

VOEvents for Solar System Sciences

- Three needs identified (Cecconi et al., 2018arXiv181112680):
 - (a) The capability to **specify the only target name as a location**. It can be a planet, a satellite, a comet, a moon, a spacecraft, a rover, etc. Standard names should be used here, such as IAU names for natural bodies.
 - (b) The capability to **specify the location using a planetary body reference frame**, or in a reference frame related to an object in the Solar System.
 - (c) The capability to **specify a time range**, with a start and end time.
- It is proposed to:
 - define reference frames in the VOEvent (or name community well-known ones), as proposed by STC.
 - allow solar system body names (from using standard IAU) as positions.
 - define a time interval element

Examples

Diff Files

Autom... Ignorer des nœuds par XPath

EUROPLANET/H2020/PSWS-JRA/Articles/VOEvent_Cecconi_2018/voevent-meteor.xml

```
16 <What>
17   <Description>Prediction of a meteor shower produced by a meteoroid stream from
18   <Reference uri="http://cdsads.u-strasbg.fr/abs/2017P%26SS..143...78V" meaning
19   <Group name="source">
20     <Param name="source_name" value="2006 AR3" ucd="meta.id" dataType="string"
21     <Param name="source_class" value="comet" ucd="meta.id" dataType="string" ut
22     <Param name="source_region" value="Trail" ucd="meta.id" dataType="string" u
23   </Group>
24   <Group name="target">
25     <Param name="target_class" value="planet" ucd="meta.id" dataType="string" u
26     <Param name="target_name" value="Mars" ucd="meta.id" dataType="string" utyp
27     <Param name="target_region" value="Atmosphere" ucd="meta.id" dataType="stri
28     <Param name="spatial_frame_type" value="celestial" ucd="meta.code.class;pos
29     <Param name="solar_longitude" value="152.220" ucd="pos.bodyrc.lon" dataType
30     <Param name="ra" value="345.422" ucd="pos.eq.ra" dataType="string" utype="e
31     <Param name="s_ra" value="0.186" ucd="pos.eq.ra;stat.error" dataType="strin
32     <Param name="dec" value="-16.112" ucd="pos.eq.dec" dataType="string" utype=
33     <Param name="s_dec" value="0.084" ucd="pos.eq.dec;stat.error" dataType="str
34     <Param name="spatial_origin" value="Mars" ucd="meta.id" dataType="string" u
35     <Param name="time_origin" value="Mars" ucd="meta.id" dataType="string" utyp
36     <Param name="time_scale" value="UTC" ucd="time.scale" dataType="string" uty
37     <Param name="space_ref_frame" value="ICRS" ucd="meta.id" dataType="string"
38     <Param name="astroCoordSystemID" value="UTC-ICRS-MARS_C" ucd="meta.id" data
39   </Group>
40   <Group name="event">
41     <Param name="event_type" value="Prediction of a meteor shower produced by a
42     dataType="string"/>
43     <Param name="event_status" value="median date of tail crossing" ucd="meta.f
44     <Param name="event_date" value="2018-09-08T18:25:00" ucd="time.epoch" dataT
45     <Param name="shower" value="2006AR3ids" ucd="meta.name" dataType="string"/>
46     <Param name="showercode" value="AR3" ucd="meta.id" dataType="string"/>
47     <Param name="prediction_year" value="2018" ucd="time.epoch" dataType="strin
48     <Param name="begins_trail" value="1102" ucd="time.start" dataType="string"/>
49     <Param name="end_trail" value="1102" ucd="time.end" dataType="string"/>
50     <Param name="dist0" value="-0.03124" ucd="pos.distance" dataType="string" u
51     <Param name="v_geo" value="14.782" ucd="pos.veloc" dataType="string" unit="
52     <Param name="s_v" value="0.118" ucd="pos.veloc;stat.error" dataType="string
53     <Param name="Zhr" value="0." ucd="meta.id" dataType="string"/>
54     <Param name="conf_id" value="SY00/1CE0.00" ucd="meta.id" dataType="string"/>
55     <Param name="VOCCode" value="MAR_AR3_2018_1102_0" ucd="meta.id" dataType="st
56   </Group>
57 </What>
58 <WhereWhen/>
```

PLANET/H2020/PSWS-JRA/Articles/VOEvent_Cecconi_2018/voevent-meteor-v2.1.xml

```
utype="stc:AstroCoordSystem"/>
</Group>
<Group name="event">
  <Param name="event_type"
    value="Prediction of a meteor shower produced by a meteoroid stre
    ucd="meta.flag" dataType="string"/>
  <Param name="event_status" value="median date of tail crossing" ucd="
    dataType="string"/>
  <Param name="event_date" value="2018-09-08T18:25:00" ucd="time.epoch"
  <Param name="shower" value="2006AR3ids" ucd="meta.name" dataType="str
  <Param name="showercode" value="AR3" ucd="meta.id" dataType="string"/>
  <Param name="prediction_year" value="2018" ucd="time.epoch" dataType="
  <Param name="begins_trail" value="1102" ucd="time.start" dataType="str
  <Param name="end_trail" value="1102" ucd="time.end" dataType="string"/>
  <Param name="dist0" value="-0.03124" ucd="pos.distance" dataType="str
  <Param name="v_geo" value="14.782" ucd="pos.veloc" dataType="string"
  <Param name="s_v" value="0.118" ucd="pos.veloc;stat.error" dataType="
  <Param name="Zhr" value="0." ucd="meta.id" dataType="string"/>
  <Param name="conf_id" value="SY00/1CE0.00" ucd="meta.id" dataType="st
  <Param name="VOCCode" value="MAR_AR3_2018_1102_0" ucd="meta.id" dataTy
</Group>
</What>
<WhereWhen>
  <ObsDataLocation>
    <ObservatoryLocation/>
    <ObservationLocation>
      <AstroCoordSystem id="UTC-ICRS-MARS_C"/>
      <AstroCoords>
        <Time>
          <TimeInstant>
            <ISOTime>2018-09-08T18:25:00Z</ISOTime>
          </TimeInstant>
        </Time>
        <Position2D unit="deg">
          <Value2>
            <C1>345.422</C1>
            <C2>-16.112</C2>
          </Value2>
          <Error2Radius>0.204</Error2Radius>
        </Position2D>
      </AstroCoords>
    </ObservationLocation>
  </ObsDataLocation>
```

v2.0 Texte Auteur v2.1

/Users/.../H2020/PSWS-JRA/Articles/VOEvent_Cecconi_2018/voevent-meteor.x... XML Rapide - Différences : 7 (Comparaison bilatérale) Modifié

