

Schema documentation for spase-1_2_0.xsd

19 november 2010

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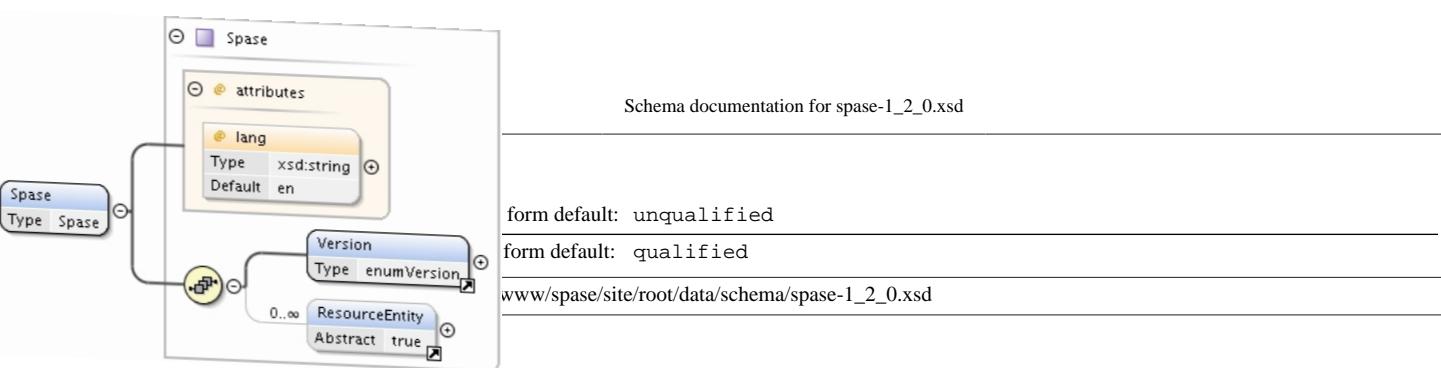
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Namespace: "http://www.spase-group.org/data/schema"

Schemas

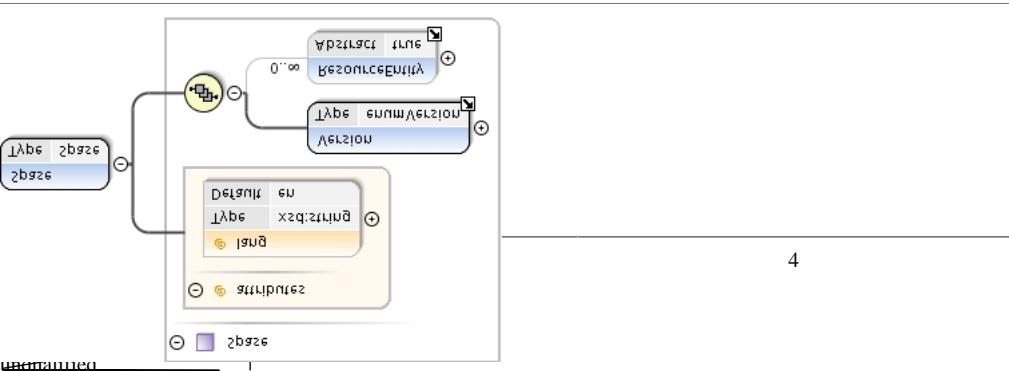
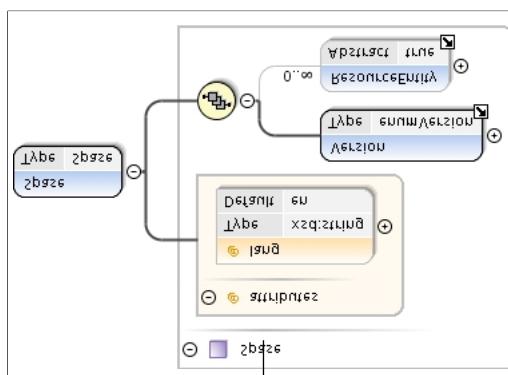
Main schema spase-1_2_0.xsd

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

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Spase { @lang Type xsd:string Default en Version Type enumVersion 0..> ResourceEntity Abstract true } </pre>
Type	



	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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element ResourceEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class ResourceEntity { <<Abstract true>> } class Catalog class DisplayData class Extension class Granule class Instrument class NumericalData class Observatory class Person class Registry class Repository class Service class Extension ResourceEntity < -- Catalog ResourceEntity < -- DisplayData ResourceEntity < -- Extension ResourceEntity < -- Granule ResourceEntity < -- Instrument ResourceEntity < -- NumericalData ResourceEntity < -- Observatory ResourceEntity < -- Person ResourceEntity < -- Registry ResourceEntity < -- Repository ResourceEntity < -- Service ResourceEntity < -- Extension </pre>
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> Catalog DisplayData NumericalData Granule Instrument Observatory 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_2_0.xsd

Element Catalog

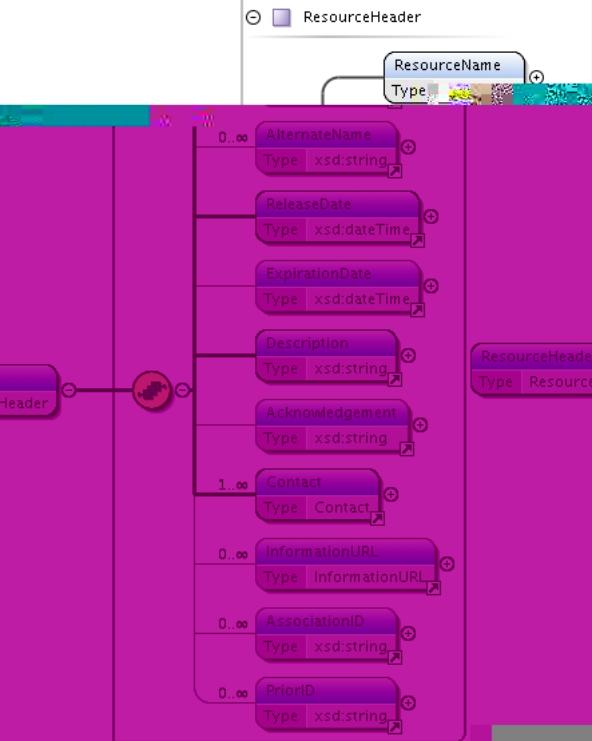
Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Catalog { ResourceID : xsd:string ResourceHeader : ResourceHeader AccessInformation : AccessInformation ProviderResourceName : xsd:string ProviderVersion : xsd:string InstrumentID : xsd:string PhenomenonType : enumPhenomenonType TimeSpan : TimeSpan Caveats : xsd:string Keyword : xsd:string InputResourceID : xsd:string } class ResourceEntity { abstract : true } 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*
Children	AccessInformation, Caveats, InputResourceID, InstrumentID, Keyword, PhenomenonType, 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>{1,1}</PhenomenonType> <TimeSpan>{0,1}</TimeSpan> <Caveats>{0,1}</Caveats> <Keyword>{0,unbounded}</Keyword> <InputResourceID>{0,unbounded}</InputResourceID> </Catalog> </pre>
Source	<xsd:element name="Catalog" type="Catalog" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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

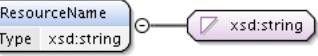
	<p>administered through the SPASE framework, "authority" is the unique identifier for the resource provider registered within the SPASE framework and "path" is the unique identifier of the resource within the context of the "authority". The resource ID must be unique within the SPASE framework.</p>
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, 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_2_0.xsd

Element ResourceHeader

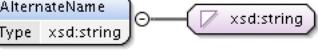
Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	ResourceHeader
Properties	content: complex
Used by	Complex Types Catalog, DisplayData, Instrument, NumericalData, Observatory, Registry, Repository, Service
Model	ResourceName , AlternateName* , ReleaseDate , ExpirationDate{0,1} , Description , Acknowledgement{0,1} , Contact+ , InformationURL* , AssociationID* , PriorID*

Children	Acknowledgement, AlternateName, AssociationID, Contact, Description, ExpirationDate, InformationURL, PriorID, ReleaseDate, ResourceName
Instance	<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>
Source	<xsd:element name="ResourceHeader" type="ResourceHeader"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<xsd:element name="ResourceName" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">A short textual description of a resource which may be useful when read by a person.</xsd:documentation> </xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element ReleaseDate

Namespace	http://www.spase-group.org/data/schema
Annotations	The point in time when an item is made available.
Diagram	
Type	xsd:dateTime

Properties	content: simple
Used by	Complex Types Granule, Person, ResourceHeader
Source	<xsd:element name="ReleaseDate" type="xsd:dateTime"> <xsd:annotation> <xsd:documentation xml:lang="en">The point in time when an item is made available.</xsd:documentation> </xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element ExpirationDate

Namespace	http://www.spase-group.org/data/schema
Annotations	The point in time when an item is no longer available.
Diagram	
Type	xsd:dateTime
Properties	content: simple
Used by	Complex Types Granule, ResourceHeader
Source	<xsd:element name="ExpirationDate" type="xsd:dateTime"> <xsd:annotation> <xsd:documentation xml:lang="en">The point in time when an item is no longer available.</xsd:documentation> </xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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_2_0.xsd

Element Contact

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Contact { PersonID Role } Contact "1..>" Role </pre>
Type	Contact
Properties	content: complex
Used by	Complex Type ResourceHeader
Model	PersonID , Role+
Children	PersonID, Role
Instance	<pre><Contact> <PersonID>{1,1}</PersonID> <Role>{1,unbounded}</Role> </Contact></pre>
Source	<xsd:element name="Contact" type="Contact" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 } </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type Contact
Source	<pre><xsd:element name="PersonID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The identifier assigned to a Person description.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 } </pre>
Type	enumRole

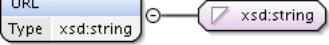
Properties	content:	simple
Facets	enumeration	CoInvestigator An individual who is a scientific peer and

	</InformationURL>
Source	<xsd:element name="InformationURL" type="InformationURL"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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_2_0.xsd

Element URL

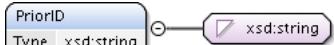
Namespace	http://www.spase-group.org/data/schema
Annotations	Uniform Resource Locator (URL) is the global address of documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where 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_2_0.xsd

Element AssociationID

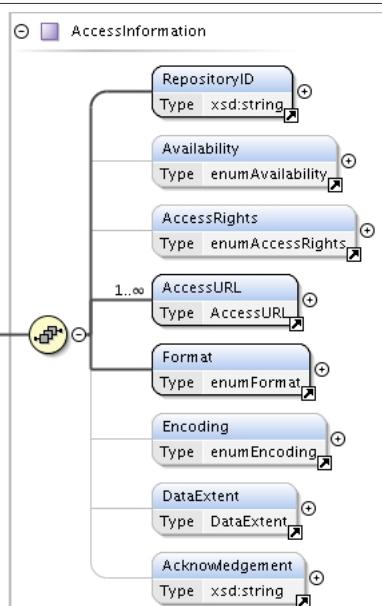
Namespace	http://www.spase-group.org/data/schema
Annotations	The resource identifier for a resource with which this resource is closely associated.
Diagram	
Type	xsd:string

Properties	content: simple
Used by	Complex Type ResourceHeader
Source	<pre><xsd:element name="AssociationID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The resource identifier for a resource with which this resource is closely associated.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<pre><xsd:element name="PriorID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The resource identifier for a resource that is superceeded or replaced by a resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element AccessInformation

Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	AccessInformation
Properties	content: complex
Used by	Complex Types Catalog, DisplayData, 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	<pre><AccessInformation> <RepositoryID>{1,1}</RepositoryID></pre>

	<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_2_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_2_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_2_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_2_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 } </pre>		
Type	AccessURL		
Properties	content: complex		
Used by	Complex Types AccessInformation, Service		
Model	Name{0,1} , URL , Description{0,1}		
Children	Description, Name, URL		
Instance	<AccessURL> <Name>{0,1}</Name> <URL>{1,1}</URL> <Description>{0,1}</Description> </AccessURL>		
Source	<xsd:element name="AccessURL" type="AccessURL" />		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd		

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 enumFormat { Format } </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).
	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	Complex Type	AccessInformation
Source		<pre><xsd:element name="Format" type="enumFormat"> <xsd:annotation> <xsd:documentation xml:lang="en">The organization of data according to preset specifications. The value is selected from a list of accepted names for known, well documented formats.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location		file:/var/www/spase/site/root/data/schema/spase-1_2_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 "3" --> "3" 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	Unicode	Text in multi-byte Unicode format.
	enumeration	ZIP	An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.
Used by	Complex Type	AccessInformation	
Source			<pre><xsd:element name="Encoding" type="enumEncoding"> <xsd:annotation> <xsd:documentation xml:lang="en">A set of unambiguous rules that establishes the representation of information within a file.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location			file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element DataExtent

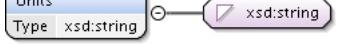
Namespace	http://www.spase-group.org/data/schema	
Diagram	<pre> classDiagram class DataExtent { Bytes : xsd:double Units : xsd:string Per : xsd:duration } DataExtent < -- DataExtent </pre>	
Type	DataExtent	
Properties	content: complex	
Used by	Complex Types AccessInformation, Granule	
Model	Bytes , Units{0,1} , Per{0,1}	
Children	Bytes, Per, Units	
Instance	<pre><DataExtent> <Bytes>{1,1}</Bytes> <Units>{0,1}</Units> <Per>{0,1}</Per> </DataExtent></pre>	
Source	<xsd:element name="DataExtent" type="DataExtent" />	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd	

Element Bytes

Namespace	http://www.spase-group.org/data/schema
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Annotations	The number of bytes expressed as a fractional number in the associated units.
Diagram	
Type	xsd:double
Properties	content: simple
Used by	Complex Type DataExtent
Source	<pre><xsd:element name="Bytes" type="xsd:double"> <xsd:annotation> <xsd:documentation xml:lang="en">The number of bytes expressed as a fractional number in the associated units.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Units

Namespace	http://www.spase-group.org/data/schema
Annotations	A description of the standardized measurement increments in which a value is specified. The description is represented as a mathematical phrase. Units should be represented by widely accepted representation. For example, units should conform to the International System of Units (SI) which is maintained by BIPM (Bureau International des Poids et Mesures (see < http://www.bipm.fr/ >) when appropriate or use tokens like "Re" to represent units of the Radius of the Earth. Within a phrase the circumflex (^) is used to indicate a power, a star (*) is used to indicate multiplication and a slash (/) division. When symbols are not separated by a mathematical operator, multiplication is assumed. Symbols for base units can be found at: < http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols > and those for common derived units can be found at: < http://www.bipm.fr/en/si/derived_units/2-2-2.html >
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types AzimuthalAngleRange, DataExtent, EnergyRange, FrequencyRange, PhysicalParameter, PolarAngleRange
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_2_0.xsd

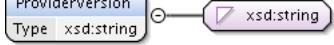
Element Per

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_2_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_2_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></pre>

	</xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element InstrumentID

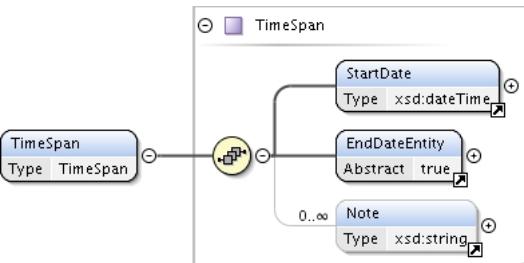
Namespace	http://www.spase-group.org/data/schema
Annotations	The identifier of an Instrument resource.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, NumericalData
Source	<pre><xsd:element name="InstrumentID" type="xsd:string"> <xsd:annotation> <xsd:documentation 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_2_0.xsd

