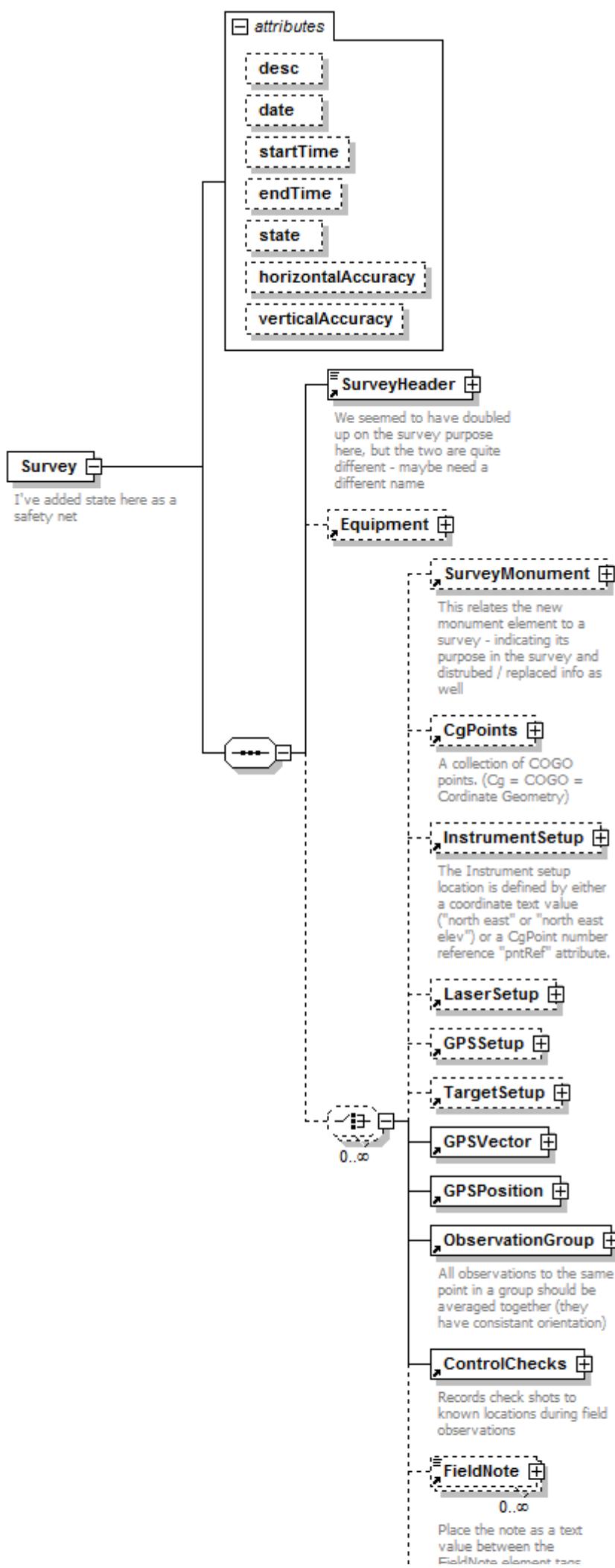


element Survey

diagram	
---------	--



You may also place any valid XML structure inside this tag.

Feature

0..∞

Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.

namespace	http://www.landxml.org/schema/LandXML-1.2																																																					
properties	content complex																																																					
children	SurveyHeader Equipment SurveyMonument CgPoints InstrumentSetup LaserSetup GPSSetup TargetSetup GPSVector GPSPosition ObservationGroup ControlChecks FieldNote Feature																																																					
used by	element LandXML																																																					
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>desc</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>date</td> <td>xs:date</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>startTime</td> <td>xs:dateTime</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>endTime</td> <td>xs:dateTime</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>state</td> <td>stateType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>horizontalAccuracy</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>verticalAccuracy</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						Name	Type	Use	Default	Fixed	annotation	desc	xs:string					date	xs:date					startTime	xs:dateTime					endTime	xs:dateTime					state	stateType					horizontalAccuracy	xs:string					verticalAccuracy	xs:string				
Name	Type	Use	Default	Fixed	annotation																																																	
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verticalAccuracy	xs:string																																																					
annotation	<p>documentation</p> <p>I've added state here as a safety net</p>																																																					
source	<pre><xs:element name="Survey"> <xs:annotation> <xs:documentation>I've added state here as a safety net</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="SurveyHeader"/> <xs:element ref="Equipment" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="SurveyMonument" minOccurs="0"/> <xs:element ref="CgPoints" minOccurs="0"/> <xs:element ref="InstrumentSetup" minOccurs="0"/> <xs:element ref="LaserSetup" minOccurs="0"/> <xs:element ref="GPSSetup" minOccurs="0"/> <xs:element ref="TargetSetup" minOccurs="0"/> <xs:element ref="GPSVector"/> <xs:element ref="GPSPosition"/> <xs:element ref="ObservationGroup"/> <xs:element ref="ControlChecks"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="desc" type="xs:string"/> <xs:attribute name="date" type="xs:date"/> <xs:attribute name="startTime" type="xs:dateTime"/></pre>																																																					

```

<xs:attribute name="endTime" type="xs:dateTime"/>
<xs:attribute name="state" type="stateType"/>
<xs:attribute name="horizontalAccuracy" type="xs:string"/>
<xs:attribute name="verticalAccuracy" type="xs:string"/>
</xs:complexType>
</xs:element>

```

attribute Survey/@desc

type	xs:string
properties	isRef 0
source	<xs:attribute name="desc" type="xs:string"/>

attribute Survey/@date

type	xs:date
properties	isRef 0
source	<xs:attribute name="date" type="xs:date"/>

attribute Survey/@startTime

type	xs:dateTime
properties	isRef 0
source	<xs:attribute name="startTime" type="xs:dateTime"/>

attribute Survey/@endTime

type	xs:dateTime
properties	isRef 0
source	<xs:attribute name="endTime" type="xs:dateTime"/>

attribute Survey/@state

type	stateType
properties	isRef 0
facets	enumeration abandoned enumeration destroyed enumeration existing enumeration proposed
source	<xs:attribute name="state" type="stateType"/>

attribute Survey/@horizontalAccuracy

type	xs:string
properties	isRef 0
source	<xs:attribute name="horizontalAccuracy" type="xs:string"/>

attribute Survey/@verticalAccuracy

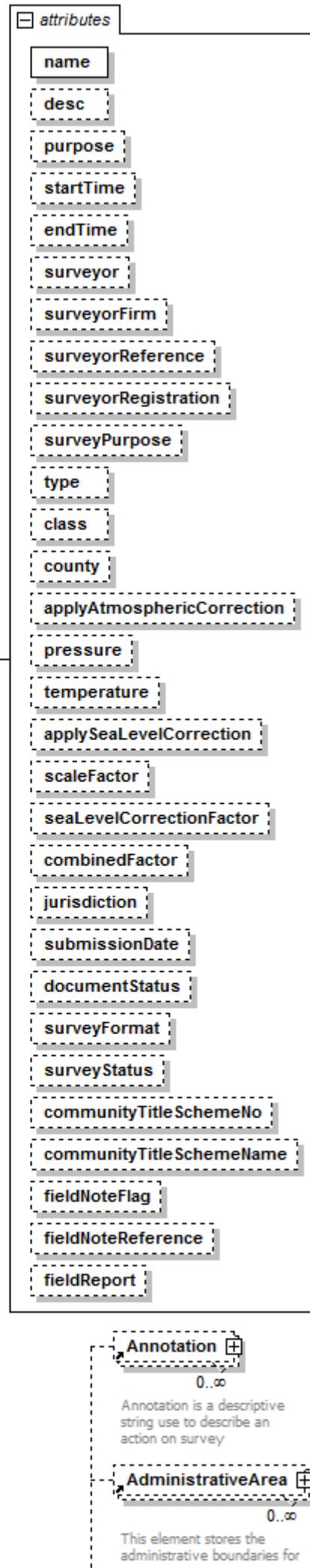
type	xs:string
properties	isRef 0

source	<xs:attribute name="verticalAccuracy" type="xs:string"/>
--------	--

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

element SurveyHeader

diagram	
---------	--



up on the survey purpose here, but the two are quite different - maybe need a different name

a survey

AdministrativeDate

0..∞

This element stores a range of Administrative dates which may vary from jurisdiction to jurisdiction.

CoordinateSystem

Simplified coordinate systems definitions to reuse work done by

EPSG (European Petroleum Survey Group)

EPSG Code: EPSG has reserved the integer range 0 to 32767 for use as codes for coordinate systems,

Example:
Represents Australian Map Grid Zone 52

name="AGD66 - AMG Zone 52" , epsgCode="20252"

Example:
Represents Colorado CS27 South Zone

name="NAD27-Colorado South" , epsgCode="26755"

Units



0..∞

All angular and direction values default to radians unless otherwise noted. Angular values, expressed in the specified Units.angleUnit are measured counter-clockwise from east=0. Horizontal directions, expressed in the specified Units.directionUnit are measured counter-clockwise from 0 degrees = north

MapPoint

0..∞

Represents a 2D or 3D Point location for general Survey location

Personnel

0..∞

FieldNote

0..∞

Place the note as a text value between the FieldNote element tags.

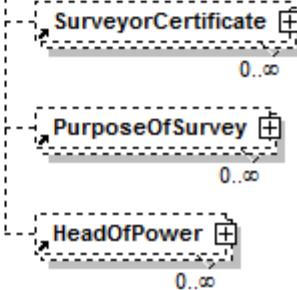
You may also place any valid XML structure inside this tag.

Feature

0..∞

Used to include additional information that is not explicitly defined by the LandXML schema, Feature may contain one or more Property, DocFileRef or nested Feature elements.
NOTE: to allow any valid

content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.



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properties	content complex mixed true																																																																																																																																																																																										
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source	<pre> <xs:element name="SurveyHeader"> <xs:annotation> <xs:documentation>We seemed to have doubled up on the survey purpose here, but the two are quite different - maybe need a different name</xs:documentation> </pre>																																																																																																																																																																																										

```

</xs:annotation>
<xs:complexType mixed="true">
  <xs:choice minOccurs="0" maxOccurs="unbounded">
    <xs:element ref="Annotation" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="AdministrativeArea" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="AdministrativeDate" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="CoordinateSystem" minOccurs="0"/>
    <xs:element ref="Units" minOccurs="0"/>
    <xs:element ref="MapPoint" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="Personnel" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="SurveyorCertificate" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="PurposeOfSurvey" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="HeadOfPower" minOccurs="0" maxOccurs="unbounded"/>
  </xs:choice>
  <xs:attribute name="name" type="xs:string" use="required"/>
  <xs:attribute name="desc" type="xs:string"/>
  <xs:attribute name="purpose" type="purposeType"/>
  <xs:attribute name="startTime" type="xs:dateTime"/>
  <xs:attribute name="endTime" type="xs:dateTime"/>
  <xs:attribute name="surveyor" type="xs:string"/>
  <xs:attribute name="surveyorFirm" type="xs:string"/>
  <xs:attribute name="surveyorReference" type="xs:string"/>
  <xs:attribute name="surveyorRegistration" type="xs:string"/>
  <xs:attribute name="surveyPurpose" type="xs:string"/>
  <xs:attribute name="type" type="surveyType"/>
  <xs:attribute name="class" type="xs:string"/>
  <xs:attribute name="county" type="xs:string"/>
  <xs:attribute name="applyAtmosphericCorrection" type="xs:boolean"/>
  <xs:attribute name="pressure" type="xs:double"/>
  <xs:attribute name="temperature" type="xs:double"/>
  <xs:attribute name="applySeaLevelCorrection" type="xs:boolean"/>
  <xs:attribute name="scaleFactor" type="xs:double"/>
  <xs:attribute name="seaLevelCorrectionFactor" type="xs:double"/>
  <xs:attribute name="combinedFactor" type="xs:double"/>
  <xs:attribute name="jurisdiction" type="jurisdictionType"/>
  <xs:attribute name="submissionDate" type="xs:date"/>
  <xs:attribute name="documentStatus" type="documentStatusType"/>
  <xs:attribute name="surveyFormat" type="surveyFormatType"/>
  <xs:attribute name="surveyStatus" type="surveyStatusType"/>
  <xs:attribute name="communityTitleSchemeNo" type="xs:int"/>
  <xs:attribute name="communityTitleSchemeName" type="xs:string"/>
  <xs:attribute name="fieldNoteFlag" type="xs:boolean"/>
  <xs:attribute name="fieldNoteReference" type="xs:string"/>
  <xs:attribute name="fieldReport" type="xs:string"/>
</xs:complexType>
</xs:element>

```

attribute SurveyHeader/@name

type	<code>xs:string</code>
properties	isRef 0 use required
source	<code><xs:attribute name="name" type="xs:string" use="required"/></code>

attribute SurveyHeader/@desc

type	<code>xs:string</code>
------	------------------------

properties	isRef 0
source	<xs:attribute name="desc" type="xs:string"/>

attribute SurveyHeader/@purpose

type	purposeType
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute SurveyHeader/@startTime

type	xs:dateTime
properties	isRef 0
source	<xs:attribute name="startTime" type="xs:dateTime"/>

attribute SurveyHeader/@endTime

type	xs:dateTime
properties	isRef 0
source	<xs:attribute name="endTime" type="xs:dateTime"/>

attribute SurveyHeader/@surveyor

type	xs:string
properties	isRef 0
source	<xs:attribute name="surveyor" type="xs:string"/>

attribute SurveyHeader/@surveyorFirm

type	xs:string
properties	isRef 0
source	<xs:attribute name="surveyorFirm" type="xs:string"/>

attribute SurveyHeader/@surveyorReference

type	xs:string
properties	isRef 0

source	<code><xs:attribute name="surveyorReference" type="xs:string"/></code>
--------	--

attribute SurveyHeader/@surveyorRegistration

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="surveyorRegistration" type="xs:string"/></code>

attribute SurveyHeader/@surveyPurpose

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="surveyPurpose" type="xs:string"/></code>

attribute SurveyHeader/@type

type	<u>surveyType</u>
properties	isRef 0
facets	enumeration compiled enumeration computed enumeration surveyed
source	<code><xs:attribute name="type" type="surveyType"/></code>

attribute SurveyHeader/@class

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="class" type="xs:string"/></code>

attribute SurveyHeader/@county

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="county" type="xs:string"/></code>

attribute SurveyHeader/@applyAtmosphericCorrection

type	<code>xs:boolean</code>
properties	isRef 0
source	<code><xs:attribute name="applyAtmosphericCorrection" type="xs:boolean"/></code>

attribute SurveyHeader/@pressure

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="pressure" type="xs:double"/></code>

attribute SurveyHeader/@temperature

type	<code>xs:double</code>
------	------------------------

properties	isRef 0
source	<xs:attribute name="temperature" type="xs:double"/>

attribute SurveyHeader/@applySeaLevelCorrection

type	xs:boolean
properties	isRef 0
source	<xs:attribute name="applySeaLevelCorrection" type="xs:boolean"/>

attribute SurveyHeader/@scaleFactor

type	xs:double
properties	isRef 0
source	<xs:attribute name="scaleFactor" type="xs:double"/>

attribute SurveyHeader/@seaLevelCorrectionFactor

type	xs:double
properties	isRef 0
source	<xs:attribute name="seaLevelCorrectionFactor" type="xs:double"/>

attribute SurveyHeader/@combinedFactor

type	xs:double
properties	isRef 0
source	<xs:attribute name="combinedFactor" type="xs:double"/>

attribute SurveyHeader/@jurisdiction

type	<u>jurisdictionType</u>
properties	isRef 0
source	<xs:attribute name="jurisdiction" type="jurisdictionType"/>

attribute SurveyHeader/@submissionDate

type	xs:date
properties	isRef 0
source	<xs:attribute name="submissionDate" type="xs:date"/>

attribute SurveyHeader/@documentStatus

type	<u>documentStatusType</u>
properties	isRef 0
source	<xs:attribute name="documentStatus" type="documentStatusType"/>

attribute SurveyHeader/@surveyFormat

type	<u>surveyFormatType</u>
properties	isRef 0

source	<code><xs:attribute name="surveyFormat" type="surveyFormatType"/></code>
--------	--

attribute SurveyHeader/@surveyStatus

type	<u>surveyStatusType</u>
properties	isRef 0
source	<code><xs:attribute name="surveyStatus" type="surveyStatusType"/></code>

attribute SurveyHeader/@communityTitleSchemeNo

type	<code>xs:int</code>
properties	isRef 0
source	<code><xs:attribute name="communityTitleSchemeNo" type="xs:int"/></code>

attribute SurveyHeader/@communityTitleSchemeName

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="communityTitleSchemeName" type="xs:string"/></code>

attribute SurveyHeader/@fieldNoteFlag

type	<code>xs:boolean</code>
properties	isRef 0
source	<code><xs:attribute name="fieldNoteFlag" type="xs:boolean"/></code>

attribute SurveyHeader/@fieldNoteReference

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="fieldNoteReference" type="xs:string"/></code>

attribute SurveyHeader/@fieldReport

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="fieldReport" type="xs:string"/></code>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>

element **AdministrativeArea**

diagram	<pre> classDiagram class AdministrativeArea { adminAreaType adminAreaName adminAreaCode pclRef } note over AdministrativeArea: This element stores the administrative boundaries for a survey </pre>																														
namespace	http://www.landxml.org/schema/LandXML-1.2																														
properties	content complex																														
used by	elements LocationAddress SurveyHeader																														
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>adminAreaType</td> <td>adminAreaTypeType</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>adminAreaName</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>adminAreaCode</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pclRef</td> <td>parcelNameRefs</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	adminAreaType	adminAreaTypeType	required				adminAreaName	xs:string					adminAreaCode	xs:string					pclRef	parcelNameRefs				
Name	Type	Use	Default	Fixed	annotation																										
adminAreaType	adminAreaTypeType	required																													
adminAreaName	xs:string																														
adminAreaCode	xs:string																														
pclRef	parcelNameRefs																														
annotation	<p>documentation</p> <p>This element stores the administrative boundaries for a survey</p>																														
source	<pre> <xs:element name="AdministrativeArea"> <xs:annotation> <xs:documentation>This element stores the administrative boundaries for a survey</xs:documentation> </xs:annotation> <xs:complexType> <xs:attribute name="adminAreaType" type="adminAreaTypeType" use="required"/> <xs:attribute name="adminAreaName" type="xs:string"/> <xs:attribute name="adminAreaCode" type="xs:string"/> <xs:attribute name="pclRef" type="parcelNameRefs"/> </xs:complexType> </xs:element> </pre>																														

attribute **AdministrativeArea/@adminAreaType**

type	adminAreaTypeType
properties	isRef 0 use required
source	<pre> <xs:attribute name="adminAreaType" type="adminAreaTypeType" use="required"/> </pre>

attribute **AdministrativeArea/@adminAreaName**

type	xs:string
properties	isRef 0
source	<pre> <xs:attribute name="adminAreaName" type="xs:string"/> </pre>

attribute **AdministrativeArea/@adminAreaCode**

type	xs:string
properties	isRef 0
source	<pre> <xs:attribute name="adminAreaCode" type="xs:string"/> </pre>

attribute `AdministrativeArea/@pclRef`

type	parcelNameRefs
properties	isRef 0
source	<code><xs:attribute name="pclRef" type="parcelNameRefs"/></code>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>

element **AdministrativeDate**

diagram	<pre> graph LR AD[AdministrativeDate] --> AD_desc[This element stores a range of Administrative dates which may vary from jurisdiction to jurisdiction.] AD --> attributes[attributes] attributes --> adminDateType[adminDateType] attributes --> adminDate[adminDate] </pre>																		
namespace	http://www.landxml.org/schema/LandXML-1.2																		
properties	content complex																		
used by	element <u>SurveyHeader</u>																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>adminDateType</td> <td>adminDateTypeType</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>adminDate</td> <td>xs:date</td> <td>required</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	adminDateType	adminDateTypeType	required				adminDate	xs:date	required			
Name	Type	Use	Default	Fixed	annotation														
adminDateType	adminDateTypeType	required																	
adminDate	xs:date	required																	
annotation	<p>documentation</p> <p>This element stores a range of Administrative dates which may vary from jurisdiction to jurisdiction.</p>																		
source	<pre> <xs:element name="AdministrativeDate"> <xs:annotation> <xs:documentation>This element stores a range of Administrative dates which may vary from jurisdiction to jurisdiction.</xs:documentation> </xs:annotation> <xs:complexType> <xs:attribute name="adminDateType" type="adminDateTypeType" use="required"/> <xs:attribute name="adminDate" type="xs:date" use="required"/> </xs:complexType> </xs:element> </pre>																		

attribute **AdministrativeDate/@adminDateType**

type	adminDateTypeType
properties	isRef 0 use required
source	<pre> <xs:attribute name="adminDateType" type="adminDateTypeType" use="required"/> </pre>

attribute **AdministrativeDate/@adminDate**

type	xs:date
properties	isRef 0 use required
source	<pre> <xs:attribute name="adminDate" type="xs:date" use="required"/> </pre>

element Units

diagram	<pre> classDiagram class Units class Metric class Imperial Units "1" -- "*" Metric Units "1" -- "*" Imperial </pre> <p>All angular and direction values default to radians unless otherwise noted. Angular values, expressed in the specified Units.angleUnit are measured counter-clockwise from east=0. Horizontal directions, expressed in the specified Units.directionUnit are measured counter-clockwise from 0 degrees = north</p>
namespace	http://www.landxml.org/schema/LandXML-1.2
properties	content complex
children	Metric Imperial
used by	elements LandXML Pipes Structs SurveyHeader
annotation	<p>documentation</p> <p>All angular and direction values default to radians unless otherwise noted. Angular values, expressed in the specified Units.angleUnit are measured counter-clockwise from east=0. Horizontal directions, expressed in the specified Units.directionUnit are measured counter-clockwise from 0 degrees = north</p>
source	<pre> <xs:element name="Units"> <xs:annotation> <xs:documentation>All angular and direction values default to radians unless otherwise noted. Angular values, expressed in the specified Units.angleUnit are measured counter-clockwise from east=0. Horizontal directions, expressed in the specified Units.directionUnit are measured counter-clockwise from 0 degrees = north</xs:documentation> </xs:annotation> <xs:complexType> <xs:choice> <xs:element ref="Metric"/> <xs:element ref="Imperial"/> </xs:choice> </xs:complexType> </xs:element> </pre>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element Annotation

diagram	<p>Annotation is a descriptive string use to describe an action on survey</p>																														
namespace	http://www.landxml.org/schema/LandXML-1.2																														
properties	content complex																														
used by	element SurveyHeader																														
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>annotationType</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>name</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>desc</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pclRef</td> <td>parcelNameRefs</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	type	annotationType	required				name	xs:string					desc	xs:string					pclRef	parcelNameRefs				
Name	Type	Use	Default	Fixed	annotation																										
type	annotationType	required																													
name	xs:string																														
desc	xs:string																														
pclRef	parcelNameRefs																														
annotation	<p>documentation</p> <p>Annotation is a descriptive string use to describe an action on survey</p>																														
source	<pre><xs:element name="Annotation"> <xs:annotation> <xs:documentation>Annotation is a descriptive string use to describe an action on survey</xs:documentation> </xs:annotation> <xs:complexType> <xs:attribute name="type" type="annotationType" use="required"/> <xs:attribute name="name" type="xs:string"/> <xs:attribute name="desc" type="xs:string"/> <xs:attribute name="pclRef" type="parcelNameRefs"/> </xs:complexType> </xs:element></pre>																														

attribute Annotation/@type

type	annotationType
properties	isRef 0 use required
source	<pre><xs:attribute name="type" type="annotationType" use="required"/></pre>

attribute Annotation/@name

type	xs:string
properties	isRef 0
source	<pre><xs:attribute name="name" type="xs:string"/></pre>

attribute Annotation/@desc

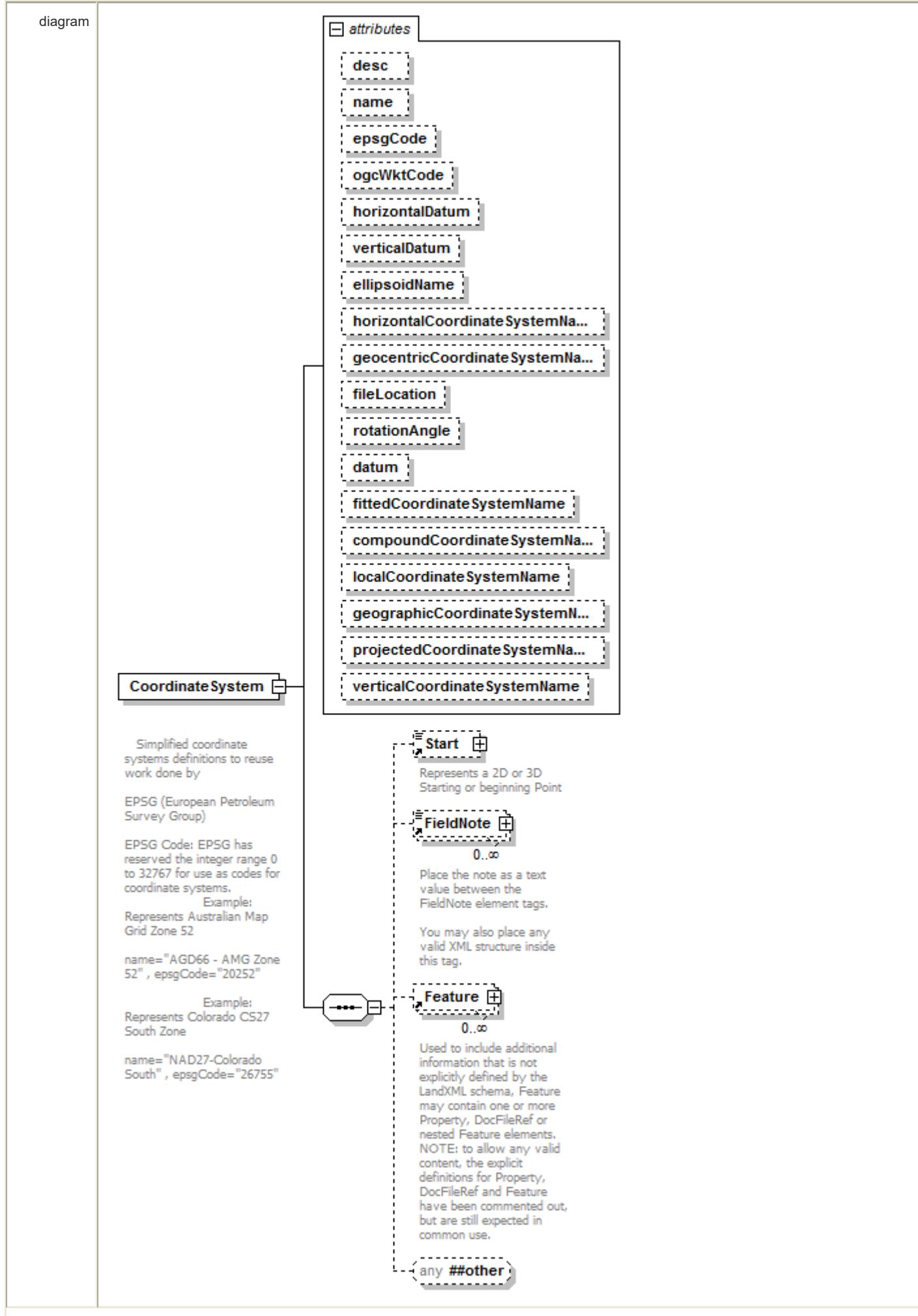
type	xs:string
properties	isRef 0
source	<pre><xs:attribute name="desc" type="xs:string"/></pre>

attribute Annotation/@pclRef

type	parcelNameRefs
properties	isRef 0
source	<code><xs:attribute name="pclRef" type="parcelNameRefs"/></code>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>

element CoordinateSystem



namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	Start FieldNote Feature					
used by	elements LandXML SurveyHeader					
attributes	Name desc name epsgCode ogcWktCode horizontalDatum verticalDatum ellipsoidName horizontalCoordinateSystemName geocentricCoordinateSystemName fileLocation rotationAngle datum fittedCoordinateSystemName compoundCoordinateSystemName localCoordinateSystemName geographicCoordinateSystemName projectedCoordinateSystemName verticalCoordinateSystemName	Type xs:string xs:string xs:string xs:string xs:string xs:string xs:string xs:string xs:string angle xs:string xs:string xs:string xs:string xs:string xs:string xs:string	Use	Default	Fixed	annotation
annotation	<p>documentation</p> <p>Simplified coordinate systems definitions to reuse work done by EPSG (European Petroleum Survey Group)</p> <p>EPSG Code: EPSG has reserved the integer range 0 to 32767 for use as codes for coordinate systems.</p> <p>Example: Represents Australian Map Grid Zone 52 name="AGD66 - AMG Zone 52" , epsgCode="20252"</p> <p>Example: Represents Colorado CS27 South Zone name="NAD27-Colorado South" , epsgCode="26755"</p>					
source	<pre><xs:element name="CoordinateSystem"> <xs:annotation> <xs:documentation> Simplified coordinate systems definitions to reuse work done by EPSG (European Petroleum Survey Group) EPSG Code: EPSG has reserved the integer range 0 to 32767 for use as codes for coordinate systems. Example: Represents Australian Map Grid Zone 52 name="AGD66 - AMG Zone 52" , epsgCode="20252" Example: Represents Colorado CS27 South Zone name="NAD27-Colorado South" , epsgCode="26755" </xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="Start" minOccurs="0"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> <xs:any namespace="##other" processContents="skip" minOccurs="0"/> </xs:sequence> <xs:attribute name="desc" type="xs:string"/> <xs:attribute name="name" type="xs:string"/> <xs:attribute name="epsgCode" type="xs:string"/> <xs:attribute name="ogcWktCode" type="xs:string"/> </xs:complexType> </xs:element></pre>					

```

<xs:attribute name="horizontalDatum" type="xs:string"/>
<xs:attribute name="verticalDatum" type="xs:string"/>
<xs:attribute name="ellipsoidName" type="xs:string"/>
<xs:attribute name="horizontalCoordinateSystemName" type="xs:string"/>
<xs:attribute name="geocentricCoordinateSystemName" type="xs:string"/>
<xs:attribute name="fileLocation" type="xs:anyURI"/>
<xs:attribute name="rotationAngle" type="angle"/>
<xs:attribute name="datum" type="xs:string"/>
<xs:attribute name="fittedCoordinateSystemName" type="xs:string"/>
<xs:attribute name="compoundCoordinateSystemName" type="xs:string"/>
<xs:attribute name="localCoordinateSystemName" type="xs:string"/>
<xs:attribute name="geographicCoordinateSystemName" type="xs:string"/>
<xs:attribute name="projectedCoordinateSystemName" type="xs:string"/>
<xs:attribute name="verticalCoordinateSystemName" type="xs:string"/>
<!-- The attributes below are provided for backward compatibility only and should no longer be used. --
->
</xs:complexType>
</xs:element>

```

attribute **CoordinateSystem/@desc**

type	xs:string
properties	isRef 0
source	<xs:attribute name="desc" type="xs:string"/>

attribute **CoordinateSystem/@name**

type	xs:string
properties	isRef 0
source	<xs:attribute name="name" type="xs:string"/>

attribute **CoordinateSystem/@epsgCode**

type	xs:string
properties	isRef 0
source	<xs:attribute name="epsgCode" type="xs:string"/>

attribute **CoordinateSystem/@ogcWktCode**

type	xs:string
properties	isRef 0
source	<xs:attribute name="ogcWktCode" type="xs:string"/>

attribute **CoordinateSystem/@horizontalDatum**

type	xs:string
properties	isRef 0
source	<xs:attribute name="horizontalDatum" type="xs:string"/>

attribute **CoordinateSystem/@verticalDatum**

type	xs:string
properties	isRef 0

source	<code><xs:attribute name="verticalDatum" type="xs:string"/></code>
--------	--

attribute CoordinateSystem/@ellipsoidName

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="ellipsoidName" type="xs:string"/></code>

attribute CoordinateSystem/@horizontalCoordinateSystemName

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="horizontalCoordinateSystemName" type="xs:string"/></code>

attribute CoordinateSystem/@geocentricCoordinateSystemName

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="geocentricCoordinateSystemName" type="xs:string"/></code>

attribute CoordinateSystem/@fileLocation

type	<code>xs:anyURI</code>
properties	isRef 0
source	<code><xs:attribute name="fileLocation" type="xs:anyURI"/></code>

attribute CoordinateSystem/@rotationAngle

type	<code>angle</code>
properties	isRef 0
source	<code><xs:attribute name="rotationAngle" type="angle"/></code>

attribute CoordinateSystem/@datum

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="datum" type="xs:string"/></code>

attribute CoordinateSystem/@fittedCoordinateSystemName

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="fittedCoordinateSystemName" type="xs:string"/></code>

attribute CoordinateSystem/@compoundCoordinateSystemName

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="compoundCoordinateSystemName" type="xs:string"/></code>

attribute CoordinateSystem/@localCoordinateSystemName

type	xs:string
properties	isRef 0
source	<xs:attribute name="localCoordinateSystemName" type="xs:string"/>

attribute CoordinateSystem/@geographicCoordinateSystemName

type	xs:string
properties	isRef 0
source	<xs:attribute name="geographicCoordinateSystemName" type="xs:string"/>

attribute CoordinateSystem/@projectedCoordinateSystemName

type	xs:string
properties	isRef 0
source	<xs:attribute name="projectedCoordinateSystemName" type="xs:string"/>

attribute CoordinateSystem/@verticalCoordinateSystemName

type	xs:string
properties	isRef 0
source	<xs:attribute name="verticalCoordinateSystemName" type="xs:string"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element Feature

diagram	<pre> classDiagram class Feature { name code source } Feature "0..∞" *-- "0..∞" Property Feature "0..∞" *-- "0..∞" DocFileRef Feature "0..∞" *-- "0..∞" Feature </pre> <p>Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.</p> <p>Used to include additional information that is not explicitly defined by the LandXML schema. Each Property element defines one piece of data.</p> <p>A reference to any external document file containing related information for the associated element.</p> <p>Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.</p>												
namespace	http://www.landxml.org/schema/LandXML-1.2												
properties	content complex												
children	Property DocFileRef Feature												
used by	elements Alignment Alignments Backsight BikeFacilities Boundaries Boundary Breakline Breaklines BridgeElement Cant CgPoints Channel CircPipe CircStruct Classification ClimbLane Connection Contour Contours ControlChecks CoordGeom CoordinateSystem Corner Corrections CrashData CrashHistory CrossSect CrossSects CrossSectSurf Curb Curve DailyTrafficVolume DataPoints DecisionSightDistance Definition DesignCrossSectSurf DesignHour DesignSpeed DesignSpeed85th Ditch DrivewayDensity EggPipe EllipticalPipe Equipment Faces Feature GPSAntennaDetails GPSPosition GPSReceiverDetails GPSSetup GPSVector GradeModel GradeSurface HazardRating InletStruct InstrumentDetails InstrumentSetup Intersection Intersections IrregularLine Lanes LaserDetails LaserSetup Line Monuments NoPassingZone ObservationGroup ObstructionOffset OffsetLane OutletStruct Parcel Parcels PassingLane PeakHour Pipe PipeFlow PipeNetwork Pipes PlanFeature PlanFeatures PointFiles PointResults PostedSpeed ProfAlign Profile ProfSurf Project RectPipe RectStruct RedHorizontalPosition ReducedArcObservation ReducedObservation RedVerticalObservation RetWall Roadside RoadSign Roadway Roadways SourceData Speeds Spiral StaEquation Struct StructFlow Structs Superelevation Surface Surfaces SurfVolume SurfVolumes Survey SurveyHeader SurveyMonument TargetSetup ThruLane Timing TrafficControl TrafficVolume TurnLane TurnRestriction TurnSpeed TwoWayLeftTurnLane Volume Watershed Watersheds WideningLane Zone ZoneCrossSectStructure ZoneCutFill ZoneHinge ZoneMaterial Zones ZoneSlope ZoneWidth												
complexType	RawObservationType												
attributes	<table border="1"> <thead> <tr> <th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr> </thead> <tbody> <tr> <td>name</td><td>xs:string</td><td>optional</td><td></td><td></td><td></td></tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	name	xs:string	optional			
Name	Type	Use	Default	Fixed	annotation								
name	xs:string	optional											