Examples

Diff Files

Autom... Ignorer des nœuds par XPath

ets/EUROPLANET/H2020/PSWS-JRA/Articles/VOEvent_Cecconi_2018/voevent-tao.xml

```
14 <What>
15 <Description>Time intervals in which dynamic pressure is greater than 0.08 nPa
16 <Param name="event_type" value="Solar Wind dynamic pressure pulse" ucd="meta.i
17 <Group name="event">
18 <Param name="tested_parameter" value="Dynamic Pressure" ucd="meta.id" dataT
19 <Param name="threshold" value="0.08" ucd="phys.pressure" unit="nPa" dataTyp
20 </Group>
21 <Group name="target">
22 <Param name="target_name" value="Jupiter" ucd="meta.id" utype="epn:target_n
23 <Param name="target_class" value="planet" ucd="meta.id" utype="epn:target_c
24 <Param name="target_region" value="Magnetosphere" ucd="meta.id" utype="epn:
25 </Group>
26 <Table>
27 <Description>Time intervals found by the propagation code</Description>
28 <Field dataType="string" name="Start Time" ucd="time.begin" utype="epn:time
29 <Description>time tag for beginning of interval</Description>
30 </Field>
31 <Field dataType="string" name="Stop Time" ucd="time.end" utype="epn:time_ma
32 <Description>time tag for end of interval</Description>
33 </Field>
34 <Data>
35 <TR>
36 <TD>2018-10-03T10:00:00.000</TD>
37 <TD>2018-10-04T01:00:00.000</TD>
38 </TR>
39 <TR>
40 <TD>2018-10-04T07:00:00.000</TD>
41 <TD>2018-10-04T11:00:00.000</TD>
42 </TR>
43 <TR>
44 <TD>2018-10-08T01:00:00.000</TD>
45 <TD>2018-10-08T07:00:00.000</TD>
46 </TR>
47 </Data>
48 </Table>
49 </What>
50 <WhereWhen/>
51 <How>
52 <Description>This prediction has been computed by the Heliospheric propagation
53 prediction at planets, probes and comets.
54 </Description>
55 <Reference uri="https://onlinelibrary.wiley.com/doi/10.1029/2004JA010959/abstr
56 </How>
```

JROPLANET/H2020/PSWS-JRA/Articles/VOEvent_Cecconi_2018/voevent-tao-v2.1.xml

```
27 <Description>Time intervals found by the propagation code</Description>
28 <Field dataType="string" name="Start Time" ucd="time.begin" utype="epn:ti
29 <Description>time tag for beginning of interval</Description>
30 </Field>
31 <Field dataType="string" name="Stop Time" ucd="time.end" utype="epn:time_
32 <Description>time tag for end of interval</Description>
33 </Field>
34 <Data>
35 <TR>
36 <TD>2018-10-03T10:00:00.000</TD>
37 <TD>2018-10-04T01:00:00.000</TD>
38 </TR>
39 <TR>
40 <TD>2018-10-04T07:00:00.000</TD>
41 <TD>2018-10-04T11:00:00.000</TD>
42 </TR>
43 <TR>
44 <TD>2018-10-08T01:00:00.000</TD>
45 <TD>2018-10-08T07:00:00.000</TD>
46 </TR>
47 </Data>
48 </Table>
49 </What>
50 <WhereWhen>
51 <ObsDataLocation>
52 <ObservatoryLocation/>
53 <ObservationLocation>
54 <AstroCoordSystem id="UTC-ICRS-JUPITER_C"/>
55 <AstroCoords>
56 <PositionName>Jupiter</PositionName>
57 <Time>
58 <TimeInterval>
59 <ISOSTimeStart>2018-10-03T10:00:00.000</ISOSTimeStart>
60 <ISOSTimeStop>2018-10-08T07:00:00.000</ISOSTimeStop>
61 </TimeInterval>
62 </Time>
63 </AstroCoords>
64 </ObservationLocation>
65 </ObsDataLocation>
66 </WhereWhen>
67 <How>
68 <Description>This prediction has been computed by the Heliospheric propagati
69 prediction at planets, probes and comets.
```

v2.0 v2.1

Texte Auteur

/Users/.../H2020/PSWS-JRA/Articles/VOEvent_Cecconi_2018/voevent-tao.xml XML Exact - Différences : 4 (Comparaison bilatérale)

VOEvents for Solar System Sciences

- Notes:
 - The current list of allowed coordinate system names is too restrictive (and difficult to extend with all cases).
 - The list of coordinate systems that should be used in the VOEvent should be maintained outside the VOEvent standard (pass the ball to semantics?)
- Enhance contributor element with *ivorn*, *altIdentifier* (for ORCID or ROR id) and *role* (from Datacite Metadata Schema 4.3)

Examples

Diff Files

Autom... Ignorer des nœuds par XPath

ets/EUROPLANET/H2020/PSWS-JRA/Articles/VOEver

```
1 <?xml version="1.0"?>
2 <voe:VOEvent ivorn="ivo://psws.irap/VOEvent/Tao_Jupiter_
3   version="2.0" xmlns:xsi="http://www.w3.org/2001/XMLSc
4   xmlns:voe="http://www.ivoa.net/xml/VOEvent/v2.0"
5   xsi:schemaLocation="http://www.ivoa.net/xml/VOEvent/v
6 <Who>
7   <AuthorIVORN>ivo://psws</AuthorIVORN>
8   <Author>
9     <contactEmail>Michel.Gangloff@irap.omp.eu</cont
10    <contactName>Michel Gangloff</contactName>
11 </Author>
12 <Date>2018-10-02T17:34:45</Date>
13 </Who>
14 <What>
15 <Description>Time intervals in which dynamic press
16 <Param name="event_type" value="Solar Wind dynamic
17 <Group name="event">
18   <Param name="tested_parameter" value="Dynamic P
19   <Param name="threshold" value="0.08" ucd="phys.
20 </Group>
21 <Group name="target">
22   <Param name="target_name" value="Jupiter" ucd="
23   <Param name="target_class" value="planet" ucd="
24   <Param name="target_region" value="Magnetospher
25 </Group>
26 <Table>
27   <Description>Time intervals found by the propag
28   <Field dataType="string" name="Start Time" ucd=
29     <Description>time tag for beginning of inter
30   </Field>
31   <Field dataType="string" name="Stop Time" ucd="
32     <Description>time tag for end of interval</D
33   </Field>
34   <Data>
35     <TR>
36       <TD>2018-10-03T10:00:00.000</TD>
37       <TD>2018-10-04T01:00:00.000</TD>
38     </TR>
39     <TR>
40       <TD>2018-10-04T07:00:00.000</TD>
41       <TD>2018-10-04T11:00:00.000</TD>
42     </TR>
43     <TR>
```