Element PhenomenonType

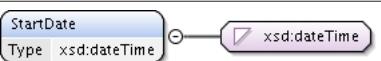
Namespace	http://www.spase-group.org/data/schema																		
Annotations	The characteristics or categorization of an event type.																		
Diagram																			
Type	enumPhenomenonType																		
Properties	content: simple																		
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Aurora</td> <td>An atmospheric phenomenon consisting of bands of light caused by charged solar particles following the earth's magnetic lines of force.</td> </tr> <tr> <td>enumeration</td> <td>BowShockCrossing</td> <td>A crossing of the boundary between the undisturbed (except for foreshock effects) solar wind and the shocked, decelerated solar wind of the magnetosheath.</td> </tr> <tr> <td>enumeration</td> <td>CoronalMassEjection</td> <td>A solar event which involves a burst of plasma which is ejected from the Sun into the interplanetary medium.</td> </tr> <tr> <td>enumeration</td> <td>EnergeticSolarParticleEvent</td> <td>An enhancement of interplanetary fluxes of energetic ions accelerated by interplanetary shocks and/or solar flares.</td> </tr> <tr> <td>enumeration</td> <td>ForbushDecrease</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>GeomagneticStorm</td> <td>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</td> </tr> </table>	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	CoronalMassEjection	A solar event which involves a burst of plasma which is ejected from the Sun into the interplanetary medium.	enumeration	EnergeticSolarParticleEvent	An enhancement of interplanetary fluxes of energetic ions accelerated by interplanetary shocks and/or solar flares.	enumeration	ForbushDecrease	A rapid decrease in the observed galactic cosmic ray intensity following the passage of an outwardly convecting interplanetary magnetic field disturbance, such as those associated with large 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
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		ring current.
enumeration	InterplanetaryShock	A shock propagating generally antisunward through the slower solar wind, often seen in front of CME-associated plasma clouds.
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	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_2_0.xsd	

Element TimeSpan

Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	TimeSpan
Properties	content: complex
Used by	Complex Types Catalog, TemporalDescription
Model	StartDate , EndDateEntity , Note*
Children	EndDateEntity, Note, StartDate
Instance	<TimeSpan><StartDate>{1,1}</StartDate><EndDateEntity>{1,1}</EndDateEntity><Note>{0..unbounded}</Note></TimeSpan>
Source	<xsd:element name="TimeSpan" type="TimeSpan" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<pre><xsd:element name="StartDate" type="xsd:dateTime"> <xsd:annotation> <xsd:documentation xml:lang="en">The specification of a starting point in time.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element EndDateEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class EndDateEntity { <<Abstract true>> } class EndDate { <<Type xsd:dateTime>> } class RelativeEndDate { <<Type xsd:duration>> } EndDateEntity "0..1" o--> EndDate : substitutions EndDateEntity "0..1" o--> RelativeEndDate : substitutions </pre>
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> • EndDate • RelativeEndDate
Used by	Complex Type TimeSpan
Source	<xsd:element name="EndDateEntity" abstract="true"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<pre> classDiagram class Note { <<Type xsd:string>> } Note "0..1" o--> xsd:string </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type TimeSpan
Source	<pre><xsd:element name="Note" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">Information which is useful or important for the understanding of a value or parameter.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Caveats

Namespace	http://www.spase-group.org/data/schema
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	<pre> classDiagram class Caveats { <<Type xsd:string>> } Caveats "0..1" o--> xsd:string </pre>
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_2_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, 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_2_0.xsd

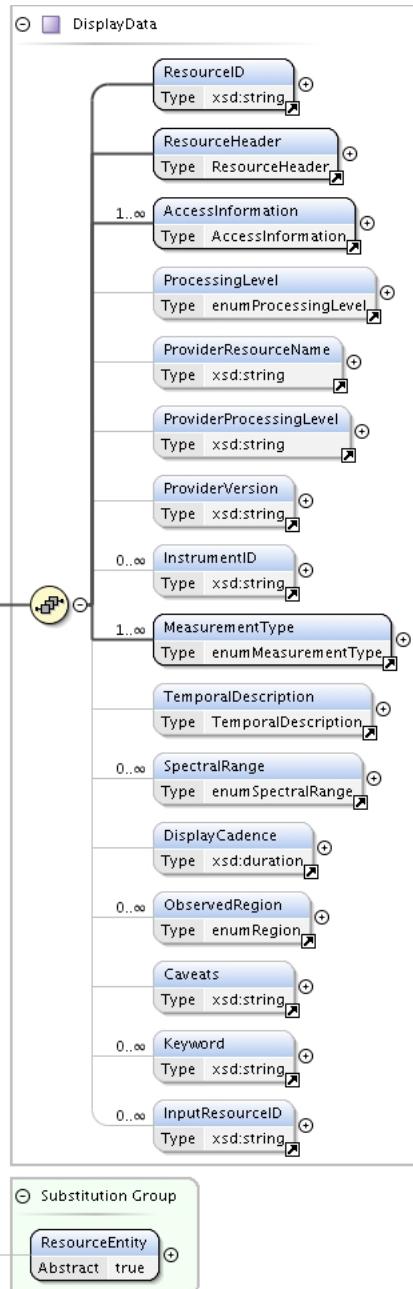
Element InputResourceID

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, 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_2_0.xsd

Element DisplayData

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



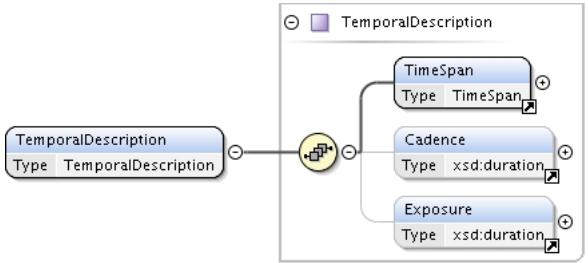
Type	DisplayData
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , InstrumentID* , MeasurementType+ , TemporalDescription{0,1} , SpectralRange* , DisplayCadence{0,1} , ObservedRegion* , Caveats{0,1} , Keyword* , InputResourceID*
Children	AccessInformation, Caveats, DisplayCadence, InputResourceID, InstrumentID, Keyword, MeasurementType, ObservedRegion, ProcessingLevel, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SpectralRange, TemporalDescription
Instance	<pre><DisplayData> <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></pre>

Annotations	A characterization of the quantitative assessment of a phenomenon.		
Diagram	<pre> classDiagram class MeasurementType { <<MeasurementType>> <<Type enumMeasurementType>> } class enumMeasurementType { <<enumMeasurementType>> } MeasurementType "1" --> "1" 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

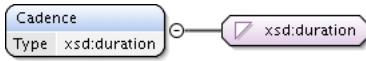
		magnetic field determined from remote sensing measurements of the detailed structure of spectral lines, including their splitting and polarization. ("Magnetogram.")
enumeration	NeutralAtomImages	Measurements of neutral atom fluxes as a function of look direction; often related to remote energetic charged 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 ($\text{W}\cdot\text{sr}^{-1}\cdot\text{m}^{-2}$).
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	Measurements of the intensity of radiation as a function of frequency or wavelength.
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 of a phenomenon.</xsd:documentation> </xsd:annotation> </xsd:element>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd	

Element TemporalDescription

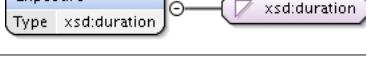
Namespace	http://www.spase-group.org/data/schema
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Diagram	
Type	TemporalDescription
Properties	content: complex
Used by	Complex Types DisplayData, NumericalData
Model	TimeSpan , Cadence{0,1} , Exposure{0,1}
Children	Cadence, Exposure, TimeSpan
Instance	<TemporalDescription> <TimeSpan>{1,1}</TimeSpan> <Cadence>{0,1}</Cadence> <Exposure>{0,1}</Exposure> </TemporalDescription>
Source	<xsd:element name="TemporalDescription" type="TemporalDescription"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Cadence

Namespace	http://www.spase-group.org/data/schema
Annotations	The time interval between the start of successive measurements.
Diagram	
Type	xsd:duration
Properties	content: simple
Used by	Complex Types PhysicalParameter, TemporalDescription
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Exposure

Namespace	http://www.spase-group.org/data/schema
Annotations	The time interval over which an individual measurement is taken.
Diagram	
Type	xsd:duration
Properties	content: simple
Used by	Complex Type TemporalDescription
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 { <<enumSpectralRange>> } enumSpectralRange < -- SpectralRange </pre>																										
Type	enumSpectralRange																										
Properties	content: simple																										
Facets	<table border="1"> <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>HardXrays</td> <td>Photons with a wavelength range: 0.001 to 0.1 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>Microwave</td> <td>Photons with a wavelength range: 1.00x10^6 to 1.50x10^7 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>XRays</td> <td>Photons with a wavelength range: 0.001 <= x < 10 nm</td> </tr> </table>			enumeration	GammaRays	Photons with a wavelength range: 0.00001 to 0.001 nm	enumeration	HardXrays	Photons with a wavelength range: 0.001 to 0.1 nm	enumeration	Infrared	Photons with a wavelength range: 760 to 1.00x10^6 nm	enumeration	Microwave	Photons with a wavelength range: 1.00x10^6 to 1.50x10^7 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	XRays	Photons with a wavelength range: 0.001 <= x < 10 nm
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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	XRays	Photons with a wavelength range: 0.001 <= x < 10 nm																									
Used by	Complex Types	DisplayData, NumericalData																									
Source	<pre> <xsd:element name="SpectralRange" type="enumSpectralRange"> <xsd:annotation> <xsd:documentation xml:lang="en">The general term used to describe wavelengths or frequencies within a given span of values for those quantities.</xsd:documentation> </xsd:annotation> </xsd:element> </pre>																										
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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>> } xsd:duration < -- DisplayCadence </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_2_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 tail 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	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 ring 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.IonosphereLayer	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.

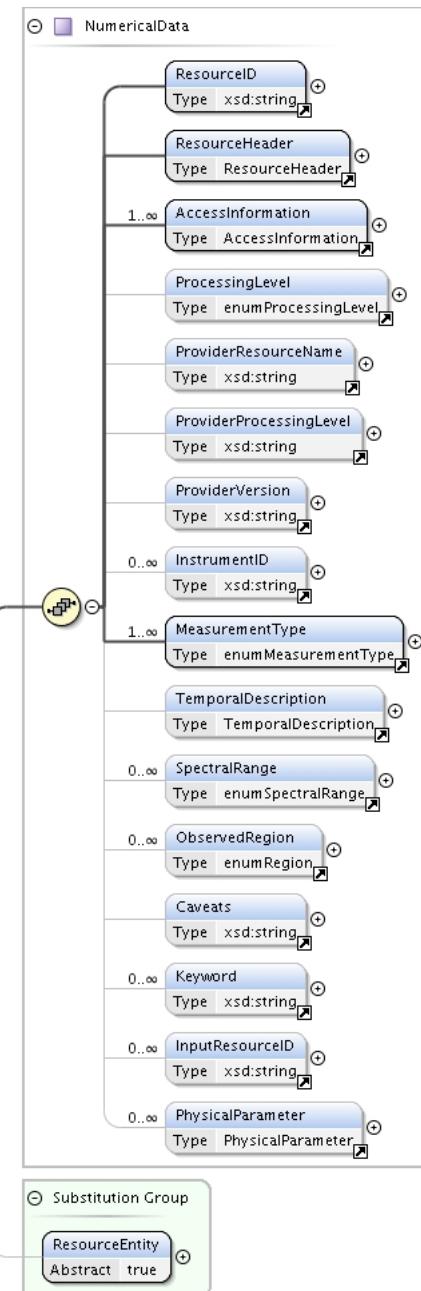
enumeration	<code>Earth.NearSurface.Ionosphere.ERegion</code>	A layer of ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.
enumeration	<code>Earth.NearSurface.Ionosphere.FRegion</code>	A layer of ionized gases at 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	<code>Earth.NearSurface.Ionosphere.PRegion</code>	The region of the upper most areas of the ionosphere.
enumeration	<code>Earth.NearSurface.Mesosphere</code>	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	<code>Earth.NearSurface.Plasmasphere</code>	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	<code>Earth.NearSurface.PolarCap</code>	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	<code>Earth.NearSurface.SouthAtlanticAnomalyRegion</code>	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	<code>Earth.NearSurface.Stratosphere</code>	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	<code>Earth.NearSurface.Thermosphere</code>	The layer of the atmosphere that extends from the Mesosphere to 640+ km, temperature increasing with height.
enumeration	<code>Earth.NearSurface.Troposphere</code>	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	<code>Earth.Surface</code>	The outermost area of a solid object.
enumeration	<code>Heliosphere</code>	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	<code>Heliosphere.Inner</code>	The region of the heliosphere extending radially out from the "surface" of the Sun to 1 AU.
enumeration	<code>Heliosphere.NearEarth</code>	The heliospheric region near the Earth which extends to and includes the area near the L1 and L2 Lagrange point.
enumeration	<code>Heliosphere.Outer</code>	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 eighth planet from the sun in our solar system.
enumeration	Venus	The second planet from the sun in our solar system.
Used by	Complex Types	DisplayData, NumericalData
Source	<pre><xsd:element name="ObservedRegion" type="enumRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">The portion of space measured by the instrument at the time of an observation. A region is distinguished by certain natural features or physical characteristics. It is the location of the observatory for in situ data, the location or region sensed by remote sensing observatories and the location-of-relevance for parameters that are derived from observational data.</xsd:documentation> </xsd:annotation> </xsd:element></pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd	

Element NumericalData

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



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

	<pre><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> </NumericalData></pre>
Source	<xsd:element name="NumericalData" type="NumericalData" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element PhysicalParameter

Namespace	http://www.spase-group.org/data/schema
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>
Type	PhysicalParameter
Properties	content: complex
Used by	Complex Type 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></pre>

	<pre><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	<xsd:element name="PhysicalParameter" type="PhysicalParameter"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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>> <<Type xsd:string>> } class xsd:string ParameterKey "1" --o "1" 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_2_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>> <<Type xsd:string>> } class xsd:string UnitsConversion "1" --o "1" xsd:string </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type 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) 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),</pre>

	<p>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.</xsd:documentation></p> <pre></xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element CoordinateSystem

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class CoordinateSystem { <<CoordinateSystem>> <<CoordinateRepresentation>> <<CoordinateSystemName>> } CoordinateSystem < -- CoordinateSystem CoordinateSystem --> CoordinateSystem CoordinateSystem --> CoordinateRepresentation CoordinateSystem --> CoordinateSystemName </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_2_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 { <<CoordinateRepresentation>> <<enumCoordinateRepresentation>> } CoordinateRepresentation < -- CoordinateRepresentation CoordinateRepresentation --> enumCoordinateRepresentation </pre>									
Type	enumCoordinateRepresentation									
Properties	content: simple									
Facets	<table border="0"> <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 angle (latitude), and a distance (radius) from a point to the origin.</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 angle (latitude), and a distance (radius) from a point to the origin.
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	Complex Type CoordinateSystem									
Source	<xsd:element name="CoordinateRepresentation" type="enumCoordinateRepresentation"> <xsd:annotation>									

