AIR Loss Analysis Service Reference Guide



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If you need assistance in using the software or understanding the information in this document, please contact AIR Worldwide using the appropriate email:

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1 About the AIR Loss Analysis Service

You can use the AIR Loss Analysis Service to estimate occurrence and aggregate losses due to catastrophic events in the United States.

Process overview

You can submit requests for one location, one contract with up to ten locations, or multiple locations.

You provide the service with:

- the physical location of the property in the form of an address or of a latitude and longitude pair,
- the characteristics of the property such as insurance coverage, construction details, and occupancy details, and
- information about the type of analysis to run.

The service returns the analysis results and the information used to compute the results.

The configuration package

When you license the Loss Analysis Service, your AIR representative sets up a configuration package for you. The package specifies certain loss analysis options, such as the event set option, that the service applies for every loss analysis. You supply the name of your configuration package as part of the service request.

Other facts

- Elements and attributes are case sensitive. Requests to the service must include the correct capitalization for elements and attributes.
- Some elements in the AIR Loss Analysis Service definition are peril-specific, which means that they apply only when you specify a certain peril in the StrPerils element. If you do not specify the relevant peril, the service ignores the element. For example, the FloorOfInterest element applies only for hurricanes. Elements may also be region-specific.

  To help you determine whether an element is supported for a given peril and region, refer to the relevant model documentation or to the *Touchstone Exposure Validation Reference* (available on the AIR Client Portal).
- You can download and review the Loss Analysis Service schema definitions from the AIR Client Portal.
- The service returns loss values in the United States Dollar (USD) currency.

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2 What's new in the Loss Analysis Service for Touchstone 8.0

AIR has incorporated changes made to the Touchstone 8.0 loss module into the Loss Analysis Service along with these updates.

- Added updates to the AIR Hurricane Model for the United States to include risk associated with precipitation flood due to hurricanes. This new precipitation flood sub-peril is a licensed option and is off (excluded) by default.
- Added updates to the AIR Inland Flood Model for the United States, including the new non-hurricane-induced precipitation flood component. One AAL is returned.
- Added the ability to analyze on- and off-flood plain risk in the AIR Inland Flood Model for the United States and the AIR Hurricane Model for the United States. Both the on-and off-flood plain risk are included by default for all web service loss requests for these models. (The default cannot be changed.)
- Made enhancements and changes to flood-related secondary risk characteristics to support the new precipitation flood sub-peril.
- Added support for a new min-max policy deductible algorithm that was designed to better address the needs of more complex commercial policies.
- Added updates to industry losses used for demand surge calculations. The losses were developed using the most recent AIR Industry Exposure Database.

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3 Components of a Loss Analysis Service request

Requests contain a header and a body.

You submit a single risk request to run a loss analysis for one location or one policy. A policy can include layers and a maximum of 10 locations. You submit a batch request to run a loss analysis for multiple locations.

The request header includes your login ID, password, and license key. The body includes information about the risk or risks to analyze.

The body includes the following child and subchild elements.

Body element	Description
<Products>	Specifies the web service to use. For the Loss Analysis Service, use `LossAnalysis`.
<LossAnalysis>	Contains all the details of the loss analysis, such as whether to enable demand surge and storm surge, information about the locations or contracts to include, and the name of your configuration package.
<Options>	Specifies whether to enable demand surge and storm surge. You can use this section to override the settings in your configuration package.
<Data>	Contains details about the locations and layers to analyze.
<ResultSet>	Contains the name of your configuration package. See The configuration package.

Using geocodes in service requests

If possible, you should provide a geocode whenever possible to ensure that you generate results for the correct location.

You can provide an address or a geocode for each property when you submit a request. If you provide an address, the service requests the corresponding geocode from the AIR Address Service before running the analysis. The service searches the available geocoding data for the best match to the street address that you supplied. If the street address that you supplied includes errors or omissions, the service may not return the geocode that you intended to generate results for.

You should review the address information returned by the service to confirm that it geocoded the correct street address. If necessary, you can update the address information that you

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supplied and resubmit your request. For example, if you supplied the incorrect street type, pre-directional, or post-directional for a location, correct the input, and then resubmit the request.

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4 Components of a Loss Analysis Service response

Responses contain a header and a results section.

When you submit a request to the AIR Loss Analysis Service, the service returns a response in two sections.

If you submit a batch request, the service returns multiple result sets bound by the BatchISOResponse element.

Body element	Description
<ResponseHeader>	Includes processing information
<LossAnalysis>	Contains the geocode (or latitude and longitude pair) for each location included in the analysis, the analysis options that you supplied, and the numerical results of the analysis

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5 Required elements for a Loss Analysis Service request

You must include these elements and their parent elements in all requests.

The service returns an error if any of the required elements are missing from a request.

While you may get a result using just the required elements, you should supply the service with as much information as possible to get a more accurate result.

Element(s)	Description
LoginID element and Password element and LicenseKey element	Login credentials that enable access to the service. Your AIR representative provides your login credentials.
Products element	Identifies the service to use.
Data element	Identifies whether to run the analysis on a location, contract, or batch of locations.
StrConstructBldg element and StrOccupancyClass element	Identify the construction and occupancy class codes for a property.
StreetAddress element and City element and Area element or AreaCode element PostalCode element or Latitude element and Longitude element	Identify the address or geocode for a property. Whenever possible, you should specify the *Latitude* and *Longitude* elements rather than providing the street address. You can use the AIR Address Service to obtain the latitude and longitude.
ResultSet element	Identifies the configuration package for the analysis. See The configuration package.
RV_A element or RV_B element or RV_C element	Identify the building, detached structure, and contents replacement values, respectively. You must provide at least one non-zero replacement value.

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6 Recommended Loss Analysis Service request elements

You should include as many of these elements as possible to improve the accuracy of a Loss Analysis Service request.

Primary risk characteristics

Deduct_A element	Contains the property's deductible or the percentage that is applied to the Building or Site Limit.
Deduct_B element	Represents the value of the Other Structures Deductible or the percent that is applied to the Other Structures Limit Type.
Deduct_C element	Represents the Contents Deductible, or the percent that is applied to the Contents Limit.
Deduct_D element	Represents the Time Element Deductible, or the percent that is applied to the Time Element Limit.
StrDeductType element	Specifies the deductible type for a location or layer.
Height element	Specifies the number of stories in the building at the location.
ID element	Specifies the alphanumeric identifier for a location, contract, or layer.
Limit_A element	Specifies the insured limit for coverage A, insured limit for coverages A, B, and C, or priority of coverage A at the location.
Limit_B element	Specifies the insured limit for coverage B or priority of coverage B at the location.
Limit_C element	Specifies the insured limit for coverage C or priority of coverage C at the location.
Limit_D element	Specifies the insured limit for coverage D or priority of coverage D at the location.
StrLimitType element	Specifies the limit type for a location, layer, or sublimit.
Premium element	Specifies the sum of all written premiums for all risks covered in the location record.

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RiskCount element	Specifies the number of risks for the location record.
RV_A element	Specifies the replacement value for all the buildings in the location record.
RV_B element	Specifies the replacement value for all the structures apart from the main building in the location record.
RV_C element	Specifies the replacement value or cash value of all the contents covered in the location record.
RV_D element	Specifies the time element coverage for the location record.
RV_D_DaysCovered element	Specifies the number of days that the *RV_D* element represents.
StrConstructOStr element	Specifies the construction class of any secondary structures at the location as an AIR or ISO construction class code.
StrConstructType element	Specifies the source of the construction code in the location record.
StrOccupancyType element	Specifies the source of the occupancy code in the location record.
StrCurrency element	Specifies the currency of the replacement values, limits, and deductibles as a currency code.
StrPerils element	Specifies the perils covered for the risk.
Subarea element or SubareaCode element	Use one of these if you supply an address. Whenever possible, you should specify the *Latitude* and *Longitude* elements rather than providing the street address. You can use the AIR Address Service to obtain the latitude and longitude.
YearBuilt element	Specifies the year the building at the location was built or last renovated.

Secondary risk characteristics

AdBldgHeight element	Specifies the average height of the buildings adjacent to the main building at the location, expressed as a number of stories.

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AppurtStruct element	Specifies the type of appurtenant structures at the location.
AttachStruct element	Specifies the type of a wall-attached structure at the location.
BasementFinishType element	Indicates whether the basement is finished or unfinished in the building at this location.
BasementLevelCount element	Indicates the number of basement levels in the building at this location.
BldCond element	Specifies the overall condition of the building at the location, based on the external appearance of the cladding and maintenance.
BldFndConn element	Specifies the type of the connection between the main building at the location and its foundation.
ContentVulnerability element	Specifies the portion of the contents of the building at this location that have a low vulnerability.
CustomFloodZone element	Specifies whether the building at the location is in a custom flood zone.
ExteriorDoors element	Specifies the most prevalent type of exterior door on the building.
FIRMCompliance element	Indicates whether the building is in compliance with the FEMA flood zone requirements in design and construction.
FloorArea element	Indicates the total floor area for the building at this location.
FloorOfInterest element	Specifies the floor of interest when the entire building is not covered.
Foundation element	Specifies the type of foundation of the building.
GlassPercent element	Specifies the percentage of glass in the walls of the building.
GlassType element	Specifies the most common type of glass used for windows, walls, and doors at the property.
GrossArea element	Specifies the total floor space in hectares inside the outer walls of the building, including unusable space.
IBHSFortified element	Indicates whether the building at this location has achieved an Insurance

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	Institute for Business & Home Safety (IBHS) FORTIFIED designation for US hurricane.
IntPartition element	Specifies the type of material used for the internal partition walls in the building.
LargeMissile element	Specifies whether any objects such as garden furniture or wood planks are within 100 feet of the building and may become missiles during high winds.
MechSystem element	Specifies the type of structure on the roof of the property.
Proximity element	Specifies the distance from the property's boundary to the closest structure that is not on the property.
Retrofit element	Specifies retrofitting to the building or building components.
RoofAnchorage element	Specifies the type of connection used to secure the roof support systems to the walls.
RoofCover element	Specifies the roof cover material on the property.
RoofCoverAttch element	Specifies the method used to attach the roof cover to the roof deck.
RoofDeck element	Specifies the material used for the building's roof deck.
RoofDeckAttch element	Specifies the type of connectors that secure the roof deck to the roof support system on the building.
RoofGeometry element	Specifies the shape of the roof that is most prevalent on the building.
RoofHailImpactResistance element	Specifies the class of the hail impact-resistant roof covering material for the building at this location.
RoofPitch element	Specifies the slope on the roof of the property.
RoofYearBuilt element	Specifies the year that the roof on the building was last replaced or built.
SealOfApproval element	Specifies the level of attention given by engineers to the design of the building at the location.
ServiceEquipmentProtection element	Indicates the level of protection to mechanical, electrical, or plumbing

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	service equipment in the floodable parts of the basement of the building at this location.
Shape element	Specifies the shape of the footprint of the building.
SmallDebris element	Specifies whether any small debris such as roof gravel, trash bins, or tree branches are within 200 feet of the building and may become missiles during high winds.
SoftStory element	Specifies whether any of the floors in the building have structural weaknesses such as weakness in the lateral load-resisting capacity, if the building has more than one floor.
Special element	Specifies whether earthquake-resisting systems are installed in the building.
StrucIrreg element	Specifies the type of structural irregularity in the building at the location.
TerrainRoughness element	Specifies the terrain conditions for the property.
Torsion element	Specifies the layout of the structural elements of the building.
TreeExposure element	Specifies whether trees near the building pose a hazard in the event of a storm.
Wall element	Specifies the materials used to construct the external walls of the building.
WallSiding element	Specifies the material used to protect the exterior walls of the building from weathering.
WetFloodProofing element	Indicates compliance of the building with the FEMA flood zone requirements in design and construction.
WindowProt element	Specifies the most common type of window protection on the building.

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7 Create a request for one location

Here's how to create a Loss Analysis Service request for a single location.

Before You Begin

- Make sure all the information you have about the location is accessible.
- You will need to know the name of your configuration package. See The configuration package.

Procedure

1. Copy the example request to the application that you use to submit Loss Analysis Service requests.
2. Specify your login credentials in the AIR element.
3. In the Products element, enter `LossAnalysis`.
4. In the ReturnLocationResults element and ReturnLayerResults element, enter `true` or `false`.
5. Optionally, in the attributes of the Options element, specify values to override the options in the configuration package.
6. In the *type* attribute of the Data element, enter `Locations`.
7. In the Location element, specify as many details about the location as you can.

   See Using geocodes in service requests, Required elements for a Loss Analysis Service request, and Recommended Loss Analysis Service request elements.
8. In the *type* attribute of the ResultSet element, enter `Preset`.
9. In the *name* attribute of the ResultSet element, enter the name of your configuration package.
10. Submit the request.

Example location request

Here is an example of a Loss Analysis Service location request.

You can use this example to create new requests.

```
<ISORequests>
  <RequestHeader>
    <AIR>
      <LoginID>YourLogin</LoginID>
       <Password>YourSecretPassword</Password>
       <LicenseKey>YourLicenseKey</LicenseKey>
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
       <ReturnLayerResults>true</ReturnLayerResults>
```


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```
      <Options stormSurge="true" demandSurge="true" SSValue="10"
PFValue="100"/>
     <Data type="Locations">
       <Locations>
         <Location>
           <ID>37899</ID>
           <Address>
             <StreetAddress></StreetAddress>
             <City></City>
             <Subarea></Subarea>
             <Area></Area>
             <PostalCode></PostalCode>
             <Country>US</Country>
             <Latitude>31.509789</Latitude>
             <Longitude>-92.127337</Longitude>
           </Address>
           <DateFrom>2014-01-01</DateFrom>
           <DateTo>2014-12-31</DateTo>
           <StrCurrency>USD</StrCurrency>
           <RiskCount>1</RiskCount>
           <RV_A>1000000</RV_A>
           <RV_B>1000000</RV_B>
           <RV_C>1000000</RV_C>
           <RV_D>0</RV_D>
           <RV_D_DaysCovered>1</RV_D_DaysCovered>
           <StrConstructType>AIR</StrConstructType>
           <StrConstructBldg>101</StrConstructBldg>
           <StrConstructOStr>101</StrConstructOStr>
           <StrOccupancyType>AIR</StrOccupancyType>
           <StrOccupancyClass>301</StrOccupancyClass>
           <YearBuilt>1980</YearBuilt>
           <Height>1</Height>
           <LocationTerms>
             <LocationTerm>
               <StrPerils>PFL</StrPerils>
               <StrLimitType>N</StrLimitType>
               <Limit_A>0</Limit_A>
               <Limit_B>0</Limit_B>
               <Limit_C>0</Limit_C>
               <Limit_D>0</Limit_D>
               <StrDeductType>NO</StrDeductType>
               <Deduct_A>0</Deduct_A>
               <Deduct_B>0</Deduct_B>
               <Deduct_C>0</Deduct_C>
               <Deduct_D>0</Deduct_D>
             </LocationTerm>
           </LocationTerms>
         </Location>
         <Location>
           <ID>37900</ID>
           <Address>
             <StreetAddress></StreetAddress>
             <City></City>
             <Subarea></Subarea>
             <Area></Area>
             <PostalCode></PostalCode>
             <Country>US</Country>
             <Latitude>31.528904</Latitude>
             <Longitude>-91.823363</Longitude>
```


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```
            </Address>
            <DateFrom>2014-01-01</DateFrom>
            <DateTo>2014-12-31</DateTo>
            <StrCurrency>USD</StrCurrency>
            <RiskCount>1</RiskCount>
            <RV_A>1000000</RV_A>
            <RV_B>1000000</RV_B>
            <RV_C>1000000</RV_C>
            <RV_D>0</RV_D>
            <RV_D_DaysCovered>1</RV_D_DaysCovered>
            <StrConstructType>AIR</StrConstructType>
            <StrConstructBldg>101</StrConstructBldg>
            <StrConstructOStr>101</StrConstructOStr>
            <StrOccupancyType>AIR</StrOccupancyType>
            <StrOccupancyClass>301</StrOccupancyClass>
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                <Limit_C>0</Limit_C>
                <Limit_D>0</Limit_D>
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                <Deduct_C>0</Deduct_C>
                <Deduct_D>0</Deduct_D>
              </LocationTerm>
            </LocationTerms>

<Details>
              <FloorArea>250</FloorArea>
              <FloorAreaUnitCode>SQM</FloorAreaUnitCode>
              <FloorsOccupied></FloorsOccupied>
              <CustomFloodSoP></CustomFloodSoP>
              <CustomFloodZone></CustomFloodZone>
              <FloorOfInterest></FloorOfInterest>
              <BldCond></BldCond>
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              <SoftStory></SoftStory>
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              <SpecialConstruction></SpecialConstruction>
              <Retrofit></Retrofit>
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              <Ornamentation></Ornamentation>
              <WaterHeater></WaterHeater>
              <Redundancy></Redundancy>
              <TallOneStory></TallOneStory>
              <Equipment></Equipment>
              <SealofApproval></SealofApproval>
              <RoofGeometry></RoofGeometry>
              <RoofPitch></RoofPitch>
              <RoofCover></RoofCover>
              <RoofDeck></RoofDeck>
              <RoofCoverAttch></RoofCoverAttch>
```


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```
                <RoofDeckAttch></RoofDeckAttch>
                <RoofAnchorage></RoofAnchorage>
                <MechSystem></MechSystem>
                <RoofYearBuilt></RoofYearBuilt>
                <Tank></Tank>
                <RoofHailImpactResistance></RoofHailImpactResistance>
                <Chimney></Chimney>
                <Wall></Wall>
                <WallSiding></WallSiding>
                <GlassType></GlassType>
                <GlassPercent></GlassPercent>
                <WindowProt></WindowProt>
                <ExteriorDoors></ExteriorDoors>
                <BuildingExteriorOpening></BuildingExteriorOpening>
                <BrickVeneer></BrickVeneer>
                <BldFndConn></BldFndConn>
                <Foundation></Foundation>
                <InternalPartition></InternalPartition>
                <Welding></Welding>
                <TransitionInSRC></TransitionInSRC>
                <MultiStoryHallType></MultiStoryHallType>
                <LatticeType></LatticeType>
                <IsValueType></IsValueType>
                <ColumnBasement></ColumnBasement>
                <ColdFormedTube></ColdFormedTube>
                <AttachStruct></AttachStruct>
                <AppurtStruct></AppurtStruct>
                <Pounding></Pounding>
                <TreeExposure></TreeExposure>
                <SmallDebris></SmallDebris>
                <LargeMissile></LargeMissile>
                <TerrainRoughness></TerrainRoughness>
                <AdjacentBuildingHeight></AdjacentBuildingHeight>
                <ProjectCompletion></ProjectCompletion>
                <ProjectPhase></ProjectPhase>
                <BasementLevelCount></BasementLevelCount>
                <BasementFinishType></BasementFinishType>
                <CustomElevation></CustomElevation>
                <CustomElevationUnit></CustomElevationUnit>
                <BaseFloodElevation></BaseFloodElevation>
                <BaseFloodElevationUnit></BaseFloodElevationUnit>
                <FirstFloorHeight></FirstFloorHeight>
                <FirstFloorHeightUnit></FirstFloorHeightUnit>
                <ServiceEquipmentProtection></
ServiceEquipmentProtection>
                <FIRMCompliance></FIRMCompliance>
                <ContentVulnerability></ContentVulnerability>
                <IBHSFortified></IBHSFortified>
                <PPCCode></PPCCode>
                <FireSprinklers></FireSprinklers>
                <WetFloodProofing>4</WetFloodProofing>
              </Details>
            </Location>
            <Location>
          .
            .
            .
            </Location>
          </Locations>
```


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```
      </Data>
      <ResultSet type="preset" name="10K_US_Flood"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```

Example contract request

Here is an example of a Loss Analysis Service contract request.

You can use this example to create new requests.