v2.0

file:/Users/baptiste/Projets/EUROPLANET/H2020/PSWS-JRA/Articles/VOEvent_Cecconi_2018/voevent-tao-v2.1.xml

```
<voe:VOEvent ivorn="ivo://psws.irap/VOEvent/Tao_Jupiter_2018-10-02T17_34_45::v1.0" role="prediction"
  version="2.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:voe="http://www.ivoa.net/xml/VOEvent/v2.1"
  xsi:schemaLocation="http://www.ivoa.net/xml/VOEvent/v2.1 /Users/baptiste/Projets/EUROPLANET/H2020/git/VOEve
<Who>
  <AuthorIVORN>ivo://psws</AuthorIVORN>
  <Author>
    <contactEmail>Michel.Gangloff@irap.omp.eu</contactEmail>
    <contactName>Michel Gangloff</contactName>
    <contributor altIdentifier="https://ror.org/05hm2ja81" role="HostingInstitution">IRAP/CDPP</contribut
    <contributor altIdentifier="https://orcid.org/0000-0001-8817-0589" role="Researcher">Chihiro Tao</con
  </Author>
  <Date>2018-10-02T17:34:45</Date>
</Who>
<What>
<Description>Time intervals in which dynamic pressure is greater than 0.08 nPa at Jupiter</Description>
<Param name="event_type" value="Solar Wind dynamic pressure pulse" ucd="meta.id"/>
<Group name="event">
  <Param name="tested_parameter" value="Dynamic Pressure" ucd="meta.id" dataType="string"/>
  <Param name="threshold" value="0.08" ucd="phys.pressure" unit="nPa" dataType="string"/>
</Group>
<Group name="target">
  <Param name="target_name" value="Jupiter" ucd="meta.id" utype="epn:target_name"/>
  <Param name="target_class" value="planet" ucd="meta.id" utype="epn:target_class"/>
  <Param name="target_region" value="Magnetosphere" ucd="meta.id" utype="epn:target_region"/>
</Group>
<Table>
  <Description>Time intervals found by the propagation code</Description>
  <Field dataType="string" name="Start Time" ucd="time.begin" utype="epn:time_min">
    <Description>time tag for beginning of interval</Description>
  </Field>
  <Field dataType="string" name="Stop Time" ucd="time.end" utype="epn:time_max">
    <Description>time tag for end of interval</Description>
  </Field>
  <Data>
    <TR>
      <TD>2018-10-03T10:00:00.000</TD>
      <TD>2018-10-04T01:00:00.000</TD>
    </TR>
    <TR>
      <TD>2018-10-04T07:00:00.000</TD>
      <TD>2018-10-04T11:00:00.000</TD>
    </TR>
    <TR>
```

v2.1

Texte Auteur

/Users/.../PSWS-JRA/Articles/VOEvent_Cecconi_2018/voevent-tao-v2.1.xml XML Exact - Différences : 5 (Comparaison bilatérale)

VOEvents for Solar System Sciences

- Proposed V2.1:
 - allow to define AstroCoordSystem (TimeFrame and SpaceFrame). List of valid identifiers is removed.
 - added “ivorn”, “altIdentifier” and “role” attributes in contributor element (*)
 - added “ucd” and “pos_unit” attributes to positional coordinate value elements.
 - added positional error in 2D and 3D, in addition to the Error2Radius element.

() Not applied to contactName (although it would be nice), since it would be incompatible with the IVOA Resource Metadata specification.*

- The new XML Schema is backward compliant: previous valid XML VOEvents should be valid with the new schema.

VOEvent document content update

- *Some links and tools are outdated or disappeared from google...*
Now using peer-reviewed references (and/or URL was footnotes)
- Added paragraphs on Solar System needs, and new concepts defined.
- Including the schema is questionable:
The XML Schema is not normative (explicitly written), but since it is in the document, it has been used to validate VOEvents in brokers, thus blocking further some features not present in the schema.
- Pull Request of version 2.1 of VOEvent doc submitted on Github

Added ChangeLog

Diff Files

Autom... Ignorer des nœuds par XPath

file:/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd

```
1 <?xml version='1.0' encoding='ASCII'?>
2 <xs:schema xmlns="http://www.ivoa.net/xml/VOEvent/v2.0" xmlns:xs="http://www.w3.org
3
4 <xs:element name="VOEvent">
5   <xs:annotation>
6     <xs:documentation> VOEvent is the root element for describing observations of
7       astronomical events. For more information, see
8       http://www.ivoa.net/twiki/bin/view/IVOA/IvoaVOEvent. The event consists of
9       each of: Who, What, WhereWhen, How, Why, Citations, Description, and
10      Reference.</xs:documentation>
11   </xs:annotation>
12   <xs:complexType>
13     <!-- Can have zero or one of each of these, in any order -->
14     <xs:all>
15       <xs:element name="Who" type="Who" minOccurs="0" maxOccurs="1"/>
16       <xs:element name="What" type="What" minOccurs="0" maxOccurs="1"/>
17       <xs:element name="WhereWhen" type="WhereWhen" minOccurs="0" maxOccurs="1"/>
18       <xs:element name="How" type="How" minOccurs="0" maxOccurs="1"/>
19       <xs:element name="Why" type="Why" minOccurs="0" maxOccurs="1"/>
20       <xs:element name="Citations" type="Citations" minOccurs="0" maxOccurs="1"/>
21       <xs:element name="Description" type="xs:string" minOccurs="0" maxOccurs="1"/>
22       <xs:element name="Reference" type="Reference" minOccurs="0" maxOccurs="1"/>
23     </xs:all>
24     <xs:attribute name="version" type="xs:token" fixed="2.0" use="required"/>
25     <xs:attribute name="ivorn" type="xs:anyURI" use="required"/>
26     <xs:attribute name="role" type="roleValues" default="observation"/>
27   </xs:complexType>
28 </xs:element>
29 <xs:simpleType name="roleValues">
30   <xs:restriction base="xs:string">
31     <xs:enumeration value="observation"/>
32     <xs:enumeration value="prediction"/>
33     <xs:enumeration value="utility"/>
34     <xs:enumeration value="test"/>
35   </xs:restriction>
36 </xs:simpleType>
37
38 <xs:complexType name="Who">
39   <xs:annotation>
40     <xs:documentation> Who: Curation Metadata </xs:documentation>
41   </xs:annotation>
42 </xs:complexType>
43
```

