	Ratio	The relative magnitudes of two quantities.
	enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
	enumeration	StandardDeviation	The square root of the average of the squares of deviations about the mean of a set of data. Standard deviation is a statistical measure of spread or variability.
	enumeration	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	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 Type	Particle	
Source	<xsd:element name="ParticleQualifier" type="enumParticleQualifier"> <xsd:annotation> <xsd:documentation xml:lang="en">Characterizes the directional and statistical aspects of the particle observation.</xsd:documentation> </xsd:annotation> </xsd:element>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd		

Element ParticleQuantity

Namespace	http://www.spase-group.org/data/schema		
Annotations	A characterization of the physical properties of the particle.		
Diagram	<pre> classDiagram class ParticleQuantity { <<Type enumParticleQuantity>> } class enumParticleQuantity ParticleQuantity "1" --> "1" enumParticleQuantity </pre>		
Type	enumParticleQuantity		
Properties	content: simple		
Facets	enumeration	AlfvenMachNumber	The ratio of the bulk flow speed to the Alfven speed.
	enumeration	AverageChargeState	A measure of the composite deficit (positive) or excess (negative) of electrons with respect to protons.
	enumeration	Counts	An enumeration of the number of detection events occurring in a particle detector per unit time or over detector accumulation times.
	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	Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
	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	NumberDensity	The number of particles per unit volume.
	enumeration	NumberFlux	The number of particles passing through a unit area in a unit time.
	enumeration	PhaseSpaceDensity	The number of particles per unit volume in the six-dimensional space of position and velocity.
	enumeration	PlasmaBeta	The ratio of the plasma pressure to the magnetic pressure.
	enumeration	Plasmafrequency	
	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	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	<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>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd		

Element AtomicNumber

Namespace	http://www.spase-group.org/data/schema
Annotations	The the number of protons in the nucleus of an atom.
Diagram	
Type	xsd:double
Properties	content: simple

Used by	Complex Type Particle
Source	<pre><xsd:element name="AtomicNumber" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The the number of protons in the nucleus of an atom.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element EnergyRange

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class EnergyRange { SpectralRange Low High Units Bin } EnergyRange < -- EnergyRange </pre>
Type	EnergyRange
Properties	content: complex
Used by	Complex Types Particle, Photon
Model	SpectralRange{0,1} , Low , High , Units , Bin*
Children	Bin, High, Low, SpectralRange, Units
Instance	<pre> <EnergyRange> <SpectralRange>{0,1}</SpectralRange> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </EnergyRange> </pre>
Source	<xsd:element name="EnergyRange" type="EnergyRange" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element AzimuthalAngleRange

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class AzimuthalAngleRange { Low High Units Bin } AzimuthalAngleRange < -- AzimuthalAngleRange </pre>
Type	AzimuthalAngleRange
Properties	content: complex
Used by	Complex Type Particle
Model	Low , High , Units , Bin*

Children	Bin, High, Low, Units
Instance	<AzimuthalAngleRange> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </AzimuthalAngleRange>
Source	<xsd:element name="AzimuthalAngleRange" type="AzimuthalAngleRange" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element PolarAngleRange

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class PolarAngleRange { Low : xsd:double High : xsd:double Units : xsd:string Bin : Bin[0..∞] } PolarAngleRange < -- PolarAngleRange </pre>
Type	PolarAngleRange
Properties	content: complex
Used by	Complex Type Particle
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<PolarAngleRange> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </PolarAngleRange>
Source	<xsd:element name="PolarAngleRange" type="PolarAngleRange" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Photon

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Photon { PhotonQualifier : enumPhotonQualifier[0..∞] PhotonQuantity : enumPhotonQuantity EnergyRange WavelengthRange FrequencyRange } Photon < -- Photon class Substitution Group { MeasuredEntity Abstract true } </pre>
Type	Photon

Properties	content: complex
Substitution Group Affiliation	• MeasuredEntity
Model	PhotonQualifier*, PhotonQuantity , EnergyRange{0,1} , WavelengthRange{0,1} , FrequencyRange{0,1}
Children	EnergyRange, FrequencyRange, PhotonQualifier, PhotonQuantity, WavelengthRange
Instance	<Photon> <PhotonQualifier>{0,unbounded}</PhotonQualifier> <PhotonQuantity>{1,1}</PhotonQuantity> <EnergyRange>{0,1}</EnergyRange> <WavelengthRange>{0,1}</WavelengthRange> <FrequencyRange>{0,1}</FrequencyRange> </Photon>
Source	<xsd:element name="Photon" type="Photon" substitutionGroup="MeasuredEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element PhotonQualifier

Namespace	http://www.spase-group.org/data/schema		
Annotations	Characterizes the directional and statistical aspects of the photon observation.		
Diagram	<pre> classDiagram class PhotonQualifier { <<Type enumPhotonQualifier>> } class enumPhotonQualifier PhotonQualifier "1" -- "1" enumPhotonQualifier </pre>		
Type	enumPhotonQualifier		
Properties	content: simple		
Facets	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
	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	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	Relative to polarization, confinement of the E-field vector to a given plane
	enumeration	Peak	The maximum value for the quantity in question, over a period of time which is usually equal to the cadence.
	enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
	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	The four coordinates (usually called I, Q, U, and V) relative to a particular basis for the representation of the polarization state of an electromagnetic wave propagating through space.
	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.
Used by	Complex Type Photon	
Source		<pre><xsd:element name="PhotonQualifier" type="enumPhotonQualifier"> <xsd:annotation> <xsd:documentation xml:lang="en">Characterizes the directional and statistical aspects of the photon observation.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location		file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element PhotonQuantity

Namespace	http://www.spase-group.org/data/schema	
Annotations	A characterization of the physical properties of the photon.	
Diagram	<pre> classDiagram class PhotonQuantity { <<Type enumPhotonQuantity>> } class enumPhotonQuantity PhotonQuantity o--> enumPhotonQuantity </pre>	
Type	enumPhotonQuantity	
Properties	content: simple	
Facets	enumeration Emissivity	The ratio of radiant energy from a material to that from a blackbody at the same kinetic temperature
	enumeration EnergyFlux	The amount of energy passing through a unit area in a unit time.
	enumeration EquivalentWidth	The area of the spectral line profile divided by the peak height or depth.
	enumeration Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
	enumeration LineDepth	In spectra, a measure of the amount of absorption for a particular wavelength or frequency in the spectrum
	enumeration MagneticField	Measurements of magnetic field vectors (sometimes not all components) as time series; can be space- or ground-based. Also, [Zeeman splitting, etc. based]: 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	The frequency with which a plasma oscillates.
	enumeration Polarization	Direction of the electric vector of an electromagnetic

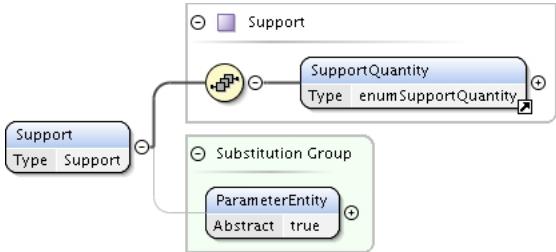
		wave. The wave can be linearly polarized in any direction perpendicular to the direction of travel, circularly polarized (clockwise or counterclockwise), unpolarized, or mixtures of the above.
	enumeration StokesParameters	The four coordinates (usually called I, Q, U, and V) relative to a particular basis for the representation of 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".
Used by	Complex Type Photon	
Source		<pre><xsd:element name="PhotonQuantity" type="enumPhotonQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the physical properties of the photon.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location		file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element WavelengthRange

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class WavelengthRange { SpectralRange Low High Units Bin } WavelengthRange < -- WavelengthRange </pre>
Type	WavelengthRange
Properties	content: complex
Used by	Complex Type Photon
Model	SpectralRange{0,1} , Low , High , Units , Bin*
Children	Bin, High, Low, SpectralRange, Units
Instance	<pre> <WavelengthRange> <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" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Support

Namespace	http://www.spase-group.org/data/schema
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Diagram	
Type	Support
Properties	content: complex
Substitution Group Affiliation	• ParameterEntity
Model	SupportQuantity
Children	SupportQuantity
Instance	<Support> <SupportQuantity>{1,1}</SupportQuantity> </Support>
Source	<xsd:element name="Support" type="Support" substitutionGroup="ParameterEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

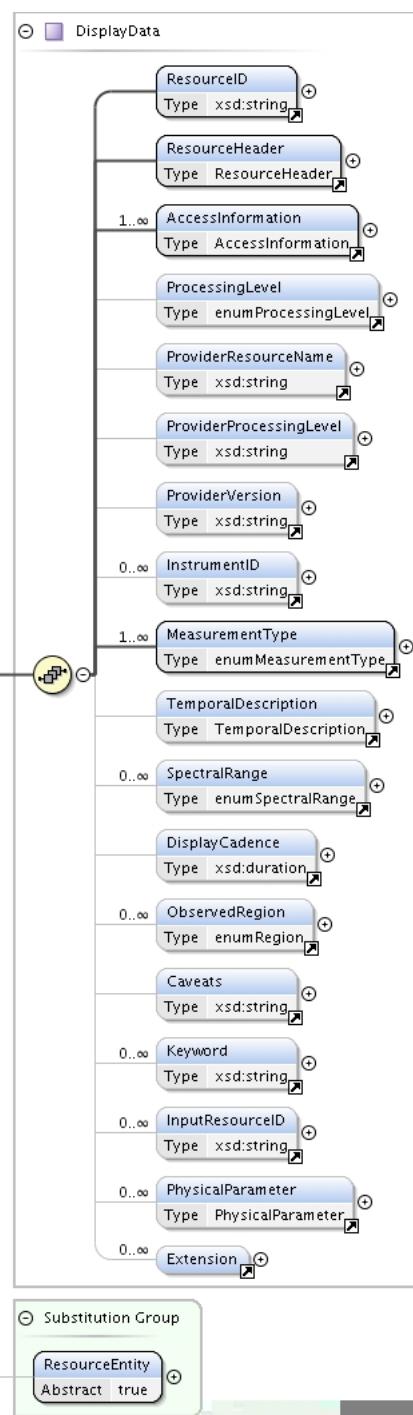
Element SupportQuantity

Namespace	http://www.spase-group.org/data/schema				
Annotations	A characterization of the support information.				
Diagram					
Type	enumSupportQuantity				
Properties	content: simple				
Facets	enumeration	Other	Values, such as flags, that are not time tags, location data or measured or derived parameters.		
	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.		
Used by	Complex Type	Support			
Source	<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>				
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd				

Element DisplayData

Namespace	http://www.spase-group.org/data/schema
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Diagram



Type	DisplayData
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> • <code>ResourceEntity</code>
Model	<code>ResourceID</code> , <code>ResourceHeader</code> , <code>AccessInformation</code> + , <code>ProcessingLevel</code> {0,1} , <code>ProviderResourceName</code> {0,1} , <code>ProviderProcessingLevel</code> {0,1} , <code>ProviderVersion</code> {0,1} , <code>InstrumentID</code> * , <code>MeasurementType</code> + , <code>TemporalDescription</code> {0,1} , <code>SpectralRange</code> * , <code>DisplayCadence</code> {0,1} , <code>ObservedRegion</code> * , <code>Caveats</code> {0,1} , <code>Keyword</code> * , <code>InputResourceID</code> * , <code>PhysicalParameter</code> * , <code>Extension</code> *
Children	<code>AccessInformation</code> , <code>Caveats</code> , <code>DisplayCadence</code> , <code>Extension</code> , <code>InputResourceID</code> , <code>InstrumentID</code> , <code>Keyword</code> , <code>MeasurementType</code> , <code>ObservedRegion</code> , <code>PhysicalParameter</code> , <code>ProcessingLevel</code> , <code>ProviderProcessingLevel</code> , <code>ProviderResourceName</code> , <code>ProviderVersion</code> , <code>ResourceHeader</code> , <code>ResourceID</code> , <code>SpectralRange</code> , <code>TemporalDescription</code>
Instance	<pre><DisplayData> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader></pre>

	<pre> <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> <PhysicalParameter>{0,unbounded}</PhysicalParameter> <Extension>{0,unbounded}</Extension> </DisplayData> </pre>
Source	<xsd:element name="DisplayData" type="DisplayData" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ProcessingLevel

Namespace	http://www.spase-group.org/data/schema											
Annotations	The standard classification of the processing performed on the product.											
Diagram	<pre> classDiagram class ProcessingLevel { <<enumProcessingLevel>> } class enumProcessingLevel ProcessingLevel "1" -- "0..1" enumProcessingLevel </pre>											
Type	enumProcessingLevel											
Properties	content: simple											
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Calibrated</td> <td>Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.</td> </tr> <tr> <td>enumeration</td> <td>Raw</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Uncalibrated</td> <td>Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.</td> </tr> </table>	enumeration	Calibrated	Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.	enumeration	Raw		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.		
enumeration	Calibrated	Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.										
enumeration	Raw											
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, NumericalData										
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>											
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd											

Element ProviderProcessingLevel

Namespace	http://www.spase-group.org/data/schema		
Annotations	The provider specific classification of the processing performed on the product.		
Diagram	<pre> classDiagram class ProviderProcessingLevel { <<xsd:string>> } class xsd:string ProviderProcessingLevel "1" -- "0..1" xsd:string </pre>		
Type	xsd:string		
Properties	content: simple		
Used by	Complex Types	DisplayData, NumericalData	
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>		