	<pre><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_2_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 { <<Type enumCoordinateSystemName>> } class enumCoordinateSystemName CoordinateSystemName "1" -- "1" enumCoordinateSystemName </pre>		
Type	enumCoordinateSystemName		
Properties	content: simple		
Facets	enumeration	CGM	<p>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></p>
	enumeration	DM	<p>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></p>
	enumeration	GEI	<p>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</p>
	enumeration	GEO	<p>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.</p>
	enumeration	GSE	<p>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.</p>
	enumeration	GSEQ	<p>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,</p>

		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	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 Earth's center. In this system, H (total horizontal component) = $\sqrt{B_x^2 + B_y^2}$ and D (declination angle) = $\arctan(B_y/B_x)$
enumeration	MAG	Geomagnetic - geocentric. Z axis is parallel to the geomagnetic dipole axis, positive north. X is in the plane defined by the Z axis and the Earth's rotation axis. If N is a unit vector from the Earth's center to the north geographic pole, the signs of the X and Y axes are given by Y = N x Z, X = Y x Z.. See

		Russell, 1971, and < http://cdpp.cnes.fr/00428.pdf >
enumeration	MFA	Magnetic Field Aligned - A coordinate system spacecraft-centered system with Z in the direction of the ambient magnetic field vector. X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	RTN	Radial Tangential Normal. Typically centered at a spacecraft. Used for IMF and plasma V vectors. R (radial) axis is radially away from the Sun, T (tangential) axis is normal to the plane formed by R and the Suns spin vector, positive in the direction of planetary motion. N (normal) is R x T.
enumeration	SC	Spacecraft - A coordinate system defined by the spacecraft geometry and/or spin. Often has Z axis parallel to spacecraft spin vector. X and Y axes may or may not corotate with the spacecraft. See SR and SR2 below.
enumeration	SE	Solar Ecliptic - A heliocentric coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the first point of Aries (from Earth to Sun at vernal equinox). Same as HAE above. See < http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html >
enumeration	SM	Solar Magnetic - A geocentric coordinate system where the Z axis is northward along Earths dipole axis, X axis is in plane of z axis and Earth-Sun line, positive sunward. See Russell, 1971.
enumeration	SR	Spin Reference - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X and Y rotate with the spacecraft. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	SR2	Spin Reference 2 - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	SSE	Spacecraft Solar Ecliptic - A coordinate system used for deep space spacecraft, for example Helios. - X axis from spacecraft to Sun. Z axis normal to ecliptic plane, positive northward. Note: Angle between normals to ecliptic and to Helios orbit plane ~ 0.25 deg.
enumeration	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	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Structure

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Structure { StructureType Type enumStructureType Size Type typeSequence Description Type xsd:string 0..> Element Type Element } </pre>
Type	Structure
Properties	content: complex
Used by	Complex Type PhysicalParameter
Model	StructureType , Size{0,1} , Description{0,1} , Element*
Children	Description, Element, Size, StructureType
Instance	<Structure> <StructureType>{1,1}</StructureType> <Size>{0,1}</Size> <Description>{0,1}</Description> <Element>{0,unbounded}</Element> </Structure>
Source	<xsd:element name="Structure" type="Structure"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element StructureType

Namespace	http://www.spase-group.org/data/schema												
Annotations	The classification of the organization of a structure.												
Diagram	<pre> classDiagram class StructureType { Type enumStructureType } enumStructureType </pre>												
Type	enumStructureType												
Properties	content: simple												
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Array</td> <td>A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.</td> </tr> <tr> <td>enumeration</td> <td>Scalar</td> <td>A quantity that is completely specified by its magnitude and has no direction.</td> </tr> <tr> <td>enumeration</td> <td>Tensor</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Vector</td> <td>A quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.</td> </tr> </table>	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.	enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.	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	Vector	A quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.
enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.											
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.											
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	Vector	A quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.											
Used by	Complex Type Structure												
Source	<xsd:element name="StructureType" type="enumStructureType"> <xsd:annotation>												

	<pre><xsd:documentation xml:lang="en">The classification of the organization of a structure.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

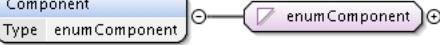
Element Size

Namespace	http://www.spase-group.org/data/schema
Annotations	The physical dimensions, proportions, magnitude, or extent of an object. A size can be multivalued to represent any number of dimensions. When size is used to describe a tensor it is the number of elements in the tensor. As such it has a limited set of values. A tensor of rank 1 has a size of 3, rank 2 a size of 9, rank 3 a size of 27 and rank n a size of 3^n.
Diagram	<pre> classDiagram class Size { <<Type typeSequence>> } class 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 physical dimensions, proportions, magnitude, or extent of an object. A size can be multivalued to represent any number of dimensions. 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_2_0.xsd

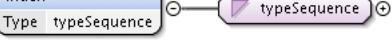
Element Element

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Element { <<Type Element>> } class Name { <<Type xsd:string>> } class Component { <<Type enumComponent>> } class Index { <<Type typeSequence>> } class ParameterKey { <<Type xsd:string>> } Element "1" --> "1" Name Element "1" --> "1" Component Element "1" --> "1" Index Element "1" --> "1" ParameterKey </pre>
Type	Element
Properties	content: complex
Used by	Complex Type Structure
Model	Name , Component{0,1} , Index , ParameterKey{0,1}
Children	Component, Index, Name, ParameterKey
Instance	<pre><Element> <Name>{1,1}</Name> <Component>{0,1}</Component> <Index>{1,1}</Index> <ParameterKey>{0,1}</ParameterKey> </Element></pre>
Source	<xsd:element name="Element" type="Element" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 { <<enumComponent>> } class typeSequence { <<Index>> <<typeSequence>> } Component "1" -- "1" typeSequence </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	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	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_2_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	 <pre> classDiagram class Index { <<typeSequence>> } class typeSequence { <<Index>> <<typeSequence>> } Index "1" -- "1" typeSequence </pre>		
Type	typeSequence		
Properties	content: simple		
Used by	Complex Type	Element	
Source	<pre> <xsd:element name="Index" type="typeSequence"> <xsd:annotation> </pre>		

	<pre> <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_2_0.xsd

Element validMin

Namespace	http://www.spase-group.org/data/schema
Annotations	The smallest legitimate value.
Diagram	<pre> classDiagram class ValidMin { <<xsd:string>> } ValidMin "1" -- "0..1" xsd:string </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type 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_2_0.xsd

Element validMax

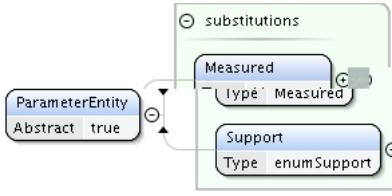
Namespace	http://www.spase-group.org/data/schema
Annotations	The largest legitimate value.
Diagram	<pre> classDiagram class ValidMax { <<xsd:string>> } ValidMax "1" -- "0..1" xsd:string </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type PhysicalParameter
Source	<pre> <xsd:element 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_2_0.xsd

Element FillValue

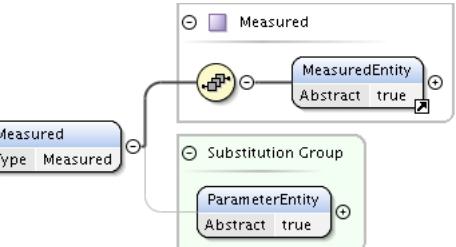
Namespace	http://www.spase-group.org/data/schema
Annotations	A value that indicates that a quantity is undefined.
Diagram	<pre> classDiagram class FillValue { <<xsd:string>> } FillValue "1" -- "0..1" xsd:string </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type PhysicalParameter
Source	<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_2_0.xsd

Element ParameterEntity

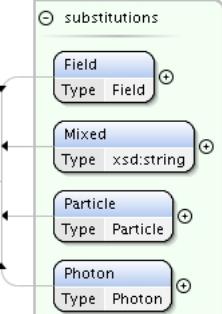
Namespace	http://www.spase-group.org/data/schema
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Diagram	
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> Measured Support
Used by	Complex Type PhysicalParameter
Source	<xsd:element name="ParameterEntity" abstract="true"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Measured

Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	Measured
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> 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_2_0.xsd

Element MeasuredEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> Field Mixed Particle Photon

	<ul style="list-style-type: none"> 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_2_0.xsd

Element Field

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Field { <<Field>> <<Type Field>> } class FieldQualifier { <<FieldQualifier>> <<Type enumFieldQualifier>> } class FieldQuantity { <<FieldQuantity>> <<Type enumFieldQuantity>> } class SubstitutionGroup { <<Substitution Group>> } class MeasuredEntity { <<MeasuredEntity>> <<Abstract true>> } Field < -- FieldQualifier Field < -- FieldQuantity Field < -- SubstitutionGroup Field < -- MeasuredEntity </pre>
Type	Field
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> MeasuredEntity
Model	FieldQualifier*, FieldQuantity
Children	FieldQualifier, FieldQuantity
Instance	<Field> <FieldQualifier>{0,unbounded}</FieldQualifier> <FieldQuantity>{1,1}</FieldQuantity> </Field>
Source	<xsd:element name="Field" type="Field" substitutionGroup="MeasuredEntity" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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>> <<Type enumFieldQualifier>> } class enumFieldQualifier </pre>												
Type	enumFieldQualifier												
Properties	content: simple												
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Array</td> <td>A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.</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>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</td> </tr> </table>	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.	enumeration	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
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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											

		<p>azimuthal angle or "longitude". Mathematically: $\Phi = \arctan(y/x)$</p>
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	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	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	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 quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.
Used by	Complex Type	Field
Source	<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>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd	

Element FieldQuantity

Namespace	http://www.spase-group.org/data/schema																	
Annotations	The physical attribute of the field.																	
Diagram																		
Type	enumFieldQuantity																	
Properties	content: simple																	
Facets	<table border="1"> <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>Electric</td> <td>The physical attribute that exerts an electrical force.</td> </tr> <tr> <td>enumeration</td> <td>Magnetic</td> <td>The physical attribute attributed to a magnet or its equivalent.</td> </tr> <tr> <td>enumeration</td> <td>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	CrossSpectrum	The Fourier transform of the cross correlation of two physical or empirical observations.	enumeration	Electric	The physical attribute that exerts an electrical force.	enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.	enumeration	Potential	A field which obeys Laplaces Equation.	enumeration	PoyntingFlux	The rate of energy transport per unit area per steradian.
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enumeration	Potential	A field which obeys Laplaces Equation.																
enumeration	PoyntingFlux	The rate of energy transport per unit area per steradian.																
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_2_0.xsd																	

Element Particle

Namespace	http://www.spase-group.org/data/schema		
Diagram			
Type	Particle		
Properties	content: complex		
Substitution Group Affiliation	<ul style="list-style-type: none"> MeasuredEntity 		

Model	ParticleType+, ParticleQualifier*, ParticleQuantity , AtomicNumber* , EnergyRange{0,1} , AzimuthalAngleRange{0,1} , PolarAngleRange{0,1}
Children	AtomicNumber, AzimuthalAngleRange, EnergyRange, ParticleQualifier, ParticleQuantity, ParticleType, PolarAngleRange
Instance	<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>
Source	<xsd:element name="Particle" type="Particle" substitutionGroup="MeasuredEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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>> <<enumParticleType>> } 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 1.602×10^{-19} Coulomb and having a mass when at rest of about 9.109534×10^{-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 1.673×10^{-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 1.602×10^{-19} Coulomb and having a mass when at rest of about 9.109534×10^{-28} gram.	enumeration	Ion	An atom that has acquired a net electric charge by gaining or losing one or more electrons. (Note: $Z>2$)	enumeration	Molecule	A group of atoms so united and combined by chemical affinity that they form a complete, integrated whole, being the smallest portion of any particular compound that can exist in a free state	enumeration	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 1.673×10^{-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.																									
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enumeration	Electron	An elementary particle consisting of a charge of negative electricity equal to about 1.602×10^{-19} Coulomb and having a mass when at rest of about 9.109534×10^{-28} gram.																									
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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 1.673×10^{-24} gram.																									
Used by	Complex Type	Particle																									
Source	<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>																										
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd																										

Element ParticleQualifier

Namespace	http://www.spase-group.org/data/schema
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Annotations	Characterizes the directional and statistical aspects of the particle observation.		
Diagram	<pre> classDiagram class ParticleQualifier { <<ParticleQualifier>> <<enumParticleQualifier>> } class enumParticleQualifier { <<enumParticleQualifier>> } ParticleQualifier "3" *-- "1" enumParticleQualifier </pre>		
Type	enumParticleQualifier		
Properties	content: simple		
Facets	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.
	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
	enumeration	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 quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.
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_2_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 o--> 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	Flux	The number of particles or energy passing through a unit area in a unit time.
	enumeration	HeatFlux	Flow of thermal energy through a gas or plasma;

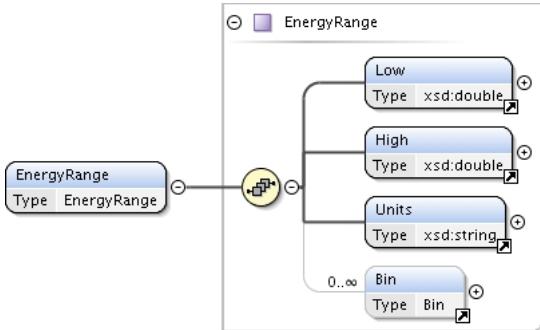
		typically computed as third moment of a distribution function.
enumeration	Mass	The measure of inertia (mass) of individual objects (e.g., aerosols).
enumeration	MassDensity	The mass of particles per unit volume.
enumeration	NumberDensity	The number of particles per unit volume.
enumeration	PhaseSpaceDensity	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	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_2_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	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element EnergyRange

Namespace	http://www.spase-group.org/data/schema
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Diagram	
Type	EnergyRange
Properties	content: complex
Used by	Complex Type Particle
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<pre><EnergyRange> <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_2_0.xsd

Element Low

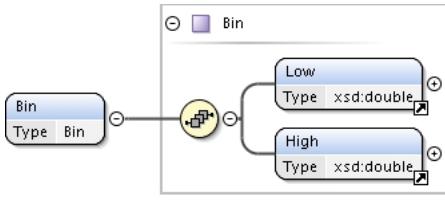
Namespace	http://www.spase-group.org/data/schema
Annotations	The smallest value within a range of possible values.
Diagram	
Type	xsd:double
Properties	content: simple
Used by	Complex Types AzimuthalAngleRange, Bin, EnergyRange, FrequencyRange, PolarAngleRange
Source	<pre><xsd:element name="Low" type="xsd:double"> <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_2_0.xsd

Element High

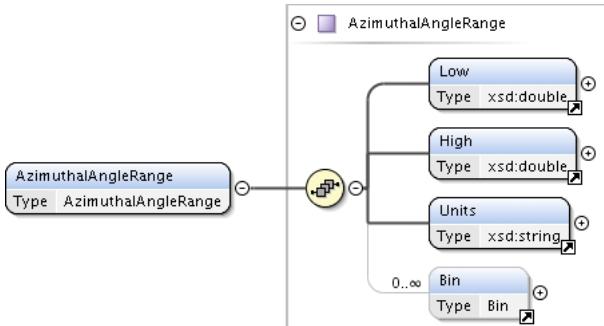
Namespace	http://www.spase-group.org/data/schema
Annotations	The largest value within a range of possible values.
Diagram	
Type	xsd:double
Properties	content: simple
Used by	Complex Types AzimuthalAngleRange, Bin, EnergyRange, FrequencyRange, PolarAngleRange
Source	<pre><xsd:element name="High" type="xsd:double">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

	</xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Bin

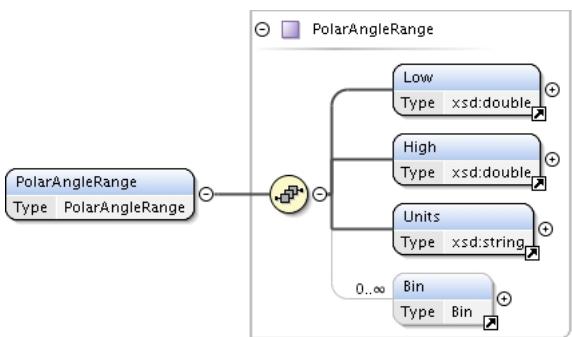
Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	Bin
Properties	content: complex
Used by	Complex Types AzimuthalAngleRange, EnergyRange, FrequencyRange, PolarAngleRange
Model	Low , High
Children	High, Low
Instance	<Bin> <Low>{1,1}</Low> <High>{1,1}</High> </Bin>
Source	<xsd:element name="Bin" type="Bin"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element AzimuthalAngleRange

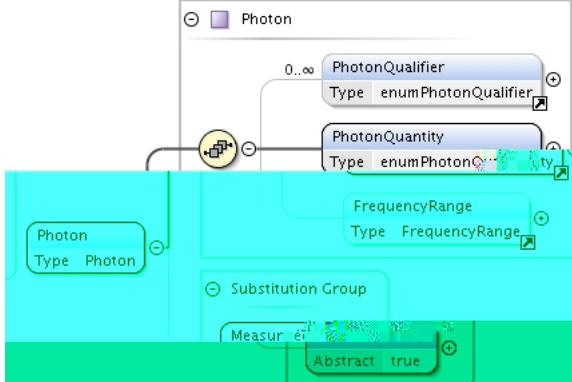
Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	AzimuthalAngleRange
Properties	content: complex
Used by	Complex Type Particle
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<AzimuthalAngleRange> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </AzimuthalAngleRange>
Source	<xsd:element name="AzimuthalAngleRange" type="AzimuthalAngleRange"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element PolarAngleRange

Namespace	http://www.spase-group.org/data/schema
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Diagram	
Type	PolarAngleRange
Properties	content: complex
Used by	Complex Type Particle
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<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_2_0.xsd

Element Photon

Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	Photon
Properties	content: complex
Substitution Group Affiliation	• MeasuredEntity
Model	PhotonQualifier*, PhotonQuantity , FrequencyRange{0,1}
Children	FrequencyRange, PhotonQualifier, PhotonQuantity
Instance	<Photon> <PhotonQualifier>{0,unbounded}</PhotonQualifier> <PhotonQuantity>{1,1}</PhotonQuantity> <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_2_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 { <<enumPhotonQualifier>> } enumPhotonQualifier "1" --> "1" enumPhotonQualifier </pre>		
Type	enumPhotonQualifier		
Properties	content: simple		
Facets	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.
	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
	enumeration	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_2_0.xsd	

Element PhotonQuantity

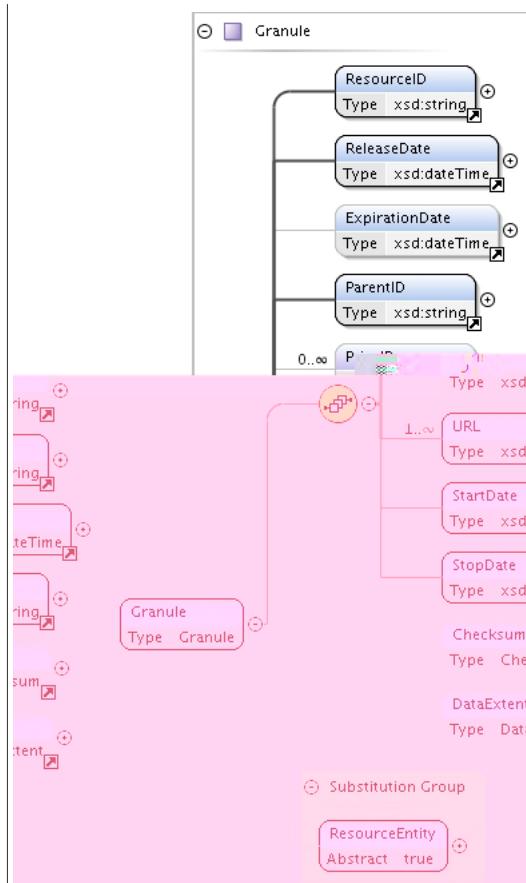
Namespace	http://www.spase-group.org/data/schema	
Annotations	A characterization of the physical properties of the photon.	
Diagram	<pre> classDiagram class PhotonQuantity { <<Type enumPhotonQuantity>> } class enumPhotonQuantity PhotonQuantity "1" --> "1" enumPhotonQuantity </pre>	
Type	enumPhotonQuantity	
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	EquivalentWidth The area of the spectral line profile divided by the peak height or depth.
	enumeration	Flux The number of particles or energy passing through a unit area in a unit time.
	enumeration	Intensity The amount of energy transmitted by electromagnetic radiation, for example, the number of photons arriving in a given time.
	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	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_2_0.xsd

Element FrequencyRange

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class FrequencyRange { Low : xsd:double High : xsd:double Units : xsd:string Bin : Bin } FrequencyRange < -- FrequencyRange </pre>
Type	

Diagram



Type	Granule
Properties	content: complex
Substitution Group	
Affiliation	<ul style="list-style-type: none"> • ResourceEntity
Model	ResourceID , ReleaseDate , ExpirationDate{0,1} , ParentID , PriorID* , URL+ , StartDate , StopDate , Checksum{0,1} , DataExtent{0,1}
Children	Checksum, DataExtent, ExpirationDate, ParentID, PriorID, ReleaseDate, ResourceID, StartDate, StopDate, URL
Instance	<pre> <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> </Granule> </pre>
Source	<xsd:element name="Granule" type="Granule" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<pre> classDiagram class ParentID { Type : xsd:string } </pre>

Type	xsd:string
Properties	content: simple
Used by	Complex Type Granule
Source	<pre><xsd:element name="ParentID" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The resource identifier for a resource that a resource is a part of. The resource inherits the attributes of the referenced resource. Attributes defined in the resource override attributes of the parent in the manner prescribed by the containing resource.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element StopDate

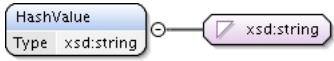
Namespace	http://www.spase-group.org/data/schema
Annotations	
Diagram	<pre> classDiagram class StopDate { <<xsd:string>> } class xsdstring { <<xsd:string>> } StopDate < -- xsdstring </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type Granule
Source	<pre><xsd:element name="StopDate" 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_2_0.xsd

Element Checksum

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Checksum { <<Checksum>> HashValue HashFunction } class HashValue { <<xsd:string>> } class HashFunction { <<enumHashFunction>> } HashValue < -- HashFunction HashValue < -- HashValue HashFunction < -- HashFunction </pre>
Type	Checksum
Properties	content: complex
Used by	Complex Type Granule
Model	HashValue , HashFunction
Children	HashFunction, HashValue
Instance	<pre><Checksum> <HashValue>{1,1}</HashValue> <HashFunction>{1,1}</HashFunction> </Checksum></pre>
Source	<xsd:element name="Checksum" type="Checksum" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<pre><xsd:element name="HashValue" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The value calculated by a hash function, e.g. the message digest of a digital data object.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<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	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_2_0.xsd											

Element Instrument

Namespace	http://www.spase-group.org/data/schema
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Diagram	<pre> classDiagram class Instrument { ResourceID : xsd:string ResourceHeader : ResourceHeader InstrumentType : enumInstrumentType InvestigationName : xsd:string ObservatoryID : xsd:string Caveats } class ResourceEntity { Abstract : true } Instrument < -- ResourceEntity </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}
Children	Caveats, InstrumentType, InvestigationName, ObservatoryID, ResourceHeader, ResourceID
Instance	<Instrument> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <InstrumentType>{1,1}</InstrumentType> <InvestigationName>{1,1}</InvestigationName> <ObservatoryID>{1,1}</ObservatoryID> <Caveats>{0,1}</Caveats> </Instrument>
Source	<xsd:element name="Instrument" type="Instrument" substitutionGroup="ResourceEntity" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 { Type : enumInstrumentType } class enumInstrumentType InstrumentType < -- 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>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</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	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
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	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	Imager	An instrument which samples the radiation from an area at one or more spectral ranges emitted or reflected by an object.
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	ParticleCorrelator	An instrument which correlates particle flux to help identify wave/particle interactions.
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 which uses radar to obtain an image of an object.

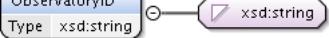
	enumeration	ResonanceSounder	A combination of a radio receiver and a pulsed transmitter used to study the plasma surrounding a spacecraft by identifying resonances or cut-offs (of the wave dispersion relation), whose frequencies are related to the ambient plasma density and magnetic field. When the transmitter is off it is essentially a high frequency-resolution spectral power receiver.
	enumeration	SearchCoil	A loop of wire used to determine the time variation of the magnetic flux threading the loop by measurement of the electric potential difference induced between the ends of the wire.
	enumeration	SpacecraftPotentialControl	An instrument to control the electric potential of a spacecraft with respect to the ambient plasma by emitting a variable current of positive ions.
	enumeration	SpectralPowerReceiver	A radio receiver which determines the power spectral density of the electric or magnetic field, or both, at one or more frequencies.
	enumeration	Spectrometer	An instrument that measures the component wavelengths of light or other electromagnetic radiation into its component wavelengths.
	enumeration	WaveformReceiver	A radio receiver which outputs the value of one or more components of the electric and/or magnetic field as a function of time.
Used by	Complex Type	Instrument	
Source			<pre><xsd:element name="InstrumentType" type="enumInstrumentType"> <xsd:annotation> <xsd:documentation xml:lang="en">A characterization of an integrated collection of software and hardware containing one or more sensors and associated controls used to produce data on an environment.</xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location			file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element InvestigationName

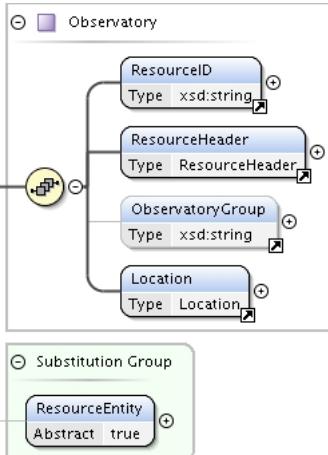
Namespace	http://www.spase-group.org/data/schema	
Annotations	The name given to the contract or engagement which enabled the data to be produced. Each investigation is associated with a Principal Investigator or Guest Investigator who was responsible for the original proposal. For single PI missions each major subsystem having its own identified Team Leader may also be classed as an "Investigation" for the purposes of data archiving.	
Diagram	<pre> classDiagram class InvestigationName { <<xsd:string>> } InvestigationName < -- xsd:string </pre>	
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</pre>	

	<pre>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_2_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_2_0.xsd

Element Observatory

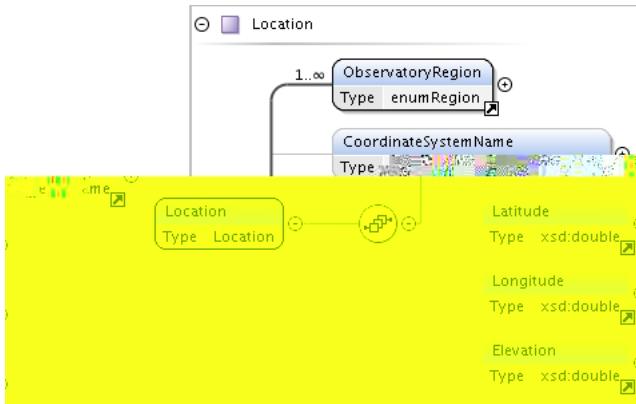
Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	Observatory
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , ObservatoryGroup{0,1} , Location
Children	Location, ObservatoryGroup, ResourceHeader, ResourceID
Instance	<pre><Observatory> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <ObservatoryGroup>{0,1}</ObservatoryGroup> <Location>{1,1}</Location> </Observatory></pre>
Source	<xsd:element name="Observatory" type="Observatory" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element ObservatoryGroup

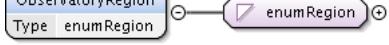
Namespace	http://www.spase-group.org/data/schema
Annotations	A set of programmatically related observatories. The value is taken from an approved list of

	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_2_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> <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_2_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				
Type	enumRegion			
Properties	content: simple			
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Asteroid</td> <td>A small extraterrestrial body consisting mostly of rock and metal that is in orbit around</td> </tr> </table>	enumeration	Asteroid	A small extraterrestrial body consisting mostly of rock and metal that is in orbit around
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	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 aural 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.Aurora	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 ring 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.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.IonosphereLayerRegion	An upper regionised 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.IonosphereFRegion	The F region contains ionized gases at a height of around 150#800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be

		thought of as comprising two layers, the F1- and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.
enumeration	Earth.NearSurface.Ionosphere.Tropo	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 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.RemoteAU	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 eighth planet from the sun in our solar system.
	enumeration	Venus	The second planet from the sun in our solar system.
Used by	Complex Type	Location	
Source	<pre><xsd:element name="ObservatoryRegion" type="enumRegion"> <xsd:annotation> <xsd:documentation xml:lang="en">A spatial location distinguished by certain natural features or physical characteristics where an observatory is located.</xsd:documentation> </xsd:annotation> </xsd:element></pre>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd		

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	<pre> classDiagram class Latitude { Type xsd:double } Latitude "1" -- "1" xsd:double </pre>	
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>	

	</xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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_2_0.xsd

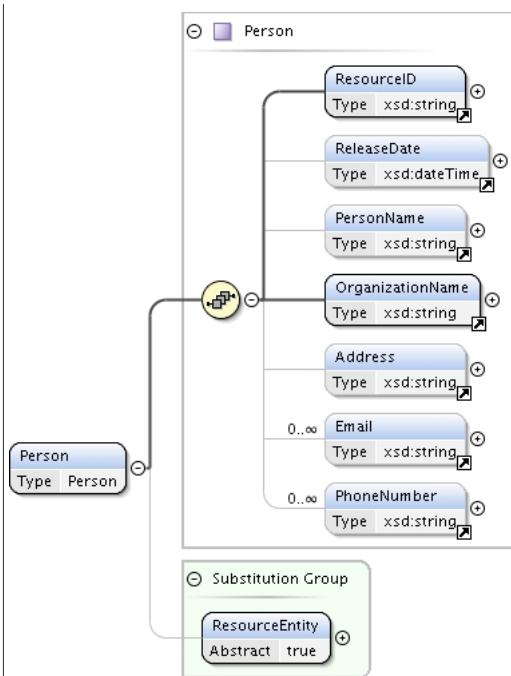
Element Elevation

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"> <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_2_0.xsd

Element Person

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



Type	Person
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ReleaseDate{0,1} , PersonName{0,1} , OrganizationName , Address{0,1} , Email* , PhoneNumber*
Children	Address, Email, OrganizationName, PersonName, PhoneNumber, ReleaseDate, ResourceID
Instance	<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> </Person>
Source	<xsd:element name="Person" type="Person" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element PersonName

Namespace	http://www.spase-group.org/data/schema
Annotations	The words used to address an individual.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element OrganizationName