Users/baptiste/Projets/EUROPLANET/H2020/git/VOEvent/schema/VOEvent-v2.1.xsd

```
1 <?xml version='1.0' encoding='ASCII'?>
2 <!-- Change log
3 Revision 2.1 2020/05/05 BaptisteCecconi
4 - added "Name" complex type with "ivorn", "altIdentifier" and "role" attributes,
5 - added "ContributorRole" simple type, with enumeration of role values
6 - removed restricted list of "AstroCoordSystem": previously "idValues" type, now
7 - removed "idValues" type (and references)
8 - added annotation in "AstroCoords/Time" (according to STC-1.30)
9 - added "AstroCoords/PositionName" as "xs:string"
10 - added annotation to "AstroCoords/Position2D" (according to STC-1.30)
11 - removed restricted list of attribute "coord_system_id" in "AstroCoords": previous
12 - added "TimeInterval" of type "TimeInterval" in "Time"
13 - added "TimeOrigin" of type "xs:string" in "TimeInstant"
14 - added "TimeInterval" type with "StartTime" and "StopTime" elements
15 - changed minOccurs attribute in "Position2D/Error2Radius": now set to 0
16 - added "Error2" element in "Position2D" with type "error2" and minOccurs=0
17 - added "Error3" element in "Position3D" with type "error3" and minOccurs=0
18 - added "coord_value" type introducing "ucd" and "unit" attributes for C1, C2 and
19 - added "error2" type, with "C1" and "C2" elements
20 - added "error3" type, with "C1", "C2" and "C3" elements
21 - added "TimeFrameType" (taken from to STC-1.30)
22 - added "SpaceFrameType" (taken from to STC-1.30)
23 -->
24 <xs:schema xmlns="http://www.ivoa.net/xml/VOEvent/v2.1" xmlns:xs="http://www.w3.org
25   targetNamespace="http://www.ivoa.net/xml/VOEvent/v2.1" elementFormDefault="unqu
26
27 <xs:element name="VOEvent">
28   <xs:annotation>
29     <xs:documentation> VOEvent is the root element for describing observations
30     astronomical events. For more information, see
31     http://www.ivoa.net/twiki/bin/view/IVOA/IvoaVOEvent. The event consists of
32     each of: Who, What, WhereWhen, How, Why, Citations, Description, and
33     Reference.</xs:documentation>
34   </xs:annotation>
35   <xs:complexType>
36     <!-- Can have zero or one of each of these, in any order -->
37     <xs:all>
38       <xs:element name="Who" type="Who" minOccurs="0" maxOccurs="1"/>
39       <xs:element name="What" type="What" minOccurs="0" maxOccurs="1"/>
40       <xs:element name="WhereWhen" type="WhereWhen" minOccurs="0" maxOccurs="1"/>
41       <xs:element name="How" type="How" minOccurs="0" maxOccurs="1"/>
42       <xs:element name="Why" type="Why" minOccurs="0" maxOccurs="1"/>
43       <xs:element name="Citations" type="Citations" minOccurs="0" maxOccurs="1"/>
44
```

Texte Auteur

/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd XML Rapide - Différences : 29 (Comparaison bilatérale)

ContactName and contributor => Name type

Diff Files

Autom... Ignorer des nœuds par XPath

file:/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd Users/baptiste/Projets/EUROPLANET/H2020/git/VOEvent/schema/VOEvent-v2.1.xsd

```
42 </xs:annotation>
43 <xs:all>
44 <!-- Can have zero or one of each of these. Schema is loose because
45 should have AuthorIVORN *or* Author -->
46 <xs:element name="AuthorIVORN" type="xs:anyURI" minOccurs="0"/>
47 <xs:element name="Date" type="xs:dateTime" minOccurs="0"/>
48 <xs:element name="Description" type="xs:string" minOccurs="0"/>
49 <xs:element name="Reference" type="Reference" minOccurs="0"/>
50 <xs:element name="Author" minOccurs="0">
51 <xs:annotation>
52 <xs:documentation> Author information follows the IVOA curation information
53 organization responsible for the packet can have a title, short name or
54 logo. A contact person has a name, email, and phone number. Other contr
55 be noted. </xs:documentation>
56 </xs:annotation>
57 <xs:complexType>
58 <xs:choice maxOccurs="unbounded">
59 <xs:element name="title" type="xs:string"/>
60 <xs:element name="shortName" type="xs:string"/>
61 <xs:element name="logoURL" type="xs:anyURI"/>
62 <xs:element name="contactName" type="xs:string"/>
63 <xs:element name="contactEmail" type="xs:string"/>
64 <xs:element name="contactPhone" type="xs:string"/>
65 <xs:element name="contributor" type="xs:string"/>
66 </xs:choice>
67 </xs:complexType>
68 </xs:element>
69 </xs:all>
70 </xs:complexType>
71
72
73 <xs:complexType name="What">
74 <xs:annotation>
75 <xs:documentation> What: Event Characterization. This is the part of the data
76 chosen by the Authoer of the event rather than the IVOA. There can be Param
77 Groups, and Tables, and simpleTimeSeries. There can also be Description and
78 with most VOEvent elements. </xs:documentation>
79 </xs:annotation>
80 <xs:choice maxOccurs="unbounded">
81 <!-- can have any number of any of these in any order -->
82 <xs:element name="Param" type="Param" minOccurs="0" maxOccurs="unbounded"/>
83 <xs:element name="Group" type="Group" minOccurs="0" maxOccurs="unbounded"/>
84 <xs:element name="Table" type="Table" minOccurs="0" maxOccurs="unbounded"/>
65 </xs:annotation>
66 <xs:all>
67 <!-- Can have zero or one of each of these. Schema is loose because
68 should have AuthorIVORN *or* Author -->
69 <xs:element name="AuthorIVORN" type="xs:anyURI" minOccurs="0"/>
70 <xs:element name="Date" type="xs:dateTime" minOccurs="0"/>
71 <xs:element name="Description" type="xs:string" minOccurs="0"/>
72 <xs:element name="Reference" type="Reference" minOccurs="0"/>
73 <xs:element name="Author" minOccurs="0">
74 <xs:annotation>
75 <xs:documentation> Author information follows the IVOA curation informa
76 organization responsible for the packet can have a title, short name
77 logo. A contact person has a name, email, and phone number. Other con
78 be noted. </xs:documentation>
79 </xs:annotation>
80 <xs:complexType>
81 <xs:choice maxOccurs="unbounded">
82 <xs:element name="title" type="xs:string"/>
83 <xs:element name="shortName" type="xs:string"/>
84 <xs:element name="logoURL" type="xs:anyURI"/>
85 <xs:element name="contactName" type="xs:string"/>
86 <xs:element name="contactEmail" type="xs:string"/>
87 <xs:element name="contactPhone" type="xs:string"/>
88 <xs:element name="contributor" type="Name"/>
89 </xs:choice>
90 </xs:complexType>
91 </xs:element>
92 </xs:all>
93 </xs:complexType>
94
95
96 <xs:complexType name="What">
97 <xs:annotation>
98 <xs:documentation> What: Event Characterization. This is the part of the da
99 chosen by the Authoer of the event rather than the IVOA. There can be Par
100 Groups, and Tables, and simpleTimeSeries. There can also be Description a
101 with most VOEvent elements. </xs:documentation>
102 </xs:annotation>
103 <xs:choice maxOccurs="unbounded">
104 <!-- can have any number of any of these in any order -->
105 <xs:element name="Param" type="Param" minOccurs="0" maxOccurs="unbounded"/>
106 <xs:element name="Group" type="Group" minOccurs="0" maxOccurs="unbounded"/>
107 <xs:element name="Table" type="Table" minOccurs="0" maxOccurs="unbounded"/>
```