	<p><u>code</u> xs:string <u>source</u> optional</p>
annotation	<p>documentation Used to include additional information that is not explicitly defined by the LandXML schema, Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.</p> <p>documentation Each Property element defines one piece of data.</p>
source	<pre><xs:element name="Feature"> <xs:annotation> <xs:documentation>Used to include additional information that is not explicitly defined by the LandXML schema, Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.</xs:documentation> <xs:documentation>Each Property element defines one piece of data.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="Property" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="DocFileRef" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> <!-- <xs:any namespace="##any" processContents="skip" minOccurs="0" maxOccurs="unbounded"/> --> </xs:sequence> <xs:attribute name="name" type="xs:string" use="optional"/> <xs:attribute name="code" type="xs:string"/> <xs:attribute name="source" use="optional"/> </xs:complexType> </xs:element></pre>

attribute Feature/@name

type	xs:string
properties	isRef 0 use optional
source	<xs:attribute name="name" type="xs:string" use="optional"/>

attribute Feature/@code

type	xs:string
properties	isRef 0
source	<xs:attribute name="code" type="xs:string"/>

attribute Feature/@source

properties	isRef 0 use optional
source	<xs:attribute name="source" use="optional"/>

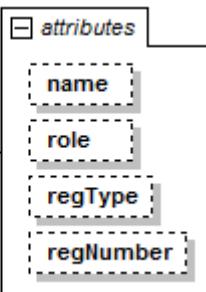
element **MapPoint**

diagram	<pre> classDiagram class PointType { name desc code state pntRef featureRef pointGeometry DTMAtribute timeStamp role determinedTimeStamp ellipsoidHeight latitude longitude zone northingStdError eastingStdError elevationStdError } class MapPoint { < -- PointType } Note over MapPoint: Represents a 2D or 3D Point location for general Survey location </pre>																																																																								
namespace	http://www.landxml.org/schema/LandXML-1.2																																																																								
type	PointType																																																																								
properties	content complex mixed true																																																																								
used by	element SurveyHeader																																																																								
facets	minLength 0 maxLength 3																																																																								
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>name</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>desc</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>code</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>state</td> <td>stateType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pntRef</td> <td>pointNameRef</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>featureRef</td> <td>featureNameRef</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>pointGeometry</td> <td>pointGeometryType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DTMAtribute</td> <td>DTMAtributeType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>timeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>role</td> <td>surveyRoleType</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>determinedTimeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	name	xs:string					desc	xs:string					code	xs:string					state	stateType					pntRef	pointNameRef					featureRef	featureNameRef	optional				pointGeometry	pointGeometryType					DTMAtribute	DTMAtributeType					timeStamp	xs:dateTime	optional				role	surveyRoleType	optional				determinedTimeStamp	xs:dateTime	optional			
Name	Type	Use	Default	Fixed	annotation																																																																				
name	xs:string																																																																								
desc	xs:string																																																																								
code	xs:string																																																																								
state	stateType																																																																								
pntRef	pointNameRef																																																																								
featureRef	featureNameRef	optional																																																																							
pointGeometry	pointGeometryType																																																																								
DTMAtribute	DTMAtributeType																																																																								
timeStamp	xs:dateTime	optional																																																																							
role	surveyRoleType	optional																																																																							
determinedTimeStamp	xs:dateTime	optional																																																																							

	<u>ellipsoidHeight</u>	ellipsoidHeightType optional
	<u>latitude</u>	latLongAngle optional
	<u>longitude</u>	latLongAngle optional
	<u>zone</u>	xs:string optional
	<u>northingStdError</u>	xs:double optional
	<u>eastingStdError</u>	xs:double optional
	<u>elevationStdError</u>	xs:double optional
annotation	<p>documentation Represents a 2D or 3D Point location for general Survey location documentation Defined by either a coordinate text value ("north east" or "north east elev") or a PointType number reference "pntRef" attribute.</p>	
source	<pre><xs:element name="MapPoint" type="PointType"> <xs:annotation> <xs:documentation>Represents a 2D or 3D Point location for general Survey location</xs:documentation> <xs:documentation>Defined by either a coordinate text value ("north east" or "north east elev") or a PointType number reference "pntRef" attribute.</xs:documentation> </xs:annotation> </xs:element></pre>	

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>.

element Personnel

diagram																															
namespace	http://www.landxml.org/schema/LandXML-1.2																														
properties	content complex																														
used by	element SurveyHeader																														
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>name</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>role</td> <td>surveyorRoleType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>regType</td> <td>registrationType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>regNumber</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	name	xs:string					role	surveyorRoleType					regType	registrationType					regNumber	xs:string				
Name	Type	Use	Default	Fixed	annotation																										
name	xs:string																														
role	surveyorRoleType																														
regType	registrationType																														
regNumber	xs:string																														
source	<pre><xs:element name="Personnel"> <xs:complexType> <xs:attribute name="name" type="xs:string"/> <xs:attribute name="role" type="surveyorRoleType"/> <xs:attribute name="regType" type="registrationType"/> <xs:attribute name="regNumber" type="xs:string"/> </xs:complexType> </xs:element></pre>																														

attribute Personnel/@name

type	xs:string
properties	isRef 0
source	<xs:attribute name="name" type="xs:string"/>

attribute Personnel/@role

type	surveyorRoleType
properties	isRef 0
source	<xs:attribute name="role" type="surveyorRoleType"/>

attribute Personnel/@regType

type	registrationType
properties	isRef 0
source	<xs:attribute name="regType" type="registrationType"/>

attribute Personnel/@regNumber

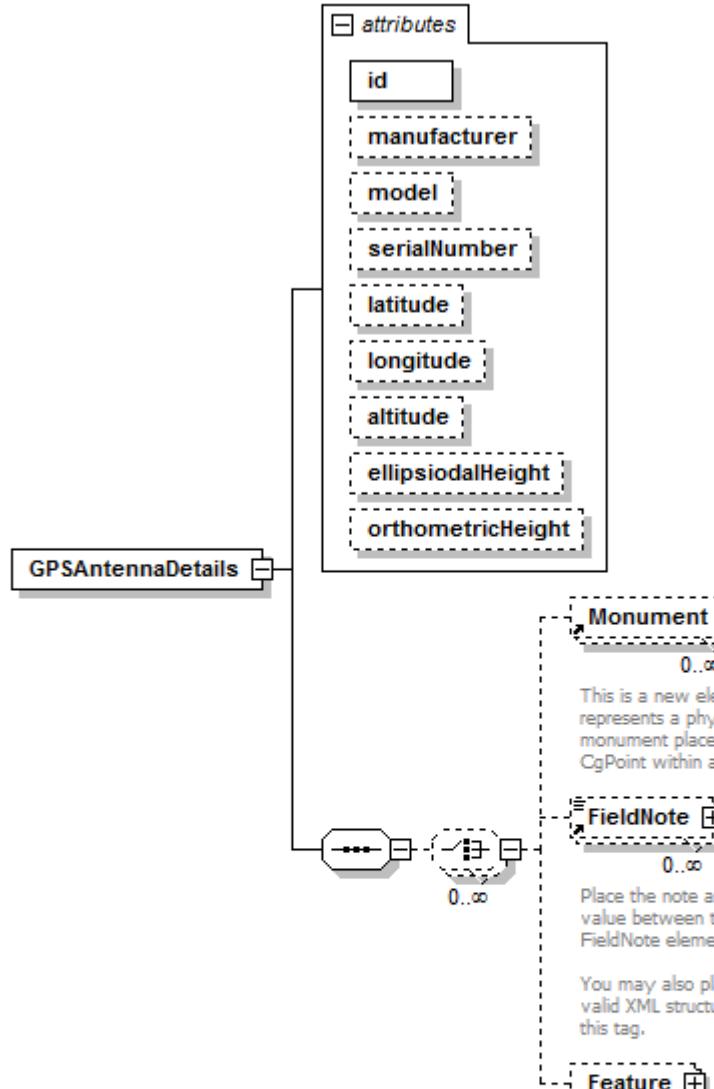
type	xs:string
properties	isRef 0
source	<xs:attribute name="regNumber" type="xs:string"/>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

element Equipment

diagram	<p>InstrumentDetails</p> <p>LaserDetails</p> <p>GPSReceiverDetails</p> <p>GPSAntennaDetails</p> <p>FieldNote</p> <p>Feature</p> <p>Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.</p> <p>Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.</p>
namespace	http://www.landxml.org/schema/LandXML-1.2
properties	content complex
children	InstrumentDetails LaserDetails GPSReceiverDetails GPSAntennaDetails FieldNote Feature
used by	element Survey .
source	<pre> <xs:element name="Equipment"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice> <xs:element ref="InstrumentDetails"/> <xs:element ref="LaserDetails"/> <xs:element ref="GPSReceiverDetails"/> <xs:element ref="GPSAntennaDetails"/> </xs:choice> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> </xs:complexType> </xs:element></pre>

element **GPSAntennaDetails**

diagram	 <p>The diagram illustrates the structure of the GPSAntennaDetails element. It contains the following attributes:</p> <ul style="list-style-type: none"> id manufacturer model serialNumber latitude longitude altitude ellipsoidalHeight orthometricHeight <p>Associations:</p> <ul style="list-style-type: none"> Monument: Multiplicity 0..∞. Description: This is a new element that represents a physical monument placed to mark a CgPoint within a survey. FieldNote: Multiplicity 0..∞. Description: Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag. Feature: Multiplicity 0..∞. Description: Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use. 																																																
namespace	http://www.landxml.org/schema/LandXML-1.2																																																
properties	content complex																																																
children	Monument FieldNote Feature																																																
used by	element Equipment																																																
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>id</td> <td>xs:ID</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>manufacturer</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>model</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>serialNumber</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>latitude</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>longitude</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>altitude</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	id	xs:ID	required				manufacturer	xs:string					model	xs:string					serialNumber	xs:string					latitude	xs:double					longitude	xs:double					altitude	xs:double				
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longitude	xs:double																																																
altitude	xs:double																																																

	<u>ellipsoidalHeight</u> xs:double <u>orthometricHeight</u> xs:double
source	<pre><xs:element name="GPSAntennaDetails"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="Monument" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="manufacturer" type="xs:string"/> <xs:attribute name="model" type="xs:string"/> <xs:attribute name="serialNumber" type="xs:string"/> <xs:attribute name="latitude" type="xs:double"/> <xs:attribute name="longitude" type="xs:double"/> <xs:attribute name="altitude" type="xs:double"/> <xs:attribute name="ellipsoidalHeight" type="xs:double"/> <xs:attribute name="orthometricHeight" type="xs:double"/> </xs:complexType> </xs:element></pre>

attribute GPSAntennaDetails/@id

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute GPSAntennaDetails/@manufacturer

type	xs:string
properties	isRef 0
source	<xs:attribute name="manufacturer" type="xs:string"/>

attribute GPSAntennaDetails/@model

type	xs:string
properties	isRef 0
source	<xs:attribute name="model" type="xs:string"/>

attribute GPSAntennaDetails/@serialNumber

type	xs:string
properties	isRef 0
source	<xs:attribute name="serialNumber" type="xs:string"/>

attribute GPSAntennaDetails/@latitude

type	xs:double
------	-----------

properties	isRef 0
source	<xs:attribute name="latitude" type="xs:double"/>

attribute GPSAntennaDetails/@longitude

type	xs:double
properties	isRef 0
source	<xs:attribute name="longitude" type="xs:double"/>

attribute GPSAntennaDetails/@altitude

type	xs:double
properties	isRef 0
source	<xs:attribute name="altitude" type="xs:double"/>

attribute GPSAntennaDetails/@ellipsoidalHeight

type	xs:double
properties	isRef 0
source	<xs:attribute name="ellipsoidalHeight" type="xs:double"/>

attribute GPSAntennaDetails/@orthometricHeight

type	xs:double
properties	isRef 0
source	<xs:attribute name="orthometricHeight" type="xs:double"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element **Monument**

diagram	<pre> graph LR Monument[Monument] --- attributes[attributes] attributes --- name attributes --- pntRef attributes --- featureRef attributes --- desc attributes --- state attributes --- type attributes --- condition attributes --- category attributes --- beacon attributes --- beaconProtection attributes --- oID attributes --- reference attributes --- originSurvey </pre> <p>This is a new element that represents a physical monument placed to mark a CgPoint within a survey</p>																																																																																				
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```

<xs:attribute name="condition" type="monumentCondition"/>
<xs:attribute name="category" type="monumentCategory"/>
<xs:attribute name="beacon" type="beaconType"/>
<xs:attribute name="beaconProtection" type="beaconProtectionType"/>
<xs:attribute name="oID" type="xs:string"/>
<xs:attribute name="reference" type="xs:string"/>
<xs:attribute name="originSurvey" type="xs:string"/>
</xs:complexType>
</xs:element>

```

attribute **Monument/@name**

type	xs:string
properties	isRef 0 use required
source	<xs:attribute name="name" type="xs:string" use="required"/>

attribute **Monument/@pntRef**

type	pointNameRef
properties	isRef 0
source	<xs:attribute name="pntRef" type="pointNameRef"/>

attribute **Monument/@featureRef**

type	featureNameRef
properties	isRef 0 use optional
source	<xs:attribute name="featureRef" type="featureNameRef" use="optional"/>

attribute **Monument/@desc**

type	xs:string
properties	isRef 0
source	<xs:attribute name="desc" type="xs:string"/>

attribute **Monument/@state**

type	monumentState
properties	isRef 0
source	<xs:attribute name="state" type="monumentState"/>

attribute **Monument/@type**

type	monumentType
properties	isRef 0
source	<xs:attribute name="type" type="monumentType"/>

attribute **Monument/@condition**

type	monumentCondition
properties	isRef 0

source	<code><xs:attribute name="condition" type="monumentCondition"/></code>
--------	--

attribute Monument/@category

type	<u>monumentCategory</u>
properties	isRef 0
facets	enumeration benchmark enumeration central enumeration reference enumeration rural enumeration standard traverse enumeration urban standard traverse
source	<code><xs:attribute name="category" type="monumentCategory"/></code>

attribute Monument/@beacon

type	<u>beaconType</u>
properties	isRef 0
facets	enumeration cairn enumeration chimney enumeration large quadripod enumeration lighthouse enumeration marine beacon enumeration mast enumeration mast with targets enumeration no beacon enumeration other enumeration pillar enumeration post enumeration small quadripod enumeration tower enumeration tripod enumeration unknown
source	<code><xs:attribute name="beacon" type="beaconType"/></code>

attribute Monument/@beaconProtection

type	<u>beaconProtectionType</u>
properties	isRef 0
facets	enumeration cover enumeration cover and box enumeration fence enclosure enumeration marker post enumeration no protection enumeration other enumeration quadripod enumeration unknown
source	<code><xs:attribute name="beaconProtection" type="beaconProtectionType"/></code>

attribute Monument/@oID

type	<u>xs:string</u>
properties	isRef 0

source	<code><xs:attribute name="oID" type="xs:string"/></code>
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attribute Monument/@reference

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="reference" type="xs:string"/></code>

attribute Monument/@originSurvey

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="originSurvey" type="xs:string"/></code>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

element **GPSReceiverDetails**

diagram	<pre> classDiagram class GPSReceiverDetails { id manufacturer model serialNumber } class FieldNote class Feature GPSReceiverDetails "0..∞" *-- "0..∞" FieldNote GPSReceiverDetails "0..∞" *-- "0..∞" Feature </pre>																														
namespace	http://www.landxml.org/schema/LandXML-1.2																														
properties	content complex																														
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source	<pre> <xs:element name="GPSReceiverDetails"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="manufacturer" type="xs:string"/> <xs:attribute name="model" type="xs:string"/> <xs:attribute name="serialNumber" type="xs:string"/> </xs:complexType> </xs:element> </pre>
--------	---

attribute GPSReceiverDetails/@id

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute GPSReceiverDetails/@manufacturer

type	xs:string
properties	isRef 0
source	<xs:attribute name="manufacturer" type="xs:string"/>

attribute GPSReceiverDetails/@model

type	xs:string
properties	isRef 0
source	<xs:attribute name="model" type="xs:string"/>

attribute GPSReceiverDetails/@serialNumber

type	xs:string
properties	isRef 0
source	<xs:attribute name="serialNumber" type="xs:string"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element **InstrumentDetails**

diagram	<pre> graph TD ID[id] --- EDMConstant[edmAccuracyConstant] ID --- EDMPPM[edmAccuracyppm] ID --- EDMVertOffset[edmVertOffset] ID --- HorizAnglePrecision[horizAnglePrecision] ID --- Manufacturer[manufacturer] ID --- Model[model] ID --- SerialNumber[serialNumber] ID --- ZenithAnglePrecision[zenithAnglePrecision] ID --- CarrierWavelength[carrierWavelength] ID --- RefractiveIndex[refractiveIndex] ID --- HorizCollimation[horizCollimation] ID --- VertCollimation[vertCollimation] ID --- StadiaFactor[stadiaFactor] ID --- Corrections[Corrections] ID --- FieldNote[FieldNote] ID --- Feature[Feature] Corrections --- Ellipsis[...] Corrections --- FieldNote Corrections --- Feature </pre> <p>The diagram illustrates the structure of the InstrumentDetails element. It contains a list of attributes (id, edmAccuracyConstant, edmAccuracyppm, edmVertOffset, horizAnglePrecision, manufacturer, model, serialNumber, zenithAnglePrecision, carrierWavelength, refractiveIndex, horizCollimation, vertCollimation, stadiaFactor) and three child elements: Corrections, FieldNote, and Feature. The Corrections element has a multiplicity of 0..∞. The FieldNote element is shown with a note: "Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag." The Feature element also has a multiplicity of 0..∞ and includes a detailed note: "Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use."</p>																								
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	<u>edmVertOffset</u> xs:double <u>horizAnglePrecision</u> xs:double <u>manufacturer</u> xs:string <u>model</u> xs:string <u>serialNumber</u> xs:string <u>zenithAnglePrecision</u> xs:double <u>carrierWavelength</u> xs:double <u>refractiveIndex</u> xs:double <u>horizCollimation</u> xs:double <u>vertCollimation</u> xs:double <u>stadiaFactor</u> xs:double
source	<pre> <xs:element name="InstrumentDetails"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="Corrections"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="edmAccuracyConstant" type="xs:double"/> <xs:attribute name="edmAccuracyppm" type="xs:double"/> <xs:attribute name="edmVertOffset" type="xs:double"/> <xs:attribute name="horizAnglePrecision" type="xs:double"/> <xs:attribute name="manufacturer" type="xs:string"/> <xs:attribute name="model" type="xs:string"/> <xs:attribute name="serialNumber" type="xs:string"/> <xs:attribute name="zenithAnglePrecision" type="xs:double"/> <xs:attribute name="carrierWavelength" type="xs:double"/> <xs:attribute name="refractiveIndex" type="xs:double"/> <xs:attribute name="horizCollimation" type="xs:double"/> <xs:attribute name="vertCollimation" type="xs:double"/> <xs:attribute name="stadiaFactor" type="xs:double"/> <!-- In order to compute the atmospheric corrections correctly record the EDM instrument carrier wavelength (carrierWavelength) and the group refractive index for the instrument (refractiveIndex). --> <!-- To allow for older style top mounted EDM's --> </xs:complexType> </xs:element></pre>

attribute **InstrumentDetails/@id**

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute **InstrumentDetails/@edmAccuracyConstant**

type	xs:double
properties	isRef 0
source	<xs:attribute name="edmAccuracyConstant" type="xs:double"/>

attribute `InstrumentDetails/@edmAccuracyppm`

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="edmAccuracyppm" type="xs:double"/></code>

attribute `InstrumentDetails/@edmVertOffset`

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="edmVertOffset" type="xs:double"/></code>

attribute `InstrumentDetails/@horizAnglePrecision`

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="horizAnglePrecision" type="xs:double"/></code>

attribute `InstrumentDetails/@manufacturer`

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="manufacturer" type="xs:string"/></code>

attribute `InstrumentDetails/@model`

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="model" type="xs:string"/></code>

attribute `InstrumentDetails/@serialNumber`

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="serialNumber" type="xs:string"/></code>

attribute `InstrumentDetails/@zenithAnglePrecision`

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="zenithAnglePrecision" type="xs:double"/></code>

attribute `InstrumentDetails/@carrierWavelength`

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="carrierWavelength" type="xs:double"/></code>

attribute `InstrumentDetails/@refractiveIndex`

type	<code>xs:double</code>
------	------------------------

properties	isRef 0
source	<xs:attribute name="refractiveIndex" type="xs:double"/>

attribute InstrumentDetails/@horizCollimation

type	xs:double
properties	isRef 0
source	<xs:attribute name="horizCollimation" type="xs:double"/>

attribute InstrumentDetails/@vertCollimation

type	xs:double
properties	isRef 0
source	<xs:attribute name="vertCollimation" type="xs:double"/>

attribute InstrumentDetails/@stadiaFactor

type	xs:double
properties	isRef 0
source	<xs:attribute name="stadiaFactor" type="xs:double"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>

element Corrections

diagram	<pre> classDiagram class Corrections { attribute refractionCoefficient : xs:double attribute applyRefractionCoefficient : xs:boolean attribute sphericity : xs:double attribute prismEccentricity : xs:double } class FieldNote class Feature Corrections "0..infinity" --> FieldNote Corrections "0..infinity" --> Feature </pre>																														
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source	<pre> <xs:element name="Corrections"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="refractionCoefficient" type="xs:double"/> <xs:attribute name="applyRefractionCoefficient" type="xs:boolean"/> <xs:attribute name="sphericity" type="xs:double"/> <xs:attribute name="prismEccentricity" type="xs:double"/> <!-- if 'true' then atmospheric corrections are to be applied to the measured distances read from the file --> </pre>																														

```

<!-- if 'true' then sea level corrections are to be applied to the measured distances read from the file --
>
<!-- this is for recording the refraction coefficient used in the curvature and refraction correction of
zenith angles -->
<!-- if 'true' then RefractionCoefficient should be applied to the measured zenith angles read from the
file -->
</xs:complexType>
</xs:element>

```

attribute Corrections/@refractionCoefficient

type	xs:double
properties	isRef 0
source	<xs:attribute name="refractionCoefficient" type="xs:double"/>

attribute Corrections/@applyRefractionCoefficient

type	xs:boolean
properties	isRef 0
source	<xs:attribute name="applyRefractionCoefficient" type="xs:boolean"/>

attribute Corrections/@sphericity

type	xs:double
properties	isRef 0
source	<xs:attribute name="sphericity" type="xs:double"/>

attribute Corrections/@prismEccentricity

type	xs:double
properties	isRef 0
source	<xs:attribute name="prismEccentricity" type="xs:double"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element **LaserDetails**

diagram	<p>The diagram illustrates the structure of the LaserDetails element. It features a central class box labeled LaserDetails. Inside the class box, there is a compartment labeled attributes containing five attributes: id, laserVertOffset, manufacturer, model, and serialNumber. Below the class box, there are two association lines. One line connects to a dashed box labeled FieldNote with a multiplicity of 0..∞. A callout box provides instructions: "Place the note as a text value between the FieldNote element tags." Another line connects to a dashed box labeled Feature with a multiplicity of 0..∞. A callout box for Feature states: "Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use."</p>																																				
namespace	http://www.landxml.org/schema/LandXML-1.2																																				
properties	content complex																																				
children	FieldNote Feature																																				
used by	element Equipment																																				
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>id</td> <td>xs:ID</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>laserVertOffset</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>manufacturer</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>model</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>serialNumber</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	id	xs:ID	required				laserVertOffset	xs:double					manufacturer	xs:string					model	xs:string					serialNumber	xs:string				
Name	Type	Use	Default	Fixed	annotation																																
id	xs:ID	required																																			
laserVertOffset	xs:double																																				
manufacturer	xs:string																																				
model	xs:string																																				
serialNumber	xs:string																																				
source	<pre> <xs:element name="LaserDetails"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="laserVertOffset" type="xs:double"/> <xs:attribute name="manufacturer" type="xs:string"/> </xs:complexType> </xs:element> </pre>																																				

```
<xs:attribute name="model" type="xs:string"/>
<xs:attribute name="serialNumber" type="xs:string"/>
</xs:complexType>
</xs:element>
```

attribute LaserDetails/@id

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute LaserDetails/@laserVertOffset

type	xs:double
properties	isRef 0
source	<xs:attribute name="laserVertOffset" type="xs:double"/>

attribute LaserDetails/@manufacturer

type	xs:string
properties	isRef 0
source	<xs:attribute name="manufacturer" type="xs:string"/>

attribute LaserDetails/@model

type	xs:string
properties	isRef 0
source	<xs:attribute name="model" type="xs:string"/>

attribute LaserDetails/@serialNumber

type	xs:string
properties	isRef 0
source	<xs:attribute name="serialNumber" type="xs:string"/>

element SurveyMonument

diagram	<pre> classDiagram class SurveyMonument { mntRef purpose state adoptedSurvey disturbedMonument disturbedDate disturbedAnnotation replacedMonument replacedDate replacedAnnotation } class Feature SurveyMonument "0..∞" o-- Feature </pre> <p>This relates the new monument element to a survey - indicating its purpose in the survey and disturbed / replaced info as well</p>																																																																		
namespace	http://www.landxml.org/schema/LandXML-1.2																																																																		
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attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>mntRef</td> <td>monumentNameRef</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>purpose</td> <td>monumentPurpose</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>state</td> <td>monumentState</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>adoptedSurvey</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>disturbedMonument</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>disturbedDate</td> <td>xs:date</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>disturbedAnnotation</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>replacedMonument</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>replacedDate</td> <td>xs:date</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>replacedAnnotation</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	mntRef	monumentNameRef	required				purpose	monumentPurpose	required				state	monumentState					adoptedSurvey	xs:string					disturbedMonument	xs:string					disturbedDate	xs:date					disturbedAnnotation	xs:string					replacedMonument	xs:string					replacedDate	xs:date					replacedAnnotation	xs:string				
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annotation	<p>documentation</p> <p>This relates the new monument element to a survey - indicating its purpose in the survey and disturbed / replaced info as well</p>																																																																		
source	<pre> <xs:element name="SurveyMonument"> <xs:annotation> <xs:documentation>This relates the new monument element to a survey - indicating its purpose in the survey and disturbed / replaced info as well</xs:documentation> </xs:annotation> <xs:complexType> </pre>																																																																		