```
<ISORequests>
  <RequestHeader>
    <AIR>
      <LoginID>YourLogin</LoginID>
      <Password>YourSecretPassword</Password>
      <LicenseKey>YourLicenseKey</LicenseKey>
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Contract">
        <Contract>
          <ID>untitled</ID>
          <DateFrom>1/1/2000</DateFrom>
          <DateTo>12/31/2030</DateTo>
          <StrPerils>PAL</StrPerils>
          <Locations>
            <Location>
              <ID>3,1</ID>
              <RiskCount>1</RiskCount>
              <YearBuilt>1980</YearBuilt>
              <DateFrom>1/1/2011</DateFrom>
              <DateTo>12/31/2020</DateTo>
              <Height>1</Height>
              <StrConstructType/>
              <StrConstructBldg>101</StrConstructBldg>
              <StrConstructOStr/>
              <StrOccupancyType/>
              <StrOccupancyClass>311</StrOccupancyClass>
              <GrossArea>0</GrossArea>
              <Premium>1000</Premium>
              <RV_A>156000</RV_A>
              <RV_B>0</RV_B>
              <RV_C>0</RV_C>
              <RV_D>16000</RV_D>
              <RV_D_DaysCovered>365</RV_D_DaysCovered>
              <Address>
                <Country/>
                <StreetAddress>2149 N MAIN ST</StreetAddress>
                <City>SUMMERVILLE</City>
                <Area>SC</Area>
```


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```
            <PostalCode>29456</PostalCode>
            <Latitude>33.045993</Latitude>
            <Longitude>-80.110809</Longitude>
          </Address>
          <LocationTerms>
            <LocationTerm>
              <StrPerils>PES</StrPerils>
              <StrLimitType>C</StrLimitType>
              <Limit_A>1560000</Limit_A>
              <Limit_C>0</Limit_C>
              <Limit_D>16000000</Limit_D>
              <StrDeductType>CP</StrDeductType>
              <Deduct_A>0.02</Deduct_A>
              <Deduct_C>0.02</Deduct_C>
              <Deduct_D>0.0082</Deduct_D>
              <Participation>1.0</Participation>
              <Participation2>1.0</Participation2>
              <AreaName>DEF</AreaName>
            </LocationTerm>
          </LocationTerms>
        </Location>
      </Locations>
      <Layers>
        <Layer>
          <ID>1</ID>
          <StrPerils>PAL</StrPerils>
          <StrDeductType>NO</StrDeductType>
          <StrLimitType>B</StrLimitType>
          <AttachAmt>0</AttachAmt>
          <Limit_A>0</Limit_A>
          <Limit_B>0</Limit_B>
          <Limit_C>0</Limit_C>
          <Limit_D>0</Limit_D>
          <AttchPt_A>0</AttchPt_A>
          <AttchPt_B>0</AttchPt_B>
          <AttchPt_C>0</AttchPt_C>
          <AttchPt_D>0</AttchPt_D>
          <Sublimits>
            <Sublimit>
              <ID>1</ID>
              <StrPerils>PAL</StrPerils>
              <StrLimitType>B</StrLimitType>
              <Limit_2>0</Limit_2>
              <Limit_A>0</Limit_A>
              <Limit_B>0</Limit_B>
              <Limit_C>0</Limit_C>
              <Limit_D>0</Limit_D>
              <AttachAmt>0</AttachAmt>
              <AttchPt_A>0</AttchPt_A>
              <AttchPt_B>0</AttchPt_B>
              <AttchPt_C>0</AttchPt_C>
              <AttchPt_D>0</AttchPt_D>
              <StrDeductType>NO</StrDeductType>
              <Deduct_1>0</Deduct_1>
              <Deduct_2>0</Deduct_2>
              <ApplyToArea>DEF</ApplyToArea>
            </Sublimit>
          </Sublimits>
          <Deduct_1>0</Deduct_1>
```


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```
              <Deduct_2>0</Deduct_2>
              <Limit_1>11111111</Limit_1>
              <Limit_2>0</Limit_2>
            </Layer>
          </Layers>
        </Contract>
      </Data>
      <ResultSet type="Preset" name="10K_US_EQ"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```


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8 Create a batch request for multiple locations

Here's how to create a batch Loss Analysis Service request for multiple locations.

Procedure

1. Create an XML file with the BatchISORequest element as the root element.
2. Do the following for each location.
   a) Copy the example request and paste it inside the BatchISORequest element.
   b) Specify your login credentials in the AIR element.
   c) In the Products element, enter `LossAnalysis`.
   d) In the ReturnLocationResults element and ReturnLayerResults element, enter `true` or `false`.
   e) Optionally, in the attributes of the Options element, specify values to override the options in the configuration package.
   f) In the *type* attribute of the Data element, enter `Locations`.
   g) In the Location element, specify as many details about the location as you can.

      See Using geocodes in service requests, Required elements for a Loss Analysis Service request, and Recommended Loss Analysis Service request elements.
   h) In the *type* attribute of the ResultSet element, enter `Preset`.
   i) In the *name* attribute of the ResultSet element, enter the name of your configuration package.
3. Save the file as `BatchData.xml`.
4. Add the XML file to the `FTPS` server.
   a) Start an FTP session on your system.
   b) Enter one of the following, and then press **Enter**:

      - `ftp` *`machinename`*, where *machinename* is the full name of the remote, or
      - `ftp` *`IP address`*, where *IP address* is the IP address of the remote machine

      The login name and password prompts appear.
5. Type your login credentials for the remote machine, and then press **Enter**.
6. Ensure that the transfer mode is `ASCII`.
7. Navigate to the directory on the remote machine provided by your AIR representative.
8. Execute the `PUT` command to transfer the file to the directory.
9. Execute the `LS` command to ensure that the file was transferred.
10. Copy the following request to the application that you use to submit Loss Analysis Service requests:

```
<ISORequests>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="File">
```


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```
                <File>BatchData.xml</File>
            </Data>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

11. Submit the request.

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9 Element reference

AdBldgHeight element

Specifies the average height of the buildings adjacent to the main building at the location, expressed as a number of stories.

Type	Value	Description
Element name	*adBldgHeight*	Specifies the average height of the buildings adjacent to the main building at the location, expressed as a number of stories.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	3 characters maximum	
Values	The average number of stories in the buildings	Use `0` if the building height is not known.
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Request Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                            .
                            .
                            .
                        <Address>
```


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```
                              .
                              .
                              .
                         </Address>
                         <LocationTerms Items="1">
                              .
                              .
                              .
                         </LocationTerms>
                         <Details>
                              .
                              .
                              .
                             <AdBldgHeight>4</AdBldgHeight>
                              .
                              .
                              .
                         </Details>
                    </Location>
               </Locations>
          </Data>
          <ResultSet type="Preset" name="Your Configuration Package
 Name"/>
       </LossAnalysis>
   </ISORequest>
</ISORequests>
```

Address element

Contains address information for the property.

Item	Value	Description
Element name	*address*	Contains address information for the property.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xsd:complexType	An element with this data type may contain other elements.
Request elements	The request may contain some or all of these elements.	Country element or StreetAddress element or City element or Area element or AreaCode element or PostalCode element or Subarea

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Item	Value	Description
		element or SubareaCode element or Cresta element or Latitude element or Longitude element
Response elements	The response may contain some or all of these elements.	Country element or StreetAddress element or City element or Area element or AreaModeled element or AreaCode element or PostalCode element or PostalCodeModeled element or GeoPoint element or Subarea element or SubareaModeled element or SubareaCode element
Usage notes		Whenever possible, you should specify the *Latitude* and *Longitude* elements rather than providing the street address. You can use the AIR Address Service to obtain the latitude and longitude. If you specify a latitude and longitude, the GeoCode element returns the latitude and longitude you specified. Otherwise, it returns the geocode determined by the web service, and the *MatchLevel* element specifies the source and accuracy of the geocode.

Attributes

Attribute name	Use	Description
Version	optional	Specifies the AIR Address Service version used to process the request.

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Attribute name	Use	Description
Type	optional	Indicates whether the address you submitted is parsed or unparsed.
Addr1	optional	Specifies the street address of the property.

Source

```
<xs:element name="Address" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:choice maxOccurs="unbounded" minOccurs="0">
        <xs:element name="Type" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="ReportID" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="LocationID" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="UserLocationID" type="xs:string"
 minOccurs="0" maxOccurs="1" />
        <xs:element name="Addr1" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="City" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="StateProv" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="County" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="PostalCode" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="Country" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="Latitude" type="xs:string" minOccurs="0"
 maxOccurs="1" />
        <xs:element name="Longitude" type="xs:string" minOccurs="0"
 maxOccurs="1" />
      </xs:choice>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Source

```
<xsd:element name="Address" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
              <xsd:complexType>
              <xsd:choice maxOccurs="unbounded" minOccurs="1">
              <xsd:element name="Country" type="xsd:string" />
              <xsd:element name="StreetAddress" type="xsd:string"
 minOccurs="0" />
              <xsd:element name="City" type="xsd:string"
 minOccurs="0" />
```


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```
                <xsd:element name="Area" type="xsd:string"
 minOccurs="0" />
                <xsd:element name="State" type="xsd:string"
 minOccurs="0" />
                <xsd:element name="AreaCode" type="xsd:string"
 minOccurs="0" />
                <xsd:element name="PostalCode" type="xsd:string"
 minOccurs="0" />
                <xsd:element name="Subarea" type="xsd:string"
 minOccurs="0" />
                <xsd:element name="SubareaCode" type="xsd:string"
 minOccurs="0" />
                <xsd:element name="CRESTA" type="xsd:string"
 minOccurs="0" />
                <xsd:element name="Latitude" type="Geocode"
 minOccurs="0" nillable="true" />
                <xsd:element name="Longitude" type="Geocode"
 minOccurs="0" nillable="true" />
                </xsd:choice>
                </xsd:complexType>
                </xsd:element>
```

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    <ISORequest>
        <Products>HazardAnalysis</Products>
        <HazardAnalysis>

 <Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
 WinterstormHazard</Products>
       </HazardAnalysis>
       <Addresses>
           <Options geocode="yes" returnHighestScore="yes"
 additionalInfo="no"/>
           <Address>
               <Latitude></Latitude>
               <Longitude></Longitude>
               <Addr1>100 Main Street</Addr1>
               <City>Seattle</City>
               <StateProv>WA</StateProv>
               <Country>US</Country>
           </Address>
       </Addresses>
    </ISORequest>
</ISORequests>
```

Request Example

```
<ISORequests>
                .
```


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```
                .
                .
                <ISORequest>
                <Products>LossAnalysis</Products>
                <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                <Locations>
                <Location>
                <ID></ID>
                <RiskCount></RiskCount>
                <YearBuilt></YearBuilt>
                .
                .
                .
                <Address>
                <StreetAddress></StreetAddress>
                <City></City>
                <Area></Area>
                <Subarea></Subarea>
                <PostalCode></PostalCode>
                <Country></Country>
                <Latitude>42.346809</Latitude>
                <Longitude>-71.075202</Longitude>
                </Address>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report ...>
            <AddressProfile>
                <LocationInformation>
                    <Entered>
                        <Address>
                            .
                            .
                            .
                        </Address>
                    </Entered>
                    <Matched>
                        <ParsedAddr>
                            <Address Version="1.0" Type="Parsed"
Addr1="100 MAIN STREET">
                                <Street NumPre="" Num="100" NumSuf=""
Seperator="" Name="MAIN" Type="ST" TypeEx="STREET" PostDir=""
PreDir="" />
                                <Building UnitType="" UnitValue=""
FloorValue="" Type="" Name="" />
                                <Delivery BoxType="" BoxValue=""
RouteType="" RouteValue="" />
                                <Contact Company="" CareOf="" Attn=""
Other="" />
```


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```
                            </Address>
                        </ParsedAddr>
                        <AddrValidator>
                            <ValidateResult>
                                .
                                .
                                .
                            </ValidateResult>
                            <ProcessErrors>None</ProcessErrors>
                            <ProcessWarnings>None</ProcessWarnings>
                        </AddrValidator>
                        <GeoCode .../>
                        <GeoPath .../>
                        <Match>
                            <ValidatorMatch name="Match5" value="6" /
>
                            <GeocodeMatch name="SegmentImputed"
 value="2" />
                            <UniqueMatch name="Relaxed_SET3_g2"
 value="22" />
                            <CL2Match name="Relaxed" value="3" />
                        </Match>
                    </Matched>
                </LocationInformation>
                <HazardInformation>
                .
                .
                .
```

Response Example

```
 <ISOResponses>
              <ResponseHeader>
              .
              .
              .
              </ResponseHeader>
              <Reports>
              <Report product="LossAnalysis" version="3.5.0.3"
 timespan="4.016" sequence="110" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted=""
 ASF.StatusMessage="" ASF.Logfile="">
              <LossAnalysis engine="15.0.0 20130531">
              <Data type="Locations">
              <Locations>
              <Location>
              <ID>Loc06</ID>
              <LocationTerms>
              <LocationTerm>
              <StrPerils>PWH</StrPerils>
              </LocationTerm>
              </LocationTerms>
              <Address>
              <Country>US</Country>
              <AreaModeled>MA</AreaModeled>
              <PostalCodeModeled>02116</PostalCodeModeled>
              <SubareaModeled>Suffolk</SubareaModeled>
              <GeoPoint>
```


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```
                <GeoLat>42.3476066589355</GeoLat>
                <GeoLong>-71.0762481689453</GeoLong>
                <MatchLevel>UserSupplied</MatchLevel>
                </GeoPoint>
                </Address>
                </Location>
                </Locations>
                </Data>
```

Aggregate_Year element

Specifies the year in the event catalog that the service used to compute the aggregate loss.

Item	Value	Description
Element name	*Aggregate_Year*	Specifies the year in the event catalog that the service used to compute the aggregate loss.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.