Texte Auteur

Removed idValues restriction, and included AstroCoordSystem definitions

The screenshot displays a Diff Files window comparing two XML schemas. The left pane shows the original schema (v2.0.xsd) and the right pane shows the updated schema (v2.1.xsd). The diff highlights changes in the 'idValues' restriction and the addition of 'AstroCoords' and 'Time' complex types with annotations.

```
207 <xs:documentation> Part of WhereWhen</xs:documentation>
208 </xs:annotation>
209 <!-- The empty sequence closes this to content -->
210 <xs:sequence/>
211 <xs:attribute name="id" type="idValues"/>
212 </xs:complexType>
213 <xs:simpleType name="idValues">
214 <xs:restriction base="xs:string">
215 <xs:enumeration value="TT-ICRS-TOPO"/>
216 <xs:enumeration value="UTC-ICRS-TOPO"/>
217 <xs:enumeration value="TT-FK5-TOPO"/>
218 <xs:enumeration value="UTC-FK5-TOPO"/>
219 <xs:enumeration value="GPS-ICRS-TOPO"/>
220 <xs:enumeration value="GPS-ICRS-TOPO"/>
221 <xs:enumeration value="GPS-FK5-TOPO"/>
222 <xs:enumeration value="GPS-FK5-TOPO"/>
223 <xs:enumeration value="TT-ICRS-GEO"/>
224 <xs:enumeration value="UTC-ICRS-GEO"/>
225 <xs:enumeration value="TT-FK5-GEO"/>
226 <xs:enumeration value="UTC-FK5-GEO"/>
227 <xs:enumeration value="GPS-ICRS-GEO"/>
228 <xs:enumeration value="GPS-ICRS-GEO"/>
229 <xs:enumeration value="TDB-ICRS-BARY"/>
230 <xs:enumeration value="TDB-FK5-BARY"/>
231 <!-- this one for ObservatoryLocation -->
232 <xs:enumeration value="UTC-GEOD-TOPO"/>
233 </xs:restriction>
234 </xs:simpleType>
235
236 <xs:complexType name="AstroCoords">
237 <xs:annotation>
238 <xs:documentation> Part of WhereWhen</xs:documentation>
239 </xs:annotation>
240 <xs:all>
241 <xs:element name="Time" type="Time" minOccurs="0"/>
242 <xs:element name="Position2D" type="Position2D" minOccurs="0"/>
243 <xs:element name="Position3D" type="Position3D" minOccurs="0"/>
244 </xs:all>
245 <xs:attribute name="coord_system_id" type="idValues"/>
246 </xs:complexType>
247
248 <xs:complexType name="Time">
249 <xs:annotation>
```

```
230 <xs:annotation>
231 <xs:documentation> Part of WhereWhen</xs:documentation>
232 </xs:annotation>
233 <!-- The empty sequence closes this to content -->
234 <xs:sequence>
235 <xs:element minOccurs="0" name="TimeFrame" type="TimeFrameType"/>
236 <xs:element minOccurs="0" name="SpaceFrame" type="SpaceFrameType"/>
237 </xs:sequence>
238 <xs:attribute name="id" type="xs:ID"/>
239 </xs:complexType>
240
241
242
243 <xs:complexType name="AstroCoords">
244 <xs:annotation>
245 <xs:documentation> Part of WhereWhen</xs:documentation>
246 </xs:annotation>
247 <xs:all>
248 <xs:element name="Time" type="Time" minOccurs="0">
249 <xs:annotation>
250 <xs:documentation>Time instant or Time Interval for the event</xs:document
251 </xs:annotation>
252 </xs:element>
253 <xs:element minOccurs="0" name="PositionName" type="xs:string"> <xs:annotati
254 <xs:documentation>Named position for the event</xs:documentation> </xs:a
255 <xs:element name="Position2D" type="Position2D" minOccurs="0">
256 <xs:annotation>
257 <xs:documentation>Position for the event (2D coordSystem)</xs:documentat
258 </xs:annotation>
259 </xs:element>
260 <xs:element name="Position3D" type="Position3D" minOccurs="0">
261 <xs:annotation>
262 <xs:documentation>Position for the event (3D coordSystem)</xs:documentat
263 </xs:annotation>
264 </xs:element>
265 </xs:all>
266 <xs:attribute name="coord_system_id" type="xs:string"/>
267 </xs:complexType>
268
269 <xs:complexType name="Time">
270 <xs:annotation>
271 <xs:documentation> Part of WhereWhen</xs:documentation>
272 </xs:annotation>
```

XML Rapide - Différences : 29 (Comparaison bilatérale)