```

<xs:sequence>
  <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/>
</xs:sequence>
<xs:attribute name="mntRef" type="monumentNameRef" use="required"/>
<xs:attribute name="purpose" type="monumentPurpose" use="required"/>
<xs:attribute name="state" type="monumentState"/>
<xs:attribute name="adoptedSurvey" type="xs:string"/>
<xs:attribute name="disturbedMonument" type="xs:string"/>
<xs:attribute name="disturbedDate" type="xs:date"/>
<xs:attribute name="disturbedAnnotation" type="xs:string"/>
<xs:attribute name="replacedMonument" type="xs:string"/>
<xs:attribute name="replacedDate" type="xs:date"/>
<xs:attribute name="replacedAnnotation" type="xs:string"/>
</xs:complexType>
</xs:element>

```

attribute SurveyMonument/@mntRef

type	<u>monumentNameRef</u>
properties	isRef 0 use required
source	<xs:attribute name="mntRef" type="monumentNameRef" use="required"/>

attribute SurveyMonument/@purpose

type	<u>monumentPurpose</u>
properties	isRef 0 use required
source	<xs:attribute name="purpose" type="monumentPurpose" use="required"/>

attribute SurveyMonument/@state

type	<u>monumentState</u>
properties	isRef 0
source	<xs:attribute name="state" type="monumentState"/>

attribute SurveyMonument/@adoptedSurvey

type	<u>xs:string</u>
properties	isRef 0
source	<xs:attribute name="adoptedSurvey" type="xs:string"/>

attribute SurveyMonument/@disturbedMonument

type	<u>xs:string</u>
properties	isRef 0
source	<xs:attribute name="disturbedMonument" type="xs:string"/>

attribute SurveyMonument/@disturbedDate

type	<u>xs:date</u>
properties	isRef 0
source	<xs:attribute name="disturbedDate" type="xs:date"/>

attribute SurveyMonument/@disturbedAnnotation

type	xs:string
properties	isRef 0
source	<xs:attribute name="disturbedAnnotation" type="xs:string"/>

attribute SurveyMonument/@replacedMonument

type	xs:string
properties	isRef 0
source	<xs:attribute name="replacedMonument" type="xs:string"/>

attribute SurveyMonument/@replacedDate

type	xs:date
properties	isRef 0
source	<xs:attribute name="replacedDate" type="xs:date"/>

attribute SurveyMonument/@replacedAnnotation

type	xs:string
properties	isRef 0
source	<xs:attribute name="replacedAnnotation" type="xs:string"/>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>.

element CgPoints

diagram	<pre> classDiagram class CgPoints { <<A collection of COGO points. (Cg = COGO = Coordinate Geometry)>> } class CgPoint { <<Represents a COordinate GeOmetry Point. The Point is identified by the "name" attr and the data value will be a sequence of space delimited, two or three double numeric values: (Northing Easting) or (Northing Easting Elevation).>> } class Feature { <<Used to include additional information that is not explicitly defined by the LandXML schema, Feature may contain one or more Property, DocFileRef or nested Feature elements, NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.>> } CgPoints "0..∞" -- "CgPoint" CgPoint "0..∞" -- "Feature" CgPoint "0..∞" -- "CgPoints" CgPoint "0..∞" -- "constraints" CgPoint "0..∞" -- "desc" CgPoint "0..∞" -- "name" CgPoint "0..∞" -- "state" CgPoint "0..∞" -- "code" CgPoint "0..∞" -- "zoneNumber" CgPoint "0..∞" -- "DTMAtribute" Feature "0..∞" -- "constraints" Feature "0..∞" -- "unique uPntName" Feature "0..∞" -- "selector CgPoint" Feature "0..∞" -- "field @name" </pre>																								
namespace	http://www.landxml.org/schema/LandXML-1.2																								
properties	content complex																								
children	CgPoint CgPoints Feature																								
used by	elements CgPoints LandXML Survey .																								
attributes	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>desc</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>name</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>state</td> <td>stateType</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	desc	xs:string					name	xs:string					state	stateType				
Name	Type	Use	Default	Fixed	annotation																				
desc	xs:string																								
name	xs:string																								
state	stateType																								

	<u>code</u> <u>zoneNumber</u> <u>DTMAttribute</u>	<u>xs:string</u> <u>zoneNumberType</u> <u>DTMAttributeType</u>		
identity constraints	Name unique	Refer uPntName	Selector CgPoint	Field(s) @name
annotation	documentation A collection of COGO points. (Cg = COGO = Coordinate Geometry)			
source	<pre><xs:element name="CgPoints"> <xs:annotation> <xs:documentation>A collection of COGO points. (Cg = COGO = Coordinate Geometry) </xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="CgPoint" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="CgPoints" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> <!-- Allow nested CgPoints collections --> </xs:sequence> <xs:attribute name="desc" type="xs:string"/> <xs:attribute name="name" type="xs:string"/> <xs:attribute name="state" type="stateType"/> <xs:attribute name="code" type="xs:string"/> <xs:attribute name="zoneNumber" type="zoneNumberType"/> <xs:attribute name="DTMAttribute" type="DTMAttributeType"/> </xs:complexType> <xs:unique name="uPntName"> <xs:selector xpath="CgPoint"/> <xs:field xpath="@name"/> </xs:unique> </xs:element></pre>			

attribute CgPoints/@desc

type	<u>xs:string</u>
properties	isRef 0
source	<pre><xs:attribute name="desc" type="xs:string"/></pre>

attribute CgPoints/@name

type	<u>xs:string</u>
properties	isRef 0
source	<pre><xs:attribute name="name" type="xs:string"/></pre>

attribute CgPoints/@state

type	<u>stateType</u>
properties	isRef 0
facets	enumeration abandoned enumeration destroyed enumeration existing enumeration proposed
source	<pre><xs:attribute name="state" type="stateType"/></pre>

attribute CgPoints/@code

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="code" type="xs:string"/></code>

attribute CgPoints/@zoneNumber

type	<code>zoneNumberType</code>
properties	isRef 0
facets	minInclusive 1 maxInclusive 99
source	<code><xs:attribute name="zoneNumber" type="zoneNumberType"/></code>

attribute CgPoints/@DTMAttribute

type	<code>DTMAttributeType</code>
properties	isRef 0
facets	enumeration determinebyfeature enumeration donotinclude enumeration spot enumeration spotandbreak enumeration void enumeration drapevoid enumeration breakvoid enumeration island enumeration boundary enumeration contour enumeration feature enumeration ground enumeration xsection enumeration user
source	<code><xs:attribute name="DTMAttribute" type="DTMAttributeType"/></code>

element **CgPoint**

diagram	<pre> classDiagram class PointType { name desc code state pntRef featureRef pointGeometry DTMAtribute timeStamp role determinedTimeStamp ellipsoidHeight latitude longitude zone northingStdError eastingStdError elevationStdError } class CgPoint { <<CgPoint>> Extends PointType oID surveyOrder pntSurv zoneNumber surveyHorizontalOrder surveyVerticalOrder localUncertainty positionalUncertainty } PointType < -- CgPoint </pre>
namespace	http://www.landxml.org/schema/LandXML-1.2
type	extension of PointType
properties	content complex mixed true
used by	element CgPoints

facets	minLength 0 maxLength 3																																																																																																																																																																		
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<u>pntSurv</u>	<u>survPntType</u>																																																																																																																																																																		
<u>zoneNumber</u>	<u>zoneNumberType</u>																																																																																																																																																																		
<u>surveyHorizontalOrder</u>	<u>xs:string</u>																																																																																																																																																																		
<u>surveyVerticalOrder</u>	<u>xs:string</u>																																																																																																																																																																		
<u>localUncertainty</u>	<u>xs:double</u>																																																																																																																																																																		
<u>positionalUncertainty</u>	<u>xs:double</u>																																																																																																																																																																		
annotation	<p>documentation</p> <p>Represents a COordinate GeOmetry Point. The Point is identified by the "name" attr and the data value will be a sequence of space delimented, two or three double numeric values: (Northing Easting) or (Northing Easting Elevation).</p>																																																																																																																																																																		
source	<pre> <xs:element name="CgPoint"> <xs:annotation> <xs:documentation>Represents a COordinate GeOmetry Point. The Point is identified by the "name" attr and the data value will be a sequence of space delimented, two or three double numeric values: (Northing Easting) or (Northing Easting Elevation).</xs:documentation> </xs:annotation> <xs:complexType mixed="true"> <xs:simpleContent> <xs:extension base="PointType"> <xs:attribute name="oID" type="xs:string"/> <xs:attribute name="surveyOrder" type="xs:string"/> <xs:attribute name="pntSurv" type="survPntType"/> <xs:attribute name="zoneNumber" type="zoneNumberType"/> <xs:attribute name="surveyHorizontalOrder" type="xs:string"/> <xs:attribute name="surveyVerticalOrder" type="xs:string"/> <xs:attribute name="localUncertainty" type="xs:double"/> <xs:attribute name="positionalUncertainty" type="xs:double"/> </xs:extension> </xs:simpleContent> </xs:complexType> </xs:element></pre>																																																																																																																																																																		

attribute CgPoint/@oID

type	<u>xs:string</u>
properties	isRef 0

source	<code><xs:attribute name="oID" type="xs:string"/></code>
--------	--

attribute CgPoint/@surveyOrder

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="surveyOrder" type="xs:string"/></code>

attribute CgPoint/@pntSurv

type	<u>survPntType</u>
properties	isRef 0
facets	enumeration monument enumeration control enumeration sideshot enumeration boundary enumeration natural boundary enumeration traverse enumeration reference enumeration administrative
source	<code><xs:attribute name="pntSurv" type="survPntType"/></code>

attribute CgPoint/@zoneNumber

type	<u>zoneNumberType</u>
properties	isRef 0
facets	minInclusive 1 maxInclusive 99
source	<code><xs:attribute name="zoneNumber" type="zoneNumberType"/></code>

attribute CgPoint/@surveyHorizontalOrder

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="surveyHorizontalOrder" type="xs:string"/></code>

attribute CgPoint/@surveyVerticalOrder

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="surveyVerticalOrder" type="xs:string"/></code>

attribute CgPoint/@localUncertainty

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="localUncertainty" type="xs:double"/></code>

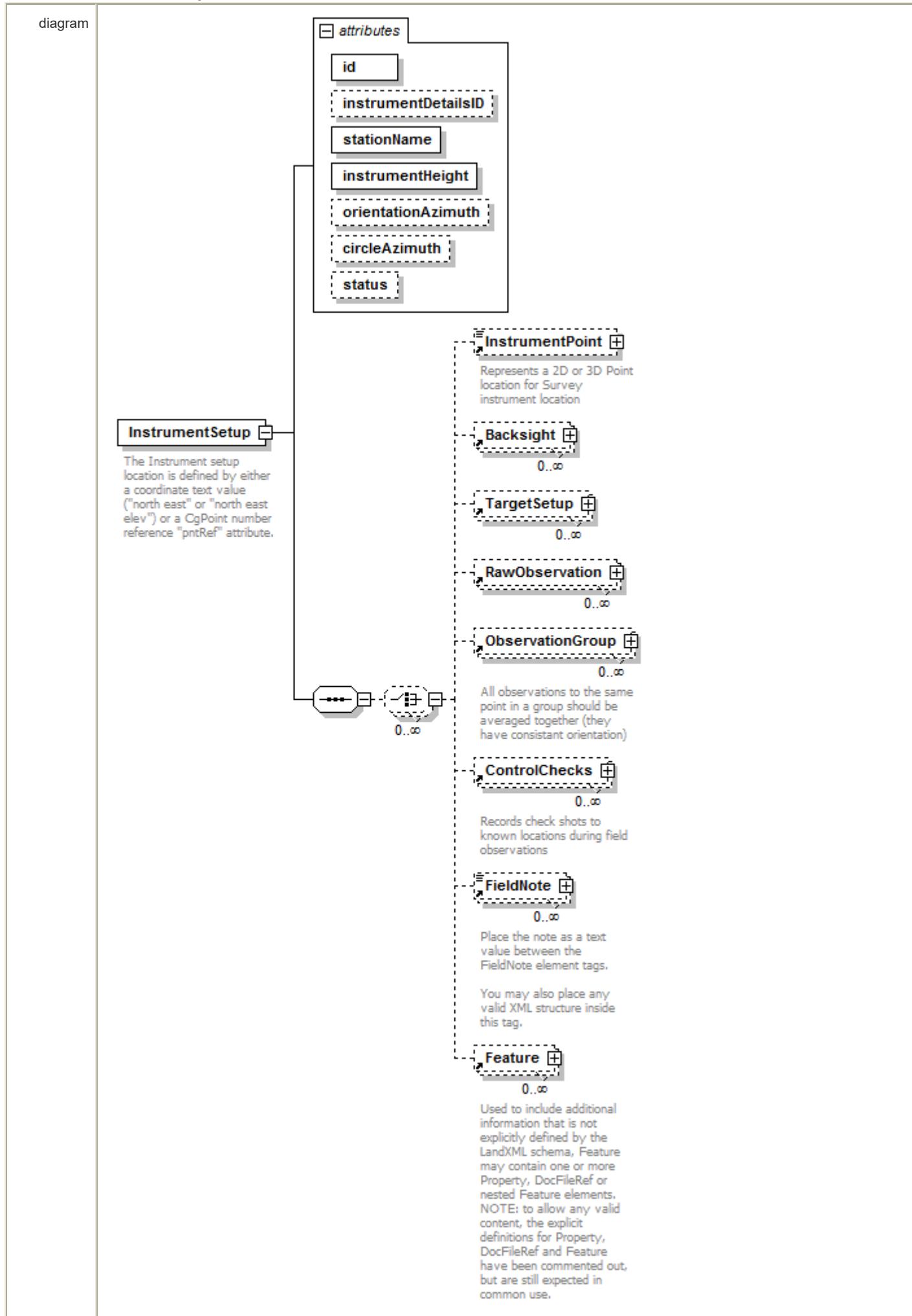
attribute CgPoint/@positionalUncertainty

type	<code>xs:double</code>
------	------------------------

properties	isRef 0
source	<xs:attribute name="positionalUncertainty" type="xs:double"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element InstrumentSetup



namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	InstrumentPoint Backsight TargetSetup RawObservation ObservationGroup ControlChecks FieldNote Feature					
used by	element Survey .					
attributes	Name	Type	Use	Default	Fixed	annotation
	<u>id</u>	<u>xs:ID</u>	required			
	<u>instrumentDetailsID</u>	<u>xs:IDREF</u>				
	<u>stationName</u>	<u>xs:string</u>	required			
	<u>instrumentHeight</u>	<u>xs:double</u>	required			
	<u>orientationAzimuth</u>	<u>direction</u>				
	<u>circleAzimuth</u>	<u>direction</u>				
	<u>status</u>	<u>observationStatusType</u>				
annotation	documentation The Instrument setup location is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.					
source	<pre><xs:element name="InstrumentSetup"> <xs:annotation> <xs:documentation>The Instrument setup location is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="InstrumentPoint" minOccurs="0"/> <xs:element ref="Backsight" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="TargetSetup" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="RawObservation" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="ObservationGroup" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="ControlChecks" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="instrumentDetailsID" type="xs:IDREF"/> <xs:attribute name="stationName" type="xs:string" use="required"/> <xs:attribute name="instrumentHeight" type="xs:double" use="required"/> <xs:attribute name="orientationAzimuth" type="direction"/> <xs:attribute name="circleAzimuth" type="direction"/> <xs:attribute name="status" type="observationStatusType"/> </xs:complexType> </xs:element></pre>					

attribute [InstrumentSetup/@id](#)

type	<u>xs:ID</u>
properties	isRef 0 use required
source	<pre><xs:attribute name="id" type="xs:ID" use="required"/></pre>

attribute [InstrumentSetup/@instrumentDetailsID](#)

type	<u>xs:IDREF</u>
properties	isRef 0

source	<code><xs:attribute name="instrumentDetailsID" type="xs:IDREF"/></code>
--------	---

attribute InstrumentSetup/@stationName

type	<code>xs:string</code>
properties	isRef 0 use required
source	<code><xs:attribute name="stationName" type="xs:string" use="required"/></code>

attribute InstrumentSetup/@instrumentHeight

type	<code>xs:double</code>
properties	isRef 0 use required
source	<code><xs:attribute name="instrumentHeight" type="xs:double" use="required"/></code>

attribute InstrumentSetup/@orientationAzimuth

type	<u>direction</u>
properties	isRef 0
source	<code><xs:attribute name="orientationAzimuth" type="direction"/></code>

attribute InstrumentSetup/@circleAzimuth

type	<u>direction</u>
properties	isRef 0
source	<code><xs:attribute name="circleAzimuth" type="direction"/></code>

attribute InstrumentSetup/@status

type	<u>observationStatusType</u>
properties	isRef 0
facets	enumeration modified enumeration deleted
source	<code><xs:attribute name="status" type="observationStatusType"/></code>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element **InstrumentPoint**

diagram	<pre> classDiagram class PointType { <<attributes>> name desc code state pntRef featureRef pointGeometry DTMAtribute time Stamp role determinedTime Stamp ellipsoidHeight latitude longitude zone northing StdError easting StdError elevation StdError } class InstrumentPoint { <<Represents a 2D or 3D Point location for Survey instrument location>> } PointType < -- InstrumentPoint </pre>																																																																								
namespace	http://www.landxml.org/schema/LandXML-1.2																																																																								
type	PointType																																																																								
properties	content complex mixed true																																																																								
used by	elements InstrumentSetup LaserSetup																																																																								
facets	minLength 0 maxLength 3																																																																								
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>name</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>desc</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>code</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>state</td> <td>stateType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pntRef</td> <td>pointNameRef</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>featureRef</td> <td>featureNameRef</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>pointGeometry</td> <td>pointGeometryType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DTMAtribute</td> <td>DTMAtributeType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>timeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>role</td> <td>surveyRoleType</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>determinedTimeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	name	xs:string					desc	xs:string					code	xs:string					state	stateType					pntRef	pointNameRef					featureRef	featureNameRef	optional				pointGeometry	pointGeometryType					DTMAtribute	DTMAtributeType					timeStamp	xs:dateTime	optional				role	surveyRoleType	optional				determinedTimeStamp	xs:dateTime	optional			
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determinedTimeStamp	xs:dateTime	optional																																																																							

	<u>ellipsoidHeight</u>	ellipsoidHeightType optional
	<u>latitude</u>	latLongAngle optional
	<u>longitude</u>	latLongAngle optional
	<u>zone</u>	xs:string optional
	<u>northingStdError</u>	xs:double optional
	<u>eastingStdError</u>	xs:double optional
	<u>elevationStdError</u>	xs:double optional
annotation	<p>documentation Represents a 2D or 3D Point location for Survey instrument location documentation Defined by either a coordinate text value ("north east" or "north east elev") or a PointType number reference "pntRef" attribute.</p>	
source	<pre><xs:element name="InstrumentPoint" type="PointType"> <xs:annotation> <xs:documentation>Represents a 2D or 3D Point location for Survey instrument location</xs:documentation> <xs:documentation>Defined by either a coordinate text value ("north east" or "north east elev") or a PointType number reference "pntRef" attribute.</xs:documentation> </xs:annotation> </xs:element></pre>	

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element **Backsight**

diagram	<p>Backsight</p> <ul style="list-style-type: none"> attributes BacksightPoint: Represents a 2D or 3D location for the backsight. FieldNote: Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag. Feature: Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use. 																																				
namespace	http://www.landxml.org/schema/LandXML-1.2																																				
properties	content complex																																				
children	BacksightPoint FieldNote Feature																																				
used by	elements InstrumentSetup LaserSetup ObservationGroup																																				
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>id</td> <td>xs:ID</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>azimuth</td> <td>direction</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>targetHeight</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>circle</td> <td>angle</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>setupID</td> <td>xs:IDREF</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	id	xs:ID					azimuth	direction					targetHeight	xs:double					circle	angle	required				setupID	xs:IDREF				
Name	Type	Use	Default	Fixed	annotation																																
id	xs:ID																																				
azimuth	direction																																				
targetHeight	xs:double																																				
circle	angle	required																																			
setupID	xs:IDREF																																				
source	<pre> <xs:element name="Backsight"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="BacksightPoint" minOccurs="0"/> <xs:choice> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> </xs:complexType> </xs:element> </pre>																																				

```

</xs:choice>
</xs:sequence>
<xs:attribute name="id" type="xs:ID"/>
<xs:attribute name="azimuth" type="direction"/>
<xs:attribute name="targetHeight" type="xs:double"/>
<xs:attribute name="circle" type="angle" use="required"/>
<xs:attribute name="setupID" type="xs:IDREF"/>
</xs:complexType>
</xs:element>

```

attribute **Backsight/@id**

type	xs:ID
properties	isRef 0
source	<xs:attribute name="id" type="xs:ID"/>

attribute **Backsight/@azimuth**

type	direction
properties	isRef 0
source	<xs:attribute name="azimuth" type="direction"/>

attribute **Backsight/@targetHeight**

type	xs:double
properties	isRef 0
source	<xs:attribute name="targetHeight" type="xs:double"/>

attribute **Backsight/@circle**

type	angle
properties	isRef 0 use required
source	<xs:attribute name="circle" type="angle" use="required"/>

attribute **Backsight/@setupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

element **BacksightPoint**

diagram	<pre> classDiagram class PointType { <<attributes>> name desc code state pntRef featureRef pointGeometry DTMAAttribute timeStamp role determinedTimeStamp ellipsoidHeight latitude longitude zone northingStdError eastingStdError elevationStdError } class BacksightPoint { <<description>> Represents a 2D or 3D location for the backsight } PointType < -- BacksightPoint </pre>																																																																								
namespace	http://www.landxml.org/schema/LandXML-1.2																																																																								
type	PointType																																																																								
properties	content complex mixed true																																																																								
used by	element Backsight																																																																								
facets	minLength 0 maxLength 3																																																																								
attributes	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>name</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>desc</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>code</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>state</td> <td>stateType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pntRef</td> <td>pointNameRef</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>featureRef</td> <td>featureNameRef</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>pointGeometry</td> <td>pointGeometryType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DTMAAttribute</td> <td>DTMAAttributeType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>timeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>role</td> <td>surveyRoleType</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>determinedTimeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	name	xs:string					desc	xs:string					code	xs:string					state	stateType					pntRef	pointNameRef					featureRef	featureNameRef	optional				pointGeometry	pointGeometryType					DTMAAttribute	DTMAAttributeType					timeStamp	xs:dateTime	optional				role	surveyRoleType	optional				determinedTimeStamp	xs:dateTime	optional			
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	<u>ellipsoidHeight</u>	ellipsoidHeightType optional
	<u>latitude</u>	latLongAngle optional
	<u>longitude</u>	latLongAngle optional
	<u>zone</u>	xs:string optional
	<u>northingStdError</u>	xs:double optional
	<u>eastingStdError</u>	xs:double optional
	<u>elevationStdError</u>	xs:double optional
annotation	documentation Represents a 2D or 3D location for the backsight documentation It is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.	
source	<pre><xs:element name="BacksightPoint" type="PointType"> <xs:annotation> <xs:documentation>Represents a 2D or 3D location for the backsight</xs:documentation> <xs:documentation>It is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.</xs:documentation> </xs:annotation> </xs:element></pre>	

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

element TargetSetup

diagram	<pre> classDiagram class TargetSetup { id : xs:ID targetHeight : xs:double edmTargetVertOffset : xs:double prismConstant : xs:double } class FieldNote class Feature TargetSetup "0..∞" -- "0..∞" FieldNote TargetSetup "0..∞" -- "0..∞" Feature </pre>																														
namespace	http://www.landxml.org/schema/LandXML-1.2																														
properties	content complex																														
children	FieldNote Feature																														
used by	elements GPSSetup InstrumentSetup LaserSetup Survey																														
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>id</td> <td>xs:ID</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>targetHeight</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>edmTargetVertOffset</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>prismConstant</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	id	xs:ID					targetHeight	xs:double					edmTargetVertOffset	xs:double					prismConstant	xs:double				
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id	xs:ID																														
targetHeight	xs:double																														
edmTargetVertOffset	xs:double																														
prismConstant	xs:double																														
source	<pre> <xs:element name="TargetSetup"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID"/> <xs:attribute name="targetHeight" type="xs:double"/> <xs:attribute name="edmTargetVertOffset" type="xs:double"/> <xs:attribute name="prismConstant" type="xs:double"/> <!-- To allow for older style EDM's --> </pre>																														

	</xs:complexType> </xs:element>
--	------------------------------------

attribute TargetSetup/@id

type	xs:ID
properties	isRef 0
source	<xs:attribute name="id" type="xs:ID"/>

attribute TargetSetup/@targetHeight

type	xs:double
properties	isRef 0
source	<xs:attribute name="targetHeight" type="xs:double"/>

attribute TargetSetup/@edmTargetVertOffset

type	xs:double
properties	isRef 0
source	<xs:attribute name="edmTargetVertOffset" type="xs:double"/>

attribute TargetSetup/@prismConstant

type	xs:double
properties	isRef 0
source	<xs:attribute name="prismConstant" type="xs:double"/>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

element **TargetPoint**

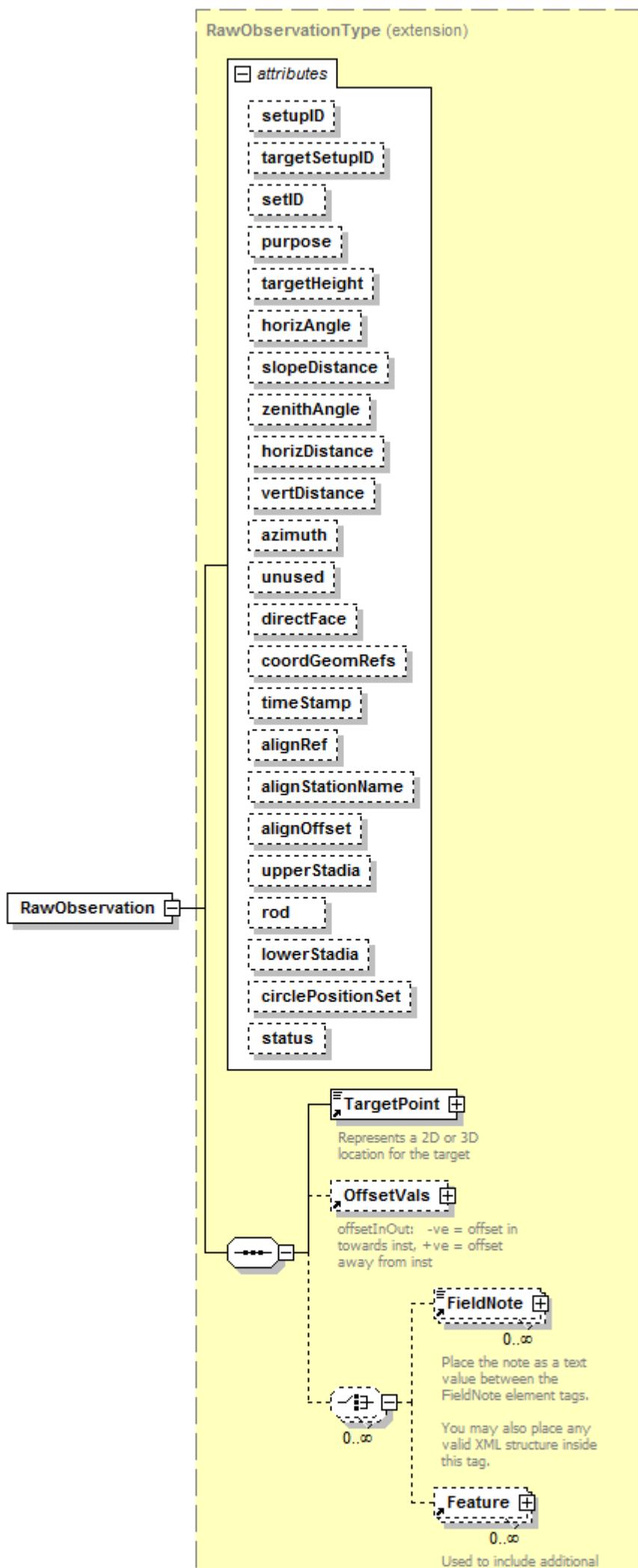
diagram	<pre> classDiagram class PointType { name desc code state pntRef featureRef pointGeometry DTMAtribute timeStamp role determinedTimeStamp ellipsoidHeight latitude longitude zone northingStdError eastingStdError elevationStdError } class TargetPoint { <<Represents a 2D or 3D location for the target>> } TargetPoint "1" -- "1" PointType </pre>																																																																		
namespace	http://www.landxml.org/schema/LandXML-1.2																																																																		
type	PointType																																																																		
properties	content complex mixed true																																																																		
used by	elements GPSPosition GPSVector ObservationGroup PointResults ReducedArcObservation ReducedObservation complexType RawObservationType																																																																		
facets	minLength 0 maxLength 3																																																																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>name</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>desc</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>code</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>state</td> <td>stateType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pntRef</td> <td>pointNameRef</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>featureRef</td> <td>featureNameRef</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>pointGeometry</td> <td>pointGeometryType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DTMAtribute</td> <td>DTMAtributeType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>timeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>role</td> <td>surveyRoleType</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	name	xs:string					desc	xs:string					code	xs:string					state	stateType					pntRef	pointNameRef					featureRef	featureNameRef	optional				pointGeometry	pointGeometryType					DTMAtribute	DTMAtributeType					timeStamp	xs:dateTime	optional				role	surveyRoleType	optional			
Name	Type	Use	Default	Fixed	annotation																																																														
name	xs:string																																																																		
desc	xs:string																																																																		
code	xs:string																																																																		
state	stateType																																																																		
pntRef	pointNameRef																																																																		
featureRef	featureNameRef	optional																																																																	
pointGeometry	pointGeometryType																																																																		
DTMAtribute	DTMAtributeType																																																																		
timeStamp	xs:dateTime	optional																																																																	
role	surveyRoleType	optional																																																																	

	<p><u>determinedTimeStamp</u> xs:dateTime optional</p> <p><u>ellipsoidHeight</u> ellipsoidHeightType optional</p> <p><u>latitude</u> latLongAngle optional</p> <p><u>longitude</u> latLongAngle optional</p> <p><u>zone</u> xs:string optional</p> <p><u>northingStdError</u> xs:double optional</p> <p><u>eastingStdError</u> xs:double optional</p> <p><u>elevationStdError</u> xs:double optional</p>
annotation	<p>documentation</p> <p>Represents a 2D or 3D location for the target</p> <p>documentation</p> <p>It is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.</p>
source	<pre><xs:element name="TargetPoint" type="PointType"> <xs:annotation> <xs:documentation>Represents a 2D or 3D location for the target</xs:documentation> <xs:documentation>It is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.</xs:documentation> </xs:annotation> </xs:element></pre>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>.

element RawObservation

diagram	
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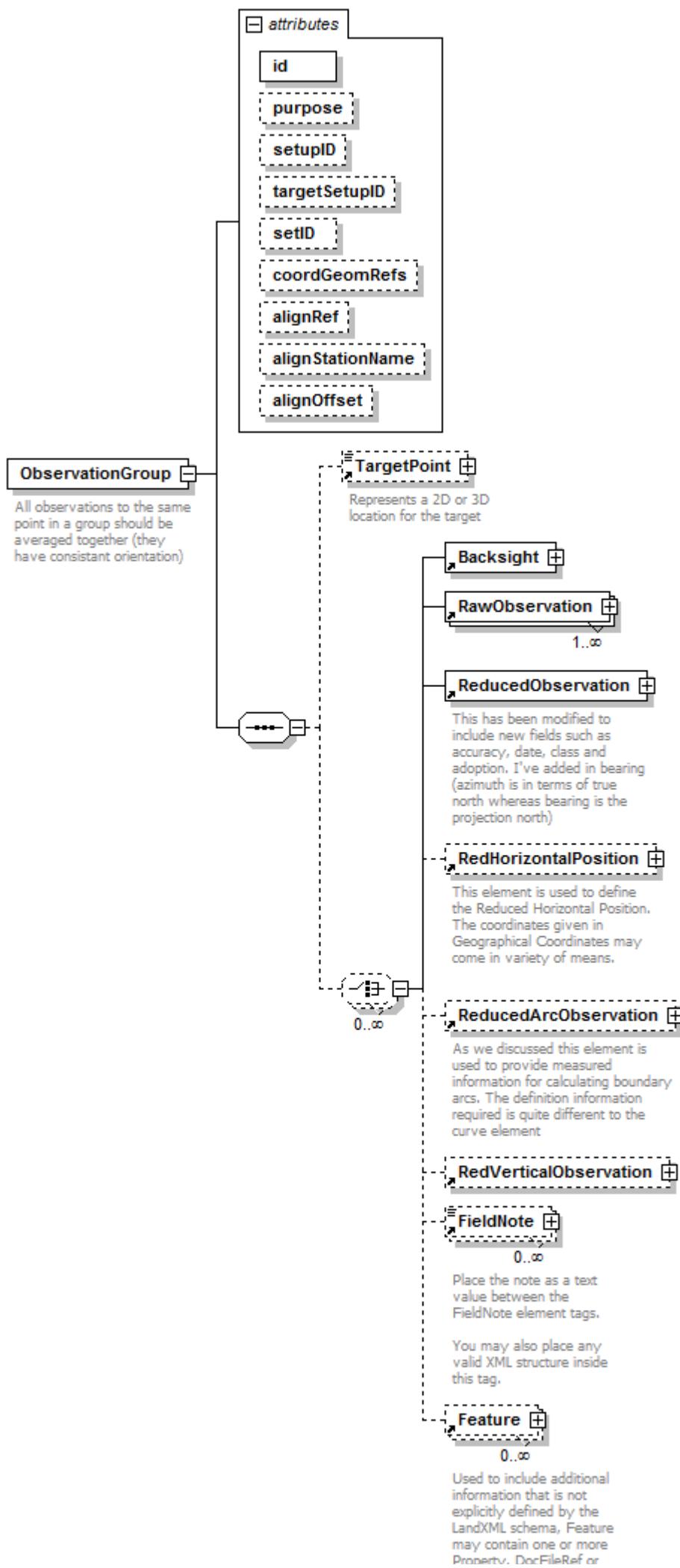


information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.

namespace	http://www.landxml.org/schema/LandXML-1.2					
type	extension of RawObservationType					
properties	content complex mixed false					
children	TargetPoint OffsetVals FieldNote Feature					
used by	elements InstrumentSetup LaserSetup ObservationGroup					
attributes	Name	Type	Use	Default	Fixed	annotation
	setupID	xs:IDREF				
	targetSetupID	xs:IDREF				
	setID					
	purpose	purposeType				
	targetHeight	xs:double				
	horizAngle	angle	optional			
	slopeDistance	xs:double	optional			
	zenithAngle	zenithAngle	optional			
	horizDistance	xs:double				
	vertDistance	xs:double				
	azimuth	direction	optional			
	unused	xs:boolean				
	directFace	xs:boolean				
	coordGeomRefs	coordGeomNameRefs				
	timeStamp	xs:dateTime				
	alignRef	alignmentNameRef				
	alignStationName	xs:string				
	alignOffset	offsetDistance				
	upperStadia	xs:double				
	rod	xs:double				
	lowerStadia	xs:double				
	circlePositionSet	xs:double				
	status	observationStatusType				
source	<pre><xs:element name="RawObservation"> <xs:complexType mixed="false"> <xs:complexContent mixed="false"> <xs:extension base="RawObservationType"/> </xs:complexContent> </xs:complexType> </xs:element></pre>					

element ObservationGroup

diagram	
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nesting Feature elements.
NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.

namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	TargetPoint Backsight RawObservation ReducedObservation RedHorizontalPosition ReducedArcObservation RedVerticalObservation FieldNote Feature					
used by	elements ControlChecks InstrumentSetup Survey .					
attributes	Name <u>id</u> Type Use <u>xs:ID</u> required <u>purpose</u> purposeType <u>setupID</u> xs:IDREF <u>targetSetupID</u> xs:IDREF <u>setID</u> <u>coordGeomRefs</u> coordGeomNameRefs <u>alignRef</u> alignmentNameRef <u>alignStationName</u> xs:string <u>alignOffset</u> offsetDistance		Default	Fixed	annotation	
annotation	documentation All observations to the same point in a group should be averaged together (they have consistant orientation)					
source	<pre><xs:element name="ObservationGroup"> <xs:annotation> <xs:documentation>All observations to the same point in a group should be averaged together (they have consistant orientation)</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="Backsight"/> <xs:element ref="RawObservation" maxOccurs="unbounded"/> <xs:element ref="ReducedObservation"/> <xs:element ref="RedHorizontalPosition" minOccurs="0"/> <xs:element ref="ReducedArcObservation" minOccurs="0"/> <xs:element ref="RedVerticalObservation" minOccurs="0"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="targetSetupID" type="xs:IDREF"/> <xs:attribute name="setID"/> <xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/> <xs:attribute name="alignRef" type="alignmentNameRef"/> <xs:attribute name="alignStationName" type="xs:string"/> <xs:attribute name="alignOffset" type="offsetDistance"/> <!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element. This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. --> <!-- alignRef is the name of the alignment. alignStationName is the station value where the rod reading is taken. </pre>					

</xs:complexType>
 </xs:element>

attribute **ObservationGroup/@id**

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute **ObservationGroup/@purpose**

type	purposeType
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute **ObservationGroup/@setupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute **ObservationGroup/@targetSetupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="targetSetupID" type="xs:IDREF"/>

attribute **ObservationGroup/@setID**

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute **ObservationGroup/@coordGeomRefs**

type	coordGeomNameRefs
properties	isRef 0
source	<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>

attribute ObservationGroup/@alignRef

type	<u>alignmentNameRef</u>
properties	isRef 0
source	<xs:attribute name="alignRef" type="alignmentNameRef"/>

attribute ObservationGroup/@alignStationName

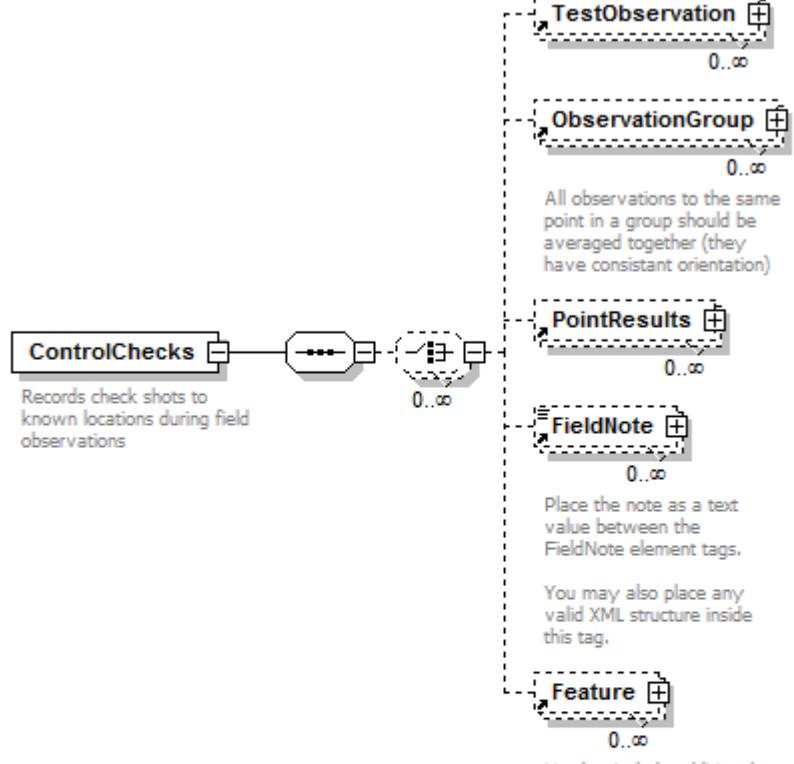
type	<u>xs:string</u>
properties	isRef 0
source	<xs:attribute name="alignStationName" type="xs:string"/>

attribute ObservationGroup/@alignOffset

type	<u>offsetDistance</u>
properties	isRef 0
source	<xs:attribute name="alignOffset" type="offsetDistance"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element ControlChecks

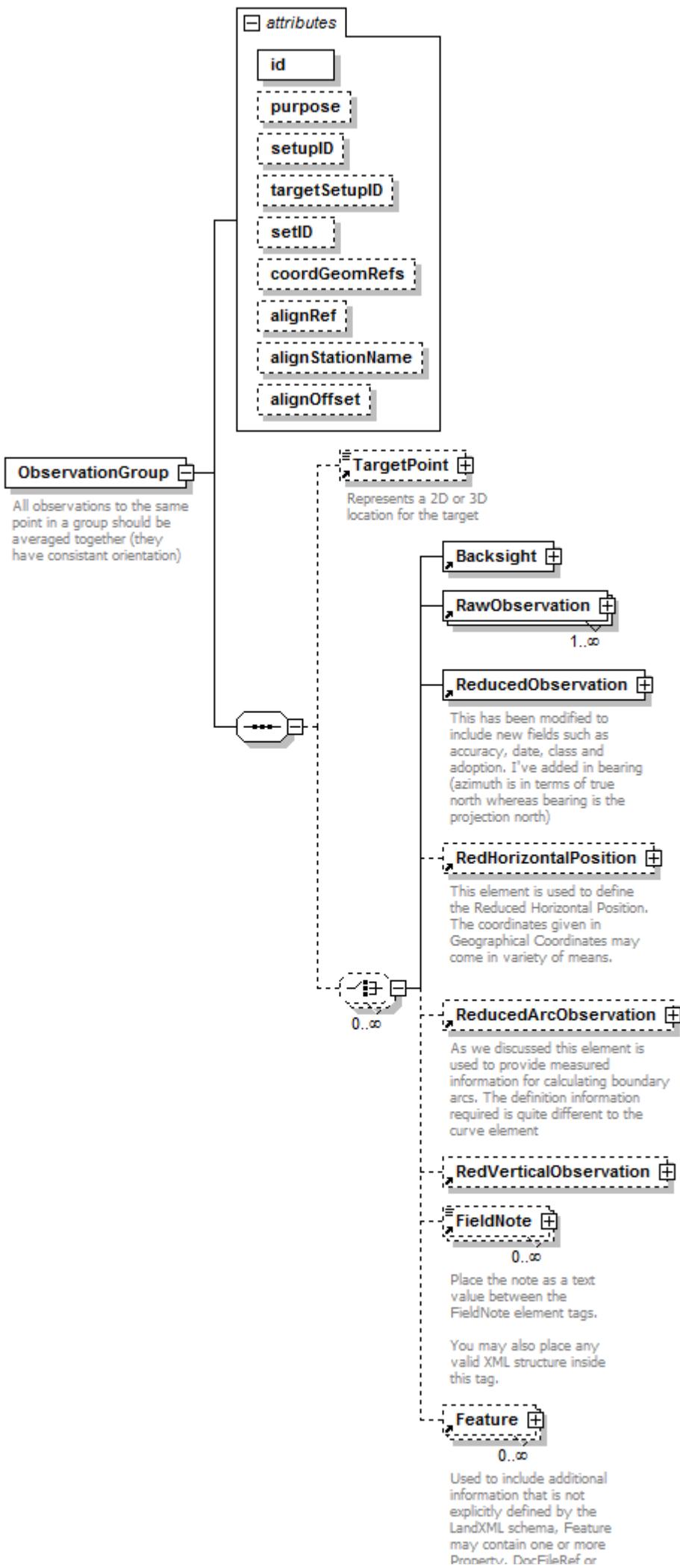
diagram	 <p>The diagram illustrates the ControlChecks element and its associations. The ControlChecks element is represented by a rectangle with a note below it: "Records check shots to known locations during field observations". It has two associations: one to TestObservation (multiplicity 0..∞) and another to ObservationGroup (multiplicity 0..∞). The TestObservation association is shown with a dashed line and a plus sign icon. The ObservationGroup association is also shown with a dashed line and a plus sign icon. A detailed description for ObservationGroup states: "All observations to the same point in a group should be averaged together (they have consistent orientation)". Below these associations is a dashed box containing four elements: PointResults, FieldNote, Feature, and another TestObservation. Each of these elements has a multiplicity of 0..∞ and a plus sign icon.</p>
namespace	http://www.landxml.org/schema/LandXML-1.2
properties	content complex
children	TestObservation ObservationGroup PointResults FieldNote Feature
used by	elements InstrumentSetup Survey .
annotation	<p>documentation Records check shots to known locations during field observations</p>
source	<pre> <xs:element name="ControlChecks"> <xs:annotation> <xs:documentation>Records check shots to known locations during field observations</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="TestObservation" minOccurs="0" maxOccurs="unbounded"/> <!-- LandXML-1.2 schema note: Use of ObservationGroup is deprecated and used for backward compatibility, use multiple TestObservation elements --> <xs:element ref="ObservationGroup" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="PointResults" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> </xs:complexType> </xs:element> </pre>