Response example

```
<ISOResponses>
          <ResponseHeader>
            .
            .
            .
          </ResponseHeader>
          <Reports>
            <Report product="LossAnalysis" … ASF.LogFile="">
              <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                  <Locations>
                    <Location>
                      .
                      .
                      .
                    </Location>
                  </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                  <Options>
                    .
                    .
```


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```
                    .
                  </Options>
                  <StrPerils>PAL+PWH+PWX</StrPerils>
                  <Results>
                    <AnnualSummaries>
                      .
                      .
                      .
                    </AnnualSummaries>
                    <AnnualDetails>
                      <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH"
 percentPSH=”100” coverage="ResultDetail_CoverA">
                          <Level type="Location"
 descriptor="ID">Loc02</Level>
                          <ResultAnnualDetailRows>
                            <ResultRowAnnualDetail>
                              <ReturnPeriod>1000</ReturnPeriod>
                              <Loss_Aggregate>204375615.217306</
Loss_Aggregate>
                              <Aggregate_Year>1878</Aggregate_Year>
                              <Loss_Occurrence>203926094.191751</
Loss_Occurrence>
                              <Occurrence_Year>9763</Occurrence_Year>
                              <Occurrence_Peril>1</Occurrence_Peril>
                              <Occurrence_Model>27</Occurrence_Model>
                              <Occurrence_Event>32360</
Occurrence_Event>
                            </ResultRowAnnualDetail>
                            <ResultRowAnnualDetail
                              .
                              .
                              .
                            </ResultRowAnnualDetail>
                          </ResultAnnualDetailRows>
                        </AnnualDetail>
                      </AnnualDetails>
                    </Results>
                  </ResultSet>
                </LossAnalysis>
              </Report>
            </Reports>
          </ISOResponses>
```

AIR element

Contains your login credentials for AIR's web services.

Item	Value	Description
Element name	*AIR*	Contains your login credentials for AIR's web services..
Where used	request	A *request* contains the information the service needs to run the analysis.

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Source

```
<xs:element name="AIR" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:all>
      <xs:element ref="LicenseKey" />
      <xs:element ref="LoginID" />
      <xs:element ref="Password" />
    </xs:all>
  </xs:complexType>
</xs:element>
```

Request example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            <LoginID>YourLogin</LoginID>
            <Password>YourSecretPassword</Password>
            <LicenseKey>YourLicenseKey</LicenseKey>
        </AIR>
    </RequestHeader>
    <ISORequest>
        .
        .
        .
    </ISORequest>
</ISORequests>
```

AIRTrack element

Specifies the year in the event catalog that the service used to compute the aggregate loss.

Item	Value	Description
Element name	*AIRTrack*	Specifies the year in the event catalog that the service used to compute the aggregate loss.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Response example

```
<ISOResponses>
          <ResponseHeader>
            <AIRTrack>

 <Instance>633257996033636475;phv1asf2;AWS;2011-09-19T11:53:23.36
```


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```
                                        0400;/LM/W3SVC/1/Root/AWS-
1-128346899831501469;</Instance>

<Instance>633257996033636475;phv1asf2;8089;2011-09-19T11:53:23.363
0400;
Air.VL.ServiceHost.ServiceDriver.exe; AccumResponse;</Instance>
          </AIRTrack>
          <runtimeinformation responseid="1778385162;60591548"
clientparam="UserHostAddress">
            <time start="3/13/2011 6:16:22 PM" end="3/13/2011
6:16:31 PM" timespan="9.156"/>
            <count reportcount="1" errorcount="0" />
          </runtimeinformation>
        </ResponseHeader>
        <Reports>
          <Report product="LossAnalysis" …ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
              <Data type = "Locations">
                <Locations>
                  .
                  .
                  .
                </Locations>
              </Data>
              <ResultSet type="Preset" name="Your configuration
package name">
                .
                .
                .
                <Results>
                  <AnnualSummaries>
                    .
                    .
                    .
                  </AnnualSummaries>
                  <AnnualDetails>
                    .
                    .
                    .
                  </AnnualDetails>
                </Results>
              </ResultSet>
            </LossAnalysis>
          </Report>
        </Reports>
      </ISOResponses>
```

AnnualDetail element

Contains loss information for one location or contract for one simulated year.

Item	Value	Description
Element name	*AnnualDetail*	Contains loss information for one location or contract for one simulated year.

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Item	Value	Description
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Attributes

- type
- perils
- percentPSH
- percentPPH
- losstype
- coverage

Item	Value	Description
Attribute name	*type*	Specifies whether the element includes aggregate losses, occurrence losses, or both.
Data type	xs:string	
Required	yes	
Values	`Aggregate` or `Occurrence` or `Both`	

Item	Value	Description
Attribute name	*perils*	Specifies the perils included in the analysis.
Data type	xs:string	
Required	yes	
Values	Must be a valid peril code	For a list of valid codes, see the `tConvertUPXPerilSet` table description in the *Touchstone Database Reference* on the AIR Developer Zone.

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Item	Value	Description
Attribute name	*percentPSH*	Specifies the percentage of the loss that the service attributed to hurricane storm surge or coastal flood (PSH).
Data type	xs:string	
Required	no	
Values	A number from 0 to 100	The service determines this from the values you specified in the Options element and the StrPerils element of the request.

Item	Value	Description
Attribute name	*percentPPH*	Specifies the percentage of the loss that the service attributed to precipitation flood (PPH).
Data type	xs:string	
Required	no	
Values	A number from 0 to 100	The service determines this from the values you specified in the Options element and the StrPerils element of the request.

Item	Value	Description
Attribute name	*losstype*	Specifies whether the loss value represents a ground-up or gross loss.
Data type	xs:string	
Required	no	
Values	`GroundUp` or `Gross`	

Item	Value	Description
Attribute name	*coverage*	Specifies the type of coverage included in the loss analysis.
Data type	xs:string	
Required	yes	

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Item	Value	Description
Values	A valid coverage type	The configuration package determines which coverage types are available.

Response example

```
<ISOResponses>
          .
          .
          .
          <Reports>
            <Report product="LossAnalysis" … ASF.LogFile="">
              <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                  <Locations>
                    <Location>
                      <ID>LOC06</ID>
                      <YearBuilt>1970</Year Built>
                        <Address>
                          .
                          .
                          .
                        </Address>
                    </Location>
                  </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                  <Options>
                    .
                    .
                    .
                  </Options>
                  <StrPerils>PAL+PWH+PWX</StrPerils>
                  <Results>
                    <AnnualSummaries>
                      .
                      .
                      .
                    </AnnualSummaries>
                    <AnnualDetails>
                      <AnnualDetail type="Both" perils="PES+PEF+PSL
+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                        <Level type="Location"
 descriptor="ID">Loc02</Level>
                        <ResultAnnualDetailRows>
                          <ResultRowAnnualDetail>
                            <ReturnPeriod>1000</ReturnPeriod>
                            <Loss_Aggregate>204375615.217306</
Loss_Aggregate>
                            <Aggregate_Year>1878</Aggregate_Year>
                            <Loss_Occurrence>203926094.191751</
Loss_Occurrence>
                            <Occurrence_Year>9763</Occurrence_Year>
```


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```
                              <Occurrence_Peril>1</Occurrence_Peril>
                              <Occurrence_Model>27</Occurrence_Model>
                              <Occurrence_Event>32360</
Occurrence_Event>
                            </ResultRowAnnualDetail>
                            <ResultRowAnnualDetail
                              .
                              .
                              .
                            </ResultRowAnnualDetail>
                          </ResultAnnualDetailRows>
                        </AnnualDetail>
                      </AnnualDetails>
                    </Results>
                  </ResultSet>
                </LossAnalysis>
              </Report>
            </Reports>
          </ISOResponses>
```

AnnualDetails element

Contains one or more AnnualDetail elements.

Item	Value	Description
Element name	*AnnualDetails*	Contains one or more AnnualDetail elements.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Source

```
          <xs:element name="AnnualDetails" xmlns:xs="http://
www.w3.org/2001/XMLSchema">
            <xs:complexType>
              <xs:sequence>
                <xs:element ref="AnnualDetail"
 maxOccurs="unbounded" />
              </xs:sequence>
            </xs:complexType>
          </xs:element>
```

Response example

```
          <ISOResponses>
            .
            .
            .
```


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```
          <Reports>
            <Report product="LossAnalysis" … ASF.LogFile="">
              <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                  <Locations>
                    <Location>
                      <ID>LOC06</ID>
                      <YearBuilt>1970</Year Built>
                        <Address>
                          .
                          .
                          .
                        </Address>
                    </Location>
                  </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                  <Options>
                    .
                    .
                    .
                  </Options>
                  <StrPerils>PAL+PWH+PWX</StrPerils>
                  <Results>
                    <AnnualSummaries>
                      .
                      .
                      .
                    </AnnualSummaries>
                    <AnnualDetails>
                      <AnnualDetail type="Both" perils="PES+PEF+PSL
+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                        <Level type="Location"
 descriptor="ID">Loc02</Level>
                        <ResultAnnualDetailRows>
                          <ResultRowAnnualDetail>
                            <ReturnPeriod>1000</ReturnPeriod>
                            <Loss_Aggregate>204375615.217306</
Loss_Aggregate>
                            <Aggregate_Year>1878</Aggregate_Year>
                            <Loss_Occurrence>203926094.191751</
Loss_Occurrence>
                            <Occurrence_Year>9763</Occurrence_Year>
                            <Occurrence_Peril>1</Occurrence_Peril>
                            <Occurrence_Model>27</Occurrence_Model>
                            <Occurrence_Event>32360</
Occurrence_Event>
                          </ResultRowAnnualDetail>
                          <ResultRowAnnualDetail
                            .
                            .
                            .
                          </ResultRowAnnualDetail>
                        </ResultAnnualDetailRows>
                      </AnnualDetail>
                    </AnnualDetails>
                  </Results>
                </ResultSet>
```


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```
            </LossAnalysis>
          </Report>
        </Reports>
      </ISOResponses>
```

AnnualSummaries element

Contains one or more AnnualSummary elements.

Item	Value	Description
Element name	*AnnualSummaries*	Contains one or more AnnualSummary elements.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Source

```
      <xs:element name="AnnualSummaries" xmlns:xs="http://
www.w3.org/2001/XMLSchema">
        <xs:complexType>
          <xs:sequence>
            <xs:element ref="AnnualSummary"
 maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
```

Response example

```
      <ISOResponses>
        .
        .
        .
        <Reports>
          <Report product="LossAnalysis" ….ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
              <Data type = "Locations">
                <Locations>
                  .
                  .
                  .
                </Locations>
              </Data>
              <ResultSet type="Preset" name="Your configuration
 package name">
                <Options>
                  .
```


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```
                    .
                    .
                  </Options>
                  <StrPerils>PAL+PWH+PWX</StrPerils>
                  <Results>
                    <AnnualSummaries>
                      <AnnualSummary type="Aggregate" perils="PWH
+PSH" percentPSH=”100” losstype="GroundUp" coverage="Total">
                        <Level type="Location"
 descriptor="ID">34228</Level>
                        <Mean_Agg>1888191.42034</Mean_Agg>
                        <StdDev_Agg>14415118.60624</StdDev_Agg>
                      </AnnualSummary>
                      <AnnualSummary type="Both" perils="PWH+PSH"
 percentPSH=”100” losstype="Gross" coverage="Total">
                        <Level type="Location"
 descriptor="ID">34228</Level>
                        <Mean_Agg>1817685.1183</Mean_Agg>
                        <StdDev_Agg>13721928.13641</StdDev_Agg>
                        <Mean_Occ>1796711.01226</Mean_Occ>
                        <StdDev_Occ>13600157.85021</StdDev_Occ>
                      </AnnualSummary>
                    </AnnualSummaries>
                    <AnnualDetails>
                      .
                      .
                      .
                    </AnnualDetails>
                    .
```

AnnualSummary element

Contains loss information for all locations or contracts for one simulated year.

Item	Value	Description
Element name	*AnnualSummary*	Contains loss information for all locations or contracts for one simulated year.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Attributes

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Item	Value	Description
Attribute name	*type*	Specifies whether the element includes aggregate losses, occurrence losses, or both.
Data type	xs:string	
Required	yes	
Values	`Aggregate` or `Occurrence` or `Both`	

Item	Value	Description
Attribute name	*perils*	Specifies the perils included in the analysis.
Data type	xs:string	
Required	yes	
Values	Must be a valid peril code	For a list of valid codes, see the `tConvertUPXPerilSet` table description in the *Touchstone Database Reference* on the AIR Developer Zone.

Item	Value	Description
Attribute name	*percentPSH*	Specifies the percentage of the loss that the service attributed to hurricane storm surge or coastal flood (PSH).
Data type	xs:string	
Required	no	
Values	A number from 0 to 100	The service determines this from the values you specified in the Options element and the StrPerils element of the request.

Item	Value	Description
Attribute name	*percentPPH*	Specifies the percentage of the loss that the service

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Item	Value	Description
		attributed to precipitation flood (PPH).
Data type	xs:string	
Required	no	
Values	A number from 0 to 100	The service determines this from the values you specified in the Options element and the StrPerils element of the request.

Item	Value	Description
Attribute name	*losstype*	Specifies whether the loss value represents a ground-up or gross loss.
Data type	xs:string	
Required	no	
Values	`GroundUp` or `Gross`	

Item	Value	Description
Attribute name	*coverage*	Specifies the type of coverage included in the loss analysis.
Data type	xs:string	
Required	yes	
Values	A valid coverage type	The configuration package determines which coverage types are available.

Source

```
        <xs:element name="AnnualSummary" xmlns:xs="http://
www.w3.org/2001/XMLSchema">
          <xs:complexType>
            <xs:sequence>
              <xs:element ref="Level" />
              <xs:element ref="Mean_Agg" minOccurs="0" />
              <xs:element ref="StdDev_Agg" minOccurs="0" />
              <xs:element ref="Mean_Occ" minOccurs="0" />
              <xs:element ref="StdDev_Occ" minOccurs="0" />
            </xs:sequence>
            <xs:attribute name="type" use="required"
 type="xs:string" />
```


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```
            <xs:attribute name="perils" use="required"
type="xs:string" />
            <xs:attribute name="percentPSH" use="optional"
type="xs:string" />
            <xs:attribute name="percentPPH" use="optional"
type="xs:string" />
            <xs:attribute name="losstype" use="optional"
type="xs:string" />
            <xs:attribute name="coverage" use="required"
type="xs:string" />
          </xs:complexType>
        </xs:element>
```

Response example

```
        <ISOResponses>
          .
          .
          .
          <Reports>
            <Report product="LossAnalysis" ….ASF.LogFile="">
              <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                  <Locations>
                    .
                    .
                    .
                  </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
package name">
                  <Options>
                    .
                    .
                    .
                  </Options>
                  <StrPerils>PAL+PWH+PWX</StrPerils>
                  <Results>
                    <AnnualSummaries>
                      <AnnualSummary type="Aggregate" perils="PWH
+PSH" percentPSH=”100” losstype="GroundUp" coverage="Total">
                        <Level type="Location"
descriptor="ID">34228</Level>
                        <Mean_Agg>1888191.42034</Mean_Agg>
                        <StdDev_Agg>14415118.60624</StdDev_Agg>
                      </AnnualSummary>
                      <AnnualSummary type="Both" perils="PWH+PSH"
percentPSH=”100” losstype="Gross" coverage="Total">
                        <Level type="Location"
descriptor="ID">34228</Level>
                        <Mean_Agg>1817685.1183</Mean_Agg>
                        <StdDev_Agg>13721928.13641</StdDev_Agg>
                        <Mean_Occ>1796711.01226</Mean_Occ>
                        <StdDev_Occ>13600157.85021</StdDev_Occ>
                      </AnnualSummary>
                    </AnnualSummaries>
                    <AnnualDetails>
                      .
```


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```
                    .
                    .
                </AnnualDetails>
                .
```

ApplyToArea element

Specifies the user-defined code for the area where a sublimit applies.

Item	Value	Description
Name	*ApplyToArea*	Specifies the user-defined code for the area where a sublimit applies.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	255 characters maximum	
Values	`ALL`, or a value that matches an AreaName element value.	You can specify `ALL` if the sublimit applies to all locations. If you specify a value other than ALL, the service applies the sublimit only to locations where the value of the *AreaName* element matches the value that you supplied.

Example

```
<ISORequests>
  <RequestHeader>
    <AIR>
      .
      .
      .
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Contract">
```


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```
        <Contract>
          <ID>untitled</ID>
          <DateFrom>1/1/2000</DateFrom>
          <DateTo>12/31/2030</DateTo>
          <StrPerils>PAL</StrPerils>
          <Locations>
            <Location>
              .
              .
              .
            </Location>
          </Locations>
          <Layers>
            <Layer>
              <ID>1</ID>
              <StrPerils>PAL</StrPerils>
              <StrDeductType>NO</StrDeductType>
              <StrLimitType>B</StrLimitType>
              <AttachAmt>0</AttachAmt>
              <Limit_A>0</Limit_A>
              <Limit_B>0</Limit_B>
              <Limit_C>0</Limit_C>
              <Limit_D>0</Limit_D>
              <AttchPt_A>0</AttchPt_A>
              <AttchPt_B>0</AttchPt_B>
              <AttchPt_C>0</AttchPt_C>
              <AttchPt_D>0</AttchPt_D>
              <Sublimits>
                <Sublimit>
                  <ID>1</ID>
                  <StrPerils>PAL</StrPerils>
                  <StrLimitType>B</StrLimitType>
                  <Limit_2>0</Limit_2>
                  <Limit_A>0</Limit_A>
                  <Limit_B>0</Limit_B>
                  <Limit_C>0</Limit_C>
                  <Limit_D>0</Limit_D>
                  <AttachAmt>0</AttachAmt>
                  <AttchPt_A>0</AttchPt_A>
                  <AttchPt_B>0</AttchPt_B>
                  <AttchPt_C>0</AttchPt_C>
                  <AttchPt_D>0</AttchPt_D>
                  <StrDeductType>NO</StrDeductType>
                  <Deduct_1>0</Deduct_1>
                  <Deduct_2>0</Deduct_2>
                  <ApplyToArea>DEF</ApplyToArea>
                </Sublimit>
              </Sublimits>
              <Deduct_1>0</Deduct_1>
              <Deduct_2>0</Deduct_2>
              <Limit_1>11111111</Limit_1>
              <Limit_2>0</Limit_2>
            </Layer>
          </Layers>
        </Contract>
      </Data>
      <ResultSet type="Preset" name="Your configuration package
name"/>
    </LossAnalysis>
```


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```
  </ISORequest>
</ISORequests>
```

AppurtStruct element

Specifies the type of appurtenant structures at the location.

Item	Value	Description
Name	*AppurtStruct*	Specifies the type of appurtenant structures at the location. An *appurtenant structure* is a building or other structure that is not an integral part of the main building and is not attached to the main building, for example, a boundary wall surrounding a wood frame house.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `7`, inclusive	• `0` = unknown • `1` = detached garage • `2` = pool enclosure • `3` = shed • `4` = masonry boundary wall • `5` = other fence • `6` = no appurtenant structures • `7` = no pool enclosures
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

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Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                    <Data type="Locations">
                        <Locations>
                            <Location>
                                <ID></ID>
                                .
                                .
                                .
                                <Details>
                                    .
                                    .
                                    .
                                    <AppurtStruct>2</AppurtStruct>
                                    .
                                    .
                                    .
                                 </Details>
                                .
                                .
                                .
```

Area element

Specifies the abbreviation for the state or other area where the property resides.

Item	Value	Description
Element name	*Area*	Specifies the abbreviation for the state or other area where the property resides. For a list of abbreviations, see United States state and FIPS codes.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.

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Item	Value	Description
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	2 characters	
Notes		You must specify this element if you do not specify the Latitude element and the Longitude element or the AreaCode element.

Request example

```
<ISORequests>
  .
  .
  .
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <Options demandSurge=”false” stormSurge=”true”/>
        <Data type="Locations">
          <Locations>
            <Location>
              .
              .
              .
              <Address>
                <StreetAddress>100 Main St </StreetAddress>
                <City>Salem</City>
                <Area>MA</Area>
                <PostalCode>03079</PostalCode>
                <Country></Country>
                <Latitude></Latitude>
                <Longitude></Longitude>
              </Address>
              .
```

Response example

In the response, the AreaModeled element specifies the area included in the analysis.

```
<ISOResponses>
  <ResponseHeader>
    .
    .
```


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```
            .
          </ResponseHeader>
          <Reports>
            <Report product="LossAnalysis" ….ASF.LogFile="">
              <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                  <Locations>
                    <Location>
                      <ID>LOC06</ID>
                      <YearBuilt>1970</Year Built>
                        <Address>
                          <StreetAddress>100 Main St</
StreetAddress>
                          <City>SALEM</City>
                          <Area>MA</Area>
                          <AreaModeled>NH</AreaModeled>
                          <Subarea></Subarea>
                          <SubareaModeled>Rockingham</
SubareaModeled>
                          <SubareaCode>025</SubareaCode>
                          <PostalCode>03079</PostalCode>
                          <PostalCodeModeled>03079</
PostalCodeModeled>
                          <Country>US</Country>
                          <GeoPoint>
                            <GeoLat>42.78189</GeoLat>
                            <GeoLong>-71.229232</GeoLong>
                            <MatchLevel>Exact</MatchLevel>
                          </GeoPoint>
                        </Address>
                    </Location>
                  </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                  <Results>
                    .
                    .
                    .
                  </Results>
                </ResultSet>
              </LossAnalysis>
            </Report>
          </Reports>
        </ISOResponses>
```

AreaCode element

Specifies the FIPS (Federal Information Processing Standards) numeric code for the state where the property resides.

Item	Value	Description
Element name	*AreaCode*	Specifies the FIPS (Federal Information

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Item	Value	Description
		Processing Standards) numeric code for the state where the property resides. For a list of abbreviations, see United States state and FIPS codes.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	2 characters	
Notes		You must specify this element if you do not specify the Latitude element and the Longitude element or the Area element.

Request example

```
<ISORequests>
  .
  .
  .
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <Options demandSurge=”false” stormSurge=”true”/>
        <Data type="Locations">
          <Locations>
            <Location>
              .
              .
              .
              <Address>
                <StreetAddress>100 Main St</StreetAddress>
                <City>Salem</City>
                <Area></Area>
                <AreaCode>25</AreaCode>
                <PostalCode>03079</PostalCode>
```


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```
                        <Country></Country>
                        <Latitude></Latitude>
                        <Longitude></Longitude>
                      </Address>
                      .
```

Response example

In the response, the AreaModeled element specifies the area included in the analysis.

```
        <ISOResponses>
          <ResponseHeader>
            .
            .
            .
          </ResponseHeader>
          <Reports>
            <Report product="LossAnalysis" ….ASF.LogFile="">
              <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                  <Locations>
                    <Location>
                      <ID>LOC06</ID>
                      <YearBuilt>1970</Year Built>
                        <Address>
                          <StreetAddress>100 Main St</
StreetAddress>
                          <City>SALEM</City>
                          <AreaCode>25</AreaCode>
                          <AreaModeled>NH</AreaModeled>
                          <SubareaModeled>Rockingham</
SubareaModeled>
                          <PostalCode>03079</PostalCode>
                          <PostalCodeModeled>03079</
PostalCodeModeled>
                          <Country>US</Country>
                          <GeoPoint>
                            <GeoLat>42.78189</GeoLat>
                            <GeoLong>-71.229232</GeoLong>
                            <MatchLevel>Exact</MatchLevel>
                          </GeoPoint>
                        </Address>
                    </Location>
                  </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                  <Results>
                    .
                    .
                    .
                  </Results>
                </ResultSet>
              </LossAnalysis>
            </Report>
          </Reports>
        </ISOResponses>
```


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AreaModeled element

Specifies the area included in the analysis.

Item	Value	Description
Name	*AreaModeled*	Specifies the area included in the analysis. *AreaModeled* differs from the Area element of the request if the service finds a better area match for the PostalCode element of the request.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" ….ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <Address>
                                <StreetAddress>100 Main St</
StreetAddress>
                                <City>SALEM</City>
                                <Area>MA</Area>
                                <AreaModeled>NH</AreaModeled>
                                <SubareaModeled>Rockingham</
SubareaModeled>
                                <PostalCode>03079</PostalCode>
                                <PostalCodeModeled>03079</
PostalCodeModeled>
                                <Country>US</Country>
                                <GeoPoint>
                                    .
                                    .
```


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```
                                .
                            </GeoPoint>
                        </Address>
                    </Location>
                </Locations>
            </Data>
            .
            .
            .
```

AreaName element

Specifies the user-defined name for the area where the location resides.

Item	Value	Description
Element name	*AreaName*	Specifies the user-defined name for the area where the location resides. The service uses *AreaName* to determine whether to apply a sublimit to the location. See ApplyToArea element.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Request example

```
<ISORequests>
  .
  .
  .
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <Options demandSurge=”false” stormSurge=”true”/>
        <Data type="Locations">
          <Locations>
            <Location>
              .
              .
              .
              <LocationTerms Items="1">
                <LocationTerm>
```


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```
                    <StrPerils>PAL+PWH+PWX+PWF</StrPerils>
                    <StrLimitType>C</StrLimitType>
                    <AreaName>DEF</AreaName>
                    <Limit_A>300000</Limit_A>
                    <Limit_B>5000</Limit_B>
                    <Limit_C>10000</Limit_C>
                    <Limit_D>20000</Limit_D>
                    <StrDeductType>CA</StrDeductType>
                    <Deduct_A>0.015</Deduct_A>
                    <Deduct_B>0.01</Deduct_B>
                    <Deduct_C>0.01</Deduct_C>
                    <Deduct_D>0.1</Deduct_D>
                  </LocationTerm>
                </LocationTerms>
                <Details>
                  .
```

AttachAmt element

Specifies the amount of risk above which the limit or sublimit applies as a monetary value.

Item	Value	Description
Element name	*AttachAmt*	Specifies the amount of risk above which the limit or sublimit applies as a monetary value.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	Currency Simple Type	
Length	20 characters maximum	
Default value	`0`	
Notes		For a limit, you can specify deductibles or include them in the *AttchAmt*. AIR recommends that you specify an *AttachAmt* value rather than setting the StrDeductType element to `AP` and specifying the attachment amount in the Deduct_1 element. *AttachAmt* does not apply when StrLimitType element is `C` or `CB`.

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Request example

```
        <ISORequests>
          <RequestHeader>
            .
            .
            .
          </RequestHeader>
          <ISORequest>
            <Products>LossAnalysis</Products>
            <LossAnalysis>
              <Data type="Contract">
                <Contract>
                  <ID>Test1</ID>
                  <DateFrom>1/1/2011</DateFrom>
                  <DateTo>12/31/2011</DateTo>
                  <StrPerils>PAL</StrPerils>
                  <StrCurrency>USD</StrCurrency>
                  <ExchRate>0</ExchRate>
                  <Locations>
                    .
                    .
                    .
                  </Locations>
                  <Layers>
                    <Layer>
                      <ID>1</ID>
                      <StrPerils>PAL</StrPerils>
                      <StrDeductType>MM</StrDeductType>
                      <Deduct_1>50000</Deduct_1>
                      <Deduct_2>100000</Deduct_2>
                      <StrLimitType>B</StrLimitType>
                      <Limit_1>3000000</Limit_1>
                      <Limit_2>0</Limit_2>
                      <AttachAmt>0</AttachAmt>
                      <Limit_A>0</Limit_A>
                      <Limit_B>0</Limit_B>
                      <Limit_C>0</Limit_C>
                      <Limit_D>0</Limit_D>
                      <AttchPt_A>0</AttchPt_A>
                      <AttchPt_B>0</AttchPt_B>
                      <AttchPt_C>0</AttchPt_C>
                      <AttchPt_D>0</AttchPt_D>
                    </Layer>
                  </Layers>
                </Contract>
              </Data>
              <ResultSet type="Preset" name="Your configuration
package name" />
            </LossAnalysis>
          </ISORequest>
        </ISORequests>
```

AttachStruct element

Specifies the type of a wall-attached structure at the location.

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Item	Value	Description
Element name	*AttachStruct*	Specifies the type of a wall-attached structure at the location. A *wall-attached structure* is a structure that is physically attached to the main building and is not an integral part of the main building, for example, a carport.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `8`, inclusive, or blank.	• `0` = unknown • `1` = carport, canopy, or porch • `2` = single-door garage • `3` = double-door garage • `4` = reinforced single-door garage • `5` = reinforced double-door garage • `6` = screened porch or glass patio doors • `7` = balcony • `8` = no wall-attached structures
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Request example

```
<ISORequests>
  .
  .
```


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```
.
<Products>LossAnalysis</Products>
<LossAnalysis>
  <Options demandSurge=”false” stormSurge=”true”/>
    <Data type="Locations">
      <Locations>
        <Location>
          .
          .
          .
          <Address>
            .
            .
            .
          </Address>
          .
          .
          .
          <Details>
            .
            .
            .
            <AttachStruct>7</AttachStruct>
            .
            .
            .
          </Details>
          .
          .
          .
```

AttchPt_A element

Item	Value	Description
Element name	*AttchPt_A*	Specifies an attachment point value.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	Currency Simple Type	
Length	10 characters maximum	
Values	Values specify an attachment point value for a layer or sublimit.	• If the value of StrLimitType element is `C`, the value is the attachment point value for coverage A. • If the value of StrLimitType element is `B`, the value is the attachment point value

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Item	Value	Description
		for coverage A, B, and C combined. • If the value of StrLimitType element is neither C nor CB, the value is 0.
Default value	0	

Example

```
<ISORequests>
  <RequestHeader>
    .
    .
    .
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <Data type="Contract">
        <Contract>
          <ID>Test1</ID>
          <DateFrom>1/1/2011</DateFrom>
          <DateTo>12/31/2011</DateTo>
          <StrPerils>PAL</StrPerils>
          <StrCurrency>USD</StrCurrency>
          <ExchRate>0</ExchRate>
          <Locations>
            .
            .
            .
          </Locations>
          <Layers>
            <Layer>
              <ID>1</ID>
              <StrPerils>PAL</StrPerils>
              <StrDeductType>MM</StrDeductType>
              <Deduct_1>50000</Deduct_1>
              <Deduct_2>100000</Deduct_2>
              <StrLimitType>B</StrLimitType>
              <Limit_1>3000000</Limit_1>
              <Limit_2>0</Limit_2>
              <AttachAmt>0</AttachAmt>
              <Limit_A>0</Limit_A>
              <Limit_B>0</Limit_B>
              <Limit_C>0</Limit_C>
              <Limit_D>0</Limit_D>
              <AttchPt_A>0</AttchPt_A>
              <AttchPt_B>0</AttchPt_B>
              <AttchPt_C>0</AttchPt_C>
              <AttchPt_D>0</AttchPt_D>
            </Layer>
          </Layers>
        </Contract>
```


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```
            </Data>
            <ResultSet type="Preset" name="Your configuration
package name" />
          </LossAnalysis>
        </ISORequest>
      </ISORequests>
```

AttchPt_B element

Specifies the attachment point value for coverage B when the StrLimitType of a layer or sublimit is C.

Item	Value	Description
Element name	*AttchPt_B*	Specifies the attachment point value for coverage B when the StrLimitType of a layer or sublimit is C. See StrLimitType element.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	Currency Simple Type	
Length	10 characters maximum	
Default value	0	

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <ExchRate>0</ExchRate>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
```


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```
                                <ID>1</ID>
                                <StrPerils>PAL</StrPerils>
                                <StrDeductType>MM</StrDeductType>
                                <Deduct_1>50000</Deduct_1>
                                <Deduct_2>100000</Deduct_2>
                                <StrLimitType>B</StrLimitType>
                                <Limit_1>3000000</Limit_1>
                                <Limit_2>0</Limit_2>
                                <AttachAmt>0</AttachAmt>
                                <Limit_A>0</Limit_A>
                                <Limit_B>0</Limit_B>
                                <Limit_C>0</Limit_C>
                                <Limit_D>0</Limit_D>
                                <AttchPt_A>0</AttchPt_A>
                                <AttchPt_B>0</AttchPt_B>
                                <AttchPt_C>0</AttchPt_C>
                                <AttchPt_D>0</AttchPt_D>
                            </Layer>
                        </Layers>
                    </Contract>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name" />
            </LossAnalysis>
        </ISORequest>
</ISORequests>
```

AttchPt_C element

Specifies the attachment point value for coverage C when the StrLimitType of a layer or sublimit is C.

Item	Value	Description
Element name	*AttchPt_C*	Specifies the attachment point value for coverage C when the StrLimitType of a layer or sublimit is C. See StrLimitType element.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	Currency Simple Type	
Length	10 characters maximum	
Default value	0	

Request example

```
<ISORequests>
    <RequestHeader>
        .
```


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```
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <ExchRate>0</ExchRate>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
                            <ID>1</ID>
                            <StrPerils>PAL</StrPerils>
                            <StrDeductType>MM</StrDeductType>
                            <Deduct_1>50000</Deduct_1>
                            <Deduct_2>100000</Deduct_2>
                            <StrLimitType>B</StrLimitType>
                            <Limit_1>3000000</Limit_1>
                            <Limit_2>0</Limit_2>
                            <AttachAmt>0</AttachAmt>
                            <Limit_A>0</Limit_A>
                            <Limit_B>0</Limit_B>
                            <Limit_C>0</Limit_C>
                            <Limit_D>0</Limit_D>
                            <AttchPt_A>0</AttchPt_A>
                            <AttchPt_B>0</AttchPt_B>
                            <AttchPt_C>0</AttchPt_C>
                            <AttchPt_D>0</AttchPt_D>
                        </Layer>
                    </Layers>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name" />
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

AttchPt_D element

Specifies the attachment point value for coverage D when the StrLimitType of a layer or sublimit is C or CB.

Item	Value	Description
Element name	*AttchPt_D*	Specifies the attachment point value for coverage D when the StrLimitType of

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Item	Value	Description
		a layer or sublimit is C or CB. See StrLimitType element.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	Currency Simple Type	
Length	10 characters maximum	
Default value	0	

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <ExchRate>0</ExchRate>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
                            <ID>1</ID>
                            <StrPerils>PAL</StrPerils>
                            <StrDeductType>MM</StrDeductType>
                            <Deduct_1>50000</Deduct_1>
                            <Deduct_2>100000</Deduct_2>
                            <StrLimitType>B</StrLimitType>
                            <Limit_1>3000000</Limit_1>
                            <Limit_2>0</Limit_2>
                            <AttachAmt>0</AttachAmt>
                            <Limit_A>0</Limit_A>
                            <Limit_B>0</Limit_B>
                            <Limit_C>0</Limit_C>
                            <Limit_D>0</Limit_D>
                            <AttchPt_A>0</AttchPt_A>
                            <AttchPt_B>0</AttchPt_B>
```


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```
                            <AttchPt_C>0</AttchPt_C>
                            <AttchPt_D>0</AttchPt_D>
                        </Layer>
                    </Layers>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name" />
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

BaseFloodElevation element

Specifies the water elevation in feet of a 100-year flood at the location.

Item	Value	Description
Element name	*BaseFlood*	Specifies the water elevation in feet of a 100-year flood at the location. Base flood elevation is defined by the Federal Emergency Management Agency (FEMA) as the "*water surface elevation corresponding to a flood having a 1% probability of being equaled or exceeded in a given year.*" The service assumes that the lowest floor of the building is at the base flood elevation.
Where used	request	A *request* contains the information the service needs to run the analysis.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xsd:double	The value space of *xsd:double* is double (64 bits) floating-point numbers.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

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Item	Value	Description
Profile	Flood	
Length	10 characters maximum	
Values	A range of integers.	For example, `8 - 9` represents a base flood elevation of eight to nine feet.
Default value	`-999`	A value of `-999` indicates unknown elevation.

Request example

```
<ISORequests>
     .
     .
     .
     <Products>LossAnalysis</Products>
         <LossAnalysis>
             <Options demandSurge=”false” stormSurge=”true”/>
             <Data type="Locations">
                 <Locations>
                     <Location>
                          .
                          .
                          .
                          <Address>
                               .
                               .
                               .
                          </Address>
                          .
                         .
                          .
                          <Details>
                               .
                               .
                               .
                               <BaseFloodElevation>25</
BaseFloodElevation>
                               .
                               .
                               .
                          </Details>
                          .
                          .
                          .
```

Response example

```
<ISOResponses>
```


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```
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report ...>
            <AddressProfile>
                .
                .
                .
                </LocationInformation>
                <HazardInformation>
                    .
                    .
                    .
                    <ProfileFlood>
                        <Source>AIR</Source>
                        <FloodZone>100-Year</FloodZone>
                        <FloodZoneFEMA>AE</FloodZoneFEMA>
                        <Elevation>9 - 10</Elevation>
                        <FloodZoneDistance>
                            <WaterBody>More than 5</WaterBody>
                            <Flood100YR>0.030</Flood100YR>
                            <Flood500YR>0.040</Flood500YR>
                        </FloodZoneDistance>
                        <AIRFloodZone>100-Year</AIRFloodZone>
                        <FloodZoneAIRDistance>
                            <AIRFlood100YR>0.052</Flood100YR>
                            <AIRFlood500YR>0.126</Flood500YR>
                        </FloodZoneAIRDistance>
                        <BaseFloodElevation>8 - 9</
BaseFloodElevation>
                    </ProfileFlood>
                    .
                    .
                    .
                </HazardInformation>
            </AddressProfile>
        </Report>
    </Reports>
</ISOResponses>
```

BasementFinishType element

Indicates whether the basement is finished or unfinished in the building at this location.

Item	Value	Description
Element name	*BasementFinishType*	Indicates whether the basement is finished or unfinished in the building at this location. This element is available for use with the AIR Hurricane Model for the

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Item	Value	Description
		United States and the AIR Inland Flood Model for the United States.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	`0` or `1` or `2`	• `0` = unknown/default • `1` = unfinished basement • `2` = finished basement
Default value	`0`	

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <LocationTerms Items="1">
                                .
                                .
                                .
                            </LocationTerms>
                            <Details>
                                .
                                .
                                .
                                <BasementFinishType>2</
BasementFinishType>
                                .
                                .
                                .
                            </Details>
                            .
```


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.

BasementLevelCount element

Indicates the number of basement levels in the building at this location.

This element is available for use with the AIR Hurricane Model for the United States and the AIR Inland Flood Model for the United States.

Item	Value	Description
Element name	*BasementLevelCount*	Indicates the number of basement levels in the building at this location.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between 0 and 4.	If you specified an occupancy code of 301 (General Residential), 302 (Permanent dwelling: single family), or 303 (Permanent dwelling: multi family), Touchstone overrides any value you enter with `1`. Touchstone assumes that buildings with masonry foundations can only have one level of basement. So, if you enter a value greater than 1 for a building specified as having a masonry basement, Touchstone will assume that the basement is concrete. The models will treat basements with more than 4 levels as them having 4 levels.

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Item	Value	Description
Default value	0	Indicates an unknown number of basement levels.

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <LocationTerms Items="1">
                                .
                                .
                                .
                            </LocationTerms>
                            <Details>
                                .
                                .
                                .
                                <BasementLevelCount>2</
BasementLevelCount>
                                .
                                .
                                .
                            </Details>
                            .
                            .
```

BatchISORequest element

BatchISORequest is the root element for batch loss analysis service requests.

Item	Value	Description
Element name	*BatchISORequest*	BatchISORequest is the root element for batch loss analysis service requests. *BatchISORequest* applies only to batch

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Item	Value	Description
		Loss Analysis Service requests. See Create a batch request for multiple locations.
Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request	A *request* contains the information the service needs to run the analysis.

Source

```
        <xsd:element name="BatchISORequest" xmlns:xsd="http://
www.w3.org/2001/XMLSchema">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element ref="ISORequests"
 maxOccurs="unbounded" />
            </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
```

Example

```
        <BatchISORequest>
          <ISORequests>
            <RequestHeader>
              <AIR>
                .
                .
                .
              </AIR>
            </RequestHeader>
            <ISORequest>
              <Products>LossAnalysis</Products>
              <LossAnalysis>
                <Options stormSurge=”true”/>
                  <Data type="Locations">
                    <Locations>
                      <Location>
                        .
                        .
                        .
                        <Address>
                          .
                          .
                          .
                        </Address>
                        <LocationTerms Items="1">
                          <LocationTerm>
```


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```
                              .
                              .
                              .
                            </LocationTerm>
                          </LocationTerms>
                          <Details>
                            .
                            .
                            .
                          </Details>
                        </Location>
                      </Locations>
                    </Data>
                    <ResultSet type="Preset" name="Your configuration
package name"/>
                </LossAnalysis>
              </ISORequest>
            </ISORequests>
            <ISORequests>
              .
              .
              .
            </ISORequests>
          </BatchISORequest>
```

BatchISOResponse element

BatchISOResponse is the root element for batch loss analysis service requests.

Item	Value	Description
Element name	*BatchISOResponse*	BatchISOResponse is the root element for batch loss analysis service requests. *BatchISOResponse* applies only to batch Loss Analysis Service requests. See Create a batch request for multiple locations.
Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	response	A *response* returns the analysis results and the information used to compute the results.

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Source

```
<xs:element name="BatchISOResponse" xmlns:xs="http://
www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="ISOResponses" minOccurs="0"
 maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Example

```
<xs:element name="BatchISOResponse" xmlns:xs="http://
www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="ISOResponses" minOccurs="0"
 maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

BldCond element

Specifies the overall condition of the building at the location, based on the external appearance of the cladding and maintenance.

Item	Value	Description
Element name	*BldCond*	Specifies the overall condition of the building at the location, based on the external appearance of the cladding and maintenance.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	`0` or `1` or `2` or `3` or `3`	• `0` = unknown • `1` = average • `2` = good

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Item	Value	Description
		• 3 = poor
Default	0	

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            .
                            .
                            .
                        </Address>
                        .
                        .
                        .
                        <Details>
                            .
                            .
                            .
                            <BldCond>2</BldCond>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            .
            .
            .
```

BldFndConn element

Specifies the type of the connection between the main building at the location and its foundation.

Item	Value	Description
Element name	*BldFndConn*	Specifies the type of the connection between

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Item	Value	Description
		the main building at the location and its foundation. A connection transfers the vertical and lateral loads from a building to a foundation. The service uses the type to determine the likelihood that a building will become separated from its foundation during an earthquake.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `6`. Can also be blank.	• `0` = unknown • `1` = hurricane ties • `2` = nails or screws • `3` = anchor bolts • `4` = gravity or friction • `5` = adhisive or epoxy • `6` = structurally connected
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
```


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```
<Data type="Locations">
    <Locations>
        <Location>
            .
            .
            .
            <LocationTerms Items="1">
                .
                .
                .
            </LocationTerms>
            <Details>
                .
                .
                .
                <BldFndConn>2</BldFndConn>
                .
                .
                .
            </Details>
            .
            .
            .
```

BldgExtOpnh element

Specifies the percentage of the exterior walls that are open on the building at the location.

Item	Value	Description
Element name	*BldgExtOpnh*	Specifies the percentage of the exterior walls that are open on the building at the location. Openings include windows and doors.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	`0` or `1` or `2`	• `0` = unknown • `1` = less than 50% • `2` = more than 50%
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted

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Item	Value	Description
		average of possible values.

Request example

```
<ISORequests>
     .
     .
     .
     <ISORequest>
         <Products>LossAnalysis</Products>
             <LossAnalysis>
                 <Options demandSurge=”false” stormSurge=”true”/>
                 <Data type="Locations">
                     <Locations>
                         <Location>
                              .
                             .
                              .
                              <LocationTerms Items="1">
                                   .
                                   .
                                   .
                              </LocationTerms>
                              <Details>
                                   .
                                   .
                                   .
                                  <BldgExtOpnh>1</BldgExtOpnh>
                                   .
                                   .
                                   .
                              </Details>
                              .
                              .
                              .
```

BrickVeneer element

Specifies the percentage of the exterior walls on the building at the location that are brick veneer.

Item	Value	Description
Element name	*BrickVeneer*	Specifies the percentage of the exterior walls on the building at the location that are brick veneer.
Data type	xs:integer	The *integer* data type is used to specify a numeric

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Item	Value	Description
		value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `4`	• `0` = unknown, which corresponds to 75% • `1` = 90% • `2` = 50% • `3` = 25% • `4` = none
Default	`0`	If you specify `0` or leave the element blank, the service applies 75%.

Request example

```
<ISORequests>
     .
     .
     .
     <ISORequest>
         <Products>LossAnalysis</Products>
             <LossAnalysis>
                 <Options demandSurge=”false” stormSurge=”true”/>
                 <Data type="Locations">
                     <Locations>
                         <Location>
                             .
                             .
                             .
                             <LocationTerms Items="1">
                                 .
                                 .
                                 .
                             </LocationTerms>
                             <Details>
                                 .
                                 .
                                 .
                                 <BrickVeneer>1</BrickVeneer>
                                 .
                                 .
                                 .
                             </Details>
                             .
                             .
```


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Chimney element

Specifies the height of the chimney on the building at the location.

Item	Value	Description
Element name	*Chimney*	Specifies the height of the chimney on the building at the location.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `4`	• `0` = unknown • `1` = no chimney • `2` = less than or equal to 2 feet. • `3` = less than or equal to 5 feet • `4` = greater than 5 feet
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Request example

```
<ISORequests>
      .
      .
      .
     <ISORequest>
         <Products>LossAnalysis</Products>
             <LossAnalysis>
                 <Options demandSurge=”false” stormSurge=”true”/>
                 <Data type="Locations">
                     <Locations>
                         <Location>
                             .
                            .
                             .
                             <LocationTerms Items="1">
                                 .
                                 .
                                 .
```


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```
                                </LocationTerms>
                                <Details>
                                     .
                                     .
                                     .
                                    < Chimney>1</Chimney>
                                     .
                                     .
                                     .
                                </Details>
                                .
                                .
                                .
```

City element

Specifies the city where the property resides.

Item	Value	Description
Element name	*City*	Specifies the city where the property resides. The *City* value of the response will be different than the *City* value of the request if the service finds a better city match for the request *PostalCode*. You must specify the City Element if you do not specify the *Latitude* and *Longitude* elements.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	30 characters minimum	

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Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <Address>
                                <StreetAddress>1850 Massachusetts
 Ave</StreetAddress>
                                <City>Boston</City>
                                <Area>MA</Area>
                                <PostalCode>02139</PostalCode>
                                <Country></Country>
                                <Latitude></Latitude>
                                <Longitude></Longitude>
                            </Address>
                            .
```

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    <ISORequest>
        <Products>HazardAnalysis</Products>
        <HazardAnalysis>

 <Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
 WinterstormHazard</Products>
        </HazardAnalysis>
        <Addresses>
            <Options geocode="yes" returnHighestScore="yes"
 additionalInfo="no"/>
            <Address>
                <Latitude></Latitude>
                <Longitude></Longitude>
                <Addr1>100 Main Street</Addr1>
                <City>Seattle</City>
         <County>King</County>
                <StateProv>WA</StateProv>
                <Country>US</Country>
            </Address>
        </Addresses>
```


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```
    </ISORequest>
</ISORequests>
```

Response example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    <ISORequest>
        <Products>HazardAnalysis</Products>
        <HazardAnalysis>

 <Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
 WinterstormHazard</Products>
        </HazardAnalysis>
        <Addresses>
            <Options geocode="yes" returnHighestScore="yes"
 additionalInfo="no"/>
            <Address>
                <Latitude></Latitude>
                <Longitude></Longitude>
                <Addr1>100 Main Street</Addr1>
                <City>Seattle</City>
         <County>King</County>
                <StateProv>WA</StateProv>
                <Country>US</Country>
            </Address>
        </Addresses>
    </ISORequest>
</ISORequests>
```

ColdFormedTube element

Specifies whether cold-formed tubes are present in the steel structures in the building at the location.

Item	Value	Description
Element name	*ColdFormedTube*	Specifies whether cold-formed tubes are present in the steel structures in the building at the location.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.

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Item	Value	Description
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `2`	• `0` = unknown • `1` = no • `2` = yes.
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of the possible values.

Request example

```
<ISORequests>
     .
     .
     .
     <ISORequest>
         <Products>LossAnalysis</Products>
             <LossAnalysis>
                 <Options demandSurge=”false” stormSurge=”true”/>
                 <Data type="Locations">
                     <Locations>
                         <Location>
                              .
                             .
                              .
                              <LocationTerms Items="1">
                                   .
                                   .
                                   .
                              </LocationTerms>
                              <Details>
                                   .
                                   .
                                   .
                                  < ColdFormedTube>1</ColdFormedTube
 >
                                   .
                                   .
                                   .
                              </Details>
                              .
                              .
                              .
```


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ColumnBasement element

Specifies whether the basement support columns in the building at the location are embedded.

Item	Value	Description
Element name	*ColumnBasement*	Specifies whether the basement support columns in the building at the location are embedded. Only applies to buildings with steel-reinforced concrete (SRC) or steel construction.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `3`	• `0` = unknown • `1` = mixed • `2` = non-embedded • `3` = embedded
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of the possible values.

Request example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options demandSurge=”false” stormSurge=”true”/
>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
```


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```
                                    .
                                     .
                                     <LocationTerms Items="1">
                                          .
                                          .
                                          .
                                     </LocationTerms>
                                     <Details>
                                          .
                                          .
                                          .
                                         <ColumnBasement>1</
ColumnBasement>
                                          .
                                          .
                                        .
                                     </Details>
                                     .
                                     .
                                     .
```

ContentVulnerability element

Specifies the portion of the contents of the building at this location that have a low vulnerability.

Item	Value	Description
Element name	*ContentVulnerability*	Specifies the portion of the contents of the building at this location that have a low vulnerability. This element is available for use with the AIR Hurricane Model for the United States and the AIR Inland Flood Model for the United States.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `4`	• `0` = unknown/default. Use this if the level of vulnerability is unknown or if you

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Item	Value	Description
		want to use the default setting. • `1` = a large percentage of the contents is water-resistant or protected. • `2` = a typical percentage of the contents is water-resistant or protected. • `3` = a low percentage of the contents is water-resistant or protected. • `4` = almost none of the contents is water-resistant or protected.
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of the possible values.

Resource example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <LocationTerms Items="1">
                                .
                                .
                                .
                            </LocationTerms>
                            <Details>
                                .
                                .
                                .
                                <ContentVulnerability>2</
ContentVulnerability>
                                .
```


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```
        .
        .
</Details>
.
.
```

Contract element

Contains the details of one insurance contract.

Item	Value	Description
Element name	*Contract*	Contains the details of one insurance contract. You must include the *Contract* element if you specify `Contract` as the value of the type attribute of the Data element.
Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.

Attributes

Item	Value	Description
Attribute name	*layers*	Specifies the number of layers in the contract. Only used in the response.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	optional	

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Request Source

```
<xsd:element name="Contract" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="ID" />
      <xsd:element ref="DateFrom" minOccurs="0" />
      <xsd:element ref="DateTo" minOccurs="0" />
      <xsd:element ref="StrPerils" />
      <xsd:element ref="StrCurrency" minOccurs="0" />
      <xsd:element ref="ExchRate" minOccurs="0" />
      <xsd:element ref="Locations" minOccurs="1" maxOccurs="1" />
      <xsd:element ref="Layers" minOccurs="0" maxOccurs="1" />
      <xsd:element name="InsuredName" type="xsd:string"
 minOccurs="0" maxOccurs="1" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Request example

```
<ISORequests>
  <RequestHeader>
    <AIR>
      <LoginID></LoginID>
      <Password></Password>
      <LicenseKey></LicenseKey>
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Contract">
        <Contract>
          <ID>untitled</ID>
          <DateFrom>1/1/2000</DateFrom>
          <DateTo>12/31/2030</DateTo>
          <StrPerils>PAL</StrPerils>
          <Locations>
            <Location>
              <ID>3,1</ID>
              <RiskCount>1</RiskCount>
              <YearBuilt>1980</YearBuilt>
              <DateFrom>1/1/2011</DateFrom>
              <DateTo>12/31/2020</DateTo>
              <Height>1</Height>
              <StrConstructType/>
              <StrConstructBldg>101</StrConstructBldg>
              <StrConstructOStr/>
              <StrOccupancyType/>
              <StrOccupancyClass>311</StrOccupancyClass>
```


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```
            <GrossArea>0</GrossArea>
            <Premium>1000</Premium>
            <RV_A>156000</RV_A>
            <RV_B>0</RV_B>
            <RV_C>0</RV_C>
            <RV_D>16000</RV_D>
            <RV_D_DaysCovered>365</RV_D_DaysCovered>
            <Address>
              <Country/>
              <StreetAddress>2149 N MAIN ST</StreetAddress>
              <City>SUMMERVILLE</City>
              <Area>SC</Area>
              <PostalCode>29456</PostalCode>
              <Latitude>33.045993</Latitude>
              <Longitude>-80.110809</Longitude>
            </Address>
            <LocationTerms>
              <LocationTerm>
                <StrPerils>PES</StrPerils>
                <StrLimitType>C</StrLimitType>
                <Limit_A>1560000</Limit_A>
                <Limit_C>0</Limit_C>
                <Limit_D>16000000</Limit_D>
                <StrDeductType>CP</StrDeductType>
                <Deduct_A>0.02</Deduct_A>
                <Deduct_C>0.02</Deduct_C>
                <Deduct_D>0.0082</Deduct_D>
                <Participation>1.0</Participation>
                <Participation2>1.0</Participation2>
                <AreaName>DEF</AreaName>
              </LocationTerm>
            </LocationTerms>
          </Location>
        </Locations>
        <Layers>
          <Layer>
            <ID>1</ID>
            <StrPerils>PAL</StrPerils>
            <StrDeductType>NO</StrDeductType>
            <StrLimitType>B</StrLimitType>
            <AttachAmt>0</AttachAmt>
            <Limit_A>0</Limit_A>
            <Limit_B>0</Limit_B>
            <Limit_C>0</Limit_C>
            <Limit_D>0</Limit_D>
            <AttchPt_A>0</AttchPt_A>
            <AttchPt_B>0</AttchPt_B>
            <AttchPt_C>0</AttchPt_C>
            <AttchPt_D>0</AttchPt_D>
            <Sublimits>
              <Sublimit>
                <ID>1</ID>
                <StrPerils>PAL</StrPerils>
                <StrLimitType>B</StrLimitType>
                <Limit_2>0</Limit_2>
                <Limit_A>0</Limit_A>
                <Limit_B>0</Limit_B>
                <Limit_C>0</Limit_C>
                <Limit_D>0</Limit_D>
```


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```
                    <AttachAmt>0</AttachAmt>
                    <AttchPt_A>0</AttchPt_A>
                    <AttchPt_B>0</AttchPt_B>
                    <AttchPt_C>0</AttchPt_C>
                    <AttchPt_D>0</AttchPt_D>
                    <StrDeductType>NO</StrDeductType>
                    <Deduct_1>0</Deduct_1>
                    <Deduct_2>0</Deduct_2>
                    <ApplyToArea>DEF</ApplyToArea>
                  </Sublimit>
                </Sublimits>
                <Deduct_1>0</Deduct_1>
                <Deduct_2>0</Deduct_2>
                <Limit_1>11111111</Limit_1>
                <Limit_2>0</Limit_2>
              </Layer>
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
 name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```

Response source

```
<xs:element name="Contract" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="StrPerils" minOccurs="1" maxOccurs="1"
 type="xs:string" />
      <xs:element ref="Locations" minOccurs="1" maxOccurs="1" />
    </xs:sequence>
    <xs:attribute name="layers" type="xs:string" />
  </xs:complexType>
</xs:element>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" timespan="2.013"
 sequence="0" success="True" ASF.ErrorCode="0" ASF.ErrorMessage=""
 ASF.InfoMessage="" ASF.PercentCompleted="" ASF.StatusMessage=""
 ASF.Logfile="">
            <LossAnalysis engine="12.0.3 20100826">
                <Data type="Contract">
                    <Contract layers="1">
                        <StrPerils>PAL</StrPerils>
```


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```
                        <Locations>
                            <Location>
                                <ID>Loc_1</ID>
                                <LocationTerms>
                                    <LocationTerm>
                                        <StrPerils>PWH+PSH</
StrPerils>
                                    </LocationTerm>
                                </LocationTerms>
                                <Address>
                                    <Country>USA</Country>
                                    <StreetAddress>3558 Kent Dr</
StreetAddress>
                                    <City>NAPLES</City>
                                    <Area>FL</Area>
                                    <AreaModeled>FL</AreaModeled>
                                    <PostalCode>34112</PostalCode>
                                    <PostalCodeModeled>34112</
PostalCodeModeled>
                                    <SubareaModeled>Collier</
SubareaModeled>
                                    <GeoPoint>
                                        <GeoLat>26.12059</GeoLat>
                                        <GeoLong>-81.742698</
GeoLong>
                                        <MatchLevel>Exact</
MatchLevel>
                                    </GeoPoint>
                                </Address>
                            </Location>
                        </Locations>
                    </Contract>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    <StrPerils>PWH+PSH</StrPerils>
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <Results>
```

count element

Specifies the number of reports and errors returned by the service.

Item	Value	Description
Element name	*count*	Specifies the number of reports and errors returned by the service.
Where used	response	A *response* returns the analysis results and the information used to compute the results.

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Item	Value	Description
Data type	xs:element	The *element* data type defines an element.

Attributes

Item	Value	Description
Attribute name	*errorcount*	Specifies the number of errors encountered by the service during the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Use	required	

Item	Value	Description
Attribute name	*reportcount*	Specifies the number of reports returned by the service. The number of reports corresponds to the number of addresses the service processed.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Use	required	

Example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>

 <Instance>633257996033636475;phv1asf2;AWS;2011-09-19T11:53:23.360400;/
LM/W3SVC/1/Root/AWS- 1-128346899831501469;</Instance>

 <Instance>633257996033636475;phv1asf2;8089;2011-09-19T11:53:23.363
 0400;Air.VL.ServiceHost.ServiceDriver.exe; AccumResponse;</
Instance>
        </AIRTrack>
        <runtimeinformation responseid="1778385162;60591548"
 clientparam="UserHostAddress">
            <time start="3/13/2011 6:16:22 PM" end="3/13/2011
 6:16:31 PM" timespan="9.156"/>
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" …ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
```


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```
                <Data type = "Locations">
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
Package Name">
                    .
                    .
                    .
```

Country element

Specifies the country where the property resides as a 2-character abbreviation or numeric code.

Item	Value	Description
Element name	*Country*	Specifies the country where the property resides as a 2-character abbreviation or numeric code. Currently, the service supports only properties in the United States.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	2 characters	
Default value	`US`	

Request example

```
<ISORequests>
    .
    .
    .
```


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```
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            <StreetAddress/>
                            <City></City>
                            <Area></Area>
                            <PostalCode></PostalCode>
                            <Country>1</Country>
                            <Latitude>34.195854</Latitude>
                            <Longitude>-79.792534</Longitude>
                        </Address>
                        <LocationTerms Items="1">
                            .
                            .
                            .
                        </LocationTerms>
                        <Details>
```

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    <ISORequest>
        <Products>HazardAnalysis</Products>
        <HazardAnalysis>

 <Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
 WinterstormHazard</Products>
        </HazardAnalysis>
        <Addresses>
            <Options geocode="yes" returnHighestScore="yes"
 additionalInfo="no"/>
            <Address>
                <Latitude></Latitude>
                <Longitude></Longitude>
                <Addr1>100 Main Street</Addr1>
                <City>Seattle</City>
         <County>King</County>
                <StateProv>WA</StateProv>
                <Country>US</Country>
            </Address>
        </Addresses>
    </ISORequest>
</ISORequests>
```


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Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="HazardAnalysis" version="2.9.0.8"
 timespan="2.469" sequence="0" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted="0"
 ASF.StatusMessage="Completed" ASF.Logfile="">
            <AddressProfile>
                <LocationInformation>
                    <Entered>
                        <Address>
                            <Latitude>0</Latitude>
                            <Longitude>0</Longitude>
                            <Addr1>100 Main Street</Addr1>
                            <City>Seattle</City>
                            <StateProv>WA</StateProv>
                            <Country>US</Country>
                            <MatchLevel>3</MatchLevel>
                            <County>KING</County>
                            <GeoPath AreaLevel2="53"
 AreaLevel3="033" />
                        </Address>
                    </Entered>
                    <Matched>
                        .
                        .
                        .
                    </Matched>
                </LocationInformation>
                <HazardInformation>
                    .
                    .
                    .
                </HazardInformation>
            </AddressProfile>
        </Report>
    </Reports>
</ISOResponses>
```

Cresta element

Contains the CRESTA code for the location.

Item	Value	Description
Element name	*Cresta*	Contains the CRESTA code for the location.

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Item	Value	Description
		CRESTA codes identify country-specific zones for the uniform and detailed reporting of exposure data, typically related to natural hazards.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

CustomElevation element

Specifies the elevation in feet of the ground surface at the location relative to the vertical datum (NAV88).

Item	Value	Description
Element name	*CustomElevation*	Specifies the elevation in feet of the ground surface at the location relative to the vertical datum (NAV88). You can specify *CustomElevation* to override the modeled digital terrain (DTM) elevation used by the service.
Data type	xsd:double	The value space of *xsd:double* is double (64 bits) floating-point numbers.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Values	integer	
Default	`-999`	A value of `-999` indicates an unknown elevation.

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Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options demandSurge=”false” stormSurge=”true”
 SSValue="10" PFValue="100"/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                  .
                                 .
                                  .
                                  <LocationTerms Items="1">
                                       .
                                       .
                                       .
                                  </LocationTerms>
                                  <Details>
                                       .
                                       .
                                       .
                                       <CustomElevation>30</
CustomElevation>
                                       .
                                       .
                                      .
                                  </Details>
                                  .
                                  .
                                  .
```

CustomFloodSoP element

Specifies the height in feet above the ground surface of the custom flood protection system at the location.

Item	Value	Description
Element name	*CustomFloodSoP*	Specifies the height in feet above the ground surface of the custom flood protection system at the location. Custom flood protection includes levees and flood walls.
Data type	xs:integer	The *integer* data type is used to specify a numeric

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Item	Value	Description
		value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Values	integer	A value of `0` indicates that the basement at the location has flood protection to a height equivalent to the elevation of the adjacent ground surface.
Default	`-999`	A value of `-999` indicates no flood protection.

Request example

```
<ISORequests>
            .
            .
            .
            <ISORequest>
               <Products>LossAnalysis</Products>
                    <LossAnalysis>
                       <Options demandSurge=”false”/>
                        <Data type="Locations">
                            <Locations>
                                <Location>
                                     .
                                    .
                                     .
                                     <LocationTerms Items="1">
                                          .
                                          .
                                          .
                                     </LocationTerms>
                                     <Details>
                                          .
                                          .
                                          .
                                          <CustomFloodSoP>5</
CustomFloodSoP>
                                          .
                                          .
                                         .
                                     </Details>
                                     .
                                     .
                                     .
```


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CustomFloodZone element

Specifies whether the building at the location is in a custom flood zone.

Item	Value	Description
Element name	*CustomFloodZone*	Specifies whether the building at the location is in a custom flood zone.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `4`	• `0` = unknown/default • `1` = Zone 1 / Zone A • `2` = Zone 2 / Zone V • `3` = Zone 3 / Zone X • `4` = Zone 4 / Other Flood Zones (x500)
Default	`0`	

Example

```
<ISORequests>
             .
             .
             .
             <ISORequest>
                <Products>LossAnalysis</Products>
                     <LossAnalysis>
                        <Options demandSurge=”false”/>
                         <Data type="Locations">
                             <Locations>
                                 <Location>
                                      .
                                     .
                                      .
                                      <LocationTerms Items="1">
                                           .
                                           .
                                           .
                                      </LocationTerms>
                                      <Details>
                                           .
```


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```
                                        .
                                        .
                                        <CustomFloodZone>5</
CustomFloodZone>
                                        .
                                        .
                                       .
                                    </Details>
                                    .
                                    .
                                    .
```

Data element

Contains the *Locations* element or the *Contract* element.

Item	Value	Description
Element name	*Data*	Contains the *Locations* element or the *Contract* element. See Contract element and Locations element
Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.

Attributes

Item	Value	Description
Attribute name	*type*	Specifies the type of risk to analyze.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	
Values	`Locations` or `Contract`	• `Locations` = Analyze one or more locations

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Item	Value	Description
		• `Contract` = Analyze an insurance contract

Request source

```
<xsd:element name="Data" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:choice maxOccurs="1" minOccurs="1">
      <xsd:sequence maxOccurs="1" minOccurs="0">
        <xsd:element ref="Contract" />
      </xsd:sequence>
      <xsd:sequence maxOccurs="1" minOccurs="0">
        <xsd:element ref="Locations" />
      </xsd:sequence>
    </xsd:choice>
    <xsd:attribute name="type" use="required" type="xsd:string" />
  </xsd:complexType>
</xsd:element>
```

Request example (contract)

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Contract">
                <Contract>
                    <ID>Contract_1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <ExchRate>0</ExchRate>
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <Address>
                                .
                                .
                                .
                            </Address>
                            <LocationTerms Items="1">
                                .
                                .
```


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```
                                .
                            </LocationTerms>
                            <Details>
                                .
                                .
                                .
                            </Details>
                        </Location>
                    </Locations>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Request example (locations)

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Response source

```
<xs:element name="Data" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:choice>
      <xs:element ref="Contract" />
      <xs:element ref="Locations" />
    </xs:choice>
    <xs:attribute name="type" use="required" type="xs:string" />
  </xs:complexType>
</xs:element>
```


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Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ….ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
                                <Country>US</Country>
                                <StreetAddress/>
                                <City/>
                                <Area/>
                                <AreaModeled>SC</AreaModeled>
                                <PostalCode/>
                                <PostalCodeModeled>29501</
PostalCodeModeled>
                                <SubareaModeled>Florence</
SubareaModeled>
                                <GeoPoint>
                                    <GeoLat>34.195854</GeoLat>
                                    <GeoLong>-79.792534</GeoLong>
                                    <MatchLevel>User Supplied</
MatchLevel>
                                </GeoPoint>
                            </Address>
                        </Location>
                     </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    <Results>
                        .
                        .
                        .
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

DateFrom element

Specifies the date on which a policy becomes effective.

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Item	Value	Description
Element name	*DateFrom*	Specifies the date on which a policy becomes effective.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Values	A date in the format *mm/dd/yy* or *m/d/yyyy*	

Example

```
<ISORequests>
    <RequestHeader>
      <AIR>
        <LoginID></LoginID>
        <Password></Password>
        <LicenseKey></LicenseKey>
     </AIR>
    </RequestHeader>
    <ISORequest>
      <Products>LossAnalysis</Products>
      <LossAnalysis>
        <ReturnLocationResults>true</ReturnLocationResults>
        <ReturnLayerResults>true</ReturnLayerResults>
        <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
        <Data type="Contract">
          <Contract>
            <ID>untitled</ID>
            <DateFrom>1/1/2000</DateFrom>
            <DateTo>12/31/2030</DateTo>
            <StrPerils>PAL</StrPerils>
            <Locations>
              .
              .
              .
            </Locations>
            <Layers>
              .
              .
              .
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
name"/>
```


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```
      </LossAnalysis>
    </ISORequest>
  </ISORequests>
```

DateTo element

Specifies the last date on which the policy is effective.

Item	Value	Description
Element name	*DateTo*	Specifies the last date on which the policy is effective.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Values	A date in the format *mm/dd/yy* or *m/d/yyyy*	

Request example

```
<ISORequests>
    <RequestHeader>
      <AIR>
        <LoginID></LoginID>
        <Password></Password>
        <LicenseKey></LicenseKey>
     </AIR>
    </RequestHeader>
    <ISORequest>
      <Products>LossAnalysis</Products>
      <LossAnalysis>
        <ReturnLocationResults>true</ReturnLocationResults>
        <ReturnLayerResults>true</ReturnLayerResults>
        <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
        <Data type="Contract">
          <Contract>
            <ID>untitled</ID>
            <DateFrom>1/1/2000</DateFrom>
            <DateTo>12/31/2030</DateTo>
            <StrPerils>PAL</StrPerils>
            <Locations>
              .
              .
              .
```


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```
            </Locations>
            <Layers>
               .
               .
               .
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
name"/>
     </LossAnalysis>
   </ISORequest>
 </ISORequests>
```

Deduct_1 element

Specifies a deductible amount for a layer or sublimit.

Item	Value	Description
Element name	*Deduct_1*	Specifies a deductible amount for a layer or sublimit.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	20 characters maximum	
Layer values	integer	The amount may be one of the following for a layer. • the attachment point value for the layer • for a StrDeductType element value of `MM` or `MI`, the minumum deductible amount • for a *StrDeductType* value of `MA`, the maximum deductible amount • for a *StrDeductType* value of `BL` or `FR`, the blanket deductible amount • for a *StrDeductType* value of `PL`, the blanket deductible amount

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Item	Value	Description
Sublimit values	integer	The amount may be one of the following for a sublimit. • for a *StrDeductType* value of `MM` or `MI`, the minimum deductible amount If the sublimit deductible type is MM, the value of *Deduct_1* must be less than the value of the Deduct_2 element. • for a *StrDeductType* value of `MA`, the minumum deductible amount for the sublimit • for a *StrDeductType* value of `MA`, the maximum deductible amount for the sublimit
Default	`0`	

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
                            <ID>1</ID>
                            <StrPerils>PAL</StrPerils>
```


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```
                            <StrDeductType>MM</StrDeductType>
                            <Deduct_1>50000</Deduct_1>
                            <Deduct_2>100000</Deduct_2>
                            <StrLimitType>B</StrLimitType>
                            <Limit_1>3000000</Limit_1>
                            <Limit_2>0</Limit_2>
                            <AttachAmt>0</AttachAmt>
                            <Limit_A>0</Limit_A>
                            <Limit_B>0</Limit_B>
                            <Limit_C>0</Limit_C>
                            <Limit_D>0</Limit_D>
                            <AttchPt_A>0</AttchPt_A>
                            <AttchPt_B>0</AttchPt_B>
                            <AttchPt_C>0</AttchPt_C>
                            <AttchPt_D>0</AttchPt_D>
                        </Layer>
                    </Layers>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name" />
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Deduct_2 element

Specifies the maximum deductible amount when the *StrDeductType* of a layer is MM or the *StrDeductType* of a sublimit is MM or MA.

Item	Value	Description
Element name	*Deduct_2*	Specifies the maximum deductible amount when the *StrDeductType* of a layer is MM or the *StrDeductType* of a sublimit is MM or MA. See StrDeductType element.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	20 characters maximum	
Values	integer	If the sublimit deductible type is `MM`, *Deduct_2* must be greater than the value of the Deduct_1 element.
Default	`0`	

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Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
                            <ID>1</ID>
                            <StrPerils>PAL</StrPerils>
                            <StrDeductType>MM</StrDeductType>
                            <Deduct_1>50000</Deduct_1>
                            <Deduct_2>100000</Deduct_2>
                            <StrLimitType>B</StrLimitType>
                            <Limit_1>3000000</Limit_1>
                            <Limit_2>0</Limit_2>
                            <AttachAmt>0</AttachAmt>
                            <Limit_A>0</Limit_A>
                            <Limit_B>0</Limit_B>
                            <Limit_C>0</Limit_C>
                            <Limit_D>0</Limit_D>
                            <AttchPt_A>0</AttchPt_A>
                            <AttchPt_B>0</AttchPt_B>
                            <AttchPt_C>0</AttchPt_C>
                            <AttchPt_D>0</AttchPt_D>
                        </Layer>
                    </Layers>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name" />
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Deduct_A element

Contains the property's deductible or the percentage that is applied to the Building or Site Limit.

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Item	Value	Description
Element name	*Deduct_A*	Contains the property's deductible or the percentage that is applied to the Building or Site Limit. For the deductible type SL (% of loss), *Deduct_A* contains the percent of loss from all coverage.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Values	A dollar amount or a percentage.	For a percentage, the value must be between 0 and 1.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <LocationTerms Items="1">
                            <LocationTerm>
                                <StrPerils>PAL+PWH+PWX+PWF</
StrPerils>
                                <StrLimitType>C</StrLimitType>
                                <Limit_A>300000</Limit_A>
                                <Limit_B>5000</Limit_B>
                                <Limit_C>10000</Limit_C>
                                <Limit_D>20000</Limit_D>
                                <StrDeductType>CA</StrDeductType>
                                <Deduct_A>0.015</Deduct_A>
                                <Deduct_B>0.01</Deduct_B>
                                <Deduct_C>0.01</Deduct_C>
                                <Deduct_D>0.1</Deduct_D>
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
```


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```
.
.
.
```

Deduct_B element

Represents the value of the Other Structures Deductible or the percent that is applied to the Other Structures Limit Type.

Only applies if the Deductible Type is SA, SP, CA, CP, DA, DP, BA, or BP.

Item	Value	Description
Element name	*Deduct_B*	Represents the value of the Other Structures Deductible or the percent that is applied to the Other Structures Limit Type. Only applies if the Deductible Type is SA, SP, CA, CP, DA, DP, BA, or BP.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Values	A dollar amount or a percentage.	For a percentage, the value must be between 0 and 1.

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <LocationTerms Items="1">
                            <LocationTerm>
                                <StrPerils>PAL+PWH+PWX+PWF</
StrPerils>
                                <StrLimitType>C</StrLimitType>
```


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```
                                <Limit_A>300000</Limit_A>
                                <Limit_B>5000</Limit_B>
                                <Limit_C>10000</Limit_C>
                                <Limit_D>20000</Limit_D>
                                <StrDeductType>CA</StrDeductType>
                                <Deduct_A>0.015</Deduct_A>
                                <Deduct_B>0.01</Deduct_B>
                                <Deduct_C>0.01</Deduct_C>
                                <Deduct_D>0.1</Deduct_D>
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
```

Deduct_C element

Represents the Contents Deductible, or the percent that is applied to the Contents Limit.

Item	Value	Description
Element name	*Deduct_C*	Represents the Contents Deductible, or the percent that is applied to the Contents Limit. Only applies if the Deductible Type is SA, SP, CA, CP, DA, DP, BA, or BP.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Values	A dollar amount or a percentage.	For a percentage, the value must be between 0 and 1.

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
```


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```
                        .
                        .
                        <LocationTerms Items="1">
                            <LocationTerm>
                                <StrPerils>PAL+PWH+PWX+PWF</
StrPerils>
                                <StrLimitType>C</StrLimitType>
                                <Limit_A>300000</Limit_A>
                                <Limit_B>5000</Limit_B>
                                <Limit_C>10000</Limit_C>
                                <Limit_D>20000</Limit_D>
                                <StrDeductType>CA</StrDeductType>
                                <Deduct_A>0.015</Deduct_A>
                                <Deduct_B>0.01</Deduct_B>
                                <Deduct_C>0.01</Deduct_C>
                                <Deduct_D>0.1</Deduct_D>
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
```

Deduct_D element

Represents the Time Element Deductible, or the percent that is applied to the Time Element Limit.

Item	Value	Description
Element name	*Deduct_D*	Represents the Time Element Deductible, or the percent that is applied to the Time Element Limit. Only applies if the Deductible Type is SA, SP, CA, CP, DA, or DP.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Values	A dollar amount or a percentage.	For a percentage, the value must be between 0 and 1.

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
```


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```
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <LocationTerms Items="1">
                            <LocationTerm>
                                <StrPerils>PAL+PWH+PWX+PWF</
StrPerils>
                                <StrLimitType>C</StrLimitType>
                                <Limit_A>300000</Limit_A>
                                <Limit_B>5000</Limit_B>
                                <Limit_C>10000</Limit_C>
                                <Limit_D>20000</Limit_D>
                                <StrDeductType>CA</StrDeductType>
                                <Deduct_A>0.015</Deduct_A>
                                <Deduct_B>0.01</Deduct_B>
                                <Deduct_C>0.01</Deduct_C>
                                <Deduct_D>0.1</Deduct_D>
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
```

Details element

Contains the characteristics of a property.

Item	Value	Description
Element name	*Details*	Contains the characteristics of a property.
Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request	A *request* contains the information the service needs to run the analysis.

Source

```
<xsd:element name="Details" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:choice minOccurs="1" maxOccurs="unbounded">
      <xsd:element ref="SealApprove" minOccurs="0" />
      <xsd:element ref="FloorOfInterest" minOccurs="0" />
```


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```
        <xsd:element ref="BldCond" minOccurs="0" />
        <xsd:element ref="Proximity" minOccurs="0" />
        <xsd:element ref="TreeExposure" minOccurs="0" />
        <xsd:element ref="SmallDebris" minOccurs="0" />
        <xsd:element ref="LargeMissile" minOccurs="0" />
        <xsd:element ref="TerrainRoughness" minOccurs="0" />
        <xsd:element ref="AdBldgHeight" minOccurs="0" />
        <xsd:element ref="BldgOrientation" minOccurs="0" />
        <xsd:element ref="Shape" minOccurs="0" />
        <xsd:element ref="Torsion" minOccurs="0" />
        <xsd:element ref="SoftStory" minOccurs="0" />
        <xsd:element ref="StrucIrreg" minOccurs="0" />
        <xsd:element ref="Special" minOccurs="0" />
        <xsd:element ref="Retrofit" minOccurs="0" />
        <xsd:element ref="RoofGeometry" minOccurs="0" />
        <xsd:element ref="RoofPitch" minOccurs="0" />
        <xsd:element ref="RoofCover" minOccurs="0" />
        <xsd:element ref="RoofDeck" minOccurs="0" />
        <xsd:element ref="RoofCoverAttch" minOccurs="0" />
        <xsd:element ref="RoofDeckAttch" minOccurs="0" />
        <xsd:element ref="RoofAnchorage" minOccurs="0" />
        <xsd:element ref="RoofYearBuilt" minOccurs="0" />
        <xsd:element ref="Wall" minOccurs="0" />
        <xsd:element ref="WallSiding" minOccurs="0" />
        <xsd:element ref="GlassType" minOccurs="0" />
        <xsd:element ref="GlassPercent" minOccurs="0" />
        <xsd:element ref="WindowProt" minOccurs="0" />
        <xsd:element ref="ExteriorDoors" minOccurs="0" />
        <xsd:element ref="BldFndConn" minOccurs="0" />
        <xsd:element ref="Foundation" minOccurs="0" />
        <xsd:element ref="IntPartition" minOccurs="0" />
        <xsd:element ref="AttachStruct" minOccurs="0" />
        <xsd:element ref="AppurtStruct" minOccurs="0" />
        <xsd:element ref="MechSystem" minOccurs="0" />
        <xsd:element ref="CustomElevation" minOccurs="0" />
        <xsd:element ref="CustomFloodSoP" minOccurs="0" />
        <xsd:element ref="CustomFloodZone" minOccurs="0" />
        <xsd:element ref="BaseFloodElevation" minOccurs="0" />
        <xsd:element ref="BldgExtOpnh" minOccurs="0" />
        <xsd:element ref="BrickVeneer" minOccurs="0" />
        <xsd:element ref="Chimney" minOccurs="0" />
        <xsd:element ref="ColdFormedTube" minOccurs="0" />
        <xsd:element ref="ColumnBasement" minOccurs="0" />
        <xsd:element ref="DataEx" minOccurs="0" />
        <xsd:element ref="Equipment" minOccurs="0" />
        <xsd:element ref="FirstFloorHeight" minOccurs="0" />
        <xsd:element ref="Lattice" minOccurs="0" />
        <xsd:element ref="MultiStoryHall" minOccurs="0" />
        <xsd:element ref="Ornamentation" minOccurs="0" />
        <xsd:element ref="Pounding" minOccurs="0" />
        <xsd:element ref="ProjectCompletion" minOccurs="0" />
        <xsd:element ref="ProjectPhase" minOccurs="0" />
        <xsd:element ref="Redundancy" minOccurs="0" />
        <xsd:element ref="SealOfApproval" minOccurs="0" />
        <xsd:element ref="ShortColumn" minOccurs="0" />
        <xsd:element ref="TallOneStory" minOccurs="0" />
        <xsd:element ref="Tanks" minOccurs="0" />
        <xsd:element ref="TransitionInSRC" minOccurs="0" />
        <xsd:element ref="WaterHeater" minOccurs="0" />
```


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```
      <xsd:element ref="Welding" minOccurs="0" />
    </xsd:choice>
  </xsd:complexType>
</xsd:element>
```

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            .
                            .
                            .
                        </LocationTerms>
                        <Details>
                            <Shape>2<Shape>
                            <ExteriorDoors>2</ExteriorDoors>
                            <RoofGeometry>1</RoofGeometry>
                            <GlassType>1</GlassType>
                            <GlassPercent>1</GlassPercent>
                        </Details>
                        .
                        .
                        .
```

Equipment element

Specifies the level of equipment bracing in the building at the location.

Item	Value	Description
Element name	*Equipment*	Specifies the level of equipment bracing in the building at the location.
Data type	xs:integer	The *integer* data type is used to specify a numeric

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Item	Value	Description
		value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `3`	• 0 = unknown • 1 = well braced • 2 = average bracing • 3 = unbraced
Default	`0`	

Request example

```
<ISORequests>
              .
              .
              .
              <ISORequest>
                 <Products>LossAnalysis</Products>
                      <LossAnalysis>
                         <Options></Options>
                          <Data type="Locations">
                              <Locations>
                                  <Location>
                                       .
                                      .
                                       .
                                       <LocationTerms Items="1">
                                            .
                                            .
                                            .
                                       </LocationTerms>
                                       <Details>
                                            .
                                            .
                                            .
                                           <Equipment>3</Equipment>
                                            .
                                            .
                                          .
                                       </Details>
                                       .
                                       .
                                       .
```

Error element

Contains the details of one error that occurred during the analysis.

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Item	Value	Description
Element name	*Error*	Contains the details of one error that occurred during the analysis.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            .
            .
            .
        </AIRTrack>
        <runtimeinformation>
            .
            .
            .
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
 timespan="0.984" sequence="100" success="True" ASF.ErrorCode="1"
 ASF.ErrorMessage="Internal Loss Analysis Error" ASF.InfoMessage=""
 ASF.PercentCompleted="" ASF.StatusMessage="" ASF.Logfile="">
            <Errors>
                <Error>
                    <ISOResponse EngineID="1" EngineVersion="1"
 Workerversion="1">DeSerializeString_Location_Exception : Failed to
 deserialize.
                        Error cause:
                        Failed to set property 'StrOccupancyType'.
 "PVC" is invalid Vender ID.
                        Exception occurred.
                        Line 1, Position 327
                    </ISOResponse>
                </Error>
            </Errors>
```

Errors element

Contains one or more *Error* Elements.

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Item	Value	Description
Element name	*Errors*	Contains one or more *Error* Elements. See Error element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xsd:complexType	An element with this data type may contain other elements.

Source

```
<xs:element name="Errors" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="ID" maxOccurs="1" minOccurs="0" />
      <xs:element ref="Error" maxOccurs="unbounded" minOccurs="1" /
>
    </xs:sequence>
    <xs:attribute name="engine" use="optional" type="xs:string" />
  </xs:complexType>
</xs:element>
```

Example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            .
            .
            .
        </AIRTrack>
        <runtimeinformation>
            .
            .
            .
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
 timespan="0.984" sequence="100" success="True" ASF.ErrorCode="1"
 ASF.ErrorMessage="Internal Loss Analysis Error" ASF.InfoMessage=""
 ASF.PercentCompleted="" ASF.StatusMessage="" ASF.Logfile="">
            <Errors>
                <Error>
                    <ISOResponse EngineID="1" EngineVersion="1"
 Workerversion="1">DeSerializeString_Location_Exception : Failed to
 deserialize.
```


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```
                        Error cause:
                        Failed to set property 'StrOccupancyType'.
 "PVC" is invalid Vender ID.
                        Exception occurred.
                        Line 1, Position 327
                    </ISOResponse>
                </Error>
            </Errors>
        </Report>
    </Reports>
</ISOResponses>
```

Event element

Contains the risk-level ground-up, gross, and net of pre-catastrophe losses associated with one event from the event set included in the analysis.

Item	Value	Description
Element name	*Event*	Contains the risk-level ground-up, gross, and net of pre-catastrophe losses associated with one event from the event set included in the analysis.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Attributes

Item	Value	Description
Attribute name	*Year*	Specifies the catalog year associated with the event.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*EventId*	Specifies the numerical identifier for the event.

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Item	Value	Description
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*Peril*	Specifies the perils associated with the event. For a list of codes, see the `tConvertUPXPerilSet` table description in the *Touchstone Database Reference* on the AIR Developer Zone.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*Model*	Specifies the numerical identifier for the model associated with the event. For a complete list of model identifiers, refer to the *Vintage of AIR Peril Models* on the AIR Client Portal.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	optional	

Item	Value	Description
Attribute name	*GU*	Specifies the ground-up losses associated with the event.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	optional	

Item	Value	Description
Attribute name	*GR*	Specifies the gross losses associated with the event.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

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Item	Value	Description
Use	optional	

Item	Value	Description
Attribute name	*NT*	Specifies the net of pre-catastrophe losses associated with the event.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	optional	

Example

```
<ISOResponses>
    <ResponseHeader>
      <AIRTrack>
        .
        .
        .
      </AIRTrack>
      <runtimeinformation>
        .
        .
        .
      </runtimeinformation>
    </ResponseHeader>
    <Reports>
      .
      .
      .
          <ResultSet type="preset"
 name="10K_US_PWH_EQ_FULL_EVENT_STDHU">
            <StrPerils>PES+PSL+PWH+PEF</StrPerils>
            <Options>
              <Option name="DemandSurge">False</Option>
              <Option name="StormSurge">False</Option>
            </Options>
            <Results>
              <EventDetails>
                <EventDetail perils="PES+PSL+PWH+PEF"
 coverage="ResultDetail_Total">
                  <Level type="Location" descriptor="ID">95461</
Level>
                  <Event Year="7" EventID="78" Peril="PES+PSL
+PEF" Model="11" GU="103846.26968701038" GR="103846.26968701038"
 NT="103846.26968701038">0</Event>
                  <Event Year="36" EventID="332" Peril="PES+PSL
+PEF" Model="11" GU="101515.04410742776" GR="101515.04410742776"
 NT="101515.04410742776">0</Event>
                  <Event Year="53" EventID="484" Peril="PES+PSL
+PEF" Model="11" GU="2812.69940628538" GR="2812.69940628538"
 NT="2812.69940628538">0</Event>
```


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```
                  <Event Year="69" EventID="634" Peril="PES+PSL
+PEF" Model="11" GU="2582.5010131312965" GR="2582.5010131312965"
 NT="2582.5010131312965">0</Event>
                  <Event Year="76" EventID="687" Peril="PES+PSL
+PEF" Model="11" GU="15902.878432566682" GR="15902.878432566682"
 NT="15902.878432566682">0</Event>
                  .
                  .
                  .
                </EventDetail>
                <EventDetail perils="PES+PSL+PWH+PEF"
 coverage="ResultDetail_UncertaintyGross">
                  <Level type="Location" descriptor="ID">95461</
Level>
                </EventDetail>
              </EventDetails>
            </Results>
          </ResultSet>
        </LossAnalysis>
      </Report>
</Reports>
</ISOResponses>
```

EventDetail element

Contains the *Level* element and one or more *Event* elements.

Item	Value	Description
Element name	*xxx*	Contains the *Level* element and one or more *Event* elements.See Level element and Event element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Attributes

Item	Value	Description
Attribute name	*perils*	Specifies the perils covered for the risk, which you supplied in theStrPerils element of the request.

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Item	Value	Description
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*coverage*	Specifies the type of coverage included in the loss analysis. For example, `A` indicates coverage A. The configuration package determines the package.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Source

```
<xs:element name="EventDetail">
        <xs:complexType>
            <xs:sequence>
                <xs:element ref="Level"/>
                <xs:element ref="Event" minOccurs="0"
 maxOccurs="unbounded" />
            </xs:sequence>
            <xs:attribute name="perils" use="required"
 type="xs:string"/>
            <xs:attribute name="coverage" use="required"
 type="xs:string"/>
        </xs:complexType>
 </xs:element>
```

Example

```
<ISOResponses>
    <ResponseHeader>
      <AIRTrack>
        .
        .
        .
      </AIRTrack>
      <runtimeinformation>
        .
```


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```
        .
        .
      </runtimeinformation>
    </ResponseHeader>
    <Reports>
      .
      .
      .
          <ResultSet type="preset"
 name="10K_US_PWH_EQ_FULL_EVENT_STDHU">
            <StrPerils>PES+PSL+PWH+PEF</StrPerils>
            <Options>
              <Option name="DemandSurge">False</Option>
              <Option name="StormSurge">False</Option>
            </Options>
            <Results>
              <EventDetails>
                <EventDetail perils="PES+PSL+PWH+PEF"
 coverage="ResultDetail_Total">
                  <Level type="Location" descriptor="ID">95461</
Level>
                  <Event Year="7" EventID="78" Peril="PES+PSL
+PEF" Model="11" GU="103846.26968701038" GR="103846.26968701038"
 NT="103846.26968701038">0</Event>
                  <Event Year="36" EventID="332" Peril="PES+PSL
+PEF" Model="11" GU="101515.04410742776" GR="101515.04410742776"
 NT="101515.04410742776">0</Event>
                  <Event Year="53" EventID="484" Peril="PES+PSL
+PEF" Model="11" GU="2812.69940628538" GR="2812.69940628538"
 NT="2812.69940628538">0</Event>
                  <Event Year="69" EventID="634" Peril="PES+PSL
+PEF" Model="11" GU="2582.5010131312965" GR="2582.5010131312965"
 NT="2582.5010131312965">0</Event>
                  <Event Year="76" EventID="687" Peril="PES+PSL
+PEF" Model="11" GU="15902.878432566682" GR="15902.878432566682"
 NT="15902.878432566682">0</Event>
                  .
                  .
                  .
                </EventDetail>
                <EventDetail perils="PES+PSL+PWH+PEF"
 coverage="ResultDetail_UncertaintyGross">
                  <Level type="Location" descriptor="ID">95461</
Level>
                </EventDetail>
              </EventDetails>
            </Results>
          </ResultSet>
        </LossAnalysis>
      </Report>
</Reports>
</ISOResponses>
```

EventDetails element

Contains one or more *EventDetail* elements.

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Item	Value	Description
Element name	*xxx*	Contains one or more *EventDetail* elements. See EventDetail element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xsd:complexType	An element with this data type may contain other elements.

Source

```
<xs:element name="EventDetails" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="EventDetail" maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
   </xs:element>
```

Example

```
<ISOResponses>
    <ResponseHeader>
      <AIRTrack>
        .
        .
        .
      </AIRTrack>
      <runtimeinformation>
        .
        .
        .
      </runtimeinformation>
    </ResponseHeader>
    <Reports>
      .
      .
      .
          <ResultSet type="preset"
 name="10K_US_PWH_EQ_FULL_EVENT_STDHU">
            <StrPerils>PES+PSL+PWH+PEF</StrPerils>
            <Options>
              <Option name="DemandSurge">False</Option>
              <Option name="StormSurge">False</Option>
            </Options>
            <Results>
              <EventDetails>
```


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```
                <EventDetail perils="PES+PSL+PWH+PEF"
 coverage="ResultDetail_Total">
                  <Level type="Location" descriptor="ID">95461</
Level>
                  <Event Year="7" EventID="78" Peril="PES+PSL
+PEF" Model="11" GU="103846.26968701038" GR="103846.26968701038"
 NT="103846.26968701038">0</Event>
                  <Event Year="36" EventID="332" Peril="PES+PSL
+PEF" Model="11" GU="101515.04410742776" GR="101515.04410742776"
 NT="101515.04410742776">0</Event>
                  <Event Year="53" EventID="484" Peril="PES+PSL
+PEF" Model="11" GU="2812.69940628538" GR="2812.69940628538"
 NT="2812.69940628538">0</Event>
                  <Event Year="69" EventID="634" Peril="PES+PSL
+PEF" Model="11" GU="2582.5010131312965" GR="2582.5010131312965"
 NT="2582.5010131312965">0</Event>
                  <Event Year="76" EventID="687" Peril="PES+PSL
+PEF" Model="11" GU="15902.878432566682" GR="15902.878432566682"
 NT="15902.878432566682">0</Event>
                  .
                  .
                  .
                </EventDetail>
                <EventDetail perils="PES+PSL+PWH+PEF"
 coverage="ResultDetail_UncertaintyGross">
                  <Level type="Location" descriptor="ID">95461</
Level>
                </EventDetail>
              </EventDetails>
            </Results>
          </ResultSet>
        </LossAnalysis>
      </Report>
</Reports>
</ISOResponses>
```

ExteriorDoors element

Specifies the most prevalent type of exterior door on the building.

Item	Value	Description
Element name	*ExteriorDoors*	Specifies the most prevalent type of exterior door on the building..
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	

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Item	Value	Description
Values	An integer between `0` and `6`, or blank	• `0` = unknown • `1` = single-width door • `2` = double-width door • `3` = reinforced single-width door • `4` = reinforced double-width door • `5` = sliding door • `6` = reinforced sliding door
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            .
                            .
                            .
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                            <ExteriorDoors>2</ExteriorDoors>
                            .
                            .
                            .
                        </Details>
                        .
```


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```
.
.
```

FIRMCompliance element

Indicates whether the building is in compliance with the FEMA flood zone requirements in design and construction.

Item	Value	Description
Element name	*FIRMCompliance*	Indicates whether the building is in compliance with the FEMA flood zone requirements in design and construction..
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	`0` or `1` or `2`	• `0` = unknown/default • `1` = no • `2` = yes
Default	`0`	

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <LocationTerms Items="1">
                                .
                                .
                                .
                            </LocationTerms>
                            <Details>
                                .
```


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```
                    .
                    .
                    <FIRMCompliance>1</FIRMCompliance>
                    .
                    .
                    .
                </Details>
                .
                .
```

FirstFloorHeight element

Specifies the height in feet above the ground surface of the first floor of the building at the location.

Item	Value	Description
Element name	*FirstFloorHeight*	Specifies the height in feet above the ground surface of the first floor of the building at the location. Currently, the service supports only properties in the United States.
Data type	xsd:double	The value space of *xsd:double* is double (64 bits) floating-point numbers.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Default	`-999`	indicates an unknown elevation

Request example

```
<ISORequests>
      .
      .
      .
      <ISORequest>
          <Products>LossAnalysis</Products>
          <LossAnalysis>
              <Options demandSurge=”false” stormSurge=”true”/>
              <Data type="Locations">
                  <Locations>
                      <Location>
                          .
```


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```
.
.
<Address>
     .
     .
     .
</Address>
<LocationTerms Items="1">
     .
     .
     .
</LocationTerms>
<Details>
     .
     .
     .
     <FirstFloorHeight>2</FirstFloorHeight>
     .
     .
     .
</Details>
.
.
.
```

FloorArea element

Indicates the total floor area for the building at this location.

Item	Value	Description
Element name	*FloorArea*	Indicates the total floor area for the building at this location.. This field does not affect losses.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	A numeric value between 0 and 999,999,999, inclusive	
Default	(none)	

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Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <LocationTerms Items="1">
                                .
                                .
                                .
                            </LocationTerms>
                            <Details>
                                .
                                .
                                .
                                <FloorArea>1000</FloorArea>
                                .
                                .
                                .
                            </Details>
                            .
                            .
```

FloorOfInterest element

Specifies the floor of interest when the entire building is not covered.

Item	Value	Description
Element name	*FloorOfInterest*	Specifies the floor of interest when the entire building is not covered..
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	4 characters maximum	

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Item	Value	Description
Values	An integer between `-1` and `999`, inclusive or blank	The basement is floor `-1` and the ground floor is floor `1`.
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                            <FloorOfInterest>2</FloorOfInterest>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            .
```


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Foundation element

Specifies the type of foundation of the building.

Item	Value	Description
Element name	*Foundation*	Specifies the type of foundation of the building..
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `12`, or blank	• `0` = unknown/default • `1` = masonry basement • `2` = concrete basement • `3` = masonry wall • `4` = crawlspace - cripple wall • `5` = crawlspace - masonry wall • `6` = post and pier • `7` = footing • `8` = mat or slab • `9` = pile • `10` = no basement • `11` = engineering foundation • `12` = crawlspace - raised wood
Default	`0`	If you specify 0 or leave the element blank, the service uses a weighted average of possible values.

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
```


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```
<Options stormSurge=”true”/>
<Data type="Locations">
    <Locations>
        .
        .
        .
        <LocationTerms Items="1">
            .
            .
            .
        </LocationTerms>
        <Details>
            .
            .
            .
            <Foundation>2</Foundation>
            .
            .
            .
        </Details>
        .
        .
        .
```

GeocodeType element

Specifies the type of database to use for geocoding.

Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	8 characters	
Values	`None` or `Standard` or `Enhanced`	• `Standard` = the TIGER database • `Enhanced` = the Tele Atlas database
Default	`None`	

Request example

```
<ISORequests>
   <RequestHeader>
     .
     .
     .
   </RequestHeader>
   <ISORequest>
```


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```
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <GeocodeType>Standard</GeocodeType>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
PFValue="100"/>
      <Data type="Locations">
        <Locations>
          <Location>
            .
            .
            .
          </Location>
        </Locations>
      </Data>
      <ResultSet type="preset" name="Your configuration package
name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```

GeoLat element

Specifies the latitude of the property.

Item	Value	Description
Element name	*GeoLat*	Specifies the latitude of the property. The service obtains the latitude from the *Latitude* element of the request or from the AIR Address Service if you supplied a street address rather than a geocode. See Using geocodes in service requests.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            .
```


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```
            .
            .
        </AIRTrack>
        <runtimeinformation>
            .
            .
            .
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
timespan="4.016" sequence="110" success="True" ASF.ErrorCode="0"
ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted=""
ASF.StatusMessage="" ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>US</Country>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCodeModeled>02116</
PostalCodeModeled>
                                <SubareaModeled>Suffolk</
SubareaModeled>
                                <GeoPoint>
                                    <GeoLat>42.3476066589355</
GeoLat>
                                    <GeoLong>-71.0762481689453</
GeoLong>
                                    <MatchLevel>UserSupplied</
MatchLevel>
                                </GeoPoint>
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                .
                .
                .
```

GeoLong element

Specifies the longitude of the property.

Item	Value	Description
Element name	*GeoLong*	Specifies the longitude of the property.

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Item	Value	Description
		The service obtains the latitude from the *Longitude* element of the request or from the AIR Address Service if you supplied a street address rather than a geocode. See Using geocodes in service requests.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            .
            .
            .
        </AIRTrack>
        <runtimeinformation>
            .
            .
            .
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
 timespan="4.016" sequence="110" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted=""
 ASF.StatusMessage="" ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>US</Country>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCodeModeled>02116</
PostalCodeModeled>
                                <SubareaModeled>Suffolk</
SubareaModeled>
```


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```
                                    <GeoPoint>
                                        <GeoLat>42.3476066589355</
GeoLat>
                                        <GeoLong>-71.0762481689453</
GeoLong>
                                        <MatchLevel>UserSupplied</
MatchLevel>
                                    </GeoPoint>
                                </Address>
                            </Location>
                        </Locations>
                    </Data>
                    .
                    .
                    .
```

GeoPoint element

Contains information about the geocode of a location included in the loss analysis.

Item	Value	Description
Element name	*GeoPoint*	Contains information about the geocode of a location included in the loss analysis. The service obtains the latitude from the *Longitude* and *Longitude* elements of the request or from the AIR Address Service if you supplied a street address rather than a geocode. See Using geocodes in service requests.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Source

```
<xs:element name="GeoPoint" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:choice maxOccurs="unbounded">
      <xs:element ref="GeoLat" />
      <xs:element ref="GeoLong" />
```


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```
      <xs:element ref="MatchLevel" />
      <xs:element ref="Status" />
    </xs:choice>
  </xs:complexType>
</xs:element>
```

Example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            .
            .
            .
        </AIRTrack>
        <runtimeinformation>
            .
            .
            .
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
 timespan="4.016" sequence="110" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted=""
 ASF.StatusMessage="" ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>US</Country>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCodeModeled>02116</
PostalCodeModeled>
                                <SubareaModeled>Suffolk</
SubareaModeled>
                                <GeoPoint>
                                    <GeoLat>42.3476066589355</
GeoLat>
                                    <GeoLong>-71.0762481689453</
GeoLong>
                                    <MatchLevel>UserSupplied</
MatchLevel>
                                </GeoPoint>
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                .
```


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GlassPercent element

Specifies the percentage of glass in the walls of the building.

Item	Value	Description
Element name	*GlassPercent*	Specifies the percentage of glass in the walls of the building..
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `4`, inclusive, or blank	• `0` = unknown • `1` = less than 5% • `2` = 5-20% • `3` = 20-60% • `4` = greater than 60%
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            .
                            .
                            .
```


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```
                    </Address>
                    .
                    .
                    .
                    <Details>
                         .
                         .
                         .
                    <GlassPercent>2</GlassPercent>
                         .
                         .
                         .
                    </Details>
               </Location>
          </Locations>
               .
               .
               .
```

GlassType element

Specifies the most common type of glass used for windows, walls, and doors at the property.

Item	Value	Description
Element name	*GlassType*	Specifies the most common type of glass used for windows, walls, and doors at the property..
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `5`, inclusive, or blank	• `0` = unknown • `1` = annealed • `2` = tempered • `3` = heat strengthened • `4` = laminated • `5` = insulating glass units
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

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Example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <LocationTerms Items="1">
                            .
                            .
                            .
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                            <GlassType>2</GlassType>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
                .
                .
                .
```

GrossArea element

Specifies the total floor space in hectares inside the outer walls of the building, including unusable space.

Item	Value	Description
Element name	*GrossArea*	Specifies the total floor space in hectares inside the outer walls of the building, including unusable space..
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.

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Item	Value	Description
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	5 characters maximum	
Default	0	

Example

```
<ISORequests>
     <RequestHeader>
          .
          .
          .
     </RequestHeader>
     <ISORequest>
          <Products>LossAnalysis</Products>
          <LossAnalysis>
               <Options demandSurge=”false” stormSurge=”true”/>
               <Data type="Locations">
                    <Locations>
                         <Location>
                              .
                              .
                              .
                              <LocationTerms Items="1">
                                   .
                                   .
                                   .
                              </LocationTerms>
                              <Details>
                                   .
                                   .
                                   .
                                   <GrossArea>1700</GrossArea>
                                   .
                                   .
                                   .
                              </Details>
                         </Location>
                    </Locations>
                    .
                    .
                    .
```

Height element

Specifies the number of stories in the building at the location.

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Item	Value	Description
Element name	*Height*	Specifies the number of stories in the building at the location..
Data type	xsd:nonNegativeInteger	
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	3 characters maximum	
Values	An integer greater than or equal to 0, or blank	`0` indicates that the number of stories is unknown
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>3</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        .
                        .
                        .
```


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IBHSFortified element

Indicates whether the building at this location has achieved an Insurance Institute for Business & Home Safety (IBHS) FORTIFIED designation for US hurricane.

Item	Value	Description
Element name	*IBHSFortified*	Indicates whether the building at this location has achieved an Insurance Institute for Business & Home Safety (IBHS) FORTIFIED designation for US hurricane. . This feature works only for AIR occupancy codes 301, 302, 303, and 306 when used in combination with AIR construction codes 101-14, 111-119, and 131-137.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `7`, inclusive	• `0` = unknown/default • `1` = Fortified Home (IBHS) Bronze Option 1 • `2` = Fortified Home (IBHS) Bronze Option 2 • `3` = Fortified Home (IBHS) Silver Option 1 • `4` = