

# Schema documentation for spase-1\_2\_2.xsd

19 november 2010

## Table of Contents

Namespace: "http://www.spase-group.org/data/schema" .....	3
Schemas .....	3
Main schema spase-1_2_2.xsd .....	3
Elements .....	4
Element Spase .....	4
Element Version .....	4
Element ResourceEntity .....	5
Element Catalog .....	6
Element ResourceID .....	6
Element ResourceHeader .....	7
Element resourceName .....	8
Element alternateName .....	8
Element releaseDate .....	8
Element expirationDate .....	9
Element description .....	9
Element acknowledgement .....	10
Element contact .....	10
Element personID .....	10
Element role .....	11
Element informationURL .....	12
Element name .....	12
Element URL .....	12
Element associationID .....	13
Element priorID .....	13
Element accessInformation .....	13
Element repositoryID .....	14
Element availability .....	14
Element accessRights .....	15
Element accessURL .....	15
Element format .....	16
Element encoding .....	18
Element dataExtent .....	19
Element bytes .....	19
Element units .....	19
Element per .....	20
Element providerResourceName .....	20
Element providerVersion .....	21
Element instrumentID .....	21
Element phenomenonType .....	21
Element timeSpan .....	23
Element startDate .....	24
Element endDateEntity .....	24
Element note .....	24
Element caveats .....	25
Element keyword .....	25
Element inputResourceID .....	25
Element displayData .....	26
Element processingLevel .....	27
Element providerProcessingLevel .....	27
Element measurementType .....	28
Element temporalDescription .....	29
Element cadence .....	30
Element exposure .....	30
Element spectralRange .....	31
Element displayCadence .....	32
Element observedRegion .....	32
Element numericalData .....	35
Element physicalParameter .....	37
Element parameterKey .....	38
Element unitsConversion .....	38
Element coordinateSystem .....	39
Element coordinateRepresentation .....	39
Element coordinateSystemName .....	40

Element Structure .....	43
Element StructureType .....	43
Element Size .....	44
Element Element .....	44
Element Component .....	45
Element Index .....	46
Element ValidMin .....	46
Element ValidMax .....	46
Element FillValue .....	47
Element ParameterEntity .....	47
Element Measured .....	47
Element MeasuredEntity .....	48
Element Field .....	48
Element FieldQualifier .....	49
Element FieldQuantity .....	50
Element FrequencyRange .....	51
Element Low .....	51
Element High .....	52
Element Bin .....	52
Element Particle .....	52
Element ParticleType .....	53
Element ParticleQualifier .....	54
Element ParticleQuantity .....	56
Element AtomicNumber .....	57
Element EnergyRange .....	57
Element AzimuthalAngleRange .....	58
Element PolarAngleRange .....	58
Element Photon .....	59
Element PhotonQualifier .....	59
Element PhotonQuantity .....	60
Element Granule .....	61
Element ParentID .....	62
Element StopDate .....	63
Element Checksum .....	63
Element HashValue .....	63
Element HashFunction .....	64
Element Instrument .....	64
Element InstrumentType .....	65
Element InvestigationName .....	68
Element ObservatoryID .....	69
Element Observatory .....	69
Element ObservatoryGroup .....	69
Element Location .....	70
Element ObservatoryRegion .....	70
Element Latitude .....	73
Element Longitude .....	74
Element Elevation .....	74
Element Person .....	74
Element PersonName .....	75
Element OrganizationName .....	75
Element Address .....	76
Element Email .....	76
Element PhoneNumber .....	76
Element Registry .....	77
Element Repository .....	77
Element Service .....	78
Element EndDate .....	78
Element Extension .....	79
Element Mixed .....	79
Element RelativeEndDate .....	80
Element Support .....	80
Element enumObservatoryGroupName .....	81
Element enumObservatoryName .....	81
Element enumRepositoryName .....	81
Complex Types .....	81
Complex Type Spase .....	81
Complex Type Catalog .....	82
Complex Type ResourceHeader .....	83
Complex Type Contact .....	84
Complex Type InformationURL .....	84
Complex Type AccessInformation .....	85
Complex Type AccessURL .....	85

Complex Type DataExtent .....	86
Complex Type TimeSpan .....	86
Complex Type DisplayData .....	87
Complex Type TemporalDescription .....	88
Complex Type NumericalData .....	88
Complex Type PhysicalParameter .....	90
Complex Type CoordinateSystem .....	91
Complex Type Structure .....	91
Complex Type Element .....	92
Complex Type Measured .....	92
Complex Type Field .....	92
Complex Type FrequencyRange .....	93
Complex Type Bin .....	93
Complex Type Particle .....	94
Complex Type EnergyRange .....	95
Complex Type AzimuthalAngleRange .....	95
Complex Type PolarAngleRange .....	96
Complex Type Photon .....	96
Complex Type Granule .....	97
Complex Type Checksum .....	98
Complex Type Instrument .....	98
Complex Type Observatory .....	99
Complex Type Location .....	99
Complex Type Person .....	100
Complex Type Registry .....	100
Complex Type Repository .....	101
Complex Type Service .....	101
Simple Types .....	102
Simple Type enumVersion .....	102
Simple Type enumRole .....	102
Simple Type enumAvailability .....	104
Simple Type enumAccessRights .....	105
Simple Type enumFormat .....	105
Simple Type enumEncoding .....	110
Simple Type enumPhenomenonType .....	111
Simple Type enumProcessingLevel .....	115
Simple Type enumMeasurementType .....	116
Simple Type enumSpectralRange .....	120
Simple Type enumRegion .....	122
Simple Type enumCoordinateRepresentation .....	129
Simple Type enumCoordinateSystemName .....	130
Simple Type enumStructureType .....	136
Simple Type typeSequence .....	137
Simple Type enumComponent .....	138
Simple Type enumFieldQualifier .....	139
Simple Type enumFieldQuantity .....	142
Simple Type enumParticleType .....	144
Simple Type enumParticleQualifier .....	145
Simple Type enumParticleQuantity .....	149
Simple Type enumPhotonQualifier .....	152
Simple Type enumPhotonQuantity .....	154
Simple Type enumHashFunction .....	156
Simple Type enumInstrumentType .....	157
Simple Type enumSupport .....	164
Simple Type enumEarth .....	165
Simple Type enumHeliosphere .....	169
Simple Type enumIonosphere .....	170
Simple Type enumMagnetosphere .....	171
Simple Type enumNearSurface .....	172
Simple Type enumSun .....	174
Namespace: "" .....	176
Attributes .....	176
Attribute Spase / @lang .....	176

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

### Schemas

#### Main schema spase-1\_2\_2.xsd

Namespace	http://www.spase-group.org/data/schema
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Properties	attribute form default: unqualified element form default: qualified
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Elements

### Element Spase

Namespace	http://www.spase-group.org/data/schema										
Diagram	<pre> classDiagram     class Spase {         @lang : xsd:string         Version : enumVersion         &lt;&lt;ResourceEntity&gt;&gt;         &lt;&lt;Abstract&gt;&gt;     }     Spase &lt; -- Spase   </pre>										
Type	Spase										
Properties	content: complex										
Model	Version , ResourceEntity*										
Children	ResourceEntity, Version										
Instance	<Spase lang="en">   <Version>{1,1}</Version>   <ResourceEntity>{0,unbounded}</ResourceEntity> </Spase>										
Attributes	<table border="1"> <thead> <tr> <th>QName</th> <th>Type</th> <th>Fixed</th> <th>Default</th> <th>Use</th> </tr> </thead> <tbody> <tr> <td>lang</td> <td>xsd:string</td> <td></td> <td>en</td> <td>optional</td> </tr> </tbody> </table>	QName	Type	Fixed	Default	Use	lang	xsd:string		en	optional
QName	Type	Fixed	Default	Use							
lang	xsd:string		en	optional							
Source	<xsd:element name="Spase" type="Spase" />										
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd										

### Element Version

Namespace	http://www.spase-group.org/data/schema
Annotations	<p>Indicates the release identifier. When used to indicate the release of the SPASE data model, it is a in the form Major.Minor.Fix where Major: A significant change in the architecture of the model or rewrite of the implementation. This includes major changes in design or implementation language. This number starts at 0 (zero). Minor: An addition of terms or features that require changes in documentation/external API. This number starts at 0 (zero). Fix: Any change that doesn't require documentation/external API changes. This number starts at 0 (zero).</p>
Diagram	<pre> classDiagram     class Version {         &lt;&lt;enumVersion&gt;&gt;     }   </pre>
Type	enumVersion
Properties	content: simple
Facets	enumeration 1.2.2
Used by	Complex Type Spase
Source	<xsd:element name="Version" type="enumVersion">   <xsd:annotation>     <xsd:documentation xml:lang="en">Indicates the release identifier. When used to indicate the release of the SPASE data model, it is a in the form Major.Minor.Fix where Major: A significant change in the architecture   </xsd:documentation> </xsd:annotation>

	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_2.xsd

## Element ResourceEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class ResourceEntity {         &lt;&lt;Abstract true&gt;&gt;     }     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 &lt; -- Catalog     ResourceEntity &lt; -- DisplayData     ResourceEntity &lt; -- Extension     ResourceEntity &lt; -- Granule     ResourceEntity &lt; -- Instrument     ResourceEntity &lt; -- NumericalData     ResourceEntity &lt; -- Observatory     ResourceEntity &lt; -- Person     ResourceEntity &lt; -- Registry     ResourceEntity &lt; -- Repository     ResourceEntity &lt; -- Service     ResourceEntity &lt; -- Extension   </pre>
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> <li>Catalog</li> <li>DisplayData</li> <li>NumericalData</li> <li>Granule</li> <li>Instrument</li> <li>Observatory</li> <li>Person</li> <li>Registry</li> <li>Repository</li> <li>Service</li> <li>Extension</li> </ul>
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_2.xsd

## Element Catalog

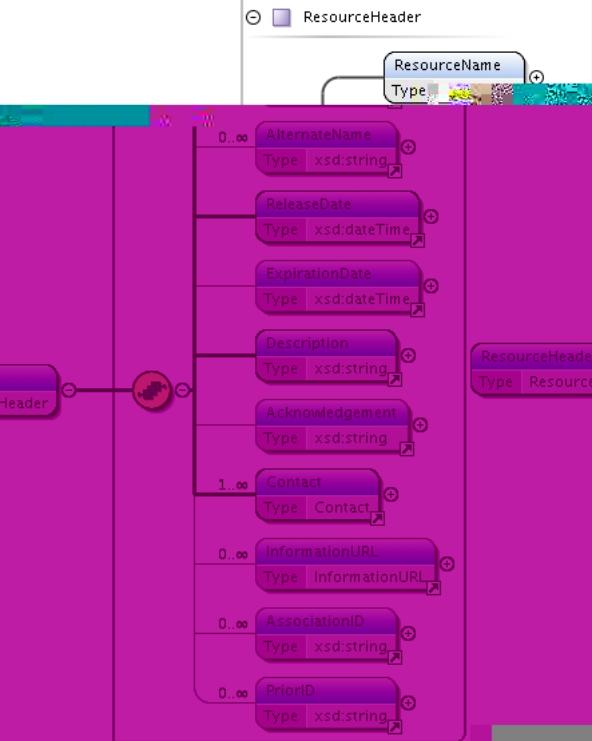
Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
Diagram	<pre> classDiagram     class Catalog {         ResourceID : xsd:string         ResourceHeader : ResourceHeader         AccessInformation : AccessInformation         ProviderResourceName : xsd:string         ProviderVersion : xsd:string         InstrumentID : xsd:string         PhenomenonType : enumPhenomenonType         TimeSpan : TimeSpan         Caveats : xsd:string         Keyword : xsd:string         InputResourceID : xsd:string     }     class ResourceEntity {         abstract : true     }     Catalog &lt; -- 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> &lt;Catalog&gt;   &lt;ResourceID&gt;{1,1}&lt;/ResourceID&gt;   &lt;ResourceHeader&gt;{1,1}&lt;/ResourceHeader&gt;   &lt;AccessInformation&gt;{1,unbounded}&lt;/AccessInformation&gt;   &lt;ProviderResourceName&gt;{0,1}&lt;/ProviderResourceName&gt;   &lt;ProviderVersion&gt;{0,1}&lt;/ProviderVersion&gt;   &lt;InstrumentID&gt;{0,unbounded}&lt;/InstrumentID&gt;   &lt;PhenomenonType&gt;{1,1}&lt;/PhenomenonType&gt;   &lt;TimeSpan&gt;{0,1}&lt;/TimeSpan&gt;   &lt;Caveats&gt;{0,1}&lt;/Caveats&gt;   &lt;Keyword&gt;{0,unbounded}&lt;/Keyword&gt;   &lt;InputResourceID&gt;{0,unbounded}&lt;/InputResourceID&gt; &lt;/Catalog&gt;   </pre>
Source	<xsd:element name="Catalog" type="Catalog" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element ResourceID

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
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>&lt;xsd:element name="ResourceID" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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_2.xsd

### Element ResourceName

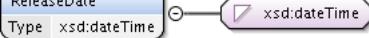
Namespace	http://www.spase-group.org/data/schema
Annotations	A short textual description of a resource which may be useful when read by a person.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type ResourceHeader
Source	<xsd:element name="ResourceName" type="xsd:string"> <xsd:annotation> <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_2.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_2.xsd

### Element ReleaseDate

Namespace	http://www.spase-group.org/data/schema
Annotations	The date and time when a resource is made available. The availability of a resource coincides with the release of a resource description. If the Release Date is specified as a future date then it indicates that resource should not be made available until that time. However, this is only advisory and in practice the Release Date should be the actual date the

	resource description was published.
Diagram	
Type	xsd:dateTime
Properties	content: simple
Used by	Complex Types Granule, Person, ResourceHeader
Source	<pre>&lt;xsd:element name="ReleaseDate" type="xsd:dateTime"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The date and time when a resource is made available. The availability of a resource coincides with the release of a resource description. If the Release Date is specified as a future date then it indicates that resource should not be made available until that time. However, this is only advisory and in practice the Release Date should be the actual date the resource description was published.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element ExpirationDate

Namespace	http://www.spase-group.org/data/schema
Annotations	The date and time when a resource is no longer available. If the Expiration Date is specified then it indicates that resource should not be made available after that time. However, this is only advisory and in practice a resource description should be unpublished to eliminate access to a resource.
Diagram	
Type	xsd:dateTime
Properties	content: simple
Used by	Complex Types Granule, ResourceHeader
Source	<pre>&lt;xsd:element name="ExpirationDate" type="xsd:dateTime"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The date and time when a resource is no longer available. If the Expiration Date is specified then it indicates that resource should not be made available after that time. However, this is only advisory and in practice a resource description should be unpublished to eliminate access to a resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element Description

Namespace	http://www.spase-group.org/data/schema
Annotations	A detailed description of the resource which should include discussions of the main quantities in the resource, possible uses and search terms. A description should also include whether any corrections (i.e, geometry, inertial) have been applied to it.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessURL, InformationURL, PhysicalParameter, ResourceHeader, Structure
Source	<pre>&lt;xsd:element name="Description" type="xsd:string"&gt;</pre>

	<pre> &lt;xsd:annotation&gt;   &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:element&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	<pre> classDiagram     class Acknowledgement {         &lt;&lt;xsd:string&gt;&gt;     } </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessInformation, ResourceHeader
Source	<pre> &lt;xsd:element name="Acknowledgement" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The individual, group or organization which       should be acknowledged when the data is used       in or contributes to a presentation or publication.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Contact

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class Contact {         &lt;&lt;Contact&gt;&gt;         &lt;&lt;PersonID&gt;&gt;         &lt;&lt;Role&gt;&gt;     }     Contact &lt; -- PersonID     Contact &lt; -- Role     PersonID &lt; -- PersonID     PersonID &lt; -- Role     Role &lt; -- PersonID     Role &lt; -- Role </pre>
Type	Contact
Properties	content: complex
Used by	Complex Type ResourceHeader
Model	PersonID , Role+
Children	PersonID, Role
Instance	<pre> &lt;Contact&gt;   &lt;PersonID&gt;{1,1}&lt;/PersonID&gt;   &lt;Role&gt;{1,unbounded}&lt;/Role&gt; &lt;/Contact&gt; </pre>
Source	<xsd:element name="Contact" type="Contact" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element PersonID

Namespace	http://www.spase-group.org/data/schema
Annotations	The identifier assigned to a Person description.
Diagram	<pre> classDiagram     class PersonID {         &lt;&lt;xsd:string&gt;&gt;     } </pre>
Type	xsd:string
Properties	content: simple

Used by	Complex Type	Contact
Source	<pre>&lt;xsd:element name="PersonID" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The identifier assigned to a Person description.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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     class enumRole     Role "0..1" -- "1..1" enumRole   </pre>																																												
Type	enumRole																																												
Properties	content: simple																																												
Facets	<table border="1"> <tr> <td>enumeration</td> <td>ArchiveSpecialist</td> <td>An individual who is an expert on a collection of resources and may also be knowledgeable of the phenomenon and related physics represented by the resources. This includes librarians, curators, archive scientists and other experts.</td> </tr> <tr> <td>enumeration</td> <td>CoInvestigator</td> <td>An individual who is a scientific peer and major participant for an investigation.</td> </tr> <tr> <td>enumeration</td> <td>Contributor</td> <td>An entity responsible for making contributions to the content of the resource.</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>Publisher</td> <td>An individual, organization, institution or government department responsible for the production and dissemination of a document.</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>An individual who is the designated leader of an investigation!!!</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	ArchiveSpecialist	An individual who is an expert on a collection of resources and may also be knowledgeable of the phenomenon and related physics represented by the resources. This includes librarians, curators, archive scientists and other experts.	enumeration	CoInvestigator	An individual who is a scientific peer and major participant for an investigation.	enumeration	Contributor	An entity responsible for making contributions to the content of the resource.	enumeration	DataProducer	An individual who generated the resource and is familiar with its provenance.	enumeration	DeputyPI	An individual who is an administrative or scientific leader for an investigation operating under the supervision of a Principal Investigator.	enumeration	GeneralContact	An individual who can provide information on a range of subjects or who can direct you to a domain expert.	enumeration	MetadataContact	An individual who can affect a change in the metadata describing a resource.	enumeration	PrincipalInvestigator	An individual who is the administrative and scientific lead for an investigation.	enumeration	ProjectScientist	An individual who is an expert in the phenomenon and related physics explored by the project. A project scientist may also have a managerial role within the project.	enumeration	Publisher	An individual, organization, institution or government department responsible for the production and dissemination of a document.	enumeration	Scientist	An individual who is an expert in the phenomenon and related physics represented by the resource.	enumeration	TeamLeader	An individual who is the designated leader of an investigation!!!	enumeration	TeamMember	An individual who is a major participant in an investigation.	enumeration	TechnicalContact	An individual who can provide specific information with regard to the resource or supporting software
enumeration	ArchiveSpecialist	An individual who is an expert on a collection of resources and may also be knowledgeable of the phenomenon and related physics represented by the resources. This includes librarians, curators, archive scientists and other experts.																																											
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enumeration	MetadataContact	An individual who can affect a change in the metadata describing a resource.																																											
enumeration	PrincipalInvestigator	An individual who is the administrative and scientific lead for an investigation.																																											
enumeration	ProjectScientist	An individual who is an expert in the phenomenon and related physics explored by the project. A project scientist may also have a managerial role within the project.																																											
enumeration	Publisher	An individual, organization, institution or government department responsible for the production and dissemination of a document.																																											
enumeration	Scientist	An individual who is an expert in the phenomenon and related physics represented by the resource.																																											
enumeration	TeamLeader	An individual who is the designated leader of an investigation!!!																																											
enumeration	TeamMember	An individual who is a major participant in an investigation.																																											
enumeration	TechnicalContact	An individual who can provide specific information with regard to the resource or supporting software																																											
Used by	Complex Type	Contact																																											

Source	<pre>&lt;xsd:element name="Role" type="enumRole"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The assigned or assumed function or position       of an individual.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element InformationURL

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class InformationURL {         Name : xsd:string         URL : xsd:string         Description : xsd:string     }     InformationURL "1..1" --&gt; "1..1" InformationURL   </pre>
Type	InformationURL
Properties	content: complex
Used by	Complex Type ResourceHeader
Model	Name{0,1} , URL , Description{0,1}
Children	Description, Name, URL
Instance	<pre> &lt;InformationURL&gt;   &lt;Name&gt;{0,1}&lt;/Name&gt;   &lt;URL&gt;{1,1}&lt;/URL&gt;   &lt;Description&gt;{0,1}&lt;/Description&gt; &lt;/InformationURL&gt;   </pre>
Source	<xsd:element name="InformationURL" type="InformationURL"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element Name

Namespace	http://www.spase-group.org/data/schema
Annotations	A language unit by which a person or thing is known.
Diagram	<pre> attributeDiagram     Name : xsd:string     xsd:string     Name --&gt; xsd:string   </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessURL, Element, InformationURL, PhysicalParameter
Source	<pre> &lt;xsd:element name="Name" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A language unit by which a person or thing       is known.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;   </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element URL

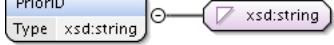
Namespace	http://www.spase-group.org/data/schema
Annotations	<p>Uniform Resource Locator (URL) is the global address of documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located followed by the pathname of the resource.</p> <p>A URL is specified in the form <code>protocol://server.domain.name:port pathname</code>. Example protocols are HTTP or FTP, server</p>

	domain name is the Internet name.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Types AccessURL, Granule, InformationURL
Source	<pre>&lt;xsd:element name="URL" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;xsd:element name="AssociationID" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The resource identifier for a resource with which this resource is closely associated.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

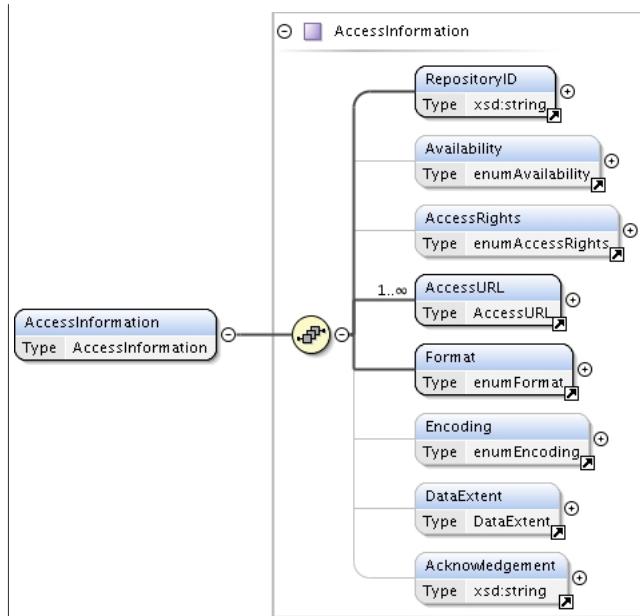
### Element PriorID

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>&lt;xsd:element name="PriorID" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The resource identifier for a resource that is superceded or replaced by a resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element AccessInformation

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



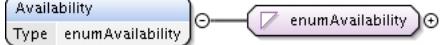
Type	AccessInformation
Properties	content: complex
Used by	Complex Types Catalog, DisplayData, NumericalData
Model	RepositoryID , Availability{0,1} , AccessRights{0,1} , AccessURL+ , Format , Encoding{0,1} , DataExtent{0,1} , Acknowledgement{0,1}
Children	AccessRights, AccessURL, Acknowledgement, Availability, DataExtent, Encoding, Format, RepositoryID
Instance	<AccessInformation>             <RepositoryID>{1,1}</RepositoryID>             <Availability>{0,1}</Availability>             <AccessRights>{0,1}</AccessRights>             <AccessURL>{1,unbounded}</AccessURL>             <Format>{1,1}</Format>             <Encoding>{0,1}</Encoding>             <DataExtent>{0,1}</DataExtent>             <Acknowledgement>{0,1}</Acknowledgement>         </AccessInformation>
Source	<xsd:element name="AccessInformation" type="AccessInformation"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

**Element RepositoryID**

Namespace	http://www.spase-group.org/data/schema
Annotations	The identifier of an Repository resource.
Diagram	<pre> class RepositoryID {     &lt;--&gt; xsd:string } </pre> <p>The diagram shows the <code>RepositoryID</code> element defined in the schema. It has a self-referencing relationship to the <code>xsd:string</code> type.</p>
Type	xsd:string
Properties	content: simple
Used by	Complex Type AccessInformation
Source	<xsd:element name="RepositoryID" type="xsd:string">             <xsd:annotation>                 <xsd:documentation xml:lang="en">The identifier of an Repository resource.</xsd:documentation>             </xsd:annotation>         </xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

**Element Availability**

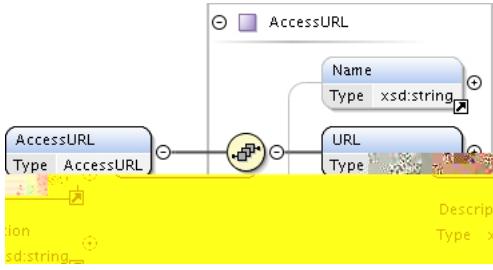
Namespace	http://www.spase-group.org/data/schema
Annotations	An indication of the method or service which

	may be used to access the resource.								
Diagram									
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>&lt;xsd:element name="Availability" type="enumAvailability"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;An indication of the method or service which       may be used to access the resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>								
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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									
Type	enumAccessRights								
Properties	content: simple								
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	Complex Type AccessInformation								
Source	<pre>&lt;xsd:element name="AccessRights" type="enumAccessRights"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Permissions granted or denied by the host       of a product to allow other users to access       and use the resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>								
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd								

### Element AccessURL

Namespace	http://www.spase-group.org/data/schema		
Diagram			
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_2.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 Format {         &lt;&lt;Format&gt;&gt;         &lt;&lt;Type&gt;&gt;         enumFormat     }     class enumFormat {         &lt;&lt;enumFormat&gt;&gt;     }     Format "1" -- "2" enumFormat   </pre>																																						
Type	enumFormat																																						
Properties	content: simple																																						
Facets	<table border="1"> <tr> <td>enumeration</td> <td>AVI</td> <td>Audio Video Interleave (AVI) a digital format for movies that conforms to the Microsoft Windows Resource Interchange File Format (RIFF).</td> </tr> <tr> <td>enumeration</td> <td>Binary</td> <td>A direct representation of the bits which may be stored in memory on a computer.</td> </tr> <tr> <td>enumeration</td> <td>CDF</td> <td>Common Data Format (CDF). A binary storage format developed at Goddard Space Flight Center (GSFC).</td> </tr> <tr> <td>enumeration</td> <td>CEF</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>CEF1</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>CEF2</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>FITS</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>GIF</td> <td>Graphic Interchange Format (GIF) first introduced in 1987 by CompuServe. GIF uses LZW compression and images are limited to 256 colours.</td> </tr> <tr> <td>enumeration</td> <td>HDF</td> <td>Hierarchical Data Format</td> </tr> <tr> <td>enumeration</td> <td>HDF4</td> <td>Hierarchical Data Format, Version 4</td> </tr> <tr> <td>enumeration</td> <td>HDF5</td> <td>Hierarchical Data Format, Version 5</td> </tr> <tr> <td>enumeration</td> <td>HTML</td> <td>A text file containing structured information represented in the HyperText Mark-up Language</td> </tr> </table>			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
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enumeration	HTML	A text file containing structured information represented in the HyperText Mark-up Language																																					

		(HTML). See < <a href="http://www.w3.org/MarkUp/">http://www.w3.org/MarkUp/</a> >
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 < <a href="http://my.unidata.ucar.edu/content/software/netcdf">http://my.unidata.ucar.edu/content/software/netcdf</a> >
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 < <a href="http://developer.apple.com/quicktime/">http://developer.apple.com/quicktime/</a> >
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 < <a href="http://www.osta.org/specs/index.htm">http://www.osta.org/specs/index.htm</a> >
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 < <a href="http://www.w3.org/XML/">http://www.w3.org/XML/</a> >
Used by	Complex Type	AccessInformation
Source		<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>
Schema location		file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Encoding

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>	
Annotations	A set of unambiguous rules that establishes the representation of information within a file.	
Diagram	<pre> classDiagram     class Encoding {         &lt;&lt;Type enumEncoding&gt;&gt;     }     class enumEncoding {         &lt;&lt;Encoding&gt;&gt;     }     Encoding "1" -- "1" enumEncoding   </pre>	
Type	enumEncoding	
Properties	content: simple	
Facets	enumeration	ASCII A sequence of characters that adheres to American Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.
	enumeration	Base64 A data encoding scheme whereby binary-encoded data is converted to printable ASCII characters. It is defined as a MIME content transfer encoding for use in internet e-mail. The only characters used are the upper- and lower-case Roman alphabet characters (A#Z, a#z), the numerals (0#9), and the "+" and "/" symbols, with the "=" symbol as a special suffix (padding) code.
	enumeration	BZIP2 An open standard algorithm by Julian Seward using Burrows-Wheeler block sorting and Huffman coding. See < <a href="http://www.bzip.org/">http://www.bzip.org/</a> >
	enumeration	GZIP An open standard algorithm distributed by GHU based on LZ77 and Huffman coding. See < <a href="http://www.gnu.org/software/gzip/gzip.html">http://www.gnu.org/software/gzip/gzip.html</a> > or < <a href="http://www.gzip.org/">http://www.gzip.org/</a> >
	enumeration	None A lack or absence of anything.
	enumeration	TAR A file format used to collate collections of files into one larger file, for distribution or archiving, while preserving file system information such as user and group permissions, dates, and directory structures. The format was standardized by POSIX.1-1988 and later POSIX.1-2001.
	enumeration	Unicode Text in multi-byte Unicode format.
	enumeration	ZIP An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.
Used by	Complex Type	AccessInformation

Source	<pre>&lt;xsd:element name="Encoding" type="enumEncoding"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A set of unambiguous rules that establishes       the representation of information within a       file.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 &lt; -- 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>&lt;DataExtent&gt;   &lt;Bytes&gt;{1,1}&lt;/Bytes&gt;   &lt;Units&gt;{0,1}&lt;/Units&gt;   &lt;Per&gt;{0,1}&lt;/Per&gt; &lt;/DataExtent&gt;</pre>
Source	<xsd:element name="DataExtent" type="DataExtent" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element Bytes

Namespace	http://www.spase-group.org/data/schema
Annotations	The number of bytes expressed as a fractional number in the associated units.
Diagram	<pre> classDiagram     class Bytes {         &lt;-- xsd:double     }   </pre>
Type	xsd:double
Properties	content: simple
Used by	Complex Type DataExtent
Source	<pre>&lt;xsd:element name="Bytes" type="xsd:double"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The number of bytes expressed as a fractional       number in the associated units.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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)

	<p>(see &lt;<a href="http://www.bipm.fr/">http://www.bipm.fr/</a>&gt; ) 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: &lt;<a href="http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols">http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols</a>&gt; and those for common derived units can be found at: &lt;<a href="http://www.bipm.fr/en/si/derived_units/2-2-2.html">http://www.bipm.fr/en/si/derived_units/2-2-2.html</a>&gt;</p>	
Diagram		
Type	xsd:string	
Properties	content: simple	
Used by	Complex Types	AzimuthalAngleRange, DataExtent, EnergyRange, FrequencyRange, PhysicalParameter, PolarAngleRange
Source	<pre>&lt;xsd:element name="Units" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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 &lt;<a href="http://www.bipm.fr/">http://www.bipm.fr/</a>&gt; ) 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: &lt;<a href="http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols">http://www.bipm.fr/en/si/si_brochure/chapter2/2-1/#symbols</a>&gt;       and those for common derived units can be       found at: &lt;<a href="http://www.bipm.fr/en/si/derived_units/2-2-2.html">http://www.bipm.fr/en/si/derived_units/2-2-2.html</a>&gt;&lt;/       xsd:documentation&gt;     &lt;/xsd:annotation&gt;   &lt;/xsd:element&gt;</pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd	

## Element Per

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>	
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>&lt;xsd:element name="Per" type="xsd:duration"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The time interval over which a characterization       applies. For example, the number of bytes       generated each day.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd	

## Element ProviderResourceName

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>	
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>&lt;xsd:element name="ProviderResourceName" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A short textual description of a resource       used by the provider which may be used to       identify a resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;xsd:element name="ProviderVersion" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;xsd:element name="InstrumentID" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The identifier of an Instrument resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element PhenomenonType

Namespace	http://www.spase-group.org/data/schema
Annotations	The characteristics or categorization of an event type.

Diagram	<pre> classDiagram     class PhenomenonType {         &lt;&lt;PhenomenonType&gt;&gt;         &lt;&lt;Type enumPhenomenonType&gt;&gt;     }     enumPhenomenonType &lt; -- PhenomenonType   </pre>		
Type	enumPhenomenonType		
Properties	content: simple		
Facets	enumeration	ActiveRegion	A localized, transient volume of the solar atmosphere in which PLAGEs, SUNSPOTS, FACULAE, FLAREs, etc. may be observed.
	enumeration	Aurora	An atmospheric phenomenon consisting of bands of light caused by charged solar particles following the earths magnetic lines of force.
	enumeration	BowShockCrossing	A crossing of the boundary between the undisturbed (except for foreshock effects) solar wind and the shocked, decelerated solar wind of the magnetosheath.
	enumeration	CoronalHole	An extended region of the corona, exceptionally low in density and associated with unipolar photospheric regions. A coronal hole can be an "open" magnetic field in the corona and (perhaps) inner heliosphere which has a faster than average outflow (wind); A region of lower than "quiet" ion and electron density in the corona; or a region of lower peak electron temperature in the corona than in the "quiet" corona.
	enumeration	CoronalMassEjection	A solar event which involves a burst of plasma which is ejected from the Sun into the interplanetary medium.
	enumeration	EITWave	A wave in the corona of the Sun which produce shock waves on the Sun#s chromosphere (Moreton Waves). EIT Waves are produced by large solar flare and expand outward at about 1,000 km/s. It usually appears as a slowly moving diffuse arc of brightening in H-alpha, and may travel for several hundred thousand km.
	enumeration	EnergeticSolarParticleEvent	enhancement of interplanetary fluxes of energetic ions accelerated by interplanetary shocks and/or solar flares.
	enumeration	ForbushDecrease	A rapid decrease in the observed galactic cosmic ray intensity following the passage of an outwardly convecting interplanetary magnetic field disturbance, such as those associated with large CMEs, that sweep some galactic cosmic rays away from Earth.
	enumeration	GeomagneticStorm	A magnetospheric disturbance typically defined by variations in the horizontal component of the Earths surface magnetic field. The variation typically starts with a field enhancement associated with a solar wind pressure pulse and continues with a field depression associated with an enhancement of the diamagnetic magnetospheric ring current.
	enumeration	InterplanetaryShock	A shock propagating generally antisunward through the slower solar wind, often seen in front of CME-associated plasma clouds.

	enumeration	MagneticCloud	A transient event observed in the solar wind characterized as a region of enhanced magnetic field strength, smooth rotation of the magnetic field vector and low proton density and temperature.
	enumeration	MagnetopauseCrossing	A crossing of the interface between the shocked solar wind in the magnetosheath and the magnetic field and plasma in the magnetosphere.
	enumeration	RadioBurst	Emissions of the sun in radio wavelengths from centimeters to dekameters, under both quiet and disturbed conditions. Radio Bursts can be "Type I" consisting of many short, narrow-band bursts in the metric range (300 - 50 MHz); "Type II" consisting of narrow-band emission that begins in the meter range (300 MHz) and sweeps slowly (tens of minutes) toward dekameter wavelengths (10 MHz); "Type III" consisting of narrow-band bursts that sweep rapidly (seconds) from decimeter to dekameter wavelengths (500 - 0.5 MHz); and "Type IV" consisting of a smooth continuum of broad-band bursts primarily in the meter range (300 - 30 MHz).
	enumeration	SolarFlare	An explosive event in the Sun's atmosphere which produces electromagnetic radiation across the electromagnetic spectrum at multiple wavelengths from long-wave radio to the shortest wavelength gamma rays.
	enumeration	SolarWindExtreme	Intervals of unusually large or small values of solar wind attributes such as flow speed and ion density.
	enumeration	Substorm	A process by which plasma in the magnetotail becomes energized at a fast rate.
Used by	Complex Type	Catalog	
Source			<xsd:element name="PhenomenonType" type="enumPhenomenonType"> <xsd:annotation> <xsd:documentation xml:lang="en">The characteristics or categorization of an event type.</xsd:documentation> </xsd:annotation> </xsd:element>
Schema location			file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element TimeSpan

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

Children	EndDateEntity, Note, StartDate
Instance	<pre>&lt;TimeSpan&gt;   &lt;StartDate&gt;{1,1}&lt;/StartDate&gt;   &lt;EndDateEntity&gt;{1,1}&lt;/EndDateEntity&gt;   &lt;Note&gt;{0,unbounded}&lt;/Note&gt; &lt;/TimeSpan&gt;</pre>
Source	<xsd:element name="TimeSpan" type="TimeSpan" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element StartDate

Namespace	http://www.spase-group.org/data/schema
Annotations	The specification of a starting point in time.
Diagram	<pre> classDiagram     class StartDate {         &lt;&lt;xsd:dateTime&gt;&gt;     }     StartDate &lt; -- xsd:dateTime   </pre>
Type	xsd:dateTime
Properties	content: simple
Used by	Complex Types Granule, TimeSpan
Source	<pre>&lt;xsd:element name="StartDate" type="xsd:dateTime"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The specification of a starting point in time.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element EndDateEntity

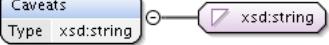
Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class EndDateEntity {         &lt;&lt;Abstract true&gt;&gt;     }     class EndDate {         &lt;&lt;xsd:dateTime&gt;&gt;     }     class RelativeEndDate {         &lt;&lt;xsd:duration&gt;&gt;     }     EndDateEntity &lt; -- EndDate     EndDateEntity &lt; -- RelativeEndDate     EndDateEntity &lt; -- substitutions   </pre>
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> <li>• EndDate</li> <li>• RelativeEndDate</li> </ul>
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_2.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 {         &lt;&lt;xsd:string&gt;&gt;     }     Note &lt; -- xsd:string   </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type TimeSpan
Source	<pre>&lt;xsd:element name="Note" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Information which is useful or important for the understanding of a value or parameter.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>

	</xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	
Type	xsd:string
Properties	content: simple
Used by	Complex Types Catalog, DisplayData, Instrument, NumericalData, PhysicalParameter
Source	<pre>&lt;xsd:element name="Caveats" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Information which may be important in the avoidance of misuse of the resource. This includes things such as instrument maladies, corruption or contamination.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;xsd:element name="Keyword" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A word or phrase that is relevant to the resource but does not exist in other documentary information.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;xsd:element name="InputResourceID" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The resource identifier for a resource which was used to generate this resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element DisplayData

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class DisplayData {         ResourceID         ResourceHeader         AccessInformation         ProcessingLevel         ProviderResourceName         ProviderProcessingLevel         ProviderVersion         InstrumentID         MeasurementType         TemporalDescription         SpectralRange         DisplayCadence         ObservedRegion         Caveats         Keyword         InputResourceID     }     class ResourceEntity {         Abstract true     }     DisplayData "1..oo" --&gt; AccessInformation     DisplayData "0..oo" --&gt; InstrumentID     DisplayData "1..oo" --&gt; MeasurementType     DisplayData "0..oo" --&gt; SpectralRange     DisplayData "0..oo" --&gt; ObservedRegion     DisplayData "0..oo" --&gt; Keyword     DisplayData "0..oo" --&gt; InputResourceID     DisplayData "1..oo" --&gt; Substitution Group     DisplayData "1..oo" --&gt; ResourceEntity   </pre>
Type	DisplayData
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> <li>• ResourceEntity</li> </ul>
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> &lt;DisplayData&gt;   &lt;ResourceID&gt;{1,1}&lt;/ResourceID&gt;   &lt;ResourceHeader&gt;{1,1}&lt;/ResourceHeader&gt;   &lt;AccessInformation&gt;{1,unbounded}&lt;/AccessInformation&gt;   </pre>

	<pre> &lt;ProcessingLevel&gt;{0,1}&lt;/ProcessingLevel&gt; &lt;ProviderResourceName&gt;{0,1}&lt;/ProviderResourceName&gt; &lt;ProviderProcessingLevel&gt;{0,1}&lt;/ProviderProcessingLevel&gt; &lt;ProviderVersion&gt;{0,1}&lt;/ProviderVersion&gt; &lt;InstrumentID&gt;{0,unbounded}&lt;/InstrumentID&gt; &lt;MeasurementType&gt;{1,unbounded}&lt;/MeasurementType&gt; &lt;TemporalDescription&gt;{0,1}&lt;/TemporalDescription&gt; &lt;SpectralRange&gt;{0,unbounded}&lt;/SpectralRange&gt; &lt;DisplayCadence&gt;{0,1}&lt;/DisplayCadence&gt; &lt;ObservedRegion&gt;{0,unbounded}&lt;/ObservedRegion&gt; &lt;Caveats&gt;{0,1}&lt;/Caveats&gt; &lt;Keyword&gt;{0,unbounded}&lt;/Keyword&gt; &lt;InputResourceID&gt;{0,unbounded}&lt;/InputResourceID&gt; &lt;/DisplayData&gt; </pre>
Source	<xsd:element name="DisplayData" type="DisplayData" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element ProcessingLevel

Namespace	http://www.spase-group.org/data/schema											
Annotations	The standard classification of the processing performed on the product.											
Diagram	<pre> classDiagram     class ProcessingLevel {         &lt;&lt;enumProcessingLevel&gt;&gt;     } </pre>											
Type	enumProcessingLevel											
Properties	content: simple											
Facets	<table> <tr> <td>enumeration</td> <td>Calibrated</td> <td>Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.</td> </tr> <tr> <td>enumeration</td> <td>Raw</td> <td>Data in its original state with no processing to account for calibration!!!</td> </tr> <tr> <td>enumeration</td> <td>Uncalibrated</td> <td>Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.</td> </tr> </table>			enumeration	Calibrated	Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.	enumeration	Raw	Data in its original state with no processing to account for calibration!!!	enumeration	Uncalibrated	Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.
enumeration	Calibrated	Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.										
enumeration	Raw	Data in its original state with no processing to account for calibration!!!										
enumeration	Uncalibrated	Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.										
Used by	Complex Types DisplayData, NumericalData											
Source	<pre> &lt;xsd:element name="ProcessingLevel" type="enumProcessingLevel"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The standard classification of the processing performed on the product.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt; </pre>											
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd											

## Element ProviderProcessingLevel

Namespace	http://www.spase-group.org/data/schema		
Annotations	The provider specific classification of the processing performed on the product.		
Diagram	<pre> classDiagram     class ProviderProcessingLevel {         &lt;&lt;xsd:string&gt;&gt;     } </pre>		
Type	xsd:string		
Properties	content: simple		
Used by	Complex Types DisplayData, NumericalData		
Source	<pre> &lt;xsd:element name="ProviderProcessingLevel" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The provider specific classification of the processing performed on the product.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt; </pre>		

Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd
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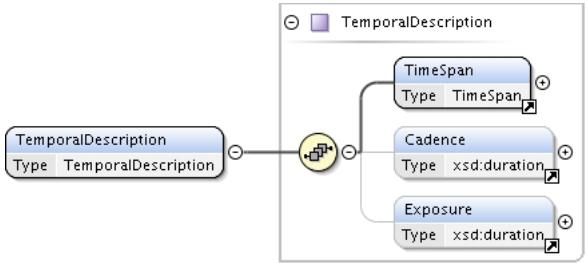
## Element MeasurementType

Namespace	http://www.spase-group.org/data/schema	
Annotations	A characterization of the quantitative assessment of a phenomenon.	
Diagram	<pre> classDiagram     class MeasurementType {         &lt;&lt;MeasurementType&gt;&gt;         &lt;&lt;Type&gt;&gt;     }     class enumMeasurementType {         &lt;&lt;enumMeasurementType&gt;&gt;     }     MeasurementType &lt; -- 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.
		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.
		Dopplergram A map or image depicting the spatial distribution of line-of-sight velocities of the observed object.
		ElectricField Measurements of electric field vectors (sometimes not all components) as a time series.
		EnergeticParticles Pieces of matter that are moving very fast. Energetic particles include protons, electrons, neutrons, neutrinos, the nuclei of atoms, and other sub-atomic particles.
		Ephemeris The spatial coordinates of a body as a function of time. When used as an Instrument Type it represents the process or methods used to generate spatial coordinates.
		ImageIntensity Measurements of the two-dimensional distribution of the intensity of photons from some region or object such as the Sun or the polar auroral regions; can be in any wavelength band, and polarized, etc.
		InstrumentStatus A quantity directly related to the operation or function of an instrument.
		IonComposition In situ measurements of the relative flux or density of electrically charged particles in the space environment. May give simple fluxes, but full distribution functions are sometimes measured.
		Irradiance 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).
		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 <sup>-1</sup> ·m <sup>-2</sup> ).
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_2.xsd	

### Element TemporalDescription

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
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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_2.xsd

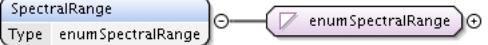
## Element Cadence

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_2.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_2.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	 A UML class diagram fragment showing two classes: 'SpectralRange' and 'enumSpectralRange'. A directed association connects them, indicated by an arrow with open circles at both ends. The 'SpectralRange' class has a note below it stating 'Type enumSpectralRange'.
Type	enumSpectralRange
Properties	content: simple
Facets	

## Element DisplayCadence

Namespace	http://www.spase-group.org/data/schema
Annotations	The time interval between the successive display elements.
Diagram	<pre> classDiagram     class DisplayCadence {         &lt;&lt;xsd:duration&gt;&gt;     }     class xsd:duration     DisplayCadence "1" -- "0..1" xsd:duration   </pre>
Type	xsd:duration
Properties	content: simple
Used by	Complex Type      DisplayData
Source	<pre> &lt;xsd:element name="DisplayCadence" type="xsd:duration"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The time interval between the successive display       elements.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;   </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;enumRegion&gt;&gt;     }     class enumRegion     ObservedRegion "1" -- "0..1" enumRegion   </pre>																								
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 the sun.</td> </tr> <tr> <td>enumeration</td> <td>Comet</td> <td>A relatively small extraterrestrial body consisting of a frozen mass that travels around the sun in a highly elliptical orbit.</td> </tr> <tr> <td>enumeration</td> <td>Earth</td> <td>The third planet from the sun in our solar system.</td> </tr> <tr> <td>enumeration</td> <td>Earth.Magnetsheath</td> <td>The region between the bow shock and the magnetopause, characterized by very turbulent plasma.</td> </tr> <tr> <td>enumeration</td> <td>Earth.Magnetosphere</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Earth.Magnetosphere.Magnetotail</td> <td>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 &gt; -10Re).</td> </tr> <tr> <td>enumeration</td> <td>Earth.Magnetosphere.Main</td> <td>The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.</td> </tr> <tr> <td>enumeration</td> <td>Earth.Magnetosphere.Polar</td> <td>The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes</td> </tr> </table>	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	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
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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.																							
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		the aural zone.
enumeration	Earth.Magnetosphere.RadiationBelt	within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.
enumeration	Earth.NearSurface	The gaseous and possibly ionized environment of a body extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.
enumeration	Earth.NearSurface.Atmosphere	The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.
enumeration	Earth.NearSurface.AuroralRegion	The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.
enumeration	Earth.NearSurface.EquatorialRegion	A region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.
enumeration	Earth.NearSurface.Ionosphere	The charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction..
enumeration	Earth.NearSurface.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	Earth.NearSurface.IonosphereRegion	A 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.IonosphereRegionF	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.IonosphereRegionTopside	The topside of the upper most areas of the ionosphere.
enumeration	Earth.NearSurface.Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	Earth.NearSurface.Plasmasphere	A region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the plasmapause, which is defined by an order of magnitude drop in plasma density.
enumeration	Earth.NearSurface.PolarCap	The areas of the globe surrounding the poles and consisting of the region north of 60 degrees north latitude an the region south of 60 degrees south latitude.
enumeration	Earth.NearSurface.SouthAtlanticAnomalyRegion	An inner van Allen radiation belt makes its closest approach to the planets surface. The result is that, for a given altitude, the radiation intensity is higher over this region than elsewhere.

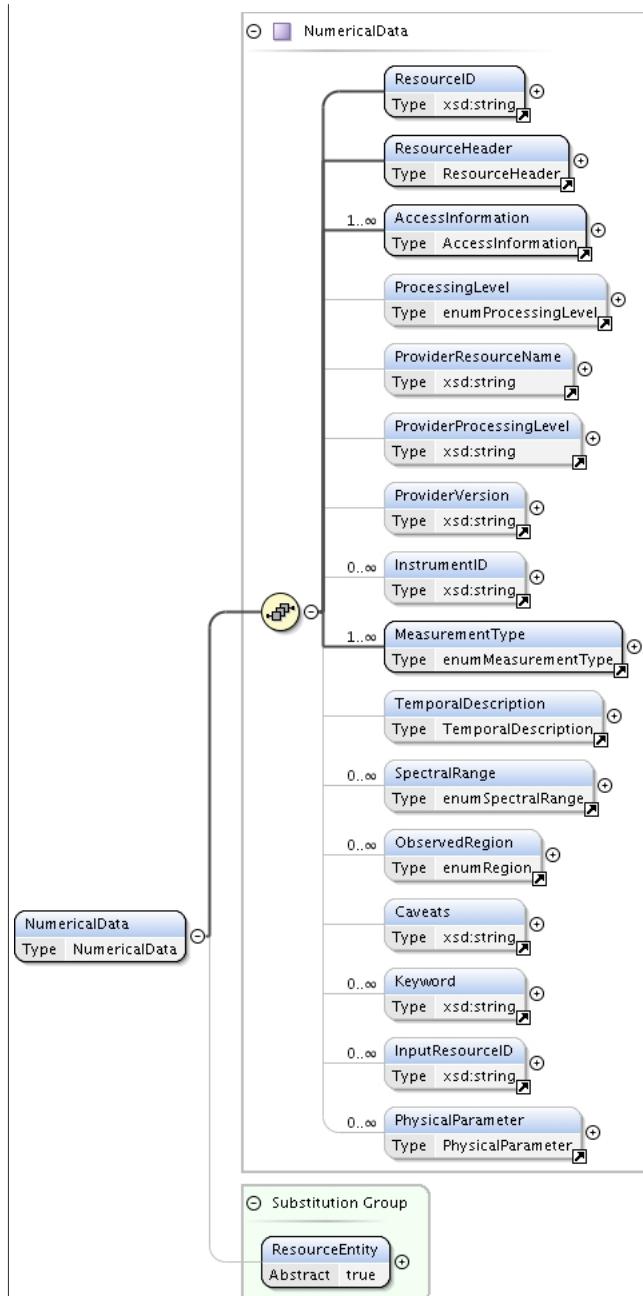
enumeration	Earth.NearSurface.Stratosphere	The layer of the atmosphere that extends from the troposphere to about 30 km, temperature increases with height. The stratosphere contains the ozone layer.
enumeration	Earth.NearSurface.Thermosphere	The layer of the atmosphere that extends from the Mesosphere to 640+ km, temperature increasing with height.
enumeration	Earth.NearSurface.Troposphere	The lowest layer of the atmosphere which begins at the surface and extends to between 7 km (4.4 mi) at the poles and 17 km (10.6 mi) at the equator, with some variation due to weather factors.
enumeration	Earth.Surface	The outermost area of a solid object.
enumeration	Heliosphere	The solar atmosphere extending roughly from the outer corona to the edge of the solar plasma at the heliopause separating primarily solar plasma from interstellar plasma.
enumeration	Heliosphere.Inner	The region of the heliosphere extending radially out from the "surface" of the Sun to 1 AU.
enumeration	Heliosphere.NearEarth	The heliospheric region near the Earth which extends to and includes the area near the L1 and L2 Lagrange point.
enumeration	Heliosphere.Outer	The region of the heliosphere from, but not including, 1 AU to the farthest extent of the heliosphere (heliopause).
enumeration	Heliosphere.Remote1AU	The heliospheric region near the Earth's orbit, but exclusive of the region near the Earth.
enumeration	Jupiter	The fifth planet from the sun in our solar system.
enumeration	Mars	The forth planet from the sun in our solar system.
enumeration	Mercury	The first planet from the sun in our solar system.
enumeration	Neptune	The seventh planet from the sun in our solar system.
enumeration	Pluto	The ninth (sub)planet from the sun in our solar system.
enumeration	Saturn	The sixth planet from the sun in our solar system.
enumeration	Sun	The star upon which our solar system is centered.
enumeration	Sun.Chromosphere	The region of the Suns (or a stars) atmosphere above the temperature minimum and below the Transition Region. The solar chromosphere is approximately 400 km to 2100 km above the photosphere, and characterized by temperatures from 4500 - 28000 K.
enumeration	Sun.Corona	The outermost atmospheric region of the Sun or a star, characterized by ionization temperatures above $10^5$ K. The solar corona starts at about 2100 km above the photosphere; there is no generally defined upper limit.
enumeration	Sun.Interior	The region inside the body which is not visible from outside the body.
enumeration	Sun.Photosphere	The atmospheric layer of the Sun or a star from which continuum radiation, especially optical, is emitted to space. For the Sun, the photosphere is about 500 km thick.
enumeration	Sun.TransitionRegion	A very narrow (<100 km) layer between the

		chromosphere and the corona where the temperature rises abruptly from about 8000 to about 500,000 K.
	enumeration	Uranus The 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		<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>
Schema location		file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element NumericalData

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
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## Diagram



Type	<code>NumericalData</code>
Properties	content: complex
Substitution Group Affiliation	• <code>ResourceEntity</code>
Model	<code>ResourceID</code> , <code>ResourceHeader</code> , <code>AccessInformation</code> + , <code>ProcessingLevel</code> {0,1} , <code>ProviderResourceName</code> {0,1} , <code>ProviderProcessingLevel</code> {0,1} , <code>ProviderVersion</code> {0,1} , <code>InstrumentID</code> * , <code>MeasurementType</code> + , <code>TemporalDescription</code> {0,1} , <code>SpectralRange</code> * , <code>ObservedRegion</code> * , <code>Caveats</code> {0,1} , <code>Keyword</code> * , <code>InputResourceID</code> * , <code>PhysicalParameter</code> *
Children	<code>AccessInformation</code> , <code>Caveats</code> , <code>InputResourceID</code> , <code>InstrumentID</code> , <code>Keyword</code> , <code>MeasurementType</code> , <code>ObservedRegion</code> , <code>PhysicalParameter</code> , <code>ProcessingLevel</code> , <code>ProviderProcessingLevel</code> , <code>ProviderResourceName</code> , <code>ProviderVersion</code> , <code>ResourceHeader</code> , <code>ResourceID</code> , <code>SpectralRange</code> , <code>TemporalDescription</code>
Instance	<pre>&lt;NumericalData&gt;   &lt;ResourceID&gt;{1,1}&lt;/ResourceID&gt;   &lt;ResourceHeader&gt;{1,1}&lt;/ResourceHeader&gt;   &lt;AccessInformation&gt;{1,unbounded}&lt;/AccessInformation&gt;   &lt;ProcessingLevel&gt;{0,1}&lt;/ProcessingLevel&gt;   &lt;ProviderResourceName&gt;{0,1}&lt;/ProviderResourceName&gt;   &lt;ProviderProcessingLevel&gt;{0,1}&lt;/ProviderProcessingLevel&gt;   &lt;ProviderVersion&gt;{0,1}&lt;/ProviderVersion&gt;</pre>

	<pre>&lt;InstrumentID&gt;{0,unbounded}&lt;/InstrumentID&gt; &lt;MeasurementType&gt;{1,unbounded}&lt;/MeasurementType&gt; &lt;TemporalDescription&gt;{0,1}&lt;/TemporalDescription&gt; &lt;SpectralRange&gt;{0,unbounded}&lt;/SpectralRange&gt; &lt;ObservedRegion&gt;{0,unbounded}&lt;/ObservedRegion&gt; &lt;Caveats&gt;{0,1}&lt;/Caveats&gt; &lt;Keyword&gt;{0,unbounded}&lt;/Keyword&gt; &lt;InputResourceID&gt;{0,unbounded}&lt;/InputResourceID&gt; &lt;PhysicalParameter&gt;{0,unbounded}&lt;/PhysicalParameter&gt; &lt;/NumericalData&gt;</pre>
Source	<xsd:element name="NumericalData" type="NumericalData" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;PhysicalParameter&gt;   &lt;Name&gt;{1,1}&lt;/Name&gt;   &lt;ParameterKey&gt;{0,1}&lt;/ParameterKey&gt;   &lt;Description&gt;{0,1}&lt;/Description&gt;   &lt;Caveats&gt;{0,1}&lt;/Caveats&gt;   &lt;Cadence&gt;{0,1}&lt;/Cadence&gt;   &lt;Units&gt;{0,1}&lt;/Units&gt;   &lt;UnitsConversion&gt;{0,1}&lt;/UnitsConversion&gt;</pre>

	<pre>&lt;CoordinateSystem&gt;{0,1}&lt;/CoordinateSystem&gt; &lt;Structure&gt;{0,1}&lt;/Structure&gt; &lt;ValidMin&gt;{0,1}&lt;/ValidMin&gt; &lt;ValidMax&gt;{0,1}&lt;/ValidMax&gt; &lt;FillValue&gt;{0,1}&lt;/FillValue&gt; &lt;ParameterEntity&gt;{1,1}&lt;/ParameterEntity&gt; &lt;/PhysicalParameter&gt;</pre>
Source	<xsd:element name="PhysicalParameter" type="PhysicalParameter"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;ParameterKey&gt;&gt;         &lt;&lt;Type xsd:string&gt;&gt;     }     class xsd:string     ParameterKey "1" --o "0..1" xsd:string   </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Types Element, PhysicalParameter
Source	<pre>&lt;xsd:element name="ParameterKey" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;UnitsConversion&gt;&gt;         &lt;&lt;Type xsd:string&gt;&gt;     }     class xsd:string     UnitsConversion "1" --o "0..1" xsd:string   </pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type PhysicalParameter
Source	<pre>&lt;xsd:element name="UnitsConversion" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The multiplicative factor for converting a unit into International System of Units (SI) units. The factor is expressed in the form "number &gt; 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&gt;T" which converts the units, presumably nT, to tesla. Another example is: "1.0e-1&gt;km/s" which converts a velocity expressed in meters per second to kilometers per second.&lt;/xsd:documentation&gt;</p> <pre>&lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element CoordinateSystem

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class CoordinateSystem {         CoordinateRepresentation         CoordinateSystemName     }     CoordinateSystem &lt; -- CoordinateSystem     CoordinateSystem --&gt; CoordinateRepresentation     CoordinateSystem --&gt; CoordinateSystemName   </pre>
Type	CoordinateSystem
Properties	content: complex
Used by	Complex Type PhysicalParameter
Model	CoordinateRepresentation{0,1} , CoordinateSystemName{0,1}
Children	CoordinateRepresentation, CoordinateSystemName
Instance	<pre> &lt;CoordinateSystem&gt;   &lt;CoordinateRepresentation&gt;{0,1}&lt;/CoordinateRepresentation&gt;   &lt;CoordinateSystemName&gt;{0,1}&lt;/CoordinateSystemName&gt; &lt;/CoordinateSystem&gt;   </pre>
Source	<xsd:element name="CoordinateSystem" type="CoordinateSystem"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 enumCoordinateRepresentation     enumCoordinateRepresentation &lt; -- CoordinateRepresentation   </pre>									
Type	enumCoordinateRepresentation									
Properties	content: simple									
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Cartesian</td> <td>A coordinate system in which the position of a point is determined by its distance from two or three mutually perpendicular axes.</td> </tr> <tr> <td>enumeration</td> <td>Cylindrical</td> <td>A system of curvilinear coordinates in which the position of a point in space is determined by its perpendicular distance from a given line, its distance from a selected reference plane perpendicular to this line, and its angular distance from a selected reference line when projected onto this plane.</td> </tr> <tr> <td>enumeration</td> <td>Spherical</td> <td>A system of curvilinear coordinates characterized by an azimuthal angle (longitude), a polar 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.
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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"/>									