```
</xs:sequence>
</xs:complexType>
</xs:element>
```

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>

element ObservationGroup

diagram



nested Feature elements.
NOTE: to allow any valid
content, the explicit
definitions for Property,
DocFileRef and Feature
have been commented out,
but are still expected in
common use.

namespace	http://www.landxml.org/schema/LandXML-1.2																																																												
properties	content complex																																																												
children	TargetPoint Backsight RawObservation ReducedObservation RedHorizontalPosition ReducedArcObservation RedVerticalObservation FieldNote Feature																																																												
used by	elements ControlChecks InstrumentSetup Survey .																																																												
attributes	<table border="0"> <tr> <td>Name</td> <td>Type</td> <td>Use</td> <td>Default</td> <td>Fixed</td> <td>annotation</td> </tr> <tr> <td><u>id</u></td> <td><u>xs:ID</u></td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>purpose</u></td> <td><u>purposeType</u></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>setupID</u></td> <td><u>xs:IDREF</u></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>targetSetupID</u></td> <td><u>xs:IDREF</u></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>setID</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>coordGeomRefs</u></td> <td><u>coordGeomNameRefs</u></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>alignRef</u></td> <td><u>alignmentNameRef</u></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>alignStationName</u></td> <td><u>xs:string</u></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>alignOffset</u></td> <td><u>offsetDistance</u></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Name	Type	Use	Default	Fixed	annotation	<u>id</u>	<u>xs:ID</u>	required				<u>purpose</u>	<u>purposeType</u>					<u>setupID</u>	<u>xs:IDREF</u>					<u>targetSetupID</u>	<u>xs:IDREF</u>					<u>setID</u>						<u>coordGeomRefs</u>	<u>coordGeomNameRefs</u>					<u>alignRef</u>	<u>alignmentNameRef</u>					<u>alignStationName</u>	<u>xs:string</u>					<u>alignOffset</u>	<u>offsetDistance</u>				
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annotation	<p>documentation</p> <p>All observations to the same point in a group should be averaged together (they have consistant orientation)</p>																																																												
source	<pre> <xs:element name="ObservationGroup"> <xs:annotation> <xs:documentation>All observations to the same point in a group should be averaged together (they have consistant orientation)</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="Backsight"/> <xs:element ref="RawObservation" maxOccurs="unbounded"/> <xs:element ref="ReducedObservation"/> <xs:element ref="RedHorizontalPosition" minOccurs="0"/> <xs:element ref="ReducedArcObservation" minOccurs="0"/> <xs:element ref="RedVerticalObservation" minOccurs="0"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="targetSetupID" type="xs:IDREF"/> <xs:attribute name="setID"/> <xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/> <xs:attribute name="alignRef" type="alignmentNameRef"/> <xs:attribute name="alignStationName" type="xs:string"/> <xs:attribute name="alignOffset" type="offsetDistance"/> <!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element. This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. --> <!-- alignRef is the name of the alignment. alignStationName is the station value where the rod reading is taken. </pre>																																																												

</xs:complexType>
 </xs:element>

attribute **ObservationGroup/@id**

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute **ObservationGroup/@purpose**

type	purposeType
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute **ObservationGroup/@setupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute **ObservationGroup/@targetSetupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="targetSetupID" type="xs:IDREF"/>

attribute **ObservationGroup/@setID**

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute **ObservationGroup/@coordGeomRefs**

type	coordGeomNameRefs
properties	isRef 0
source	<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>

attribute ObservationGroup/@alignRef

type	<u>alignmentNameRef</u>
properties	isRef 0
source	<xs:attribute name="alignRef" type="alignmentNameRef"/>

attribute ObservationGroup/@alignStationName

type	<u>xs:string</u>
properties	isRef 0
source	<xs:attribute name="alignStationName" type="xs:string"/>

attribute ObservationGroup/@alignOffset

type	<u>offsetDistance</u>
properties	isRef 0
source	<xs:attribute name="alignOffset" type="offsetDistance"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element PointResults

diagram	<p>The diagram illustrates the structure of the PointResults element. It starts with a class box labeled "PointResults" containing several attributes: setupID, targetSetupID, meanHorizAngle, horizStdDeviation, meanzenithAngle, vertStdDeviation, meanSlopeDistance, and slopeDistanceStdDeviation. Below the class box, there are three association points connected to external elements: "TargetPoint", "FieldNote", and "Feature". "TargetPoint" is associated with "PointResults" via a solid line and is described as "Represents a 2D or 3D location for the target". "FieldNote" is associated with "PointResults" via a dashed line and is described as "Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.". "Feature" is associated with "PointResults" via a dashed line and is described as "Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.".</p>																																																						
namespace	http://www.landxml.org/schema/LandXML-1.2																																																						
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Name	Type	Use	Default	Fixed	annotation																																																		
setupID	xs:IDREF																																																						
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vertStdDeviation	xs:double																																																						
meanSlopeDistance	xs:double																																																						
slopeDistanceStdDeviation	xs:double																																																						
source	<pre><xs:element name="PointResults"> <xs:annotation></pre>																																																						

```

<xs:documentation/>
</xs:annotation>
<xs:complexType>
  <xs:sequence>
    <xs:element ref="TargetPoint" minOccurs="0"/>
    <xs:choice minOccurs="0" maxOccurs="unbounded">
      <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/>
      <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/>
    </xs:choice>
  </xs:sequence>
  <xs:attribute name="setupID" type="xs:IDREF"/>
  <xs:attribute name="targetSetupID" type="xs:IDREF"/>
  <xs:attribute name="meanHorizAngle" type="xs:double"/>
  <xs:attribute name="horizStdDeviation" type="xs:double"/>
  <xs:attribute name="meanzenithAngle" type="zenithAngle"/>
  <xs:attribute name="vertStdDeviation" type="xs:double"/>
  <xs:attribute name="meanSlopeDistance" type="xs:double"/>
  <xs:attribute name="slopeDistanceStdDeviation" type="xs:double"/>
</xs:complexType>
</xs:element>

```

attribute PointResults/@setupID

type	<code>xs:IDREF</code>
properties	isRef 0
source	<code><xs:attribute name="setupID" type="xs:IDREF"/></code>

attribute PointResults/@targetSetupID

type	<code>xs:IDREF</code>
properties	isRef 0
source	<code><xs:attribute name="targetSetupID" type="xs:IDREF"/></code>

attribute PointResults/@meanHorizAngle

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="meanHorizAngle" type="xs:double"/></code>

attribute PointResults/@horizStdDeviation

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="horizStdDeviation" type="xs:double"/></code>

attribute PointResults/@meanzenithAngle

type	<code>zenithAngle</code>
properties	isRef 0
source	<code><xs:attribute name="meanzenithAngle" type="zenithAngle"/></code>

attribute PointResults/@vertStdDeviation

type	<code>xs:double</code>
------	------------------------

properties	isRef 0
source	<xs:attribute name="vertStdDeviation" type="xs:double"/>

attribute PointResults/@meanSlopeDistance

type	xs:double
properties	isRef 0
source	<xs:attribute name="meanSlopeDistance" type="xs:double"/>

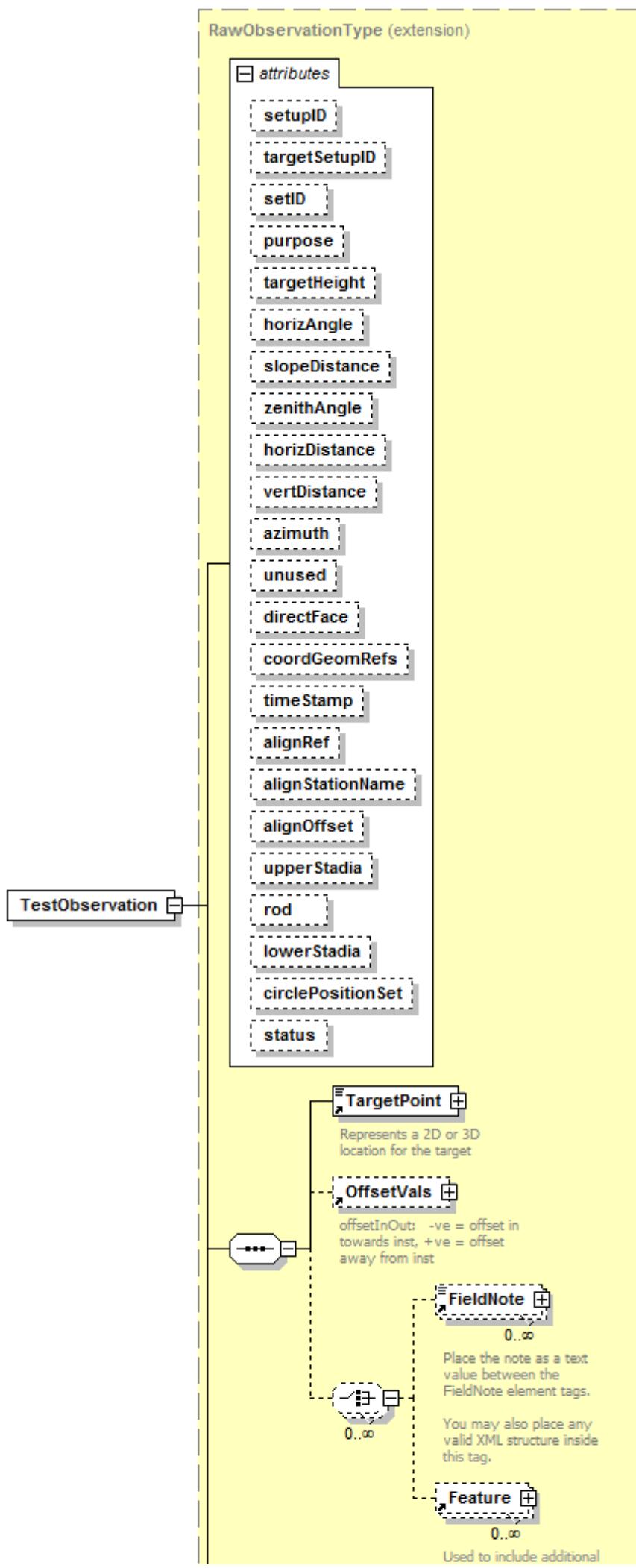
attribute PointResults/@slopeDistanceStdDeviation

type	xs:double
properties	isRef 0
source	<xs:attribute name="slopeDistanceStdDeviation" type="xs:double"/>

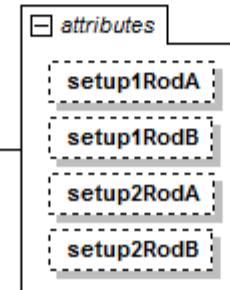
XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>.

element TestObservation

diagram	
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information that is not explicitly defined by the LandXML schema, Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.



namespace	http://www.landxml.org/schema/LandXML-1.2					
type	extension of RawObservationType					
properties	content complex mixed false					
children	TargetPoint OffsetVals FieldNote Feature					
used by	element ControlChecks					
attributes	Name	Type	Use	Default	Fixed	annotation
	setupID	xs:IDREF				
	targetSetupID	xs:IDREF				
	setID					
	purpose	purposeType				
	targetHeight	xs:double				
	horizAngle	angle	optional			
	slopeDistance	xs:double	optional			
	zenithAngle	zenithAngle	optional			
	horizDistance	xs:double				
	vertDistance	xs:double				
	azimuth	direction	optional			
	unused	xs:boolean				
	directFace	xs:boolean				
	coordGeomRefs	coordGeomNameRefs				
	timeStamp	xs:dateTime				
	alignRef	alignmentNameRef				
	alignStationName	xs:string				
	alignOffset	offsetDistance				
	upperStadia	xs:double				
	rod	xs:double				
	lowerStadia	xs:double				
	circlePositionSet	xs:double				
	status	observationStatusType				
	setup1RodA	xs:double				
	setup1RodB	xs:double				
	setup2RodA	xs:double				
	setup2RodB	xs:double				
source	<pre> <xs:element name="TestObservation"> <xs:complexType mixed="false"> <xs:complexContent mixed="false"> ... </xs:complexContent> </xs:complexType> </xs:element> </pre>					

```

<xs:extension base="RawObservationType">
  <xs:attribute name="setup1RodA" type="xs:double"/>
  <xs:attribute name="setup1RodB" type="xs:double"/>
  <xs:attribute name="setup2RodA" type="xs:double"/>
  <xs:attribute name="setup2RodB" type="xs:double"/>
</xs:extension>
</xs:complexContent>
</xs:complexType>
</xs:element>

```

attribute **TestObservation/@setup1RodA**

type	xs:double
properties	isRef 0
source	<xs:attribute name="setup1RodA" type="xs:double"/>

attribute **TestObservation/@setup1RodB**

type	xs:double
properties	isRef 0
source	<xs:attribute name="setup1RodB" type="xs:double"/>

attribute **TestObservation/@setup2RodA**

type	xs:double
properties	isRef 0
source	<xs:attribute name="setup2RodA" type="xs:double"/>

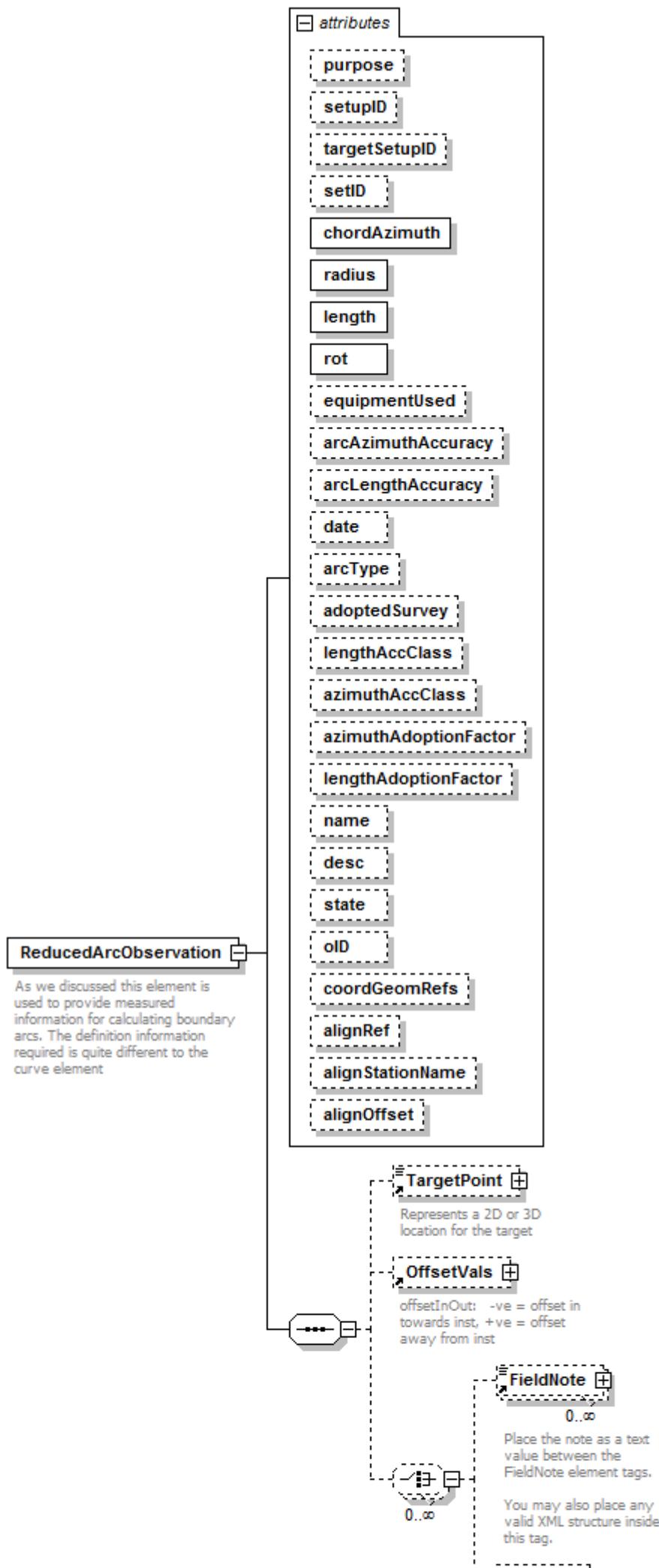
attribute **TestObservation/@setup2RodB**

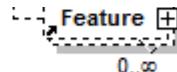
type	xs:double
properties	isRef 0
source	<xs:attribute name="setup2RodB" type="xs:double"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element ReducedArcObservation

diagram	
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Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.

namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	TargetPoint OffsetVals FieldNote Feature					
used by	element ObservationGroup					
attributes	Name	Type	Use	Default	Fixed	annotation
	purpose	purposeType				
	setupID	xs:IDREF				
	targetSetupID	xs:IDREF				
	setID					
	chordAzimuth	direction	required			
	radius	xs:double	required			
	length	xs:double	required			
	rot	clockwise	required			
	equipmentUsed	equipmentType				
	arcAzimuthAccuracy	xs:double				
	arcLengthAccuracy	xs:double				
	date	xs:date				
	arcType	xs:string				
	adoptedSurvey	xs:string				
	lengthAccClass	xs:string				
	azimuthAccClass	xs:string				
	azimuthAdoptionFactor	xs:double				
	lengthAdoptionFactor	xs:double				
	name	xs:string				
	desc	xs:string				
	state	stateType				
	oID	xs:string				
	coordGeomRefs	coordGeomNameRefs				
	alignRef	alignmentNameRef				
	alignStationName	xs:string				
	alignOffset	offsetDistance				
annotation	documentation As we discussed this element is used to provide measured information for calculating boundary arcs. The definition information required is quite different to the curve element					
source	<pre><xs:element name="ReducedArcObservation"> <xs:annotation> <xs:documentation>As we discussed this element is used to provide measured information for calculating boundary arcs. The definition information required is quite different to the curve element</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint" minOccurs="0"/> <xs:element ref="OffsetVals" minOccurs="0"/></pre>					

```

<xs:choice minOccurs="0" maxOccurs="unbounded">
  <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/>
  <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/>
</xs:choice>
</xs:sequence>
<xs:attribute name="purpose" type="purposeType"/>
<xs:attribute name="setupID" type="xs:IDREF"/>
<xs:attribute name="targetSetupID" type="xs:IDREF"/>
<xs:attribute name="setID"/>
<xs:attribute name="chordAzimuth" type="direction" use="required"/>
<xs:attribute name="radius" type="xs:double" use="required"/>
<xs:attribute name="length" type="xs:double" use="required"/>
<xs:attribute name="rot" type="clockwise" use="required"/>
<xs:attribute name="equipmentUsed" type="equipmentType"/>
<xs:attribute name="arcAzimuthAccuracy" type="xs:double"/>
<xs:attribute name="arcLengthAccuracy" type="xs:double"/>
<xs:attribute name="date" type="xs:date"/>
<xs:attribute name="arcType" type="xs:string"/>
<xs:attribute name="adoptedSurvey" type="xs:string"/>
<xs:attribute name="lengthAccClass" type="xs:string"/>
<xs:attribute name="azimuthAccClass" type="xs:string"/>
<xs:attribute name="azimuthAdoptionFactor" type="xs:double"/>
<xs:attribute name="lengthAdoptionFactor" type="xs:double"/>
<xs:attribute name="name" type="xs:string"/>
<xs:attribute name="desc" type="xs:string"/>
<xs:attribute name="state" type="stateType"/>
<xs:attribute name="oID" type="xs:string"/>
<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>
<xs:attribute name="alignRef" type="alignmentNameRef"/>
<xs:attribute name="alignStationName" type="xs:string"/>
<xs:attribute name="alignOffset" type="offsetDistance"/>
<!-- coordGeomRefs identifies one or more 'name' values that link to specific &lt;Line&gt;, &lt;Curve&gt;, &lt;Spiral&gt; or &lt;IrregularLine&gt; in a &lt;CoordGeom&gt; element. This allows linking an survey observation to specific &lt;Parcel&gt;.&lt;CoordGeom&gt; based geometry. --&gt;
<!-- alignRef is the name of the alignment.
      alignStationName is the station value where the rod reading is taken.
      alignOffset is the signed (+/-) distance from the CL of the referenced alignment. --&gt;
&lt;/xs:complexType&gt;
&lt;/xs:element&gt;
</pre>

```

attribute **ReducedArcObservation/@purpose**

type	<u>purposeType</u>
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration reciprocalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute ReducedArcObservation/@setupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute ReducedArcObservation/@targetSetupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="targetSetupID" type="xs:IDREF"/>

attribute ReducedArcObservation/@setID

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute ReducedArcObservation/@chordAzimuth

type	<u>direction</u>
properties	isRef 0 use required
source	<xs:attribute name="chordAzimuth" type="direction" use="required"/>

attribute ReducedArcObservation/@radius

type	xs:double
properties	isRef 0 use required
source	<xs:attribute name="radius" type="xs:double" use="required"/>

attribute ReducedArcObservation/@length

type	xs:double
properties	isRef 0 use required
source	<xs:attribute name="length" type="xs:double" use="required"/>

attribute ReducedArcObservation/@rot

type	<u>clockwise</u>
properties	isRef 0 use required
facets	enumeration cw enumeration ccw
source	<xs:attribute name="rot" type="clockwise" use="required"/>

attribute ReducedArcObservation/@equipmentUsed

type	<u>equipmentType</u>
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properties	isRef 0
source	<xs:attribute name="equipmentUsed" type="equipmentType"/>

attribute ReducedArcObservation/@arcAzimuthAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="arcAzimuthAccuracy" type="xs:double"/>

attribute ReducedArcObservation/@arcLengthAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="arcLengthAccuracy" type="xs:double"/>

attribute ReducedArcObservation/@date

type	xs:date
properties	isRef 0
source	<xs:attribute name="date" type="xs:date"/>

attribute ReducedArcObservation/@arcType

type	xs:string
properties	isRef 0
source	<xs:attribute name="arcType" type="xs:string"/>

attribute ReducedArcObservation/@adoptedSurvey

type	xs:string
properties	isRef 0
source	<xs:attribute name="adoptedSurvey" type="xs:string"/>

attribute ReducedArcObservation/@lengthAccClass

type	xs:string
properties	isRef 0
source	<xs:attribute name="lengthAccClass" type="xs:string"/>

attribute ReducedArcObservation/@azimuthAccClass

type	xs:string
properties	isRef 0
source	<xs:attribute name="azimuthAccClass" type="xs:string"/>

attribute ReducedArcObservation/@azimuthAdoptionFactor

type	xs:double
properties	isRef 0

source	<code><xs:attribute name="azimuthAdoptionFactor" type="xs:double"/></code>
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attribute ReducedArcObservation/@lengthAdoptionFactor

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="lengthAdoptionFactor" type="xs:double"/></code>

attribute ReducedArcObservation/@name

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="name" type="xs:string"/></code>

attribute ReducedArcObservation/@desc

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="desc" type="xs:string"/></code>

attribute ReducedArcObservation/@state

type	<code>stateType</code>
properties	isRef 0
facets	enumeration abandoned enumeration destroyed enumeration existing enumeration proposed
source	<code><xs:attribute name="state" type="stateType"/></code>

attribute ReducedArcObservation/@oID

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="oID" type="xs:string"/></code>

attribute ReducedArcObservation/@coordGeomRefs

type	<code>coordGeomNameRefs</code>
properties	isRef 0
source	<code><xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/></code>

attribute ReducedArcObservation/@alignRef

type	<code>alignmentNameRef</code>
properties	isRef 0
source	<code><xs:attribute name="alignRef" type="alignmentNameRef"/></code>

attribute ReducedArcObservation/@alignStationName

type	xs:string
properties	isRef 0
source	<xs:attribute name="alignStationName" type="xs:string"/>

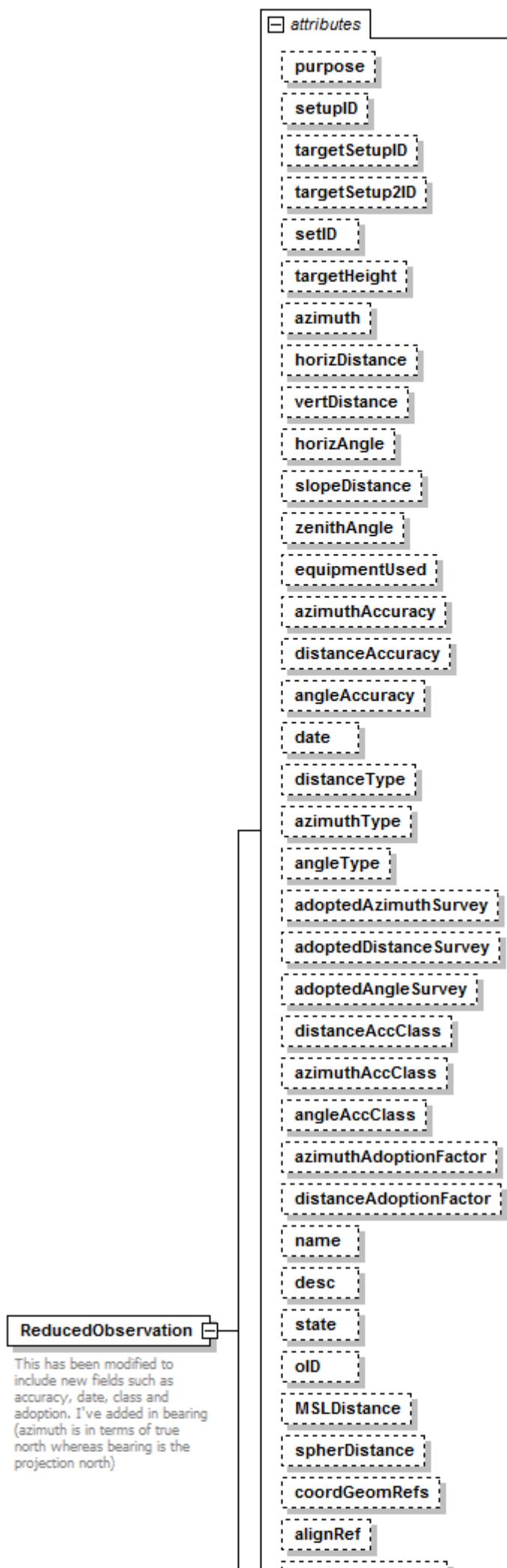
attribute ReducedArcObservation/@alignOffset

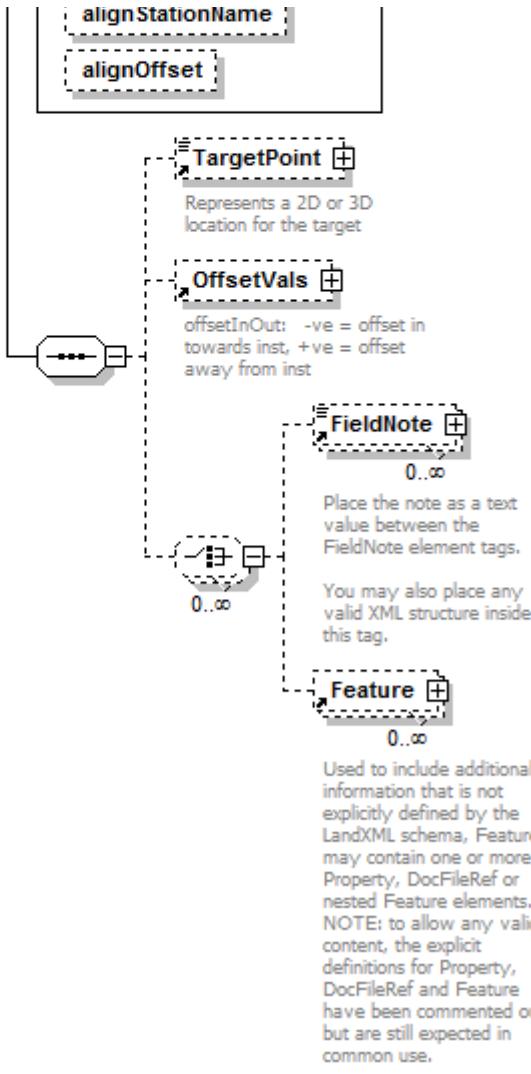
type	<u>offsetDistance</u>
properties	isRef 0
source	<xs:attribute name="alignOffset" type="offsetDistance"/>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

element ReducedObservation

diagram	
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namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	TargetPoint OffsetVals FieldNote Feature					
used by	element ObservationGroup					
attributes	Name	Type	Use	Default	Fixed	annotation
	purpose	purposeType				
	setupID	xs:IDREF				
	targetSetup1ID	xs:IDREF				
	targetSetup2ID	xs:IDREF				
	setID					
	targetHeight	xs:double				
	azimuth	direction	optional			
	horizDistance	xs:double	optional			
	vertDistance	xs:double	optional			
	horizAngle	angle	optional			
	slopeDistance	xs:double	optional			
	zenithAngle	zenithAngle	optional			
	equipmentUsed	equipmentType				
	azimuthAccuracy	xs:double				
	distanceAccuracy	xs:double				
	angleAccuracy	xs:double				
	date	xs:date				
	distanceType	observationType				
	azimuthType	observationType				
	angleType	observationType				
	adoptedAzimuthSurvey	xs:string				

	<u>adoptedDistanceSurvey</u> xs:string <u>adoptedAngleSurvey</u> xs:string <u>distanceAccClass</u> xs:string <u>azimuthAccClass</u> xs:string <u>angleAccClass</u> xs:string <u>azimuthAdoptionFactor</u> xs:double <u>distanceAdoptionFactor</u> xs:double <u>name</u> xs:string <u>desc</u> xs:string <u>state</u> stateType <u>oID</u> xs:string <u>MSLDistance</u> xs:string <u>spherDistance</u> xs:string <u>coordGeomRefs</u> coordGeomNameRefs <u>alignRef</u> alignmentNameRef <u>alignStationName</u> xs:string <u>alignOffset</u> offsetDistance
annotation	<p>documentation</p> <p>This has been modified to include new fields such as accuracy, date, class and adoption. I've added in bearing (azimuth is in terms of true north whereas bearing is the projection north)</p> <p>documentation</p> <p>- maybe this doesn't matter, may need to discuss</p>
source	<pre><xs:element name="ReducedObservation"> <xs:annotation> <xs:documentation>This has been modified to include new fields such as accuracy, date, class and adoption. I've added in bearing (azimuth is in terms of true north whereas bearing is the projection north)</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint" minOccurs="0"/> <xs:element ref="OffsetVals" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="targetSetupID" type="xs:IDREF"/> <xs:attribute name="targetSetup2ID" type="xs:IDREF"/> <xs:attribute name="setID"/> <xs:attribute name="targetHeight" type="xs:double"/> <xs:attribute name="azimuth" type="direction" use="optional"/> <xs:attribute name="horizDistance" type="xs:double" use="optional"/> <xs:attribute name="vertDistance" type="xs:double" use="optional"/> <xs:attribute name="horizAngle" type="angle" use="optional"/> <xs:attribute name="slopeDistance" type="xs:double" use="optional"/> <xs:attribute name="zenithAngle" type="zenithAngle" use="optional"/> <xs:attribute name="equipmentUsed" type="equipmentType"/> <xs:attribute name="azimuthAccuracy" type="xs:double"/> <xs:attribute name="distanceAccuracy" type="xs:double"/> <xs:attribute name="angleAccuracy" type="xs:double"/> <xs:attribute name="date" type="xs:date"/> <xs:attribute name="distanceType" type="observationType"/> <xs:attribute name="azimuthType" type="observationType"/> <xs:attribute name="angleType" type="observationType"/> <xs:attribute name="adoptedAzimuthSurvey" type="xs:string"/> <xs:attribute name="adoptedDistanceSurvey" type="xs:string"/></pre>

```

<xs:attribute name="adoptedAngleSurvey" type="xs:string"/>
<xs:attribute name="distanceAccClass" type="xs:string"/>
<xs:attribute name="azimuthAccClass" type="xs:string"/>
<xs:attribute name="angleAccClass" type="xs:string"/>
<xs:attribute name="azimuthAdoptionFactor" type="xs:double"/>
<xs:attribute name="distanceAdoptionFactor" type="xs:double"/>
<xs:attribute name="name" type="xs:string"/>
<xs:attribute name="desc" type="xs:string"/>
<xs:attribute name="state" type="stateType"/>
<xs:attribute name="oID" type="xs:string"/>
<xs:attribute name="MSLDistance" type="xs:string"/>
<xs:attribute name="spherDistance" type="xs:string"/>
<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>
<xs:attribute name="alignRef" type="alignmentNameRef"/>
<xs:attribute name="alignStationName" type="xs:string"/>
<xs:attribute name="alignOffset" type="offsetDistance"/>
<!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element.

```

This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. -->