Schema location

file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element MeasurementType

Namespace	http://www.spase-group.org/data/schema	
Annotations	A characterization of the quantitative assessment of a phenomenon.	
Diagram	<pre> classDiagram class MeasurementType { <<MeasurementType>> <<Type>> } class enumMeasurementType { <<enumMeasurementType>> } MeasurementType < -- enumMeasurementType </pre>	
Type	enumMeasurementType	
Properties	content: simple	
Facets	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	ChargedParticleFlux Measurements of fluxes of charged or ionized particles at above thermal energies, including relativistic particles of solar and galactic origin. May give simple fluxes, but more complete distributions are sometimes possible. Composition measurements may also be made.
	enumeration	Dopplergram A map or image depicting the spatial distribution of line-of-sight velocities of the observed object.
	enumeration	ElectricField Measurements of electric field vectors (sometimes not all components) as a time series.
	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 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. The SI unit of irradiance is watts per square meter ($\text{W}\cdot\text{m}^{-2}$).
	enumeration	MagneticField Measurements of magnetic field vectors (sometimes not all components) as time series; can be space- or ground-based. Also, [Zeeman splitting, etc. based]: 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.
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 describe 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. The SI unit of radiance is watts per steradian per square meter (W·sr ⁻¹ ·m ⁻²).
enumeration	RadioandPlasmaWaves	Measurements of electric and/or magnetic fields using electric or magnetic antennas at frequencies anywhere between the spacecraft spin frequency and the characteristic frequencies of the ambient plasma. The output can be waveform, power spectral density, or other statistical parameters.
enumeration	RadioSoundings	Measurements of plasma density, magnetic field and possibly other parameters of the space environment by active probing of the plasma by radio waves.
enumeration	Spectrum	A three-dimensional representation of successive spectra which allows time evolution to be clearly seen. Time is plotted along the abscissa, frequency (or particle energy) along the ordinate, and the spectral power density (or differential particle flux) is represented by different shades of grey, or color. This representation is also known as a spectrogram.
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.).
Used by	Complex Types	DisplayData, NumericalData
Source	<xsd:element name="MeasurementType" type="enumMeasurementType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of the quantitative assessment	

	<pre>of a phenomenon.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element TemporalDescription

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class TemporalDescription { TimeSpan Cadence Exposure } class TimeSpan { <<TimeSpan>> <<Cadence>> <<Exposure>> } class Cadence { <<TimeSpan>> <<Exposure>> } class Exposure { <<TimeSpan>> <<Exposure>> } </pre>
Type	TemporalDescription
Properties	content: complex
Used by	Complex Types DisplayData, NumericalData
Model	TimeSpan , Cadence{0,1} , Exposure{0,1}
Children	Cadence, Exposure, TimeSpan
Instance	<pre><TemporalDescription> <TimeSpan>{1,1}</TimeSpan> <Cadence>{0,1}</Cadence> <Exposure>{0,1}</Exposure> </TemporalDescription></pre>
Source	<xsd:element name="TemporalDescription" type="TemporalDescription"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Exposure

Namespace	http://www.spase-group.org/data/schema
Annotations	The time interval over which an individual measurement is taken.
Diagram	<pre> classDiagram class Exposure { <<xsd:duration>> } </pre>
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element DisplayCadence

Namespace	http://www.spase-group.org/data/schema
Annotations	The time interval between the successive display elements.
Diagram	<pre> classDiagram class DisplayCadence { <<xsd:duration>> } </pre>
Type	xsd:duration
Properties	content: simple
Used by	Complex Type DisplayData

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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ObservedRegion

Namespace	http://www.spase-group.org/data/schema		
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	<pre> classDiagram class ObservedRegion { <<Type enumRegion>> } class enumRegion ObservedRegion "1" -- "1" enumRegion </pre>		
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.Magnetsheath	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 planets 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	Charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction..
enumeration	Earth.NearSurface.IonosphereLayer	The layer in 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.IonosphereLayerE	An 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.IonosphereLayerF	An ionized 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.IonosphereLayerT	The region is 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	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.
enumeration	Earth.NearSurface.PolarCap	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	Earth.NearSurface.SouthPlanetaryRegion	The inner Van Allen radiation belt makes its closest approach to the planets 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.Inner	The region of the heliosphere extending radially out from the "surface" of the Sun to 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 from, but not including, 1 AU to the farthest extent of the heliosphere (heliopause).
enumeration	Heliosphere.Remote1AU	The heliospheric region near the Earth's orbit, but exclusive of the region near the Earth.
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 Suns (or a stars) 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 eigth 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
Source	<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	

	<p>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></p> <pre></xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element NumericalData

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class NumericalData { ResourceID : xsd:string ResourceHeader : ResourceHeader AccessInformation : AccessInformation ProcessingLevel : enumProcessingLevel ProviderResourceName : xsd:string ProviderProcessingLevel : xsd:string ProviderVersion : xsd:string InstrumentID : xsd:string MeasurementType : enumMeasurementType TemporalDescription : TemporalDescription SpectralRange : enumSpectralRange ObservedRegion : enumRegion Caveats : xsd:string Keyword : xsd:string InputResourceId : xsd:string PhysicalParameter : PhysicalParameter Extension } NumericalData < -- ResourceEntity : Abstract true NumericalData "1..>" --> "1..>" NumericalData </pre>
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* , PhysicalParameter* , Extension*
Children	AccessInformation, Caveats, Extension, InputResourceID, InstrumentID, Keyword, MeasurementType, ObservedRegion, PhysicalParameter, ProcessingLevel, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SpectralRange, TemporalDescription
Instance	<NumericalData> <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> <PhysicalParameter>{0,unbounded}</PhysicalParameter> <Extension>{0,unbounded}</Extension> </NumericalData>
Source	<xsd:element name="NumericalData" type="NumericalData" substitutionGroup="ResourceEntity" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Document

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Document { <<Document>> <<Document>> <<Substitution Group>> <<ResourceEntity>> } Document < -- ResourceEntity Document --> Document Document --> ResourceID Document --> ResourceHeader Document --> AccessInformation Document --> Keyword Document --> DocumentType Document --> InputResourceID </pre>
Type	Document
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> • ResourceEntity
Model	ResourceID , ResourceHeader , AccessInformation+ , Keyword* , DocumentType , InputResourceID*
Children	AccessInformation, DocumentType, InputResourceID, Keyword, ResourceHeader, ResourceID
Instance	<Document> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessInformation>{1,unbounded}</AccessInformation> <Keyword>{0,unbounded}</Keyword> <DocumentType>{1,1}</DocumentType> <InputResourceID>{0,unbounded}</InputResourceID>

	</Document>
Source	<xsd:element name="Document" type="Document" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element DocumentType

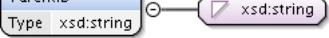
Namespace	http://www.spase-group.org/data/schema		
Annotations	A characterization of the content or purpose of a document.		
Diagram	<pre> classDiagram class DocumentType { <<Document>> } class enumDocumentType { <<enumDocumentType>> } DocumentType < -- enumDocumentType </pre>		
Type	enumDocumentType		
Properties	content:	simple	
Facets	enumeration	Paper	A formal presentation of an idea or discovery typically more than a few pages in length.
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 or purpose of a document.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd		

Element Granule

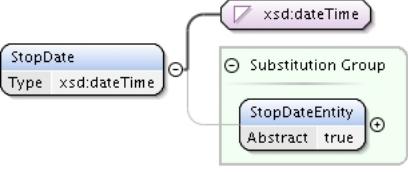
Namespace	http://www.spase-group.org/data/schema		
Diagram	<pre> classDiagram class Granule { ResourceID Type xsd:string ReleaseDate Type xsd:dateTime ExpirationDate Type xsd:dateTime ParentID Type xsd:string Part[0..oo] URL[1..oo] StartDate StopDate Checksum DataExtent Extension } Granule < -- ResourceEntity </pre>		
Type	Granule		

Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ReleaseDate , ExpirationDate{0,1} , ParentID , PriorID* , URL+ , StartDate , StopDate , Checksum{0,1} , DataExtent{0,1} , Extension*
Children	Checksum, DataExtent, ExpirationDate, Extension, ParentID, PriorID, ReleaseDate, ResourceID, StartDate, StopDate, URL
Instance	<Granule> <ResourceID>{1,1}</ResourceID> <ReleaseDate>{1,1}</ReleaseDate> <ExpirationDate>{0,1}</ExpirationDate> <ParentID>{1,1}</ParentID> <PriorID>{0,unbounded}</PriorID> <URL>{1,unbounded}</URL> <StartDate>{1,1}</StartDate> <StopDate>{1,1}</StopDate> <Checksum>{0,1}</Checksum> <DataExtent>{0,1}</DataExtent> <Extension>{0,unbounded}</Extension> </Granule>
Source	<xsd:element name="Granule" type="Granule" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ParentID

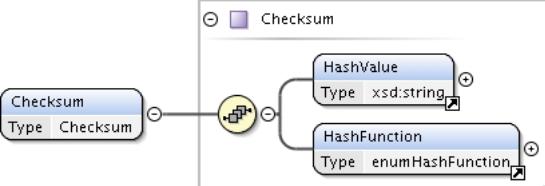
Namespace	http://www.spase-group.org/data/schema
Annotations	The resource identifier for a resource that a resource is a part of. The resource inherits the attributes of the referenced resource. Attributes defined in the resource override attributes of the parent in the manner prescribed by the containing resource.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Granule
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element StopDate

Namespace	http://www.spase-group.org/data/schema
Annotations	The specification of a stopping point in time.
Diagram	
Type	xsd:dateTime
Properties	content: simple
Substitution Group Affiliation	• StopDateEntity

Used by	Complex Type	Granule
Source	<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> </xsd:element>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd	

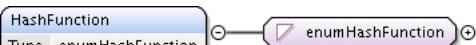
Element Checksum

Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	Checksum
Properties	content: complex
Used by	Complex Type Granule
Model	HashValue , HashFunction
Children	HashFunction, HashValue
Instance	<Checksum> <HashValue>{1,1}</HashValue> <HashFunction>{1,1}</HashFunction> </Checksum>
Source	<xsd:element name="Checksum" type="Checksum" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element HashValue

Namespace	http://www.spase-group.org/data/schema
Annotations	The value calculated by a hash function, e.g. the message digest of a digital data object.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Checksum
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element HashFunction

Namespace	http://www.spase-group.org/data/schema
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	
Type	enumHashFunction
Properties	content: simple

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	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>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd		

Element Instrument

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Instrument { ResourceID : xsd:string ResourceHeader : ResourceHeader 1..∞ InstrumentType : enumInstrumentType InvestigationName : xsd:string ObservatoryID : xsd:string 0..∞ Caveats : xsd:string 0..∞ Extension } class Instrument { <<Instrument>> <<Substitution Group>> ResourceEntity Abstract true } Instrument < -- Instrument </pre>
Type	Instrument
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> ResourceEntity
Model	ResourceID , ResourceHeader , InstrumentType+ , InvestigationName , ObservatoryID , Caveats{0,1} , Extension*
Children	Caveats, Extension, InstrumentType, InvestigationName, ObservatoryID, ResourceHeader, ResourceID
Instance	<pre> <Instrument> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <InstrumentType>{1,unbounded}</InstrumentType> <InvestigationName>{1,1}</InvestigationName> <ObservatoryID>{1,1}</ObservatoryID> <Caveats>{0,1}</Caveats> <Extension>{0,unbounded}</Extension> </Instrument> </pre>

Source	<xsd:element name="Instrument" type="Instrument" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element InstrumentType

Namespace	http://www.spase-group.org/data/schema																																		
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	<pre> classDiagram class InstrumentType { <<Instrument>> } class enumInstrumentType { <<enumInstrumentType>> } InstrumentType "1" --> "1" enumInstrumentType </pre>																																		
Type	enumInstrumentType																																		
Properties	content: simple																																		
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Antenna</td> <td>A sensor used to measure electric potential.</td> </tr> <tr> <td>enumeration</td> <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>enumeration</td> <td>Coronograph</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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>		enumeration	Antenna	A sensor used to measure electric potential.	enumeration	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.	enumeration	Coronograph	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.	enumeration	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.	enumeration	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.	enumeration	ElectrostaticAnalyser	An instrument which uses charged plates to analyze the mass, charge and kinetic energies of charged particles which enter the instrument.	enumeration	EnergeticParticleInstrument	An instrument that measures fluxes of charged particles as a function of time, direction of motion, mass, charge and/or species.	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	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.	enumeration	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.	enumeration	FourierTransformSpectrograph	An instrument that determines the spectra of a radiative source, using time-domain measurements and a Fourier transform.
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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 which measures the difference between two or more waves.
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	ParticleCorrelator	An instrument which correlates particle flux to help identify wave/particle interactions.
enumeration	ParticleDetector	
enumeration	Photometer	An instrument which measures the strength of electromagnetic radiation in the range from ultraviolet to infrared and including 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	ProportionalCounter	An instrument which measures energy of ionization radiation based on interactions with a gas.
enumeration	QuadrисphericalAnalyser	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.

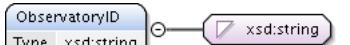
	enumeration	ResonanceSounder	A combination of a radio receiver and a pulsed transmitter used to study the plasma surrounding a spacecraft by identifying resonances or cut-offs (of the wave dispersion relation), whose frequencies are related to the ambient plasma density and magnetic field. When the transmitter is off it is essentially a high frequency-resolution spectral power receiver.
	enumeration	RetardingPotentialAnalyser	
	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 flouresences of a material which is exceited 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 multile spectral ranges.
	enumeration	SpacecraftPotentialController	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 into its component wavelengths.
	enumeration	Timeofflight	
	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	<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>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd		

Element InvestigationName

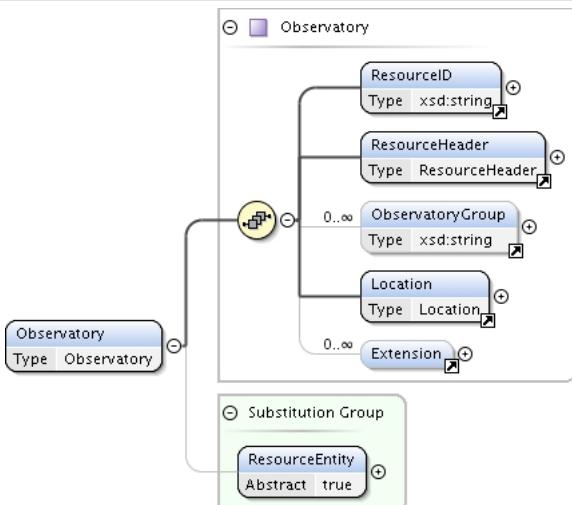
Namespace	http://www.spase-group.org/data/schema
Annotations	The name given to the contract or engagement which enabled the data to be produced. Each investigation is associated with a Principal Investigator or Guest Investigator who was

	<p>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.</p>
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Instrument
Source	<pre><xsd:element name="InvestigationName" type="xsd:string"> <xsd:annotation> <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></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ObservatoryID

Namespace	http://www.spase-group.org/data/schema
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Observatory

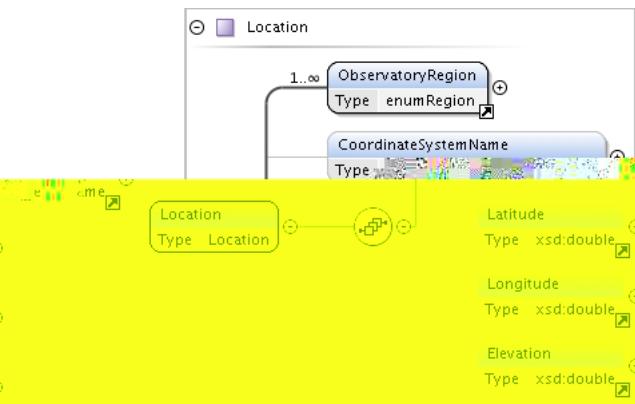
Namespace	http://www.spase-group.org/data/schema
Diagram	

Type	Observatory
Properties	content: complex
Substitution Group	
Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , ObservatoryGroup* , Location , Extension*
Children	Extension, Location, ObservatoryGroup, ResourceHeader, ResourceID
Instance	<pre><Observatory> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <ObservatoryGroup>{0,unbounded}</ObservatoryGroup> <Location>{1,1}</Location> <Extension>{0,unbounded}</Extension> </Observatory></pre>
Source	<xsd:element name="Observatory" type="Observatory" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ObservatoryGroup

Namespace	http://www.spase-group.org/data/schema
Annotations	A set of programmatically related observatories. The value is taken from an approved list of observatory group names.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Observatory
Source	<pre><xsd:element name="ObservatoryGroup" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A set of programmatically related observatories. The value is taken from an approved list of observatory group names.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Location

Namespace	http://www.spase-group.org/data/schema
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> <ObservatoryRegion>{1,unbounded}</ObservatoryRegion></pre>

	<pre><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" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element ObservatoryRegion

Namespace	http://www.spase-group.org/data/schema		
Annotations	A spatial location distinguished by certain natural features or physical characteristics where an observatory is located.		
Diagram	<pre> classDiagram class ObservatoryRegion { <<enumRegion>> } class enumRegion ObservatoryRegion "1" -- "1" enumRegion </pre>		
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 planets magnetic field.
	enumeration	Earth.Magnetosphere.Magnetotail	Magnetotail 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 aural zone.
	enumeration	Earth.Magnetosphere.RadiationBelt	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.Aurora	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.IonosphereRegion	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	Earth.NearSurface.IonosphereRegion	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	Earth.NearSurface.IonosphereRegion	A layer of 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.IonosphereRegion	The region of 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	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.
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 region of the inner van Allen radiation belt makes its closest approach to the planets 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.Inner	The region of the heliosphere extending radially out from the "surface" of the Sun to 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 from, but not including, 1 AU to the farthest extent of the heliosphere (heliopause).
	enumeration	Heliosphere.Remote1AU	The heliospheric region near the Earth's orbit, but exclusive of the region near the Earth.
	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 Suns (or a stars) 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 eigth 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	<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>		

Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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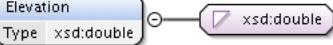
Element Latitude

Namespace	http://www.spase-group.org/data/schema
Annotations	The location of a place on Earth specified as an angle east (positive) or west (negative) of a north-south line called the Prime Meridian defined by the coordinate system in use.
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 location of a place on Earth specified as an angle east (positive) or west (negative) of a north-south line called the Prime Meridian defined by the coordinate system in use.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Longitude

Namespace	http://www.spase-group.org/data/schema
Annotations	The location of a place on Earth specified as an angle north (positive) or south (negative) of the equator defined by the coordinate system in use.
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 location of a place on Earth specified as an angle north (positive) or south (negative) of the equator defined by the coordinate system in use.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Elevation

Namespace	http://www.spase-group.org/data/schema
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"></pre>

	<pre> <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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Person

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Person { ResourceID : xsd:string ReleaseDate : xsd:dateTime PersonName : xsd:string OrganizationName : xsd:string Address : xsd:string Email : xsd:string PhoneNumber : xsd:string Extension : xsd:string FaxNumber : xsd:string } class Person { type Person } class ResourceEntity { abstract true } Person < -- ResourceEntity </pre>
Type	Person
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ReleaseDate{0,1} , PersonName{0,1} , OrganizationName , Address{0,1} , Email* , PhoneNumber* , Extension* , FaxNumber{0,1}
Children	Address, Email, Extension, FaxNumber, OrganizationName, PersonName, PhoneNumber, ReleaseDate, ResourceID
Instance	<pre> <Person> <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> <Extension>{0,unbounded}</Extension> <FaxNumber>{0,1}</FaxNumber> </Person> </pre>
Source	<xsd:element name="Person" type="Person" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element PersonName

Namespace	http://www.spase-group.org/data/schema
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Annotations	The words used to address an individual.
Diagram	A UML-style class diagram fragment. A rounded rectangle labeled "PersonName" has a line with an open circle pointing to another rounded rectangle labeled "xsd:string". Below the "xsd:string" box is the word "Type".
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element OrganizationName

Namespace	http://www.spase-group.org/data/schema
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	A UML-style class diagram fragment. A rounded rectangle labeled "OrganizationName" has a line with an open circle pointing to another rounded rectangle labeled "xsd:string". Below the "xsd:string" box is the word "Type".
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Address

Namespace	http://www.spase-group.org/data/schema
Annotations	Directions for finding some location; written on letters or packages that are to be delivered to that location.
Diagram	A UML-style class diagram fragment. A rounded rectangle labeled "Address" has a line with an open circle pointing to another rounded rectangle labeled "xsd:string". Below the "xsd:string" box is the word "Type".
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<pre><xsd:element name="Address" type="xsd:string"> <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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Email

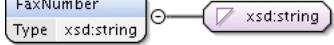
Namespace	http://www.spase-group.org/data/schema
Annotations	The electronic address at which the individual

	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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element PhoneNumber

Namespace	http://www.spase-group.org/data/schema
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element FaxNumber

Namespace	http://www.spase-group.org/data/schema
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Registry

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Registry { ResourceID : xsd:string ResourceHeader : ResourceHeader *--> Registry Extension : 0..∞ } class ResourceEntity { Abstract : true } Registry < -- ResourceEntity </pre>
Type	Registry
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , Extension*
Children	Extension, ResourceHeader, ResourceID
Instance	<Registry> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <Extension>{0,unbounded}</Extension> </Registry>
Source	<xsd:element name="Registry" type="Registry" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Repository

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Repository { ResourceID : xsd:string ResourceHeader : ResourceHeader *--> Repository Extension : 0..∞ } class ResourceEntity { Abstract : true } Repository < -- ResourceEntity </pre>
Type	Repository
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , Extension*
Children	Extension, ResourceHeader, ResourceID
Instance	<Repository> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <Extension>{0,unbounded}</Extension> </Repository>
Source	<xsd:element name="Repository" type="Repository" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Service

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Service { ResourceID : xsd:string ResourceHeader } class ResourceHeader { <<complex type>> } </pre>
Type	Service
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , AccessURL , Extension*
Children	AccessURL, Extension, ResourceHeader, ResourceID
Instance	<Service> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessURL>{1,1}</AccessURL> <Extension>{0,unbounded}</Extension> </Service>
Source	<xsd:element name="Service" type="Service" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element Mixed

Namespace	http://www.spase-group.org/data/schema
Annotations	A measured observation which is derived from a combination of two or more individual measurements.
Diagram	<pre> classDiagram class Mixed { <<xsd:string>> } class Substitution Group { MeasuredEntity Abstract true } Mixed --> xsd:string Mixed --> Substitution Group </pre>
Type	xsd:string
Properties	content: simple
Substitution Group Affiliation	• MeasuredEntity
Source	<xsd:element name="Mixed" type="xsd:string" substitutionGroup="MeasuredEntity"> <xsd:annotation> <xsd:documentation xml:lang="en">A measured observation which is derived from a combination of two or more individual measurements.</xsd:documentation> </xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element RelativeStopDate

Namespace	http://www.spase-group.org/data/schema
Annotations	An indication of the nominal end date relative

	to the present.
Diagram	<pre> classDiagram class RelativeStopDate { <<xsd:duration>> } class StopDateEntity { <<Abstract true>> } class xsd:duration class Substitution Group { <<Substitution Group>> StopDateEntity } RelativeStopDate "1" -- "0..1" StopDateEntity RelativeStopDate "1" -- "0..1" xsd:duration StopDateEntity "1" -- "0..1" xsd:duration </pre>
Type	xsd:duration
Properties	content: simple
Substitution Group Affiliation	• StopDateEntity
Source	<pre> <xsd:element name="RelativeStopDate" type="xsd:duration"> <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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element enumObservatoryGroup

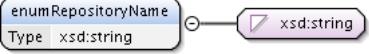
Namespace	http://www.spase-group.org/data/schema
Annotations	Open List. See: Identifiers for programmatically related observatories. The value is taken from an approved list of observatory group names. See < http://www.igpp.ucla.edu/spase/ > for the list.
Diagram	<pre> classDiagram class enumObservatoryGroup { <<Open List>> <<xsd:string>> } class xsd:string class Open List enumObservatoryGroup "1" -- "0..1" Open List enumObservatoryGroup "1" -- "0..1" xsd:string </pre>
Type	xsd:string
Properties	content: simple
Source	<pre> <xsd:element name="enumObservatoryGroup" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Open List. See: Identifiers for programmatically related observatories. The value is taken from an approved list of observatory group names. See <http://www.igpp.ucla.edu/spase/> for the list.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element enumObservatoryName

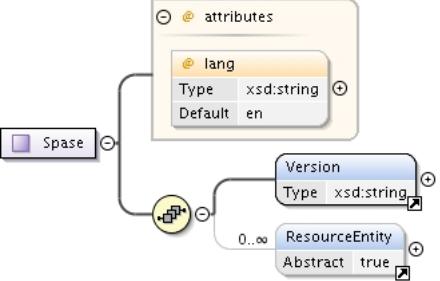
Namespace	http://www.spase-group.org/data/schema
Annotations	Open List. See: Identifiers for a location or platform. An observatory may be part of an observatory group. The value is taken from an approved list of observatory names. See < http://www.igpp.ucla.edu/spase/ > for the list.
Diagram	<pre> classDiagram class enumObservatoryName { <<Open List>> <<xsd:string>> } class xsd:string class Open List enumObservatoryName "1" -- "0..1" Open List enumObservatoryName "1" -- "0..1" xsd:string </pre>
Type	xsd:string
Properties	content: simple
Source	<pre> <xsd:element name="enumObservatoryName" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Open List. See: Identifiers for a location or platform. An observatory may be part of an observatory group. The value is taken from an approved list of observatory names. See <http://www.igpp.ucla.edu/spase/> for the list.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>

	</xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Element enumRepositoryName

Namespace	http://www.spase-group.org/data/schema
Annotations	Open List. See: Identifiers for the location or facility where the product is stored. The repository name is selected from a list of established repositories. See <http://www.igpp.ucla.edu/spase/> for the list.
Diagram	
Type	xsd:string
Properties	content: simple
Source	<pre><xsd:element name="enumRepositoryName" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Open List. See: Identifiers for the location or facility where the product is stored. The repository name is selected from a list of established repositories. See <http://www.igpp.ucla.edu/spase/> for the list.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Types**Complex Type Spase**

Namespace	http://www.spase-group.org/data/schema										
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	<table border="1"> <thead> <tr> <th>QName</th> <th>Type</th> <th>Fixed</th> <th>Default</th> <th>Use</th> </tr> </thead> <tbody> <tr> <td>lang</td> <td>xsd:string</td> <td></td> <td>en</td> <td>optional</td> </tr> </tbody> </table>	QName	Type	Fixed	Default	Use	lang	xsd:string		en	optional
QName	Type	Fixed	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> <xsd:sequence> <xsd:element ref="Version" minOccurs="1" maxOccurs="1"/> <xsd:element ref="ResourceEntity" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> <xsd:attribute name="lang" type="xsd:string" default="en"/> </xsd:complexType></pre>										

Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Complex Type Catalog

Namespace	http://www.spase-group.org/data/schema
Annotations	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.
Diagram	<pre> classDiagram class Catalog { <<Catalog>> --> ResourceID : xsd:string --> ResourceHeader : ResourceHeader --> AccessInformation : AccessInformation --> ProviderResourceName : xsd:string --> ProviderVersion : xsd:string --> InstrumentID : xsd:string --> PhenomenonType : enumPhenomenonType --> TimeSpan : TimeSpan --> Caveats : xsd:string --> Keyword : xsd:string --> InputResourceID : xsd:string --> PhysicalParameter : PhysicalParameter --> Extension } </pre>
Used by	Element Catalog
Model	ResourceID , ResourceHeader , AccessInformation+ , ProviderResourceName{0,1} , ProviderVersion{0,1} , InstrumentID* , PhenomenonType+ , TimeSpan{0,1} , Caveats{0,1} , Keyword* , InputResourceID* , PhysicalParameter* , Extension*
Children	AccessInformation, Caveats, Extension, InputResourceID, InstrumentID, Keyword, PhenomenonType, PhysicalParameter, 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.</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="PhysicalParameter" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </pre>

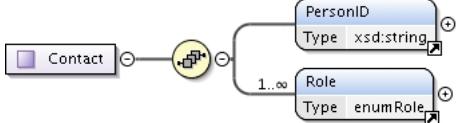
	</xsd:sequence> </xsd:complexType>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type ResourceHeader

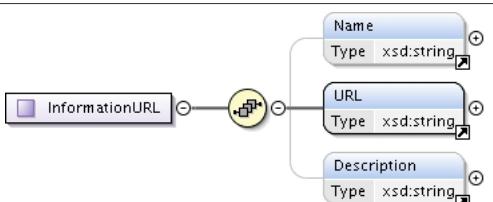
Namespace	http://www.spase-group.org/data/schema
Annotations	Attributes of a resource which pertain to the provider of the resource and descriptive information about the resource.
Diagram	<pre> classDiagram class ResourceHeader { ResourceName AlternateName* ReleaseDate ExpirationDate{0,1} Description Acknowledgement{0,1} Contact+ InformationURL* AssociationID* PriorID* } </pre>
Used by	Element ResourceHeader
Model	ResourceName , AlternateName* , ReleaseDate , ExpirationDate{0,1} , Description , Acknowledgement{0,1} , Contact+ , InformationURL* , AssociationID* , PriorID*
Children	Acknowledgement, AlternateName, AssociationID, 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="AssociationID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="PriorID" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Contact

Namespace	http://www.spase-group.org/data/schema
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type InformationURL

Namespace	http://www.spase-group.org/data/schema
Annotations	Attributes of the method of acquiring additional information.
Diagram	
Used by	Element InformationURL
Model	Name{0,1} , URL , Description{0,1}
Children	Description, 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:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type AccessInformation

Namespace	http://www.spase-group.org/data/schema
Annotations	Attributes of the resource which pertain to how to acquire the resource, availability and storage format.

Diagram	
Used by	Element AccessInformation
Model	RepositoryID , Availability{0,1} , AccessRights{0,1} , AccessURL+ , Format , Encoding{0,1} , DataExtent{0,1} , Acknowledgement{0,1}
Children	AccessRights, AccessURL, Acknowledgement, Availability, DataExtent, Encoding, Format, RepositoryID
Source	<pre><xsd:complexType name="AccessInformation"> <xsd:annotation> <xsd:documentation xml:lang="en">Attributes of the resource which pertain to how to acquire the resource, availability and storage format.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="RepositoryID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Availability" minOccurs="0" maxOccurs="1"/> <xsd:element ref="AccessRights" minOccurs="0" maxOccurs="1"/> <xsd:element ref="AccessURL" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="Format" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Encoding" minOccurs="0" maxOccurs="1"/> <xsd:element ref="DataExtent" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Acknowledgement" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type AccessURL

Namespace	http://www.spase-group.org/data/schema
Annotations	Attributes of the method of acquiring a resource including a URL, name and description.
Diagram	
Used by	Element AccessURL
Model	Name{0,1} , URL , Description{0,1} , Language{0,1}
Children	Description, Language, Name, URL
Source	<pre><xsd:complexType name="AccessURL"> <xsd:annotation> <xsd:documentation xml:lang="en">Attributes of the method of acquiring a resource including a URL, name and description.</xsd:documentation> </xsd:annotation></pre>

	<pre> <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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type DataExtent

Namespace	http://www.spase-group.org/data/schema
Annotations	The area of storage in a file system required to store the contents of a resource. The data extent is expressed in unitized bytes.
Diagram	<pre> classDiagram class DataExtent { <<Quantity>> <<Units>> <<Per>> } DataExtent < -- DataExtent DataExtent < -- Units DataExtent < -- Per DataExtent < -- Quantity </pre>
Used by	Element DataExtent
Model	Quantity , Units{0,1} , Per{0,1}
Children	Per, Quantity, Units
Source	<pre> <xsd:complexType name="DataExtent"> <xsd:annotation> <xsd:documentation xml:lang="en">The area of storage in a file system required to store the contents of a resource. The data extent is expressed in unitized 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> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

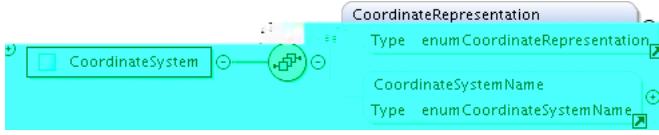
Complex Type TimeSpan

Namespace	http://www.spase-group.org/data/schema
Annotations	The duration of an interval in time.
Diagram	<pre> classDiagram class TimeSpan { <<StartDate>> <<StopDateEntity>> <<Note>> } TimeSpan < -- TimeSpan TimeSpan < -- StopDateEntity TimeSpan < -- Note </pre>
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

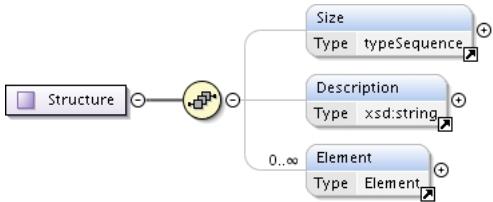
Complex Type PhysicalParameter

Namespace	http://www.spase-group.org/data/schema
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	<pre> classDiagram class PhysicalParameter { Name : xsd:string ParameterKey : xsd:string Description : xsd:string Caveats : xsd:string Cadence : xsd:duration Units : xsd:string UnitsConversion : xsd:string CoordinateSystem : CoordinateSystem Structure : Structure ValidMin : xsd:string ValidMax : xsd:string FillValue : xsd:string ParameterEntity { Abstract : true } } </pre>
Used by	Element PhysicalParameter
Model	Name , ParameterKey{0,1} , Description{0,1} , Caveats{0,1} , Cadence{0,1} , Units{0,1} , UnitsConversion{0,1} , CoordinateSystem{0,1} , Structure{0,1} , ValidMin{0,1} , ValidMax{0,1} , FillValue{0,1} , ParameterEntity
Children	Cadence, Caveats, CoordinateSystem, Description, FillValue, Name, ParameterEntity, ParameterKey, Structure, Units, UnitsConversion, ValidMax, ValidMin
Source	<pre> <xsd:complexType name="PhysicalParameter"> <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="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="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:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type CoordinateSystem

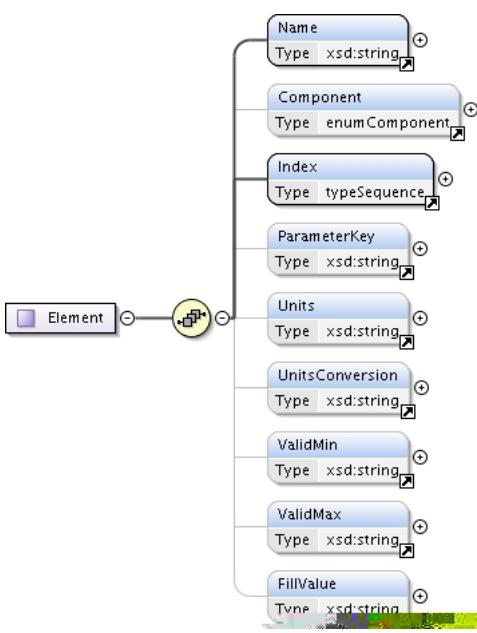
Namespace	http://www.spase-group.org/data/schema
Annotations	Specification of the origin and orientation of axes against which the location of some point is given and the representative form of each point.
Diagram	
Used by	Element CoordinateSystem
Model	CoordinateRepresentation{0,1} , CoordinateSystemName{0,1}
Children	CoordinateRepresentation, CoordinateSystemName
Source	<pre><xsd:complexType name="CoordinateSystem"> <xsd:annotation> <xsd:documentation xml:lang="en">Specification of the origin and orientation of axes against which the location of some point is given and the representative form of each point.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="CoordinateRepresentation" minOccurs="0" maxOccurs="1"/> <xsd:element ref="CoordinateSystemName" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Structure

Namespace	http://www.spase-group.org/data/schema
Annotations	The organization and relationship of individual values within a quantity.
Diagram	
Used by	Element Structure
Model	Size{0,1} , 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="0" maxOccurs="1"/> <xsd:element ref="Description" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Element" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Element

Namespace	http://www.spase-group.org/data/schema
Annotations	A component or individual unit of a multiple value quantity such as an array or vector.

Diagram	
Used by	Element Element
Model	Name , Component{0,1} , Index , ParameterKey{0,1} , Units{0,1} , UnitsConversion{0,1} , ValidMin{0,1} , ValidMax{0,1} , FillValue{0,1}
Children	Component, FillValue, Index, Name, ParameterKey, 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="Component" minOccurs="0" maxOccurs="1"/> <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:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Measured

Namespace	http://www.spase-group.org/data/schema
Annotations	Attributes of observations obtained from an instrument or sensor.
Diagram	
Used by	Element Measured
Model	MeasuredEntity
Children	MeasuredEntity
Source	<pre><xsd:complexType name="Measured"> <xsd:annotation> <xsd:documentation xml:lang="en">Attributes of observations obtained from an instrument or sensor.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="MeasuredEntity" minOccurs="1" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Field

Namespace	http://www.spase-group.org/data/schema
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	<pre> classDiagram class Field class FieldQualifier { <<FieldQualifier>> <<enumFieldQualifier>> } class FieldQuantity { <<FieldQuantity>> <<enumFieldQuantity>> } class FrequencyRange { <<FrequencyRange>> <<FrequencyRange>> } Field "0..oo" --> FieldQualifier Field "1" --> FieldQuantity Field "0..1" --> FrequencyRange </pre>
Used by	Element Field
Model	FieldQualifier*, FieldQuantity, FrequencyRange{0,1}
Children	FieldQualifier, FieldQuantity, FrequencyRange
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="FieldQualifier" 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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type FrequencyRange

Namespace	http://www.spase-group.org/data/schema
Annotations	The range of possible values for the observed frequency.
Diagram	<pre> classDiagram class FrequencyRange class SpectralRange { <<SpectralRange>> <<enumSpectralRange>> } class Low { <<Low>> <<xsd:double>> } class High { <<High>> <<xsd:double>> } class Units { <<Units>> <<xsd:string>> } class Bin { <<Bin>> <<Bin>> } FrequencyRange "1" --> SpectralRange FrequencyRange "1" --> Low FrequencyRange "1" --> High FrequencyRange "1" --> Units FrequencyRange "0..oo" --> Bin </pre>
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Bin

Namespace	http://www.spase-group.org/data/schema
Annotations	A grouping of observations according to a band or window of a common attribute.
Diagram	<pre> classDiagram class Bin { BandName : xsd:string Low : xsd:double High : xsd:double } </pre>
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Particle

Namespace	http://www.spase-group.org/data/schema
Annotations	A description of the types of particles observed in the measurement. This includes both direct observations and inferred observations.
Diagram	<pre> classDiagram class Particle { 1..oo ParticleType : enumParticleType 0..oo ParticleQualifier : enumParticleQualifier 1..oo ParticleQuantity : enumParticleQuantity 0..oo AtomicNumber : xsd:double 0..oo EnergyRange : EnergyRange 0..oo AzimuthalAngleRange : AzimuthalAngleRange 0..oo PolarAngleRange : PolarAngleRange } </pre>
Used by	Element Particle
Model	ParticleType+ , ParticleQualifier*, ParticleQuantity , AtomicNumber* , EnergyRange{0,1} , AzimuthalAngleRange{0,1} , PolarAngleRange{0,1}
Children	AtomicNumber, AzimuthalAngleRange, EnergyRange, ParticleQualifier, ParticleQuantity, ParticleType, PolarAngleRange
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 ref="ParticleType" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="ParticleQualifier" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>

	<pre> <xsd:element ref="ParticleQuantity" minOccurs="1" maxOccurs="1"/> <xsd:element ref="AtomicNumber" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="EnergyRange" minOccurs="0" maxOccurs="1"/> <xsd:element ref="AzimuthalAngleRange" minOccurs="0" maxOccurs="1"/> <xsd:element ref="PolarAngleRange" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type EnergyRange

Namespace	http://www.spase-group.org/data/schema
Annotations	The minimum and maximum energy values of the particles represented by a given "physical parameter" description.
Diagram	<pre> classDiagram class EnergyRange class SpectralRange { Type enumSpectralRange } class Low { Type xsd:double } class High { Type xsd:double } class Units { Type xsd:string } class Bin { Type Bin } EnergyRange < -- SpectralRange EnergyRange < -- Low EnergyRange < -- High EnergyRange < -- Units EnergyRange < -- Bin </pre>
Used by	Element EnergyRange
Model	SpectralRange{0,1} , Low , High , Units , Bin*
Children	Bin, High, Low, SpectralRange, 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="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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type AzimuthalAngleRange

Namespace	http://www.spase-group.org/data/schema
Annotations	The range of possible azimuthal angles for a group of energy observations. Default units are degrees.
Diagram	<pre> classDiagram class AzimuthalAngleRange class Low { Type xsd:double } class High { Type xsd:double } class Units { Type xsd:string } class Bin { Type Bin } AzimuthalAngleRange < -- Low AzimuthalAngleRange < -- High AzimuthalAngleRange < -- Units AzimuthalAngleRange < -- Bin </pre>
Used by	Element AzimuthalAngleRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre> <xsd:complexType name="AzimuthalAngleRange"></pre>

	<pre> <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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type PolarAngleRange

Namespace	http://www.spase-group.org/data/schema
Annotations	The range of possible polar angles for a group of energy observations. Defaults units are degrees.
Diagram	<pre> classDiagram class PolarAngleRange { Low : xsd:double High : xsd:double Units : xsd:string Bin : xsd:Bin } </pre>
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Photon

Namespace	http://www.spase-group.org/data/schema
Annotations	Photon (radio through gamma-rays): the fundamental particle or quantum of electromagnetic radiation (radiant energy)
Diagram	<pre> classDiagram class Photon { PhotonQualifier : enumPhotonQualifier PhotonQuantity : enumPhotonQuantity EnergyRange : EnergyRange WavelengthRange : WavelengthRange FrequencyRange : FrequencyRange } </pre>
Used by	Element Photon

Model	PhotonQualifier*, PhotonQuantity , EnergyRange{0,1} , WavelengthRange{0,1} , FrequencyRange{0,1}
Children	EnergyRange, FrequencyRange, PhotonQualifier, PhotonQuantity, WavelengthRange
Source	<pre><xsd:complexType name="Photon"> <xsd:annotation> <xsd:documentation xml:lang="en">Photon (radio through gamma-rays): the fundamental particle or quantum of electromagnetic radiation (radiant energy)</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="PhotonQualifier" minOccurs="0" maxOccurs="unbounded" /> <xsd:element ref="PhotonQuantity" minOccurs="1" maxOccurs="1"/> <xsd:element ref="EnergyRange" minOccurs="0" maxOccurs="1"/> <xsd:element ref="WavelengthRange" minOccurs="0" maxOccurs="1"/> <xsd:element ref="FrequencyRange" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type WavelengthRange