Namespace	http://www.spase-group.org/data/schema
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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 diagram showing a rounded rectangle labeled "OrganizationName" with a line pointing to another rounded rectangle labeled "xsd:string". A small circle with a minus sign is between the two rectangles, indicating they are separate entities.
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 diagram showing a rounded rectangle labeled "Address" with a line pointing to another rounded rectangle labeled "xsd:string". A small circle with a minus sign is between the two rectangles, indicating they are separate entities.
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Email

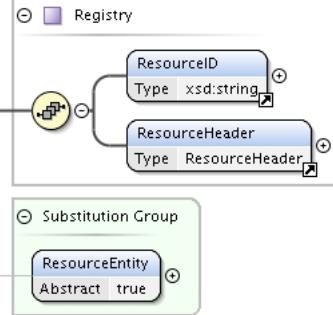
Namespace	http://www.spase-group.org/data/schema
Annotations	The electronic address at which the individual may be contacted expressed in the form "local-part@domain".
Diagram	A UML-style diagram showing a rounded rectangle labeled "Email" with a line pointing to another rounded rectangle labeled "xsd:string". A small circle with a minus sign is between the two rectangles, indicating they are separate entities.
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element PhoneNumber

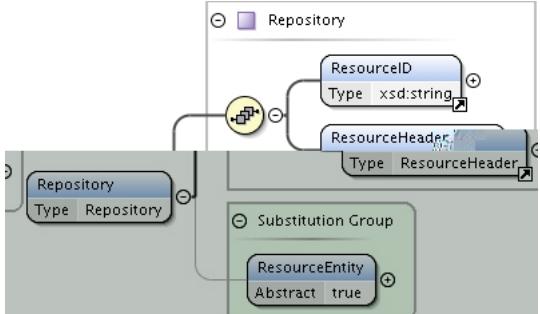
Namespace	http://www.spase-group.org/data/schema
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Annotations	The symbols and numerals required to contact an individual by telephone. The string may contain punctuation marks such as dash (-) or dot (.) to separate fields within the string.
Diagram	
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_2_0.xsd

Element Registry

Namespace	http://www.spase-group.org/data/schema
Diagram	
Type	Registry
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader
Children	ResourceHeader, ResourceID
Instance	<pre><Registry> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> </Registry></pre>
Source	<xsd:element name="Registry" type="Registry" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Repository

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

Type	Repository
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader
Children	ResourceHeader, ResourceID
Instance	<Repository> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> </Repository>
Source	<xsd:element name="Repository" type="Repository" substitutionGroup="ResourceEntity" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Service

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram class Service { <<Service>> <<Service>> ResourceID ResourceHeader AccessURL } class ResourceEntity { <<ResourceEntity>> Abstract true } Service "3" -- "1" ResourceEntity : <<Substitution Group>> </pre>
Type	Service
Properties	content: complex
Substitution Group Affiliation	• ResourceEntity
Model	ResourceID , ResourceHeader , AccessURL
Children	AccessURL, ResourceHeader, ResourceID
Instance	<Service> <ResourceID>{1,1}</ResourceID> <ResourceHeader>{1,1}</ResourceHeader> <AccessURL>{1,1}</AccessURL> </Service>
Source	<xsd:element name="Service" type="Service" substitutionGroup="ResourceEntity" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element EndDate

Namespace	http://www.spase-group.org/data/schema
Annotations	The specification of a stopping point in time.
Diagram	<pre> classDiagram class EndDate { <<EndDate>> xsd:dateTime } class EndDateEntity { <<EndDateEntity>> Abstract true } EndDate "3" -- "1" EndDateEntity : <<Substitution Group>> </pre>
Type	xsd:dateTime
Properties	content: simple
Substitution Group Affiliation	• EndDateEntity

Source	<pre><xsd:element name="EndDate" type="xsd:dateTime" substitutionGroup="EndDateEntity"> <xsd:annotation> <xsd:documentation xml:lang="en">The specification of a stopping point in time.</ xsd:documentation> </xsd:annotation> </xsd:element></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Extension

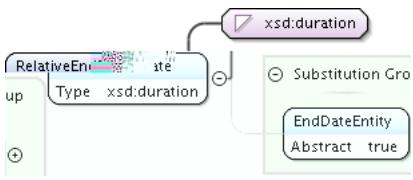
Namespace	http://www.spase-group.org/data/schema
Annotations	A container of other metadata which is not part of the SPASE data model. The contents of this element are defined by individual usage. The organization and content are constrained by the implementation. For example, in an XML representation 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 Extension --> "#other" SubstitutionGroup --> ResourceEntity </pre>
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> • ResourceEntity
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element Mixed

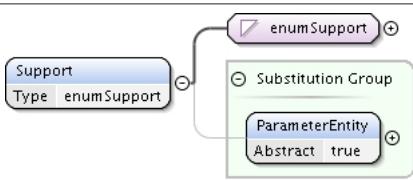
Namespace	http://www.spase-group.org/data/schema
Annotations	A measured observation which is derived from a combination of two or more individual measurements.
Diagram	<pre> classDiagram class Mixed { <<Mixed>> Type : xsd:string } class SubstitutionGroup { <<Substitution Group>> } class MeasuredEntity { <<MeasuredEntity>> Abstract : true } Mixed < -- SubstitutionGroup Mixed --> "MeasuredEntity" SubstitutionGroup --> MeasuredEntity </pre>
Type	xsd:string
Properties	content: simple
Substitution Group Affiliation	<ul style="list-style-type: none"> • MeasuredEntity
Source	<pre><xsd:element name="Mixed" type="xsd:string" substitutionGroup="MeasuredEntity"> <xsd:annotation> <xsd:documentation xml:lang="en">A measured observation which is derived from</pre>

	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_2_0.xsd

Element RelativeEndDate

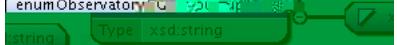
Namespace	http://www.spase-group.org/data/schema
Annotations	An indication of the nominal end date relative to the present.
Diagram	
Type	xsd:duration
Properties	content: simple
Substitution Group Affiliation	• EndDateEntity
Source	<xsd:element name="RelativeEndDate" type="xsd:duration" substitutionGroup="EndDateEntity"> <xsd:annotation> <xsd:documentation xml:lang="en">An indication of the nominal end date relative to the present.</xsd:documentation> </xsd:annotation> </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Element 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										
Type	enumSupport									
Properties	content: simple									
Facets	<table border="0"> <tr> <td>enumeration</td> <td>Other</td> <td>Values, such as flags, that are not time tags, location data or measured or derived parameters.</td> </tr> <tr> <td>enumeration</td> <td>Positional</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Temporal</td> <td>Pertaining to time.</td> </tr> </table>	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.
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.								
Substitution Group Affiliation	• ParameterEntity									
Source	<xsd:element name="Support" type="enumSupport" substitutionGroup="ParameterEntity"> <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:element>									

Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd
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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	
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_2_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	
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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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_2_0.xsd

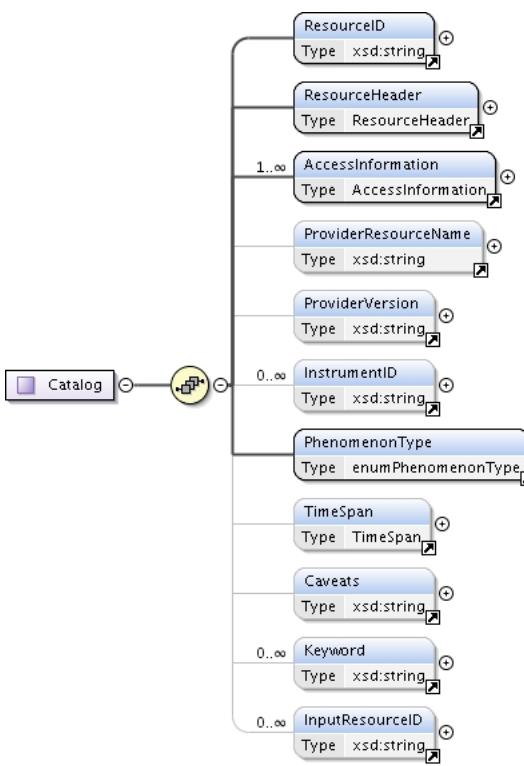
Complex Types

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	<pre> classDiagram class Spase { @ attributes lang : xsd:string Version : enumVersion ResourceEntity : {Abstract true} } Spase < -- ResourceEntity </pre>										
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_2_0.xsd										

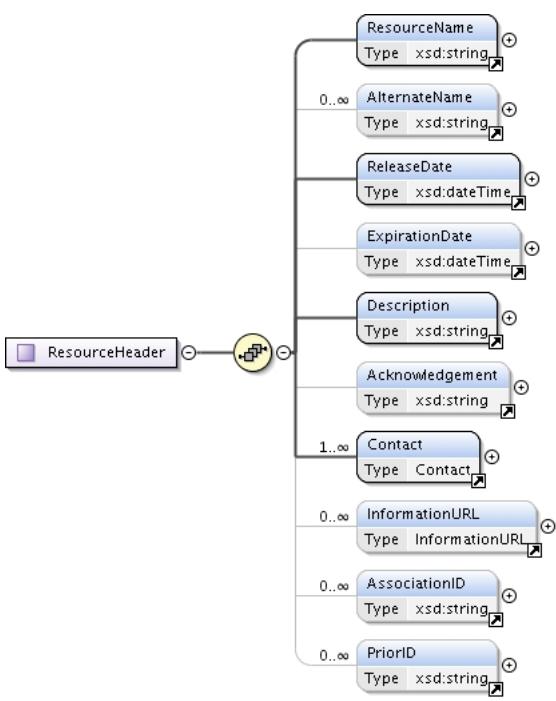
Complex Type Catalog

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.

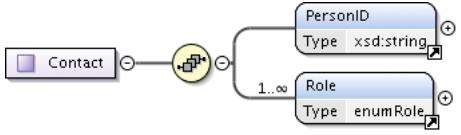
Diagram	
Used by	Element Catalog
Model	ResourceID , ResourceHeader , AccessInformation+ , ProviderResourceName{0,1} , ProviderVersion{0,1} , InstrumentID* , PhenomenonType , TimeSpan{0,1} , Caveats{0,1} , Keyword* , InputResourceID*
Children	AccessInformation, Caveats, InputResourceID, InstrumentID, Keyword, PhenomenonType, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, TimeSpan
Source	<pre><xsd:complexType name="Catalog"> <xsd:annotation> <xsd:documentation xml:lang="en">A tabular listing of events or observational notes, especially those that have utility in aiding a user in locating data. Catalogues include lists of events, files in a product, and data availability.</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="1"/> <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:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	
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_2_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_2_0.xsd

Complex Type InformationURL

Namespace	http://www.spase-group.org/data/schema
Annotations	Attributes of the method of acquiring additional information.
Diagram	<pre> classDiagram class InformationURL { Name : xsd:string URL : xsd:string Description : xsd:string } </pre>
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_2_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	<pre> classDiagram class AccessInformation { RepositoryID : xsd:string Availability : enumAvailability AccessRights : enumAccessRights AccessURL : AccessURL Format : enumFormat Encoding : enumEncoding DataExtent : DataExtent Acknowledgement : xsd:string } </pre>

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_2_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	<pre> classDiagram class AccessURL { Name : xsd:string URL : xsd:string Description : xsd:string } AccessURL < --> Name AccessURL < --> URL AccessURL < --> Description </pre>
Used by	Element AccessURL
Model	Name{0,1} , URL , Description{0,1}
Children	Description, 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> <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_2_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 { Bytes : xsd:double Units : xsd:string Per : xsd:duration } DataExtent < --> Bytes DataExtent < --> Units DataExtent < --> Per </pre>
Used by	Element DataExtent

Model	Bytes , Units{0,1} , Per{0,1}
Children	Bytes, Per, 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="Bytes" 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_2_0.xsd

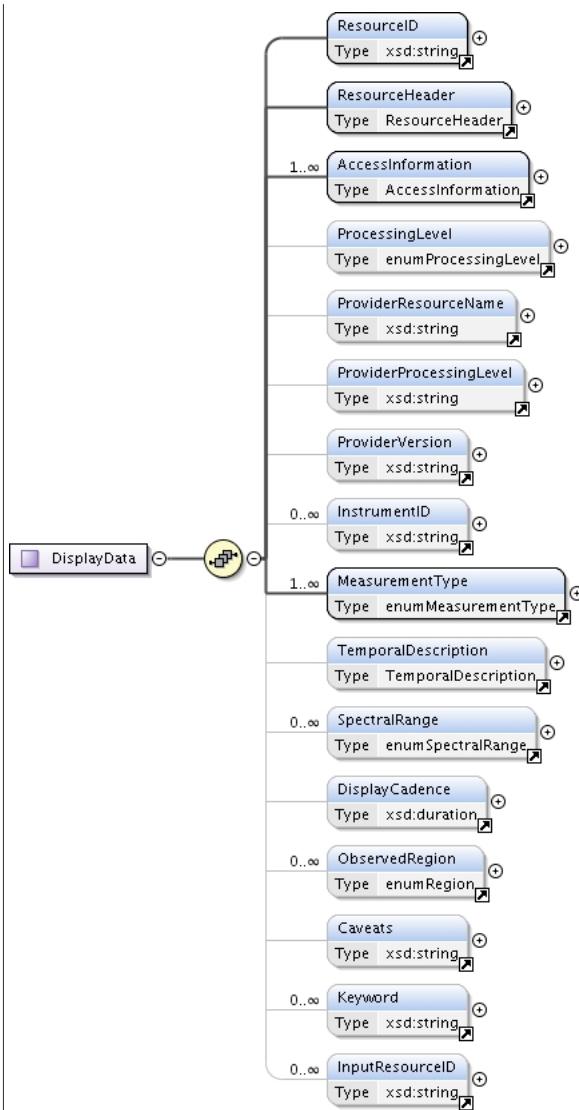
Complex Type TimeSpan

Namespace	http://www.spase-group.org/data/schema
Annotations	The duration of an interval in time.
Diagram	<pre> classDiagram class TimeSpan { StartDate : xsd:dateTime EndDateEntity { <<Abstract true>> } Note : xsd:string } StartDate < -- final EndDateEntity < -- abstract Note < -- 0..oo </pre>
Used by	Element TimeSpan
Model	StartDate , EndDateEntity , Note*
Children	EndDateEntity, Note, StartDate
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="EndDateEntity" 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_2_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



Used by	Element	DisplayData
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> *
Children		<code>AccessInformation</code> , <code>Caveats</code> , <code>DisplayCadence</code> , <code>InputResourceID</code> , <code>InstrumentID</code> , <code>Keyword</code> , <code>MeasurementType</code> , <code>ObservedRegion</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>
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:sequence> </xsd:complexType> </pre>

	<pre> <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:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

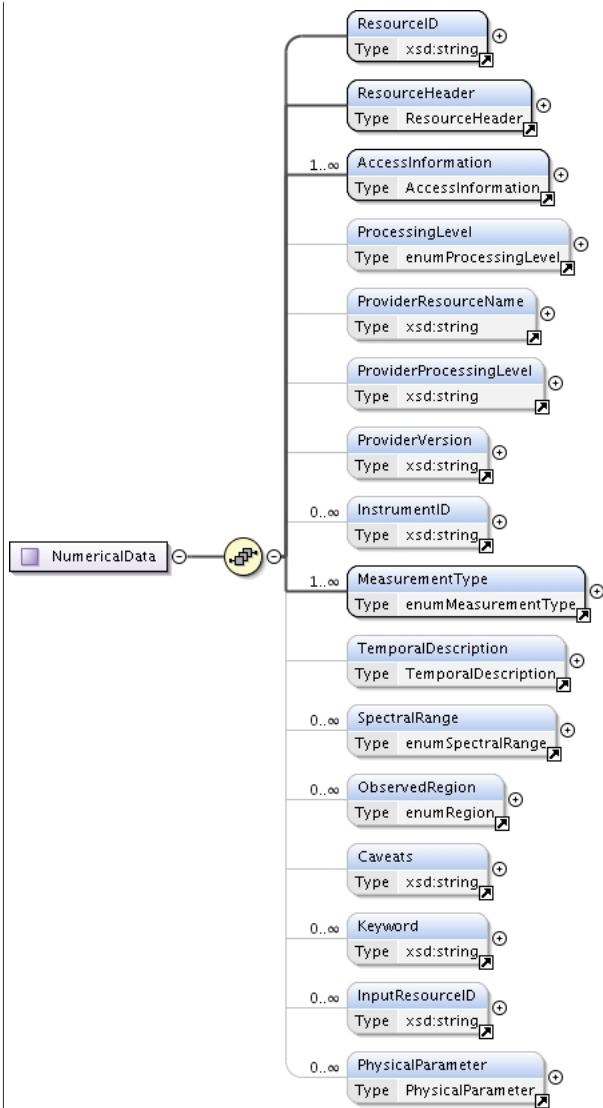
Complex Type TemporalDescription

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 { TimeSpan Cadence Exposure } TimeSpan < -- TemporalDescription Cadence < -- TemporalDescription Exposure < -- TemporalDescription </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_2_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*