	<pre>&lt;xsd:annotation&gt;   &lt;xsd:documentation xml:lang="en"&gt;The method or form for specifying a given   point in a given coordinate system&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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     class enumCoordinateSystemName     CoordinateSystemName "1" -- "0..1" enumCoordinateSystemName   </pre>																			
Type	enumCoordinateSystemName																			
Properties	content: simple																			
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Carrington</td> <td>A coordinate system which is centered at the Sun and is "fixed" with respect to the synodic rotation rate; the mean synodic value is about 27.2753 days. The Astronomical Almanac gives a value for Carrington longitude of 349.03 degrees at 0000 UT on 1 January 1995.</td> </tr> <tr> <td>enumeration</td> <td>CGM</td> <td>Corrected Geomagnetic - A coordinate system from a spatial point with GEO radial distance and geomagnetic latitude and longitude, follow the epoch-appropriate IGRF/DGRF model field vector through to the point where the field line crosses the geomagnetic dipole equatorial plane. Then trace the dipole magnetic field vector Earthward from that point on the equatorial plane, in the same hemisphere as the original point, until the initial radial distance is reached. Designate the dipole latitude and longitude at that point as the CGM latitude and longitude of the original point. See &lt;<a href="http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html">http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html</a>&gt;</td> </tr> <tr> <td>enumeration</td> <td>DM</td> <td>Dipole Meridian - A coordinate system centered at the observation point. Z axis is parallel to the Earth's dipole axis, positive northward. X is in the plane defined by Z and the line linking the observation point with the Earth's center. Y is positive eastward. See &lt;<a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a>&gt;</td> </tr> <tr> <td>enumeration</td> <td>GEI</td> <td>Geocentric Equatorial Inertial - A coordinate system where the Z axis is along Earth's spin vector, positive northward. X axis points towards the first point of Aries (from the Earth towards the Sun at the vernal equinox). See Russell, 1971</td> </tr> <tr> <td>enumeration</td> <td>GEO</td> <td>Geographic - geocentric corotating - A coordinate system where the Z axis is along Earth's spin vector, positive northward. X axis lies in Greenwich meridian, positive towards Greenwich. See Russell, 1971.</td> </tr> <tr> <td>enumeration</td> <td>GSE</td> <td>Geocentric Solar Ecliptic - A coordinate system where the X axis is from Earth to Sun. Z axis</td> </tr> </table>	enumeration	Carrington	A coordinate system which is centered at the Sun and is "fixed" with respect to the synodic rotation rate; the mean synodic value is about 27.2753 days. The Astronomical Almanac gives a value for Carrington longitude of 349.03 degrees at 0000 UT on 1 January 1995.	enumeration	CGM	Corrected Geomagnetic - A coordinate system from a spatial point with GEO radial distance and geomagnetic latitude and longitude, follow the epoch-appropriate IGRF/DGRF model field vector through to the point where the field line crosses the geomagnetic dipole equatorial plane. Then trace the dipole magnetic field vector Earthward from that point on the equatorial plane, in the same hemisphere as the original point, until the initial radial distance is reached. Designate the dipole latitude and longitude at that point as the CGM latitude and longitude of the original point. See < <a href="http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html">http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html</a> >	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 < <a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a> >	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	
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		is normal to the ecliptic, positive northward. See Russell, 1971.
enumeration	GSEQ	Geocentric Solar Equatorial - A coordinate system where the X axis is from Earth to Sun. Y axis is parallel to solar equatorial plane. Z axis is positive northward. See Russell, 1971
enumeration	GSM	Geocentric Solar Magnetospheric - A coordinate system where the X axis is from Earth to Sun, Z axis is northward in a plane containing the X axis and the geomagnetic dipole axis. See Russell, 1971
enumeration	HAE	Heliocentric Aries Ecliptic - A coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the first point of Aries (from Earth to Sun at vernal equinox). Same as SE below. See Hapgood, 1992.
enumeration	HCI	Heliographic Carrington Inertial.
enumeration	HEE	Heliocentric Earth Ecliptic - A coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis points from Sun to Earth. See Hapgood, 1992
enumeration	HEEQ	Heliocentric Earth Equatorial - A coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X axis is generally Earthward in the plane defined by the Z axis and the Sun-Earth direction. See Hapgood, 1992.
enumeration	HG	Heliographic - A heliocentric rotating coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X, Y axes rotate with a 25.38 day period. The zero longitude (X axis) is defined as the longitude that passed through the ascending node of the solar equator on the ecliptic plane on 1 January, 1854 at 12 UT. See <a href="http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html">http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html</a>
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 <a href="http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html">http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html</a>
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) = $\text{SQRT} (Bx^{**2} + By^{**2})$ and D (declination

		angle) = $\arctan (By/Bx)$
enumeration	MAG	Geomagnetic - geocentric. Z axis is parallel to the geomagnetic dipole axis, positive north. X is in the plane defined by the Z axis and the 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 $Y = N \times Z$ , $X = Y \times Z$ . See Russell, 1971, and <a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a>
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 <a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a>
enumeration	RTN	Radial Tangential Normal. Typically centered at a spacecraft. Used for IMF and plasma V vectors. R (radial) axis is radially away from the Sun, T (tangential) axis is normal to the plane formed by R and the Sun's spin vector, positive in the direction of planetary motion. N (normal) is $R \times T$ .
enumeration	SC	Spacecraft - A coordinate system defined by the spacecraft geometry and/or spin. Often has Z axis parallel to spacecraft spin vector. X and Y axes may or may not corotate with the spacecraft. See SR and SR2 below.
enumeration	SE	Solar Ecliptic - A heliocentric coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the first point of Aries (from Earth to Sun at vernal equinox). Same as HAE above. See <a href="http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html">http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html</a>
enumeration	SM	Solar Magnetic - A geocentric coordinate system where the Z axis is northward along Earth's dipole axis, X axis is in plane of Z axis and Earth-Sun line, positive sunward. See Russell, 1971.
enumeration	SpacecraftOrbitPlane	A coordinate system where X lies in the orbit plane normal to and in the direction of motion of the spacecraft, Z is normal to the orbit plane and Y completes the triad in a right-handed coordinate system.
enumeration	SR	Spin Reference - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft. Z is parallel to the spacecraft spin vector. X and Y rotate with the spacecraft. See <a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a>
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 <a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a>
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_2.xsd	

## Element Structure

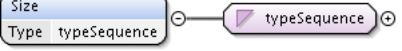
Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class Structure {         StructureType         Type enumStructureType         Size         Type typeSequence         Description         Type xsd:string         Element         Type Element     }     Structure &lt; -- Structure     Structure --&gt; StructureType     Structure --&gt; Size     Structure --&gt; Description     Structure --&gt; 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_2.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 &lt; -- StructureType   </pre>
Type	enumStructureType
Properties	content: simple
Facets	enumeration      Array <p>A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix.</p>

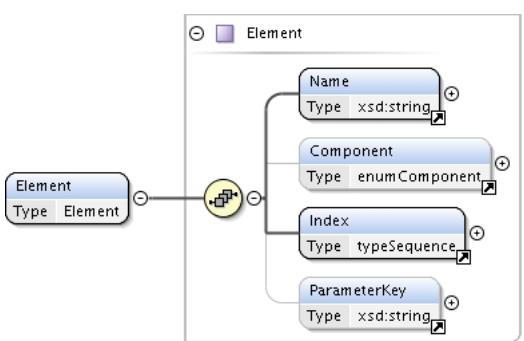
		Each value can be referenced by a unique index.
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
enumeration	Tensor	A generalized linear "quantity" or "geometrical entity" that can be expressed as a multi-dimensional array relative to a choice of basis of the particular space on which it is defined.
enumeration	Vector	A set of parameter values each along some independent variable (e.g., components of a field in three orthogonal spatial directions; atmospheric temperature values at several altitudes, or at a given latitude and longitude;).
Used by	Complex Type	Structure
Source	<pre>&lt;xsd:element name="StructureType" type="enumStructureType"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The classification of the organization of a structure.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd	

## Element Size

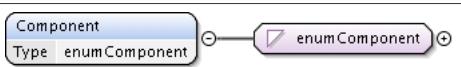
Namespace	http://www.spase-group.org/data/schema
Annotations	The number of elements in each dimension of a multi-dimensional array. =1 for a scalar; = n for a vector, the number of vector elements; = (m, n, p ...). Note that the number of elements in the size of an N-dimensional array conveys the arrays dimensionality while the product of those numbers conveys the total number of elements in the array. When size is used to describe a tensor it is the number of elements in the tensor. As such it has a limited set of values. A tensor of rank 1 has a size of 3, rank 2 a size of 9, rank 3 a size of 27 and rank n a size of 3^n.
Diagram	
Type	typeSequence
Properties	content: simple
Used by	Complex Type
Source	<pre>&lt;xsd:element name="Size" type="typeSequence"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The number of elements in each dimension of a multi-dimensional array. =1 for a scalar; = n for a vector, the number of vector elements; = (m, n, p ...). Note that the number of elements in the size of an N-dimensional array conveys the arrays dimensionality while the product of those numbers conveys the total number of elements in the array. When size is used to describe a tensor it is the number of elements in the tensor. As such it has a limited set of values. A tensor of rank 1 has a size of 3, rank 2 a size of 9, rank 3 a size of 27 and rank n a size of 3^n.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Element

Namespace	http://www.spase-group.org/data/schema
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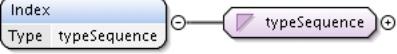
Diagram	
Type	Element
Properties	content: complex
Used by	Complex Type Structure
Model	Name , Component{0,1} , Index , ParameterKey{0,1}
Children	Component, Index, Name, ParameterKey
Instance	<Element> <Name>{1,1}</Name> <Component>{0,1}</Component> <Index>{1,1}</Index> <ParameterKey>{0,1}</ParameterKey> </Element>
Source	<xsd:element name="Element" type="Element" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Component

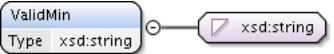
Namespace	http://www.spase-group.org/data/schema		
Annotations	A part of a multi-part entity, e.g., the components of a vector.		
Diagram			
Type	enumComponent		
Properties	content: simple		
Facets	enumeration Phi R Theta X	Phi	The angle between the meridian of a vector and the zero meridian of the coordinate 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: $\text{Phi} = \arctan(y/x)$
		R	The component of a vector in the radial direction from the center of the coordinate system.
		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: $\text{Theta} = \arctan(\sqrt{x^2 + y^2}/z)$
		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			<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>
Schema location			file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

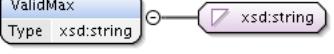
## Element Index

Namespace	http://www.spase-group.org/data/schema		
Annotations	The location of an item in an array or vector. An index can be multivalued to represent the location in a multidimensional object.		
Diagram			
Type	typeSequence		
Properties	content: simple		
Used by	Complex Type Element		
Source	<xsd:element name="Index" type="typeSequence"> <xsd:annotation> <xsd:documentation xml:lang="en">The location of an item in an array or vector. An index can be multivalued to represent the location in a multidimensional object.</xsd:documentation> </xsd:annotation> </xsd:element>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd		

## Element ValidMin

Namespace	http://www.spase-group.org/data/schema		
Annotations	The smallest legitimate value.		
Diagram			
Type	xsd:string		
Properties	content: simple		
Used by	Complex Type PhysicalParameter		
Source	<xsd:element name="ValidMin" type="xsd:string"> <xsd:annotation> <xsd:documentation xml:lang="en">The smallest legitimate value.</xsd:documentation> </xsd:annotation> </xsd:element>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd		

## Element ValidMax

Namespace	http://www.spase-group.org/data/schema		
Annotations	The largest legitimate value.		
Diagram			
Type	xsd:string		
Properties	content: simple		

Used by	Complex Type      PhysicalParameter
Source	<pre>&lt;xsd:element name="ValidMax" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The largest legitimate value.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element FillValue

Namespace	http://www.spase-group.org/data/schema
Annotations	A value that indicates that a quantity is undefined.
Diagram	A UML class diagram fragment. A class labeled 'FillValue' has an association line pointing to a box labeled 'xsd:string'. The 'xsd:string' box is shaded purple.
Type	xsd:string
Properties	content: simple
Used by	Complex Type      PhysicalParameter
Source	<pre>&lt;xsd:element name="FillValue" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A value that indicates that a quantity is undefined.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element ParameterEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	A UML class diagram fragment. An abstract class labeled 'ParameterEntity' has two substitution groups: 'Measured' (shaded purple) and 'Support' (shaded green). Both 'Measured' and 'Support' have their 'Type' attribute set to 'Measured'.
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> <li>Measured</li> <li>Support</li> </ul>
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_2.xsd

### Element Measured

Namespace	http://www.spase-group.org/data/schema
Diagram	A UML class diagram fragment. A concrete class labeled 'Measured' (shaded purple) has an association line pointing to an abstract class labeled 'MeasuredEntity' (shaded blue). The 'MeasuredEntity' class has its 'Abstract' attribute set to 'true'. Below 'MeasuredEntity' is a 'Substitution Group' containing a class labeled 'ParameterEntity' (shaded green) with its 'Abstract' attribute set to 'true'.
Type	Measured
Properties	content: complex

Substitution Group Affiliation	• ParameterEntity
Model	MeasuredEntity
Children	MeasuredEntity
Instance	<Measured> <MeasuredEntity>{1,1}</MeasuredEntity> </Measured>
Source	<xsd:element name="Measured" type="Measured" substitutionGroup="ParameterEntity" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element MeasuredEntity

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class MeasuredEntity {         &lt;&lt;Abstract true&gt;&gt;     }     class Field {         &lt;&lt;Type Field&gt;&gt;     }     class Mixed {         &lt;&lt;Type xsd:string&gt;&gt;     }     class Particle {         &lt;&lt;Type Particle&gt;&gt;     }     class Photon {         &lt;&lt;Type Photon&gt;&gt;     }      MeasuredEntity &lt; -- Field     MeasuredEntity &lt; -- Mixed     MeasuredEntity &lt; -- Particle     MeasuredEntity &lt; -- Photon   </pre>
Properties	abstract: true
Substitution Group	<ul style="list-style-type: none"> <li>• Field</li> <li>• Particle</li> <li>• Photon</li> <li>• Mixed</li> </ul>
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_2.xsd

## Element Field

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class Field {         &lt;&lt;Type Field&gt;&gt;     }     class FieldQualifier {         &lt;&lt;Type enumFieldQualifier&gt;&gt;     }     class FieldQuantity {         &lt;&lt;Type enumFieldQuantity&gt;&gt;     }     class FrequencyRange {         &lt;&lt;Type FrequencyRange&gt;&gt;     }      Field &lt; -- FieldQualifier *..0     Field &lt; -- FieldQuantity     Field &lt; -- FrequencyRange     class SubstitutionGroup {         &lt;&lt;MeasuredEntity Abstract true&gt;&gt;     }     Field &lt; -- SubstitutionGroup   </pre>
Type	Field
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> <li>• MeasuredEntity</li> </ul>
Model	FieldQualifier*, FieldQuantity, FrequencyRange{0,1}

Children	FieldQualifier, FieldQuantity, FrequencyRange
Instance	<pre>&lt;Field&gt;   &lt;FieldQualifier&gt;{0,unbounded}&lt;/FieldQualifier&gt;   &lt;FieldQuantity&gt;{1,1}&lt;/FieldQuantity&gt;   &lt;FrequencyRange&gt;{0,1}&lt;/FrequencyRange&gt; &lt;/Field&gt;</pre>
Source	<xsd:element name="Field" type="Field" substitutionGroup="MeasuredEntity" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;FieldQualifier&gt;&gt;         &lt;&lt;Type&gt;&gt;         &lt;&lt;enumFieldQualifier&gt;&gt;     }     class enumFieldQualifier {         &lt;&lt;enumFieldQualifier&gt;&gt;     }     FieldQualifier "0..1" -- "1" enumFieldQualifier   </pre>
Type	enumFieldQualifier
Properties	content: simple
Facets	enumeration enum

	enumeration	Parallel	Having the same direction as a given direction
	enumeration	Peak	The maximum value for the quantity in question, over a period of time which is usually equal to the cadence.
	enumeration	Perpendicular	At right angles to a given direction.
	enumeration	PhaseAngle	Phase difference between two or more waves, normally expressed in degrees.
	enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
	enumeration	StandardDeviation	The square root of the average of the squares of deviations about the mean of a set of data. Standard deviation is a statistical measure of spread or variability.
	enumeration	Tensor	A generalized linear "quantity" or "geometrical entity" that can be expressed as a multi-dimensional array relative to a choice of basis of the particular space on which it is defined.
	enumeration	Uncertainty	A statistically defined discrepancy between a measured quantity and the true value of that quantity that cannot be corrected by calculation or calibration.
	enumeration	Variance	A measure of dispersion of a set of data points around their mean value. The expectation value of the squared deviations from the mean.
	enumeration	Vector	A set of parameter values each along some independent variable (e.g., components of a field in three orthogonal spatial directions; atmospheric temperature values at several altitudes, or at a given latitude and longitude;).
Used by	Complex Type	Field	
Source			<pre>&lt;xsd:element name="FieldQualifier" type="enumFieldQualifier"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Characterizes the directional and statistical aspects of the field observation.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location			file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element FieldQuantity

Namespace	http://www.spase-group.org/data/schema		
Annotations	The physical attribute of the field.		
Diagram	<pre> classDiagram     class FieldQuantity {         &lt;&lt;Type enumFieldQuantity&gt;&gt;     }     class enumFieldQuantity {         &lt;&lt;FieldQuantity&gt;&gt;     }     FieldQuantity &lt; -- enumFieldQuantity   </pre>		
Type	enumFieldQuantity		
Properties	content: simple		
Facets	enumeration	CrossSpectrum	The Fourier transform of the cross correlation of two physical or empirical observations.
	enumeration	Current	The flow of electrons through a conductor caused by a potential difference.
	enumeration	Electric	The physical attribute that exerts an electrical force.
	enumeration	Electromagnetic	The physical attribute that is or is caused by a mutual interaction of electric and magnetic

		fields.
enumeration	Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.
enumeration	PlasmaFrequency	The frequency with which a plasma oscillates.
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	<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>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd	

## Element FrequencyRange

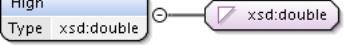
Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class FrequencyRange {         Low         High         Units         Bin     }     FrequencyRange &lt; -- FrequencyRange     </pre> <p>The diagram shows a UML class named 'FrequencyRange' represented by a blue rounded rectangle. Inside the class, there are four attributes: 'Low' (xsd:double), 'High' (xsd:double), 'Units' (xsd:string), and 'Bin' (xsd:double). A multiplicity of '0..oo' is shown next to 'Bin'. A self-referencing association arrow points from the class back to itself, indicating that FrequencyRange is a complex type.</p>
Type	FrequencyRange
Properties	content: complex
Used by	Complex Types Field, Photon
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<FrequencyRange>     <Low>{1,1}</Low>     <High>{1,1}</High>     <Units>{1,1}</Units>     <Bin>{0,unbounded}</Bin> </FrequencyRange>
Source	<xsd:element name="FrequencyRange" type="FrequencyRange" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Low

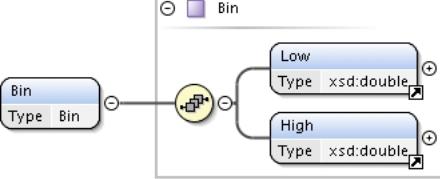
Namespace	http://www.spase-group.org/data/schema
Annotations	The smallest value within a range of possible values.
Diagram	<pre> classDiagram     class Low {         xsd:double     }     </pre> <p>The diagram shows a UML class named 'Low' represented by a blue rounded rectangle. Inside the class, there is one attribute: 'xsd:double'. A self-referencing association arrow points from the class back to itself, indicating that Low is a simple type.</p>
Type	xsd:double
Properties	content: simple

Used by	Complex Types      AzimuthalAngleRange, Bin, EnergyRange, FrequencyRange, PolarAngleRange
Source	<pre>&lt;xsd:element name="Low" type="xsd:double"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The smallest value within a range of possible       values.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;xsd:element name="High" type="xsd:double"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The largest value within a range of possible       values.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

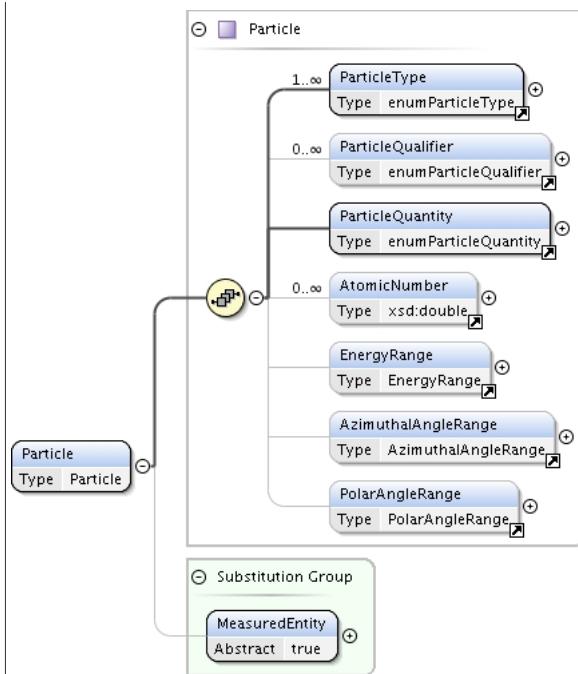
## Element Bin

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	<pre>&lt;Bin&gt;   &lt;Low&gt;{1,1}&lt;/Low&gt;   &lt;High&gt;{1,1}&lt;/High&gt; &lt;/Bin&gt;</pre>
Source	<xsd:element name="Bin" type="Bin"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Particle

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



Type	Particle
Properties	content: complex
Substitution Group Affiliation	• MeasuredEntity
Model	ParticleType+, ParticleQualifier*, ParticleQuantity, AtomicNumber*, EnergyRange{0,1}, AzimuthalAngleRange{0,1}, PolarAngleRange{0,1}
Children	AtomicNumber, AzimuthalAngleRange, EnergyRange, ParticleQualifier, ParticleQuantity, ParticleType, PolarAngleRange
Instance	<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_2.xsd

**Element ParticleType**

Namespace	http://www.spase-group.org/data/schema														
Annotations	A characterization of the kind of particle observed by the measurement.														
Diagram															
Type	enumParticleType														
Properties	content: simple														
Facets	<table border="1"> <tbody> <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</td> </tr> </tbody> </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
enumeration	Aerosol	A suspension of fine solid or liquid particles in gas.													
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enumeration	Dust	Free microscopic particles of solid material.													
enumeration	Electron	An elementary particle consisting of a charge of negative electricity equal to about 1.602													

		x 10**(-19) Coulomb and having a mass when at rest of about 9.109534 x 10**(-28) gram.
enumeration	Ion	An atom that has acquired a net electric charge by gaining or losing one or more electrons. (Note: Z>2)
enumeration	Molecule	A group of atoms so united and combined by chemical affinity that they form a complete, integrated whole, being the smallest portion of any particular compound that can exist in a free state
enumeration	Neutral	Either a particle, an object, or a system that has a net electric charge of zero
enumeration	Proton	An elementary particle that is a constituent of all atomic nuclei, that carries a positive charge numerically equal to the charge of an electron, and that has a mass of 1.673 x 10**(-24) gram.
Used by	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_2.xsd	

## Element ParticleQualifier

Namespace	http://www.spase-group.org/data/schema																						
Annotations	Characterizes the directional and statistical aspects of the particle observation.																						
Diagram	<pre> classDiagram     class ParticleQualifier {         &lt;&lt;Type enumParticleQualifier&gt;&gt;     }     class enumParticleQualifier     ParticleQualifier &lt; -- enumParticleQualifier   </pre>																						
Type	enumParticleQualifier																						
Properties	content: simple																						
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Anisotropy</td> <td>Direction-dependent property.</td> </tr> <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>Characteristic</td> <td>A quantity which can be easily identified and measured in a given environment.</td> </tr> <tr> <td>enumeration</td> <td>Component</td> <td>A part of a multi-part entity, e.g., the components of a vector.</td> </tr> <tr> <td>enumeration</td> <td>Component.Phi</td> <td>The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)</td> </tr> <tr> <td>enumeration</td> <td>Component.R</td> <td>The component of a vector in the radial direction from the center of the coordinate system.</td> </tr> </table>		enumeration	Anisotropy	Direction-dependent property.	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.	enumeration	Characteristic	A quantity which can be easily identified and measured in a given environment.	enumeration	Component	A part of a multi-part entity, e.g., the components of a vector.	enumeration	Component.Phi	The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: Phi = arctan(y/x)	enumeration	Component.R	The component of a vector in the radial direction from the center of the coordinate system.
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enumeration	Component	A part of a multi-part entity, e.g., the components of a vector.																					
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enumeration	Component.R	The component of a vector in the radial direction from the center of the coordinate system.																					

enumeration	Component.Theta	For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole. Mathematically: $\text{Theta} = \arctan(\sqrt{x^2 + y^2}/z)$
enumeration	Component.X	The component of a vector along the X-axis in a cartesian coordinate system.
enumeration	Component.Y	The component of a vector along the Y-axis in a cartesian coordinate system.
enumeration	Component.Z	The component of a vector along the Z-axis in a cartesian coordinate system.
enumeration	Deviation	The difference between an observed value and the expected value of a quantity.
enumeration	Differential	A flux measurement within a given energy and solid-angle range.
enumeration	Fit	Values that make a model agree with the data.
enumeration	Integral	The summation of values above a given threshold and over area or solid-angle range.
enumeration	Magnitude	A measure of the strength or size of a vector quantity.
enumeration	Moment	Parameters determined by integration over a distribution function convolved with a power of velocity.
enumeration	Parallel	Having the same direction as a given direction
enumeration	Peak	The maximum value for the quantity in question, over a period of time which is usually equal to the cadence.
enumeration	Perpendicular	At right angles to a given direction.
enumeration	Ratio	The relative magnitudes of two quantities.
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
enumeration	StandardDeviation	The square root of the average of the squares of deviations about the mean of a set of data. Standard deviation is a statistical measure of spread or variability.
enumeration	Tensor	A generalized linear "quantity" or "geometrical entity" that can be expressed as a multi-dimensional array relative to a choice of basis of the particular space on which it is defined.
enumeration	Uncertainty	A statistically defined discrepancy between a measured quantity and the true value of that quantity that cannot be corrected by calculation or calibration.
enumeration	Variance	A measure of dispersion of a set of data points around their mean value. The expectation value of the squared deviations from the mean.
enumeration	Vector	A set of parameter values each along some independent variable (e.g., components of a field in three orthogonal spatial directions; atmospheric temperature values at several

	altitudes, or at a given latitude and longitude;).
Used by	Complex Type Particle
Source	<pre>&lt;xsd:element name="ParticleQualifier" type="enumParticleQualifier"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Characterizes the directional and statistical aspects of the particle observation.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;Type enumParticleQuantity&gt;&gt;     }     class enumParticleQuantity {         &lt;&lt;1..*&gt;&gt;     }     ParticleQuantity "1..*" --&gt; "1..*" enumParticleQuantity   </pre>	
Type	enumParticleQuantity	
Properties	content: simple	
Facets	enumeration	AlfvenMachNumber The ratio of the bulk flow speed to the Alfven speed.
	enumeration	AverageChargeState A measure of the composite deficit (positive) or excess (negative) of electrons with respect to protons.
	enumeration	Counts An enumeration of the number of detection events occurring in a particle detector per unit time or over detector accumulation times.
	enumeration	Energy The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy)
	enumeration	EnergyDensity The amount of energy per unit volume.
	enumeration	EnergyFlux The amount of energy passing through a unit area in a unit time.
	enumeration	FlowSpeed The rate at which particles or energy is passing through a unit area in a unit time.
	enumeration	Gyrofrequency The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
	enumeration	HeatFlux Flow of thermal energy through a gas or plasma; typically computed as third moment of a distribution function.
	enumeration	Mass The measure of inertia (mass) of individual objects (e.g., aerosols).
	enumeration	MassDensity The mass of particles per unit volume.
	enumeration	NumberDensity The number of particles per unit volume.
	enumeration	NumberFlux The number of particles passing through a unit area in a unit time.
	enumeration	PhaseSpaceDensity The number of particles per unit volume in the six-dimensional space of position and velocity.
	enumeration	PlasmaBeta The ratio of the plasma pressure to the magnetic pressure.
	enumeration	PlasmaFrequency The frequency with which a plasma oscillates.

	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			<pre>&lt;xsd:element name="ParticleQuantity" type="enumParticleQuantity"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A characterization of the physical properties of the particle.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location			file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element AtomicNumber

Namespace	http://www.spase-group.org/data/schema
Annotations	The the number of protons in the nucleus of an atom.
Diagram	
Type	xsd:double
Properties	content: simple
Used by	Complex Type Particle
Source	<pre>&lt;xsd:element name="AtomicNumber" type="xsd:double"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The the number of protons in the nucleus of an atom.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element EnergyRange

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

Properties	content: complex
Used by	Complex Type Particle
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<pre>&lt;EnergyRange&gt;   &lt;Low&gt;{1,1}&lt;/Low&gt;   &lt;High&gt;{1,1}&lt;/High&gt;   &lt;Units&gt;{1,1}&lt;/Units&gt;   &lt;Bin&gt;{0,unbounded}&lt;/Bin&gt; &lt;/EnergyRange&gt;</pre>
Source	<xsd:element name="EnergyRange" type="EnergyRange" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element AzimuthalAngleRange

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class AzimuthalAngleRange {         Low : xsd:double         High : xsd:double         Units : xsd:string         Bin : Bin     }     AzimuthalAngleRange "0..1" --&gt; "0..1" AzimuthalAngleRange   </pre>
Type	AzimuthalAngleRange
Properties	content: complex
Used by	Complex Type Particle
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<pre>&lt;AzimuthalAngleRange&gt;   &lt;Low&gt;{1,1}&lt;/Low&gt;   &lt;High&gt;{1,1}&lt;/High&gt;   &lt;Units&gt;{1,1}&lt;/Units&gt;   &lt;Bin&gt;{0,unbounded}&lt;/Bin&gt; &lt;/AzimuthalAngleRange&gt;</pre>
Source	<xsd:element name="AzimuthalAngleRange" type="AzimuthalAngleRange" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element PolarAngleRange

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class PolarAngleRange {         Low : xsd:double         High : xsd:double         Units : xsd:string         Bin : Bin     }     PolarAngleRange "0..1" --&gt; "0..1" PolarAngleRange   </pre>
Type	PolarAngleRange
Properties	content: complex

Used by	Complex Type      Particle
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Instance	<PolarAngleRange> <Low>{1,1}</Low> <High>{1,1}</High> <Units>{1,1}</Units> <Bin>{0,unbounded}</Bin> </PolarAngleRange>
Source	<xsd:element name="PolarAngleRange" type="PolarAngleRange" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Photon

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class Photon {         &lt;&lt;Photon&gt;&gt;         &lt;&lt;PhotonQualifier&gt;&gt; 0..∞ enumPhotonQualifier         &lt;&lt;PhotonQuantity&gt;&gt; enumPhotonQuantity         &lt;&lt;FrequencyRange&gt;&gt; FrequencyRange         &lt;&lt;Substitution Group&gt;&gt;             &lt;&lt;MeasuredEntity&gt;&gt; Abstract true     }   </pre>
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_2.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 {         &lt;&lt;PhotonQualifier&gt;&gt;         &lt;&lt;enumPhotonQualifier&gt;&gt;     }     PhotonQualifier --&gt; enumPhotonQualifier   </pre>						
Type	enumPhotonQualifier						
Properties	content: simple						
Facets	<table> <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</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
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	<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>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd	

## Element PhotonQuantity

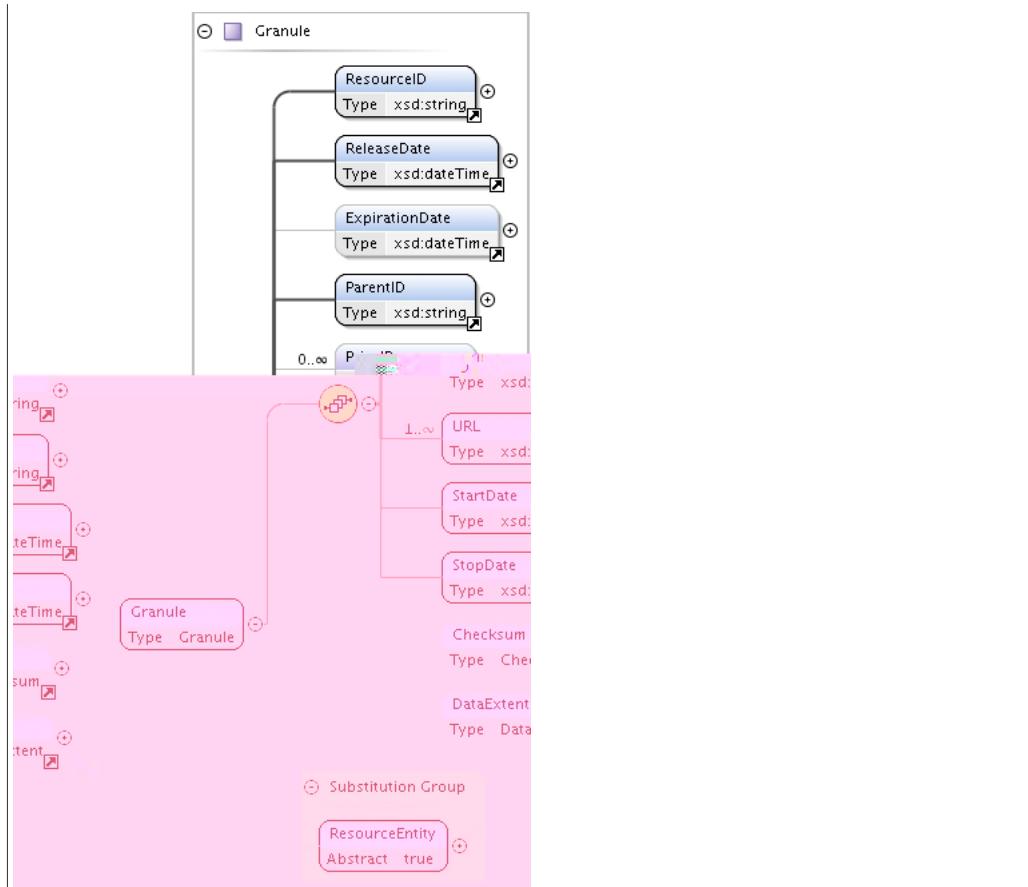
Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
Annotations	A characterization of the physical properties of the photon.

Diagram	<pre> classDiagram     class PhotonQuantity {         Type enumPhotonQuantity     }     enumPhotonQuantity &lt; -- PhotonQuantity   </pre>		
Type	enumPhotonQuantity		
Properties	content: simple		
Facets	enumeration	Emissivity	The ratio of radiant energy from a material to that from a blackbody at the same kinetic temperature
	enumeration	EnergyFlux	The amount of energy passing through a unit area in a unit time.
	enumeration	EquivalentWidth	The area of the spectral line profile divided by the peak height or depth.
	enumeration	Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
	enumeration	LineDepth	In spectra, a measure of the amount of absorption for a particular wavelength or frequency in the spectrum
	enumeration	MagneticField	Measurements of magnetic field vectors (sometimes not all components) as time series; can be space- or ground-based. Also, [Zeeman splitting, etc. based]: A region of space near a magnetized body where magnetic forces can be detected [as measured by methods such as Zeeman splitting, etc.]
	enumeration	ModeAmplitude	In helioseismology the magnitude of oscillation of waves of a particular geometry.
	enumeration	PlasmaFrequency	The frequency with which a plasma oscillates.
	enumeration	Polarization	Direction of the electric vector of an electromagnetic wave. The wave can be linearly polarized in any direction perpendicular to the direction of travel, circularly polarized (clockwise or counterclockwise), unpolarized, or mixtures of the above.
	enumeration	StokesParameters	The four coordinates (usually called I, Q, U, and V) relative to a particular basis for the representation of the polarization state of an electromagnetic wave propagating through space.
Used by	Complex Type Photon		
	<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>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd		

## Element Granule

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
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## Diagram



Type	Granule
Properties	content: complex
Substitution Group	
Affiliation	<ul style="list-style-type: none"> <li>• ResourceEntity</li> </ul>
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	<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>
Source	<xsd:element name="Granule" type="Granule" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

**Element ParentID**

Namespace	http://www.spase-group.org/data/schema
Annotations	The resource identifier for a resource that a resource is a part of. The resource inherits the attributes of the referenced resource. Attributes defined in the resource override attributes of the parent in the manner prescribed by the containing resource.
Diagram	

Type	xsd:string
Properties	content: simple
Used by	Complex Type Granule
Source	<pre>&lt;xsd:element name="ParentID" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element StopDate

Namespace	http://www.spase-group.org/data/schema
Annotations	The specification of a stopping point in time.
Diagram	<pre> classDiagram     class StopDate {         &lt;&lt;xsd:dateTime&gt;&gt;     }     class xsddateTime {         &lt;&lt;xsd:dateTime&gt;&gt;     }     StopDate &lt; -- xsddateTime   </pre>
Type	xsd:dateTime
Properties	content: simple
Used by	Complex Type Granule
Source	<pre>&lt;xsd:element name="StopDate" type="xsd:dateTime"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The specification of a stopping point in time.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element Checksum

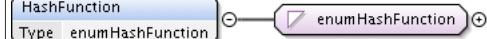
Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class Checksum {         &lt;&lt;Checksum&gt;&gt;         HashFunction         HashValue     }     class HashFunction {         &lt;&lt;enumHashFunction&gt;&gt;     }     class HashValue {         &lt;&lt;xsd:string&gt;&gt;     }     HashFunction &lt; -- HashValue     HashFunction &lt; -- Checksum     HashValue &lt; -- Checksum   </pre>
Type	Checksum
Properties	content: complex
Used by	Complex Type Granule
Model	HashValue , HashFunction
Children	HashFunction, HashValue
Instance	<pre>&lt;Checksum&gt;   &lt;HashValue&gt;{1,1}&lt;/HashValue&gt;   &lt;HashFunction&gt;{1,1}&lt;/HashFunction&gt; &lt;/Checksum&gt;</pre>
Source	<xsd:element name="Checksum" type="Checksum" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;xsd:element name="HashValue" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The value calculated by a hash function, e.g.       the message digest of a digital data object.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

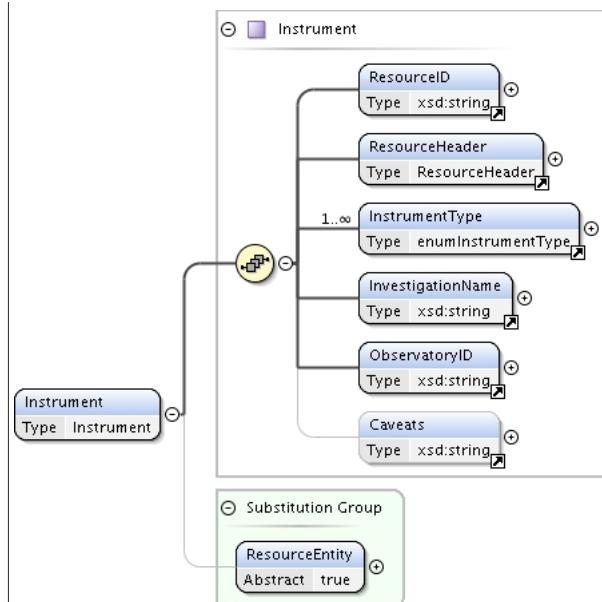
## Element HashFunction

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.
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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>&lt;xsd:element name="HashFunction" type="enumHashFunction"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>											
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd											

## Element Instrument

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



Type	Instrument
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> <li>• ResourceEntity</li> </ul>
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,unbounded}</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_2.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															
Type	enumInstrumentType														
Properties	content: simple														
Facets	<table border="1"> <tr> <td>enumeration</td> <td>Antenna</td> <td>A sensor used to measure electric potential.</td> </tr> <tr> <td>enumeration</td> <td>Channeltron</td> <td>An instrument that detects electrons, ions, and UV-radiation, according to the principle of a secondary emission multiplier. It is typically used in electron spectroscopy and mass spectrometry.</td> </tr> <tr> <td>enumeration</td> <td>Coronograph</td> <td>An instrument which can image things very close to the Sun by using a disk to block the Sun's bright surface which reveals the faint solar corona and other celestial objects.</td> </tr> <tr> <td>enumeration</td> <td>DoubleSphere</td> <td>A dipole antenna of which the active (sensor) elements are small spheres located at the</td> </tr> </table>			enumeration	Antenna	A sensor used to measure electric potential.	enumeration	Channeltron	An instrument that detects electrons, ions, and UV-radiation, according to the principle of a secondary emission multiplier. It is typically used in electron spectroscopy and mass spectrometry.	enumeration	Coronograph	An instrument which can image things very close to the Sun by using a disk to block the Sun's bright surface which reveals the faint solar corona and other celestial objects.	enumeration	DoubleSphere	A dipole antenna of which the active (sensor) elements are small spheres located at the
enumeration	Antenna	A sensor used to measure electric potential.													
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enumeration	Coronograph	An instrument which can image things very close to the Sun by using a disk to block the Sun's bright surface which reveals the faint solar corona and other celestial objects.													
enumeration	DoubleSphere	A dipole antenna of which the active (sensor) elements are small spheres located at the													

		ends of two wires deployed in the equatorial plane, on opposite sides of a spinning spacecraft.
enumeration	ElectronDriftInstrument	An active experiment to measure the electron drift velocity based on sensing the displacement of a weak beam of electrons after one gyration in the ambient magnetic field.
enumeration	ElectrostaticAnalyser	An instrument which uses charged plates to analyze the mass, charge and kinetic energies of charged particles which enter the instrument.
enumeration	EnergeticParticleInstrument	An instrument that measures fluxes of charged particles as a function of time, direction of motion, mass, charge and/or species.
enumeration	Ephemeris	The spatial coordinates of a body as a function of time. When used as an Instrument Type it represents the process or methods used to generate spatial coordinates.
enumeration	FaradayCup	An instrument consisting of an electrode from which electrical current is measured while a charged particle beam (electrons or ions) impinges on it. Used to determine energy spectrum and sometimes ion composition of the impinging particles.
enumeration	FluxFeedback	A search coil whose bandwidth and signal/noise ratio are increased by the application of negative feedback at the sensor (flux) level by driving a collocated coil with a signal from the preamplifier.
enumeration	FourierTransformSpectrometer	An instrument that determines the spectra of a radiative source, using time-domain measurements and a Fourier transform.
enumeration	GeigerMuellerTube	An instrument which measures density of ionizing radiation based on interactions with a gas.
enumeration	Imager	An instrument which samples the radiation from an area at one or more spectral ranges emitted or reflected by an object.
enumeration	ImagingSpectrometer	An instrument which is a multispectral scanner with a very large number of channels (64-256 channels) with very narrow band widths.
enumeration	Interferometer	An instrument which measures the difference between two or more waves.
enumeration	LangmuirProbe	A monopole antenna associated with an instrument. The instrument applies a potential to the antenna which is swept to determine the voltage/current characteristic. This provides information about the plasma surrounding the probe and spacecraft.
enumeration	LongWire	A dipole antenna whose active (sensor) elements are two wires deployed in the equatorial plane on opposite sides of a spinning spacecraft, and whose length is several times greater than the spacecraft diameter.
enumeration	Magnetometer	An instrument which measures the ambient magnetic field.
enumeration	MassSpectrometer	An instrument which distinguishes chemical species in terms of their different isotopic

		masses.
enumeration	MicrochannelPlate	An instrument used for the detection of elementary particles, ions, ultraviolet rays and soft X-rays constructed from very thin conductive glass capillaries.
enumeration	MultispectralImager	An instrument which captures images at multiple spectral ranges.
enumeration	NeutralAtomImager	An instrument which measures the quantity and properties of neutral particles over a range of angles. Measured properties can include mass and energy.
enumeration	NeutralParticleDetector	An instrument which measures the quantity and properties of neutral particles. Measured properties can include mass and plasma bulk densities.
enumeration	ParticleCorrelator	An instrument which correlates particle flux to help identify wave/particle interactions.
enumeration	ParticleDetector	An instrument which detects particle flux!!!
enumeration	Photometer	An instrument which measures the strength of electromagnetic radiation in the range from ultraviolet to infrared and including the visible spectrum.
enumeration	Photopolarimeter	An instrument which measures the intensity and polarization or radiant energy. A photopolarimeter is a combination of a photometer and a polarimeter.
enumeration	ProportionalCounter	An instrument which measures energy of ionization radiation based on interactions with a gas.
enumeration	QuadrисphericalAnalyser	An instrument used for the 3-D detection of plasma, energetic electrons and ions, and for positive-ion composition measurements.
enumeration	Radar	An instrument that uses directional properties of returned power to infer spatial and/or other characteristics of a remote object.
enumeration	Radiometer	An instrument for detecting or measuring radiant energy. Radiometers are commonly limited to infrared radiation.
enumeration	ResonanceSounder	A combination of a radio receiver and a pulsed transmitter used to study the plasma surrounding a spacecraft by identifying resonances or cut-offs (of the wave dispersion relation), whose frequencies are related to the ambient plasma density and magnetic field. When the transmitter is off it is essentially a high frequency-resolution spectral power receiver.
enumeration	RetardingPotentialAnalyser	An instrument which measures ion temperatures and ion concentrations using aplanar ion trap.
enumeration	Riometer	An instrument which measures the signal strength in various directions of the galactic radio signals. Variations in these signals are influenced by solar flare activity and geomagnetic storm and substorm processes.
enumeration	ScintillationDetector	An instrument which detects flourescences of a material which is excited by high energy (ionizing) electromagnetic or charged particle radiation.

	enumeration	SearchCoil	An instrument which measures the time variation of the magnetic flux threading a loop by measurement of the electric potential difference induced between the ends of the wire.
	enumeration	Sounder	An instrument which measures the radiances from an object. A sounder may measure radiances at multiple spectral ranges.
	enumeration	SpacecraftPotentialController	An instrument to control the electric potential of a spacecraft with respect to the ambient plasma by emitting a variable current of positive ions.
	enumeration	SpectralPowerReceiver	A radio receiver which determines the power spectral density of the electric or magnetic field, or both, at one or more frequencies.
	enumeration	Spectrometer	An instrument that measures the component wavelengths of light or other electromagnetic radiation into its component wavelengths.
	enumeration	TimeofFlight	An instrument which measures the time it takes for a particle to travel between two detectors.
	enumeration	Unspecified	A value which is not provided.
	enumeration	WaveformReceiver	A radio receiver which outputs the value of one or more components of the electric and/or magnetic field as a function of time.
Used by	Complex Type	Instrument	
Source			<pre>&lt;xsd:element name="InstrumentType" type="enumInstrumentType"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location			file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;xsd:string&gt;&gt;     }     InvestigationName &lt; -- xsd:string   </pre>	
Type	xsd:string	
Properties	content: simple	
Used by	Complex Type Instrument	
Source	<pre>&lt;xsd:element name="InvestigationName" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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</pre>	

	<pre>of data archiving.&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element ObservatoryID

Namespace	http://www.spase-group.org/data/schema
Annotations	The identifier of an Observatory resource.
Diagram	<pre>classDiagram     class ObservatoryID {         Type xsd:string     }     ObservatoryID &lt; -- xsd:string</pre>
Type	xsd:string
Properties	content: simple
Used by	Complex Type Instrument
Source	<pre>&lt;xsd:element name="ObservatoryID" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The identifier of an Observatory resource.&lt;/   xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element Observatory

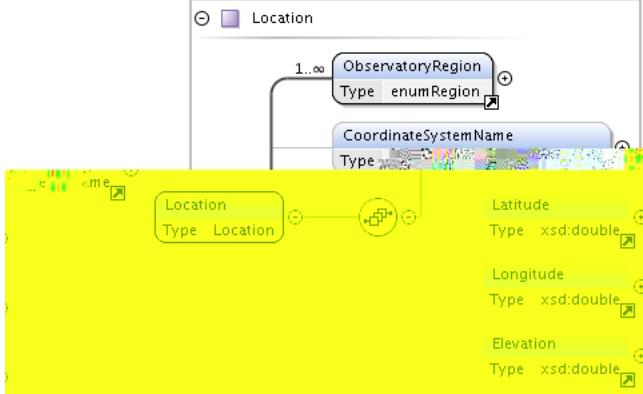
Namespace	http://www.spase-group.org/data/schema
Diagram	<pre>classDiagram     class Observatory {         ResourceID         ResourceHeader         ObservatoryGroup         Location     }     class Observatory {         Type Observatory     }     class ResourceID {         Type xsd:string     }     class ResourceHeader {         Type ResourceHeader     }     class ObservatoryGroup {         Type xsd:string     }     class Location {         Type Location     }     class ResourceEntity {         Abstract true     }     Observatory &lt; -- Observatory     Observatory &lt; -- ResourceID     Observatory &lt; -- ResourceHeader     Observatory &lt; -- ObservatoryGroup     Observatory &lt; -- Location     Observatory &lt; -- ResourceEntity</pre>
Type	Observatory
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> <li>ResourceEntity</li> </ul>
Model	ResourceID , ResourceHeader , ObservatoryGroup{0,1} , Location
Children	Location, ObservatoryGroup, ResourceHeader, ResourceID
Instance	<pre>&lt;Observatory&gt;   &lt;ResourceID&gt;{1,1}&lt;/ResourceID&gt;   &lt;ResourceHeader&gt;{1,1}&lt;/ResourceHeader&gt;   &lt;ObservatoryGroup&gt;{0,1}&lt;/ObservatoryGroup&gt;   &lt;Location&gt;{1,1}&lt;/Location&gt; &lt;/Observatory&gt;</pre>
Source	<pre>&lt;xsd:element name="Observatory" type="Observatory" substitutionGroup="ResourceEntity"/&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element ObservatoryGroup

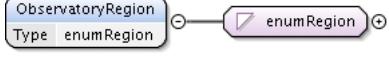
Namespace	http://www.spase-group.org/data/schema
Annotations	A set of programmatically related observatories. The value is taken from an approved list of observatory group names.

Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Observatory
Source	<pre>&lt;xsd:element name="ObservatoryGroup" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A set of programmatically related observatories.       The value is taken from an approved list of       observatory group names.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;Location&gt;   &lt;ObservatoryRegion&gt;{1,unbounded}&lt;/ObservatoryRegion&gt;   &lt;CoordinateSystemName&gt;{0,1}&lt;/CoordinateSystemName&gt;   &lt;Latitude&gt;{0,1}&lt;/Latitude&gt;   &lt;Longitude&gt;{0,1}&lt;/Longitude&gt;   &lt;Elevation&gt;{0,1}&lt;/Elevation&gt; &lt;/Location&gt;</pre>
Source	<xsd:element name="Location" type="Location" />
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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="0"> <tr> <td>enumeration</td> <td>Asteroid</td> <td>A small extraterrestrial body consisting mostly of rock and metal that is in orbit around the sun.</td> </tr> </table>	enumeration	Asteroid	A small extraterrestrial body consisting mostly of rock and metal that is in orbit around the sun.
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.Radiointerbelt	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 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.IonosphereDRegion	The D Region 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.IonosphereERegion	The E Region ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.
enumeration	Earth.NearSurface.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.Troposphere	The upper most areas of the ionosphere.
enumeration	Earth.NearSurface.Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	Earth.NearSurface.Plasmasphere	A region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the plasmapause, which is defined by an order of magnitude drop in plasma density.
enumeration	Earth.NearSurface.PolarCap	Areas of the globe surrounding the poles and consisting of the region north of 60 degrees north latitude an the region south of 60 degrees south latitude.
enumeration	Earth.NearSurface.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.Tropopause	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 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>&lt;xsd:element name="ObservatoryRegion" type="enumRegion"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A spatial location distinguished by certain natural features or physical characteristics where an observatory is located.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>		
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;Type xsd:double&gt;&gt;     }     Latitude &lt; -- xsd:double   </pre>				
Type	xsd:double				
Properties	content: simple				
Used by	Complex Type	Location			
Source	<pre>&lt;xsd:element name="Latitude" type="xsd:double"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>				
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd				

## Element Longitude

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
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	A UML class diagram fragment showing a class named "Longitude" with a compartment labeled "Type" containing "xsd:double". A directed association line connects "Longitude" to "xsd:double".
Type	xsd:double
Properties	content: simple
Used by	Complex Type Location
Source	<pre>&lt;xsd:element name="Longitude" type="xsd:double"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

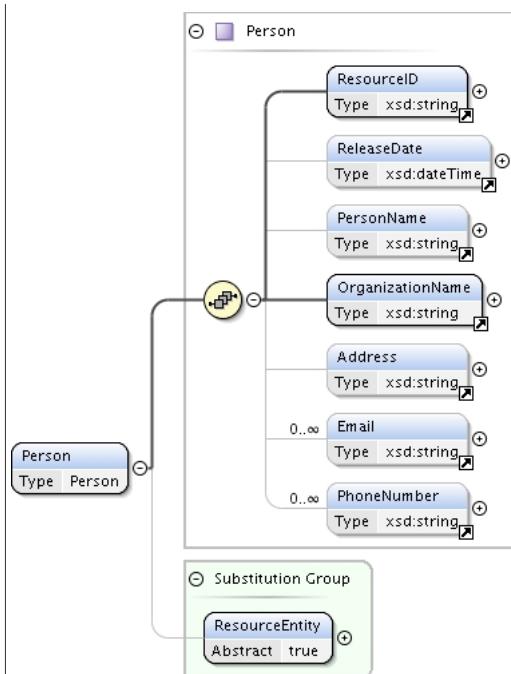
## Element Elevation

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
Annotations	The distance in meters above (positive) or below (negative) the "zero elevation" defined by the World Geodetic System reference frame (WGS84).
Diagram	A UML class diagram fragment showing a class named "Elevation" with a compartment labeled "Type" containing "xsd:double". A directed association line connects "Elevation" to "xsd:double".
Type	xsd:double
Properties	content: simple
Used by	Complex Type Location
Source	<pre>&lt;xsd:element name="Elevation" type="xsd:double"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The distance in meters above (positive) or below (negative) the "zero elevation" defined by the World Geodetic System reference frame (WGS84).&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Person

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
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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_2.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_2.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_2.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_2.xsd

## Element Email

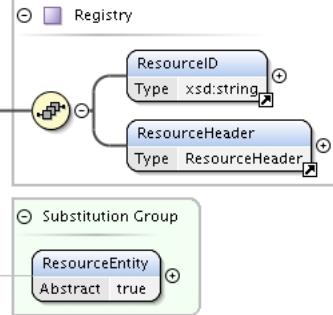
Namespace	http://www.spase-group.org/data/schema
Annotations	The electronic address at which the individual may be contacted expressed in the form "local-part@domain".
Diagram	A UML-style diagram showing a rounded rectangle labeled "Email" with a line pointing to another rounded rectangle labeled "xsd:string". 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_2.xsd

## Element PhoneNumber

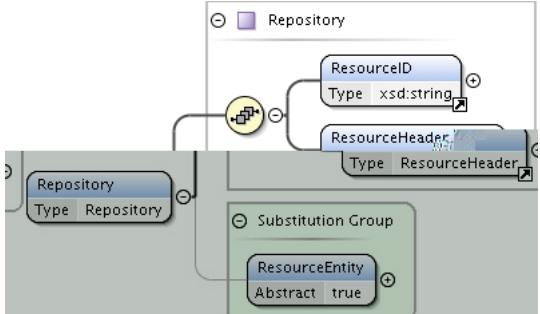
Namespace	http://www.spase-group.org/data/schema
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Annotations	The symbols and numerals required to contact an individual by telephone. The string may contain punctuation marks such as dash (-) or dot (.) to separate fields within the string.
Diagram	
Type	xsd:string
Properties	content: simple
Used by	Complex Type Person
Source	<pre>&lt;xsd:element name="PhoneNumber" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;Registry&gt;   &lt;ResourceID&gt;{1,1}&lt;/ResourceID&gt;   &lt;ResourceHeader&gt;{1,1}&lt;/ResourceHeader&gt; &lt;/Registry&gt;</pre>
Source	<xsd:element name="Registry" type="Registry" substitutionGroup="ResourceEntity"/>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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_2.xsd

## Element Service

Namespace	http://www.spase-group.org/data/schema
Diagram	<pre> classDiagram     class Service {         &lt;&lt;Service&gt;&gt;         &lt;&lt;Service&gt;&gt;         ResourceID         ResourceHeader         AccessURL     }     class ResourceEntity {         &lt;&lt;ResourceEntity&gt;&gt;         Abstract true     }     Service "3" -- "1" ResourceEntity : &lt;&lt;Substitution Group&gt;&gt;   </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_2.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 {         &lt;&lt;EndDate&gt;&gt;         xsd:dateTime     }     class EndDateEntity {         &lt;&lt;EndDateEntity&gt;&gt;         Abstract true     }     EndDate "3" -- "1" EndDateEntity : &lt;&lt;Substitution Group&gt;&gt;   </pre>
Type	xsd:dateTime
Properties	content: simple
Substitution Group Affiliation	• EndDateEntity

Source	<pre>&lt;xsd:element name="EndDate" type="xsd:dateTime" substitutionGroup="EndDateEntity"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The specification of a stopping point in time.&lt;/   xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Extension

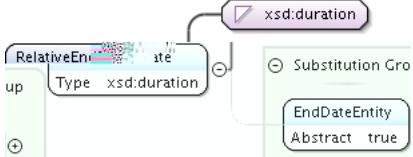
Namespace	http://www.spase-group.org/data/schema
Annotations	A container of other metadata which is not part of the SPASE data model. The contents of this element are defined by individual usage. The organization and content are constrained by the implementation. For example, in an XML representation of the SPASE metadata the content must conform to the XML specifications.
Diagram	<pre> classDiagram     class Extension {         &lt;&lt;Extension&gt;&gt;     }     class Substitution Group {         &lt;&lt;Substitution Group&gt;&gt;     }     class ResourceEntity {         &lt;&lt;ResourceEntity&gt;&gt;         Abstract: true     }      Extension "0..oo" --&gt; "##other":      Extension --&gt; Substitution Group     Substitution Group --&gt; ResourceEntity   </pre>
Properties	content: complex
Substitution Group Affiliation	<ul style="list-style-type: none"> <li>• ResourceEntity</li> </ul>
Model	ANY element from ANY namespace OTHER than 'http://www.spase-group.org/data/schema'
Source	<pre>&lt;xsd:element name="Extension" substitutionGroup="ResourceEntity"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:complexType&gt;     &lt;xsd:sequence&gt;       &lt;xsd:any namespace="##other" processContents="lax" minOccurs="0"         maxOccurs="unbounded" /&gt;     &lt;/xsd:sequence&gt;   &lt;/xsd:complexType&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Mixed

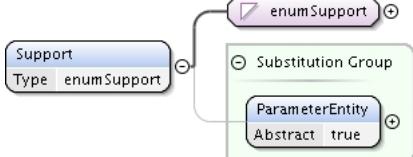
Namespace	http://www.spase-group.org/data/schema
Annotations	A measured observation which is derived from a combination of two or more individual measurements.
Diagram	<pre> classDiagram     class Mixed {         &lt;&lt;Mixed&gt;&gt;         Type: xsd:string     }     class Substitution Group {         &lt;&lt;Substitution Group&gt;&gt;     }     class MeasuredEntity {         &lt;&lt;MeasuredEntity&gt;&gt;         Abstract: true     }      Mixed --&gt; Substitution Group     Substitution Group --&gt; MeasuredEntity   </pre>
Type	xsd:string
Properties	content: simple
Substitution Group Affiliation	<ul style="list-style-type: none"> <li>• MeasuredEntity</li> </ul>
Source	<pre>&lt;xsd:element name="Mixed" type="xsd:string" substitutionGroup="MeasuredEntity"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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_2.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	<pre>&lt;xsd:element name="RelativeEndDate" type="xsd:duration" substitutionGroup="EndDateEntity"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An indication of the nominal end date relative to the present.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Element Support

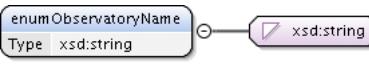
Namespace	http://www.spase-group.org/data/schema									
Annotations	Information useful in understanding the context of an observation, typically observed or measured coincidentally with a physical observation.									
Diagram										
Type	enumSupport									
Properties	content: simple									
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	<pre>&lt;xsd:element name="Support" type="enumSupport" substitutionGroup="ParameterEntity"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Information useful in understanding the context of an observation, typically observed or measured coincidentally with a physical observation.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>									

	</xsd:element>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element enumObservatoryGroupName

Namespace	http://www.spase-group.org/data/schema
Annotations	Open List. See:
Diagram	
Type	xsd:string
Properties	content: simple
Source	<pre>&lt;xsd:element name="enumObservatoryGroupName" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Open List. See:&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Element enumObservatoryName

Namespace	http://www.spase-group.org/data/schema
Annotations	Open List. See:
Diagram	
Type	xsd:string
Properties	content: simple
Source	<pre>&lt;xsd:element name="enumObservatoryName" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Open List. See:&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

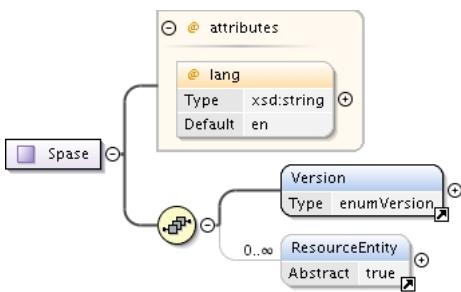
### Element enumRepositoryName

Namespace	http://www.spase-group.org/data/schema
Annotations	Open List. See:
Diagram	
Type	xsd:string
Properties	content: simple
Source	<pre>&lt;xsd:element name="enumRepositoryName" type="xsd:string"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Open List. See:&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:element&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

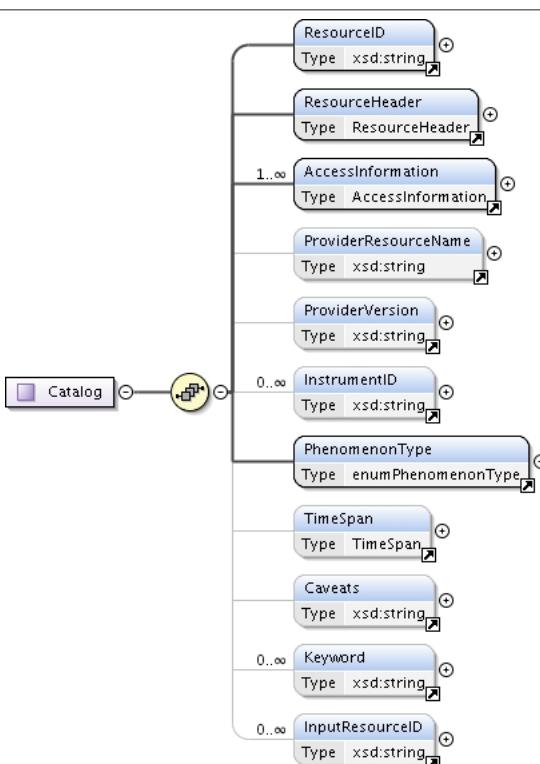
## Complex Types

### Complex Type Spase

Namespace	http://www.spase-group.org/data/schema
Annotations	Space Physics Archive Search and Extract (SPASE). The outermost container or envelope for SPASE metadata. This indicates the start of the SPASE metadata.

Diagram											
Used by	Element Spase										
Model	Version , ResourceEntity*										
Children	ResourceEntity, Version										
Attributes	<table border="1"> <thead> <tr> <th>QName</th><th>Type</th><th>Fixed</th><th>Default</th><th>Use</th></tr> </thead> <tbody> <tr> <td>lang</td><td>xsd:string</td><td></td><td>en</td><td>optional</td></tr> </tbody> </table>	QName	Type	Fixed	Default	Use	lang	xsd:string		en	optional
QName	Type	Fixed	Default	Use							
lang	xsd:string		en	optional							
Source	<pre>&lt;xsd:complexType name="Spase"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Space Physics Archive Search and Extract (SPASE).       The outermost container or envelope for SPASE       metadata. This indicates the start of the       SPASE metadata.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Version" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ResourceEntity" minOccurs="0" maxOccurs="unbounded" /&gt;   &lt;/xsd:sequence&gt;   &lt;xsd:attribute name="lang" type="xsd:string" default="en"/&gt; &lt;/xsd:complexType&gt;</pre>										
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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, TimeSpan	
Source	<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="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>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd	

## Complex Type ResourceHeader

Namespace	http://www.spase-group.org/data/schema
Annotations	Attributes of a resource which pertain to the provider of the resource and descriptive information about the resource.
Diagram	<pre> classDiagram     class ResourceHeader {         ResourceName : xsd:string         AlternateName : xsd:string         ReleaseDate : xsd:dateTime         ExpirationDate : xsd:dateTime         Description : xsd:string         Acknowledgement : xsd:string         Contact : Contact         InformationURL : InformationURL         AssociationID : xsd:string         PriorID : xsd:string     } </pre>
Used by	Element ResourceHeader
Model	ResourceName , AlternateName* , ReleaseDate , ExpirationDate{0,1} , Description , Acknowledgement{0,1} , Contact+ , InformationURL* , AssociationID* , PriorID*
Children	Acknowledgement, AlternateName, AssociationID, Contact, Description, ExpirationDate, InformationURL, PriorID, ReleaseDate, ResourceName
Source	<xsd:complexType name="ResourceHeader"> <xsd:annotation> <xsd:documentation xml:lang="en">Attributes of a resource which pertain to

	<pre> the provider of the resource and descriptive information about the resource.&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;xsd:sequence&gt; &lt;xsd:element ref="ResourceName" minOccurs="1" maxOccurs="1"/&gt; &lt;xsd:element ref="AlternateName" minOccurs="0" maxOccurs="unbounded"/&gt; &lt;xsd:element ref="ReleaseDate" minOccurs="1" maxOccurs="1"/&gt; &lt;xsd:element ref="ExpirationDate" minOccurs="0" maxOccurs="1"/&gt; &lt;xsd:element ref="Description" minOccurs="1" maxOccurs="1"/&gt; &lt;xsd:element ref="Acknowledgement" minOccurs="0" maxOccurs="1"/&gt; &lt;xsd:element ref="Contact" minOccurs="1" maxOccurs="unbounded"/&gt; &lt;xsd:element ref="InformationURL" minOccurs="0" maxOccurs="unbounded"/&gt; &lt;xsd:element ref="AssociationID" minOccurs="0" maxOccurs="unbounded"/&gt; &lt;xsd:element ref="PriorID" minOccurs="0" maxOccurs="unbounded"/&gt; &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	<pre> classDiagram     class Contact {         PersonID : xsd:string         Role : enumRole     } </pre>
Used by	Element Contact
Model	PersonID , Role+
Children	PersonID, Role
Source	<pre> &lt;xsd:complexType name="Contact"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="PersonID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Role" minOccurs="1" maxOccurs="unbounded"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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> &lt;xsd:complexType name="InformationURL"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Attributes of the method of acquiring additional information.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;</pre>

	<pre> &lt;xsd:element ref="Name" minOccurs="0" maxOccurs="1"/&gt; &lt;xsd:element ref="URL" minOccurs="1" maxOccurs="1"/&gt; &lt;xsd:element ref="Description" minOccurs="0" maxOccurs="1"/&gt; &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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     }     AccessInformation &lt; -- AccessURL     </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> &lt;xsd:complexType name="AccessInformation"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Attributes of the resource which pertain to how to acquire the resource, availability and storage format.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="RepositoryID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Availability" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="AccessRights" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="AccessURL" minOccurs="1" maxOccurs="unbounded"/&gt;     &lt;xsd:element ref="Format" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Encoding" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="DataExtent" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Acknowledgement" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 &lt; -- AccessURL     </pre>

Used by	Element AccessURL
Model	Name{0,1} , URL , Description{0,1}
Children	Description, Name, URL
Source	<pre>&lt;xsd:complexType name="AccessURL"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Attributes of the method of acquiring a resource       including a URL, name and description.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Name" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="URL" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Description" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;DataExtent&gt;&gt;     }     class Bytes {         &lt;&lt;Bytes&gt;&gt;         &lt;&lt;double&gt;&gt;     }     class Units {         &lt;&lt;Units&gt;&gt;         &lt;&lt;string&gt;&gt;     }     class Per {         &lt;&lt;Per&gt;&gt;         &lt;&lt;duration&gt;&gt;     }     DataExtent &lt; -- Bytes     DataExtent &lt; -- Units     DataExtent &lt; -- Per   </pre>
Used by	Element DataExtent
Model	Bytes , Units{0,1} , Per{0,1}
Children	Bytes, Per, Units
Source	<pre>&lt;xsd:complexType name="DataExtent"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The area of storage in a file system required       to store the contents of a resource. The data       extent is expressed in unitized bytes.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Bytes" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Units" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Per" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;TimeSpan&gt;&gt;     }     class StartDate {         &lt;&lt;dateTime&gt;&gt;     }     class EndDateEntity {         &lt;&lt;true&gt;&gt;     }     class Note {         &lt;&lt;string&gt;&gt;     }     TimeSpan &lt; -- StartDate     TimeSpan &lt; -- EndDateEntity     TimeSpan &lt; -- Note   </pre>
Used by	Element TimeSpan
Model	StartDate , EndDateEntity , Note*
Children	EndDateEntity, Note, StartDate
Source	<pre>&lt;xsd:complexType name="TimeSpan"&gt;   &lt;xsd:annotation&gt;</pre>

```

<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>

```

Schema location file:/var/www/spase/site/root/data/schema/spase-1\_2\_2.xsd

## Complex Type DisplayData

Namespace	http://www.spase-group.org/data/schema
Annotations	A graphical representation of data wherein the underlying numeric values are not (readily) accessible for analysis.. Examples are line plots and spectrograms.
Diagram	<pre> classDiagram     class DisplayData {         ResourceID         ResourceHeader         AccessInformation         ProcessingLevel         ProviderResourceName         ProviderProcessingLevel         ProviderVersion         InstrumentID         MeasurementType         TemporalDescription         SpectralRange         DisplayCadence         ObservedRegion         Caveats         Keyword         InputResourceID     } </pre>
Used by	Element DisplayData
Model	ResourceID , ResourceHeader , AccessInformation+ , ProcessingLevel{0,1} , ProviderResourceName{0,1} , ProviderProcessingLevel{0,1} , ProviderVersion{0,1} , InstrumentID* , MeasurementType+ , TemporalDescription{0,1} , SpectralRange* , DisplayCadence{0,1} , ObservedRegion* , Caveats{0,1} , Keyword* , InputResourceID*
Children	AccessInformation, Caveats, DisplayCadence, InputResourceID, InstrumentID, Keyword, MeasurementType, ObservedRegion, ProcessingLevel, ProviderProcessingLevel, ProviderResourceName, ProviderVersion, ResourceHeader, ResourceID, SpectralRange, TemporalDescription
Source	<xsd:complexType name="DisplayData">

	<pre> &lt;xsd:annotation&gt;   &lt;xsd:documentation xml:lang="en"&gt;A graphical representation of data wherein     the underlying numeric values are not (readily)     accessible for analysis.. Examples are line     plots and spectrograms.&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;xsd:sequence&gt;   &lt;xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/&gt;   &lt;xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/&gt;   &lt;xsd:element ref="AccessInformation" minOccurs="1" maxOccurs="unbounded"/&gt;   &lt;xsd:element ref="ProcessingLevel" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="ProviderResourceName" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="ProviderProcessingLevel" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="ProviderVersion" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="InstrumentID" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;xsd:element ref="MeasurementType" minOccurs="1" maxOccurs="unbounded"/&gt;   &lt;xsd:element ref="TemporalDescription" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="SpectralRange" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;xsd:element ref="DisplayCadence" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="ObservedRegion" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="Keyword" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;xsd:element ref="InputResourceID" minOccurs="0" maxOccurs="unbounded"/&gt; &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

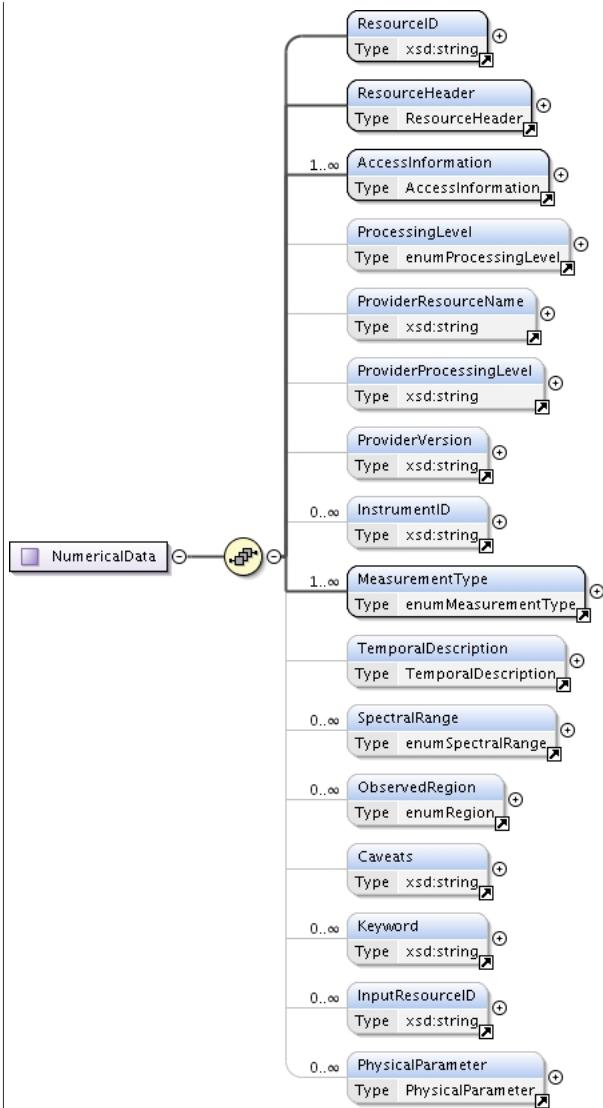
## Complex Type TemporalDescription

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 {         &lt;&lt;Element&gt;&gt;     }     class TimeSpan {         &lt;&lt;Type TimeSpan&gt;&gt;     }     class Cadence {         &lt;&lt;Type xsd:duration&gt;&gt;     }     class Exposure {         &lt;&lt;Type xsd:duration&gt;&gt;     }      TemporalDescription &lt; -- TimeSpan     TemporalDescription &lt; -- Cadence     TemporalDescription &lt; -- Exposure   </pre>
Used by	Element TemporalDescription
Model	TimeSpan , Cadence{0,1} , Exposure{0,1}
Children	Cadence, Exposure, TimeSpan
Source	<pre> &lt;xsd:complexType name="TemporalDescription"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A characterization of the time over which       the measurement was taken.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="TimeSpan" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Cadence" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Exposure" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>

```

	<pre> &lt;xsd:element ref="PhysicalParameter" minOccurs="0" maxOccurs="unbounded"/&gt; &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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> &lt;xsd:complexType name="PhysicalParameter"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Name" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ParameterKey" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Description" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Cadence" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Units" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="UnitsConversion" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="CoordinateSystem" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Structure" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="ValidMin" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="ValidMax" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; </pre>

	<pre> &lt;xsd:element ref="FillValue" minOccurs="0" maxOccurs="1"/&gt; &lt;xsd:element ref="ParameterEntity" minOccurs="1" maxOccurs="1"/&gt; &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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     }     CoordinateRepresentation &lt; -- enumCoordinateRepresentation     CoordinateSystemName &lt; -- enumCoordinateSystemName </pre>
Used by	Element CoordinateSystem
Model	CoordinateRepresentation{0,1} , CoordinateSystemName{0,1}
Children	CoordinateRepresentation, CoordinateSystemName
Source	<pre> &lt;xsd:complexType name="CoordinateSystem"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Specification of the origin and orientation       of axes against which the location of some       point is given and the representative form       of each point.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="CoordinateRepresentation" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="CoordinateSystemName" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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     }     StructureType &lt; -- enumStructureType     Size &lt; -- typeSequence     Description &lt; -- xsd:string     Element &lt; -- Element </pre>
Used by	Element Structure
Model	StructureType , Size{0,1} , Description{0,1} , Element*
Children	Description, Element, Size, StructureType
Source	<pre> &lt;xsd:complexType name="Structure"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The organization and relationship of individual       values within a quantity.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="StructureType" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Size" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Description" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Element" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type Element

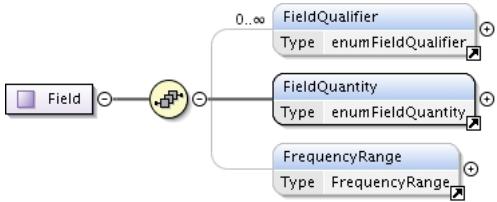
Namespace	http://www.spase-group.org/data/schema
Annotations	A component or individual unit of a multiple value quantity such as an array or vector.
Diagram	<pre> classDiagram     class Element {         &lt;&lt;Abstract&gt;&gt;     }     class Name {         &lt;&lt;xsd:string&gt;&gt;     }     class Component {         &lt;&lt;enumComponent&gt;&gt;     }     class Index {         &lt;&lt;typeSequence&gt;&gt;     }     class ParameterKey {         &lt;&lt;xsd:string&gt;&gt;     }      Element "1..1" --&gt; "1..1" Name     Element "1..1" --&gt; "1..1" Component     Element "1..1" --&gt; "1..1" Index     Element "1..1" --&gt; "1..1" ParameterKey   </pre>
Used by	Element      Element
Model	Name , Component{0,1} , Index , ParameterKey{0,1}
Children	Component, Index, Name, ParameterKey
Source	<pre> &lt;xsd:complexType name="Element"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A component or individual unit of a multiple value quantity such as an array or vector.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Name" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Component" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Index" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ParameterKey" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;   </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type Measured

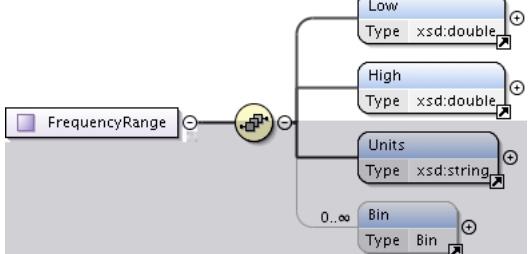
Namespace	http://www.spase-group.org/data/schema
Annotations	Attributes of observations obtained from an instrument or sensor.
Diagram	<pre> classDiagram     class Measured {         &lt;&lt;Abstract&gt;&gt;     }     class MeasuredEntity {         &lt;&lt;true&gt;&gt;     }      Measured "1..1" --&gt; "1..1" MeasuredEntity   </pre>
Used by	Element      Measured
Model	MeasuredEntity
Children	MeasuredEntity
Source	<pre> &lt;xsd:complexType name="Measured"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Attributes of observations obtained from an instrument or sensor.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="MeasuredEntity" minOccurs="1" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;   </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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.

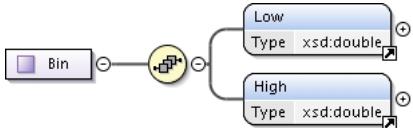
Diagram	
Used by	Element Field
Model	FieldQualifier*, FieldQuantity , FrequencyRange{0,1}
Children	FieldQualifier, FieldQuantity, FrequencyRange
Source	<pre>&lt;xsd:complexType name="Field"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The space around a radiating body within which       its electromagnetic attributes can exert force       on another similar body that is not in direct       contact.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="FieldQualifier" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xsd:element ref="FieldQuantity" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="FrequencyRange" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type FrequencyRange

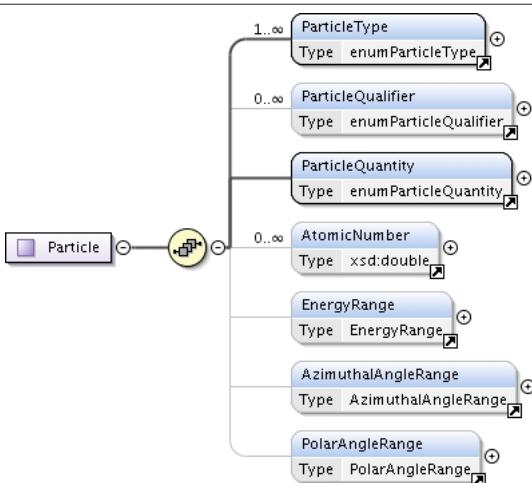
Namespace	http://www.spase-group.org/data/schema
Annotations	The range of possible values for the observed frequency.
Diagram	
Used by	Element FrequencyRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre>&lt;xsd:complexType name="FrequencyRange"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The range of possible values for the observed       frequency.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Low" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="High" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Units" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	
Used by	Element Bin
Model	Low , High
Children	High, Low
Source	<pre>&lt;xsd:complexType name="Bin"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A grouping of observations according to a band or window of a common attribute.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Low" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="High" minOccurs="1" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	
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>&lt;xsd:complexType name="Particle"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A description of the types of particles observed in the measurement. This includes both direct observations and inferred observations.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="ParticleType" minOccurs="1" maxOccurs="unbounded"/&gt;     &lt;xsd:element ref="ParticleQualifier" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xsd:element ref="ParticleQuantity" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="AtomicNumber" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xsd:element ref="EnergyRange" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="AzimuthalAngleRange" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="PolarAngleRange" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type EnergyRange

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
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 {         &lt;&lt;Bin&gt;&gt;     }   </pre>
Used by	Element EnergyRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre> &lt;xsd:complexType name="EnergyRange"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The minimum and maximum energy values of the particles represented by a given "physical parameter" description.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Low" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="High" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Units" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;   </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type AzimuthalAngleRange

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>
Annotations	The range of possible azimuthal angles for a group of energy observations. Default units are degrees.
Diagram	<pre> classDiagram     class AzimuthalAngleRange {         Low : xsd:double         High : xsd:double         Units : xsd:string         Bin : Bin     }     class Bin {         &lt;&lt;Bin&gt;&gt;     }   </pre>
Used by	Element AzimuthalAngleRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre> &lt;xsd:complexType name="AzimuthalAngleRange"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The range of possible azimuthal angles for a group of energy observations. Default units are degrees.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Low" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="High" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Units" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;   </pre>

Schema location

file:/var/www/spase/site/root/data/schema/spase-1\_2\_2.xsd

## Complex Type PolarAngleRange

Namespace	http://www.spase-group.org/data/schema
Annotations	The range of possible polar angles for a group of energy observations. Defaults units are degrees.
Diagram	<pre> classDiagram     class PolarAngleRange {         Low : xsd:double         High : xsd:double         Units : xsd:string         Bin : Bin *{0..oo}     } </pre>
Used by	Element PolarAngleRange
Model	Low , High , Units , Bin*
Children	Bin, High, Low, Units
Source	<pre> &lt;xsd:complexType name="PolarAngleRange"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;The range of possible polar angles for a group of energy observations. Defaults units are degrees.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="Low" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="High" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Units" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Bin" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type Photon

Namespace	http://www.spase-group.org/data/schema
Annotations	Photon (radio through gamma-rays): the fundamental particle or quantum of electromagnetic radiation (radiant energy)
Diagram	<pre> classDiagram     class Photon {         PhotonQualifier : enumPhotonQualifier         PhotonQuantity : enumPhotonQuantity         FrequencyRange : FrequencyRange *{0..oo}     } </pre>
Used by	Element Photon
Model	PhotonQualifier*, PhotonQuantity , FrequencyRange{0,1}
Children	FrequencyRange, PhotonQualifier, PhotonQuantity
Source	<pre> &lt;xsd:complexType name="Photon"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Photon (radio through gamma-rays): the fundamental particle or quantum of electromagnetic radiation (radiant energy)&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="PhotonQualifier" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xsd:element ref="PhotonQuantity" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="FrequencyRange" minOccurs="0" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type Granule

Namespace	http://www.spase-group.org/data/schema
Annotations	<p>An accessible portion of another resource. A Granule may be composed of one or more physical pieces (files) which are considered inseparable. For example, a data storage format that maintains metadata and binary data in separate, but tightly coupled files. Granules should not be used to group files that have simple relationships or which are associated through a parent resource. For example, each file containing a time interval data for a Numerical Data resource would each be considered a Granule. The ParentID of a Granule resource must be a NumericalData resource. The attributes of a Granule supersede the corresponding attributes in the NumericalData resource.</p>
Diagram	<pre> classDiagram     class Granule {         ResourceID : xsd:string         ReleaseDate : xsd:dateTime         ExpirationDate : xsd:dateTime         ParentID : xsd:string         PriorID : xsd:string &lt;--&gt; 0..oo         URL : xsd:string &lt;--&gt; 1..oo         StartDate : xsd:dateTime         StopDate : xsd:dateTime         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> &lt;xsd:complexType name="Granule"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;An accessible portion of another resource. A Granule may be composed of one or more physical pieces (files) which are considered inseparable. For example, a data storage format that maintains metadata and binary data in separate, but tightly coupled files. Granules should not be used to group files that have simple relationships or which are associated through a parent resource. For example, each file containing a time interval data for a Numerical Data resource would each be considered a Granule. The ParentID of a Granule resource must be a NumericalData resource. The attributes of a Granule supersede the corresponding attributes in the NumericalData resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ReleaseDate" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ExpirationDate" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="ParentID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="PriorID" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xsd:element ref="URL" minOccurs="1" maxOccurs="unbounded"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;   </pre>

	<pre> &lt;xsd:element ref="StartDate" minOccurs="1" maxOccurs="1"/&gt; &lt;xsd:element ref="StopDate" minOccurs="1" maxOccurs="1"/&gt; &lt;xsd:element ref="Checksum" minOccurs="0" maxOccurs="1"/&gt; &lt;xsd:element ref="DataExtent" minOccurs="0" maxOccurs="1"/&gt; &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	<pre> classDiagram     class Checksum {         HashValue         HashFunction     }     HashValue {         xsd:string     }     HashFunction {         enumHashFunction     } </pre>
Used by	Element Checksum
Model	HashValue , HashFunction
Children	HashFunction, HashValue
Source	<pre> &lt;xsd:complexType name="Checksum"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="HashValue" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="HashFunction" minOccurs="1" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	<pre> classDiagram     class Instrument {         ResourceID         ResourceHeader         1..oo InstrumentType         InvestigationName         ObservatoryID         Caveats     }     ResourceID {         xsd:string     }     ResourceHeader     InstrumentType {         enumInstrumentType     }     InvestigationName {         xsd:string     }     ObservatoryID {         xsd:string     }     Caveats {         xsd:string     } </pre>
Used by	Element Instrument
Model	ResourceID , ResourceHeader , InstrumentType+ , InvestigationName , ObservatoryID , Caveats{0,1}
Children	Caveats, InstrumentType, InvestigationName, ObservatoryID, ResourceHeader, ResourceID
Source	<pre> &lt;xsd:complexType name="Instrument"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A device which is used to sense and parameterize a physical phenomenon.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; </pre>

	<pre> &lt;/xsd:annotation&gt; &lt;xsd:sequence&gt;     &lt;xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="InstrumentType" minOccurs="1" maxOccurs="unbounded"/&gt;     &lt;xsd:element ref="InvestigationName" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ObservatoryID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Caveats" minOccurs="0" maxOccurs="1"/&gt; &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type Observatory

Namespace	http://www.spase-group.org/data/schema
Annotations	The host (spacecraft, network, facility) for instruments making observations.
Diagram	<pre> classDiagram     class Observatory {         &lt;&lt;The host (spacecraft, network, facility) for instruments making observations.&gt;&gt;     }     class ResourceID {         &lt;&lt;Type xsd:string&gt;&gt;     }     class ResourceHeader {         &lt;&lt;Type ResourceHeader&gt;&gt;     }     class ObservatoryGroup {         &lt;&lt;Type xsd:string&gt;&gt;     }     class Location {         &lt;&lt;Type Location&gt;&gt;     }      Observatory &lt; -- ResourceID     Observatory &lt; -- ResourceHeader     Observatory &lt; -- ObservatoryGroup     Observatory &lt; -- Location   </pre>
Used by	Element Observatory
Model	ResourceID , ResourceHeader , ObservatoryGroup{0,1} , Location
Children	Location, ObservatoryGroup, ResourceHeader, ResourceID
Source	<pre> &lt;xsd:complexType name="Observatory"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The host (spacecraft, network, facility) for instruments making observations.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt;     &lt;xsd:sequence&gt;         &lt;xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/&gt;         &lt;xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/&gt;         &lt;xsd:element ref="ObservatoryGroup" minOccurs="0" maxOccurs="1"/&gt;         &lt;xsd:element ref="Location" minOccurs="1" maxOccurs="1"/&gt;     &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;A position in space definable by a regional referencing system and geographic coordinates.&gt;&gt;     }     class ObservatoryRegion {         &lt;&lt;Type enumRegion&gt;&gt;     }     class CoordinateSystemName {         &lt;&lt;Type enumCoordinateSystemName&gt;&gt;     }     class Latitude {         &lt;&lt;Type xsd:double&gt;&gt;     }     class Longitude {         &lt;&lt;Type xsd:double&gt;&gt;     }     class Elevation {         &lt;&lt;Type xsd:double&gt;&gt;     }      Location &lt; -- ObservatoryRegion     Location &lt; -- CoordinateSystemName     Location &lt; -- Latitude     Location &lt; -- Longitude     Location &lt; -- 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> &lt;xsd:complexType name="Location"&gt;</pre>

	<pre> &lt;xsd:annotation&gt;   &lt;xsd:documentation xml:lang="en"&gt;A position in space definable by a regional       referencing system and geographic coordinates.&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;xsd:sequence&gt;   &lt;xsd:element ref="ObservatoryRegion" minOccurs="1" maxOccurs="unbounded"/&gt;   &lt;xsd:element ref="CoordinateSystemName" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="Latitude" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="Longitude" minOccurs="0" maxOccurs="1"/&gt;   &lt;xsd:element ref="Elevation" minOccurs="0" maxOccurs="1"/&gt; &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type Person

Namespace	http://www.spase-group.org/data/schema
Annotations	An individual human being.
Diagram	<pre> classDiagram     class Person {         &lt;&lt;Person&gt;&gt;         +ResourceID : xsd:string         +ReleaseDate : xsd:dateTime         +PersonName : xsd:string         +OrganizationName : xsd:string         +Address : xsd:string         +Email : xsd:string         +PhoneNumber : xsd:string     }     Person "1..&gt;" PersonName     Person "0..&gt;" OrganizationName     Person "0..&gt;" Address     Person "0..&gt;" Email     Person "0..&gt;" PhoneNumber     Person "1..&gt;" ResourceID     Person "0..&gt;" ReleaseDate </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> &lt;xsd:complexType name="Person"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;An individual human being.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ReleaseDate" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="PersonName" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="OrganizationName" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="Address" minOccurs="0" maxOccurs="1"/&gt;     &lt;xsd:element ref="Email" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xsd:element ref="PhoneNumber" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;Registry&gt;&gt;         +ResourceID : xsd:string         +ResourceHeader : ResourceHeader     }     Registry "1..&gt;" ResourceHeader     Registry "1..&gt;" ResourceID </pre>
Used by	Element Registry
Model	ResourceID , ResourceHeader

Children	ResourceHeader, ResourceID
Source	<pre>&lt;xsd:complexType name="Registry"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A location or facility where resources are cataloged.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Complex Type Repository

Namespace	http://www.spase-group.org/data/schema
Annotations	A location or facility where resources are stored.
Diagram	<pre> classDiagram     class Repository {         &lt;&lt;Repository&gt;&gt;     }     class ResourceID {         &lt;&lt;ResourceID&gt;&gt;         &lt;&lt;xsd:string&gt;&gt;     }     class ResourceHeader {         &lt;&lt;ResourceHeader&gt;&gt;         &lt;&lt;ResourceHeader&gt;&gt;     }      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>&lt;xsd:complexType name="Repository"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A location or facility where resources are stored.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;Service&gt;&gt;     }     class ResourceID {         &lt;&lt;ResourceID&gt;&gt;         &lt;&lt;xsd:string&gt;&gt;     }     class ResourceHeader {         &lt;&lt;ResourceHeader&gt;&gt;         &lt;&lt;ResourceHeader&gt;&gt;     }     class AccessURL {         &lt;&lt;AccessURL&gt;&gt;         &lt;&lt;AccessURL&gt;&gt;     }      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>&lt;xsd:complexType name="Service"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A location or facility that can perform a well defined task.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element ref="ResourceID" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="ResourceHeader" minOccurs="1" maxOccurs="1"/&gt;     &lt;xsd:element ref="AccessURL" minOccurs="1" maxOccurs="1"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Simple Types

### Simple Type enumVersion

Namespace	http://www.spase-group.org/data/schema	
Annotations	Version number.	
Diagram		
Type	restriction of xsd:string	
Facets	enumeration 1.2.2	
Used by	Element	Version
Source	<pre>&lt;xsd:simpleType name="enumVersion"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Version number.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="1.2.2"/&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	enumeration	ArchiveSpecialist An individual who is an expert on a collection of resources and may also be knowledgeable of the phenomenon and related physics represented by the resources. This includes librarians, curators, archive scientists and other experts.
	enumeration	CoInvestigator An individual who is a scientific peer and major participant for an investigation.
	enumeration	Contributor An entity responsible for making contributions to the content of the resource.
	enumeration	DataProducer An individual who generated the resource and is familiar with its provenance.
	enumeration	DeputyPI An individual who is an administrative or scientific leader for an investigation operating under the supervision of a Principal Investigator.
	enumeration	GeneralContact An individual who can provide information on a range of subjects or who can direct you to a domain expert.
	enumeration	MetadataContact An individual who can affect a change in the metadata describing a resource.
	enumeration	PrincipalInvestigator An individual who is the administrative and scientific lead for an investigation.
	enumeration	ProjectScientist An individual who is an expert in the phenomenon and related physics explored by the project. A project scientist may also have a managerial role within the project.
	enumeration	Publisher An individual, organization, institution or government department responsible for the production and dissemination of a document.
	enumeration	Scientist An individual who is an expert in the phenomenon

		and related physics represented by the resource.
enumeration	TeamLeader	An individual who is the designated leader of an investigation!!!
enumeration	TeamMember	An individual who is a major participant in an investigation.
enumeration	TechnicalContact	An individual who can provide specific information with regard to the resource or supporting software
Used by	Element	Role
Source	<pre>&lt;xsd:simpleType name="enumRole"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the assigned or assumed function       or position of an individual.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="ArchiveSpecialist"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An individual who is an expert on a collection           of resources and may also be knowledgeable           of the phenomenon and related physics represented           by the resources. This includes librarians,           curators, archive scientists and other experts.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="CoInvestigator"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An individual who is a scientific peer and           major participant for an investigation.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Contributor"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An entity responsible for making contributions           to the content of the resource.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="DataProducer"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An individual who generated the resource and           is familiar with its provenance.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="DeputyPI"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An individual who is an administrative or           scientific leader for an investigation operating           under the supervision of a Principal Investigator.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="GeneralContact"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An individual who can provide information           on a range of subjects or who can direct you           to a domain expert.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="MetadataContact"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An individual who can affect a change in the           metadata describing a resource.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="PrincipalInvestigator"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An individual who is the administrative and           scientific lead for an investigation.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="ProjectScientist"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Publisher"&gt;</pre>	

	<pre> &lt;xsd:annotation&gt;   &lt;xsd:documentation xml:lang="en"&gt;An individual, organization, institution or   government department responsible for the   production and dissemination of a document.&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Scientist"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;An individual who is an expert in the phenomenon     and related physics represented by the resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="TeamLeader"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;An individual who is the designated leader     of an investigation!!!&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="TeamMember"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;An individual who is a major participant in     an investigation.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="TechnicalContact"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;An individual who can provide specific     information       with regard to the resource or supporting       software&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Simple Type enumAvailability

Namespace	http://www.spase-group.org/data/schema				
Annotations	Identifiers for indicating the method or service which may be used to access the resource.				
Diagram					
Type	restriction of xsd:string				
Facets	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> &lt;xsd:simpleType name="enumAvailability"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for indicating the method or service     which may be used to access the resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Offline"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Not directly accessible electronically. This         includes resources which may be moved to         an online status in response to a given request.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Online"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Directly accessible electronically.&lt;/       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>				
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	<pre> classDiagram     class enumAccessRights {         &lt;&lt;Identifiers for permissions granted or denied by the host of a product to allow other users to access and use the resource.&gt;&gt;     }     class xsd:string     enumAccessRights &lt; -- xsd:string   </pre>								
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> &lt;xsd:simpleType name="enumAccessRights"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for permissions granted or denied by the host of a product to allow other users to access and use the resource.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Open"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Access is granted to everyone.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Restricted"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Access to the product is regulated and requires some form of identification.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;   </pre>								
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd								

## Simple Type enumFormat

Namespace	http://www.spase-group.org/data/schema																				
Annotations	Identifiers for data organized according to preset specifications.																				
Diagram	<pre> classDiagram     class enumFormat {         &lt;&lt;Identifiers for data organized according to preset specifications.&gt;&gt;     }     class xsd:string     enumFormat &lt; -- xsd:string   </pre>																				
Type	restriction of xsd:string																				
Facets	<table> <tr> <td>enumeration</td> <td>AVI</td> <td>Audio Video Interleave (AVI) a digital format for movies that conforms to the Microsoft Windows Resource Interchange File Format (RIFF).</td> </tr> <tr> <td>enumeration</td> <td>Binary</td> <td>A direct representation of the bits which may be stored in memory on a computer.</td> </tr> <tr> <td>enumeration</td> <td>CDF</td> <td>Common Data Format (CDF). A binary storage format developed at Goddard Space Flight Center (GSFC).</td> </tr> <tr> <td>enumeration</td> <td>CEF</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>CEF1</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>CEF2</td> <td>Cluster Exchange Format (CEF), version 2, is a self-documenting ASCII format designed</td> </tr> </table>			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
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 < <a href="http://www.w3.org/MarkUp/">http://www.w3.org/MarkUp/</a> >
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 < <a href="http://my.unidata.ucar.edu/content/software/netcdf/">http://my.unidata.ucar.edu/content/software/netcdf/</a> >
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 < <a href="http://developer.apple.com/quicktime/">http://developer.apple.com/quicktime/</a> >
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 < <a href="http://www.osta.org/specs/index.htm">http://www.osta.org/specs/index.htm</a> >
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 < <a href="http://www.w3.org/XML/">http://www.w3.org/XML/</a> >
Used by	Element	Format
Source	<pre> &lt;xsd:simpleType name="enumFormat"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for data organized according to       preset specifications.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="AVI"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Audio Video Interleave (AVI) a digital format           for movies that conforms to the Microsoft           Windows Resource Interchange File Format (RIFF).&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Binary"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A direct representation of the bits which           may be stored in memory on a computer.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="CDF"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Common Data Format (CDF). A binary storage           format developed at Goddard Space Flight Center           (GSFC).&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="CEF"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="CEF1"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="CEF2"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Cluster Exchange Format (CEF), version 2,           is a self-documenting ASCII format designed </pre>	

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        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>
<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>

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    </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>
    <xsd:enumeration value="QuickTime">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">A format for digital movies, as defined by
                Apple Computer. See <a href="http://developer.apple.com/quicktime/"></
                xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Text">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">ASCII text</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="TIFF">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">A binary format for still pictures. Tagged
                Image Format File (TIFF). Originally developed
                by Aldus and now controlled by Adobe.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="UDF">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">Universal Data Format (UDF). The Optical
                Technology
                Storage Association's Universal Disk Format,
                based on ISO 13346. See <a href="http://www.osta.org/specs/index.htm"></
                xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>

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	<pre> &lt;xsd:enumeration value="VOTable"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A proposed XML standard designed as a flexible     storage and exchange format for tabular data.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="XML"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;eXtensible Mark-up Language (XML). A structured     format for representing information. See &lt;<a href="http://www.w3.org/XML/">http://www.w3.org/XML/</a>&gt;&lt;/   xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Simple Type enumEncoding

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>																									
Annotations	Identifier for unambiguous rules that establishes the representation of information within a file.																									
Diagram	<pre> classDiagram     class enumEncoding     class xsd:string     enumEncoding "1" -- "1" xsd:string   </pre>																									
Type	restriction of xsd:string																									
Facets	<table border="1"> <tr> <td>enumeration</td> <td>ASCII</td> <td>A sequence of characters that adheres to American Standard Code for Information Interchange (ASCII) which is an 7-bit character-coding scheme.</td> </tr> <tr> <td>enumeration</td> <td>Base64</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>BZIP2</td> <td>An open standard algorithm by Julian Seward using Burrows-Wheeler block sorting and Huffman coding. See &lt;<a href="http://www.bzip.org/">http://www.bzip.org/</a>&gt;</td> </tr> <tr> <td>enumeration</td> <td>GZIP</td> <td>An open standard algorithm distributed by GHU based on LZ77 and Huffman coding. See &lt;<a href="http://www.gnu.org/software/gzip/gzip.html">http://www.gnu.org/software/gzip/gzip.html</a>&gt; or &lt;<a href="http://www.gzip.org/">http://www.gzip.org/</a>&gt;</td> </tr> <tr> <td>enumeration</td> <td>None</td> <td>A lack or absence of anything.</td> </tr> <tr> <td>enumeration</td> <td>TAR</td> <td>A file format used to collate collections of files into one larger file, for distribution or archiving, while preserving file system information such as user and group permissions, dates, and directory structures. The format was standardized by POSIX.1-1988 and later POSIX.1-2001.</td> </tr> <tr> <td>enumeration</td> <td>Unicode</td> <td>Text in multi-byte Unicode format.</td> </tr> <tr> <td>enumeration</td> <td>ZIP</td> <td>An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.</td> </tr> </table>		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 < <a href="http://www.bzip.org/">http://www.bzip.org/</a> >	enumeration	GZIP	An open standard algorithm distributed by GHU based on LZ77 and Huffman coding. See < <a href="http://www.gnu.org/software/gzip/gzip.html">http://www.gnu.org/software/gzip/gzip.html</a> > or < <a href="http://www.gzip.org/">http://www.gzip.org/</a> >	enumeration	None	A lack or absence of anything.	enumeration	TAR	A file format used to collate collections of files into one larger file, for distribution or archiving, while preserving file system information such as user and group permissions, dates, and directory structures. The format was standardized by POSIX.1-1988 and later POSIX.1-2001.	enumeration	Unicode	Text in multi-byte Unicode format.	enumeration	ZIP	An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.
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enumeration	ZIP	An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.																								
Used by	Element	Encoding																								
Source	<pre> &lt;xsd:simpleType name="enumEncoding"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifier for unambiguous rules that establishes     the representation of information within a     file.&lt;/xsd:documentation&gt;</pre>																									

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</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>
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    <xsd:annotation>
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    </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 <a href="http://www.bzip.org/">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 GNU based on LZ77 and Huffman coding. See <a href="http://www.gnu.org/software/gzip/gzip.html">http://www.gnu.org/software/gzip/gzip.html or <a href="http://www.gzip.org/">http://www.gzip.org/</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="None">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A lack or absence of anything.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="TAR">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">A file format used to collate collections of files into one larger file, for distribution or archiving, while preserving file system information such as user and group permissions, dates, and directory structures. The format was standardized by POSIX.1-1988 and later POSIX.1-2001.</xsd:documentation>
    </xsd:annotation>
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  <xsd:enumeration value="Unicode">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">Text in multi-byte Unicode format.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
  <xsd:enumeration value="ZIP">
    <xsd:annotation>
      <xsd:documentation xml:lang="en">An open standard for compression which is a variation of the LZW method and was originally used in the PKZIP utility.</xsd:documentation>
    </xsd:annotation>
  </xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

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Schema location file:/var/www/spase/site/root/data/schema/spase-1\_2\_2.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	
Type	restriction of xsd:string

Facets	enumeration	ActiveRegion	A localized, transient volume of the solar atmosphere in which PLAGEs, SUNSPOTS, FACULAE, FLARES, etc. may be observed.
	enumeration	Aurora	An atmospheric phenomenon consisting of bands of light caused by charged solar particles following the earths magnetic lines of force.
	enumeration	BowShockCrossing	A crossing of the boundary between the undisturbed (except for foreshock effects) solar wind and the shocked, decelerated solar wind of the magnetosheath.
	enumeration	CoronalHole	An extended region of the corona, exceptionally low in density and associated with unipolar photospheric regions. A coronal hole can be an "open" magnetic field in the corona and (perhaps) inner heliosphere which has a faster than average outflow (wind); A region of lower than "quiet" ion and electron density in the corona; or a region of lower peak electron temperature in the corona than in the "quiet" corona.
	enumeration	CoronalMassEjection	A solar event which involves a burst of plasma which is ejected from the Sun into the interplanetary medium.
	enumeration	EITWave	A wave in the corona of the Sun which produce shock waves on the Sun#s chromosphere (Moreton Waves). EIT Waves are produced by large solar flare and expand outward at about 1,000 km/s. It usually appears as a slowly moving diffuse arc of brightening in H-alpha, and may travel for several hundred thousand km.
	enumeration	EnergeticSolarParticleEvent	Enhancement of interplanetary fluxes of energetic ions accelerated by interplanetary shocks and/or solar flares.
	enumeration	ForbushDecrease	A rapid decrease in the observed galactic cosmic ray intensity following the passage of an outwardly convecting interplanetary magnetic field disturbance, such as those associated with large CMEs, that sweep some galactic cosmic rays away from Earth.
	enumeration	GeomagneticStorm	A magnetospheric disturbance typically defined by variations in the horizontal component of the Earths surface magnetic field. The variation typically starts with a field enhancement associated with a solar wind pressure pulse and continues with a field depression associated with an enhancement of the diamagnetic magnetospheric ring current.
	enumeration	InterplanetaryShock	A shock propagating generally antisunward through the slower solar wind, often seen in front of CME-associated plasma clouds.
	enumeration	MagneticCloud	A transient event observed in the solar wind characterized as a region of enhanced magnetic field strength, smooth rotation of the magnetic

		field vector and low proton density and temperature.
enumeration	MagnetopauseCrossing	A crossing of the interface between the shocked solar wind in the magnetosheath and the magnetic field and plasma in the magnetosphere.
enumeration	RadioBurst	Emissions of the sun in radio wavelengths from centimeters to dekameters, under both quiet and disturbed conditions. Radio Bursts can be "Type I" consisting of many short, narrow-band bursts in the metric range (300 - 50 MHz); "Type II" consisting of narrow-band emission that begins in the meter range (300 MHz) and sweeps slowly (tens of minutes) toward dekameter wavelengths (10 MHz); "Type III" consisting of narrow-band bursts that sweep rapidly (seconds) from decimeter to dekameter wavelengths (500 - 0.5 MHz); and "Type IV" consisting of a smooth continuum of broad-band bursts primarily in the meter range (300 - 30 MHz).
enumeration	SolarFlare	An explosive event in the Sun's atmosphere which produces electromagnetic radiation across the electromagnetic spectrum at multiple wavelengths from long-wave radio to the shortest wavelength gamma rays.
enumeration	SolarWindExtreme	Intervals of unusually large or small values of solar wind attributes such as flow speed and ion density.
enumeration	Substorm	A process by which plasma in the magnetotail becomes energized at a fast rate.
Used by	Element	PhenomenonType
Source		<pre>&lt;xsd:simpleType name="enumPhenomenonType"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the characteristics or categorization of an observation. Note: Joe King to provide.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="ActiveRegion"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A localized, transient volume of the solar atmosphere in which PLAGEs, SUNSPOTS, FACULAE, FLAREs, etc. may be observed.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Aurora"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An atmospheric phenomenon consisting of bands of light caused by charged solar particles following the earth's magnetic lines of force.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="BowShockCrossing"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A crossing of the boundary between the undisturbed (except for foreshock effects) solar wind and the shocked, decelerated solar wind of the magnetosheath.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="CoronalHole"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An extended region of the corona, exceptionally low in density and associated with unipolar photospheric regions. A coronal hole can be an "open" magnetic field in the corona and (perhaps) inner heliosphere which has a faster than average outflow (wind); A region of lower than "quiet" ion and electron density in the</pre>

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corona; or a region of lower peak electron
temperature in the corona than in the "quiet"
corona.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="CoronalMassEjection">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A solar event which involves a burst of plasma
      which is ejected from the Sun into the interplanetary
      medium.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EITWave">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A wave in the corona of the Sun which produce
      shock waves on the Sun's chromosphere (Moreton
      Waves). EIT Waves are produced by large solar
      flare and expand outward at about 1,000 km/s.
      It usually appears as a slowly moving diffuse
      arc of brightening in H-alpha, and may travel
      for several hundred thousand km.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EnergeticSolarParticleEvent">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An enhancement of interplanetary fluxes of
      energetic ions accelerated by interplanetary
      shocks and/or solar flares.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ForbushDecrease">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A rapid decrease in the observed galactic
      cosmic ray intensity following the passage
      of an outwardly convecting interplanetary
      magnetic field disturbance, such as those
      associated with large CME's, that sweep some
      galactic cosmic rays away from Earth.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="GeomagneticStorm">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A magnetospheric disturbance typically defined
      by variations in the horizontal component
      of the Earth's surface magnetic field. The
      variation typically starts with a field enhancement
      associated with a solar wind pressure pulse
      and continues with a field depression associated
      with an enhancement of the diamagnetic magnetospheric
      ring current.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="InterplanetaryShock">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A shock propagating generally antisunward
      through the slower solar wind, often seen
      in front of CME-associated plasma clouds.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MagneticCloud">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A transient event observed in the solar wind
      characterized as a region of enhanced magnetic
      field strength, smooth rotation of the magnetic
      field vector and low proton density and temperature.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MagnetopauseCrossing">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A crossing of the interface between the shocked
      solar wind in the magnetosheath and the magnetic
      field and plasma in the magnetosphere.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RadioBurst">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Emissions of the sun in radio wavelengths
      from centimeters to dekameters, under both
      quiet and disturbed conditions. Radio Bursts
      can be "Type I" consisting of many short,
      narrow-band bursts in the metric range (300
      - 50 MHz); "Type II" consisting of narrow-band
      emission that begins in the meter range (300

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	<p>MHz) and sweeps slowly (tens of minutes) toward dekameter wavelengths (10 MHz); "Type III" consisting of narrow-band bursts that sweep rapidly (seconds) from decimeter to dekameter wavelengths (500 - 0.5 MHz); and "Type IV" consisting of a smooth continuum of broad-band bursts primarily in the meter range (300 - 30 MHz).&lt;/xsd:documentation&gt;</p> <p>&lt;/xsd:annotation&gt;</p> <p>&lt;/xsd:enumeration&gt;</p> <p>&lt;xsd:enumeration value="SolarFlare"&gt;</p> <p>&lt;xsd:annotation&gt;</p> <p>&lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;</p> <p>&lt;/xsd:annotation&gt;</p> <p>&lt;/xsd:enumeration&gt;</p> <p>&lt;xsd:enumeration value="SolarWindExtreme"&gt;</p> <p>&lt;xsd:annotation&gt;</p> <p>&lt;xsd:documentation xml:lang="en"&gt;Intervals of unusually large or small values of solar wind attributes such as flow speed and ion density.&lt;/xsd:documentation&gt;</p> <p>&lt;/xsd:annotation&gt;</p> <p>&lt;/xsd:enumeration&gt;</p> <p>&lt;xsd:enumeration value="Substorm"&gt;</p> <p>&lt;xsd:annotation&gt;</p> <p>&lt;xsd:documentation xml:lang="en"&gt;A process by which plasma in the magnetotail becomes energized at a fast rate.&lt;/xsd:documentation&gt;</p> <p>&lt;/xsd:annotation&gt;</p> <p>&lt;/xsd:enumeration&gt;</p> <p>&lt;/xsd:restriction&gt;</p>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;Identifiers to characterize the amount and type of manipulation which has been applied to the sampled data. &gt;&gt;     }     class xsd:string     enumProcessingLevel &lt; -- 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	Data in its original state with no processing to account for calibration!!!
	enumeration	Uncalibrated	Duplicate data are removed from the data stream and data are time ordered. Values are not adjusted for any potential biases or external factors.
Used by	Element	ProcessingLevel	
Source	<pre> &lt;xsd:simpleType name="enumProcessingLevel"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers to characterize the amount and type of manipulation which has been applied to the sampled data.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Calibrated"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Data wherein sensor outputs have been convolved with instrument response function, often irreversibly, to yield physical parameter values.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Raw"&gt;   </pre>		

	<pre> &lt;xsd:annotation&gt;   &lt;xsd:documentation xml:lang="en"&gt;Data in its original state with no processing     to account for calibration!!!&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Uncalibrated"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Duplicate data are removed from the data stream       and data are time ordered. Values are not       adjusted for any potential biases or external       factors.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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 {         &lt;&lt;enumMeasurementType&gt;&gt;     }     class xsdString {         &lt;&lt;xsd:string&gt;&gt;     }     enumMeasurementType ⊞ xsdString   </pre>																															
Type	restriction of xsd:string																															
Facets	<table border="1"> <tr> <td>enumeration</td> <td>ActivityIndex</td> <td>An indication, derived from one or more measurements, of the level of activity of an object or region, such as sunspot number, F10.7 flux, Dst, or the Polar Cap Indices.</td> </tr> <tr> <td>enumeration</td> <td>ChargedParticleFlux</td> <td>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.</td> </tr> <tr> <td>enumeration</td> <td>Dopplergram</td> <td>A map or image depicting the spatial distribution of line-of-sight velocities of the observed object.</td> </tr> <tr> <td>enumeration</td> <td>ElectricField</td> <td>Measurements of electric field vectors (sometimes not all components) as a time series.</td> </tr> <tr> <td>enumeration</td> <td>EnergeticParticles</td> <td>Pieces of matter that are moving very fast. Energetic particles include protons, electrons, neutrons, neutrinos, the nuclei of atoms, and other sub-atomic particles.</td> </tr> <tr> <td>enumeration</td> <td>Ephemeris</td> <td>The spatial coordinates of a body as a function of time. When used as an Instrument Type it represents the process or methods used to generate spatial coordinates.</td> </tr> <tr> <td>enumeration</td> <td>ImageIntensity</td> <td>Measurements of the two-dimensional distribution of the intensity of photons from some region or object such as the Sun or the polar auroral regions; can be in any wavelength band, and polarized, etc.</td> </tr> <tr> <td>enumeration</td> <td>InstrumentStatus</td> <td>A quantity directly related to the operation or function of an instrument.</td> </tr> <tr> <td>enumeration</td> <td>IonComposition</td> <td>In situ measurements of the relative flux or density of electrically charged particles in the space environment. May give simple fluxes, but full distribution functions are sometimes measured.</td> </tr> <tr> <td>enumeration</td> <td>Irradiance</td> <td>A radiometric term for the power of electromagnetic</td> </tr> </table>		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
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enumeration	Irradiance	A radiometric term for the power of electromagnetic																														

		<p>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      (<math>\text{W}\cdot\text{m}^{-2}</math>).</p>
enumeration	MagneticField	<p>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.]</p>
enumeration	Magnetogram	<p>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.")</p>
enumeration	NeutralAtomImages	<p>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.</p>
enumeration	NeutralGas	<p>Measurements of neutral atomic and molecular      components of a gas.</p>
enumeration	Profile	<p>Measurements of a quantity as a function of      height above an object such as the limb of      a body.</p>
enumeration	Radiance	<p>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      (<math>\text{W}\cdot\text{sr}^{-1}\cdot\text{m}^{-2}</math>).</p>
enumeration	RadioandPlasmaWaves	<p>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.</p>
enumeration	RadioSoundings	<p>Measurements of plasma density, magnetic      field      and possibly other parameters of the space      environment by active probing of the plasma      by radio waves.</p>
enumeration	Spectrum	<p>Measurements of the intensity of radiation      as a function of frequency or wavelength.</p>
enumeration	ThermalPlasma	<p>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.).</p>
Used by	Element	MeasurementType

Source	<pre> &lt;xsd:simpleType name="enumMeasurementType"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the method of making an estimated       value of a quantity that forms the basis of       an observation.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="ActivityIndex"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="ChargedParticleFlux"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Dopplergram"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A map or image depicting the spatial distribution           of line-of-sight velocities of the observed           object.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="ElectricField"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Measurements of electric field vectors (sometimes           not all components) as a time series.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="EnergeticParticles"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Pieces of matter that are moving very fast.           Energetic particles include protons, electrons,           neutrons, neutrinos, the nuclei of atoms,           and other sub-atomic particles.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Ephemeris"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="ImageIntensity"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="InstrumentStatus"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A quantity directly related to the operation           or function of an instrument.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="IonComposition"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Irradiance"&gt;       &lt;xsd:annotation&gt; </pre>
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<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
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>
```

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<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_2.xsd
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### 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>CaK</td> <td>A spectrum with a wavelength of range centered near 393.5 nm. VSO nickname: Ca-K image with range of 391.9 nm to 395.2 nm.</td> </tr> <tr> <td>enumeration</td> <td>ExtremeUltraviolet</td> <td>A spectrum with a wavelength range of 10.0 nm to 125.0 nm. VSO nickname: EUV image with a range of 10.0 nm to 125.0 nm</td> </tr> <tr> <td>enumeration</td> <td>GammaRays</td> <td>Photons with a wavelength range: 0.00001 to 0.001 nm</td> </tr> <tr> <td>enumeration</td> <td>Halpha</td> <td>A spectrum with a wavelength range centered at 656.3 nm. VSO nickname: H-alpha image with a spectrum range of 655.8 nm to 656.8 nm.</td> </tr> <tr> <td>enumeration</td> <td>HardXrays</td> <td>Photons with a wavelength range: 0.001 to 0.1 nm</td> </tr> <tr> <td>enumeration</td> <td>He10830</td> <td>A spectrum with a wavelength range centered at 1082.9 nm. VSO nickname: He 10830 image with a range of 1082.5 nm to 1083.3 nm.</td> </tr> <tr> <td>enumeration</td> <td>Infrared</td> <td>Photons with a wavelength range: 760 to 1.00x10^6 nm</td> </tr> <tr> <td>enumeration</td> <td>K7699</td> <td>A spectrum with a wavelength range centered at 769.9 nm. VSO nickname: K-7699 dopplergram with a range of 769.8 nm to 770.0 nm.</td> </tr> <tr> <td>enumeration</td> <td>Microwave</td> <td>Photons with a wavelength range: 1.00x10^6 to 1.50x10^7 nm</td> </tr> <tr> <td>enumeration</td> <td>NaD</td> <td>A spectrum with a wavelength range of centered at 589.3 nm. VSO nickname: Na-D image with a range of 588.8 nm to 589.8 nm.</td> </tr> <tr> <td>enumeration</td> <td>Ni6768</td> <td>A spectrum with a wavelength range centered at 676.8 nm. VSO nickname: Ni-6768 dopplergram with a range of 676.7 nm to 676.9 nm.</td> </tr> <tr> <td>enumeration</td> <td>Optical</td> <td>Photons with a wavelength range: 380 to 760 nm</td> </tr> <tr> <td>enumeration</td> <td>RadioFrequency</td> <td>Photons with a wavelength range: 100,000 to 1.00x10^11 nm</td> </tr> </table>		enumeration	CaK	A spectrum with a wavelength of range centered near 393.5 nm. VSO nickname: Ca-K image with range of 391.9 nm to 395.2 nm.	enumeration	ExtremeUltraviolet	A spectrum with a wavelength range of 10.0 nm to 125.0 nm. VSO nickname: EUV image with a range of 10.0 nm to 125.0 nm	enumeration	GammaRays	Photons with a wavelength range: 0.00001 to 0.001 nm	enumeration	Halpha	A spectrum with a wavelength range centered at 656.3 nm. VSO nickname: H-alpha image with a spectrum range of 655.8 nm to 656.8 nm.	enumeration	HardXrays	Photons with a wavelength range: 0.001 to 0.1 nm	enumeration	He10830	A spectrum with a wavelength range centered at 1082.9 nm. VSO nickname: He 10830 image with a range of 1082.5 nm to 1083.3 nm.	enumeration	Infrared	Photons with a wavelength range: 760 to 1.00x10^6 nm	enumeration	K7699	A spectrum with a wavelength range centered at 769.9 nm. VSO nickname: K-7699 dopplergram with a range of 769.8 nm to 770.0 nm.	enumeration	Microwave	Photons with a wavelength range: 1.00x10^6 to 1.50x10^7 nm	enumeration	NaD	A spectrum with a wavelength range of centered at 589.3 nm. VSO nickname: Na-D image with a range of 588.8 nm to 589.8 nm.	enumeration	Ni6768	A spectrum with a wavelength range centered at 676.8 nm. VSO nickname: Ni-6768 dopplergram with a range of 676.7 nm to 676.9 nm.	enumeration	Optical	Photons with a wavelength range: 380 to 760 nm	enumeration	RadioFrequency	Photons with a wavelength range: 100,000 to 1.00x10^11 nm
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enumeration	RadioFrequency	Photons with a wavelength range: 100,000 to 1.00x10^11 nm																																							

	enumeration	Ultraviolet	Photons with a wavelength range: 10 to 400 nm.
	enumeration	WhiteLight	Photons with a wavelength in the visable range for humans!!!
	enumeration	XRays	Photons with a wavelength range: 0.001 <= x < 10 nm
Used by	Element	SpectralRange	
Source	<pre>&lt;xsd:simpleType name="enumSpectralRange"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="CaK"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A spectrum with a wavelength of range centered           near 393.5 nm. VSO nickname: Ca-K image with           range of 391.9 nm to 395.2 nm.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="ExtremeUltraviolet"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A spectrum with a wavelength range of 10.0           nm to 125.0nm. VSO nickname: EUV image with           a range of of 10.0 nm to 125.0 nm&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="GammaRays"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Photons with a wavelength range: 0.00001 to           0.001 nm&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Halpha"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A spectrum with a wavelength range centered           at 656.3 nm. VSO nickname: H-alpha image with           a spectrum range of of 655.8 nm to 656.8 nm.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="HardXrays"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Photons with a wavelength range: 0.001 to           0.1 nm&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="He10830"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A spectrum with a wavelength range centered           at 1082.9 nm. VSO nickname: He 10830 image           with a range of 1082.5 nm to 1083.3 nm.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Infrared"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Photons with a wavelength range: 760 to 1.00x10^6           nm&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="K7699"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A spectrum with a wavelength range centerd           at 769.9 nm. VSO nickname: K-7699 dopplergam           with a range of 769.8 nm to 770.0 nm.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Microwave"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Photons with a wavelength range: 1.00x10^6           to 1.50x10^7 nm&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>		

	<pre>         &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="NaD"&gt;         &lt;xsd:annotation&gt;             &lt;xsd:documentation xml:lang="en"&gt;A spectrum with a wavelength range of centered at 589.3 nm. VSO nickname: Na-D image with a range of 588.8 nm to 589.8 nm.&lt;/xsd:documentation&gt;         &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Ni6768"&gt;         &lt;xsd:annotation&gt;             &lt;xsd:documentation xml:lang="en"&gt;A spectrum with a wavelength range centered at 676.8 nm. VSO nickname: Ni-6768 dopplergram with a range of 676.7 nm to 676.9 nm.&lt;/xsd:documentation&gt;         &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Optical"&gt;         &lt;xsd:annotation&gt;             &lt;xsd:documentation xml:lang="en"&gt;Photons with a wavelength range: 380 to 760 nm&lt;/xsd:documentation&gt;         &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="RadioFrequency"&gt;         &lt;xsd:annotation&gt;             &lt;xsd:documentation xml:lang="en"&gt;Photons with a wavelength range: 100,000 to 1.00x10^11 nm&lt;/xsd:documentation&gt;         &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Ultraviolet"&gt;         &lt;xsd:annotation&gt;             &lt;xsd:documentation xml:lang="en"&gt;Photons with a wavelength range: 10 to 400 nm.&lt;/xsd:documentation&gt;         &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="WhiteLight"&gt;         &lt;xsd:annotation&gt;             &lt;xsd:documentation xml:lang="en"&gt;Photons with a wavelength in the visable range for humans!!!&lt;/xsd:documentation&gt;         &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="XRays"&gt;         &lt;xsd:annotation&gt;             &lt;xsd:documentation xml:lang="en"&gt;Photons with a wavelength range: 0.001 &lt;= x &lt; 10 nm&lt;/xsd:documentation&gt;         &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt; &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	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.MainCavity	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.PolarCone	The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the auroral zone.
enumeration	Earth.Magnetosphere.RadiationBelt	The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.
enumeration	Earth.NearSurface	The gaseous and possibly ionized environment of a body extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.
enumeration	Earth.NearSurface.Atmosphere	The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.
enumeration	Earth.NearSurface.AuroralRegion	The region in the atmosphere where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.
enumeration	Earth.NearSurface.EquatorialRegion	A region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.
enumeration	Earth.NearSurface.Ionosphere	The charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction..
enumeration	Earth.NearSurface.IonosphereRegion	The region of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
enumeration	Earth.NearSurface.IonosphereRegion	A 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	Earth.NearSurface.IonosphereRegion	A 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.IonosphereRegion	The region is the upper most areas of the ionosphere.
enumeration	Earth.NearSurface.Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	Earth.NearSurface.Plasmasphere	A region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the plasmapause, which is defined by an order of magnitude

		drop in plasma density.
enumeration	Earth.NearSurface.PolarCap	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.SouthPlanetaryRegion	An inner van Allen radiation belt makes its closest approach to the planets surface. The result is that, for a given altitude, the radiation intensity is higher over this region than elsewhere.
enumeration	Earth.NearSurface.Stratosphere	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	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 eighth planet from the sun in our solar system.
	enumeration	Venus	The second planet from the sun in our solar system.
Used by	Elements	ObservatoryRegion, ObservedRegion	
Source	<pre> &lt;xsd:simpleType name="enumRegion"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for areas of the physical world       which may be occupied or observed.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Asteroid"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A small extraterrestrial body consisting mostly           of rock and metal that is in orbit around           the sun.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Comet"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A relatively small extraterrestrial body         consisting         of a frozen mass that travels around the sun         in a highly elliptical orbit.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Earth"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The third planet from the sun in our solar         system.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Earth.Magnetosheath"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The region between the bow shock and the         magnetopause,         characterized by very turbulent plasma.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Earth.Magnetosphere"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Earth.Magnetosphere.Magnetotail"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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 &gt; -10Re).&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Earth.Magnetosphere.Main"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The region of the magnetosphere where the </pre>		

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    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 aural zone.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.Magnetosphere.RadiationBelt">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region within a magnetosphere where high-
      energy
        particles could potentially be trapped in
        a magnetic field.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The gaseous and possibly ionized environment
      of a body extending from the surface to some
      specified altitude. For the Earth, this altitude
      is 2000 km.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Atmosphere">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The neutral gases surrounding a body that
      extends from the surface and is bound to the
      body by virtue of the gravitational attraction.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.AuroralRegion">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region in the atmospheric where electrically-
      charged
        particles bombarding the upper atmosphere
        of a planet in the presence of a magnetic
        field produce an 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

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F2-layers. One of several layers in the ionosphere.
Also known as the Appleton layer.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Ionosphere.Topside">
<xsd:annotation>
<xsd:documentation xml:lang="en">The region at the upper most areas of the
ionosphere.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Mesosphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">The layer of the atmosphere that extends from
the Stratosphere to a range of 80 km to 85
km, temperature decreasing with height.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Plasmasphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">A region of the magnetosphere consisting of
low energy (cool) plasma. It is located above
the ionosphere. The outer boundary of the
plasmasphere is known as the plasmapause,
which is defined by an order of magnitude
drop in plasma density.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.PolarCap">
<xsd:annotation>
<xsd:documentation xml:lang="en">The areas of the globe surrounding the poles
and consisting of the region north of 60 degrees
north latitude an the region south of 60 degrees
south latitude.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.SouthAtlanticAnomalyRegion">
<xsd:annotation>
<xsd:documentation xml:lang="en">The region where Earth's inner van Allen
radiation
belt makes its closest approach to the planet's
surface. The result is that, for a given altitude,
the radiation intensity is higher over this
region than elsewhere.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Earth.NearSurface.Stratosphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">The layer of the atmosphere that extends from
the troposphere to about 30 km, temperature
increases with height. The stratosphere contains
the ozone layer.</xsd:documentation>
</xsd:annotation>
</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>

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<xsd:enumeration value="Heliosphere.Inner">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region of the heliosphere extending radially
      out from the "surface" of the Sun to 1 AU.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Heliosphere.NearEarth">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The heliospheric region near the Earth which
      extends to and includes the area near the
      L1 and L2 Lagrange point.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Heliosphere.Outer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The region of the heliosphere from, but not
      including, 1 AU to the farthest extent of
      the heliosphere (heliopause).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Heliosphere.Remote1AU">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The heliospheric region near the Earth's
orbit,
      but exclusive of the region near the Earth.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Jupiter">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The fifth planet from the sun in our solar
      system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Mars">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The forth planet from the sun in our solar
      system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Mercury">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The first planet from the sun in our solar
      system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Neptune">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">The seventh planet from the sun in our solar
      system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Pluto">
  <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

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	<pre>         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.&lt;/xsd:documentation&gt;     </pre>
	<pre>     &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Sun.Interior"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The region inside the body which is not visible         from outside the body.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Sun.Photosphere"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Sun.TransitionRegion"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A very narrow (&lt;100 km) layer between the         chromosphere and the corona where the temperature         rises abruptly from about 8000 to about 500,000         K.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Uranus"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The eighth planet from the sun in our solar         system.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Venus"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The second planet from the sun in our solar         system.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

### Simple Type enumCoordinateRepresentation

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

	<pre> &lt;xsd:enumeration value="Cartesian"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A coordinate system in which the position       of a point is determined by its distance from       two or three mutually perpendicular axes.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Cylindrical"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Spherical"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt; </pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Simple Type enumCoordinateSystemName

Namespace	http://www.spase-group.org/data/schema		
Annotations	Identifiers for coordinate systems in which the position, direction or observation has been expressed.		
Diagram	<pre> classDiagram     class enumCoordinateSystemName {         &lt;&lt;xsd:string&gt;&gt;     }     enumCoordinateSystemName ⊂ xsd:string </pre>		
Type	restriction of xsd:string		
Facets	enumeration	Carrington	A coordinate system which is centered at the Sun and is "fixed" with respect to the synodic rotation rate; the mean synodic value is about 27.2753 days. The Astronomical Almanac gives a value for Carrington longitude of 349.03 degrees at 0000 UT on 1 January 1995.
	enumeration	CGM	Corrected Geomagnetic - A coordinate system from a spatial point with GEO radial distance and geomagnetic latitude and longitude, follow the epoch-appropriate IGRF/DGRF model field vector through to the point where the field line crosses the geomagnetic dipole equatorial plane. Then trace the dipole magnetic field vector Earthward from that point on the equatorial plane, in the same hemisphere as the original point, until the initial radial distance is reached. Designate the dipole latitude and longitude at that point as the CGM latitude and longitude of the original point. See < <a href="http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html">http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html</a> >
	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 < <a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a> >

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	HCI	Heliographic Carrington Inertial.
enumeration	HEE	Heliocentric Earth Ecliptic - A coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis points from Sun to Earth. See Hapgood, 1992
enumeration	HEEQ	Heliocentric Earth Equatorial - A coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X axis is generally Earthward in the plane defined by the Z axis and the Sun-Earth direction. See Hapgood, 1992.
enumeration	HG	Heliographic - A heliocentric rotating coordinate system where the Z axis is normal to the solar equatorial plane, positive northward. X, Y axes rotate with a 25.38 day period. The zero longitude (X axis) is defined as the longitude that passed through the ascending node of the solar equator on the ecliptic plane on 1 January, 1854 at 12 UT. See < <a href="http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html">http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html</a> >
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 < <a href="http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html">http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html</a> >
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 $Y = N \times Z$ , $X = Y \times Z$ . See Russell, 1971, and < <a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a> >
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 < <a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a> >
enumeration	RTN	Radial Tangential Normal. Typically centered at a spacecraft. Used for IMF and plasma V vectors. R (radial) axis is radially away from the Sun, T (tangential) axis is normal to the plane formed by R and the Suns spin vector, positive in the direction of planetary motion. N (normal) is $R \times T$ .
enumeration	SC	Spacecraft - A coordinate system defined by the spacecraft geometry and/or spin. Often has Z axis parallel to spacecraft spin vector. X and Y axes may or may not corotate with the spacecraft. See SR and SR2 below.
enumeration	SE	Solar Ecliptic - A heliocentric coordinate system where the Z axis is normal to the ecliptic plane, positive northward. X axis is positive towards the first point of Aries (from Earth to Sun at vernal equinox). Same as HAE above. See < <a href="http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html">http://nssdc.gsfc.nasa.gov/space/helios/coor_des.html</a> >
enumeration	SM	Solar Magnetic - A geocentric coordinate system where the Z axis is northward along Earths dipole axis, X axis is in plane of z axis and Earth-Sun line, positive sunward. See Russell, 1971.
enumeration	SpacecraftOrbitPlane	A coordinate system where X lies in the orbit plane normal to and in the direction of motion of the spacecraft, Z is normal to the orbit plane and Y completes the triad in a right-handed coordinate system.

	enumeration	SR	<p>Spin Reference - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft.</p> <p>Z is parallel to the spacecraft spin vector. X and Y rotate with the spacecraft. See &lt;<a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a>&gt;</p>
	enumeration	SR2	<p>Spin Reference 2 - A special case of a Spacecraft (SC) coordinate system for a spinning spacecraft.</p> <p>Z is parallel to the spacecraft spin vector. X is in the plane defined by Z and the spacecraft-Sun line, positive sunward. See &lt;<a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a>&gt;</p>
	enumeration	SSE	<p>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.</p> <p>Note: Angle between normals to ecliptic and to Helios orbit plane ~ 0.25 deg.</p>
	enumeration	WGS84	<p>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.</p>
Used by	Element	CoordinateSystemName	
Source	<pre> &lt;xsd:simpleType name="enumCoordinateSystemName"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Identifiers for coordinate systems in which             the position, direction or observation has             been expressed.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt;     &lt;xsd:restriction base="xsd:string"&gt;         &lt;xsd:enumeration value="Carrington"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;A coordinate system which is centered at the                     Sun and is "fixed" with respect to the synodic                     rotation rate; the mean synodic value is about                     27.2753 days. The Astronomical Almanac gives                     a value for Carrington longitude of 349.03                     degrees at 0000 UT on 1 January 1995.&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="CGM"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;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 &lt;<a href="http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html">http://nssdc.gsfc.nasa.gov/space/cgm/cgmm_des.html</a>&gt;&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="DM"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;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 &lt;<a href="http://cdpp.cnes.fr/00428.pdf">http://cdpp.cnes.fr/00428.pdf</a>&gt;&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="GEI"&gt;             &lt;xsd:annotation&gt; </pre>		

```

<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="HCI">
<xsd:annotation>
<xsd:documentation xml:lang="en">Heliographic Carrington Inertial.</
xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HEE">
<xsd:annotation>
<xsd:documentation xml:lang="en">Heliocentric Earth Ecliptic - A coordinate
system where the Z axis is normal to the ecliptic
plane, positive northward. X axis points from
Sun to Earth. See Hapgood, 1992.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HEEQ">
<xsd:annotation>
<xsd:documentation xml:lang="en">Heliocentric Earth Equatorial - A coordinate
system where the Z axis is normal to the solar
equatorial plane, positive northward. X axis
is generally Earthward in the plane defined
by the Z axis and the Sun-Earth direction.
See Hapgood, 1992.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HG">
<xsd:annotation>
<xsd:documentation xml:lang="en">Heliographic - A heliocentric rotating coordinate
system where the Z axis is normal to the solar
equatorial plane, positive northward. X, Y
axes rotate with a 25.38 day period. The zero

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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)
=  $\sqrt{B_x^2 + B_y^2}$  and D (declination
angle) =  $\arctan(B_y/B_x)$ </xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MAG">
<xsd:annotation>
<xsd:documentation xml:lang="en">Geomagnetic - geocentric. Z axis is parallel
to the geomagnetic dipole axis, positive north.
X is in the plane defined by the Z axis and
the Earth's rotation axis. If N is a unit
vector from the Earth's center to the north
geographic pole, the signs of the X and Y
axes are given by Y = N x Z, X = Y x Z.. See
Russell, 1971, and <http://cdpp.cnes.fr/00428.pdf></xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MFA">
<xsd:annotation>
<xsd:documentation xml:lang="en">Magnetic Field Aligned - A coordinate system
spacecraft-centered system with Z in the direction
of the ambient magnetic field vector. X is
in the plane defined by Z and the spacecraft-Sun
line, positive sunward. See <http://cdpp.cnes.fr/00428.pdf></
xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RTN">
<xsd:annotation>
<xsd:documentation xml:lang="en">Radial Tangential Normal. Typically centered
at a spacecraft. Used for IMF and plasma V
vectors. R (radial) axis is radially away
from the Sun, T (tangential) axis is normal
to the plane formed by R and the Sun's spin
vector, positive in the direction of planetary
motion. N (normal) is R x T.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SC">
<xsd:annotation>
<xsd:documentation xml:lang="en">Spacecraft - A coordinate system defined by
the spacecraft geometry and/or spin. Often
has Z axis parallel to spacecraft spin vector.
X and Y axes may or may not corotate with
the spacecraft. See SR and SR2 below.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SE">
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<xsd:annotation>
  <xsd:documentation xml:lang="en">Solar Ecliptic - A heliocentric coordinate
  system where the Z axis is normal to the ecliptic
  plane, positive northward. X axis is positive
  towards the first point of Aries (from Earth
  to Sun at vernal equinox). Same as HAE above.
  See <http://nssdc.gsfc.nasa.gov/space/helios/coor\_des.html></
xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SM">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Solar Magnetic - A geocentric coordinate system
    where the Z axis is northward along Earth's
    dipole axis, X axis is in plane of z axis
    and Earth-Sun line, positive sunward. See
    Russell, 1971.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SpacecraftOrbitPlane">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A coordinate system where X lies in the orbit
    plane normal to and in the direction of motion
    of the spacecraft, Z in normal to the orbit
    plane and Y completes the triad in a right-handed
    coordinate system.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SR">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Spin Reference - A special case of a Spacecraft
    (SC) coordinate system for a spinning spacecraft.
    Z is parallel to the spacecraft spin vector.
    X and Y rotate with the spacecraft. See <http://cdpp.cnes.fr/00428.pdf></
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SR2">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Spin Reference 2 - A special case of a Spacecraft
    (SC) coordinate system for a spinning spacecraft.
    Z is parallel to the spacecraft spin vector.
    X is in the plane defined by Z and the spacecraft-Sun
    line, positive sunward. See <http://cdpp.cnes.fr/00428.pdf></
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SSE">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">Spacecraft Solar Ecliptic - A coordinate system
    used for deep space spacecraft, for example
    Helios. - X axis from spacecraft to Sun. Z
    axis normal to 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\_2.xsd

### Simple Type enumStructureType

Namespace	<a href="http://www.spase-group.org/data/schema">http://www.spase-group.org/data/schema</a>		
Annotations	Identifiers for the classification of the organization of a structure.		
Diagram	<pre> classDiagram     class enumStructureType     class xsdString     enumStructureType &lt; -- xsdString   </pre>		
Type	restriction of xsd:string		
Facets	enumeration	Array	A sequence of values corresponding to the

		<p>elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.</p>
	enumeration	Scalar
	enumeration	Tensor
	enumeration	Vector
Used by	Element	StructureType
Source	<pre>&lt;xsd:simpleType name="enumStructureType"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the classification of the       organization of a structure.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Array"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A sequence of values corresponding to the           elements in a rectilinear, n-dimension matrix.           Each value can be referenced by a unique index.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Scalar"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A quantity that is completely specified by           its magnitude and has no direction.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Tensor"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Vector"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A set of parameter values each along some           independent variable (e.g., components of           a field in three orthogonal spatial directions;           atmospheric temperature values at several           altitudes, or at a given latitude and longitude;).&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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>&lt;xsd:simpleType name="typeSequence"&gt;   &lt;xsd:list itemType="xsd:integer" /&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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.
	Element	Component	
Used by			
Source	<pre>&lt;xsd:simpleType name="enumComponent"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the axis of coordinate systems.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Phi"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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)&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="R"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The component of a vector in the radial direction from the center of the coordinate system.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Theta"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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</pre>		

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        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="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>

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Schema location file:/var/www/spase/site/root/data/schema/spase-1\_2\_2.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	<pre> classDiagram     class enumFieldQualifier     class xsdString     enumFieldQualifier "3" --&gt; "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	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:

		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	Parallel	Having the same direction as a given direction
enumeration	Peak	The maximum value for the quantity in question, over a period of time which is usually equal to the cadence.
enumeration	Perpendicular	At right angles to a given direction.
enumeration	PhaseAngle	Phase difference between two or more waves, normally expressed in degrees.
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
enumeration	StandardDeviation	The square root of the average of the squares of deviations about the mean of a set of data. Standard deviation is a statistical measure of spread or variability.
enumeration	Tensor	A generalized linear "quantity" or "geometrical entity" that can be expressed as a multi-dimensional array relative to a choice of basis of the particular space on which it is defined.
enumeration	Uncertainty	A statistically defined discrepancy between a measured quantity and the true value of that quantity that cannot be corrected by calculation or calibration.
enumeration	Variance	A measure of dispersion of a set of data points around their mean value. The expectation value of the squared deviations from the mean.
enumeration	Vector	A set of parameter values each along some independent variable (e.g., components of a field in three orthogonal spatial directions; atmospheric temperature values at several altitudes, or at a given latitude and longitude;).
Used by	Element	FieldQualifier
Source	<pre>&lt;xsd:simpleType name="enumFieldQualifier"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for terms which can be associated with a Field Quantity.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Array"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix.         Each value can be referenced by a unique index.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Average"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The statistical mean; the sum of a set of values divided by the number of values in the set.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>	

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<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:
            
$$\text{Phi} = \arctan(y/x)$$
</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:
            
$$\text{Theta} = \arctan(\sqrt{x^2 + y^2}/z)$$
</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="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>

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	<pre> &lt;xsd:enumeration value="Perpendicular"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;At right angles to a given direction.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="PhaseAngle"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Phase difference between two or more waves,       normally expressed in degrees.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Scalar"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A quantity that is completely specified by       its magnitude and has no direction.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="StandardDeviation"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Tensor"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Uncertainty"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A statistically defined discrepancy between       a measured quantity and the true value of       that quantity that cannot be corrected by       calculation or calibration.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Variance"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A measure of dispersion of a set of data points       around their mean value. The expectation value       of the squared deviations from the mean.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Vector"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;A set of parameter values each along some       independent variable (e.g., components of       a field in three orthogonal spatial directions;       atmospheric temperature values at several       altitudes, or at a given latitude and longitude;).&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	enumeration	CrossSpectrum	The Fourier transform of the cross correlation of two physical or empirical observations.
	enumeration	Current	The flow of electrons through a conductor caused by a potential difference.
	enumeration	Electric	The physical attribute that exerts an electrical

		force.
enumeration	Electromagnetic	The physical attribute that is or is caused by a mutual interaction of electric and magnetic fields.
enumeration	Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
enumeration	Magnetic	The physical attribute attributed to a magnet or its equivalent.
enumeration	PlasmaFrequency	The frequency with which a plasma oscillates.
enumeration	Potential	A field which obeys Laplace's Equation.
enumeration	PoyntingFlux	The rate of energy transport per unit area per steradian.
Used by	Element	FieldQuantity
Source	<pre> &lt;xsd:simpleType name="enumFieldQuantity"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the physical attribute of       the field.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="CrossSpectrum"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The Fourier transform of the cross correlation           of two physical or empirical observations.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Current"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The flow of electrons through a conductor           caused by a potential difference.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Electric"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The physical attribute that exerts an electrical           force.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Electromagnetic"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The physical attribute that is or is caused           by a mutual interaction of electric and magnetic           fields.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Gyrofrequency"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The frequency with which a charged particle           (as an electron) executes spiral gyrations           in moving obliquely across a magnetic field&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Magnetic"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The physical attribute attributed to a magnet           or its equivalent.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="PlasmaFrequency"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The frequency with which a plasma oscillates.&lt;/       xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Potential"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A field which obeys Laplace's Equation.&lt;/       xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="PoyntingFlux"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The rate of energy transport per unit area           per steradian.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt; </pre>	

	<pre>         &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.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	<pre> classDiagram     enumParticleType &lt; -- xsd:string </pre>	
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
	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 $1.673 \times 10^{(-24)}$ gram.
Used by	Element	ParticleType
Source	<pre> &lt;xsd:simpleType name="enumParticleType"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the characterization of the kind of particle observed by the measurement.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Aerosol"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A suspension of fine solid or liquid particles in gas.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="AlphaParticle"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A positively charged nuclear particle that consists of two protons and two neutrons.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Dust"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Free microscopic particles of solid material.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Electron"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An elementary particle consisting of a charge</pre>	

	<pre> 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.&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Ion"&gt; &lt;xsd:annotation&gt; &lt;xsd:documentation xml:lang="en"&gt;An atom that has acquired a net electric charge by gaining or losing one or more electrons.(Note: Z&gt;2)&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Molecule"&gt; &lt;xsd:annotation&gt; &lt;xsd:documentation xml:lang="en"&gt;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&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Neutral"&gt; &lt;xsd:annotation&gt; &lt;xsd:documentation xml:lang="en"&gt;Either a particle, an object, or a system that has a net electric charge of zero&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;xsd:enumeration value="Proton"&gt; &lt;xsd:annotation&gt; &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## 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 {         &lt;&lt;enum&gt;&gt;     }     class xsdString {         &lt;&lt;xs:string&gt;&gt;     }     enumParticleQualifier --&gt;  xsdString   </pre>		
Type	restriction of xsd:string		
Facets	enumeration	Anisotropy	Direction-dependent property.
	enumeration	Array	A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix. Each value can be referenced by a unique index.
	enumeration	Average	The statistical mean; the sum of a set of values divided by the number of values in the set.
	enumeration	Characteristic	A quantity which can be easily identified and measured in a given environment.
	enumeration	Component	A part of a multi-part entity, e.g., the components of a vector.
	enumeration	Component.Phi	The angle between the meridian of a vector and the zero meridian of the coordinate system in which the vector is expressed. Equivalently, the angle between the projection of a position or measured vector into the X-Y plane and X-axis in the coordinate system in which the vector is expressed. Also referred to as the azimuthal angle or "longitude". Mathematically: $\text{Phi} = \arctan(y/x)$

enumeration	Component.R	The component of a vector in the radial direction from the center of the coordinate system.
enumeration	Component.Theta	For spatial points, the angular distance from a meridian normal to the equator. Also referred to as the zenith angle or "latitude". As a "latitude" angles range from +90 to -90 with zero at the equator and positive angles are in the direction designated as "North." An alternate range of values is often called "co-latitude" where values range from 0 to +180 as measured from the "north" pole. Mathematically: $\text{Theta} = \arctan(\sqrt{x^2 + y^2}/z)$
enumeration	Component.X	The component of a vector along the X-axis in a cartesian coordinate system.
enumeration	Component.Y	The component of a vector along the Y-axis in a cartesian coordinate system.
enumeration	Component.Z	The component of a vector along the Z-axis in a cartesian coordinate system.
enumeration	Deviation	The difference between an observed value and the expected value of a quantity.
enumeration	Differential	A flux measurement within a given energy and solid-angle range.
enumeration	Fit	Values that make a model agree with the data.
enumeration	Integral	The summation of values above a given threshold and over area or solid-angle range.
enumeration	Magnitude	A measure of the strength or size of a vector quantity.
enumeration	Moment	Parameters determined by integration over a distribution function convolved with a power of velocity.
enumeration	Parallel	Having the same direction as a given direction
enumeration	Peak	The maximum value for the quantity in question, over a period of time which is usually equal to the cadence.
enumeration	Perpendicular	At right angles to a given direction.
enumeration	Ratio	The relative magnitudes of two quantities.
enumeration	Scalar	A quantity that is completely specified by its magnitude and has no direction.
enumeration	StandardDeviation	The square root of the average of the squares of deviations about the mean of a set of data. Standard deviation is a statistical measure of spread or variability.
enumeration	Tensor	A generalized linear "quantity" or "geometrical entity" that can be expressed as a multi-dimensional array relative to a choice of basis of the particular space on which it is defined.
enumeration	Uncertainty	A statistically defined discrepancy between a measured quantity and the true value of that quantity that cannot be corrected by calculation or calibration.
enumeration	Variance	A measure of dispersion of a set of data points around their mean value. The expectation value of the squared deviations from the mean.
enumeration	Vector	A set of parameter values each along some independent variable (e.g., components of

		a field in three orthogonal spatial directions; atmospheric temperature values at several altitudes, or at a given latitude and longitude;).
Used by	Element	ParticleQualifier
Source		<pre> &lt;xsd:simpleType name="enumParticleQualifier"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for terms which can be associated       with a Particle Quantity.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Anisotropy"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Direction-dependent property.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Array"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A sequence of values corresponding to the           elements in a rectilinear, n-dimension matrix.           Each value can be referenced by a unique index.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Average"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The statistical mean; the sum of a set of           values divided by the number of values in           the set.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Characteristic"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A quantity which can be easily identified and           measured in a given environment.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Component"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A part of a multi-part entity, e.g., the           components           of a vector.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Component.Phi"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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)&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Component.R"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The component of a vector in the radial direction           from the center of the coordinate system.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Component.Theta"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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)&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Component.X"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The component of a vector along the X-axis           in a cartesian coordinate system.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; </pre>

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        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Component.Y">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The component of a vector along the Y-axis
                in a cartesian coordinate system.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Component.Z">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The component of a vector along the Z-axis
                in a cartesian coordinate system.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Deviation">
        <xsd:annotation>
            <xsd:documentation xml:lang="en">The difference between an observed value and
                the expected value of a quantity.</xsd:documentation>
        </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="Differential">
        <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">

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<xsd:annotation>
  <xsd:documentation xml:lang="en">The square root of the average of the squares
  of deviations about the mean of a set of data.
  Standard deviation is a statistical measure
  of spread or variability.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Tensor">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A generalized linear "quantity" or "geometrical
    entity" that can be expressed as a multi-dimensional
    array relative to a choice of basis of the
    particular space on which it is defined.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Uncertainty">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A statistically defined discrepancy between
    a measured quantity and the true value of
    that quantity that cannot be corrected by
    calculation or calibration.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Variance">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A measure of dispersion of a set of data points
    around their mean value. The expectation value
    of the squared deviations from the mean.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Vector">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A set of parameter values each along some
    independent variable (e.g., components of
    a field in three orthogonal spatial directions;
    atmospheric temperature values at several
    altitudes, or at a given latitude and longitude;).</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd
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## 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 {         &lt;&lt;Identifiers for the characterization of the physical properties of the particle. &gt;&gt;     }     class xsd:string     enumParticleQuantity "1" -- "0..1" xsd:string   </pre>		
Type	restriction of xsd:string		
Facets	enumeration	AlfvenMachNumber	The ratio of the bulk flow speed to the Alfven speed.
	enumeration	AverageChargeState	A measure of the composite deficit (positive) or excess (negative) of electrons with respect to protons.
	enumeration	Counts	An enumeration of the number of detection events occurring in a particle detector per unit time or over detector accumulation times.
	enumeration	Energy	The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy)
	enumeration	EnergyDensity	The amount of energy per unit volume.
	enumeration	EnergyFlux	The amount of energy passing through a unit area in a unit time.
	enumeration	FlowSpeed	The rate at which particles or energy is passing through a unit area in a unit time.

	enumeration	Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
	enumeration	HeatFlux	Flow of thermal energy through a gas or plasma; typically computed as third moment of a distribution function.
	enumeration	Mass	The measure of inertia (mass) of individual objects (e.g., aerosols).
	enumeration	MassDensity	The mass of particles per unit volume.
	enumeration	NumberDensity	The number of particles per unit volume.
	enumeration	NumberFlux	The number of particles passing through a unit area in a unit time.
	enumeration	PhaseSpaceDensity	The number of particles per unit volume in the six-dimensional space of position and velocity.
	enumeration	PlasmaBeta	The ratio of the plasma pressure to the magnetic pressure.
	enumeration	PlasmaFrequency	The frequency with which a plasma oscillates.
	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	<xsd:simpleType name="enumParticleQuantity"> <xsd:annotation> <xsd:documentation xml:lang="en">Identifiers for the characterization of the physical properties of the particle.</xsd:documentation> </xsd:annotation> <xsd:restriction base="xsd:string"> <xsd:enumeration value="AlfvenMachNumber"> <xsd:annotation> <xsd:documentation xml:lang="en">The ratio of the bulk flow speed to the Alfvén speed.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="AverageChargeState"> <xsd:annotation> <xsd:documentation xml:lang="en">A measure of the composite deficit (positive) or excess (negative) of electrons with respect to protons.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Counts"> <xsd:annotation> <xsd:documentation xml:lang="en">An enumeration of the number of detection events occurring in a particle detector per unit time or over detector accumulation times.</xsd:documentation> </xsd:annotation> </xsd:enumeration> <xsd:enumeration value="Energy"> <xsd:annotation> <xsd:documentation xml:lang="en">The capacity for doing work as measured by</xsd:annotation> </xsd:enumeration> </xsd:restriction> </xsd:simpleType>		

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        the capability of doing work (potential energy)
        or the conversion of this capability to motion
        (kinetic energy)</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EnergyDensity">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The amount of energy per unit volume.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="EnergyFlux">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The amount of energy passing through a unit
area in a unit time.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="FlowSpeed">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The rate at which particles or energy is passing
through a unit area in a unit time.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Gyrofrequency">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The frequency with which a charged particle
(as an electron) executes spiral gyrations
in moving obliquely across a magnetic field</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="HeatFlux">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Flow of thermal energy through a gas or plasma;
typically computed as third moment of a distribution
function.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Mass">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The measure of inertia (mass) of individual
objects (e.g., aerosols).</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MassDensity">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The mass of particles per unit volume.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NumberDensity">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The number of particles per unit volume.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NumberFlux">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The number of particles passing through a
unit area in a unit time.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PhaseSpaceDensity">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The number of particles per unit volume in
the six-dimensional space of position and
velocity.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PlasmaBeta">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The ratio of the plasma pressure to the magnetic
pressure.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PlasmaFrequency">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The frequency with which a plasma oscillates.</
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

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        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>

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Schema location file:/var/www/spase/site/root/data/schema/spase-1\_2\_2.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			
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 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	Element	PhotonQualifier
Source		<pre>&lt;xsd:simpleType name="enumPhotonQualifier"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for terms which can be associated with a Photon Quantity.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Array"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A sequence of values corresponding to the elements in a rectilinear, n-dimension matrix.         Each value can be referenced by a unique index.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Average"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The statistical mean: the sum of a set of values divided by the number of values in the set.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Circular"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="LineofSight"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The line of sight is the line that connects the observer with the observed object. This expression is often used with measurements&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>

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        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\_2.xsd

### Simple Type enumPhotonQuantity

Namespace	http://www.spase-group.org/data/schema		
Annotations	Identifiers for the characterization of the physical properties of the photon.		
Diagram			
Type	restriction of xsd:string		
Facets	enumeration	Emissivity	The ratio of radiant energy from a material to that from a blackbody at the same kinetic temperature
	enumeration	EnergyFlux	The amount of energy passing through a unit area in a unit time.
	enumeration	EquivalentWidth	The area of the spectral line profile divided by the peak height or depth.

	enumeration	Gyrofrequency	The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field
	enumeration	LineDepth	In spectra, a measure of the amount of absorption for a particular wavelength or frequency in the spectrum
	enumeration	MagneticField	Measurements of magnetic field vectors (sometimes not all components) as time series; can be space- or ground-based. Also, [Zeeman splitting, etc. based]: A region of space near a magnetized body where magnetic forces can be detected [as measured by methods such as Zeeman splitting, etc.]
	enumeration	ModeAmplitude	In helioseismology the magnitude of oscillation of waves of a particular geometry.
	enumeration	PlasmaFrequency	The frequency with which a plasma oscillates.
	enumeration	Polarization	Direction of the electric vector of an electromagnetic wave. The wave can be linearly polarized in any direction perpendicular to the direction of travel, circularly polarized (clockwise or counterclockwise), unpolarized, or mixtures of the above.
	enumeration	StokesParameters	The four coordinates (usually called I, Q, U, and V) relative to a particular basis for the representation of the polarization state of an electromagnetic wave propagating through space.
	enumeration	Velocity	Rate of change of position. Also used for the average velocity of a collection of particles, also referred to as "bulk velocity".
Used by	Element	PhotonQuantity	
Source			<pre> &lt;xsd:simpleType name="enumPhotonQuantity"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the characterization of the physical properties of the photon.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Emissivity"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The ratio of radiant energy from a material to that from a blackbody at the same kinetic temperature&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="EnergyFlux"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The amount of energy passing through a unit area in a unit time.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="EquivalentWidth"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The area of the spectral line profile divided by the peak height or depth.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Gyrofrequency"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The frequency with which a charged particle (as an electron) executes spiral gyrations in moving obliquely across a magnetic field&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="LineDepth"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;In spectra, a measure of the amount of absorption</pre>

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        for a particular wavelength or frequency in
        the spectrum</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MagneticField">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Measurements of magnetic field vectors (sometimes
        not all components) as time series; can be
        space- or ground-based. Also, [Zeeman splitting,
        etc. based]: A region of space near a magnetized
        body where magnetic forces can be detected
        [as measured by methods such as Zeeman splitting,
        etc.]</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ModeAmplitude">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">In helioseismology the magnitude of oscillation
        of waves of a particular geometry.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PlasmaFrequency">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The frequency with which a plasma oscillates.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Polarization">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">Direction of the electric vector of an
electromagnetic
        wave. The wave can be linearly polarized in
        any direction perpendicular to the direction
        of travel, circularly polarized (clockwise
        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_2.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			
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> &lt;xsd:simpleType name="enumHashFunction"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Identifiers for functions or algorithms that convert a digital data object into a hash value.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt;     &lt;xsd:restriction base="xsd:string"&gt;         &lt;xsd:enumeration value="MD5"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;Message Digest 5 (MD5) is a 128-bit message digest algorithm created in 1991 by Professor Ronald Rivest.&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="SHA1"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="SHA256"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;     &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location		file:/var/www/spase/site/root/data/schema/spase-1_2_2.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     class enumInstrumentType {         &lt;&lt;xsd:string&gt;&gt;     } </pre>	
Type	restriction of xsd:string	
Facets	enumeration	Antenna A sensor used to measure electric potential.
	enumeration	Channeltron An instrument that detects electrons, ions, and UV-radiation, according to the principle of a secondary emission multiplier. It is typically used in electron spectroscopy and mass spectrometry.
	enumeration	Coronograph An instrument which can image things very close to the Sun by using a disk to block the Sun's bright surface which reveals the faint solar corona and other celestial objects.
	enumeration	DoubleSphere A dipole antenna of which the active (sensor) elements are small spheres located at the ends of two wires deployed in the equatorial plane, on opposite sides of a spinning spacecraft.
	enumeration	ElectronDriftInstrument An active experiment to measure the electron drift velocity based on sensing the displacement of a weak beam of electrons after one gyration in the ambient magnetic field.
	enumeration	ElectrostaticAnalyser An instrument which uses charged plates to analyze the mass, charge and kinetic energies

		of charged particles which enter the instrument.
enumeration	EnergeticParticleInstrument	An instrument that measures fluxes of charged particles as a function of time, direction of motion, mass, charge and/or species.
enumeration	Ephemeris	The spatial coordinates of a body as a function of time. When used as an Instrument Type it represents the process or methods used to generate spatial coordinates.
enumeration	FaradayCup	An instrument consisting of an electrode from which electrical current is measured while a charged particle beam (electrons or ions) impinges on it. Used to determine energy spectrum and sometimes ion composition of the impinging particles.
enumeration	FluxFeedback	A search coil whose bandwidth and signal/noise ratio are increased by the application of negative feedback at the sensor (flux) level by driving a collocated coil with a signal from the preamplifier.
enumeration	FourierTransformSpectrograph	An instrument that determines the spectra of a radiative source, using time-domain measurements and a Fourier transform.
enumeration	GeigerMuellerTube	An instrument which measures density of ionizing radiation based on interactions with a gas.
enumeration	Imager	An instrument which samples the radiation from an area at one or more spectral ranges emitted or reflected by an object.
enumeration	ImagingSpectrometer	An instrument which is a multispectral scanner with a very large number of channels (64-256 channels) with very narrow band widths.
enumeration	Interferometer	An instrument which measures the difference between two or more waves.
enumeration	LangmuirProbe	A monopole antenna associated with an instrument. The instrument applies a potential to the antenna which is swept to determine the voltage/current characteristic. This provides information about the plasma surrounding the probe and spacecraft.
enumeration	LongWire	A dipole antenna whose active (sensor) elements are two wires deployed in the equatorial plane on opposite sides of a spinning spacecraft, and whose length is several times greater than the spacecraft diameter.
enumeration	Magnetometer	An instrument which measures the ambient magnetic field.
enumeration	MassSpectrometer	An instrument which distinguishes chemical species in terms of their different isotopic masses.
enumeration	MicrochannelPlate	An instrument used for the detection of elementary particles, ions, ultraviolet rays and soft X-rays constructed from very thin conductive glass capillaries.
enumeration	MultispectralImager	An instrument which captures images at multiple spectral ranges.
enumeration	NeutralAtomImager	An instrument which measures the quantity and properties of neutral particles over a

		range of angles. Measured properties can include mass and energy.
enumeration	NeutralParticleDetector	An instrument which measures the quantity and properties of neutral particles. Measured properties can include mass and plasma bulk densities.
enumeration	ParticleCorrelator	An instrument which correlates particle flux to help identify wave/particle interactions.
enumeration	ParticleDetector	An instrument which detects particle flux!!!
enumeration	Photometer	An instrument which measures the strength of electromagnetic radiation in the range from ultraviolet to infrared and including the visible spectrum.
enumeration	Photopolarimeter	An instrument which measures the intensity and polarization or radiant energy. A photopolarimeter is a combination of a photometer and a polarimeter.
enumeration	ProportionalCounter	An instrument which measures energy of ionization radiation based on interactions with a gas.
enumeration	QuadrисphericalAnalyser	An instrument used for the 3-D detection of plasma, energetic electrons and ions, and for positive-ion composition measurements.
enumeration	Radar	An instrument that uses directional properties of returned power to infer spatial and/or other characteristics of a remote object.
enumeration	Radiometer	An instrument for detecting or measuring radiant energy. Radiometers are commonly limited to infrared radiation.
enumeration	ResonanceSounder	A combination of a radio receiver and a pulsed transmitter used to study the plasma surrounding a spacecraft by identifying resonances or cut-offs (of the wave dispersion relation), whose frequencies are related to the ambient plasma density and magnetic field. When the transmitter is off it is essentially a high frequency-resolution spectral power receiver.
enumeration	RetardingPotentialAnalyser	An instrument which measures ion temperatures and ion concentrations using aplanar ion trap.
enumeration	Riometer	An instrument which measure the signal strength in various directions of the galactic radio signals. Variations in these signals are influenced by solar flare activity and geomagnetic storm and substorm processes.
enumeration	ScintillationDetector	An instrument which detects flourescences of a material which is excited by high energy (ionizing) electromagnetic or charged particle radiation.
enumeration	SearchCoil	An instrument which measures the time variation of the magnetic flux threading a loop by measurement of the electric potential difference induced between the ends of the wire.
enumeration	Sounder	An instrument which measures the radiances from an object. A sounder may measure radiances at multile spectral ranges.
enumeration	SpacecraftPotentialController	An instrument to control the electric potential

		of a spacecraft with respect to the ambient plasma by emitting a variable current of positive ions.
enumeration	SpectralPowerReceiver	A radio receiver which determines the power spectral density of the electric or magnetic field, or both, at one or more frequencies.
enumeration	Spectrometer	An instrument that measures the component wavelengths of light or other electromagnetic radiation into its component wavelengths.
enumeration	TimeofFlight	An instrument which measures the time it takes for a particle to travel between two detectors.
enumeration	Unspecified	A value which is not provided.
enumeration	WaveformReceiver	A radio receiver which outputs the value of one or more components of the electric and/or magnetic field as a function of time.
Used by	Element	InstrumentType
Source	<pre> &lt;xsd:simpleType name="enumInstrumentType"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the type of experiment the instrument performs. This is the technique of observation.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Antenna"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A sensor used to measure electric potential.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Channeltron"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Coronograph"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An instrument which can image things very close to the Sun by using a disk to block the Sun's bright surface which reveals the faint solar corona and other celestial objects.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="DoubleSphere"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="ElectronDriftInstrument"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="ElectrostaticAnalyser"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An instrument which uses charged plates to analyze the mass, charge and kinetic energies of charged particles which enter the instrument.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="EnergeticParticleInstrument"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;An instrument that measures fluxes of charged particles as a function of time, direction       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt; </pre>	

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        of motion, mass, charge and/or species.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ephemeris">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">The spatial coordinates of a body as a function
            of time. When used as an Instrument Type it
            represents the process or methods used to
            generate spatial coordinates.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="FaradayCup">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An instrument consisting of an electrode from
            which electrical current is measured while
            a charged particle beam (electrons or ions)
            impinges on it. Used to determine energy spectrum
            and sometimes ion composition of the impinging
            particles.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="FluxFeedback">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A search coil whose bandwidth and signal/noise
            ratio are increased by the application of
            negative feedback at the sensor (flux) level
            by driving a collocated coil with a signal
            from the preamplifier.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="FourierTransformSpectrograph">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An instrument that determines the spectra
            of a radiative source, using time-domain measurements
            and a Fourier transform.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="GeigerMuellerTube">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An instrument which measures density of ionizing
            radiation based on interactions with a gas.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Imager">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An instrument which samples the radiation
            from an area at one or more spectral ranges
            emitted or reflected by an object.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ImagingSpectrometer">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An instrument which is a multispectral scanner
            with a very large number of channels (64-256
            channels) with very narrow band widths.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Interferometer">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An instrument which measures the difference
            between two or more waves.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LangmuirProbe">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A monopole antenna associated with an instrument.
            The instrument applies a potential to the
            antenna which is swept to determine the voltage/current
            characteristic. This provides information
            about the plasma surrounding the probe and
            spacecraft.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="LongWire">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A dipole antenna whose active (sensor) elements
            are two wires deployed in the equatorial plane
            on opposite sides of a spinning spacecraft,
            and whose length is several times greater
            than the spacecraft diameter.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Magnetometer">

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<xsd:annotation>
  <xsd:documentation xml:lang="en">An instrument which measures the ambient magnetic
  field.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MassSpectrometer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which distinguishes chemical
    species in terms of their different isotopic
    masses.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MicrochannelPlate">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument used for the detection of
elementary
    particles, ions, ultraviolet rays and soft
    X-rays constructed from very thin conductive
    glass capillaries.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="MultispectralImager">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which captures images at multiple
    spectral ranges.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NeutralAtomImager">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the quantity
    and properties of neutral particles over a
    range of angles. Measured properties can include
    mass and energy.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="NeutralParticleDetector">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the quantity
    and properties of neutral particles. Measured
    properties can include mass and plasma bulk
    densities.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ParticleCorrelator">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which correlates particle flux
    to help identify wave/particle interactions.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ParticleDetector">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which detects particle flux!!!</
xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Photometer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the strength
    of electromagnetic radiation in the range
    from ultraviolet to infrared and including
    the visible spectrum.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Photopolarimeter">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the intensity
    and polarization or radiant energy. A photopolarimeter
    is a combination of a photometer and a polarimeter.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ProportionalCounter">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures energy of ionization
    radiation based on interactions with a gas.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="QuadrисphericalAnalyser">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument used for the 3-D detection of
    plasma, energetic electrons and ions, and
    for positive-ion composition measurements.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>

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<xsd:enumeration value="Radar">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument that uses directional properties
      of returned power to infer spatial and/or
      other characteristics of a remote object.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Radiometer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument for detecting or measuring radiant
      energy. Radiometers are commonly limited to
      infrared radiation.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ResonanceSounder">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A combination of a radio receiver and a pulsed
      transmitter used to study the plasma surrounding
      a spacecraft by identifying resonances or
      cut-offs (of the wave dispersion relation),
      whose frequencies are related to the ambient
      plasma density and magnetic field. When the
      transmitter is off it is essentially a high
      frequency-resolution spectral power receiver.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="RetardingPotentialAnalyser">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures ion temperatures
      and ion concentrations using aplanar ion trap.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Riometer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the signal strength
      in various directions of the galactic radio
      signals. Variations in these signals are influenced
      by solar flare activity and geomagnetic storm
      and substorm processes.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="ScintillationDetector">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which detects flourescences of
      a material which is excited by high energy
      (ionizing) electromagnetic or charged particle
      radiation.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SearchCoil">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the time variation
      of the magnetic flux threading a loop by measurement
      of the electric potential difference induced
      between the ends of the wire.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Sounder">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument which measures the radiances
      from an object. A sounder may measure radiances
      at multiple spectral ranges.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SpacecraftPotentialControl">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument to control the electric potential
      of a spacecraft with respect to the ambient
      plasma by emitting a variable current of positive
      ions.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SpectralPowerReceiver">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">A radio receiver which determines the power
      spectral density of the electric or magnetic
      field, or both, at one or more frequencies.</xsd:documentation>
  </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Spectrometer">
  <xsd:annotation>
    <xsd:documentation xml:lang="en">An instrument that measures the component
      wavelengths of light or other electromagnetic

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        radiation into its component wavelengths.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="TimeofFlight">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">An instrument which measures the time it takes
        for a particle to travel between two detectors.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Unspecified">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A value which is not provided.</
xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="WaveformReceiver">
    <xsd:annotation>
        <xsd:documentation xml:lang="en">A radio receiver which outputs the value of
        one or more components of the electric and/or
        magnetic field as a function of time.</xsd:documentation>
    </xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

```

Schema location file:/var/www/spase/site/root/data/schema/spase-1\_2\_2.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	<pre> classDiagram     class enumSupport     class xsd:string     enumSupport --o xsd:string   </pre>		
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> &lt;xsd:simpleType name="enumSupport"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;Identifiers for the information useful in         understanding the context of an observation,         typically observed or measured coincidentally         with a physical observation.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt;     &lt;xsd:restriction base="xsd:string"&gt;         &lt;xsd:enumeration value="Other"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;Values, such as flags, that are not time tags,                 location data or measured or derived parameters.&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="Positional"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="Temporal"&gt;     </pre>		

	<pre> &lt;xsd:annotation&gt;   &lt;xsd:documentation xml:lang="en"&gt;Pertaining to time.&lt;/xsd:documentation&gt; &lt;/xsd:annotation&gt; &lt;/xsd:enumeration&gt; &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;</pre>
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd

## Simple Type enumEarth

Namespace	http://www.spase-group.org/data/schema		
Annotations	Identifiers for the regions surrounding the Earth.		
Diagram	<pre> classDiagram     enumEarth &lt; -- xsd:string   </pre>		
Type	restriction of xsd:string		
Facets	enumeration	Magnetosheath	The region between the bow shock and the magnetopause, characterized by very turbulent plasma.
	enumeration	Magnetosphere	The region of space above the atmosphere or surface of the planet, and bounded by the magnetopause, that is under the direct influence of the planets magnetic field.
	enumeration	Magnetosphere.Magnetotail	The region on the night side of the body where the magnetic field is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re ( $X > -10Re$ ).
	enumeration	Magnetosphere.Main	The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.
	enumeration	Magnetosphere.Polar	The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the aural zone.
	enumeration	Magnetosphere.RadiationBelts	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	Region of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
	enumeration	NearSurface.Ionosphere.ERegion	Region of ionised gas occurring at 90-150km above the ground. One of several layers in

		the ionosphere. Also called the The Kennelly-Heaviside layer.
enumeration	NearSurface.Ionosphere.FRegion	The <b>FRegion</b> that contains ionized gases at a height of around 150#800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1- and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.
enumeration	NearSurface.Ionosphere.Topside	The <b>Topside</b> at the upper most areas of the ionosphere.
enumeration	NearSurface.Mesosphere	The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
enumeration	NearSurface.Plasmasphere	A region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the plasmapause, which is defined by an order of magnitude drop in plasma density.
enumeration	NearSurface.PolarCap	The areas of the globe surrounding the poles and consisting of the region north of 60 degrees north latitude an the region south of 60 degrees south latitude.
enumeration	NearSurface.SouthAtlanticMagneticAnomalyRegion	The <b>MagneticAnomalyRegion</b> Earths 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">

<xsd:annotation>

<xsd:documentation xml:lang="en">The region near the pole of a body. For a magnetosphere the polar region is the area where magnetic field lines are open and includes the auroral zone.</xsd:documentation>

</xsd:annotation>

</xsd:enumeration>

<xsd:enumeration value="Magnetosphere.RadiationBelt">

<xsd:annotation>

<xsd:documentation xml:lang="en">The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.</xsd:documentation>

</xsd:annotation>

</xsd:enumeration>

<xsd:enumeration value="NearSurface">

<xsd:annotation>

<xsd:documentation xml:lang="en">The gaseous and possibly ionized environment of a body extending from the surface to some specified altitude. For the Earth, this altitude is 2000 km.</xsd:documentation>

</xsd:annotation>

</xsd:enumeration>

<xsd:enumeration value="NearSurface.Atmosphere">

<xsd:annotation>

<xsd:documentation xml:lang="en">The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.</xsd:documentation>

</xsd:annotation>

</xsd:enumeration>

<xsd:enumeration value="NearSurface.AuroralRegion">

<xsd:annotation>

<xsd:documentation xml:lang="en">The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.</xsd:documentation>

</xsd:annotation>

</xsd:enumeration>

<xsd:enumeration value="NearSurface.EquatorialRegion">

<xsd:annotation>

<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>

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</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

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        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>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd
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## Simple Type enumHeliosphere

Namespace	http://www.spase-group.org/data/schema														
Annotations	Identifiers for regions of the solar atmosphere which extends roughly from the inner corona to the edge of the solar plasma at the heliopause separating primarily solar plasma from interstellar plasma.														
Diagram	<pre> classDiagram     enumHeliosphere &lt; -- xsd:string </pre>														
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> &lt;xsd:simpleType name="enumHeliosphere"&gt;     &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;     &lt;/xsd:annotation&gt;     &lt;xsd:restriction base="xsd:string"&gt;         &lt;xsd:enumeration value="Inner"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;The region of the heliosphere extending radially                     out from the "surface" of the Sun to 1 AU.&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="NearEarth"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;The heliospheric region near the Earth which                     extends to and includes the area near the                     L1 and L2 Lagrange point.&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="Outer"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;The region of the heliosphere from, but not                     including, 1 AU to the farthest extent of                     the heliosphere (heliopause).&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;         &lt;xsd:enumeration value="Remote1AU"&gt;             &lt;xsd:annotation&gt;                 &lt;xsd:documentation xml:lang="en"&gt;The heliospheric region near the Earth's                     orbit,                     but exclusive of the region near the Earth.&lt;/xsd:documentation&gt;             &lt;/xsd:annotation&gt;         &lt;/xsd:enumeration&gt;     &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt; </pre>														
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd														

## Simple Type enumIonosphere

Namespace	http://www.spase-group.org/data/schema	
Annotations	Identifiers for ionospheric regions.	
Diagram	<pre> classDiagram     class enumIonosphere {         &lt;&lt;Identifiers for ionospheric regions&gt;&gt;     }     class xsdString {         &lt;&lt;xsd:string&gt;&gt;     }     enumIonosphere &lt; -- xsdString   </pre>	
Type	restriction of xsd:string	
Facets	enumeration	DRegion The layer of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
	enumeration	ERegion A layer of ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.
	enumeration	FRegion A layer that contains ionized gases at a height of around 150#800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.
	enumeration	Topside The region at the upper most areas of the ionosphere.
Source	<pre> &lt;xsd:simpleType name="enumIonosphere"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for ionospheric regions.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="DRegion"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="ERegion"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="FRegion"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Topside"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The region at the upper most areas of the ionosphere.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;   </pre>	
Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd	

## Simple Type enumMagnetosphere

Namespace	http://www.spase-group.org/data/schema		
Annotations	Identifiers for the region of space above the atmosphere or surface of the planet, and bounded by the magnetopause, that is under the direct influence of planets magnetic field.		
Diagram	<pre> classDiagram     class enumMagnetosphere {         &lt;&lt;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.&gt;&gt;     }     class xsd:string     enumMagnetosphere &lt; -- xsd:string   </pre>		
Type	restriction of xsd:string		
Facets	enumeration	Magnetotail	The region on the night side of the body where the magnetic filed 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> &lt;xsd:simpleType name="enumMagnetosphere"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Magnetotail"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The region on the night side of the body where the magnetic filed is stretched backwards by the force of the solar wind. For Earth, the magnetotail begins at a night-side radial distance of 10 Re (<math>X &gt; -10Re</math>).&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Main"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The region of the magnetosphere where the magnetic field lines are closed, but does not include the gaseous region gravitationally bound to the body.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Polar"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="RadiationBelt"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The region within a magnetosphere where high-energy particles could potentially be trapped in a magnetic field.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;   </pre>		

Schema location

file:/var/www/spase/site/root/data/schema/spase-1\_2\_2.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	<pre> classDiagram     class enumNearSurface {         attribute xsd:string     }   </pre>	
Type	restriction of xsd:string	
Facets	enumeration	Atmosphere The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.
	enumeration	AuroralRegion The region in the atmospheric where electrically-charged particles bombarding the upper atmosphere of a planet in the presence of a magnetic field produce an optical phenomenon.
	enumeration	EquatorialRegion A region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.
	enumeration	Ionosphere The charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction..
	enumeration	Ionosphere.DRegion The layer of the ionosphere that exists approximately 50 to 95 km above the surface of the Earth. One of several layers in the ionosphere.
	enumeration	Ionosphere.ERegion A layer of ionised gas occurring at 90-150km above the ground. One of several layers in the ionosphere. Also called the The Kennelly-Heaviside layer.
	enumeration	Ionosphere.FRegion A layer that contains ionized gases at a height of around 150#800 km above sea level, placing it in the thermosphere. the F region has the highest concentration of free electrons and ions anywhere in the atmosphere. It may be thought of as comprising two layers, the F1-and F2-layers. One of several layers in the ionosphere. Also known as the Appleton layer.
	enumeration	Ionosphere.Topside The region at the upper most areas of the ionosphere.
	enumeration	Mesosphere The layer of the atmosphere that extends from the Stratosphere to a range of 80 km to 85 km, temperature decreasing with height.
	enumeration	Plasmasphere A region of the magnetosphere consisting of low energy (cool) plasma. It is located above the ionosphere. The outer boundary of the plasmasphere is known as the 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>&lt;xsd:simpleType name="enumNearSurface"&gt;   &lt;xsd:annotation&gt;     &lt;xsd:documentation xml:lang="en"&gt;Identifiers for regions of the gaseous and possibly ionized environment of a body extending from the surface to some specified altitude.&lt;/xsd:documentation&gt;   &lt;/xsd:annotation&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="Atmosphere"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The neutral gases surrounding a body that extends from the surface and is bound to the body by virtue of the gravitational attraction.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="AuroralRegion"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="EquatorialRegion"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;A region centered on the equator and limited in latitude by approximately 23 degrees north and south of the equator.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Ionosphere"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;The charged or ionized gases surrounding a body that are nominally bound to the body by virtue of the gravitational attraction..&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Ionosphere.DRegion"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Ionosphere.ERegion"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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.&lt;/xsd:documentation&gt;       &lt;/xsd:annotation&gt;     &lt;/xsd:enumeration&gt;     &lt;xsd:enumeration value="Ionosphere.FRegion"&gt;       &lt;xsd:annotation&gt;         &lt;xsd:documentation xml:lang="en"&gt;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</pre>	

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F2-layers. One of several layers in the ionosphere.
Also known as the Appleton layer.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Ionosphere.Topside">
<xsd:annotation>
<xsd:documentation xml:lang="en">The region at the upper most areas of the
ionosphere.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Mesosphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">The layer of the atmosphere that extends from
the Stratosphere to a range of 80 km to 85
km, temperature decreasing with height.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Plasmasphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">A region of the magnetosphere consisting of
low energy (cool) plasma. It is located above
the ionosphere. The outer boundary of the
plasmasphere is known as the plasmapause,
which is defined by an order of magnitude
drop in plasma density.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="PolarCap">
<xsd:annotation>
<xsd:documentation xml:lang="en">The areas of the globe surrounding the poles
and consisting of the region north of 60 degrees
north latitude an the region south of 60 degrees
south latitude.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="SouthAtlanticAnomalyRegion">
<xsd:annotation>
<xsd:documentation xml:lang="en">The region where Earth's inner van Allen
radiation
belt makes its closest approach to the planet's
surface. The result is that, for a given altitude,
the radiation intensity is higher over this
region than elsewhere.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Stratosphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">The layer of the atmosphere that extends from
the troposphere to about 30 km, temperature
increases with height. The stratosphere contains
the ozone layer.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Thermosphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">The layer of the atmosphere that extends from
the Mesosphere to 640+ km, temperature increasing
with height.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
<xsd:enumeration value="Troposphere">
<xsd:annotation>
<xsd:documentation xml:lang="en">The lowest layer of the atmosphere which begins
at the surface and extends to between 7 km
(4.4 mi) at the poles and 17 km (10.6 mi)
at the equator, with some variation due to
weather factors.</xsd:documentation>
</xsd:annotation>
</xsd:enumeration>
</xsd:restriction>
</xsd:simpleType>

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd
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## Simple Type enumSun

Namespace	http://www.spase-group.org/data/schema
Annotations	Identifiers for regions of the star upon which our solar system is centered.
Diagram	

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

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Schema location	file:/var/www/spase/site/root/data/schema/spase-1_2_2.xsd
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## 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_2.xsd