```

<!-- alignRef is the name of the alignment.
alignStationName is the station value where the rod reading is taken.
alignOffset is the signed (+/-) distance from the CL of the referenced alignment. -->
</xs:complexType>
</xs:element>

```

attribute **ReducedObservation/@purpose**

type	<u>purposeType</u>
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute **ReducedObservation/@setupID**

type	<u>xs:IDREF</u>
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute **ReducedObservation/@targetSetupID**

type	<u>xs:IDREF</u>
properties	isRef 0

source	<code><xs:attribute name="targetSetupID" type="xs:IDREF"/></code>
--------	---

attribute ReducedObservation/@targetSetup2ID

type	<code>xs:IDREF</code>
properties	isRef 0
source	<code><xs:attribute name="targetSetup2ID" type="xs:IDREF"/></code>

attribute ReducedObservation/@setID

properties	isRef 0
source	<code><xs:attribute name="setID"/></code>

attribute ReducedObservation/@targetHeight

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="targetHeight" type="xs:double"/></code>

attribute ReducedObservation/@azimuth

type	<u>direction</u>
properties	isRef 0 use optional
source	<code><xs:attribute name="azimuth" type="direction" use="optional"/></code>

attribute ReducedObservation/@horizDistance

type	<code>xs:double</code>
properties	isRef 0 use optional
source	<code><xs:attribute name="horizDistance" type="xs:double" use="optional"/></code>

attribute ReducedObservation/@vertDistance

type	<code>xs:double</code>
properties	isRef 0 use optional
source	<code><xs:attribute name="vertDistance" type="xs:double" use="optional"/></code>

attribute ReducedObservation/@horizAngle

type	<u>angle</u>
properties	isRef 0 use optional
source	<code><xs:attribute name="horizAngle" type="angle" use="optional"/></code>

attribute ReducedObservation/@slopeDistance

type	<code>xs:double</code>
properties	isRef 0

	use optional
source	<xs:attribute name="slopeDistance" type="xs:double" use="optional"/>

attribute ReducedObservation/@zenithAngle

type	<u>zenithAngle</u>
properties	isRef 0 use optional
source	<xs:attribute name="zenithAngle" type="zenithAngle" use="optional"/>

attribute ReducedObservation/@equipmentUsed

type	<u>equipmentType</u>
properties	isRef 0
source	<xs:attribute name="equipmentUsed" type="equipmentType"/>

attribute ReducedObservation/@azimuthAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="azimuthAccuracy" type="xs:double"/>

attribute ReducedObservation/@distanceAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="distanceAccuracy" type="xs:double"/>

attribute ReducedObservation/@angleAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="angleAccuracy" type="xs:double"/>

attribute ReducedObservation/@date

type	xs:date
properties	isRef 0
source	<xs:attribute name="date" type="xs:date"/>

attribute ReducedObservation/@distanceType

type	<u>observationType</u>
properties	isRef 0
source	<xs:attribute name="distanceType" type="observationType"/>

attribute ReducedObservation/@azimuthType

type	<u>observationType</u>
properties	isRef 0

source	<code><xs:attribute name="azimuthType" type="observationType"/></code>
--------	--

attribute ReducedObservation/@angleType

type	<code>observationType</code>
properties	isRef 0
source	<code><xs:attribute name="angleType" type="observationType"/></code>

attribute ReducedObservation/@adoptedAzimuthSurvey

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="adoptedAzimuthSurvey" type="xs:string"/></code>

attribute ReducedObservation/@adoptedDistanceSurvey

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="adoptedDistanceSurvey" type="xs:string"/></code>

attribute ReducedObservation/@adoptedAngleSurvey

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="adoptedAngleSurvey" type="xs:string"/></code>

attribute ReducedObservation/@distanceAccClass

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="distanceAccClass" type="xs:string"/></code>

attribute ReducedObservation/@azimuthAccClass

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="azimuthAccClass" type="xs:string"/></code>

attribute ReducedObservation/@angleAccClass

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="angleAccClass" type="xs:string"/></code>

attribute ReducedObservation/@azimuthAdoptionFactor

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="azimuthAdoptionFactor" type="xs:double"/></code>

attribute ReducedObservation/@distanceAdoptionFactor

type	xs:double
properties	isRef 0
source	<xs:attribute name="distanceAdoptionFactor" type="xs:double"/>

attribute ReducedObservation/@name

type	xs:string
properties	isRef 0
source	<xs:attribute name="name" type="xs:string"/>

attribute ReducedObservation/@desc

type	xs:string
properties	isRef 0
source	<xs:attribute name="desc" type="xs:string"/>

attribute ReducedObservation/@state

type	stateType
properties	isRef 0
facets	enumeration abandoned enumeration destroyed enumeration existing enumeration proposed
source	<xs:attribute name="state" type="stateType"/>

attribute ReducedObservation/@oID

type	xs:string
properties	isRef 0
source	<xs:attribute name="oID" type="xs:string"/>

attribute ReducedObservation/@MSLDistance

type	xs:string
properties	isRef 0
source	<xs:attribute name="MSLDistance" type="xs:string"/>

attribute ReducedObservation/@spherDistance

type	xs:string
properties	isRef 0
source	<xs:attribute name="spherDistance" type="xs:string"/>

attribute ReducedObservation/@coordGeomRefs

type	coordGeomNameRefs
properties	isRef 0

source	<code><xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/></code>
--------	--

attribute ReducedObservation/@alignRef

type	<u>alignmentNameRef</u>
properties	isRef 0
source	<code><xs:attribute name="alignRef" type="alignmentNameRef"/></code>

attribute ReducedObservation/@alignStationName

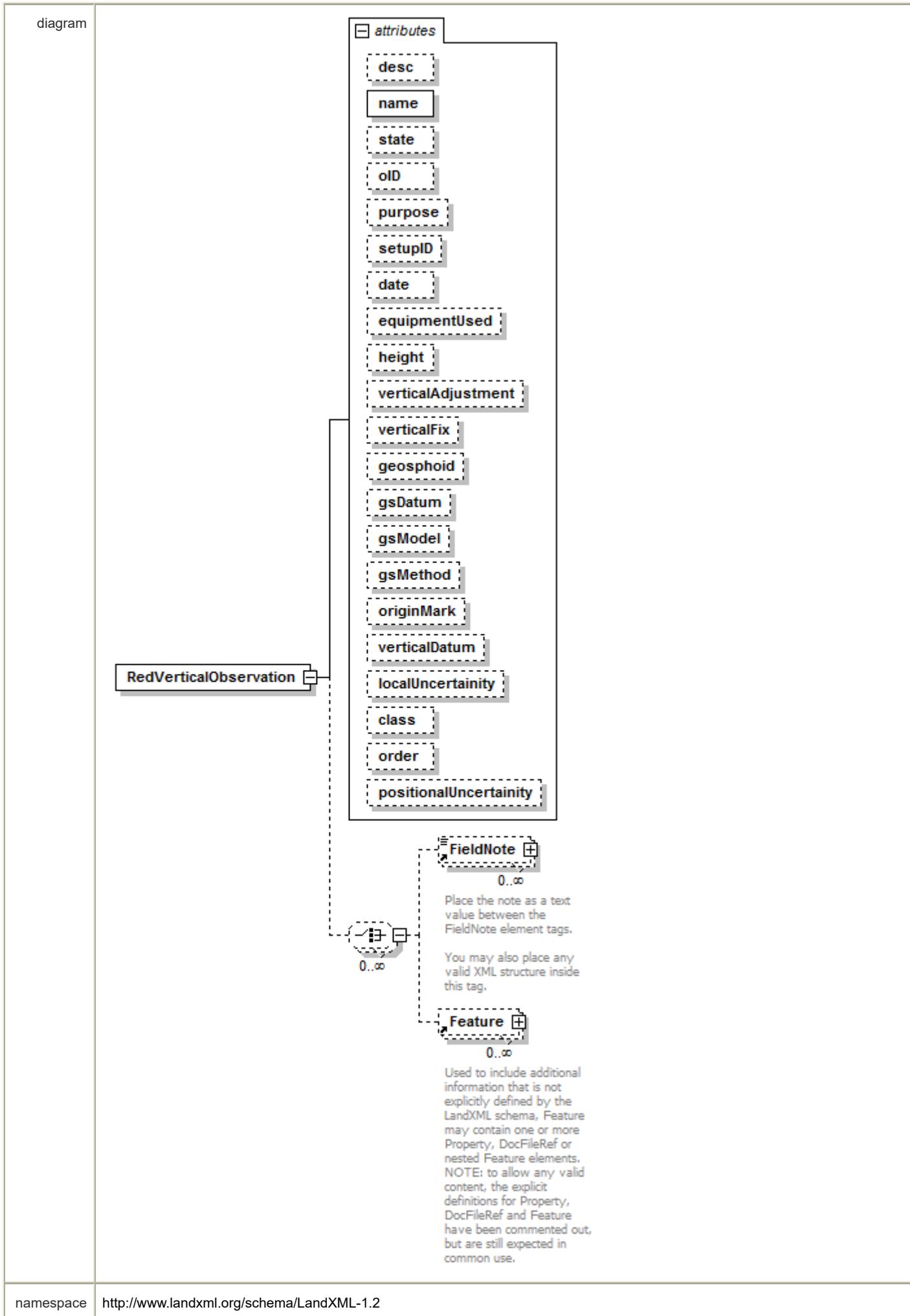
type	xs:string
properties	isRef 0
source	<code><xs:attribute name="alignStationName" type="xs:string"/></code>

attribute ReducedObservation/@alignOffset

type	<u>offsetDistance</u>
properties	isRef 0
source	<code><xs:attribute name="alignOffset" type="offsetDistance"/></code>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element RedVerticalObservation



properties	content complex					
children	FieldNote Feature					
used by	element ObservationGroup					
attributes	Name <u>desc</u> <u>name</u> <u>state</u> <u>oID</u> <u>purpose</u> <u>setupID</u> <u>date</u> <u>equipmentUsed</u> <u>height</u> <u>verticalAdjustment</u> <u>verticalFix</u> <u>geosphoid</u> <u>gsDatum</u> <u>gsModel</u> <u>gsMethod</u> <u>originMark</u> <u>verticalDatum</u> <u>localUncertainty</u> <u>class</u> <u>order</u> <u>positionalUncertainty</u>	Type xs:string xs:string xs:string xs:string purposeType xs:IDREF xs:date equipmentType xs:double xs:string xs:string xs:double xs:string xs:string xs:string xs:string xs:string xs:double xs:string xs:string	Use	Default	Fixed	annotation
source	<pre><xs:element name="RedVerticalObservation"> <xs:complexType> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> <xs:attribute name="desc" type="xs:string"/> <xs:attribute name="name" type="xs:string" use="required"/> <xs:attribute name="state" type="xs:string"/> <xs:attribute name="oID" type="xs:string"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="date" type="xs:date"/> <xs:attribute name="equipmentUsed" type="equipmentType"/> <xs:attribute name="height" type="xs:double"/> <xs:attribute name="verticalAdjustment" type="xs:string"/> <xs:attribute name="verticalFix" type="xs:string"/> <xs:attribute name="geosphoid" type="xs:double"/> <xs:attribute name="gsDatum" type="xs:string"/> <xs:attribute name="gsModel" type="xs:string"/> <xs:attribute name="gsMethod" type="xs:string"/> <xs:attribute name="originMark" type="xs:string"/> <xs:attribute name="verticalDatum" type="xs:string"/> <xs:attribute name="localUncertainty" type="xs:double"/> <xs:attribute name="class" type="xs:string"/> <xs:attribute name="order" type="xs:string"/> <xs:attribute name="positionalUncertainty" type="xs:double"/> </xs:complexType> </xs:element></pre>					

attribute **RedVerticalObservation/@desc**

type	xs:string
------	------------------

properties	isRef 0
source	<xs:attribute name="desc" type="xs:string"/>

attribute RedVerticalObservation/@name

type	xs:string
properties	isRef 0 use required
source	<xs:attribute name="name" type="xs:string" use="required"/>

attribute RedVerticalObservation/@state

type	xs:string
properties	isRef 0
source	<xs:attribute name="state" type="xs:string"/>

attribute RedVerticalObservation/@oID

type	xs:string
properties	isRef 0
source	<xs:attribute name="oID" type="xs:string"/>

attribute RedVerticalObservation/@purpose

type	purposeType
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute RedVerticalObservation/@setupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute RedVerticalObservation/@date

type	xs:date
properties	isRef 0

source	<code><xs:attribute name="date" type="xs:date"/></code>
--------	---

attribute RedVerticalObservation/@equipmentUsed

type	<u>equipmentType</u>
properties	isRef 0
source	<code><xs:attribute name="equipmentUsed" type="equipmentType"/></code>

attribute RedVerticalObservation/@height

type	xs:double
properties	isRef 0
source	<code><xs:attribute name="height" type="xs:double"/></code>

attribute RedVerticalObservation/@verticalAdjustment

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="verticalAdjustment" type="xs:string"/></code>

attribute RedVerticalObservation/@verticalFix

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="verticalFix" type="xs:string"/></code>

attribute RedVerticalObservation/@geosphoid

type	xs:double
properties	isRef 0
source	<code><xs:attribute name="geosphoid" type="xs:double"/></code>

attribute RedVerticalObservation/@gsDatum

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="gsDatum" type="xs:string"/></code>

attribute RedVerticalObservation/@gsModel

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="gsModel" type="xs:string"/></code>

attribute RedVerticalObservation/@gsMethod

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="gsMethod" type="xs:string"/></code>

attribute RedVerticalObservation/@originMark

type	xs:string
properties	isRef 0
source	<xs:attribute name="originMark" type="xs:string"/>

attribute RedVerticalObservation/@verticalDatum

type	xs:string
properties	isRef 0
source	<xs:attribute name="verticalDatum" type="xs:string"/>

attribute RedVerticalObservation/@localUncertainty

type	xs:double
properties	isRef 0
source	<xs:attribute name="localUncertainty" type="xs:double"/>

attribute RedVerticalObservation/@class

type	xs:string
properties	isRef 0
source	<xs:attribute name="class" type="xs:string"/>

attribute RedVerticalObservation/@order

type	xs:string
properties	isRef 0
source	<xs:attribute name="order" type="xs:string"/>

attribute RedVerticalObservation/@positionalUncertainty

type	xs:double
properties	isRef 0
source	<xs:attribute name="positionalUncertainty" type="xs:double"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>

element RedHorizontalPosition

diagram	<p>RedHorizontalPosition</p> <p>This element is used to define the Reduced Horizontal Position. The coordinates given in Geographical Coordinates may come in variety of means.</p> <p>The diagram illustrates the structure of the RedHorizontalPosition element. It contains a list of attributes: desc, name, state, oID, purpose, setupID, date, equipmentUsed, horizontalDatum, horizontalAdjustment, latitude, longitude, horizontalFix, currencyDate, localUncertainty, class, order, and positionalUncertainty. Below the element is a note about FieldNotes and Features.</p> <p>FieldNote 0..∞</p> <p>Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.</p> <p>Feature 0..∞</p> <p>Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.</p>
namespace	http://www.landxml.org/schema/LandXML-1.2
properties	content complex
children	FieldNote Feature
used by	element ObservationGroup

attributes	Name	Type	Use	Default	Fixed	annotation
	<u>desc</u>	xs:string				
	<u>name</u>	xs:string	required			
	<u>state</u>	xs:string				
	<u>oID</u>	xs:string				
	<u>purpose</u>	purposeType				
	<u>setupID</u>	xs:IDREF				
	<u>date</u>	xs:date				
	<u>equipmentUsed</u>	equipmentType				
	<u>horizontalDatum</u>	xs:string				
	<u>horizontalAdjustment</u>	xs:string				
	<u>latitude</u>	xs:string				
	<u>longitude</u>	xs:string				
	<u>horizontalFix</u>	xs:string				
	<u>currencyDate</u>	xs:string				
	<u>localUncertainty</u>	xs:double				
	<u>class</u>	xs:string				
	<u>order</u>	xs:string				
	<u>positionalUncertainty</u>	xs:double				
annotation	documentation					
	This element is used to define the Reduced Horizontal Position. The coordinates given in Geographical Coordinates may come in variety of means.					
source	<pre><xs:element name="RedHorizontalPosition"> <xs:annotation> <xs:documentation>This element is used to define the Reduced Horizontal Position. The coordinates given in Geographical Coordinates may come in variety of means. </xs:documentation> </xs:annotation> <xs:complexType> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> <xs:attribute name="desc" type="xs:string"/> <xs:attribute name="name" type="xs:string" use="required"/> <xs:attribute name="state" type="xs:string"/> <xs:attribute name="oID" type="xs:string"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="date" type="xs:date"/> <xs:attribute name="equipmentUsed" type="equipmentType"/> <xs:attribute name="horizontalDatum" type="xs:string"/> <xs:attribute name="horizontalAdjustment" type="xs:string"/> <xs:attribute name="latitude" type="xs:string"/> <xs:attribute name="longitude" type="xs:string"/> <xs:attribute name="horizontalFix" type="xs:string"/> <xs:attribute name="currencyDate" type="xs:string"/> <xs:attribute name="localUncertainty" type="xs:double"/> <xs:attribute name="class" type="xs:string"/> <xs:attribute name="order" type="xs:string"/> <xs:attribute name="positionalUncertainty" type="xs:double"/> </xs:complexType> </xs:element></pre>					

attribute RedHorizontalPosition/@desc

type	xs:string
properties	isRef 0
source	<pre><xs:attribute name="desc" type="xs:string"/></pre>

attribute RedHorizontalPosition/@name

type	xs:string
properties	isRef 0 use required
source	<xs:attribute name="name" type="xs:string" use="required"/>

attribute RedHorizontalPosition/@state

type	xs:string
properties	isRef 0
source	<xs:attribute name="state" type="xs:string"/>

attribute RedHorizontalPosition/@oID

type	xs:string
properties	isRef 0
source	<xs:attribute name="oID" type="xs:string"/>

attribute RedHorizontalPosition/@purpose

type	<u>purposeType</u>
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute RedHorizontalPosition/@setupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute RedHorizontalPosition/@date

type	xs:date
properties	isRef 0
source	<xs:attribute name="date" type="xs:date"/>

attribute RedHorizontalPosition/@equipmentUsed

type	equipmentType
properties	isRef 0
source	<xs:attribute name="equipmentUsed" type="equipmentType"/>

attribute RedHorizontalPosition/@horizontalDatum

type	xs:string
properties	isRef 0
source	<xs:attribute name="horizontalDatum" type="xs:string"/>

attribute RedHorizontalPosition/@horizontalAdjustment

type	xs:string
properties	isRef 0
source	<xs:attribute name="horizontalAdjustment" type="xs:string"/>

attribute RedHorizontalPosition/@latitude

type	xs:string
properties	isRef 0
source	<xs:attribute name="latitude" type="xs:string"/>

attribute RedHorizontalPosition/@longitude

type	xs:string
properties	isRef 0
source	<xs:attribute name="longitude" type="xs:string"/>

attribute RedHorizontalPosition/@horizontalFix

type	xs:string
properties	isRef 0
source	<xs:attribute name="horizontalFix" type="xs:string"/>

attribute RedHorizontalPosition/@currencyDate

type	xs:string
properties	isRef 0
source	<xs:attribute name="currencyDate" type="xs:string"/>

attribute RedHorizontalPosition/@localUncertainty

type	xs:double
properties	isRef 0
source	<xs:attribute name="localUncertainty" type="xs:double"/>

attribute RedHorizontalPosition/@class

type	xs:string
------	------------------

properties	isRef 0
source	<xs:attribute name="class" type="xs:string"/>

attribute RedHorizontalPosition/@order

type	xs:string
properties	isRef 0
source	<xs:attribute name="order" type="xs:string"/>

attribute RedHorizontalPosition/@positionalUncertainty

type	xs:double
properties	isRef 0
source	<xs:attribute name="positionalUncertainty" type="xs:double"/>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>.

element **Backsight**

diagram	<pre> classDiagram class Backsight { id azimuth targetHeight circle setupID } class BacksightPoint { <<Represents a 2D or 3D location for the backsight>> } class FieldNote { <<Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.>> } class Feature { <<Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.>> } Backsight "0..1" --> "0..1" BacksightPoint Backsight "0..infinity" --> "0..infinity" FieldNote Backsight "0..infinity" --> "0..infinity" Feature </pre>																																				
namespace	http://www.landxml.org/schema/LandXML-1.2																																				
properties	content complex																																				
children	BacksightPoint FieldNote Feature																																				
used by	elements InstrumentSetup LaserSetup ObservationGroup																																				
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>id</td> <td>xs:ID</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>azimuth</td> <td>direction</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>targetHeight</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>circle</td> <td>angle</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>setupID</td> <td>xs:IDREF</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	id	xs:ID					azimuth	direction					targetHeight	xs:double					circle	angle	required				setupID	xs:IDREF				
Name	Type	Use	Default	Fixed	annotation																																
id	xs:ID																																				
azimuth	direction																																				
targetHeight	xs:double																																				
circle	angle	required																																			
setupID	xs:IDREF																																				
source	<pre> <xs:element name="Backsight"> <xs:annotation> <xs:documentation> </xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="BacksightPoint" minOccurs="0"/> <xs:choice> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> </xs:complexType> </xs:element> </pre>																																				

```

</xs:choice>
</xs:sequence>
<xs:attribute name="id" type="xs:ID"/>
<xs:attribute name="azimuth" type="direction"/>
<xs:attribute name="targetHeight" type="xs:double"/>
<xs:attribute name="circle" type="angle" use="required"/>
<xs:attribute name="setupID" type="xs:IDREF"/>
</xs:complexType>
</xs:element>

```

attribute **Backsight/@id**

type	xs:ID
properties	isRef 0
source	<xs:attribute name="id" type="xs:ID"/>

attribute **Backsight/@azimuth**

type	direction
properties	isRef 0
source	<xs:attribute name="azimuth" type="direction"/>

attribute **Backsight/@targetHeight**

type	xs:double
properties	isRef 0
source	<xs:attribute name="targetHeight" type="xs:double"/>

attribute **Backsight/@circle**

type	angle
properties	isRef 0 use required
source	<xs:attribute name="circle" type="angle" use="required"/>

attribute **Backsight/@setupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

element **BacksightPoint**

diagram	<pre> classDiagram class PointType { <<attributes>> name desc code state pntRef featureRef pointGeometry DTMAAttribute timeStamp role determinedTimeStamp ellipsoidHeight latitude longitude zone northingStdError eastingStdError elevationStdError } class BacksightPoint { <<Represents a 2D or 3D location for the backsight>> } PointType < -- BacksightPoint </pre> <p>BacksightPoint Represents a 2D or 3D location for the backsight</p>																																																																								
namespace	http://www.landxml.org/schema/LandXML-1.2																																																																								
type	PointType																																																																								
properties	content complex mixed true																																																																								
used by	element Backsight																																																																								
facets	minLength 0 maxLength 3																																																																								
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>name</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>desc</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>code</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>state</td> <td>stateType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pntRef</td> <td>pointNameRef</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>featureRef</td> <td>featureNameRef</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>pointGeometry</td> <td>pointGeometryType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DTMAAttribute</td> <td>DTMAAttributeType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>timeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>role</td> <td>surveyRoleType</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>determinedTimeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	name	xs:string					desc	xs:string					code	xs:string					state	stateType					pntRef	pointNameRef					featureRef	featureNameRef	optional				pointGeometry	pointGeometryType					DTMAAttribute	DTMAAttributeType					timeStamp	xs:dateTime	optional				role	surveyRoleType	optional				determinedTimeStamp	xs:dateTime	optional			
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	<u>ellipsoidHeight</u>	ellipsoidHeightType optional
	<u>latitude</u>	latLongAngle optional
	<u>longitude</u>	latLongAngle optional
	<u>zone</u>	xs:string optional
	<u>northingStdError</u>	xs:double optional
	<u>eastingStdError</u>	xs:double optional
	<u>elevationStdError</u>	xs:double optional
annotation	documentation Represents a 2D or 3D location for the backsight documentation It is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.	
source	<pre><xs:element name="BacksightPoint" type="PointType"> <xs:annotation> <xs:documentation>Represents a 2D or 3D location for the backsight</xs:documentation> <xs:documentation>It is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.</xs:documentation> </xs:annotation> </xs:element></pre>	

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

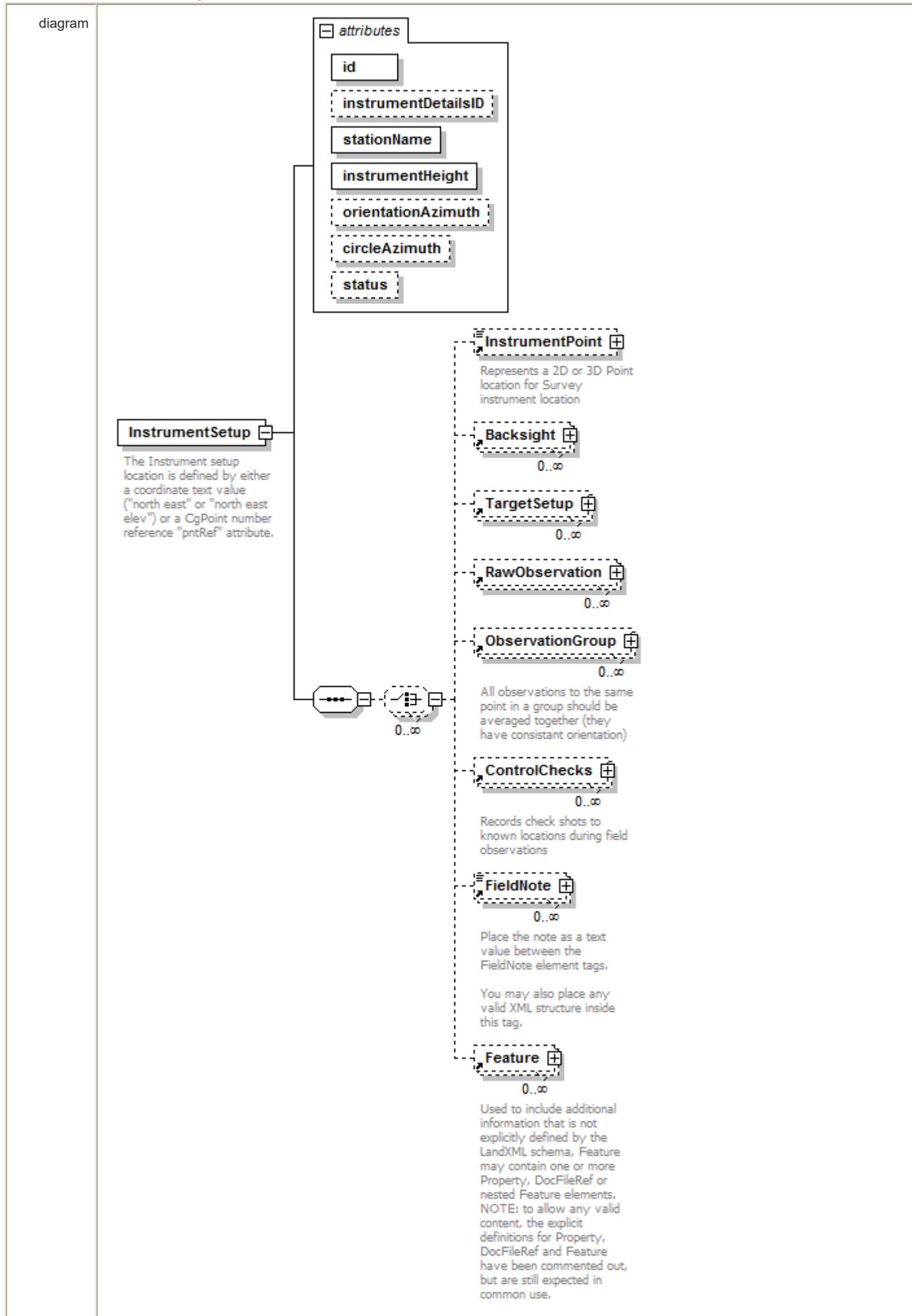
element **InstrumentPoint**

diagram	<pre> classDiagram class PointType { name desc code state pntRef featureRef pointGeometry DTMAtribute time Stamp role determinedTime Stamp ellipsoidHeight latitude longitude zone northing StdError easting StdError elevation StdError } class InstrumentPoint { <<Represents a 2D or 3D Point location for Survey instrument location>> } PointType < -- InstrumentPoint </pre>																																																																								
namespace	http://www.landxml.org/schema/LandXML-1.2																																																																								
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	<u>ellipsoidHeight</u>	ellipsoidHeightType optional
	<u>latitude</u>	latLongAngle optional
	<u>longitude</u>	latLongAngle optional
	<u>zone</u>	xs:string optional
	<u>northingStdError</u>	xs:double optional
	<u>eastingStdError</u>	xs:double optional
	<u>elevationStdError</u>	xs:double optional
annotation	<p>documentation Represents a 2D or 3D Point location for Survey instrument location documentation Defined by either a coordinate text value ("north east" or "north east elev") or a PointType number reference "pntRef" attribute.</p>	
source	<pre><xs:element name="InstrumentPoint" type="PointType"> <xs:annotation> <xs:documentation>Represents a 2D or 3D Point location for Survey instrument location</xs:documentation> <xs:documentation>Defined by either a coordinate text value ("north east" or "north east elev") or a PointType number reference "pntRef" attribute.</xs:documentation> </xs:annotation> </xs:element></pre>	

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element InstrumentSetup



namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	InstrumentPoint Backsight TargetSetup RawObservation ObservationGroup ControlChecks FieldNote Feature					
used by	element Survey .					
attributes	Name	Type	Use	Default	Fixed	annotation
	<u>id</u>	<u>xs:ID</u>	required			
	<u>instrumentDetailsID</u>	<u>xs:IDREF</u>				
	<u>stationName</u>	<u>xs:string</u>	required			
	<u>instrumentHeight</u>	<u>xs:double</u>	required			
	<u>orientationAzimuth</u>	<u>direction</u>				
	<u>circleAzimuth</u>	<u>direction</u>				
	<u>status</u>	<u>observationStatusType</u>				
annotation	documentation The Instrument setup location is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.					
source	<pre><xs:element name="InstrumentSetup"> <xs:annotation> <xs:documentation>The Instrument setup location is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="InstrumentPoint" minOccurs="0"/> <xs:element ref="Backsight" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="TargetSetup" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="RawObservation" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="ObservationGroup" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="ControlChecks" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="instrumentDetailsID" type="xs:IDREF"/> <xs:attribute name="stationName" type="xs:string" use="required"/> <xs:attribute name="instrumentHeight" type="xs:double" use="required"/> <xs:attribute name="orientationAzimuth" type="direction"/> <xs:attribute name="circleAzimuth" type="direction"/> <xs:attribute name="status" type="observationStatusType"/> </xs:complexType> </xs:element></pre>					

attribute [InstrumentSetup/@id](#)

type	<u>xs:ID</u>
properties	isRef 0 use required
source	<u><xs:attribute name="id" type="xs:ID" use="required"/></u>

attribute [InstrumentSetup/@instrumentDetailsID](#)

type	<u>xs:IDREF</u>
properties	isRef 0

source	<code><xs:attribute name="instrumentDetailsID" type="xs:IDREF"/></code>
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attribute InstrumentSetup/@stationName

type	<code>xs:string</code>
properties	isRef 0 use required
source	<code><xs:attribute name="stationName" type="xs:string" use="required"/></code>

attribute InstrumentSetup/@instrumentHeight

type	<code>xs:double</code>
properties	isRef 0 use required
source	<code><xs:attribute name="instrumentHeight" type="xs:double" use="required"/></code>

attribute InstrumentSetup/@orientationAzimuth

type	<u>direction</u>
properties	isRef 0
source	<code><xs:attribute name="orientationAzimuth" type="direction"/></code>

attribute InstrumentSetup/@circleAzimuth

type	<u>direction</u>
properties	isRef 0
source	<code><xs:attribute name="circleAzimuth" type="direction"/></code>

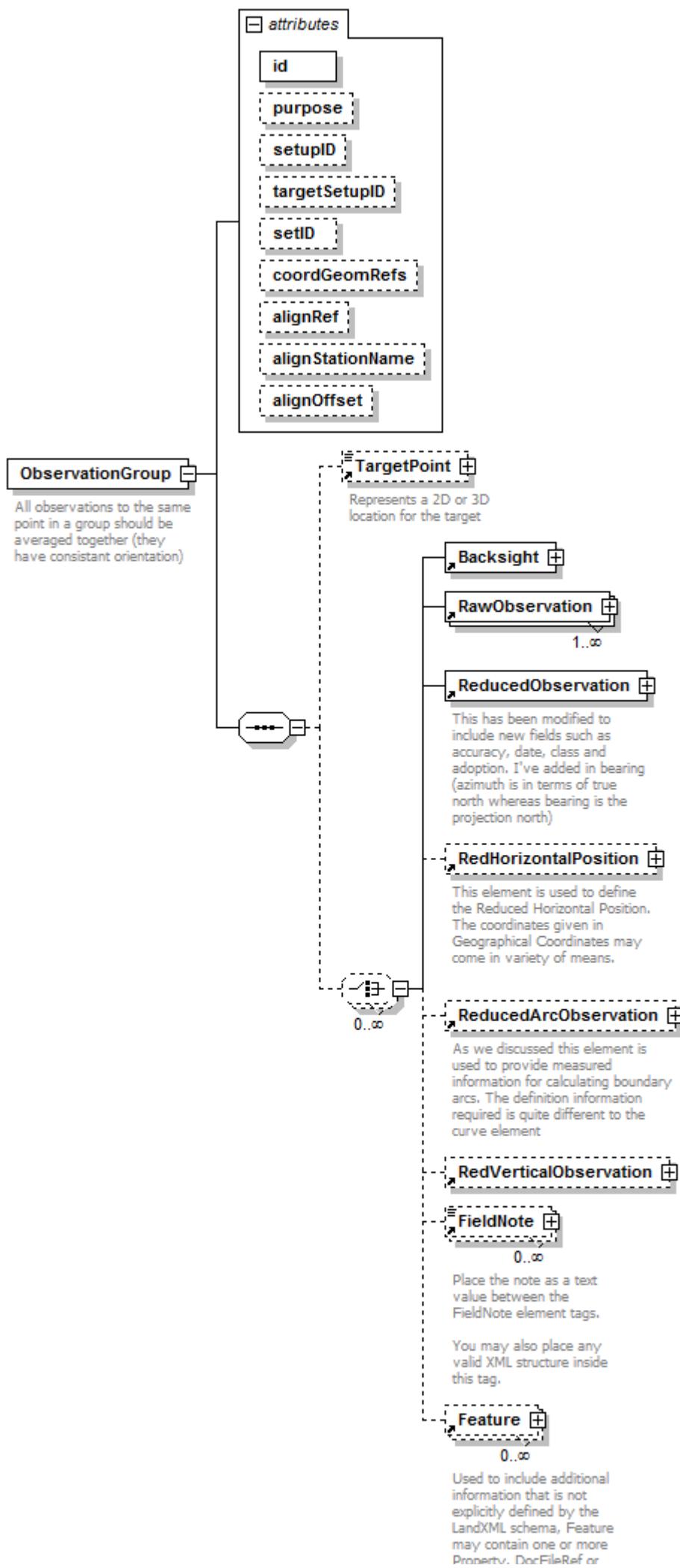
attribute InstrumentSetup/@status

type	<u>observationStatusType</u>
properties	isRef 0
facets	enumeration modified enumeration deleted
source	<code><xs:attribute name="status" type="observationStatusType"/></code>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element ObservationGroup

diagram	
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nesting Feature elements.
NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.

namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	TargetPoint Backsight RawObservation ReducedObservation RedHorizontalPosition ReducedArcObservation RedVerticalObservation FieldNote Feature					
used by	elements ControlChecks InstrumentSetup Survey .					
attributes	Name <u>id</u> Type Use <u>xs:ID</u> required <u>purpose</u> purposeType <u>setupID</u> xs:IDREF <u>targetSetupID</u> xs:IDREF <u>setID</u> <u>coordGeomRefs</u> coordGeomNameRefs <u>alignRef</u> alignmentNameRef <u>alignStationName</u> xs:string <u>alignOffset</u> offsetDistance		Default	Fixed	annotation	
annotation	documentation All observations to the same point in a group should be averaged together (they have consistant orientation)					
source	<pre><xs:element name="ObservationGroup"> <xs:annotation> <xs:documentation>All observations to the same point in a group should be averaged together (they have consistant orientation)</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="Backsight"/> <xs:element ref="RawObservation" maxOccurs="unbounded"/> <xs:element ref="ReducedObservation"/> <xs:element ref="RedHorizontalPosition" minOccurs="0"/> <xs:element ref="ReducedArcObservation" minOccurs="0"/> <xs:element ref="RedVerticalObservation" minOccurs="0"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="targetSetupID" type="xs:IDREF"/> <xs:attribute name="setID"/> <xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/> <xs:attribute name="alignRef" type="alignmentNameRef"/> <xs:attribute name="alignStationName" type="xs:string"/> <xs:attribute name="alignOffset" type="offsetDistance"/> <!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element. This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. --> <!-- alignRef is the name of the alignment. alignStationName is the station value where the rod reading is taken. </pre>					

</xs:complexType>
 </xs:element>

attribute **ObservationGroup/@id**

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute **ObservationGroup/@purpose**

type	purposeType
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute **ObservationGroup/@setupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute **ObservationGroup/@targetSetupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="targetSetupID" type="xs:IDREF"/>

attribute **ObservationGroup/@setID**

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute **ObservationGroup/@coordGeomRefs**

type	coordGeomNameRefs
properties	isRef 0
source	<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>

attribute ObservationGroup/@alignRef

type	<u>alignmentNameRef</u>
properties	isRef 0
source	<xs:attribute name="alignRef" type="alignmentNameRef"/>

attribute ObservationGroup/@alignStationName

type	<u>xs:string</u>
properties	isRef 0
source	<xs:attribute name="alignStationName" type="xs:string"/>

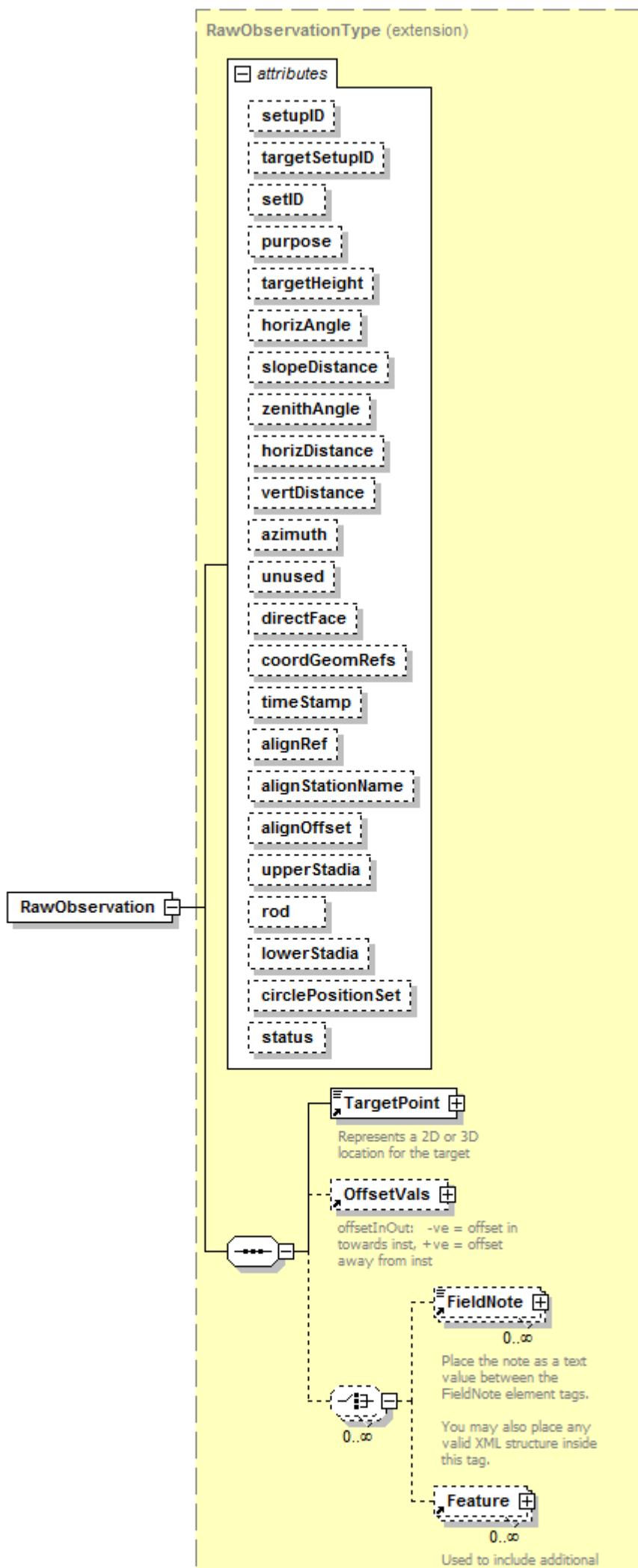
attribute ObservationGroup/@alignOffset

type	<u>offsetDistance</u>
properties	isRef 0
source	<xs:attribute name="alignOffset" type="offsetDistance"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element RawObservation

diagram	
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information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.

namespace	http://www.landxml.org/schema/LandXML-1.2					
type	extension of RawObservationType					
properties	content complex mixed false					
children	TargetPoint OffsetVals FieldNote Feature					
used by	elements InstrumentSetup LaserSetup ObservationGroup					
attributes	Name	Type	Use	Default	Fixed	annotation
	setupID	xs:IDREF				
	targetSetupID	xs:IDREF				
	setID					
	purpose	purposeType				
	targetHeight	xs:double				
	horizAngle	angle	optional			
	slopeDistance	xs:double	optional			
	zenithAngle	zenithAngle	optional			
	horizDistance	xs:double				
	vertDistance	xs:double				
	azimuth	direction	optional			
	unused	xs:boolean				
	directFace	xs:boolean				
	coordGeomRefs	coordGeomNameRefs				
	timeStamp	xs:dateTime				
	alignRef	alignmentNameRef				
	alignStationName	xs:string				
	alignOffset	offsetDistance				
	upperStadia	xs:double				
	rod	xs:double				
	lowerStadia	xs:double				
	circlePositionSet	xs:double				
	status	observationStatusType				
source	<pre><xs:element name="RawObservation"> <xs:complexType mixed="false"> <xs:complexContent mixed="false"> <xs:extension base="RawObservationType"/> </xs:complexContent> </xs:complexType> </xs:element></pre>					

element RedHorizontalPosition

diagram	<p>RedHorizontalPosition</p> <p>This element is used to define the Reduced Horizontal Position. The coordinates given in Geographical Coordinates may come in variety of means.</p> <p>The diagram illustrates the structure of the RedHorizontalPosition element. It contains a list of attributes: desc, name, state, oID, purpose, setupID, date, equipmentUsed, horizontalDatum, horizontalAdjustment, latitude, longitude, horizontalFix, currencyDate, localUncertainty, class, order, and positionalUncertainty. Below the element is a note about FieldNotes and Features.</p> <p>FieldNote 0..∞</p> <p>Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.</p> <p>Feature 0..∞</p> <p>Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.</p>
namespace	http://www.landxml.org/schema/LandXML-1.2
properties	content complex
children	FieldNote Feature
used by	element ObservationGroup

attributes	Name	Type	Use	Default	Fixed	annotation
	<u>desc</u>	xs:string				
	<u>name</u>	xs:string	required			
	<u>state</u>	xs:string				
	<u>oID</u>	xs:string				
	<u>purpose</u>	purposeType				
	<u>setupID</u>	xs:IDREF				
	<u>date</u>	xs:date				
	<u>equipmentUsed</u>	equipmentType				
	<u>horizontalDatum</u>	xs:string				
	<u>horizontalAdjustment</u>	xs:string				
	<u>latitude</u>	xs:string				
	<u>longitude</u>	xs:string				
	<u>horizontalFix</u>	xs:string				
	<u>currencyDate</u>	xs:string				
	<u>localUncertainty</u>	xs:double				
	<u>class</u>	xs:string				
	<u>order</u>	xs:string				
	<u>positionalUncertainty</u>	xs:double				
annotation	documentation					
	This element is used to define the Reduced Horizontal Position. The coordinates given in Geographical Coordinates may come in variety of means.					
source	<pre> <xs:element name="RedHorizontalPosition"> <xs:annotation> <xs:documentation>This element is used to define the Reduced Horizontal Position. The coordinates given in Geographical Coordinates may come in variety of means. </xs:documentation> </xs:annotation> <xs:complexType> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> <xs:attribute name="desc" type="xs:string"/> <xs:attribute name="name" type="xs:string" use="required"/> <xs:attribute name="state" type="xs:string"/> <xs:attribute name="oID" type="xs:string"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="date" type="xs:date"/> <xs:attribute name="equipmentUsed" type="equipmentType"/> <xs:attribute name="horizontalDatum" type="xs:string"/> <xs:attribute name="horizontalAdjustment" type="xs:string"/> <xs:attribute name="latitude" type="xs:string"/> <xs:attribute name="longitude" type="xs:string"/> <xs:attribute name="horizontalFix" type="xs:string"/> <xs:attribute name="currencyDate" type="xs:string"/> <xs:attribute name="localUncertainty" type="xs:double"/> <xs:attribute name="class" type="xs:string"/> <xs:attribute name="order" type="xs:string"/> <xs:attribute name="positionalUncertainty" type="xs:double"/> </xs:complexType> </xs:element> </pre>					

attribute RedHorizontalPosition/@desc

type	xs:string
properties	isRef 0
source	<xs:attribute name="desc" type="xs:string"/>

attribute RedHorizontalPosition/@name

type	xs:string
properties	isRef 0 use required
source	<xs:attribute name="name" type="xs:string" use="required"/>

attribute RedHorizontalPosition/@state

type	xs:string
properties	isRef 0
source	<xs:attribute name="state" type="xs:string"/>

attribute RedHorizontalPosition/@oID

type	xs:string
properties	isRef 0
source	<xs:attribute name="oID" type="xs:string"/>

attribute RedHorizontalPosition/@purpose

type	<u>purposeType</u>
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute RedHorizontalPosition/@setupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute RedHorizontalPosition/@date

type	xs:date
properties	isRef 0
source	<xs:attribute name="date" type="xs:date"/>

attribute RedHorizontalPosition/@equipmentUsed

type	equipmentType
properties	isRef 0
source	<xs:attribute name="equipmentUsed" type="equipmentType"/>

attribute RedHorizontalPosition/@horizontalDatum

type	xs:string
properties	isRef 0
source	<xs:attribute name="horizontalDatum" type="xs:string"/>

attribute RedHorizontalPosition/@horizontalAdjustment

type	xs:string
properties	isRef 0
source	<xs:attribute name="horizontalAdjustment" type="xs:string"/>

attribute RedHorizontalPosition/@latitude

type	xs:string
properties	isRef 0
source	<xs:attribute name="latitude" type="xs:string"/>

attribute RedHorizontalPosition/@longitude

type	xs:string
properties	isRef 0
source	<xs:attribute name="longitude" type="xs:string"/>

attribute RedHorizontalPosition/@horizontalFix

type	xs:string
properties	isRef 0
source	<xs:attribute name="horizontalFix" type="xs:string"/>

attribute RedHorizontalPosition/@currencyDate

type	xs:string
properties	isRef 0
source	<xs:attribute name="currencyDate" type="xs:string"/>

attribute RedHorizontalPosition/@localUncertainty

type	xs:double
properties	isRef 0
source	<xs:attribute name="localUncertainty" type="xs:double"/>

attribute RedHorizontalPosition/@class

type	xs:string
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properties	isRef 0
source	<xs:attribute name="class" type="xs:string"/>

attribute RedHorizontalPosition/@order

type	xs:string
properties	isRef 0
source	<xs:attribute name="order" type="xs:string"/>

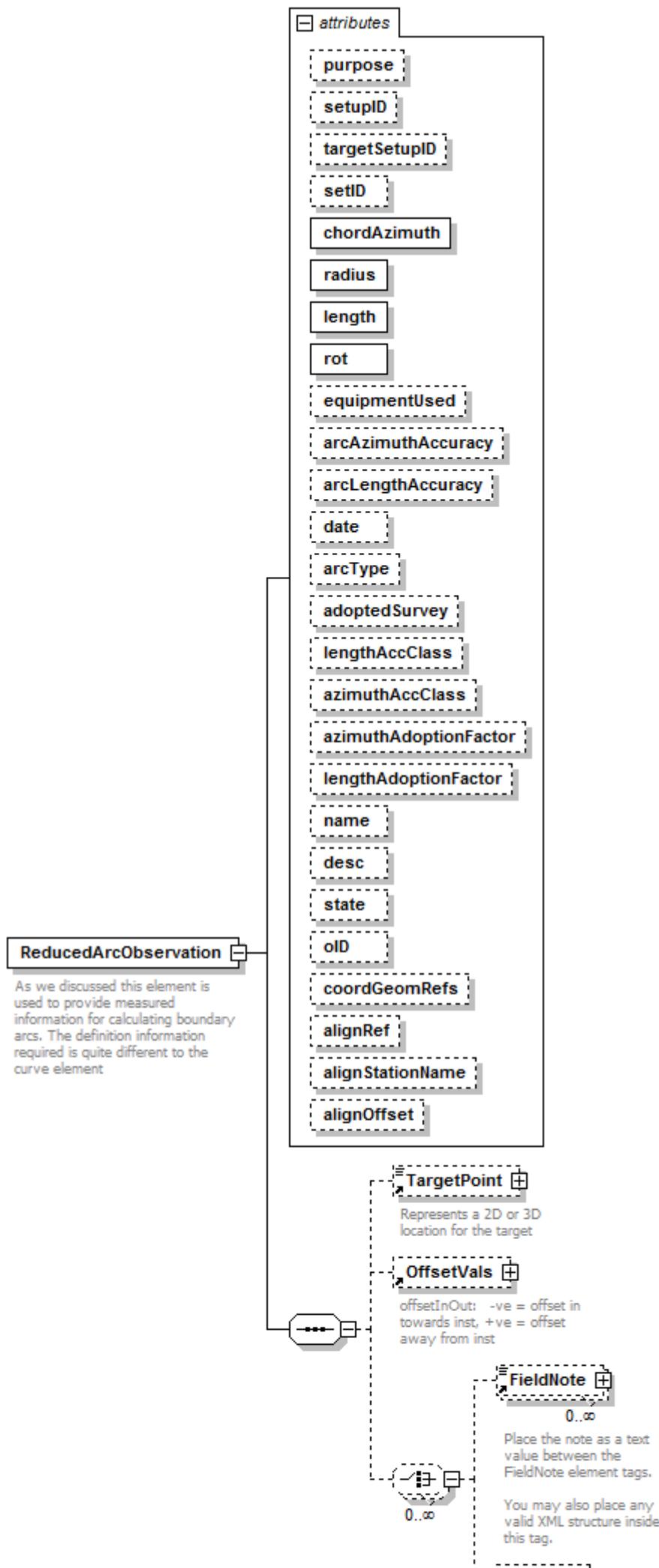
attribute RedHorizontalPosition/@positionalUncertainty

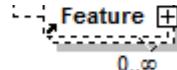
type	xs:double
properties	isRef 0
source	<xs:attribute name="positionalUncertainty" type="xs:double"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element ReducedArcObservation

diagram	
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Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.

namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	TargetPoint OffsetVals FieldNote Feature					
used by	element ObservationGroup					
attributes	Name	Type	Use	Default	Fixed	annotation
	purpose	purposeType				
	setupID	xs:IDREF				
	targetSetupID	xs:IDREF				
	setID					
	chordAzimuth	direction	required			
	radius	xs:double	required			
	length	xs:double	required			
	rot	clockwise	required			
	equipmentUsed	equipmentType				
	arcAzimuthAccuracy	xs:double				
	arcLengthAccuracy	xs:double				
	date	xs:date				
	arcType	xs:string				
	adoptedSurvey	xs:string				
	lengthAccClass	xs:string				
	azimuthAccClass	xs:string				
	azimuthAdoptionFactor	xs:double				
	lengthAdoptionFactor	xs:double				
	name	xs:string				
	desc	xs:string				
	state	stateType				
	oID	xs:string				
	coordGeomRefs	coordGeomNameRefs				
	alignRef	alignmentNameRef				
	alignStationName	xs:string				
	alignOffset	offsetDistance				
annotation	documentation As we discussed this element is used to provide measured information for calculating boundary arcs. The definition information required is quite different to the curve element					
source	<pre><xs:element name="ReducedArcObservation"> <xs:annotation> <xs:documentation>As we discussed this element is used to provide measured information for calculating boundary arcs. The definition information required is quite different to the curve element</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint" minOccurs="0"/> <xs:element ref="OffsetVals" minOccurs="0"/></pre>					

```

<xs:choice minOccurs="0" maxOccurs="unbounded">
  <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/>
  <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/>
</xs:choice>
</xs:sequence>
<xs:attribute name="purpose" type="purposeType"/>
<xs:attribute name="setupID" type="xs:IDREF"/>
<xs:attribute name="targetSetupID" type="xs:IDREF"/>
<xs:attribute name="setID"/>
<xs:attribute name="chordAzimuth" type="direction" use="required"/>
<xs:attribute name="radius" type="xs:double" use="required"/>
<xs:attribute name="length" type="xs:double" use="required"/>
<xs:attribute name="rot" type="clockwise" use="required"/>
<xs:attribute name="equipmentUsed" type="equipmentType"/>
<xs:attribute name="arcAzimuthAccuracy" type="xs:double"/>
<xs:attribute name="arcLengthAccuracy" type="xs:double"/>
<xs:attribute name="date" type="xs:date"/>
<xs:attribute name="arcType" type="xs:string"/>
<xs:attribute name="adoptedSurvey" type="xs:string"/>
<xs:attribute name="lengthAccClass" type="xs:string"/>
<xs:attribute name="azimuthAccClass" type="xs:string"/>
<xs:attribute name="azimuthAdoptionFactor" type="xs:double"/>
<xs:attribute name="lengthAdoptionFactor" type="xs:double"/>
<xs:attribute name="name" type="xs:string"/>
<xs:attribute name="desc" type="xs:string"/>
<xs:attribute name="state" type="stateType"/>
<xs:attribute name="oID" type="xs:string"/>
<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>
<xs:attribute name="alignRef" type="alignmentNameRef"/>
<xs:attribute name="alignStationName" type="xs:string"/>
<xs:attribute name="alignOffset" type="offsetDistance"/>
<!-- coordGeomRefs identifies one or more 'name' values that link to specific &lt;Line&gt;, &lt;Curve&gt;, &lt;Spiral&gt; or &lt;IrregularLine&gt; in a &lt;CoordGeom&gt; element. This allows linking an survey observation to specific &lt;Parcel&gt;.&lt;CoordGeom&gt; based geometry. --&gt;
<!-- alignRef is the name of the alignment.
      alignStationName is the station value where the rod reading is taken.
      alignOffset is the signed (+/-) distance from the CL of the referenced alignment. --&gt;
&lt;/xs:complexType&gt;
&lt;/xs:element&gt;
</pre>

```

attribute **ReducedArcObservation/@purpose**

type	<u>purposeType</u>
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration reciprocalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute ReducedArcObservation/@setupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute ReducedArcObservation/@targetSetupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="targetSetupID" type="xs:IDREF"/>

attribute ReducedArcObservation/@setID

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute ReducedArcObservation/@chordAzimuth

type	<u>direction</u>
properties	isRef 0 use required
source	<xs:attribute name="chordAzimuth" type="direction" use="required"/>

attribute ReducedArcObservation/@radius

type	xs:double
properties	isRef 0 use required
source	<xs:attribute name="radius" type="xs:double" use="required"/>

attribute ReducedArcObservation/@length

type	xs:double
properties	isRef 0 use required
source	<xs:attribute name="length" type="xs:double" use="required"/>

attribute ReducedArcObservation/@rot

type	<u>clockwise</u>
properties	isRef 0 use required
facets	enumeration cw enumeration ccw
source	<xs:attribute name="rot" type="clockwise" use="required"/>

attribute ReducedArcObservation/@equipmentUsed

type	<u>equipmentType</u>
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properties	isRef 0
source	<xs:attribute name="equipmentUsed" type="equipmentType"/>

attribute ReducedArcObservation/@arcAzimuthAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="arcAzimuthAccuracy" type="xs:double"/>

attribute ReducedArcObservation/@arcLengthAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="arcLengthAccuracy" type="xs:double"/>

attribute ReducedArcObservation/@date

type	xs:date
properties	isRef 0
source	<xs:attribute name="date" type="xs:date"/>

attribute ReducedArcObservation/@arcType

type	xs:string
properties	isRef 0
source	<xs:attribute name="arcType" type="xs:string"/>

attribute ReducedArcObservation/@adoptedSurvey

type	xs:string
properties	isRef 0
source	<xs:attribute name="adoptedSurvey" type="xs:string"/>

attribute ReducedArcObservation/@lengthAccClass

type	xs:string
properties	isRef 0
source	<xs:attribute name="lengthAccClass" type="xs:string"/>

attribute ReducedArcObservation/@azimuthAccClass

type	xs:string
properties	isRef 0
source	<xs:attribute name="azimuthAccClass" type="xs:string"/>

attribute ReducedArcObservation/@azimuthAdoptionFactor

type	xs:double
properties	isRef 0

source	<code><xs:attribute name="azimuthAdoptionFactor" type="xs:double"/></code>
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attribute ReducedArcObservation/@lengthAdoptionFactor

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="lengthAdoptionFactor" type="xs:double"/></code>

attribute ReducedArcObservation/@name

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="name" type="xs:string"/></code>

attribute ReducedArcObservation/@desc

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="desc" type="xs:string"/></code>

attribute ReducedArcObservation/@state

type	<code>stateType</code>
properties	isRef 0
facets	enumeration abandoned enumeration destroyed enumeration existing enumeration proposed
source	<code><xs:attribute name="state" type="stateType"/></code>

attribute ReducedArcObservation/@oID

type	<code>xs:string</code>
properties	isRef 0
source	<code><xs:attribute name="oID" type="xs:string"/></code>

attribute ReducedArcObservation/@coordGeomRefs

type	<code>coordGeomNameRefs</code>
properties	isRef 0
source	<code><xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/></code>

attribute ReducedArcObservation/@alignRef

type	<code>alignmentNameRef</code>
properties	isRef 0
source	<code><xs:attribute name="alignRef" type="alignmentNameRef"/></code>

attribute ReducedArcObservation/@alignStationName

type	xs:string
properties	isRef 0
source	<xs:attribute name="alignStationName" type="xs:string"/>

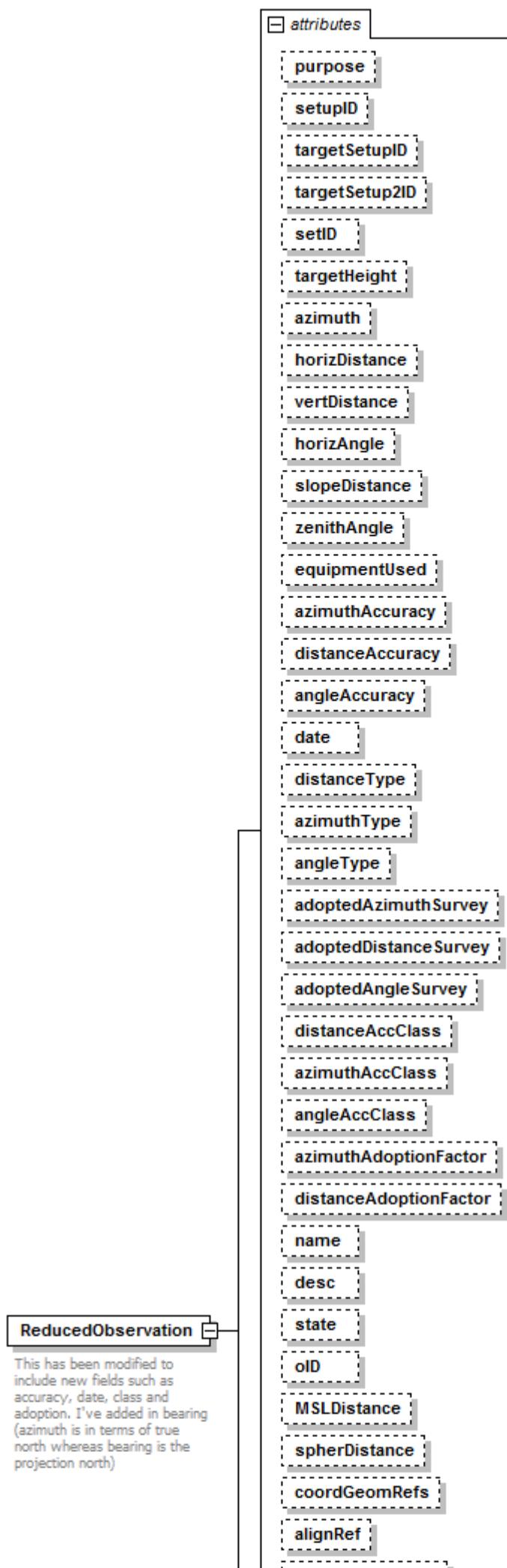
attribute ReducedArcObservation/@alignOffset

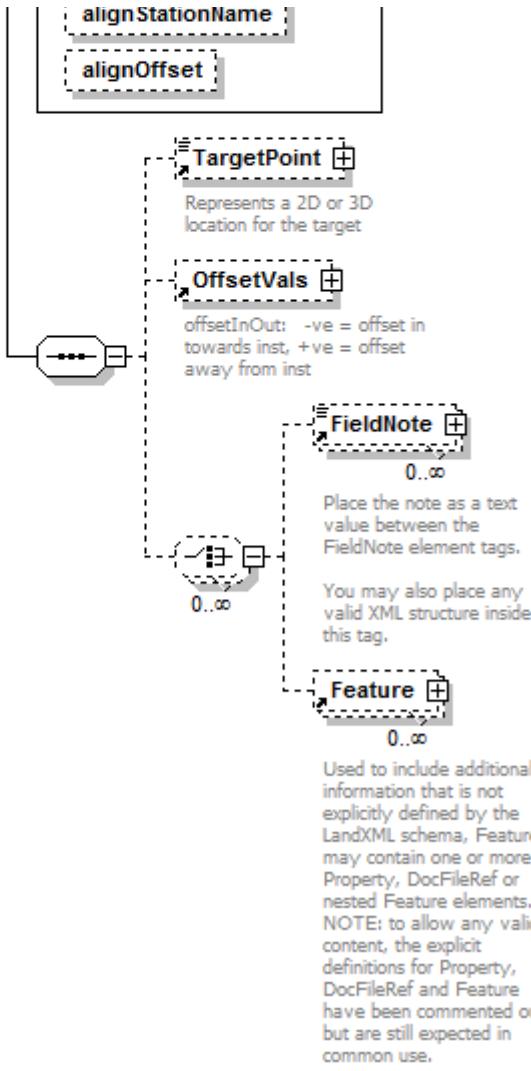
type	<u>offsetDistance</u>
properties	isRef 0
source	<xs:attribute name="alignOffset" type="offsetDistance"/>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

element ReducedObservation

diagram	
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namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	TargetPoint OffsetVals FieldNote Feature					
used by	element ObservationGroup					
attributes	Name	Type	Use	Default	Fixed	annotation
	purpose	purposeType				
	setupID	xs:IDREF				
	targetSetup1ID	xs:IDREF				
	targetSetup2ID	xs:IDREF				
	setID					
	targetHeight	xs:double				
	azimuth	direction	optional			
	horizDistance	xs:double	optional			
	vertDistance	xs:double	optional			
	horizAngle	angle	optional			
	slopeDistance	xs:double	optional			
	zenithAngle	zenithAngle	optional			
	equipmentUsed	equipmentType				
	azimuthAccuracy	xs:double				
	distanceAccuracy	xs:double				
	angleAccuracy	xs:double				
	date	xs:date				
	distanceType	observationType				
	azimuthType	observationType				
	angleType	observationType				
	adoptedAzimuthSurvey	xs:string				

	<u>adoptedDistanceSurvey</u> xs:string <u>adoptedAngleSurvey</u> xs:string <u>distanceAccClass</u> xs:string <u>azimuthAccClass</u> xs:string <u>angleAccClass</u> xs:string <u>azimuthAdoptionFactor</u> xs:double <u>distanceAdoptionFactor</u> xs:double <u>name</u> xs:string <u>desc</u> xs:string <u>state</u> stateType <u>oID</u> xs:string <u>MSLDistance</u> xs:string <u>spherDistance</u> xs:string <u>coordGeomRefs</u> coordGeomNameRefs <u>alignRef</u> alignmentNameRef <u>alignStationName</u> xs:string <u>alignOffset</u> offsetDistance
annotation	<p>documentation</p> <p>This has been modified to include new fields such as accuracy, date, class and adoption. I've added in bearing (azimuth is in terms of true north whereas bearing is the projection north)</p> <p>documentation</p> <p>- maybe this doesn't matter, may need to discuss</p>
source	<pre><xs:element name="ReducedObservation"> <xs:annotation> <xs:documentation>This has been modified to include new fields such as accuracy, date, class and adoption. I've added in bearing (azimuth is in terms of true north whereas bearing is the projection north)</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint" minOccurs="0"/> <xs:element ref="OffsetVals" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="targetSetupID" type="xs:IDREF"/> <xs:attribute name="targetSetup2ID" type="xs:IDREF"/> <xs:attribute name="setID"/> <xs:attribute name="targetHeight" type="xs:double"/> <xs:attribute name="azimuth" type="direction" use="optional"/> <xs:attribute name="horizDistance" type="xs:double" use="optional"/> <xs:attribute name="vertDistance" type="xs:double" use="optional"/> <xs:attribute name="horizAngle" type="angle" use="optional"/> <xs:attribute name="slopeDistance" type="xs:double" use="optional"/> <xs:attribute name="zenithAngle" type="zenithAngle" use="optional"/> <xs:attribute name="equipmentUsed" type="equipmentType"/> <xs:attribute name="azimuthAccuracy" type="xs:double"/> <xs:attribute name="distanceAccuracy" type="xs:double"/> <xs:attribute name="angleAccuracy" type="xs:double"/> <xs:attribute name="date" type="xs:date"/> <xs:attribute name="distanceType" type="observationType"/> <xs:attribute name="azimuthType" type="observationType"/> <xs:attribute name="angleType" type="observationType"/> <xs:attribute name="adoptedAzimuthSurvey" type="xs:string"/> <xs:attribute name="adoptedDistanceSurvey" type="xs:string"/></pre>

```

<xs:attribute name="adoptedAngleSurvey" type="xs:string"/>
<xs:attribute name="distanceAccClass" type="xs:string"/>
<xs:attribute name="azimuthAccClass" type="xs:string"/>
<xs:attribute name="angleAccClass" type="xs:string"/>
<xs:attribute name="azimuthAdoptionFactor" type="xs:double"/>
<xs:attribute name="distanceAdoptionFactor" type="xs:double"/>
<xs:attribute name="name" type="xs:string"/>
<xs:attribute name="desc" type="xs:string"/>
<xs:attribute name="state" type="stateType"/>
<xs:attribute name="oID" type="xs:string"/>
<xs:attribute name="MSLDistance" type="xs:string"/>
<xs:attribute name="spherDistance" type="xs:string"/>
<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>
<xs:attribute name="alignRef" type="alignmentNameRef"/>
<xs:attribute name="alignStationName" type="xs:string"/>
<xs:attribute name="alignOffset" type="offsetDistance"/>
<!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element.

```

This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. -->

```

<!-- alignRef is the name of the alignment.
alignStationName is the station value where the rod reading is taken.
alignOffset is the signed (+/-) distance from the CL of the referenced alignment. -->
</xs:complexType>
</xs:element>

```

attribute **ReducedObservation/@purpose**

type	<u>purposeType</u>
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute **ReducedObservation/@setupID**

type	<u>xs:IDREF</u>
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute **ReducedObservation/@targetSetupID**

type	<u>xs:IDREF</u>
properties	isRef 0

source	<code><xs:attribute name="targetSetupID" type="xs:IDREF"/></code>
--------	---

attribute ReducedObservation/@targetSetup2ID

type	<code>xs:IDREF</code>
properties	isRef 0
source	<code><xs:attribute name="targetSetup2ID" type="xs:IDREF"/></code>

attribute ReducedObservation/@setID

properties	isRef 0
source	<code><xs:attribute name="setID"/></code>

attribute ReducedObservation/@targetHeight

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="targetHeight" type="xs:double"/></code>

attribute ReducedObservation/@azimuth

type	<u>direction</u>
properties	isRef 0 use optional
source	<code><xs:attribute name="azimuth" type="direction" use="optional"/></code>

attribute ReducedObservation/@horizDistance

type	<code>xs:double</code>
properties	isRef 0 use optional
source	<code><xs:attribute name="horizDistance" type="xs:double" use="optional"/></code>

attribute ReducedObservation/@vertDistance

type	<code>xs:double</code>
properties	isRef 0 use optional
source	<code><xs:attribute name="vertDistance" type="xs:double" use="optional"/></code>

attribute ReducedObservation/@horizAngle

type	<u>angle</u>
properties	isRef 0 use optional
source	<code><xs:attribute name="horizAngle" type="angle" use="optional"/></code>

attribute ReducedObservation/@slopeDistance

type	<code>xs:double</code>
properties	isRef 0

	use optional
source	<xs:attribute name="slopeDistance" type="xs:double" use="optional"/>

attribute ReducedObservation/@zenithAngle

type	<u>zenithAngle</u>
properties	isRef 0 use optional
source	<xs:attribute name="zenithAngle" type="zenithAngle" use="optional"/>

attribute ReducedObservation/@equipmentUsed

type	<u>equipmentType</u>
properties	isRef 0
source	<xs:attribute name="equipmentUsed" type="equipmentType"/>

attribute ReducedObservation/@azimuthAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="azimuthAccuracy" type="xs:double"/>

attribute ReducedObservation/@distanceAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="distanceAccuracy" type="xs:double"/>

attribute ReducedObservation/@angleAccuracy

type	xs:double
properties	isRef 0
source	<xs:attribute name="angleAccuracy" type="xs:double"/>

attribute ReducedObservation/@date

type	xs:date
properties	isRef 0
source	<xs:attribute name="date" type="xs:date"/>

attribute ReducedObservation/@distanceType

type	<u>observationType</u>
properties	isRef 0
source	<xs:attribute name="distanceType" type="observationType"/>

attribute ReducedObservation/@azimuthType

type	<u>observationType</u>
properties	isRef 0

source	<code><xs:attribute name="azimuthType" type="observationType"/></code>
--------	--

attribute ReducedObservation/@angleType

type	<u>observationType</u>
properties	isRef 0
source	<code><xs:attribute name="angleType" type="observationType"/></code>

attribute ReducedObservation/@adoptedAzimuthSurvey

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="adoptedAzimuthSurvey" type="xs:string"/></code>

attribute ReducedObservation/@adoptedDistanceSurvey

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="adoptedDistanceSurvey" type="xs:string"/></code>

attribute ReducedObservation/@adoptedAngleSurvey

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="adoptedAngleSurvey" type="xs:string"/></code>

attribute ReducedObservation/@distanceAccClass

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="distanceAccClass" type="xs:string"/></code>

attribute ReducedObservation/@azimuthAccClass

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="azimuthAccClass" type="xs:string"/></code>

attribute ReducedObservation/@angleAccClass

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="angleAccClass" type="xs:string"/></code>

attribute ReducedObservation/@azimuthAdoptionFactor

type	xs:double
properties	isRef 0
source	<code><xs:attribute name="azimuthAdoptionFactor" type="xs:double"/></code>

attribute ReducedObservation/@distanceAdoptionFactor

type	xs:double
properties	isRef 0
source	<xs:attribute name="distanceAdoptionFactor" type="xs:double"/>

attribute ReducedObservation/@name

type	xs:string
properties	isRef 0
source	<xs:attribute name="name" type="xs:string"/>

attribute ReducedObservation/@desc

type	xs:string
properties	isRef 0
source	<xs:attribute name="desc" type="xs:string"/>

attribute ReducedObservation/@state

type	stateType
properties	isRef 0
facets	enumeration abandoned enumeration destroyed enumeration existing enumeration proposed
source	<xs:attribute name="state" type="stateType"/>

attribute ReducedObservation/@oID

type	xs:string
properties	isRef 0
source	<xs:attribute name="oID" type="xs:string"/>

attribute ReducedObservation/@MSLDistance

type	xs:string
properties	isRef 0
source	<xs:attribute name="MSLDistance" type="xs:string"/>

attribute ReducedObservation/@spherDistance

type	xs:string
properties	isRef 0
source	<xs:attribute name="spherDistance" type="xs:string"/>

attribute ReducedObservation/@coordGeomRefs

type	coordGeomNameRefs
properties	isRef 0

source	<code><xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/></code>
--------	--

attribute ReducedObservation/@alignRef

type	<u>alignmentNameRef</u>
properties	isRef 0
source	<code><xs:attribute name="alignRef" type="alignmentNameRef"/></code>

attribute ReducedObservation/@alignStationName

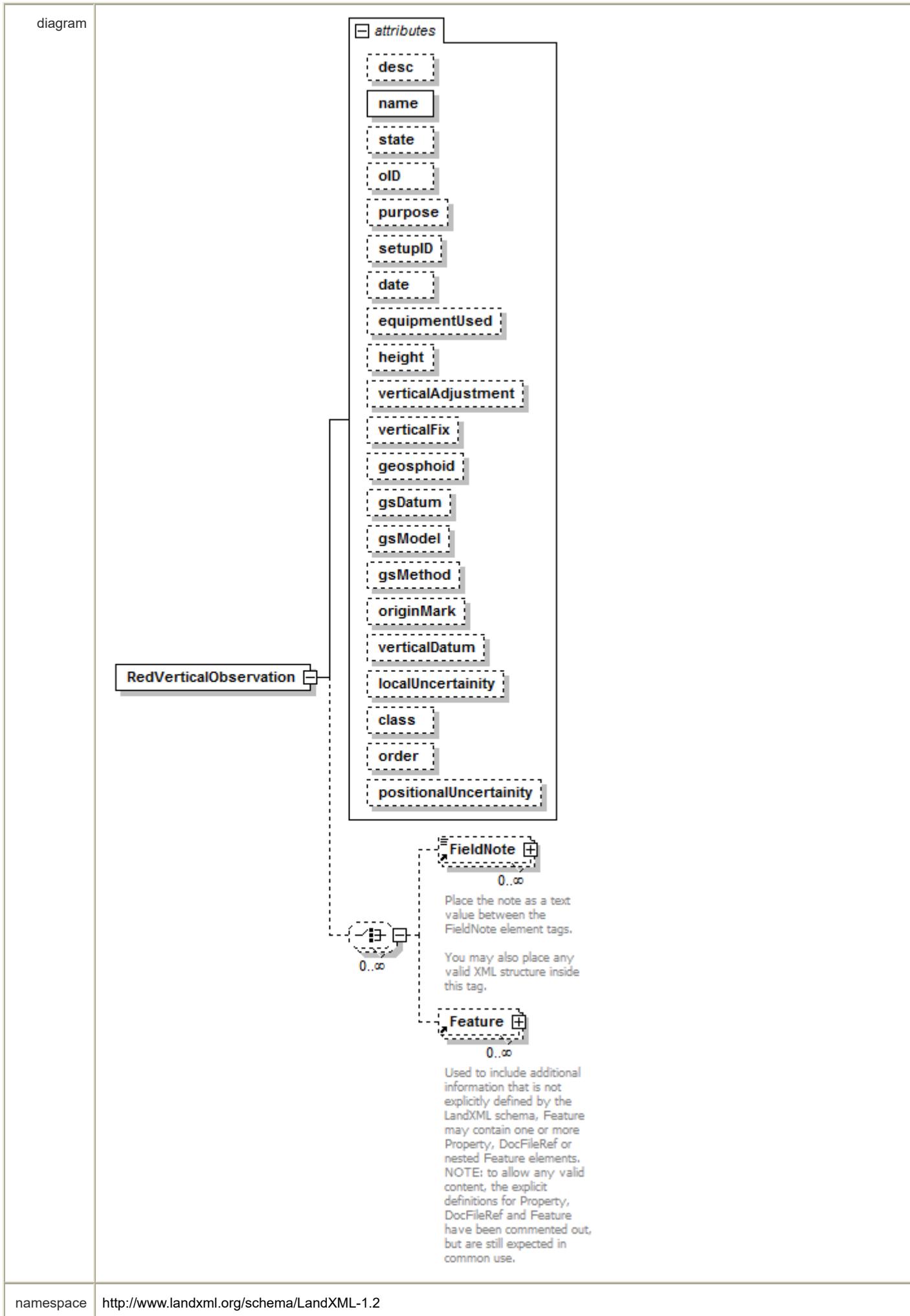
type	xs:string
properties	isRef 0
source	<code><xs:attribute name="alignStationName" type="xs:string"/></code>

attribute ReducedObservation/@alignOffset

type	<u>offsetDistance</u>
properties	isRef 0
source	<code><xs:attribute name="alignOffset" type="offsetDistance"/></code>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element RedVerticalObservation



properties	content complex					
children	FieldNote Feature					
used by	element ObservationGroup					
attributes	Name <u>desc</u> <u>name</u> <u>state</u> <u>oID</u> <u>purpose</u> <u>setupID</u> <u>date</u> <u>equipmentUsed</u> <u>height</u> <u>verticalAdjustment</u> <u>verticalFix</u> <u>geosphoid</u> <u>gsDatum</u> <u>gsModel</u> <u>gsMethod</u> <u>originMark</u> <u>verticalDatum</u> <u>localUncertainty</u> <u>class</u> <u>order</u> <u>positionalUncertainty</u>	Type xs:string xs:string xs:string xs:string purposeType xs:IDREF xs:date equipmentType xs:double xs:string xs:string xs:double xs:string xs:string xs:string xs:string xs:string xs:double xs:string xs:string	Use	Default	Fixed	annotation
	<u>required</u>					
source	<pre><xs:element name="RedVerticalObservation"> <xs:complexType> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> <xs:attribute name="desc" type="xs:string"/> <xs:attribute name="name" type="xs:string" use="required"/> <xs:attribute name="state" type="xs:string"/> <xs:attribute name="oID" type="xs:string"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="date" type="xs:date"/> <xs:attribute name="equipmentUsed" type="equipmentType"/> <xs:attribute name="height" type="xs:double"/> <xs:attribute name="verticalAdjustment" type="xs:string"/> <xs:attribute name="verticalFix" type="xs:string"/> <xs:attribute name="geosphoid" type="xs:double"/> <xs:attribute name="gsDatum" type="xs:string"/> <xs:attribute name="gsModel" type="xs:string"/> <xs:attribute name="gsMethod" type="xs:string"/> <xs:attribute name="originMark" type="xs:string"/> <xs:attribute name="verticalDatum" type="xs:string"/> <xs:attribute name="localUncertainty" type="xs:double"/> <xs:attribute name="class" type="xs:string"/> <xs:attribute name="order" type="xs:string"/> <xs:attribute name="positionalUncertainty" type="xs:double"/> </xs:complexType> </xs:element></pre>					

attribute **RedVerticalObservation/@desc**

type	xs:string
------	------------------

properties	isRef 0
source	<xs:attribute name="desc" type="xs:string"/>

attribute RedVerticalObservation/@name

type	xs:string
properties	isRef 0 use required
source	<xs:attribute name="name" type="xs:string" use="required"/>

attribute RedVerticalObservation/@state

type	xs:string
properties	isRef 0
source	<xs:attribute name="state" type="xs:string"/>

attribute RedVerticalObservation/@oID

type	xs:string
properties	isRef 0
source	<xs:attribute name="oID" type="xs:string"/>

attribute RedVerticalObservation/@purpose

type	purposeType
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute RedVerticalObservation/@setupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute RedVerticalObservation/@date

type	xs:date
properties	isRef 0

source	<code><xs:attribute name="date" type="xs:date"/></code>
--------	---

attribute RedVerticalObservation/@equipmentUsed

type	<u>equipmentType</u>
properties	isRef 0
source	<code><xs:attribute name="equipmentUsed" type="equipmentType"/></code>

attribute RedVerticalObservation/@height

type	xs:double
properties	isRef 0
source	<code><xs:attribute name="height" type="xs:double"/></code>

attribute RedVerticalObservation/@verticalAdjustment

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="verticalAdjustment" type="xs:string"/></code>

attribute RedVerticalObservation/@verticalFix

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="verticalFix" type="xs:string"/></code>

attribute RedVerticalObservation/@geosphoid

type	xs:double
properties	isRef 0
source	<code><xs:attribute name="geosphoid" type="xs:double"/></code>

attribute RedVerticalObservation/@gsDatum

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="gsDatum" type="xs:string"/></code>

attribute RedVerticalObservation/@gsModel

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="gsModel" type="xs:string"/></code>

attribute RedVerticalObservation/@gsMethod

type	xs:string
properties	isRef 0
source	<code><xs:attribute name="gsMethod" type="xs:string"/></code>

attribute RedVerticalObservation/@originMark

type	xs:string
properties	isRef 0
source	<xs:attribute name="originMark" type="xs:string"/>

attribute RedVerticalObservation/@verticalDatum

type	xs:string
properties	isRef 0
source	<xs:attribute name="verticalDatum" type="xs:string"/>

attribute RedVerticalObservation/@localUncertainty

type	xs:double
properties	isRef 0
source	<xs:attribute name="localUncertainty" type="xs:double"/>

attribute RedVerticalObservation/@class

type	xs:string
properties	isRef 0
source	<xs:attribute name="class" type="xs:string"/>

attribute RedVerticalObservation/@order

type	xs:string
properties	isRef 0
source	<xs:attribute name="order" type="xs:string"/>

attribute RedVerticalObservation/@positionalUncertainty

type	xs:double
properties	isRef 0
source	<xs:attribute name="positionalUncertainty" type="xs:double"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>

element **TargetPoint**

diagram	<pre> classDiagram class PointType { name desc code state pntRef featureRef pointGeometry DTMAtribute timeStamp role determinedTimeStamp ellipsoidHeight latitude longitude zone northingStdError eastingStdError elevationStdError } class TargetPoint { <<Represents a 2D or 3D location for the target>> } TargetPoint "1" -- "1" PointType </pre>																																																																		
namespace	http://www.landxml.org/schema/LandXML-1.2																																																																		
type	PointType																																																																		
properties	content complex mixed true																																																																		
used by	elements GPSPosition GPSVector ObservationGroup PointResults ReducedArcObservation ReducedObservation complexType RawObservationType																																																																		
facets	minLength 0 maxLength 3																																																																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>name</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>desc</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>code</td> <td>xs:string</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>state</td> <td>stateType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>pntRef</td> <td>pointNameRef</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>featureRef</td> <td>featureNameRef</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>pointGeometry</td> <td>pointGeometryType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DTMAtribute</td> <td>DTMAtributeType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>timeStamp</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>role</td> <td>surveyRoleType</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	name	xs:string					desc	xs:string					code	xs:string					state	stateType					pntRef	pointNameRef					featureRef	featureNameRef	optional				pointGeometry	pointGeometryType					DTMAtribute	DTMAtributeType					timeStamp	xs:dateTime	optional				role	surveyRoleType	optional			
Name	Type	Use	Default	Fixed	annotation																																																														
name	xs:string																																																																		
desc	xs:string																																																																		
code	xs:string																																																																		
state	stateType																																																																		
pntRef	pointNameRef																																																																		
featureRef	featureNameRef	optional																																																																	
pointGeometry	pointGeometryType																																																																		
DTMAtribute	DTMAtributeType																																																																		
timeStamp	xs:dateTime	optional																																																																	
role	surveyRoleType	optional																																																																	

	<p><u>determinedTimeStamp</u> xs:dateTime optional</p> <p><u>ellipsoidHeight</u> ellipsoidHeightType optional</p> <p><u>latitude</u> latLongAngle optional</p> <p><u>longitude</u> latLongAngle optional</p> <p><u>zone</u> xs:string optional</p> <p><u>northingStdError</u> xs:double optional</p> <p><u>eastingStdError</u> xs:double optional</p> <p><u>elevationStdError</u> xs:double optional</p>
annotation	<p>documentation</p> <p>Represents a 2D or 3D location for the target</p> <p>documentation</p> <p>It is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.</p>
source	<pre><xs:element name="TargetPoint" type="PointType"> <xs:annotation> <xs:documentation>Represents a 2D or 3D location for the target</xs:documentation> <xs:documentation>It is defined by either a coordinate text value ("north east" or "north east elev") or a CgPoint number reference "pntRef" attribute.</xs:documentation> </xs:annotation> </xs:element></pre>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>.

element TargetSetup

diagram	<pre> classDiagram class TargetSetup { id : xs:ID targetHeight : xs:double edmTargetVertOffset : xs:double prismConstant : xs:double } class FieldNote class Feature TargetSetup "0..∞" -- "0..∞" FieldNote TargetSetup "0..∞" -- "0..∞" Feature </pre>																														
namespace	http://www.landxml.org/schema/LandXML-1.2																														
properties	content complex																														
children	FieldNote Feature																														
used by	elements GPSSetup InstrumentSetup LaserSetup Survey																														
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>id</td> <td>xs:ID</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>targetHeight</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>edmTargetVertOffset</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>prismConstant</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	id	xs:ID					targetHeight	xs:double					edmTargetVertOffset	xs:double					prismConstant	xs:double				
Name	Type	Use	Default	Fixed	annotation																										
id	xs:ID																														
targetHeight	xs:double																														
edmTargetVertOffset	xs:double																														
prismConstant	xs:double																														
source	<pre> <xs:element name="TargetSetup"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID"/> <xs:attribute name="targetHeight" type="xs:double"/> <xs:attribute name="edmTargetVertOffset" type="xs:double"/> <xs:attribute name="prismConstant" type="xs:double"/> <!-- To allow for older style EDM's --> </pre>																														

	</xs:complexType> </xs:element>
--	------------------------------------

attribute TargetSetup/@id

type	xs:ID
properties	isRef 0
source	<xs:attribute name="id" type="xs:ID"/>

attribute TargetSetup/@targetHeight

type	xs:double
properties	isRef 0
source	<xs:attribute name="targetHeight" type="xs:double"/>

attribute TargetSetup/@edmTargetVertOffset

type	xs:double
properties	isRef 0
source	<xs:attribute name="edmTargetVertOffset" type="xs:double"/>

attribute TargetSetup/@prismConstant

type	xs:double
properties	isRef 0
source	<xs:attribute name="prismConstant" type="xs:double"/>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

element **ControlChecks**

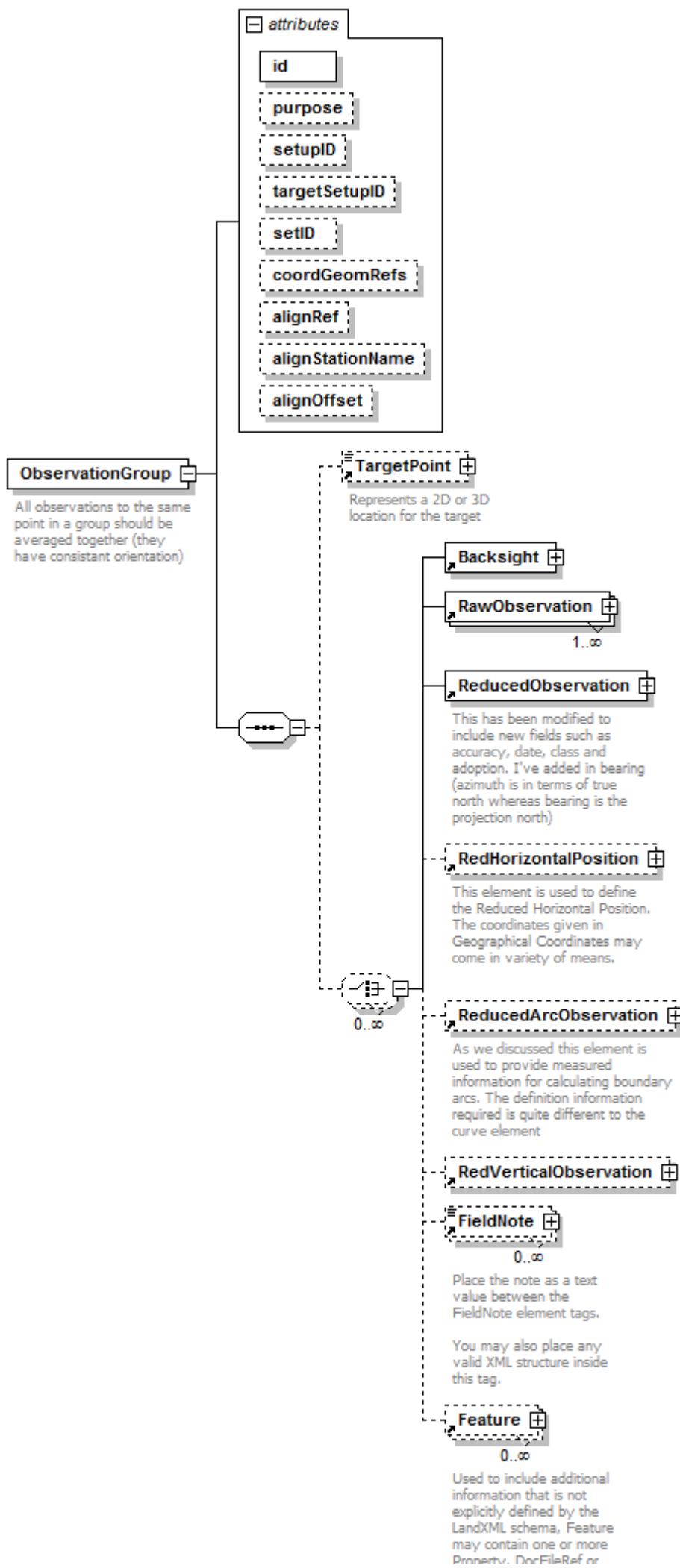
diagram	<p>ControlChecks</p> <p>Records check shots to known locations during field observations</p> <p>TestObservation 0..∞</p> <p>ObservationGroup 0..∞</p> <p>All observations to the same point in a group should be averaged together (they have consistent orientation)</p> <p>PointResults 0..∞</p> <p>FieldNote 0..∞</p> <p>Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.</p> <p>Feature 0..∞</p> <p>Used to include additional information that is not explicitly defined by the LandXML schema, Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.</p>
namespace	http://www.landxml.org/schema/LandXML-1.2
properties	content complex
children	TestObservation ObservationGroup PointResults FieldNote Feature
used by	elements InstrumentSetup Survey .
annotation	<p>documentation</p> <p>Records check shots to known locations during field observations</p>
source	<pre> <xs:element name="ControlChecks"> <xs:annotation> <xs:documentation>Records check shots to known locations during field observations</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="TestObservation" minOccurs="0" maxOccurs="unbounded"/> <!-- LandXML-1.2 schema note: Use of ObservationGroup is deprecated and used for backward compatibility, use multiple TestObservation elements --> <xs:element ref="ObservationGroup" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="PointResults" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> </xs:complexType> </xs:element> </pre>

```
</xs:sequence>
</xs:complexType>
</xs:element>
```

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>

element ObservationGroup

diagram



nesting Feature elements.
NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.

namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	TargetPoint Backsight RawObservation ReducedObservation RedHorizontalPosition ReducedArcObservation RedVerticalObservation FieldNote Feature					
used by	elements ControlChecks InstrumentSetup Survey .					
attributes	Name <u>id</u> Type Use <u>xs:ID</u> required <u>purpose</u> purposeType <u>setupID</u> xs:IDREF <u>targetSetupID</u> xs:IDREF <u>setID</u> <u>coordGeomRefs</u> coordGeomNameRefs <u>alignRef</u> alignmentNameRef <u>alignStationName</u> xs:string <u>alignOffset</u> offsetDistance		Default	Fixed	annotation	
annotation	documentation All observations to the same point in a group should be averaged together (they have consistant orientation)					
source	<pre><xs:element name="ObservationGroup"> <xs:annotation> <xs:documentation>All observations to the same point in a group should be averaged together (they have consistant orientation)</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="Backsight"/> <xs:element ref="RawObservation" maxOccurs="unbounded"/> <xs:element ref="ReducedObservation"/> <xs:element ref="RedHorizontalPosition" minOccurs="0"/> <xs:element ref="ReducedArcObservation" minOccurs="0"/> <xs:element ref="RedVerticalObservation" minOccurs="0"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="targetSetupID" type="xs:IDREF"/> <xs:attribute name="setID"/> <xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/> <xs:attribute name="alignRef" type="alignmentNameRef"/> <xs:attribute name="alignStationName" type="xs:string"/> <xs:attribute name="alignOffset" type="offsetDistance"/> <!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element. This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. --> <!-- alignRef is the name of the alignment. alignStationName is the station value where the rod reading is taken. </pre>					

</xs:complexType>
 </xs:element>

attribute **ObservationGroup/@id**

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute **ObservationGroup/@purpose**

type	purposeType
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute **ObservationGroup/@setupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute **ObservationGroup/@targetSetupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="targetSetupID" type="xs:IDREF"/>

attribute **ObservationGroup/@setID**

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute **ObservationGroup/@coordGeomRefs**

type	coordGeomNameRefs
properties	isRef 0
source	<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>

attribute ObservationGroup/@alignRef

type	<u>alignmentNameRef</u>
properties	isRef 0
source	<xs:attribute name="alignRef" type="alignmentNameRef"/>

attribute ObservationGroup/@alignStationName

type	<u>xs:string</u>
properties	isRef 0
source	<xs:attribute name="alignStationName" type="xs:string"/>

attribute ObservationGroup/@alignOffset

type	<u>offsetDistance</u>
properties	isRef 0
source	<xs:attribute name="alignOffset" type="offsetDistance"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element PointResults

diagram	<p>The diagram illustrates the structure of the PointResults element. It starts with a class box labeled "PointResults" containing several attributes: setupID, targetSetupID, meanHorizAngle, horizStdDeviation, meanzenithAngle, vertStdDeviation, meanSlopeDistance, and slopeDistanceStdDeviation. Below the class box, there are three association points connected to external elements: "TargetPoint", "FieldNote", and "Feature". "TargetPoint" is associated with "PointResults" via a solid line and is described as "Represents a 2D or 3D location for the target". "FieldNote" is associated with "PointResults" via a dashed line and is described as "Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.". "Feature" is associated with "PointResults" via a dashed line and is described as "Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.".</p>																																																						
namespace	http://www.landxml.org/schema/LandXML-1.2																																																						
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attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>setupID</td> <td>xs:IDREF</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>targetSetupID</td> <td>xs:IDREF</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>meanHorizAngle</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>horizStdDeviation</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>meanzenithAngle</td> <td>zenithAngle</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>vertStdDeviation</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>meanSlopeDistance</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>slopeDistanceStdDeviation</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	setupID	xs:IDREF					targetSetupID	xs:IDREF					meanHorizAngle	xs:double					horizStdDeviation	xs:double					meanzenithAngle	zenithAngle					vertStdDeviation	xs:double					meanSlopeDistance	xs:double					slopeDistanceStdDeviation	xs:double				
Name	Type	Use	Default	Fixed	annotation																																																		
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vertStdDeviation	xs:double																																																						
meanSlopeDistance	xs:double																																																						
slopeDistanceStdDeviation	xs:double																																																						
source	<pre><xs:element name="PointResults"> <xs:annotation></pre>																																																						

```

<xs:documentation/>
</xs:annotation>
<xs:complexType>
  <xs:sequence>
    <xs:element ref="TargetPoint" minOccurs="0"/>
    <xs:choice minOccurs="0" maxOccurs="unbounded">
      <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/>
      <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/>
    </xs:choice>
  </xs:sequence>
  <xs:attribute name="setupID" type="xs:IDREF"/>
  <xs:attribute name="targetSetupID" type="xs:IDREF"/>
  <xs:attribute name="meanHorizAngle" type="xs:double"/>
  <xs:attribute name="horizStdDeviation" type="xs:double"/>
  <xs:attribute name="meanzenithAngle" type="zenithAngle"/>
  <xs:attribute name="vertStdDeviation" type="xs:double"/>
  <xs:attribute name="meanSlopeDistance" type="xs:double"/>
  <xs:attribute name="slopeDistanceStdDeviation" type="xs:double"/>
</xs:complexType>
</xs:element>

```

attribute PointResults/@setupID

type	<code>xs:IDREF</code>
properties	isRef 0
source	<code><xs:attribute name="setupID" type="xs:IDREF"/></code>

attribute PointResults/@targetSetupID

type	<code>xs:IDREF</code>
properties	isRef 0
source	<code><xs:attribute name="targetSetupID" type="xs:IDREF"/></code>

attribute PointResults/@meanHorizAngle

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="meanHorizAngle" type="xs:double"/></code>

attribute PointResults/@horizStdDeviation

type	<code>xs:double</code>
properties	isRef 0
source	<code><xs:attribute name="horizStdDeviation" type="xs:double"/></code>

attribute PointResults/@meanzenithAngle

type	<code>zenithAngle</code>
properties	isRef 0
source	<code><xs:attribute name="meanzenithAngle" type="zenithAngle"/></code>

attribute PointResults/@vertStdDeviation

type	<code>xs:double</code>
------	------------------------

properties	isRef 0
source	<xs:attribute name="vertStdDeviation" type="xs:double"/>

attribute PointResults/@meanSlopeDistance

type	xs:double
properties	isRef 0
source	<xs:attribute name="meanSlopeDistance" type="xs:double"/>

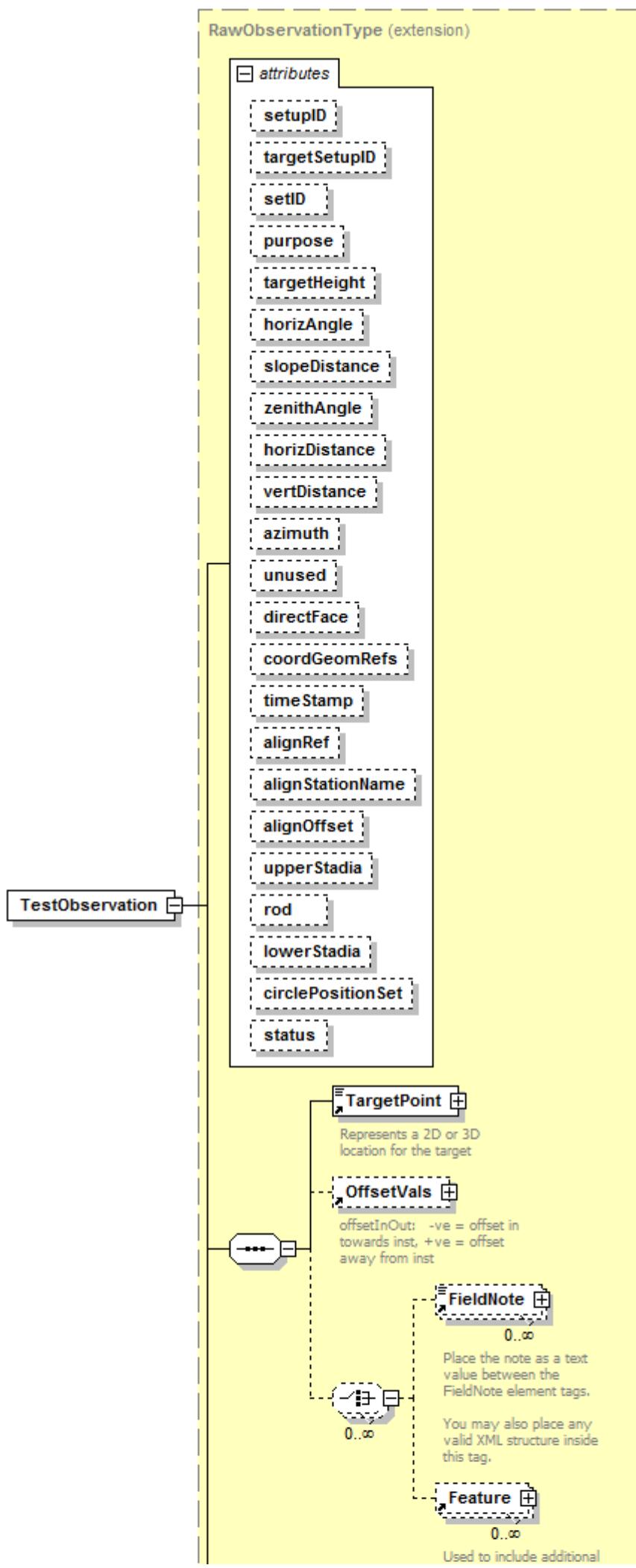
attribute PointResults/@slopeDistanceStdDeviation

type	xs:double
properties	isRef 0
source	<xs:attribute name="slopeDistanceStdDeviation" type="xs:double"/>

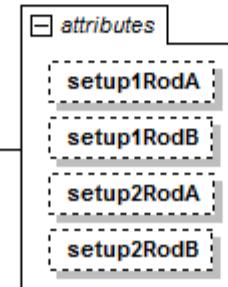
XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>.

element TestObservation

diagram	
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information that is not explicitly defined by the LandXML schema, Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.



namespace	http://www.landxml.org/schema/LandXML-1.2					
type	extension of RawObservationType					
properties	content complex mixed false					
children	TargetPoint OffsetVals FieldNote Feature					
used by	element ControlChecks					
attributes	Name	Type	Use	Default	Fixed	annotation
	setupID	xs:IDREF				
	targetSetupID	xs:IDREF				
	setID					
	purpose	purposeType				
	targetHeight	xs:double				
	horizAngle	angle	optional			
	slopeDistance	xs:double	optional			
	zenithAngle	zenithAngle	optional			
	horizDistance	xs:double				
	vertDistance	xs:double				
	azimuth	direction	optional			
	unused	xs:boolean				
	directFace	xs:boolean				
	coordGeomRefs	coordGeomNameRefs				
	timeStamp	xs:dateTime				
	alignRef	alignmentNameRef				
	alignStationName	xs:string				
	alignOffset	offsetDistance				
	upperStadia	xs:double				
	rod	xs:double				
	lowerStadia	xs:double				
	circlePositionSet	xs:double				
	status	observationStatusType				
	setup1RodA	xs:double				
	setup1RodB	xs:double				
	setup2RodA	xs:double				
	setup2RodB	xs:double				
source	<pre> <xs:element name="TestObservation"> <xs:complexType mixed="false"> <xs:complexContent mixed="false"> ... </xs:complexContent> </xs:complexType> </xs:element> </pre>					

```

<xs:extension base="RawObservationType">
  <xs:attribute name="setup1RodA" type="xs:double"/>
  <xs:attribute name="setup1RodB" type="xs:double"/>
  <xs:attribute name="setup2RodA" type="xs:double"/>
  <xs:attribute name="setup2RodB" type="xs:double"/>
</xs:extension>
</xs:complexContent>
</xs:complexType>
</xs:element>

```

attribute **TestObservation/@setup1RodA**

type	xs:double
properties	isRef 0
source	<xs:attribute name="setup1RodA" type="xs:double"/>

attribute **TestObservation/@setup1RodB**

type	xs:double
properties	isRef 0
source	<xs:attribute name="setup1RodB" type="xs:double"/>

attribute **TestObservation/@setup2RodA**

type	xs:double
properties	isRef 0
source	<xs:attribute name="setup2RodA" type="xs:double"/>

attribute **TestObservation/@setup2RodB**

type	xs:double
properties	isRef 0
source	<xs:attribute name="setup2RodB" type="xs:double"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element **LaserSetup**

diagram	<p>The diagram illustrates the structure of the LaserSetup element. It contains the following components:</p> <ul style="list-style-type: none"> attributes (represented by dashed boxes): <ul style="list-style-type: none"> id: xs:ID stationName: string instrumentHeight: xs:double laserDetailsID: xs:IDREF magDeclination: xs:double LaserSetup (represented by a solid box) has a dashed association labeled InstrumentPoint with multiplicity 0..∞. A detailed description of InstrumentPoint follows: <ul style="list-style-type: none"> Represents a 2D or 3D Point location for Survey instrument location. Associations: <ul style="list-style-type: none"> Backsight: multiplicity 0..∞ TargetSetup: multiplicity 0..∞ LaserSetup has a dashed association labeled RawObservation with multiplicity 0..∞. RawObservation has a dashed association labeled FieldNote with multiplicity 0..∞. A note specifies: <ul style="list-style-type: none"> Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag. RawObservation has a dashed association labeled Feature with multiplicity 0..∞. A note specifies: <ul style="list-style-type: none"> Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use. 																																				
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Name	Type	Use	Default	Fixed	annotation																																
id	xs:ID	required																																			
stationName		required																																			
instrumentHeight	xs:double																																				
laserDetailsID	xs:IDREF																																				
magDeclination	xs:double																																				
source	<pre><xs:element name="LaserSetup"> <xs:annotation> <xs:documentation/></pre>																																				

```

</xs:annotation>
<xs:complexType>
  <xs:choice minOccurs="0" maxOccurs="unbounded">
    <xs:element ref="InstrumentPoint" minOccurs="0"/>
    <xs:element ref="Backsight" minOccurs="0"/>
    <xs:element ref="TargetSetup" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="RawObservation"/>
    <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/>
  </xs:choice>
  <xs:attribute name="id" type="xs:ID" use="required"/>
  <xs:attribute name="stationName" use="required"/>
  <xs:attribute name="instrumentHeight" type="xs:double"/>
  <xs:attribute name="laserDetailsID" type="xs:IDREF"/>
  <xs:attribute name="magDeclination" type="xs:double"/>
</xs:complexType>
</xs:element>

```

attribute LaserSetup/@id

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute LaserSetup/@stationName

properties	isRef 0 use required
source	<xs:attribute name="stationName" use="required"/>

attribute LaserSetup/@instrumentHeight

type	xs:double
properties	isRef 0
source	<xs:attribute name="instrumentHeight" type="xs:double"/>

attribute LaserSetup/@laserDetailsID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="laserDetailsID" type="xs:IDREF"/>

attribute LaserSetup/@magDeclination

type	xs:double
properties	isRef 0
source	<xs:attribute name="magDeclination" type="xs:double"/>

element **GPSSetup**

diagram	<pre> classDiagram class GPSSetup { id antennaHeight stationName GPSAntennaDetailsID GPSReceiverDetailsID observationDataLink stationDescription startTime stopTime } class TargetSetup class GPSPosition class FieldNote class Feature GPSSetup "0..∞" -- "0..∞" TargetSetup GPSSetup "0..∞" -- "0..∞" GPSPosition GPSSetup "0..∞" -- "0..∞" FieldNote GPSSetup "0..∞" -- "0..∞" Feature </pre>																																																						
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Name	Type	Use	Default	Fixed	annotation																																																		
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stationDescription																																																							
startTime	GPSTime																																																						

	<u>stopTime</u>	<u>GPSTime</u>
source	<pre><xs:element name="GPSSetup"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="TargetSetup" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="GPSPosition"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="antennaHeight" type="xs:double" use="required"/> <xs:attribute name="stationName" use="required"/> <xs:attribute name="GPSAntennaDetailsID" type="xs:IDREF"/> <xs:attribute name="GPSReceiverDetailsID" type="xs:IDREF"/> <xs:attribute name="observationDataLink"/> <xs:attribute name="stationDescription"/> <xs:attribute name="startTime" type="GPSTime"/> <xs:attribute name="stopTime" type="GPSTime"/> <!-- GPS Time = Nbr of GPS weeks * 604800 (seconds in a week) + seconds in GPS week --> </xs:complexType> </xs:element></pre>	

attribute GPSSetup/@id

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute GPSSetup/@antennaHeight

type	xs:double
properties	isRef 0 use required
source	<xs:attribute name="antennaHeight" type="xs:double" use="required"/>

attribute GPSSetup/@stationName

properties	isRef 0 use required
source	<xs:attribute name="stationName" use="required"/>

attribute GPSSetup/@GPSAntennaDetailsID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="GPSAntennaDetailsID" type="xs:IDREF"/>

attribute GPSSetup/@GPSReceiverDetailsID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="GPSReceiverDetailsID" type="xs:IDREF"/>

attribute GPSSetup/@observationDataLink

properties	isRef 0
source	<xs:attribute name="observationDataLink"/>

attribute GPSSetup/@stationDescription

properties	isRef 0
source	<xs:attribute name="stationDescription"/>

attribute GPSSetup/@startTime

type	GPSTime
properties	isRef 0
source	<xs:attribute name="startTime" type="GPSTime"/>

attribute GPSSetup/@stopTime

type	GPSTime
properties	isRef 0
source	<xs:attribute name="stopTime" type="GPSTime"/>

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element GPSPosition

diagram	<pre> classDiagram class GPSPosition { setupID setID wgsHeight wgsLatitude wgsLongitude purpose coordGeomRefs pntRef } class TargetPoint { <<Represents a 2D or 3D location for the target>> } class GPSQCInfoLevel1 { <<GPS Time = Nbr of GPS weeks * 604800 (seconds in a week) + seconds in GPS week>> } class GPSQCInfoLevel2 class FieldNote { <<Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.>> } class Feature { <<Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.>> } GPSPosition "1" --> "1" TargetPoint GPSPosition "*" --> "1" GPSQCInfoLevel1 GPSPosition "*" --> "1" GPSQCInfoLevel2 GPSPosition "*" --> "1" FieldNote GPSPosition "*" --> "1" Feature </pre>																														
namespace	http://www.landxml.org/schema/LandXML-1.2																														
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Name	Type	Use	Default	Fixed	annotation																										
setupID	xs:IDREF																														
setID																															
wgsHeight	xs:double	required																													
wgsLatitude	xs:double	required																													

	wgsLongitude xs:double required purpose coordGeomRefs coordGeomNameRefs pntRef pointNameRef
source	<pre> <xs:element name="GPSPosition"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint"/> <xs:element ref="GPSQCInfoLevel1" minOccurs="0"/> <xs:element ref="GPSQCInfoLevel2" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="setID"/> <xs:attribute name="wgsHeight" type="xs:double" use="required"/> <xs:attribute name="wgsLatitude" type="xs:double" use="required"/> <xs:attribute name="wgsLongitude" type="xs:double" use="required"/> <xs:attribute name="purpose"/> <xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/> <xs:attribute name="pntRef" type="pointNameRef"/> <!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element. This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. --> </xs:complexType> </xs:element></pre>

attribute GPSPosition/@setupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute GPSPosition/@setID

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute GPSPosition/@wgsHeight

type	xs:double
properties	isRef 0 use required
source	<xs:attribute name="wgsHeight" type="xs:double" use="required"/>

attribute GPSPosition/@wgsLatitude

type	xs:double
properties	isRef 0 use required

source	<code><xs:attribute name="wgsLatitude" type="xs:double" use="required"/></code>
--------	---

attribute GPSPosition/@wgsLongitude

type	xs:double
properties	isRef 0 use required
source	<code><xs:attribute name="wgsLongitude" type="xs:double" use="required"/></code>

attribute GPSPosition/@purpose

properties	isRef 0
source	<code><xs:attribute name="purpose"/></code>

attribute GPSPosition/@coordGeomRefs

type	<u>coordGeomNameRefs</u>
properties	isRef 0
source	<code><xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/></code>

attribute GPSPosition/@pntRef

type	<u>pointNameRef</u>
properties	isRef 0
source	<code><xs:attribute name="pntRef" type="pointNameRef"/></code>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element **GPSQCInfoLevel1**

diagram	<pre> graph LR GPSQCInfoLevel1[GPSQCInfoLevel1] --> attributes[attributes] attributes --> GPSSolnType[GPSSolnType] attributes --> GPSSolnFreq[GPSSolnFreq] attributes --> nbrSatellites[nbrSatellites] attributes --> RDOP[RDOP] </pre> <p>GPS Time = Nbr of GPS weeks * 604800 (seconds in a week) + seconds in GPS week</p>																														
namespace	http://www.landxml.org/schema/LandXML-1.2																														
properties	content complex																														
used by	elements GPSPosition GPSVector																														
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>GPSSolnType</td> <td>GPSSolutionTypeEnum</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GPSSolnFreq</td> <td>GPSSolutionFrequencyEnum</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>nbrSatellites</td> <td>xs:integer</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>RDOP</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	GPSSolnType	GPSSolutionTypeEnum					GPSSolnFreq	GPSSolutionFrequencyEnum					nbrSatellites	xs:integer					RDOP	xs:double				
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RDOP	xs:double																														
annotation	<p>documentation</p> <p>GPS Time = Nbr of GPS weeks * 604800 (seconds in a week) + seconds in GPS week</p>																														
source	<pre> <xs:element name="GPSQCInfoLevel1"> <xs:annotation> <xs:documentation>GPS Time = Nbr of GPS weeks * 604800 (seconds in a week) + seconds in GPS week</xs:documentation> </xs:annotation> <xs:complexType> <xs:attribute name="GPSSolnType" type="GPSSolutionTypeEnum"/> <xs:attribute name="GPSSolnFreq" type="GPSSolutionFrequencyEnum"/> <xs:attribute name="nbrSatellites" type="xs:integer"/> <xs:attribute name="RDOP" type="xs:double"/> </xs:complexType> </xs:element> </pre>																														

attribute **GPSQCInfoLevel1/@GPSSolnType**

type	GPSSolutionTypeEnum
properties	isRef 0
facets	enumeration Unknown enumeration Code enumeration Float enumeration Fixed enumeration Network Float enumeration Network Fixed enumeration WAAS Float enumeration WAAS Fixed
source	<pre><xs:attribute name="GPSSolnType" type="GPSSolutionTypeEnum"/></pre>

attribute **GPSQCInfoLevel1/@GPSSolnFreq**

type	GPSSolutionFrequencyEnum
properties	isRef 0
facets	enumeration Unknown

	enumeration L1 enumeration L2 enumeration L2 Squared enumeration Wide Lane enumeration Narrow Lane enumeration Iono Free
source	<code><xs:attribute name="GPSSolnFreq" type="GPSSolutionFrequencyEnum"/></code>

attribute GPSQCInfoLevel1/@nbrSatellites

type	xs:integer
properties	isRef 0
source	<code><xs:attribute name="nbrSatellites" type="xs:integer"/></code>

attribute GPSQCInfoLevel1/@RDOP

type	xs:double
properties	isRef 0
source	<code><xs:attribute name="RDOP" type="xs:double"/></code>

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>

element **GPSQCInfoLevel2**

diagram	<pre> classDiagram class GPSQCInfoLevel2 { covarianceXX covarianceXY covarianceXZ covarianceYY covarianceYZ covarianceZZ GPSSolnType GPSSolnFreq RMS ratio referenceVariance nbrSatellites startTime stopTime } </pre>																																																																																										
namespace	http://www.landxml.org/schema/LandXML-1.2																																																																																										
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startTime	GPSTime																																																																																										
stopTime	GPSTime																																																																																										
source	<pre> <xs:element name="GPSQCInfoLevel2"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:attribute name="covarianceXX" type="xs:double"/> <xs:attribute name="covarianceXY" type="xs:double"/> <xs:attribute name="covarianceXZ" type="xs:double"/> <xs:attribute name="covarianceYY" type="xs:double"/> <xs:attribute name="covarianceYZ" type="xs:double"/> <xs:attribute name="covarianceZZ" type="xs:double"/> <xs:attribute name="GPSSolnType" type="GPSSolutionTypeEnum"/> </xs:complexType> </xs:element> </pre>																																																																																										

```

<xs:attribute name="GPSSolnFreq" type="GPSSolutionFrequencyEnum"/>
<xs:attribute name="RMS" type="xs:double"/>
<xs:attribute name="ratio" type="xs:double"/>
<xs:attribute name="referenceVariance" type="xs:double"/>
<xs:attribute name="nbrSatellites" type="xs:integer"/>
<xs:attribute name="startTime" type="GPSTime"/>
<xs:attribute name="stopTime" type="GPSTime"/>
<!-- GPS Time = Nbr of GPS weeks * 604800 (seconds in a week) + seconds in GPS week -->
</xs:complexType>
</xs:element>

```

attribute GPSQCInfoLevel2/@covarianceXX

type	xs:double
properties	isRef 0
source	<xs:attribute name="covarianceXX" type="xs:double"/>

attribute GPSQCInfoLevel2/@covarianceXY

type	xs:double
properties	isRef 0
source	<xs:attribute name="covarianceXY" type="xs:double"/>

attribute GPSQCInfoLevel2/@covarianceXZ

type	xs:double
properties	isRef 0
source	<xs:attribute name="covarianceXZ" type="xs:double"/>

attribute GPSQCInfoLevel2/@covarianceYY

type	xs:double
properties	isRef 0
source	<xs:attribute name="covarianceYY" type="xs:double"/>

attribute GPSQCInfoLevel2/@covarianceYZ

type	xs:double
properties	isRef 0
source	<xs:attribute name="covarianceYZ" type="xs:double"/>

attribute GPSQCInfoLevel2/@covarianceZZ

type	xs:double
properties	isRef 0
source	<xs:attribute name="covarianceZZ" type="xs:double"/>

attribute GPSQCInfoLevel2/@GPSSolnType

type	GPSSolutionTypeEnum
properties	isRef 0

facets	enumeration Unknown enumeration Code enumeration Float enumeration Fixed enumeration Network Float enumeration Network Fixed enumeration WAAS Float enumeration WAAS Fixed
source	<code><xs:attribute name="GPSSolnType" type="GPSSolutionTypeEnum"/></code>

attribute GPSQCInfoLevel2/@GPSSolnFreq

type	<u>GPSSolutionFrequencyEnum</u>
properties	isRef 0
facets	enumeration Unknown enumeration L1 enumeration L2 enumeration L2 Squared enumeration Wide Lane enumeration Narrow Lane enumeration Iono Free
source	<code><xs:attribute name="GPSSolnFreq" type="GPSSolutionFrequencyEnum"/></code>

attribute GPSQCInfoLevel2/@RMS

type	xs:double
properties	isRef 0
source	<code><xs:attribute name="RMS" type="xs:double"/></code>

attribute GPSQCInfoLevel2/@ratio

type	xs:double
properties	isRef 0
source	<code><xs:attribute name="ratio" type="xs:double"/></code>

attribute GPSQCInfoLevel2/@referenceVariance

type	xs:double
properties	isRef 0
source	<code><xs:attribute name="referenceVariance" type="xs:double"/></code>

attribute GPSQCInfoLevel2/@nbrSatellites

type	xs:integer
properties	isRef 0
source	<code><xs:attribute name="nbrSatellites" type="xs:integer"/></code>

attribute GPSQCInfoLevel2/@startTime

type	<u>GPSTime</u>
properties	isRef 0

source	<xs:attribute name="startTime" type="GPSTime"/>
--------	---

attribute GPSQCInfoLevel2/@stopTime

type	GPSTime
properties	isRef 0
source	<xs:attribute name="stopTime" type="GPSTime"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>

element TargetSetup

diagram	<pre> classDiagram class TargetSetup { id : xs:ID targetHeight : xs:double edmTargetVertOffset : xs:double prismConstant : xs:double } class FieldNote class Feature TargetSetup "0..∞" -- "0..∞" FieldNote TargetSetup "0..∞" -- "0..∞" Feature </pre>																														
namespace	http://www.landxml.org/schema/LandXML-1.2																														
properties	content complex																														
children	FieldNote Feature																														
used by	elements GPSSetup InstrumentSetup LaserSetup Survey																														
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>id</td> <td>xs:ID</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>targetHeight</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>edmTargetVertOffset</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>prismConstant</td> <td>xs:double</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	id	xs:ID					targetHeight	xs:double					edmTargetVertOffset	xs:double					prismConstant	xs:double				
Name	Type	Use	Default	Fixed	annotation																										
id	xs:ID																														
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prismConstant	xs:double																														
source	<pre> <xs:element name="TargetSetup"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID"/> <xs:attribute name="targetHeight" type="xs:double"/> <xs:attribute name="edmTargetVertOffset" type="xs:double"/> <xs:attribute name="prismConstant" type="xs:double"/> <!-- To allow for older style EDM's --> </pre>																														

	</xs:complexType> </xs:element>
--	------------------------------------

attribute TargetSetup/@id

type	xs:ID
properties	isRef 0
source	<xs:attribute name="id" type="xs:ID"/>

attribute TargetSetup/@targetHeight

type	xs:double
properties	isRef 0
source	<xs:attribute name="targetHeight" type="xs:double"/>

attribute TargetSetup/@edmTargetVertOffset

type	xs:double
properties	isRef 0
source	<xs:attribute name="edmTargetVertOffset" type="xs:double"/>

attribute TargetSetup/@prismConstant

type	xs:double
properties	isRef 0
source	<xs:attribute name="prismConstant" type="xs:double"/>

element **GPSVector**

diagram	<p>The diagram illustrates the structure of the GPSVector element. It features a central GPSVector class with the following attributes:</p> <ul style="list-style-type: none"> dX dY dZ setupID_A setupID_B startTime endTime horizontalPrecision verticalPrecision purpose setID solutionDataLink coordGeomRefs <p>Associations from the GPSVector class include:</p> <ul style="list-style-type: none"> A solid line to the TargetPoint class, which is described as "Represents a 2D or 3D location for the target". A dashed line to the GPSQCInfoLevel1 class, which is described as "GPS Time = Nbr of GPS weeks * 604800 (seconds in a week) + seconds in GPS week". A dashed line to the GPSQCInfoLevel2 class. A dashed line to the FieldNote class, which is described as "Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag." This class has a multiplicity of 0..∞. A dashed line to the Feature class, which is described as "Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use." This class also has a multiplicity of 0..∞.
namespace	http://www.landxml.org/schema/LandXML-1.2
properties	content complex

children	TargetPoint GPSQCInfoLevel1 GPSQCInfoLevel2 FieldNote Feature																																																																																				
used by	element Survey																																																																																				
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>dX</td> <td>xs:double</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dY</td> <td>xs:double</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>dZ</td> <td>xs:double</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>setupID_A</td> <td>xs:IDREF</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>setupID_B</td> <td>xs:IDREF</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>startTime</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>endTime</td> <td>xs:dateTime</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>horizontalPrecision</td> <td>xs:double</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>verticalPrecision</td> <td>xs:double</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> <tr> <td>purpose</td> <td>purposeType</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>setID</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>solutionDataLink</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>coordGeomRefs</td> <td>coordGeomNameRefs</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	dX	xs:double	required				dY	xs:double	required				dZ	xs:double	required				setupID_A	xs:IDREF	required				setupID_B	xs:IDREF	required				startTime	xs:dateTime	optional				endTime	xs:dateTime	optional				horizontalPrecision	xs:double	optional				verticalPrecision	xs:double	optional				purpose	purposeType					setID						solutionDataLink						coordGeomRefs	coordGeomNameRefs				
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source	<pre> <xs:element name="GPSVector"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint"/> <xs:element ref="GPSQCInfoLevel1" minOccurs="0"/> <xs:element ref="GPSQCInfoLevel2" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="dX" type="xs:double" use="required"/> <xs:attribute name="dY" type="xs:double" use="required"/> <xs:attribute name="dZ" type="xs:double" use="required"/> <xs:attribute name="setupID_A" type="xs:IDREF" use="required"/> <xs:attribute name="setupID_B" type="xs:IDREF" use="required"/> <xs:attribute name="startTime" type="xs:dateTime" use="optional"/> <xs:attribute name="endTime" type="xs:dateTime" use="optional"/> <xs:attribute name="horizontalPrecision" type="xs:double" use="optional"/> <xs:attribute name="verticalPrecision" type="xs:double" use="optional"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setID"/> <xs:attribute name="solutionDataLink"/> <xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/> <!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element. This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. --> </xs:complexType> </xs:element></pre>																																																																																				

attribute GPSVector/@dX

type	xs:double
properties	isRef 0 use required
source	<pre><xs:attribute name="dX" type="xs:double" use="required"/></pre>

attribute GPSVector/@dY

type	xs:double
properties	isRef 0 use required
source	<xs:attribute name="dY" type="xs:double" use="required"/>

attribute GPSVector/@dZ

type	xs:double
properties	isRef 0 use required
source	<xs:attribute name="dZ" type="xs:double" use="required"/>

attribute GPSVector/@setupID_A

type	xs:IDREF
properties	isRef 0 use required
source	<xs:attribute name="setupID_A" type="xs:IDREF" use="required"/>

attribute GPSVector/@setupID_B

type	xs:IDREF
properties	isRef 0 use required
source	<xs:attribute name="setupID_B" type="xs:IDREF" use="required"/>

attribute GPSVector/@startTime

type	xs:dateTime
properties	isRef 0 use optional
source	<xs:attribute name="startTime" type="xs:dateTime" use="optional"/>

attribute GPSVector/@endTime

type	xs:dateTime
properties	isRef 0 use optional
source	<xs:attribute name="endTime" type="xs:dateTime" use="optional"/>

attribute GPSVector/@horizontalPrecision

type	xs:double
properties	isRef 0 use optional
source	<xs:attribute name="horizontalPrecision" type="xs:double" use="optional"/>

attribute GPSVector/@verticalPrecision

type	xs:double
------	------------------

properties	isRef 0 use optional
source	<xs:attribute name="verticalPrecision" type="xs:double" use="optional"/>

attribute GPSVector/@purpose

type	<u>purposeType</u>
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute GPSVector/@setID

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute GPSVector/@solutionDataLink

properties	isRef 0
source	<xs:attribute name="solutionDataLink"/>

attribute GPSVector/@coordGeomRefs

type	<u>coordGeomNameRefs</u>
properties	isRef 0
source	<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>

XML Schema documentation generated by [XMLSpy](#) Schema Editor <http://www.altova.com/xmlspy>.

element GPSPosition

diagram	<pre> classDiagram class GPSPosition { setupID setID wgsHeight wgsLatitude wgsLongitude purpose coordGeomRefs pntRef } class TargetPoint { <<Represents a 2D or 3D location for the target>> } class GPSQCInfoLevel1 { <<GPS Time = Nbr of GPS weeks * 604800 (seconds in a week) + seconds in GPS week>> } class GPSQCInfoLevel2 class FieldNote { <<Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.>> } class Feature { <<Used to include additional information that is not explicitly defined by the LandXML schema. Feature may contain one or more Property, DocFileRef or nested Feature elements. NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.>> } GPSPosition "1" --> "1" TargetPoint GPSPosition "*" --> "1" GPSQCInfoLevel1 GPSPosition "*" --> "1" GPSQCInfoLevel2 GPSPosition "*" --> "1" FieldNote GPSPosition "*" --> "1" Feature </pre>																														
namespace	http://www.landxml.org/schema/LandXML-1.2																														
properties	content complex																														
children	TargetPoint GPSQCInfoLevel1 GPSQCInfoLevel2 FieldNote Feature																														
used by	elements GPSSetup Survey																														
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>setupID</td> <td>xs:IDREF</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>setID</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>wgsHeight</td> <td>xs:double</td> <td>required</td> <td></td> <td></td> <td></td> </tr> <tr> <td>wgsLatitude</td> <td>xs:double</td> <td>required</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	setupID	xs:IDREF					setID						wgsHeight	xs:double	required				wgsLatitude	xs:double	required			
Name	Type	Use	Default	Fixed	annotation																										
setupID	xs:IDREF																														
setID																															
wgsHeight	xs:double	required																													
wgsLatitude	xs:double	required																													

	wgsLongitude xs:double required purpose coordGeomRefs coordGeomNameRefs pntRef pointNameRef
source	<pre> <xs:element name="GPSPosition"> <xs:annotation> <xs:documentation/> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint"/> <xs:element ref="GPSQCInfoLevel1" minOccurs="0"/> <xs:element ref="GPSQCInfoLevel2" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="setID"/> <xs:attribute name="wgsHeight" type="xs:double" use="required"/> <xs:attribute name="wgsLatitude" type="xs:double" use="required"/> <xs:attribute name="wgsLongitude" type="xs:double" use="required"/> <xs:attribute name="purpose"/> <xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/> <xs:attribute name="pntRef" type="pointNameRef"/> <!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element. This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. --> </xs:complexType> </xs:element></pre>

attribute GPSPosition/@setupID

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute GPSPosition/@setID

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute GPSPosition/@wgsHeight

type	xs:double
properties	isRef 0 use required
source	<xs:attribute name="wgsHeight" type="xs:double" use="required"/>

attribute GPSPosition/@wgsLatitude

type	xs:double
properties	isRef 0 use required

source	<code><xs:attribute name="wgsLatitude" type="xs:double" use="required"/></code>
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attribute GPSPosition/@wgsLongitude

type	xs:double
properties	isRef 0 use required
source	<code><xs:attribute name="wgsLongitude" type="xs:double" use="required"/></code>

attribute GPSPosition/@purpose

properties	isRef 0
source	<code><xs:attribute name="purpose"/></code>

attribute GPSPosition/@coordGeomRefs

type	<u>coordGeomNameRefs</u>
properties	isRef 0
source	<code><xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/></code>

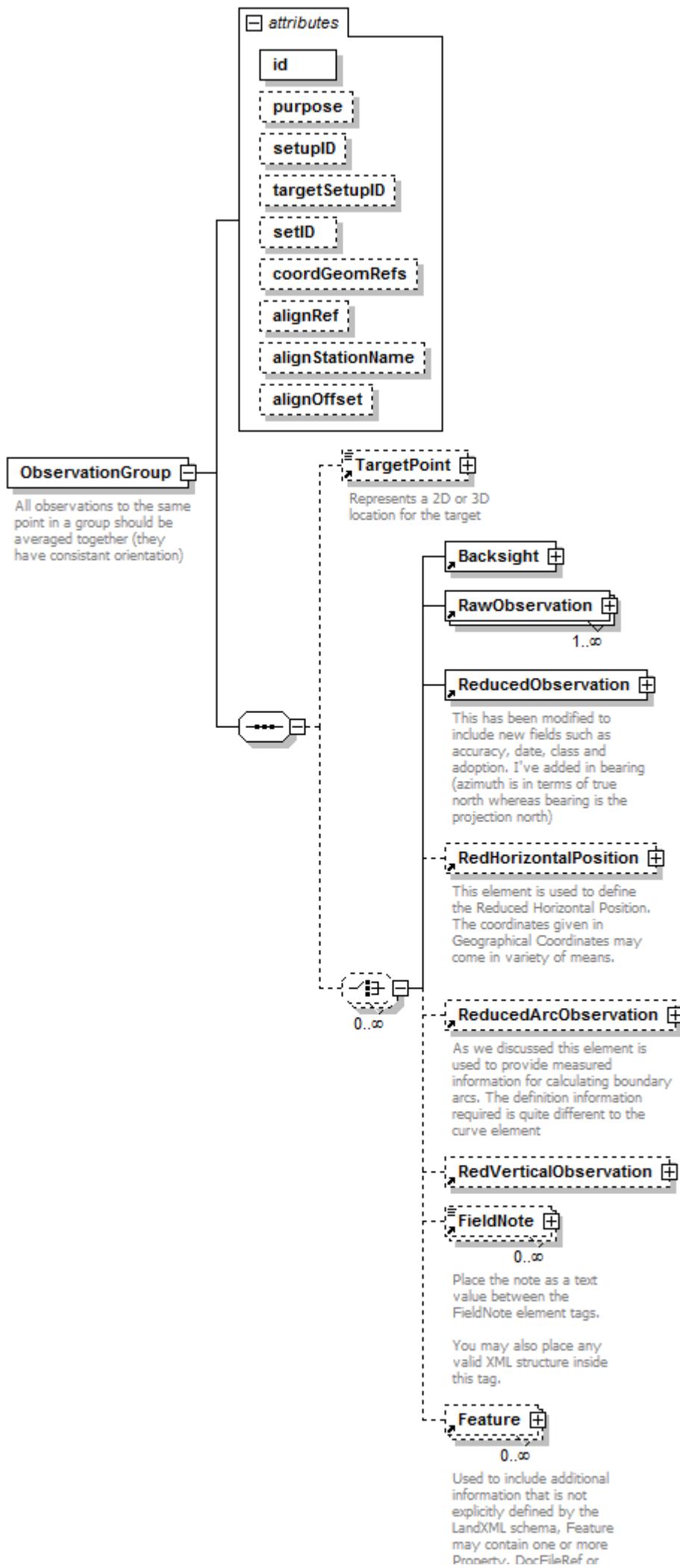
attribute GPSPosition/@pntRef

type	<u>pointNameRef</u>
properties	isRef 0
source	<code><xs:attribute name="pntRef" type="pointNameRef"/></code>

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element ObservationGroup

diagram	
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nested Feature elements.
NOTE: to allow any valid content, the explicit definitions for Property, DocFileRef and Feature have been commented out, but are still expected in common use.

namespace	http://www.landxml.org/schema/LandXML-1.2					
properties	content complex					
children	TargetPoint Backsight RawObservation ReducedObservation RedHorizontalPosition ReducedArcObservation RedVerticalObservation FieldNote Feature					
used by	elements ControlChecks InstrumentSetup Survey .					
attributes	Name <u>id</u> Type Use <u>xs:ID</u> required <u>purpose</u> purposeType <u>setupID</u> xs:IDREF <u>targetSetupID</u> xs:IDREF <u>setID</u> <u>coordGeomRefs</u> coordGeomNameRefs <u>alignRef</u> alignmentNameRef <u>alignStationName</u> xs:string <u>alignOffset</u> offsetDistance		Default	Fixed	annotation	
annotation	documentation All observations to the same point in a group should be averaged together (they have consistant orientation)					
source	<pre><xs:element name="ObservationGroup"> <xs:annotation> <xs:documentation>All observations to the same point in a group should be averaged together (they have consistant orientation)</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element ref="TargetPoint" minOccurs="0"/> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="Backsight"/> <xs:element ref="RawObservation" maxOccurs="unbounded"/> <xs:element ref="ReducedObservation"/> <xs:element ref="RedHorizontalPosition" minOccurs="0"/> <xs:element ref="ReducedArcObservation" minOccurs="0"/> <xs:element ref="RedVerticalObservation" minOccurs="0"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> <xs:attribute name="id" type="xs:ID" use="required"/> <xs:attribute name="purpose" type="purposeType"/> <xs:attribute name="setupID" type="xs:IDREF"/> <xs:attribute name="targetSetupID" type="xs:IDREF"/> <xs:attribute name="setID"/> <xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/> <xs:attribute name="alignRef" type="alignmentNameRef"/> <xs:attribute name="alignStationName" type="xs:string"/> <xs:attribute name="alignOffset" type="offsetDistance"/> <!-- coordGeomRefs identifies one or more 'name' values that link to specific <Line>, <Curve>, <Spiral> or <IrregularLine> in a <CoordGeom> element. This allows linking an survey observation to specific <Parcel>.<CoordGeom> based geometry. --> <!-- alignRef is the name of the alignment. alignStationName is the station value where the rod reading is taken. </pre>					

</xs:complexType>
 </xs:element>

attribute **ObservationGroup/@id**

type	xs:ID
properties	isRef 0 use required
source	<xs:attribute name="id" type="xs:ID" use="required"/>

attribute **ObservationGroup/@purpose**

type	purposeType
properties	isRef 0
facets	enumeration normal enumeration check enumeration backsight enumeration foresight enumeration traverse enumeration sideshot enumeration resection enumeration levelLoop enumeration digitalLevel enumeration remoteElevation enumeration recipricalObservation enumeration topo enumeration cutSheets enumeration asbuilt
source	<xs:attribute name="purpose" type="purposeType"/>

attribute **ObservationGroup/@setupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="setupID" type="xs:IDREF"/>

attribute **ObservationGroup/@targetSetupID**

type	xs:IDREF
properties	isRef 0
source	<xs:attribute name="targetSetupID" type="xs:IDREF"/>

attribute **ObservationGroup/@setID**

properties	isRef 0
source	<xs:attribute name="setID"/>

attribute **ObservationGroup/@coordGeomRefs**

type	coordGeomNameRefs
properties	isRef 0
source	<xs:attribute name="coordGeomRefs" type="coordGeomNameRefs"/>

attribute ObservationGroup/@alignRef

type	<u>alignmentNameRef</u>
properties	isRef 0
source	<xs:attribute name="alignRef" type="alignmentNameRef"/>

attribute ObservationGroup/@alignStationName

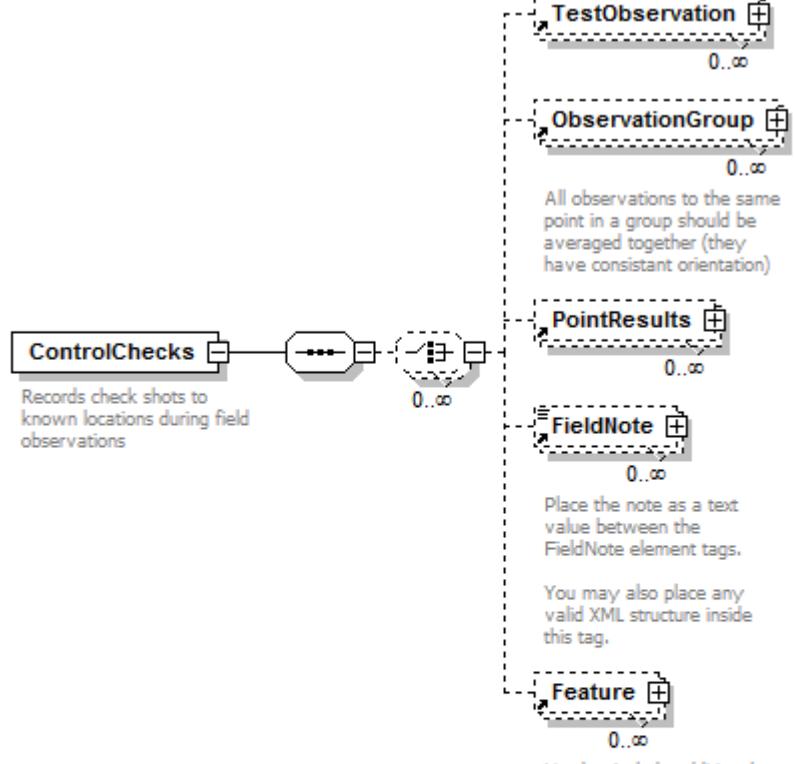
type	<u>xs:string</u>
properties	isRef 0
source	<xs:attribute name="alignStationName" type="xs:string"/>

attribute ObservationGroup/@alignOffset

type	<u>offsetDistance</u>
properties	isRef 0
source	<xs:attribute name="alignOffset" type="offsetDistance"/>

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element **ControlChecks**

diagram	 <p>The diagram illustrates the ControlChecks element and its associations. The ControlChecks element is represented by a rectangle with a note below it: "Records check shots to known locations during field observations". It has a multiplicity of 0..∞ associated with it. This association connects to four other elements: TestObservation, ObservationGroup, PointResults, and FieldNote. Each of these four elements is also associated with ControlChecks with a multiplicity of 0..∞. The TestObservation element is shown with a note: "All observations to the same point in a group should be averaged together (they have consistent orientation)". The ObservationGroup element is shown with a note: "Place the note as a text value between the FieldNote element tags. You may also place any valid XML structure inside this tag.". The PointResults and FieldNote elements are shown with their respective notes. The Feature element is also listed under the associations.</p>
namespace	http://www.landxml.org/schema/LandXML-1.2
properties	content complex
children	TestObservation ObservationGroup PointResults FieldNote Feature
used by	elements InstrumentSetup Survey .
annotation	<p>documentation Records check shots to known locations during field observations</p>
source	<pre> <xs:element name="ControlChecks"> <xs:annotation> <xs:documentation>Records check shots to known locations during field observations</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element ref="TestObservation" minOccurs="0" maxOccurs="unbounded"/> <!-- LandXML-1.2 schema note: Use of ObservationGroup is deprecated and used for backward compatibility, use multiple TestObservation elements --> <xs:element ref="ObservationGroup" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="PointResults" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="FieldNote" minOccurs="0" maxOccurs="unbounded"/> <xs:element ref="Feature" minOccurs="0" maxOccurs="unbounded"/> </xs:choice> </xs:sequence> </xs:complexType> </xs:element> </pre>

```
</xs:sequence>
</xs:complexType>
</xs:element>
```

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>