Children

AccessInformation, Caveats, 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:element ref="Keyword" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded"/>
  </xsd:sequence>
</xsd:complexType>

```

	<pre><xsd:element ref="PhysicalParameter" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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:sequence> </xsd:complexType></pre>

	<pre> <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_2_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	<pre> classDiagram class CoordinateSystem { CoordinateRepresentation CoordinateSystemName } CoordinateSystem < -- CoordinateRepresentation CoordinateSystem < -- CoordinateSystemName </pre>
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_2_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	<pre> classDiagram class Structure { StructureType Size Description Element } Structure < -- StructureType Structure < -- Size Structure < -- Description Structure < -- Element </pre>
Used by	Element Structure
Model	StructureType , Size{0,1} , Description{0,1} , Element*
Children	Description, Element, Size, StructureType
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="StructureType" minOccurs="1" maxOccurs="1"/> <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_2_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	<pre> graph LR Element[Element] --> Name[Name Type xsd:string] Element --> Component[Component Type enumComponent] Element --> Index[Index Type typeSequence] Element --> ParameterKey[ParameterKey Type xsd:string] </pre>
Used by	Element Element
Model	Name , Component{0,1} , Index , ParameterKey{0,1}
Children	Component, Index, Name, ParameterKey
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:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Complex Type Measured

Namespace	http://www.spase-group.org/data/schema
Annotations	Attributes of observations obtained from an instrument or sensor.
Diagram	<pre> graph LR Measured[Measured] --> MeasuredEntity[MeasuredEntity Abstract true] </pre>
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_2_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> graph LR Field[Field] --> FieldQualifier[FieldQualifier Type enumFieldQualifier] Field --> FieldQuantity[FieldQuantity Type enumFieldQuantity] </pre>

Used by	Element	Field
Model	FieldQualifier*, FieldQuantity	
Children	FieldQualifier, FieldQuantity	
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:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 class ParticleType { <<1..>> <<enumParticleType>> } class ParticleQualifier { <<0..>> <<enumParticleQualifier>> } class ParticleQuantity { <<0..>> <<enumParticleQuantity>> } class AtomicNumber { <<0..>> <<xsd:double>> } class EnergyRange { <<0..>> <<EnergyRange>> } class AzimuthalAngleRange { <<0..>> <<AzimuthalAngleRange>> } class PolarAngleRange { <<0..>> <<PolarAngleRange>> } Particle "0..>>" ParticleType Particle "0..>>" ParticleQualifier Particle "0..>>" ParticleQuantity Particle "0..>>" AtomicNumber Particle "0..>>" EnergyRange Particle "0..>>" AzimuthalAngleRange Particle "0..>>" 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: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_2_0.xsd	

Complex Type EnergyRange

Namespace	http://www.spase-group.org/data/schema
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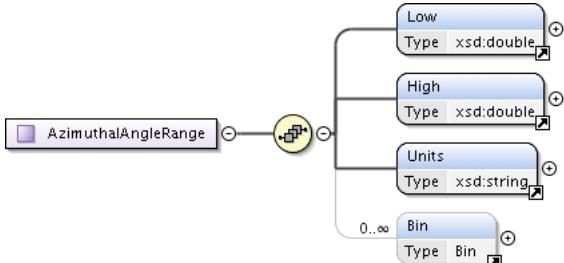
Annotations	The minimum and maximum energy values of the particles represented by a given "physical parameter" description.
Diagram	<pre> classDiagram class EnergyRange { Low : xsd:double High : xsd:double Units : xsd:string Bin : Bin } class Bin { 0..> Bin } EnergyRange < -- Bin </pre>
Used by	Element EnergyRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre> <xsd:complexType name="EnergyRange"> <xsd:annotation> <xsd:documentation xml:lang="en">The minimum and maximum energy values of the particles represented by a given "physical parameter" description.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Low" minOccurs="1" maxOccurs="1"/> <xsd:element ref="High" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Complex Type Bin

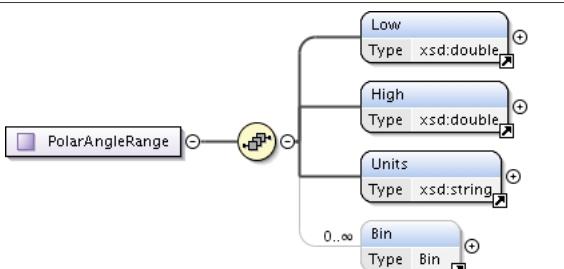
Namespace	http://www.spase-group.org/data/schema
Annotations	A grouping of observations according to a band or window of a common attribute.
Diagram	<pre> classDiagram class Bin { Low : xsd:double High : xsd:double } Bin < -- Bin </pre>
Used by	Element Bin
Model	Low , High
Children	High, Low
Source	<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="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_2_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	
Used by	Element AzimuthalAngleRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre><xsd:complexType name="AzimuthalAngleRange"> <xsd:annotation> <xsd:documentation xml:lang="en">The range of possible azimuthal angles for a group of energy observations. Default units are degrees.</xsd:documentation> </xsd:annotation> <xsd:sequence> <xsd:element ref="Low" minOccurs="1" maxOccurs="1"/> <xsd:element ref="High" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Units" minOccurs="1" maxOccurs="1"/> <xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/> </xsd:sequence> </xsd:complexType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	
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_2_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

	(radian energy)
Diagram	<pre> classDiagram class Photon class PhotonQualifier { <<enumPhotonQualifier>> } class PhotonQuantity { <<enumPhotonQuantity>> } class FrequencyRange { <<FrequencyRange>> } Photon "0..1" --> PhotonQualifier Photon "1" --> PhotonQuantity Photon "0..1" --> FrequencyRange Photon "0..1" --> Photon </pre>
Used by	Element Photon
Model	PhotonQualifier*, PhotonQuantity , FrequencyRange{0,1}
Children	FrequencyRange, PhotonQualifier, PhotonQuantity
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 (radian 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="FrequencyRange" minOccurs="0" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Complex Type FrequencyRange

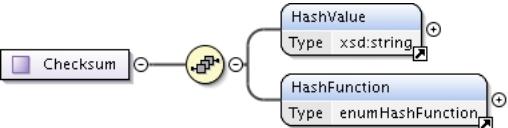
Namespace	http://www.spase-group.org/data/schema
Annotations	The range of possible values for the observed frequency.
Diagram	<pre> classDiagram class FrequencyRange class Low { <<xsd:double>> } class High { <<xsd:double>> } class Units { <<xsd:string>> } class Bin { <<Bin>> } FrequencyRange "1" --> Low FrequencyRange "1" --> High FrequencyRange "1" --> Units FrequencyRange "0..∞" --> Bin </pre>
Used by	Element FrequencyRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, 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="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_2_0.xsd

Complex Type Granule

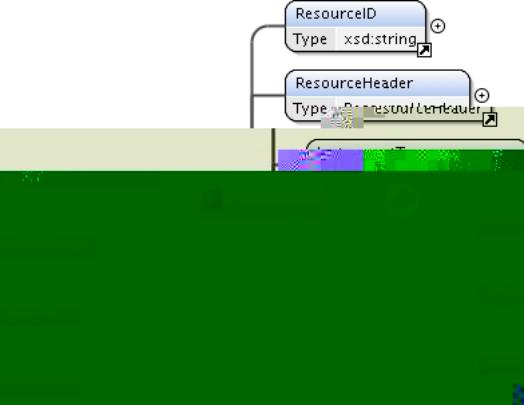
Namespace	http://www.spase-group.org/data/schema
Annotations	An accessible portion of another resource. A Granule may be composed of one or more physical pieces (files) which are considered inseparable. For example, a data storage format that maintains metadata and binary data in separate, but tightly coupled files. Granules should not be used to group files that have simple relationships

	<p>or which are associated through a parent resource. For example, each file containing a time interval data for a Numerical Data resource would each be considered a Granule. The ParentID of a Granule resource must be a NumericalData resource. The attributes of a Granule supersede the corresponding attributes in the NumericalData resource.</p>
Diagram	<pre> classDiagram class Granule { ResourceID : xsd:string ReleaseDate : xsd:dateTime ExpirationDate : xsd:dateTime ParentID : xsd:string PriorID : xsd:string *{ 0..oo } URL : xsd:string *{ 1..oo } StartDate : xsd:dateTime StopDate : xsd:string Checksum : Checksum DataExtent : DataExtent } </pre>
Used by	Element Granule
Model	ResourceID , ReleaseDate , ExpirationDate{0,1} , ParentID , PriorID* , URL+ , StartDate , StopDate , Checksum{0,1} , DataExtent{0,1}
Children	Checksum, DataExtent, ExpirationDate, 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 inseperable. For example, a data storage format that maintains metadata and binary data in seperate, 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:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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_2_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}
Children	Caveats, 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="1"/> <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>

Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd
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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 { <<Observatory>> } class ResourceID { <<ResourceID>> Type xsd:string } class ResourceHeader { <<ResourceHeader>> Type ResourceHeader } class ObservatoryGroup { <<ObservatoryGroup>> Type xsd:string } class Location { <<Location>> Type Location } Observatory "1..0" -- "1..1" ResourceID Observatory "1..0" -- "1..1" ResourceHeader Observatory "1..0" -- "1..1" ObservatoryGroup Observatory "1..0" -- "1..1" Location </pre>
Used by	Element Observatory
Model	ResourceID , ResourceHeader , ObservatoryGroup{0,1} , Location
Children	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="1"/> <xsd:element ref="Location" minOccurs="1" maxOccurs="1"/> </xsd:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 { <<Location>> } class ObservatoryRegion { <<ObservatoryRegion>> Type enumRegion } class CoordinateSystemName { <<CoordinateSystemName>> Type enumCoordinateSystemName } class Latitude { <<Latitude>> Type xsd:double } class Longitude { <<Longitude>> Type xsd:double } class Elevation { <<Elevation>> Type xsd:double } Location "1..0" -- "1..oo" ObservatoryRegion Location "1..0" -- "1..1" CoordinateSystemName Location "1..0" -- "1..1" Latitude Location "1..0" -- "1..1" Longitude Location "1..0" -- "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="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>

	</xsd:complexType>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Complex Type Person

Namespace	http://www.spase-group.org/data/schema
Annotations	An individual human being.
Diagram	<pre> classDiagram class Person { <<0..1>> } class ResourceID { <<xsd:string>> } class ReleaseDate { <<xsd:dateTime>> } class PersonName { <<xsd:string>> } class OrganizationName { <<xsd:string>> } class Address { <<xsd:string>> } class Email { <<xsd:string>> <<0..oo>> } class PhoneNumber { <<xsd:string>> <<0..oo>> } Person --> ResourceID Person --> ReleaseDate Person --> PersonName Person --> OrganizationName Person --> Address Person --> Email Person --> PhoneNumber </pre>
Used by	Element Person
Model	ResourceID , ReleaseDate{0,1} , PersonName{0,1} , OrganizationName , Address{0,1} , Email* , PhoneNumber*
Children	Address, Email, 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:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Complex Type Registry

Namespace	http://www.spase-group.org/data/schema
Annotations	A location or facility where resources are cataloged.
Diagram	<pre> classDiagram class Registry { <<0..1>> } class ResourceID { <<xsd:string>> } class ResourceHeader { <<ResourceHeader>> } Registry --> ResourceID Registry --> ResourceHeader </pre>
Used by	Element Registry
Model	ResourceID , ResourceHeader
Children	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:sequence> </xsd:complexType> </pre>

Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd
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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>> } class ResourceHeader { <<ResourceHeader>> <<ResourceHeader>> } Repository "2..1" --> "1..1" ResourceID : Repository "2..1" --> "1..1" ResourceHeader : </pre>
Used by	Element Repository
Model	ResourceID , ResourceHeader
Children	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:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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>> } class ResourceHeader { <<ResourceHeader>> <<ResourceHeader>> } class AccessURL { <<AccessURL>> } Service "2..1" --> "1..1" ResourceID : Service "2..1" --> "1..1" ResourceHeader : Service "2..1" --> "1..1" AccessURL : </pre>
Used by	Element Service
Model	ResourceID , ResourceHeader , AccessURL
Children	AccessURL, 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:sequence> </xsd:complexType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Simple Types

Simple Type enumVersion

Namespace	http://www.spase-group.org/data/schema
Annotations	Version number.
Diagram	<pre> classDiagram class enumVersion class xsdString enumVersion "2..1" --> "1..1" xsdString : </pre>
Type	restriction of xsd:string

Facets	enumeration	1.2.0
Used by	Element	Version
Source	<xsd:simpleType name="enumVersion"> <xsd:annotation> <xsd:documentation xml:lang="en">Version number.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="1.2.0"/> </xsd:restriction> </xsd:simpleType>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd	

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																																			
Type	restriction of xsd:string																																		
Facets	<table border="1"> <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>DataProducer</td> <td>An individual who generated the resource and is familiar with its provenance.</td> </tr> <tr> <td>enumeration</td> <td>DeputyPI</td> <td>An individual who is an administrative or scientific leader for an investigation operating under the supervision of a Principal Investigator.</td> </tr> <tr> <td>enumeration</td> <td>GeneralContact</td> <td>An individual who can provide information on a range of subjects or who can direct you to a domain expert.</td> </tr> <tr> <td>enumeration</td> <td>MetadataContact</td> <td>An individual who can affect a change in the metadata describing a resource.</td> </tr> <tr> <td>enumeration</td> <td>PrincipalInvestigator</td> <td>An individual who is the administrative and scientific lead for an investigation.</td> </tr> <tr> <td>enumeration</td> <td>ProjectScientist</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Scientist</td> <td>An individual who is an expert in the phenomenon and related physics represented by the resource.</td> </tr> <tr> <td>enumeration</td> <td>TeamLeader</td> <td></td> </tr> <tr> <td>enumeration</td> <td>TeamMember</td> <td>An individual who is a major participant in an investigation.</td> </tr> <tr> <td>enumeration</td> <td>TechnicalContact</td> <td>An individual who can provide specific information with regard to the resource or supporting software</td> </tr> </table>		enumeration	CoInvestigator	An individual who is a scientific peer and major participant for an investigation.	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	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
enumeration	CoInvestigator	An individual who is a scientific peer and major participant for an investigation.																																	
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	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	<xsd:simpleType name="enumRole"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the assigned or assumed function or position of an individual.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="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="DataProducer"> <xsd:annotation> <xsd:documentation xml:lang="en">An individual who generated the resource and																																		

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        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="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>
<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>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd
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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	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 to 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_2_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: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_2_0.xsd								

Simple Type enumFormat

Namespace	http://www.spase-group.org/data/schema		
Annotations	Identifiers for data organized according to preset specifications.		
Diagram			
Type	restriction of xsd:string		

Facets	enumeration	AVI	Audio Video Interleave (AVI) a digital format for movies that conforms to the Microsoft Windows Resource Interchange File Format (RIFF).
	enumeration	Binary	A direct representation of the bits which may be stored in memory on a computer.
	enumeration	CDF	Common Data Format (CDF). A binary storage format developed at Goddard Space Flight Center (GSFC).
	enumeration	CEF	Cluster Exchange Format (CEF) is a self-documenting ASCII format designed for the exchange of data. There are two versions of CEF which are not totally compatible.
	enumeration	CEF1	Cluster Exchange Format (CEF), version 1, is a self-documenting ASCII format designed for the exchange of data. The metadata contains information compatible with the ISTP recommendations for CDF.
	enumeration	CEF2	Cluster Exchange Format (CEF), version 2, is a self-documenting ASCII format designed for the exchange of data and introduced for Cluster Active Archive. Compared to version 1, the metadata description of vectors and tensors is different.
	enumeration	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"></pre>	

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<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 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">
  <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/"></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>

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    </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">
        <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"></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>

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	<pre> <xsd:enumeration value="QuickTime"> <xsd:annotation> <xsd:documentation xml:lang="en">A format for digital movies, as defined by Apple Computer. See <http://developer.apple.com/quicktime/></ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="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 <http://www.osta.org/specs/index.htm></ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="VOTable"> <xsd:annotation> <xsd:documentation xml:lang="en">A proposed 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 Mark-up Language (XML). A structured format for representing information. See <http://www.w3.org/XML/></ xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

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 --- xsdstring classDef="enumEncoding" classDef="xsdstring" </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

		<p>GHU based on LZ77 and Huffman coding. See http://www.gnu.org/software/gzip/gzip.html or http://www.gzip.org/</p>
	enumeration	None
	enumeration	Unicode
	enumeration	ZIP
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: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="Unicode"> <xsd:annotation> <xsd:documentation xml:lang="en">Text in multi-byte Unicode format.</ xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="ZIP"> <xsd:annotation> <xsd:documentation xml:lang="en">An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>
Schema location		file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

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 < -- xsd:string </pre>																																		
Type	restriction of xsd:string																																		
Facets	<table> <tr> <td>enumeration</td> <td>Aurora</td> <td>An atmospheric phenomenon consisting of bands of light caused by charged solar particles following the earths magnetic lines of force.</td> </tr> <tr> <td>enumeration</td> <td>BowShockCrossing</td> <td>A crossing of the boundary between the undisturbed (except for foreshock effects) solar wind and the shocked, decelerated solar wind of the magnetosheath.</td> </tr> <tr> <td>enumeration</td> <td>CoronalMassEjection</td> <td>A solar event which involves a burst of plasma which is ejected from the Sun into the interplanetary medium.</td> </tr> <tr> <td>enumeration</td> <td>EnergeticSolarParticleEvent</td> <td>An enhancement of interplanetary fluxes of energetic ions accelerated by interplanetary shocks and/or solar flares.</td> </tr> <tr> <td>enumeration</td> <td>ForbushDecrease</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>GeomagneticStorm</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>InterplanetaryShock</td> <td>A shock propagating generally antisunward through the slower solar wind, often seen in front of CME-associated plasma clouds.</td> </tr> <tr> <td>enumeration</td> <td>MagnetopauseCrossing</td> <td>A crossing of the interface between the shocked solar wind in the magnetosheath and the magnetic field and plasma in the magnetosphere.</td> </tr> <tr> <td>enumeration</td> <td>SolarFlare</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>SolarWindExtreme</td> <td>Intervals of unusually large or small values of solar wind attributes such as flow speed and ion density.</td> </tr> <tr> <td>enumeration</td> <td>Substorm</td> <td>A process by which plasma in the magnetotail becomes energized at a fast rate.</td> </tr> </table>		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	CoronalMassEjection	A solar event which involves a burst of plasma which is ejected from the Sun into the interplanetary medium.	enumeration	EnergeticSolarParticleEvent	An enhancement of interplanetary fluxes of energetic ions accelerated by interplanetary shocks and/or solar flares.	enumeration	ForbushDecrease	A rapid decrease in the observed galactic cosmic ray intensity following the passage of an outwardly convecting interplanetary magnetic field disturbance, such as those associated with large 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	MagnetopauseCrossing	A crossing of the interface between the shocked solar wind in the magnetosheath and the magnetic field and plasma in the magnetosphere.	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.
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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.																																	
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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	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"> </pre>																																		

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<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="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="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="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="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>
<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">

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	<pre> <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></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 class enumProcessingLevel { <<xsd:string>> } </pre>				
Type	restriction of xsd:string				
Facets	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	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_2_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 class enumMeasurementType { <<xsd:string>> } </pre>		
Type	restriction of xsd:string		

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 (W·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	Measurements of the intensity of radiation as a function of frequency or wavelength.
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 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 </pre>	

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        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
            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

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        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">Measurements of the intensity of radiation
        as a function of frequency or wavelength.</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_2_0.xsd

Simple Type enumSpectralRange

Namespace	http://www.spase-group.org/data/schema
Annotations	Identifiers for names associated with wavelengths. Based on the ISO 21348 Solar Irradiance Standard. Additions have been made to extend the frequency ranges to include those used in space physics. Those additions are indicated in blue text. The "Total Solar Irradiance" category has not been included since it is a type of measurement and not a specific spectral range. See Appendix A - Comparison of Spectrum Domains for a comparison

	of the spectral ranges with other systems.																								
Diagram																									
Type	restriction of xsd:string																								
Facets	<table border="1"> <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>HardXrays</td><td>Photons with a wavelength range: 0.001 to 0.1 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>Microwave</td><td>Photons with a wavelength range: 1.00x10^6 to 1.50x10^7 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>XRays</td><td>Photons with a wavelength range: 0.001 <= x < 10 nm</td></tr> </table>	enumeration	GammaRays	Photons with a wavelength range: 0.00001 to 0.001 nm	enumeration	HardXrays	Photons with a wavelength range: 0.001 to 0.1 nm	enumeration	Infrared	Photons with a wavelength range: 760 to 1.00x10^6 nm	enumeration	Microwave	Photons with a wavelength range: 1.00x10^6 to 1.50x10^7 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	XRays	Photons with a wavelength range: 0.001 <= x < 10 nm
enumeration	GammaRays	Photons with a wavelength range: 0.00001 to 0.001 nm																							
enumeration	HardXrays	Photons with a wavelength range: 0.001 to 0.1 nm																							
enumeration	Infrared	Photons with a wavelength range: 760 to 1.00x10^6 nm																							
enumeration	Microwave	Photons with a wavelength range: 1.00x10^6 to 1.50x10^7 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	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="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="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="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="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="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:restriction> </xsd:simpleType> </pre>																								

	<pre> <nm></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> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

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			
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	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.Radiointercept	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.Auroral	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.IonosphereRegionE	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.IonosphereRegionF	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	Earth.NearSurface.IonosphereRegionT	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	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	The region is 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	Elements	ObservatoryRegion, ObservedRegion	
Source		<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>	

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<xsd:documentation xml:lang="en">A small extraterrestrial body consisting mostly
of rock and metal that is in orbit around
the sun.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Comet">
<xsd:annotation>
<xsd:documentation xml:lang="en">A relatively small extraterrestrial body
consisting
of a frozen mass that travels around the sun
in a highly elliptical orbit.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth">
<xsd:annotation>
<xsd:documentation xml:lang="en">The third planet from the sun in our solar
system.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.Magnetosheath">
<xsd:annotation>
<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">
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<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="Earth.NearSurface.EquatorialRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A region centered on the equator and limited
    in latitude by approximately 23 degrees north
    and south of the equator.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Ionosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The charged or ionized gases surrounding a
    body that are nominally bound to the body
    by virtue of the gravitational attraction..</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Ionosphere.DRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the ionosphere that exists
    approximately
      50 to 95 km above the surface of the Earth.
      One of several layers in the ionosphere.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Ionosphere.ERegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A layer of ionised gas occurring at 90-150km
    above the ground. One of several layers in
    the ionosphere. Also called the The Kennelly-Heaviside
    layer.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<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>

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<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>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Thermosphere">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from
            the Mesosphere to 640+ km, temperature increasing
            with height.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Troposphere">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The lowest layer of the atmosphere which begins
            at the surface and extends to between 7 km
            (4.4 mi) at the poles and 17 km (10.6 mi)
            at the equator, with some variation due to
            weather factors.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.Surface">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The outermost area of a solid object.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Heliosphere">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The solar atmosphere extending roughly from
            the outer corona to the edge of the solar
            plasma at the heliopause separating primarily
            solar plasma from interstellar plasma.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Heliosphere.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>

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        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Mercury">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The first planet from the sun in our solar
                system.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Neptune">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The seventh planet from the sun in our solar
                system.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Pluto">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The ninth (sub)planet from the sun in our
                solar system.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Saturn">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The sixth planet from the sun in our solar
                system.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Sun">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The star upon which our solar system is
                centered.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Sun.Chromosphere">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The region of the Sun's (or a star's) atmosphere
                above the temperature minimum and below the
                Transition Region. The solar chromosphere
                is approximately 400 km to 2100 km above the
                photosphere, and characterized by temperatures
                from 4500 - 28000 K.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Sun.Corona">
        <xsd:annotation>
            <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

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	<pre> system.</xsd:documentation> </xsd:annotation> <xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Simple Type enumCoordinateRepresentation

Namespace	http://www.spase-group.org/data/schema	
Annotations		
Diagram	<pre> classDiagram class enumCoordinateRepresentation { <<restriction of xsd:string>> } </pre>	
Type	restriction of xsd:string	
Facets	enumeration Cartesian enumeration Cylindrical enumeration Spherical	<p>A coordinate system in which the position of a point is determined by its distance from two or three mutually perpendicular axes.</p> <p>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.</p> <p>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.</p>
Used by	Element	CoordinateRepresentation
Source	<pre> <xsd:simpleType name="enumCoordinateRepresentation"> <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: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> </xsd:simpleType> </pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 enumCoordinateSystemName < -- xsd:string </pre>	
Type	restriction of xsd:string	
Facets	enumeration	CGM Corrected Geomagnetic - A coordinate system from a spatial point with GEO radial distance and geomagnetic latitude and longitude, follow the epoch-appropriate IGRF/DGRF model field vector through to the point where the field line crosses the geomagnetic dipole equatorial plane. Then trace the dipole magnetic field vector Earthward from that point on the equatorial plane, in the same hemisphere as the original point, until the initial radial distance is reached. Designate the dipole latitude and longitude at that point as the CGM latitude and longitude of the original point. See < http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html >
	enumeration	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. 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	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) = $\sqrt{B_x^2 + B_y^2}$ and D (declination angle) = $\arctan(B_y/B_x)$
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 x Z, X = Y x Z.. See Russell, 1971, and < http://cdpp.cnes.fr/00428.pdf >
enumeration	MFA	Magnetic Field Aligned - A coordinate system spacecraft-centered system with Z in the direction of the ambient magnetic field vector. X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See < http://cdpp.cnes.fr/00428.pdf >
enumeration	RTN	Radial Tangential Normal. Typically centered at a spacecraft. Used for IMF and plasma V vectors. R (radial) axis is radially away from the Sun, T (tangential) axis is normal to the plane formed by R and the Suns spin vector, positive in the direction of planetary motion. N (normal) is R x T.

	enumeration	SC	Spacecraft - A coordinate system defined by the spacecraft geometry and/or spin. Often has Z axis parallel to spacecraft spin vector. X and Y axes may or may not corotate with the spacecraft. See SR and SR2 below.
	enumeration	SE	Solar Ecliptic - A heliocentric coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the first point of Aries (from Earth to Sun at vernal equinox). Same as HAE above. See < http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html >
	enumeration	SM	Solar Magnetic - A geocentric coordinate system where the Z axis is northward along Earth's dipole axis, X axis is in plane of z axis and Earth-Sun line, positive sunward. See Russell, 1971.
	enumeration	SR	Spin Reference - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X and Y rotate with the spacecraft. See < http://cdpp.cnes.fr/00428.pdf >
	enumeration	SR2	Spin Reference 2 - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See < http://cdpp.cnes.fr/00428.pdf >
	enumeration	SSE	Spacecraft Solar Ecliptic - A coordinate system used for deep space spacecraft, for example Helios. - X axis from spacecraft to Sun. Z axis normal to ecliptic plane, positive northward. Note: Angle between normals to ecliptic and to Helios orbit plane ~ 0.25 deg.
	enumeration	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	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="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:enumeration> </xsd:restriction> </xsd:simpleType> </pre>

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    </xsd:enumeration>
    <xsd:enumeration value="DM">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">Dipole Meridian - A coordinate system centered
                at the observation point. Z axis is parallel
                to the Earth's dipole axis, positive northward.
                X is in the plane defined by Z and the line
                linking the observation point with the Earth's
                center. Y is positive eastward. See <http://cdpp.cnes.fr/00428.pdf></
        xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="GEI">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">Geocentric Equatorial Inertial - A coordinate
                system where the Z axis is along Earth's spin
                vector, positive northward. X axis points
                towards the first point of Aries (from the
                Earth towards the Sun at the vernal equinox).
                See Russell, 1971</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="GEO">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">Geographic - geocentric corotating - A coordinate
                system where the Z axis is along Earth's spin
                vector, positive northward. X axis lies in
                Greenwich meridian, positive towards Greenwich.
                See Russell, 1971.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="GSE">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">Geocentric Solar Ecliptic - A coordinate system
                where the X axis is from Earth to Sun. Z axis
                is normal to the ecliptic, positive northward.
                See Russell, 1971.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="GSEQ">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">Geocentric Solar Equatorial - A coordinate
                system where the X axis is from Earth to Sun.
                Y axis is parallel to solar equatorial plane.
                Z axis is positive northward. See Russell,
                1971</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="GSM">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">Geocentric Solar Magnetospheric - A coordinate
                system where the X axis is from Earth to Sun,
                Z axis is northward in a plane containing
                the X axis and the geomagnetic dipole axis.
                See Russell, 1971</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="HAE">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">Heliocentric Aries Ecliptic - A coordinate
                system where the Z axis is normal to the ecliptic
                plane, positive northward. X axis is positive
                towards the first point of Aries (from Earth
                to Sun at vernal equinox). Same as SE below.
                See Hapgood, 1992.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd: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>

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        </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>
<xsd:enumeration value="LGM">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Local Geomagnetic - A coordinate system used
            mainly for Earth surface or near Earth surface
            magnetic field data. X axis northward from
            observation point in a geographic meridian.
            Z axis downward towards Earth's center. In
            this system, H (total horizontal component)
            = SQRT (Bx**2 + By**2) and D (declination
            angle) = arctan (By/Bx)</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MAG">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Geomagnetic - geocentric. Z axis is parallel
            to the geomagnetic dipole axis, positive north.
            X is in the plane defined by the Z axis and
            the Earth's rotation axis. If N is a unit
            vector from the Earth's center to the north
            geographic pole, the signs of the X and Y
            axes are given by Y = N x Z, X = Y x Z.. See
            Russell, 1971, and <http://cdpp.cnes.fr/00428.pdf></xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MFA">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Magnetic Field Aligned - A coordinate system
            spacecraft-centered system with Z in the direction
            of the ambient magnetic field vector. X is
            in the plane defined by Z and the spacecraft-Sun
            line, positive sunward. See <http://cdpp.cnes.fr/00428.pdf></
xs: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>

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<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="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 <a href="http://cdpp.cnes.fr/00428.pdf"></a>
</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 <a href="http://cdpp.cnes.fr/00428.pdf"></a>
</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>

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Schema location file:/var/www/spase/site/root/data/schema/spase-1_2_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	<pre> classDiagram class enumStructureType class xsd:string enumStructureType < -- xsd:string </pre>		
Type	restriction of xsd:string		
Facets	enumeration	Array	A sequence of values corresponding to the

		elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.
	enumeration Scalar	A quantity that is completely specified by its magnitude and has no direction.
	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 Vector	A quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.
Used by	Element	StructureType
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:enumeration value="Array"> <xsd:annotation> <xsd:documentation xml:lang="en">A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="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="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="Vector"> <xsd:annotation> <xsd:documentation xml:lang="en">A quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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_2_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	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:restriction> </xsd:simpleType></pre>	

	<pre> </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>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.
	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
	enumeration	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	Magnitude	A measure of the strength or size of a vector quantity.
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	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 quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.
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="Array"> <xsd:annotation> <xsd:documentation xml:lang="en">A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Average"> <xsd:annotation> <xsd:documentation xml:lang="en">The statistical mean; the sum of a set of values divided by the number of values in the set.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="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</pre>	

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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="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="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.</
e368sd:annotation>
  <xsd:documentation xml:lang="en">At right angles to a given direction.</
e368sd:annotation>

```

	<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 quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Simple Type enumFieldQuantity

Namespace	http://www.spase-group.org/data/schema																	
Annotations	Identifiers for the physical attribute of the field.																	
Diagram																		
Type	restriction of xsd:string																	
Facets	<table border="1"> <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>Electric</td> <td>The physical attribute that exerts an electrical force.</td> </tr> <tr> <td>enumeration</td> <td>Magnetic</td> <td>The physical attribute attributed to a magnet or its equivalent.</td> </tr> <tr> <td>enumeration</td> <td>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	CrossSpectrum	The Fourier transform of the cross correlation of two physical or empirical observations.	enumeration	Electric	The physical attribute that exerts an electrical force.	enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.	enumeration	Potential	A field which obeys Laplaces Equation.	enumeration	PoyntingFlux	The rate of energy transport per unit area per steradian.
enumeration	CrossSpectrum	The Fourier transform of the cross correlation of two physical or empirical observations.																
enumeration	Electric	The physical attribute that exerts an electrical force.																
enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.																
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="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="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="Magnetic"> <xsd:annotation> </pre>																	

```

        <xsd:documentation xml:lang="en">The physical attribute attributed to a magnet
        or its equivalent.</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>

```

Schema location file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

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			
Type	restriction of xsd:string		
Facets	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 $1.602 \times 10^{(-19)}$ Coulomb and having a mass when at rest of about $9.109534 \times 10^{(-28)}$ 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
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> </pre>	

```

<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: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>

```

Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 xsdString { <<xsd:string>> } enumParticleQualifier < -- xsdString </pre>		
Type	restriction of xsd:string		
Facets	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.
	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
	enumeration	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,

		<p>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: $\Phi = \arctan(y/x)$</p>
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. <p>Mathematically: $\Theta = \arctan(\sqrt{x^2 + y^2}/z)$</p>
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. <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 quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.
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"> <xsd:enumeration value="Array"> <xsd:annotation> <xsd:documentation xml:lang="en">A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Average"> <xsd:annotation> <xsd:documentation xml:lang="en">The statistical mean: the sum of a set of values divided by the number of values in the set.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="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:restriction> </pre>

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        </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">
        <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 a 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>

```

	<pre> </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> <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 quantity having both magnitude and direction, e.g. displacement, velocity, acceleration and force.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType> </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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 { <<restriction of 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	Flux The number of particles or energy passing through a unit area in a unit time.
	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	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	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="Flux"> <xsd:annotation> <xsd:documentation xml:lang="en">The number of particles or energy passing through a unit area in a unit time.</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:restriction> </xsd:simpleType></pre>

	<pre> </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="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 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_2_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 { <<enum>> } class xsdString { <<string>> } enumPhotonQualifier "0..1" -- "1" xsdString </pre>		
Type	restriction of xsd:string		
Facets	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.
	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
	enumeration	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

		<p>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>
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	Element	PhotonQualifier

```

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">
  <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>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd
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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 class enumPhotonQuantity class xsdString enumPhotonQuantity "1" -- "0..1" xsdString </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	EquivalentWidth The area of the spectral line profile divided by the peak height or depth.
	enumeration	Flux The number of particles or energy passing through a unit area in a unit time.
	enumeration	Intensity The amount of energy transmitted by electromagnetic radiation, for example, the number of photons arriving in a given time.
	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	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="EquivalentWidth"> </pre>	

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<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="Flux">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The number of particles or energy passing
      through a unit area in a unit time.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Intensity">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The amount of energy transmitted by
electromagnetic
      radiation, for example, the number of photons
      arriving in a given time.</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="Polarization">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Direction of the electric vector of an
electromagnetic
      wave. The wave can be linearly polarized in
      any direction perpendicular to the direction
      of travel, circularly polarized (clockwise
      or counterclockwise), unpolarized, or mixtures
      of the above.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="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>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd
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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	<pre> classDiagram enumHashFunction < -- xsd:string </pre>				
Type	restriction of xsd:string				
Facets	enumeration	MD5	Message Digest 5 (MD5) is a 128-bit message digest algorithm created in 1991 by Professor Ronald Rivest.		
	enumeration	SHA1	Secure Hash Algorithm (SHA), a 160-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.		
	enumeration	SHA256	Secure Hash Algorithm (SHA), a 256-bit message digest algorithm developed by the NSA and described in Federal Information Processing Standard (FIPS) publication 180-1.		
Used by	Element	HashFunction			
Source	<pre> <xsd:simpleType name="enumHashFunction"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for functions or algorithms that convert a digital data object into a hash value.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="MD5"> <xsd:annotation> <xsd:documentation xml:lang="en">Message Digest 5 (MD5) is a 128-bit message digest algorithm created in 1991 by Professor Ronald Rivest.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd: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>				
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	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	FourierTransformSpectrometer	An instrument that determines the spectra of a radiative source, using time-domain measurements and a Fourier transform.
enumeration	Imager	An instrument which samples the radiation from an area at one or more spectral ranges emitted or reflected by an object.
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	ParticleCorrelator	An instrument which correlates particle flux to help identify wave/particle interactions.
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 which uses radar to obtain an image of an object.
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	SearchCoil	A loop of wire used to determine the time variation of the magnetic flux threading the loop by measurement of the electric potential difference induced between the ends of the wire.
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	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 typically used in electron spectroscopy and mass spectrometry.</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"> </pre>	

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<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="Imager">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which samples the radiation
      from an area at one or more spectral ranges
      emitted or reflected by an object.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="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

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        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="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="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 which uses radar to obtain an
        image of an object.</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="SearchCoil">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A loop of wire used to determine the time
        variation of the magnetic flux threading the
        loop by measurement of the electric potential
        difference induced between the ends of the
        wire.</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="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>

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	</xsd:simpleType>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Simple Type enumSupport

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	Support			
Source	<pre> <xsd:simpleType name="enumSupport"> <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> </xsd:simpleType> </pre>				
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd				

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.Radiationbelt	The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.
enumeration	NearSurface	The gaseous and possibly ionized environment of a body extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.
enumeration	NearSurface.Atmosphere	The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.
enumeration	NearSurface.AuroralRegion	The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.
enumeration	NearSurface.EquatorialRegion	A region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.
enumeration	NearSurface.Ionosphere	The charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction..
enumeration	NearSurface.Ionosphere.DRegion	The layer of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
enumeration	NearSurface.Ionosphere.ERegion	The 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	The region 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.ThRegion	The region at the upper most areas of the ionosphere.
enumeration	NearSurface.Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.

	enumeration	NearSurface.Plasmasphere	A region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the 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 and the region south of 60 degrees south latitude.
	enumeration	NearSurface.SouthAtlanticMagneticRegion	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	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	<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"> <td data-kind="ghost"></td> <td data-kind="ghost"></td>		

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<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
      particles could potentially be trapped in
      a magnetic field.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The gaseous and possibly ionized environment
      of a body extending from the surface to some
      specified altitude. For the Earth, this altitude
      is 2000 km.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Atmosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The neutral gases surrounding a body that
      extends from the surface and is bound to the
      body by virtue of the gravitational attraction.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.AuroralRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region in the atmospheric where electrically-
charged
      particles bombarding the upper atmosphere
      of a planet in the presence of a magnetic
      field produce an optical phenomenon.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.EquatorialRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A region centered on the equator and limited
      in latitude by approximately 23 degrees north
      and south of the equator.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The charged or ionized gases surrounding a
      body that are nominally bound to the body
      by virtue of the gravitational attraction..</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere.DRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The layer of the ionosphere that exists
approximately
      50 to 95 km above the surface of the Earth.
      One of several layers in the ionosphere.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere.ERegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A layer of ionised gas occurring at 90-150km
      above the ground. One of several layers in
      the ionosphere. Also called the The Kennelly-Heaviside
      layer.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere.FRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A layer that contains ionized gases at a height
      of around 150#800 km above sea level, placing
      it in the thermosphere. the F region has the
      highest concentration of free electrons and
      ions anywhere in the atmosphere. It may be
      thought of as comprising two layers, the F1-and
      F2-layers. One of several layers in the ionosphere.
      Also known as the Appleton layer.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Ionosphere.Topside">
  <xsd:annotation>

```

```

<xsd:documentation xml:lang="en">The region at the upper most areas of the
ionosphere.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Mesosphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">The layer of the atmosphere that extends from
the Stratosphere to a range of 80 km to 85
km, temperature decreasing with height.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NearSurface.Plasmasphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">A region of the magnetosphere consisting of
low energy (cool) plasma. It is located above
the ionosphere. The outer boundary of the
plasmasphere is known as the 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.</
xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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> </xsd:simpleType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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															
Type	restriction of xsd:string														
Facets	<table> <tr> <td>enumeration</td> <td>Inner</td> <td>The region of the heliosphere extending radially out from the "surface" of the Sun to 1 AU.</td> </tr> <tr> <td>enumeration</td> <td>NearEarth</td> <td>The heliospheric region near the Earth which extends to and includes the area near the L1 and L2 Lagrange point.</td> </tr> <tr> <td>enumeration</td> <td>Outer</td> <td>The region of the heliosphere from, but not including, 1 AU to the farthest extent of the heliosphere (heliopause).</td> </tr> <tr> <td>enumeration</td> <td>Remote1AU</td> <td>The heliospheric region near the Earth's orbit, but exclusive of the region near the Earth.</td> </tr> </table>			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.
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_2_0.xsd
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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 class enumMagnetosphere { attribute xsd:string } </pre>		
Type	restriction of xsd:string		
Facets	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> </pre>		

	</xsd:simpleType>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_0.xsd

Simple Type enumNearEarth

Namespace	http://www.spase-group.org/data/schema
Annotations	Identifiers for heliospheric regions near the earth or within the earth's 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_2_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> </pre>	

```

<xsd:documentation xml:lang="en">The layer of the ionosphere that exists
approximately
    50 to 95 km above the surface of the Earth.
    One of several layers in the ionosphere.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ionosphere.ERegion">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A layer of ionised gas occurring at 90-150km
        above the ground. One of several layers in
        the ionosphere. Also called the The Kennelly-Heaviside
        layer.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ionosphere.FRegion">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A layer that contains ionized gases at a height
        of around 150#800 km above sea level, placing
        it in the thermosphere. the F region has the
        highest concentration of free electrons and
        ions anywhere in the atmosphere. It may be
        thought of as comprising two layers, the F1-and
        F2-layers. One of several layers in the ionosphere.
        Also known as the Appleton layer.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ionosphere.Topside">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The region at the upper most areas of the
        ionosphere.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Mesosphere">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The layer of the atmosphere that extends from
        the Stratosphere to a range of 80 km to 85
        km, temperature decreasing with height.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Plasmasphere">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A region of the magnetosphere consisting of
        low energy (cool) plasma. It is located above
        the ionosphere. The outer boundary of the
        plasmasphere is known as the plasmapause,
        which is defined by an order of magnitude
        drop in plasma density.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PolarCap">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The areas of the globe surrounding the poles
        and consisting of the region north of 60 degrees
        north latitude an the region south of 60 degrees
        south latitude.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SouthAtlanticAnomalyRegion">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The region where 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">

```

	<pre> <xsd:annotation> <xsd:documentation xml:lang="en">The lowest layer of the atmosphere which begins at the surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with some variation due to weather factors.</xsd:documentation> </xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType></pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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	<pre> graph LR enumSun --> xsdString enumSun --- xsdString style enumSun fill:#e0e0ff,stroke:#000,stroke-width:1px style xsdString fill:#e0e0ff,stroke:#000,stroke-width:1px </pre>		
Type	restriction of xsd:string		
Facets	enumeration	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	Corona	The outermost atmospheric region of the Sun or a star, characterized by ionization temperatures above 10^5 K. The solar corona starts at about 2100 km above the photosphere; there is no generally defined upper limit.
	enumeration	Interior	The region inside the body which is not visible from outside the body.
	enumeration	Photosphere	The atmospheric layer of the Sun or a star from which continuum radiation, especially optical, is emitted to space. For the Sun, the photosphere is about 500 km thick.
	enumeration	TransitionRegion	A very narrow (<100 km) layer between the chromosphere and the corona where the temperature rises abruptly from about 8000 to about 500,000 K.
Source	<pre> <xsd:simpleType name="enumSun"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for regions of the star upon which our solar system is centered.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="Chromosphere"> <xsd:annotation> <xsd:documentation xml:lang="en">The region of the Sun's (or a star's) atmosphere above the temperature minimum and below the Transition Region. The solar chromosphere is approximately 400 km to 2100 km above the photosphere, and characterized by temperatures from 4500 - 28000 K.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Corona"> <xsd:annotation> <xsd:documentation xml:lang="en">The outermost atmospheric region of the Sun or a star, characterized by ionization temperatures above 10^5 K. The solar corona starts at about 2100 km above the photosphere; there is no generally defined upper limit.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Interior"> <xsd:annotation> <xsd:documentation xml:lang="en">The region inside the body which is not visible</pre>		

```

        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>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_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_2_0.xsd