Namespace	http://www.spase-group.org/data/schema
Annotations	The range of possible values for the observed wavelength.
Diagram	<pre> classDiagram class WavelengthRange { SpectralRange Low High Units Bin } High "0..1" --> Bin </pre>
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="0" maxOccurs="1"/> <xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Support

Namespace	http://www.spase-group.org/data/schema
Annotations	Information useful in understanding the context of an observation, typically observed or measured coincidentally with a physical observation.
Diagram	<pre> classDiagram class Support { SupportQuantity } </pre>
Used by	Element Support
Model	SupportQuantity
Children	SupportQuantity
Source	<pre><xsd:complexType name="Support"></pre>

	<pre> <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="SupportQuantity" minOccurs="1" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type DisplayData

Namespace	http://www.spase-group.org/data/schema
Annotations	A graphical representation of data wherein the underlying numeric values are not (readily) accessible for analysis.. Examples are line plots and spectrograms.
Diagram	<pre> classDiagram class DisplayData { ResourceID ResourceHeader AccessInformation ProcessingLevel ProviderResourceName ProviderProcessingLevel ProviderVersion InstrumentID MeasurementType TemporalDescription SpectralRange DisplayCadence ObservedRegion Caveats Keyword InputResourceId PhysicalParameter Extension } </pre>
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* , PhysicalParameter* , Extension*

Children	AccessInformation, Caveats, DisplayCadence, Extension, InputResourceID, InstrumentID, Keyword, MeasurementType, ObservedRegion, PhysicalParameter, 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.</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="PhysicalParameter" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

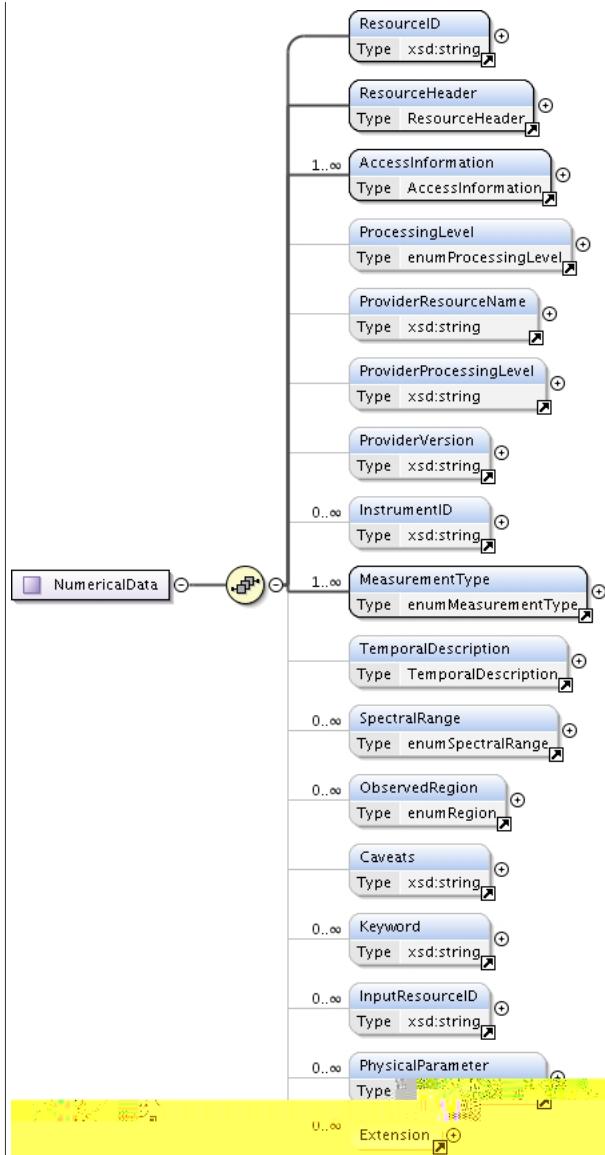
Complex Type TemporalDescription

Namespace	http://www.spase-group.org/data/schema
Annotations	A characterization of the time over which the measurement was taken.
Diagram	<pre> classDiagram class TemporalDescription { <<A characterization of the time over which the measurement was taken.>> } class TimeSpan { <<TimeSpan
Type TimeSpan>> } class Cadence { <<Cadence
Type xsd:duration>> } class Exposure { <<Exposure
Type xsd:duration>> } TemporalDescription < -- TimeSpan TemporalDescription < -- Cadence TemporalDescription < -- Exposure </pre>
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type NumericalData

Namespace	http://www.spase-group.org/data/schema
Annotations	Data stored as numerical values in a specified format.

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* , PhysicalParameter* , Extension*
Children		AccessInformation, Caveats, Extension, InputResourceID, InstrumentID, Keyword, MeasurementType, ObservedRegion, PhysicalParameter, ProcessingLevel, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SpectralRange, TemporalDescription
Source		<xsd:complexType name="NumericalData"> <xsd:annotation> <xsd:documentation xml:lang="en">Data stored as numerical values in a specified format.</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:sequence> </xsd:complexType>

	<pre> <xsd:element ref="Keyword" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="PhysicalParameter" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Document

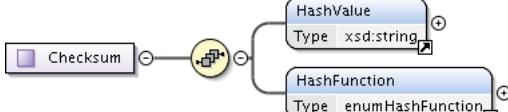
Namespace	http://www.spase-group.org/data/schema
Annotations	A set of information designed and presented as an individual entity. A document may contain plain or formatted text, inlined graphics, sound, other multimedia data, or hypermedia references. Some examples of documents include a paper, letter, book, user guide, map, drawing, photograph, or image.
Diagram	<pre> classDiagram class Document class ResourceID class ResourceHeader class AccessInformation class Keyword class DocumentType class InputResourceID Document "0..oo" -- "1..oo" ResourceID : Document "0..oo" -- "1..oo" ResourceHeader : Document "0..oo" -- "1..oo" AccessInformation : Document "0..oo" -- "1..oo" Keyword : Document "0..oo" -- "1..oo" DocumentType : Document "0..oo" -- "1..oo" InputResourceID : </pre>
Used by	Element Document
Model	ResourceID , ResourceHeader , AccessInformation+ , Keyword* , DocumentType , InputResourceID*
Children	AccessInformation, DocumentType, InputResourceID, Keyword, 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, inlined graphics, sound, other multimedia data, or hypermedia references. Some examples of documents include a paper, letter, book, user guide, map, drawing, photograph, or image.</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="InputResourceID" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Granule

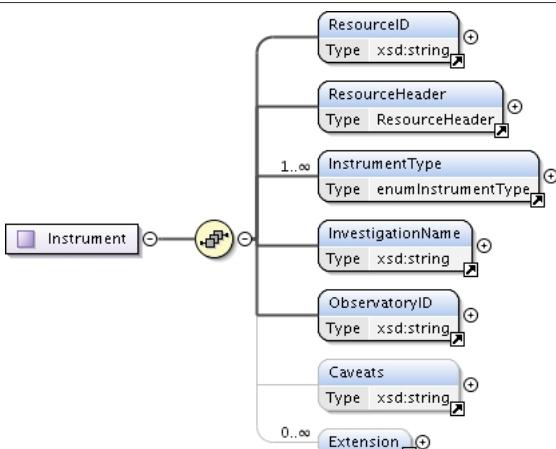
Namespace	http://www.spase-group.org/data/schema
Annotations	An accessible portion of another resource. A Granule may be composed of one or more physical pieces (files) which are considered inseparable. For example, a data storage format that maintains metadata and binary data in separate, but tightly 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.

	<p>The attributes of a Granule supersede the corresponding attributes in the NumericalData resource.</p>
Diagram	<pre> classDiagram class Granule { ResourceID ReleaseDate ExpirationDate ParentID PriorID <0..oo> URL <1..oo> StartDate StopDate Checksum DataExtent Extension <0..oo> } </pre>
Used by	Element Granule
Model	ResourceID , ReleaseDate , ExpirationDate{0,1} , ParentID , PriorID* , URL+ , StartDate , StopDate , Checksum{0,1} , DataExtent{0,1} , Extension*
Children	Checksum, DataExtent, ExpirationDate, Extension, ParentID, PriorID, ReleaseDate, ResourceID, StartDate, StopDate, URL
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:element ref="URL" minOccurs="1" maxOccurs="unbounded"/> <xsd:element ref="StartDate" minOccurs="1" maxOccurs="1"/> <xsd:element ref="StopDate" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Checksum" minOccurs="0" maxOccurs="1"/> <xsd:element ref="DataExtent" minOccurs="0" maxOccurs="1"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Checksum

Namespace	http://www.spase-group.org/data/schema
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Instrument

Namespace	http://www.spase-group.org/data/schema
Annotations	A device which is used to sense and parameterize a physical phenomenon.
Diagram	
Used by	Element Instrument
Model	ResourceID , ResourceHeader , InstrumentType+ , InvestigationName , ObservatoryID , Caveats{0,1} , Extension*
Children	Caveats, Extension, InstrumentType, InvestigationName, ObservatoryID, ResourceHeader, ResourceID
Source	<pre><xsd:complexType name="Instrument"> <xsd:annotation> <xsd:documentation xml:lang="en">A device which is used to sense and parameterize a physical phenomenon.</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="1"/> <xsd:element ref="ObservatoryID" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>

	<pre> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded" /> </xsd:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Observatory

Namespace	http://www.spase-group.org/data/schema
Annotations	The host (spacecraft, network, facility) for instruments making observations.
Diagram	<pre> classDiagram class Observatory class ResourceID class ResourceHeader class ObservatoryGroup class Location class Extension Observatory "0..1" -- "0..1" ResourceID Observatory "0..1" -- "0..1" ResourceHeader Observatory "0..1" -- "0..1" ObservatoryGroup Observatory "0..1" -- "0..1" Location Observatory "0..1" -- "0..1" Extension </pre>
Used by	Element Observatory
Model	ResourceID , ResourceHeader , ObservatoryGroup* , Location , Extension*
Children	Extension, Location, ObservatoryGroup, ResourceHeader, ResourceID
Source	<pre> <xsd:complexType name="Observatory"> <xsd:annotation> <xsd:documentation xml:lang="en">The host (spacecraft, network, facility) for instruments making observations.</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="ObservatoryGroup" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="Location" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Location

Namespace	http://www.spase-group.org/data/schema
Annotations	A position in space definable by a regional referencing system and geographic coordinates.
Diagram	<pre> classDiagram class Location class ObservatoryRegion class CoordinateSystemName class Latitude class Longitude class Elevation Location "1..1" -- "1..1" ObservatoryRegion Location "1..1" CoordinateSystemName Location "1..1" Latitude Location "1..1" Longitude Location "1..1" Elevation </pre>
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="1"/> <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>

	<pre> <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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Person

Namespace	http://www.spase-group.org/data/schema
Annotations	An individual human being.
Diagram	<pre> classDiagram class Person class ResourceID class ReleaseDate class PersonName class OrganizationName class Address class Email class PhoneNumber class Extension class FaxNumber Person "1" *-- "1" ResourceID Person "1" *-- "1" ReleaseDate Person "1" *-- "1" PersonName Person "1" *-- "1" OrganizationName Person "1" *-- "1..∞" Address Person "1" *-- "1..∞" Email Person "1" *-- "1..∞" PhoneNumber Person "1" *-- "1..∞" Extension Person "1" *-- "1..∞" FaxNumber </pre>
Used by	Element Person
Model	ResourceID , ReleaseDate{0,1} , PersonName{0,1} , OrganizationName , Address{0,1} , Email* , PhoneNumber* , Extension* , FaxNumber{0,1}
Children	Address, Email, Extension, FaxNumber, OrganizationName, PersonName, PhoneNumber, ReleaseDate, ResourceID
Source	<pre> <xsd:complexType name="Person"> <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="Extension" minOccurs="0" maxOccurs="unbounded"/> <xsd:element ref="FaxNumber" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Complex Type Registry

Namespace	http://www.spase-group.org/data/schema
Annotations	A location or facility where resources are catalogued.
Diagram	<pre> classDiagram class Registry class ResourceID class ResourceHeader class Extension Registry "1..∞" *-- "1" ResourceID Registry "1..∞" *-- "1" ResourceHeader Registry "1..∞" *-- "1" Extension </pre>

Used by	Element	Registry
Model	ResourceID , ResourceHeader , Extension*	
Children	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="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd	

Complex Type Repository

Namespace	http://www.spase-group.org/data/schema	
Annotations	A location or facility where resources are stored.	
Diagram	<pre> classDiagram class Repository class ResourceID { •xsd:string Type } class ResourceHeader { •ResourceHeader Type } class Extension { •xsd:string Type } Repository "1..1" -- "1..1" ResourceID Repository "1..1" -- "1..1" ResourceHeader Repository "0..1..1" -- "1..1" Extension </pre>	
Used by	Element	
Model	Repository	
Children	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="Extension" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd	

Complex Type Service

Namespace	http://www.spase-group.org/data/schema	
Annotations	A location or facility that can perform a well defined task.	
Diagram	<pre> classDiagram class Service class ResourceID { •xsd:string Type } class ResourceHeader { •ResourceHeader Type } class AccessURL { •AccessURL Type } class Extension { •xsd:string Type } Service "1..1" -- "1..1" ResourceID Service "1..1" -- "1..1" ResourceHeader Service "1..1" -- "1..1" AccessURL Service "0..1..1" -- "1..1" Extension </pre>	
Used by	Element	
Model	Service	
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>	

	<pre> <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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Types

Simple Type enumRole

Namespace	http://www.spase-group.org/data/schema	
Annotations	Identifiers for the assigned or assumed function or position of an individual.	
Diagram	<pre> graph LR enumRole --> xsdString[xsd:string] style enumRole fill:#e0e0ff,stroke:#333,stroke-width:1px style xsdString fill:#e0e0ff,stroke:#333,stroke-width:1px </pre>	
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 for 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	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
	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></pre>	

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<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:enumeration value="CoInvestigator">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An individual who is a scientific peer and
          major participant for 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="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">
        </xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>

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	<pre> </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> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumAvailability

Namespace	http://www.spase-group.org/data/schema								
Annotations	Identifiers for indicating the method or service which may be used to access the resource.								
Diagram									
Type	restriction of xsd:string								
Facets	<table> <tr> <td>enumeration</td> <td>Offline</td> <td>Not directly accessible electronically. This includes resources which may be moved to an online 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 be moved to an online status in response to a given request.	enumeration	Online	Directly accessible electronically.
enumeration	Offline	Not directly accessible electronically. This includes resources which may be moved to an online 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 be moved to an online 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>								
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd								

Simple Type enumAccessRights

Namespace	http://www.spase-group.org/data/schema								
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> <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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumFormat

Namespace	http://www.spase-group.org/data/schema		
Annotations	Identifiers for data organized according to preset specifications.		
Diagram	<pre> classDiagram class enumFormat class xsd:string enumFormat < -- xsd:string </pre>		
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	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	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 Centers Network Common Data Form (NetCDF). A self-describing data 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	Text	ASCII text
enumeration	TIFF	A binary format for still pictures. Tagged Image Format File (TIFF). Originally developed by Aldus and now controlled by Adobe.

	enumeration	UDF	Universal Data Format (UDF). The Optical Technology Storage Associations Universal Disk Format, based on ISO 13346. See < http://www.osta.org/specs/index.htm >
	enumeration	VOTable	A proposed XML 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 ISTP 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="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"> </pre>

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<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: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>
<xsd:enumeration value="HTML">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A text file containing structured information
      represented in the HyperText Mark-up Language
      (HTML). See <a href="http://www.w3.org/MarkUp/">http://www.w3.org/MarkUp/</a></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>
    <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">

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<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 data portable
    data format for array-oriented data access.
    See <a href="http://my.unidata.ucar.edu/content/software/netcdf"></a></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 <a href="http://developer.apple.com/quicktime/"></a></
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Text">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">ASCII text</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="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 <a href="http://www.osta.org/specs/index.htm"></a></
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="VOTable">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A proposed XML 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 Markup Language (XML). A structured
    format for representing information. See <a href="http://www.w3.org/XML/"></a></
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Simple Type enumEncoding

Namespace	http://www.spase-group.org/data/schema	
Annotations	Identifier for unambiguous rules that establishes the representation of information within a file.	
Diagram	<pre> graph LR enumEncoding[enumEncoding] --> xsdString[xsd:string] style enumEncoding fill:#e0e0ff,stroke:#808080 style xsdString fill:#e0e0ff,stroke:#808080 </pre>	
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	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	BZIP2 An open standard algorithm by Julian Seward using Burrows-Wheeler block sorting and Huffman coding. See < http://www.bzip.org/ >
	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	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">Identifier 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="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:restriction> </xsd:simpleType> </pre>	

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        and the "+" and "/" symbols, with the "="
        symbol as a special suffix (padding) code.</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="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="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>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Simple Type enumPhenomenonType

Namespace	http://www.spase-group.org/data/schema		
Annotations	Identifiers for the characteristics or categorization of an observation. Note: Joe King to provide.		
Diagram	<pre> classDiagram enumPhenomenonType "1" -- "0..1" xsd:string </pre>		
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 which involves a burst of plasma which is ejected from the Sun into the interplanetary medium.
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	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 CMEs, 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 antisunward 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"

		<p>consiting of narrow-band bursts that sweep rapidly (seconds) from decimeter to dekameter wavelengths (500 - 0.5 MHz); and "Type IV" consiting of a smooth continuum of broad-band bursts primarily in the meter range (300 - 30 MHz).</p>	
	enumeration	SolarFlare	An explosive event in the Suns 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	Substorm	A process by which plasma in the magnetotail becomes energized at a fast rate.
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> <xsd:documentation xml:lang="en">A solar event which involves a burst of plasma which is ejected from the Sun into the interplanetary medium.</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</pre>		

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        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 antisunward
        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="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>
</xsd:enumeration>

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<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="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>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Simple Type enumCoordinateRepresentation

Namespace	http://www.spase-group.org/data/schema		
Annotations			
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Cartesian	A coordinate system in which the position of a point is determined by its distance from two or three mutually perpendicular axes.
	enumeration	Cylindrical	A system of curvilinear coordinates in which the position of a point in space is determined by its perpendicular distance from a given line, its distance from a selected reference plane perpendicular to this line, and its angular distance from a selected reference line when projected onto this plane.
	enumeration	Spherical	A system of curvilinear coordinates characterized by an azimuthal angle (longitude), a polar angle (latitude), and a distance (radius) from a point to the origin.
Used by	Element	CoordinateRepresentation	
Source	<pre> <xsd:simpleType name="enumCoordinateRepresentation"> <xsd:annotation> <xsd:documentation xml:lang="en"> </xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Cartesian"> <xsd:annotation> <xsd:documentation xml:lang="en">A coordinate system in which the position of a point is determined by its distance from two or three mutually perpendicular axes.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Cylindrical"> <xsd:annotation> <xsd:documentation xml:lang="en">A system of curvilinear coordinates in which the position of a point in space is determined by its perpendicular distance from a given line, its distance from a selected reference plane perpendicular to this line, and its angular distance from a selected reference line when projected onto this plane.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Spherical"> <xsd:annotation> <xsd:documentation xml:lang="en">A system of curvilinear coordinates characterized by an azimuthal angle (longitude), a polar angle (latitude), and a distance (radius) from a point to the origin.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </pre>		

	</xsd:simpleType>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumCoordinateSystemName

Namespace	http://www.spase-group.org/data/schema																						
Annotations	Identifiers for coordinate systems in which the position, direction or observation has been expressed.																						
Diagram	<pre> classDiagram class enumCoordinateSystemName { <> --> xsd:string } </pre>																						
Type	restriction of xsd:string																						
Facets	<table border="1"> <tr> <td>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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>enumeration</td> <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. See Russell, 1971.</td> </tr> <tr> <td>enumeration</td> <td>GSE</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>GSEQ</td> <td>Geocentric Solar Equatorial - A coordinate system where the X axis is from Earth to Sun.</td> </tr> </table>		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	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	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	GEI	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.
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	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	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	GEI	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.																					

		<p>Y axis is parallel to solar equatorial plane. Z axis is positive northward. See Russell, 1971</p>
enumeration	GSM	<p>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</p>
enumeration	HAE	<p>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.</p>
enumeration	HCI	<p>Heliographic Carrington Inertial.</p>
enumeration	HEE	<p>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</p>
enumeration	HEEQ	<p>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.</p>
enumeration	HG	<p>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></p>
enumeration	HGI	<p>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></p>
enumeration	J2000	<p>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.</p>
enumeration	LGM	<p>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) = $\sqrt{B_x^2 + B_y^2}$ and D (declination angle) = $\arctan(B_y/B_x)$</p>
enumeration	MAG	<p>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</p>

		vector from the Earth's center to the north geographic pole, the signs of the X and Y axes are given by $Y = N \times Z$, $X = Y \times Z$. 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	SpacecraftOrbitPlane	A coordinate system where X lies in the orbit plane normal to and in the direction of motion of the spacecraft, Z is normal to the orbit plane and Y completes the triad in a right-handed coordinate system.
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	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 lHeure.
Used by	Element	CoordinateSystemName
Source		<pre> <xsd:simpleType name="enumCoordinateSystemName"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for coordinate systems in which the position, direction or observation has been expressed.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <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="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="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.cnrs.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 </pre>

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    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:enumeration value="HCI">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Heliographic Carrington Inertial.</
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/coor\_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/coor\_des.html></xsd:documentation>
  </xsd:annotation>
</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>

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<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)
      =  $\sqrt{B_x^2 + B_y^2}$  and D (declination
      angle) =  $\arctan(B_y/B_x)$ </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 <a href="http://cdpp.cnes.fr/00428.pdf"></a></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 <a href="http://cdpp.cnes.fr/00428.pdf"></a></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 <a href="http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html"></a></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="SpacecraftOrbitPlane">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A coordinate system where X lies in the orbit
      plane normal to and in the direction of motion
      of the spacecraft, Z is normal to the orbit
      plane and Y completes the triad in a right-handed
      coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>

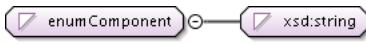
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	<pre> <xsd:enumeration value="SR"> <xsd:annotation> <xsd:documentation xml:lang="en">Spin Reference - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X and Y rotate with 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 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="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:restriction> </xsd:simpleType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type typeSequence

Namespace	http://www.spase-group.org/data/schema
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumComponent

Namespace	http://www.spase-group.org/data/schema			
Annotations	Identifiers for the axis of coordinate systems.			
Diagram				
Type	restriction of xsd:string			
Facets	<table border="0"> <tr> <td style="vertical-align: top;">enumeration</td> <td style="vertical-align: top;">Phi</td> <td> The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: $\text{Phi} = \arctan(y/x)$ </td> </tr> </table>	enumeration	Phi	The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: $\text{Phi} = \arctan(y/x)$
enumeration	Phi	The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: $\text{Phi} = \arctan(y/x)$		

	enumeration	R	The component of a vector in the radial direction from the center of the coordinate system.
	enumeration	Theta	For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole. Mathematically: $\text{Theta} = \arctan(\sqrt{x^2 + y^2}/z)$
	enumeration	X	The component of a vector along the X-axis in a cartesian coordinate system.
	enumeration	Y	The component of a vector along the Y-axis in a cartesian coordinate system.
	enumeration	Z	The component of a vector along the Z-axis in a cartesian coordinate system.
Used by	Element	Component	
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="Phi"> <xsd:annotation> <xsd:documentation xml:lang="en">The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: $\text{Phi} = \arctan(y/x)$</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="R"> <xsd:annotation> <xsd:documentation xml:lang="en">The component of a vector in the radial direction from the center of the coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Theta"> <xsd:annotation> <xsd:documentation xml:lang="en">For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole. Mathematically: $\text{Theta} = \arctan(\sqrt{x^2 + y^2}/z)$</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="X"> <xsd:annotation> <xsd:documentation xml:lang="en">The component of a vector along the X-axis in a cartesian coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Y"> <xsd:annotation> <xsd:documentation xml:lang="en">The component of a vector along the Y-axis in a cartesian coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Z"> <xsd:annotation> <xsd:documentation xml:lang="en">The component of a vector along the Z-axis in a cartesian coordinate system.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>		

	<pre> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumFieldQualifier

Namespace	http://www.spase-group.org/data/schema																																														
Annotations	Identifiers for terms which can be associated with a Field Quantity.																																														
Diagram																																															
Type	restriction of xsd:string																																														
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Average</td> <td>The statistical mean; the sum of a set of values divided by the number of values in the set.</td> </tr> <tr> <td>enumeration</td> <td>Component</td> <td>A part of a multi-part entity, e.g., the components of a vector.</td> </tr> <tr> <td>enumeration</td> <td>Component.Phi</td> <td>The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)</td> </tr> <tr> <td>enumeration</td> <td>Component.R</td> <td>The component of a vector in the radial direction from the center of the coordinate system.</td> </tr> <tr> <td>enumeration</td> <td>Component.Theta</td> <td>For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole. Mathematically: Theta = arctan(sqrt(x^2 + y^2)/z)</td> </tr> <tr> <td>enumeration</td> <td>Component.X</td> <td>The component of a vector along the X-axis in a cartesian coordinate system.</td> </tr> <tr> <td>enumeration</td> <td>Component.Y</td> <td>The component of a vector along the Y-axis in a cartesian coordinate system.</td> </tr> <tr> <td>enumeration</td> <td>Component.Z</td> <td>The component of a vector along the Z-axis in a cartesian coordinate system.</td> </tr> <tr> <td>enumeration</td> <td>CrossSpectrum</td> <td>The Fourier transform of the cross correlation of two physical or empirical observations.</td> </tr> <tr> <td>enumeration</td> <td>Deviation</td> <td>The difference between an observed value and the expected value of a quantity.</td> </tr> <tr> <td>enumeration</td> <td>Magnitude</td> <td>A measure of the strength or size of a vector quantity.</td> </tr> <tr> <td>enumeration</td> <td>Parallel</td> <td>Having the same direction as a given direction</td> </tr> <tr> <td>enumeration</td> <td>Peak</td> <td>The maximum value for the quantity in question, over a period of time which is usually equal to the cadence.</td> </tr> <tr> <td>enumeration</td> <td>Perpendicular</td> <td>At right angles to a given direction.</td> </tr> <tr> <td>enumeration</td> <td>PhaseAngle</td> <td>Phase difference between two or more waves,</td> </tr> </table>	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.	enumeration	Component	A part of a multi-part entity, e.g., the components of a vector.	enumeration	Component.Phi	The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)	enumeration	Component.R	The component of a vector in the radial direction from the center of the coordinate system.	enumeration	Component.Theta	For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole. Mathematically: Theta = arctan(sqrt(x^2 + y^2)/z)	enumeration	Component.X	The component of a vector along the X-axis in a cartesian coordinate system.	enumeration	Component.Y	The component of a vector along the Y-axis in a cartesian coordinate system.	enumeration	Component.Z	The component of a vector along the Z-axis in a cartesian coordinate system.	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	Magnitude	A measure of the strength or size of a vector quantity.	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	PhaseAngle	Phase difference between two or more waves,	
enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.																																													
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enumeration	CrossSpectrum	The Fourier transform of the cross correlation of two physical or empirical observations.																																													
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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	PhaseAngle	Phase difference between two or more waves,																																													

		normally expressed in degrees.
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
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	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	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	FieldQualifier
Source	<pre><xsd:simpleType name="enumFieldQualifier"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for terms which can be associated with a Field Quantity.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <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="Component"> <xsd:annotation> <xsd:documentation xml:lang="en">A part of a multi-part entity, e.g., the components of a vector.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Component.Phi"> <xsd:annotation> <xsd:documentation xml:lang="en">The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Component.R"> <xsd:annotation> 72.19999695 75.55200195 Tm dtt 1 0 0 -1 0 aa[(<xsd:documentation>)] TJ 1 0 0 -1 10m dtt 1 0 0 -1 </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>	

```

zero at the equator and positive angles are
in the direction designated as "North." An
alternate range of values is often called
"co-latitude" where values range from 0 to
+180 as measured from the "north" pole. Mathematically:
Theta = arctan(sqrt(x^2 + y^2)/z)</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Component.X">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The component of a vector along the X-axis
    in a cartesian coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Component.Y">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The component of a vector along the Y-axis
    in a cartesian coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Component.Z">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The component of a vector along the Z-axis
    in a cartesian coordinate system.</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="Magnitude">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of the strength or size of a vector
    quantity.</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="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="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="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>

```

	<pre> <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="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> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumFieldQuantity

Namespace	http://www.spase-group.org/data/schema																									
Annotations	Identifiers for the physical attribute of the field.																									
Diagram	<pre> classDiagram class enumFieldQuantity { <<Identifiers for the physical attribute of the field.>> } class xsd.string enumFieldQuantity < -- xsd.string </pre>																									
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>The physical attribute that is or is caused by a mutual interaction of electric and magnetic fields.</td> </tr> <tr> <td>enumeration</td> <td>Gyrofrequency</td> <td>The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field</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></td> </tr> <tr> <td>enumeration</td> <td>Potential</td> <td>A field which obeys Laplaces Equation.</td> </tr> <tr> <td>enumeration</td> <td>PoyntingFlux</td> <td>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	The physical attribute that is or is caused by a mutual interaction of electric and magnetic fields.	enumeration	Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field	enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.	enumeration	Plasmafrequency		enumeration	Potential	A field which obeys Laplaces Equation.	enumeration	PoyntingFlux	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	The physical attribute that is or is caused by a mutual interaction of electric and magnetic fields.																								
enumeration	Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field																								
enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.																								
enumeration	Plasmafrequency																									
enumeration	Potential	A field which obeys Laplaces Equation.																								
enumeration	PoyntingFlux	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</pre>																									

	<pre> 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:enumeration value="Electromagnetic"> <xsd:annotation> <xsd:documentation xml:lang="en">The physical attribute that is or is caused by a mutual interaction of electric and magnetic fields.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Gyrofrequency"> <xsd:annotation> <xsd:documentation xml:lang="en">The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field</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"> </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">The rate of energy transport per unit area per steradian.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumSpectralRange

Namespace	http://www.spase-group.org/data/schema		
Annotations	<p>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.</p>		
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 10.0 nm to 125.0 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
enumeration	HeI0830	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	Infrared	Photons with a wavelength range: 760 to 1.00x10^6 nm
enumeration	K7699	A spectrum with a wavelength range centered at 769.9 nm. VSO nickname: K-7699 dopplergram with a range of 769.8 nm to 770.0 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	Ultraviolet	Photons with a wavelength range: 10 to 400 nm.
enumeration	Whitelight	
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="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="Halpha"> <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>	

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        </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</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="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 centered
                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="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="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">
            </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>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Simple Type enumParticleType

Namespace	http://www.spase-group.org/data/schema																									
Annotations	Identifiers for the characterization of the kind of particle observed by the measurement.																									
Diagram	<pre> classDiagram enumParticleType < -- xsd:string </pre>																									
Type	restriction of xsd:string																									
Facets	<table> <tr> <td>enumeration</td> <td>Aerosol</td> <td>A suspension of fine solid or liquid particles in gas.</td> </tr> <tr> <td>enumeration</td> <td>AlphaParticle</td> <td>A positively charged nuclear particle that consists of two protons and two neutrons.</td> </tr> <tr> <td>enumeration</td> <td>Dust</td> <td>Free microscopic particles of solid material.</td> </tr> <tr> <td>enumeration</td> <td>Electron</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Ion</td> <td>An atom that has acquired a net electric charge by gaining or losing one or more electrons. (Note: Z>2)</td> </tr> <tr> <td>enumeration</td> <td>Molecule</td> <td>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</td> </tr> <tr> <td>enumeration</td> <td>Neutral</td> <td>Either a particle, an object, or a system that has a net electric charge of zero</td> </tr> <tr> <td>enumeration</td> <td>Proton</td> <td>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.</td> </tr> </table>		enumeration	Aerosol	A suspension of fine solid or liquid particles in gas.	enumeration	AlphaParticle	A positively charged nuclear particle that consists of two protons and two neutrons.	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	Neutral	Either a particle, an object, or a system that has a net electric charge of zero	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.
enumeration	Aerosol	A suspension of fine solid or liquid particles in gas.																								
enumeration	AlphaParticle	A positively charged nuclear particle that consists of two protons and two neutrons.																								
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	Neutral	Either a particle, an object, or a system that has a net electric charge of zero																								
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 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="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:restriction> </xsd:simpleType> </pre>																									

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        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="Neutral">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Either a particle, an object, or a system
        that has a net electric charge of zero</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>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Simple Type enumParticleQualifier

Namespace	http://www.spase-group.org/data/schema																							
Annotations	Identifiers for terms which can be associated with a Particle Quantity.																							
Diagram	<pre> classDiagram class enumParticleQualifier { <<enumParticleQualifier>> } class xsd { <<xsd>> } enumParticleQualifier < -- xsd:string </pre>																							
Type	restriction of xsd:string																							
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Anisotropy</td> <td>Direction-dependent property.</td> </tr> <tr> <td>enumeration</td> <td>Average</td> <td>The statistical mean; the sum of a set of values divided by the number of values in the set.</td> </tr> <tr> <td>enumeration</td> <td>Characteristic</td> <td>A quantity which can be easily identified and measured in a given environment.</td> </tr> <tr> <td>enumeration</td> <td>Component</td> <td>A part of a multi-part entity, e.g., the components of a vector.</td> </tr> <tr> <td>enumeration</td> <td>Component.Phi</td> <td>The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)</td> </tr> <tr> <td>enumeration</td> <td>Component.R</td> <td>The component of a vector in the radial direction from the center of the coordinate system.</td> </tr> <tr> <td>enumeration</td> <td>Component.Theta</td> <td>For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to 180.</td> </tr> </table>			enumeration	Anisotropy	Direction-dependent property.	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	Component	A part of a multi-part entity, e.g., the components of a vector.	enumeration	Component.Phi	The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)	enumeration	Component.R	The component of a vector in the radial direction from the center of the coordinate system.	enumeration	Component.Theta	For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to 180.
enumeration	Anisotropy	Direction-dependent property.																						
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	Component	A part of a multi-part entity, e.g., the components of a vector.																						
enumeration	Component.Phi	The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)																						
enumeration	Component.R	The component of a vector in the radial direction from the center of the coordinate system.																						
enumeration	Component.Theta	For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to 180.																						

		+180 as measured from the "north" pole. Mathematically: $\text{Theta} = \arctan(\sqrt{x^2 + y^2}/z)$
enumeration	Component.X	The component of a vector along the X-axis in a cartesian coordinate system.
enumeration	Component.Y	The component of a vector along the Y-axis in a cartesian coordinate system.
enumeration	Component.Z	The component of a vector along the Z-axis in a cartesian coordinate system.
enumeration	Deviation	The difference between an observed value and the expected value of a quantity.
enumeration	Differential	A flux measurement within a given energy and solid-angle range.
enumeration	Fit	Values that make a model agree with the data.
enumeration	Integral	The summation of values above a given threshold and over area or solid-angle range.
enumeration	Magnitude	A measure of the strength or size of a vector quantity.
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	Ratio	The relative magnitudes of two quantities.
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
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	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	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	ParticleQualifier
Source	<pre><xsd:simpleType name="enumParticleQualifier"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for terms which can be associated with a Particle Quantity.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"></pre>	

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<xsd:enumeration value="Anisotropy">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Direction-dependent property.</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="Component">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A part of a multi-part entity, e.g., the
      components
        of a vector.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Component.Phi">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The angle between the meridian of a vector
      and the zero meridian of the coordinate system
      in which the vector is expressed. Equivalently,
      the angle between the projection of a position
      or measured vector into the X-Y plane and
      X-axis in the coordinate system in which the
      vector is expressed. Also referred to as the
      azimuthal angle or "longitude". Mathematically:
      Phi = arctan(y/x)</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Component.R">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The component of a vector in the radial direction
      from the center of the coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Component.Theta">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">For spatial points, the angular distance from
      a meridian normal to the equator. Also referred
      to as the zenith angle or "latitude". As a
      "latitude" angles range from +90 to -90 with
      zero at the equator and positive angles are
      in the direction designated as "North." An
      alternate range of values is often called
      "co-latitude" where values range from 0 to
      +180 as measured from the "north" pole. Mathematically:
      Theta = arctan(sqrt(x^2 + y^2)/z)</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Component.X">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The component of a vector along the X-axis
      in a cartesian coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Component.Y">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The component of a vector along the Y-axis
      in a cartesian coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Component.Z">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The component of a vector along the Z-axis
      in a cartesian coordinate system.</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">

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<xsd:annotation>
  <xsd:documentation xml:lang="en">A flux measurement within a given energy and
  solid-angle range.</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="Integral">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The summation of values above a given threshold
    and over area or solid-angle range.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Magnitude">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of the strength or size of a vector
    quantity.</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="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="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="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="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>

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	<pre> </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> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumParticleQuantity

Namespace	http://www.spase-group.org/data/schema	
Annotations	Identifiers for the characterization of the physical properties of the particle.	
Diagram	<pre> classDiagram class enumParticleQuantity { <<Identifiers for the characterization of the physical properties of the particle. >> } class xsd:string enumParticleQuantity < -- xsd:string </pre>	
Type	restriction of xsd:string	
Facets	enumeration	AlfvenMachNumber The ratio of the bulk flow speed to the Alfven speed.
	enumeration	AverageChargeState A measure of the composite deficit (positive) or excess (negative) of electrons with respect to protons.
	enumeration	Counts An enumeration of the number of detection events occurring in a particle detector per unit time or over detector accumulation times.
	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	Gyrofrequency The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
	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	NumberDensity The number of particles per unit volume.
	enumeration	NumberFlux The number of particles passing through a unit area in a unit time.
	enumeration	PhaseSpaceDensity The number of particles per unit volume in the six-dimensional space of position and velocity.

	enumeration	PlasmaBeta	The ratio of the plasma pressure to the magnetic pressure.
	enumeration	Plasmafrequency	
	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	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="AlfvenMachNumber"> <xsd:annotation> <xsd:documentation xml:lang="en">The ratio of the bulk flow speed to the Alfvén speed.</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="Counts"> <xsd:annotation> <xsd:documentation xml:lang="en">An enumeration of the number of detection events occurring in a particle detector per unit time or over detector accumulation times.</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:restriction> </xsd:simpleType></pre>		

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    </xsd:enumeration>
    <xsd:enumeration value="Gyrofrequency">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The frequency with which a charged particle
                (as an electron) executes spiral gyrations
                in moving obliquely across a magnetic field</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="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 through a
                unit area in a unit time.</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="PlasmaBeta">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The ratio of the plasma pressure to the magnetic
                pressure.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Plasmafrequency">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">
            </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="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
            </xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>

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	<pre> 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></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumPhotonQualifier

Namespace	http://www.spase-group.org/data/schema	
Annotations	Identifiers for terms which can be associated with a Photon Quantity.	
Diagram	<pre> classDiagram class enumPhotonQualifier class xsd:string enumPhotonQualifier < -- xsd:string </pre>	
Type	restriction of xsd:string	
Facets	enumeration Average enumeration Circular enumeration LineofSight enumeration Linear enumeration Peak enumeration Scalar enumeration StandardDeviation enumeration StokesParameters	<p>The statistical mean; the sum of a set of values divided by the number of values in the set.</p> <p>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.</p> <p>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.</p> <p>Relative to polarization, confinement of the E-field vector to a given plane</p> <p>The maximum value for the quantity in question, over a period of time which is usually equal to the cadence.</p> <p>A quantity that is completely specified by its magnitude and has no direction.</p> <p>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.</p> <p>The four coordinates (usually called I, Q, U, and V) relative to a particular basis for the representation of the polarization state of an electromagnetic wave propagating through space.</p>

	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.
Used by	Element	PhotonQualifier	
Source			<pre> <xsd:simpleType name="enumPhotonQualifier"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for terms which can be associated with a Photon Quantity.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <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="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="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">Relative to polarization, confinement of the E-field vector to a given plane</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="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="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"> </pre>

	<pre> <xsd:annotation> <xsd:documentation xml:lang="en">The four coordinates (usually called I, Q, U, and V) relative to a particular basis for the representation of the polarization state of an electromagnetic wave propagating through space.</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:restriction> </xsd:simpleType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumPhotonQuantity

Namespace	http://www.spase-group.org/data/schema	
Annotations	Identifiers for the characterization of the physical properties of the photon.	
Diagram	<pre> classDiagram enumPhotonQuantity < -- xsd:string </pre>	
Type	restriction of xsd:string	
Facets	enumeration	Emissivity The ratio of radiant energy from a material to that from a blackbody at the same kinetic temperature
	enumeration	EnergyFlux The amount of energy passing through a unit area in a unit time.
	enumeration	EquivalentWidth The area of the spectral line profile divided by the peak height or depth.
	enumeration	Gyrofrequency The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
	enumeration	LineDepth In spectra, a measure of the amount of absorption for a particular wavelength or frequency in the spectrum
	enumeration	MagneticField Measurements of magnetic field vectors (sometimes not all components) as time series; can be space- or ground-based. Also, [Zeeman splitting, etc. based]: 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 The frequency with which a plasma oscillates.
	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	StokesParameters	The four coordinates (usually called I, Q, U, and V) relative to a particular basis for the representation of 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".
Used by	Element	PhotonQuantity	
Source			<pre> <xsd:simpleType name="enumPhotonQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the characterization of the physical properties of the photon.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Emissivity"> <xsd:annotation> <xsd:documentation xml:lang="en">The ratio of radiant energy from a material to that from a blackbody at the same kinetic temperature</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 area of the spectral line profile divided by the peak height or depth.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Gyrofrequency"> <xsd:annotation> <xsd:documentation xml:lang="en">The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="LineDepth"> <xsd:annotation> <xsd:documentation xml:lang="en">In spectra, a measure of the amount of absorption for a particular wavelength or frequency in the spectrum</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="MagneticField"> <xsd:annotation> <xsd:documentation xml:lang="en">Measurements of magnetic field vectors (sometimes not all components) as time series; can be space- or ground-based. Also, [Zeeman splitting, etc. based]: 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">The frequency with which a plasma oscillates.</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</pre>

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        or counterclockwise), unpolarized, or mixtures
        of the above.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="StokesParameters">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The four coordinates (usually called I, Q,
        U, and V) relative to a particular basis for
        the representation of 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:restriction>
</xsd:simpleType>

```

Schema location file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumSupportQuantity

Namespace	http://www.spase-group.org/data/schema		
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	Other	Values, such as flags, that are not time tags, location data or measured or derived parameters.
	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.
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="Other"> <xsd:annotation> <xsd:documentation xml:lang="en">Values, such as flags, that are not time tags, location data or measured or derived parameters.</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:restriction> </pre>		

	<pre> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumProcessingLevel

Namespace	http://www.spase-group.org/data/schema											
Annotations	Identifiers to characterize the amount and type of manipulation which has been applied to the sampled data.											
Diagram	<pre> classDiagram enumProcessingLevel < -- xsd:string </pre>											
Type	restriction of xsd:string											
Facets	<table> <tr> <td>enumeration</td> <td>Calibrated</td> <td>Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.</td> </tr> <tr> <td>enumeration</td> <td>Raw</td> <td>Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.</td> </tr> <tr> <td>enumeration</td> <td>Uncalibrated</td> <td></td> </tr> </table>			enumeration	Calibrated	Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.	enumeration	Raw	Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.	enumeration	Uncalibrated	
enumeration	Calibrated	Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.										
enumeration	Raw	Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.										
enumeration	Uncalibrated											
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 physical parameter values.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Raw"> <xsd:annotation> <xsd:documentation xml:lang="en"></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>											
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd											

Simple Type enumMeasurementType

Namespace	http://www.spase-group.org/data/schema					
Annotations	Identifiers for the method of making an estimated value of a quantity that forms the basis of an observation.					
Diagram	<pre> classDiagram enumMeasurementType < -- xsd:string </pre>					
Type	restriction of xsd:string					
Facets	<table> <tr> <td>enumeration</td> <td>ActivityIndex</td> <td>An indication, derived from one or more measurements, of the level of activity of an object or region.</td> </tr> </table>			enumeration	ActivityIndex	An indication, derived from one or more measurements, of the level of activity of an object or region.
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	ChargedParticleFlux	Measurements of fluxes of charged or ionized particles at above thermal energies, including relativistic particles of solar and galactic origin. May give simple fluxes, but more complete distributions are sometimes possible. Composition measurements may also be made.
enumeration	Dopplergram	A map or image depicting the spatial distribution of line-of-sight velocities of the observed object.
enumeration	ElectricField	Measurements of electric field vectors (sometimes not all components) as a time series.
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	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. The SI unit of irradiance is watts per square meter ($\text{W}\cdot\text{m}^{-2}$).
enumeration	MagneticField	Measurements of magnetic field vectors (sometimes not all components) as time series; can be space- or ground-based. Also, [Zeeman splitting, etc. based]: 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.
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 describe 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. The SI unit of radiance is watts per steradian per square meter ($\text{W}\cdot\text{sr}^{-1}\cdot\text{m}^{-2}$).
enumeration	RadioandPlasmaWaves	Measurements of electric and/or magnetic fields using electric or magnetic antennas at frequencies anywhere between the spacecraft spin frequency and the characteristic frequencies of the ambient plasma. The output can be waveform, power spectral density, or other statistical parameters.
enumeration	RadioSoundings	Measurements of plasma density, magnetic field and possibly other parameters of the space environment by active probing of the plasma by radio waves.
enumeration	Spectrum	A three-dimensional representation of successive spectra which allows time evolution to be clearly seen. Time is plotted along the abscissa, frequency (or particle energy) along the ordinate, and the spectral power density (or differential particle flux) is represented by different shades of grey, or color. This representation is also known as a spectrogram.
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.).
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="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="ChargedParticleFlux"> <xsd:annotation> <xsd:documentation xml:lang="en">Measurements of fluxes of charged or ionized particles at above thermal energies, including relativistic particles of solar and galactic origin. May give simple fluxes, but more complete </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>	

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distributions are sometimes possible. Composition
measurements may also be made.</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="ElectricField">
<xsd:annotation>
<xsd:documentation xml:lang="en">Measurements of electric field vectors (sometimes
not all components) as a time series.</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>
<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">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. The SI unit of
irradiance is watts per square meter (W·m-2).</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MagneticField">
<xsd:annotation>
<xsd:documentation xml:lang="en">Measurements of magnetic field vectors (sometimes
not all components) as time series; can be
space- or ground-based. Also, [Zeeman splitting,
etc. based]: 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

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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.</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 describe 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. The SI unit of radiance
    is watts per steradian per square meter (W·sr-1·m-2).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RadioandPlasmaWaves">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Measurements of electric and/or magnetic fields
    using electric or magnetic antennas at frequencies
    anywhere between the spacecraft spin frequency
    and the characteristic frequencies of the
    ambient plasma. The output can be waveform,
    power spectral density, or other statistical
    parameters.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RadioSoundings">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Measurements of plasma density, magnetic field
    and possibly other parameters of the space
    environment by active probing of the plasma
    by radio waves.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Spectrum">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A three-dimensional representation of successive
    spectra which allows time evolution to be
    clearly seen. Time is plotted along the abscissa,
    frequency (or particle energy) along the ordinate,
    and the spectral power density (or differential
    particle flux) is represented by different
    shades of grey, or color. This representation
    is also known as a spectrogram.</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:restriction>
</xsd:simpleType>
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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Simple Type enumRegion

Namespace	http://www.spase-group.org/data/schema	
Annotations	Identifiers for areas of the physical world which may be occupied or observed.	
Diagram	<pre> classDiagram enumRegion < -- xsd:string </pre>	
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 planets magnetic field.
	enumeration	Earth.Magnetosphere.Magnetotail 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 aural zone.
	enumeration	Earth.Magnetosphere.Radiointerception 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 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 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 Region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.
	enumeration	Earth.NearSurface.Ionosphere Charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction..
	enumeration	Earth.NearSurface.IonosphereLayer 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	Earth.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	Earth.NearSurface.Ionosphere.FRegion	A layer of 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.PRegion	The region of 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	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.
enumeration	Earth.NearSurface.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	Earth.NearSurface.SouthAtlanticAnomalyRegion	An inner van Allen radiation belt makes its closest approach to the planets 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.Inner	The region of the heliosphere extending radially out from the "surface" of the Sun to 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 from, but not including, 1 AU to the farthest extent of

		the heliosphere (heliopause).
enumeration	Heliosphere.Remote1AU	The heliospheric region near the Earth's orbit, but exclusive of the region near the Earth.
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 Suns (or a stars) 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 eigth 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> </pre>	

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        <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>
        <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>

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<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>
<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 plasmapause,
      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 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>

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    </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.</
xsdo: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.Inner">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The region of the heliosphere extending radially
                out from the "surface" of the Sun to 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 from, but not
                including, 1 AU to the farthest extent of
                the heliosphere (heliopause).</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Heliosphere.Remote1AU">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The heliospheric region near the Earth's
orbit,
                but exclusive of the region near the Earth.</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">

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<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>
    <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>

```

Schema location file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumDocumentType

Namespace	http://www.spase-group.org/data/schema
Annotations	Identifiers for the characterization of the content or purpose of a document.

Diagram				
Type	restriction of xsd:string			
Facets	<table> <tr> <td>enumeration</td> <td>Paper</td> <td>A formal presentation of an idea or discovery typically more than a few pages in length.</td> </tr> </table>	enumeration	Paper	A formal presentation of an idea or discovery typically more than a few pages in length.
enumeration	Paper	A formal presentation of an idea or discovery typically more than a few pages in length.		
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> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Paper"> <xsd:annotation> <xsd:documentation xml:lang="en">A formal presentation of an idea or discovery typically more than a few pages in length.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>			
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd			

Simple Type enumHashFunction

Namespace	http://www.spase-group.org/data/schema											
Annotations	Identifiers for functions or algorithms that convert a digital data object into a hash value.											
Diagram												
Type	restriction of xsd:string											
Facets	<table> <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	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: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></pre>											

	<pre> 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></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumInstrumentType

Namespace	http://www.spase-group.org/data/schema	
Annotations	Identifiers for the type of experiment the instrument performs. This is the technique of observation.	
Diagram	<pre> classDiagram enumInstrumentType < -- xsd:string </pre>	
Type	restriction of xsd:string	
Facets	enumeration	Antenna A sensor used to measure electric potential.
	enumeration	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.
	enumeration	Coronograph 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.
	enumeration	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.
	enumeration	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.
	enumeration	ElectrostaticAnalyser An instrument which uses charged plates to analyze the mass, charge and kinetic energies of charged particles which enter the instrument.
	enumeration	EnergeticParticleInstrument An instrument that measures fluxes of charged particles as a function of time, direction of motion, mass, charge and/or species.
	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	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.
	enumeration	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.
	enumeration	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 which measures the difference between two or more waves.
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	ParticleCorrelator	An instrument which correlates particle flux to help identify wave/particle interactions.
enumeration	ParticleDetector	
enumeration	Photometer	An instrument which measures the strength of electromagnetic radiation in the range from ultraviolet to infrared and including 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	ProportionalCounter	An instrument which measures energy of ionization radiation based on interactions with a gas.
enumeration	QuadrисphericalAnalyser	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	
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 flouresences 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 multile spectral ranges.
enumeration	SpacecraftPotentialController	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 into its component wavelengths.
enumeration	Timeofflight	
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
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</pre>	

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        typically used in electron spectroscopy and
        mass spectrometry.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Coronograph">
    <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="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="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="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">

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<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>
    <xsd:documentation xml:lang="en">An instrument which measures the difference
    between two or more waves.</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="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">

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        </xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Photometer">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An instrument which measures the strength
            of electromagnetic radiation in the range
            from ultraviolet to infrared and including
            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="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="QuadrисphericalAnalyser">
    <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">
        </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

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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 multile 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 into its component wavelengths.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Timeofflight">
<xsd:annotation>
<xsd:documentation xml:lang="en">
</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>
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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Simple Type enumEarth

Namespace	http://www.spase-group.org/data/schema		
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 planets 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 ($X > -10Re$).
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 aural zone.
enumeration	Magnetosphere.RadiationBelts	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 atmosphere 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	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	NearSurface.Ionosphere.ERegion	Region 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	FRegion 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.TRegion	TRegion 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 plasmapause, 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 an the region south of 60 degrees south latitude.
enumeration	NearSurface.SouthAtlanticMagneticRegion	Earth's inner van Allen radiation belt makes its closest approach to the planets 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 aural 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 </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>	

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        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 optcal phenomenum.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="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="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>

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<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 plasmapause,
    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 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.</
xs:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd
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Simple Type enumFieldComponent

Namespace	http://www.spase-group.org/data/schema
Annotations	Identifiers for components of a coordinate system which can be associated with a Field Quantity.
Diagram	
Type	xsd:string
Source	<pre> <xsd:simpleType name="enumFieldComponent"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for components of a coordinate system which can be associated with a Field Quantity.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> </xsd:restriction> </pre>

	</xsd:simpleType>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumHeliosphere

Namespace	http://www.spase-group.org/data/schema		
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	<pre> classDiagram enumHeliosphere < -- xsd:string </pre>		
Type	restriction of xsd:string		
Facets	enumeration	Inner	The region of the heliosphere extending radially out from the "surface" of the Sun to 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 from, but not including, 1 AU to the farthest extent of the heliosphere (heliopause).
	enumeration	Remote1AU	The heliospheric region near 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="Inner"> <xsd:annotation> <xsd:documentation xml:lang="en">The region of the heliosphere extending radially out from the "surface" of the Sun to 1 AU.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="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="Outer"> <xsd:annotation> <xsd:documentation xml:lang="en">The region of the heliosphere from, but not including, 1 AU to the farthest extent of the heliosphere (heliopause).</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Remote1AU"> <xsd:annotation> <xsd:documentation xml:lang="en">The heliospheric region near the Earth's orbit, but exclusive of the region near the Earth.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd		

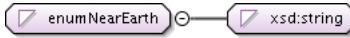
Simple Type enumMagnetosphere

Namespace	http://www.spase-group.org/data/schema	
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 planets magnetic	

	field.												
Diagram	<pre> classDiagram enumMagnetosphere "1" -- "0..1" xsdString </pre>												
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> <tr> <td>enumeration</td> <td>Main</td> <td>The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.</td> </tr> <tr> <td>enumeration</td> <td>Polar</td> <td>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 aural zone.</td> </tr> <tr> <td>enumeration</td> <td>RadiationBelt</td> <td>The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.</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	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 aural zone.	enumeration	RadiationBelt	The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.
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 aural 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 aural 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>												
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd												

Simple Type enumNearEarth

Namespace	http://www.spase-group.org/data/schema
Annotations	Identifiers for heliospheric regions near the earth or within the earths orbit

Diagram	
Type	xsd:string
Source	<pre><xsd:simpleType name="enumNearEarth"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for heliospheric regions near the earth or within the earth's orbit</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> </xsd:restriction> </xsd:simpleType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumNearSurface

Namespace	http://www.spase-group.org/data/schema		
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 atmosphere 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 plasmapause, 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 and the region south of 60 degrees south latitude.
	enumeration	SouthAtlanticAnomalyRegion	The region where Earth's inner Van Allen radiation belt makes its closest approach to the planets 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: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 </pre>		

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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 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>
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	</xsd:simpleType>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumStructureType

Namespace	http://www.spase-group.org/data/schema
Annotations	Identifiers for the classification of the organization of a structure.
Diagram	
Type	xsd:string
Source	<pre> <xsd:simpleType name="enumStructureType"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the classification of the organization of a structure.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> </xsd:restriction> </xsd:simpleType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Simple Type enumSun

Namespace	http://www.spase-group.org/data/schema															
Annotations	Identifiers for regions of the star upon which our solar system is centered.															
Diagram																
Type	restriction of xsd:string															
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Chromosphere</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Corona</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Interior</td> <td>The region inside the body which is not visible from outside the body.</td> </tr> <tr> <td>enumeration</td> <td>Photosphere</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>TransitionRegion</td> <td>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.</td> </tr> </table>	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.
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> </pre>															

	<pre> </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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd

Namespace: ""

Attributes

Attribute Spase / @lang

Namespace	No namespace
Type	xsd:string
Properties	default: en
Used by	Complex Type Spase
Source	<xsd:attribute name="lang" type="xsd:string" default="en"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_3_0.xsd