Added annotations

Added TimeInterval in addition to TimeInstant

Diff Files

Autom... Ignorer des nœuds par XPath

file:/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd Users/baptiste/Projets/EUROPLANET/H2020/git/VOEvent/schema/VOEvent-v2.1.xsd

```
252 <xs:choice maxOccurs="unbounded">
253   <xs:element name="TimeInstant" type="TimeInstant"/>
254   <xs:element name="Error" type="xs:float" minOccurs="0"/>
255 </xs:choice>
256 <xs:attribute name="unit" type="xs:string"/>
257 </xs:complexType>
258
259 <xs:complexType name="TimeInstant">
260   <xs:annotation>
261     <xs:documentation> Part of WhereWhen</xs:documentation>
262   </xs:annotation>
263   <xs:choice maxOccurs="unbounded">
264     <xs:element name="ISOTime" type="xs:string" minOccurs="0" maxOccurs="1"/>
265     <xs:element name="TimeOffset" type="xs:float" minOccurs="0" maxOccurs="1"/>
266     <xs:element name="TimeScale" type="xs:string" minOccurs="0" maxOccurs="1"/>
267   </xs:choice>
268 </xs:complexType>
269
270 <xs:complexType name="Position2D">
271   <xs:annotation>
272     <xs:documentation> Part of WhereWhen</xs:documentation>
273   </xs:annotation>
274   <xs:all>
275     <xs:element name="Name1" type="xs:string" minOccurs="0"/>
276     <xs:element name="Name2" type="xs:string" minOccurs="0"/>
277     <xs:element name="Value2" type="Value2"/>
278     <xs:element name="Error2Radius" type="xs:float"/>
279   </xs:all>
280   <xs:attribute name="unit" type="xs:string"/>
281 </xs:complexType>
282
283 <xs:complexType name="Position3D">
284   <xs:annotation>
285     <xs:documentation> Part of WhereWhen</xs:documentation>
286   </xs:annotation>
287   <xs:all>
288     <xs:element name="Name1" type="xs:string" minOccurs="0"/>
289     <xs:element name="Name2" type="xs:string" minOccurs="0"/>
290     <xs:element name="Name3" type="xs:string" minOccurs="0"/>
291     <xs:element name="Value3" type="Value3"/>
292   </xs:all>
293   <xs:attribute name="unit" type="xs:string"/>
294 </xs:complexType>
```

```
273 <xs:choice maxOccurs="unbounded">
274   <xs:element name="TimeInstant" type="TimeInstant"/>
275   <xs:element name="TimeInterval" type="TimeInterval" minOccurs="0"/>
276   <xs:element name="Error" type="xs:float" minOccurs="0"/>
277 </xs:choice>
278 <xs:attribute name="unit" type="xs:string"/>
279 </xs:complexType>
280
281 <xs:complexType name="TimeInstant">
282   <xs:annotation>
283     <xs:documentation> Part of WhereWhen</xs:documentation>
284   </xs:annotation>
285   <xs:choice maxOccurs="unbounded">
286     <xs:element name="ISOTime" type="xs:string" minOccurs="0" maxOccurs="1"/>
287     <xs:element name="TimeOffset" type="xs:float" minOccurs="0" maxOccurs="1"/>
288     <xs:element name="TimeScale" type="xs:string" minOccurs="0" maxOccurs="1"/>
289     <xs:element name="TimeOrigin" type="xs:string" minOccurs="0" maxOccurs="1"/>
290   </xs:choice>
291 </xs:complexType>
292
293 <xs:complexType name="TimeInterval">
294   <xs:annotation>
295     <xs:documentation> Part of WhereWhen</xs:documentation>
296   </xs:annotation>
297   <xs:choice maxOccurs="unbounded">
298     <xs:element name="ISOTimeStart" type="xs:string" minOccurs="0" maxOccurs="1"/>
299     <xs:element name="ISOTimeStop" type="xs:string" minOccurs="0" maxOccurs="1"/>
300   </xs:choice>
301 </xs:complexType>
302
303 <xs:complexType name="Position2D">
304   <xs:annotation>
305     <xs:documentation> Part of WhereWhen</xs:documentation>
306   </xs:annotation>
307   <xs:all>
308     <xs:element name="Name1" type="xs:string" minOccurs="0"/>
309     <xs:element name="Name2" type="xs:string" minOccurs="0"/>
310     <xs:element name="Value2" type="Value2"/>
311     <xs:element name="Error2Radius" type="xs:float" minOccurs="0"/>
312     <xs:element name="Error2" type="error2" minOccurs="0"/>
313   </xs:all>
314   <xs:attribute name="unit" type="xs:string"/>
315 </xs:complexType>
```

Texte Auteur

/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd XML Rapide - Différences : 29 (Comparaison bilatérale)

Added Error2 in addition to Error2Radius Added coord_value (with attributes unit, ucd)

Diff Files

Autom... Ignorer des nœuds par XPath

file:/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd /Users/baptiste/Projets/EUROPLANET/H2020/git/VOEvent/schema/VOEvent-v2.1.xsd

```
282 <xs:complexType name="Position3D">
283   <xs:annotation>
284     <xs:documentation> Part of WhereWhen</xs:documentation>
285   </xs:annotation>
286   <xs:all>
287     <xs:element name="Name1" type="xs:string" minOccurs="0"/>
288     <xs:element name="Name2" type="xs:string" minOccurs="0"/>
289     <xs:element name="Name3" type="xs:string" minOccurs="0"/>
290     <xs:element name="Value3" type="Value3"/>
291   </xs:all>
292   <xs:attribute name="unit" type="xs:string"/>
293 </xs:complexType>
294
295 <xs:complexType name="Value2">
296   <xs:annotation>
297     <xs:documentation> Part of WhereWhen</xs:documentation>
298   </xs:annotation>
299   <xs:all>
300     <xs:element name="C1" type="xs:float"/>
301     <xs:element name="C2" type="xs:float"/>
302   </xs:all>
303 </xs:complexType>
304
305 <xs:complexType name="Value3">
306   <xs:annotation>
307     <xs:documentation> Part of WhereWhen</xs:documentation>
308   </xs:annotation>
309   <xs:all>
310     <xs:element name="C1" type="xs:float"/>
311     <xs:element name="C2" type="xs:float"/>
312     <xs:element name="C3" type="xs:float"/>
313   </xs:all>
314 </xs:complexType>
315
316 <xs:complexType name="ObservatoryLocation">
317   <xs:annotation>
318     <xs:documentation> Part of WhereWhen</xs:documentation>
319   </xs:annotation>
320   <xs:all>
321     <xs:element name="AstroCoordSystem" type="AstroCoordSystem" minOccurs="0" max
322     <xs:element name="AstroCoords" type="AstroCoords" minOccurs="0" maxOccurs="1"
323   </xs:all>
324
321 <xs:annotation>
322   <xs:documentation> Part of WhereWhen</xs:documentation>
323 </xs:annotation>
324 <xs:all>
325   <xs:element name="Name1" type="xs:string" minOccurs="0"/>
326   <xs:element name="Name2" type="xs:string" minOccurs="0"/>
327   <xs:element name="Name3" type="xs:string" minOccurs="0"/>
328   <xs:element name="Value3" type="Value3"/>
329   <xs:element name="Error3" type="error3" minOccurs="0"/>
330 </xs:all>
331   <xs:attribute name="unit" type="xs:string"/>
332 </xs:complexType>
333 <xs:complexType name="coord_value">
334   <xs:annotation>
335     <xs:documentation>element for each axis </xs:documentation>
336   </xs:annotation>
337   <xs:simpleContent>
338     <xs:extension base="xs:float">
339       <xs:attribute name="ucd" type="xs:string"/>
340       <xs:attribute name="pos_unit" type="xs:string"/>
341     </xs:extension>
342   </xs:simpleContent>
343 </xs:complexType>
344
345 <xs:complexType name="Value2">
346   <xs:annotation>
347     <xs:documentation> Part of WhereWhen</xs:documentation>
348   </xs:annotation>
349   <xs:all>
350     <xs:element name="C1" type="coord_value"/>
351     <xs:element name="C2" type="coord_value"/>
352   </xs:all>
353 </xs:complexType>
354
355 <xs:complexType name="error2">
356   <xs:annotation>
357     <xs:documentation> Part of WhereWhen</xs:documentation>
358   </xs:annotation>
359   <xs:all>
360     <xs:element name="C1" type="coord_value" minOccurs="0"/>
361     <xs:element name="C2" type="coord_value" minOccurs="0"/>
362   </xs:all>
363
```

Texte Auteur

/Users/.../Projets/EUROPLANET/H2020/git/VOEvent/schema/VOEvent-v2.1.xsd XML Rapide - Différences : 29 (Comparaison bilatérale)

All C1, C2, C3 are coord_value type

Diff Files

Autom... Ignorer des nœuds par XPath

file:/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd Users/baptiste/Projets/EUROPLANET/H2020/git/VOEvent/schema/VOEvent-v2.1.xsd

```
303 </xs:all>
304 </xs:complexType>
305
306 <xs:complexType name="Value3">
307   <xs:annotation>
308     <xs:documentation> Part of WhereWhen</xs:documentation>
309   </xs:annotation>
310   <xs:all>
311     <xs:element name="C1" type="xs:float"/>
312     <xs:element name="C2" type="xs:float"/>
313     <xs:element name="C3" type="xs:float"/>
314   </xs:all>
315 </xs:complexType>
316
317 <xs:complexType name="ObservatoryLocation">
318   <xs:annotation>
319     <xs:documentation> Part of WhereWhen</xs:documentation>
320   </xs:annotation>
321   <xs:all>
322     <xs:element name="AstroCoordSystem" type="AstroCoordSystem" minOccurs="0" maxOccurs="1"/>
323     <xs:element name="AstroCoords" type="AstroCoords" minOccurs="0" maxOccurs="1"/>
324   </xs:all>
325   <xs:attribute name="id" type="xs:string"/>
326 </xs:complexType>
327
328 <xs:complexType name="How">
329   <xs:annotation>
330     <xs:documentation> How: Instrument Configuration. Built with some Description
331     elements. </xs:documentation>
332   </xs:annotation>
333   <xs:choice maxOccurs="unbounded">
334     <xs:element name="Description" type="xs:string"/>
335     <xs:element name="Reference" type="Reference"/>
336   </xs:choice>
337 </xs:complexType>
338
339 <xs:complexType name="Why">
340   <xs:annotation>
341     <xs:documentation> Why: Initial Scientific Assessment. Can make simple Concep
342     for the inference or use multiple Inference containers for more semantic so
343   </xs:documentation>
344   </xs:annotation>
345   <xs:choice maxOccurs="unbounded">
```

```
352 </xs:complexType>
353
354 <xs:complexType name="error2">
355   <xs:annotation>
356     <xs:documentation> Part of WhereWhen</xs:documentation>
357   </xs:annotation>
358   <xs:all>
359     <xs:element name="C1" type="coord_value" minOccurs="0"/>
360     <xs:element name="C2" type="coord_value" minOccurs="0"/>
361   </xs:all>
362 </xs:complexType>
363
364
365 <xs:complexType name="Value3">
366   <xs:annotation>
367     <xs:documentation> Part of WhereWhen</xs:documentation>
368   </xs:annotation>
369   <xs:all>
370     <xs:element name="C1" type="coord_value"/>
371     <xs:element name="C2" type="coord_value"/>
372     <xs:element name="C3" type="coord_value"/>
373   </xs:all>
374 </xs:complexType>
375
376 <xs:complexType name="error3">
377   <xs:annotation>
378     <xs:documentation> Part of WhereWhen</xs:documentation>
379   </xs:annotation>
380   <xs:all>
381     <xs:element name="C1" type="coord_value" minOccurs="0"/>
382     <xs:element name="C2" type="coord_value" minOccurs="0"/>
383     <xs:element name="C3" type="coord_value" minOccurs="0"/>
384   </xs:all>
385 </xs:complexType>
386
387
388 <xs:complexType name="ObservatoryLocation">
389   <xs:annotation>
390     <xs:documentation> Part of WhereWhen</xs:documentation>
391   </xs:annotation>
392   <xs:all>
393     <xs:element name="AstroCoordSystem" type="AstroCoordSystem" minOccurs="0" maxOccurs="1"/>
394     <xs:element name="AstroCoords" type="AstroCoords" minOccurs="0" maxOccurs="1"/>
```

Texte Auteur

/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd XML Rapide - Différences : 29 (Comparaison bilatérale)

Added TimeFrame, SpaceFrame...

Diff Files

Autom... Ignorer des nœuds par XPath

file:/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd Users/baptiste/Projets/EUROPLANET/H2020/git/VOEvent/schema/VOEvent-v2.1.xsd

```
382 </xs:annotation>
383 <xs:sequence>
384   <xs:element name="EventIVORN" type="EventIVORN" maxOccurs="unbounded"/>
385   <xs:element name="Description" type="xs:string" minOccurs="0"/>
386 </xs:sequence>
387 </xs:complexType>
388
389 <xs:complexType name="EventIVORN">
390   <xs:annotation>
391     <xs:documentation> Citations/EventIVORN. The value is the IVORN of the cited
392       attribute is the nature of that relationship, choosing from 'followup', 'supersedes',
393       'retraction'.</xs:documentation>
394   </xs:annotation>
395   <xs:simpleContent>
396     <xs:extension base="xs:string">
397       <xs:attribute name="cite" type="citeValues"/>
398     </xs:extension>
399   </xs:simpleContent>
400 </xs:complexType>
401
402 <xs:simpleType name="citeValues">
403   <xs:restriction base="xs:string">
404     <xs:enumeration value="followup"/>
405     <xs:enumeration value="supersedes"/>
406     <xs:enumeration value="retraction"/>
407   </xs:restriction>
408 </xs:simpleType>
409
410 <xs:complexType name="Reference">
411   <xs:annotation>
412     <xs:documentation> Reference: External Content. The payload is the uri, and the
413       describes the nature of the data under that uri. The Reference can also be
414     </xs:documentation>
415   </xs:annotation>
416   <xs:sequence/>
417   <xs:attribute name="uri" type="xs:anyURI" use="required"/>
418   <xs:attribute name="type" type="xs:string"/>
419   <xs:attribute name="mimetype" type="xs:string"/>
420   <xs:attribute name="meaning" type="xs:anyURI"/>
421 </xs:complexType>
422
423 </xs:schema>
424
```

```
493 <xs:complexType name="TimeFrameType">
494   <xs:annotation>
495     <xs:documentation>A CoordFrame has to have at least an Id</xs:documentation>
496   </xs:annotation>
497   <xs:sequence>
498     <xs:element minOccurs="0" name="Name" type="xs:string"/>
499     <xs:element minOccurs="0" name="ReferencePosition" type="xs:string">
500       <xs:annotation>
501         <xs:documentation>Origin of the coordinate reference frame: either a "k
502       </xs:documentation>
503     </xs:annotation>
504   </xs:element>
505   <xs:element minOccurs="0" name="TimeScale" type="xs:string">
506     <xs:annotation>
507       <xs:documentation>The time reference frame consists of a time scale, a
508     </xs:documentation>
509   </xs:annotation>
510   </xs:element>
511   </xs:sequence>
512   <xs:attribute name="id" type="xs:ID"/>
513 </xs:complexType>
514 <xs:complexType name="SpaceFrameType">
515   <xs:annotation>
516     <xs:documentation>A CoordFrame has to have at least an Id</xs:documentation>
517   </xs:annotation>
518   <xs:sequence>
519     <xs:element minOccurs="0" name="Name" type="xs:string"/>
520     <xs:element minOccurs="0" name="SpaceRefFrame" type="xs:string">
521       <xs:annotation>
522         <xs:documentation>Coordinate reference frame: optional equinox with eitl
523       </xs:documentation>
524     </xs:annotation>
525   </xs:element>
526   <xs:element minOccurs="0" name="CoordFlavor" type="xs:string">
527     <xs:annotation>
528       <xs:documentation>Provides the coordinate definitions: number of axes,
529     </xs:documentation>
530   </xs:annotation>
531   </xs:element>
532   <xs:element minOccurs="0" name="ReferencePosition" type="xs:string">
533     <xs:annotation>
534       <xs:documentation>Origin of the coordinate reference frame: either a "k
535     </xs:documentation>
536   </xs:annotation>
537   </xs:element>
538   </xs:sequence>
539   <xs:attribute name="id" type="xs:ID"/>
540 </xs:complexType>
```

Texte Auteur

/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd XML Rapide - Différences : 29 (Comparaison bilatérale)

... Name and contributorRole types

Diff Files

Autom... Ignorer des nœuds par XPath

file:/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd Users/baptiste/Projets/EUROPLANET/H2020/git/VOEvent/schema/VOEvent-v2.1.xsd

```
382 </xs:annotation>
383 <xs:sequence>
384   <xs:element name="EventIVORN" type="EventIVORN" maxOccurs="unbounded"/>
385   <xs:element name="Description" type="xs:string" minOccurs="0"/>
386 </xs:sequence>
387 </xs:complexType>
388
389 <xs:complexType name="EventIVORN">
390   <xs:annotation>
391     <xs:documentation> Citations/EventIVORN. The value is the IVORN of the cited
392       attribute is the nature of that relationship, choosing from 'followup', 'supersedes',
393       'retraction'.</xs:documentation>
394   </xs:annotation>
395   <xs:simpleContent>
396     <xs:extension base="xs:string">
397       <xs:attribute name="cite" type="citeValues"/>
398     </xs:extension>
399   </xs:simpleContent>
400 </xs:complexType>
401
402 <xs:simpleType name="citeValues">
403   <xs:restriction base="xs:string">
404     <xs:enumeration value="followup"/>
405     <xs:enumeration value="supersedes"/>
406     <xs:enumeration value="retraction"/>
407   </xs:restriction>
408 </xs:simpleType>
409
410 <xs:complexType name="Reference">
411   <xs:annotation>
412     <xs:documentation> Reference: External Content. The payload is the uri, and the
413       describes the nature of the data under that uri. The Reference can also be
414     </xs:documentation>
415   </xs:annotation>
416   <xs:sequence/>
417   <xs:attribute name="uri" type="xs:anyURI" use="required"/>
418   <xs:attribute name="type" type="xs:string"/>
419   <xs:attribute name="mimetype" type="xs:string"/>
420   <xs:attribute name="meaning" type="xs:anyURI"/>
421 </xs:complexType>
422
423 </xs:schema>
424
```

```
537 <xs:complexType name="Name">
538   <xs:simpleContent>
539     <xs:extension base="xs:string">
540       <xs:attribute name="altIdentifier" type="xs:anyURI">
541         <xs:annotation>
542           <xs:documentation>Alternate contact identifier in URI form. The main
543         </xs:annotation>
544       </xs:attribute>
545       <xs:attribute name="role" type="contributorRole">
546         <xs:annotation>
547           <xs:documentation>Role of the Contributor
548         </xs:annotation>
549       </xs:attribute>
550     </xs:extension>
551     <xs:attribute name="ivorn" type="xs:anyURI">
552       <xs:annotation>
553         <xs:documentation>Person id in the VO registry, if available</xs:documentation>
554       </xs:annotation>
555     </xs:attribute>
556   </xs:simpleContent>
557 </xs:complexType>
558
559 <xs:simpleType name="contributorRole">
560   <xs:restriction base="xs:string">
561     <xs:enumeration value="ContactPerson"/>
562     <xs:enumeration value="DataCollector"/>
563     <xs:enumeration value="DataCurator"/>
564     <xs:enumeration value="DataManager"/>
565     <xs:enumeration value="Distributor"/>
566     <xs:enumeration value="Editor"/>
567     <xs:enumeration value="HostingInstitution"/>
568     <xs:enumeration value="Producer"/>
569     <xs:enumeration value="ProjectLeader"/>
570     <xs:enumeration value="ProjectManager"/>
571     <xs:enumeration value="ProjectMember"/>
572     <xs:enumeration value="RegistrationAgency"/>
573     <xs:enumeration value="RegistrationAuthority"/>
574     <xs:enumeration value="RelatedPerson"/>
575     <xs:enumeration value="Researcher"/>
576     <xs:enumeration value="ResearchGroup"/>
577     <xs:enumeration value="RightsHolder"/>
578     <xs:enumeration value="Sponsor"/>
579     <xs:enumeration value="Supervisor"/>

```

Texte Auteur

/Users/baptiste/Projets/IVOA/TDIG/VOEvent/VOEvent/VOEvent-v2.0.xsd XML Rapide - Différences : 29 (Comparaison bilatérale)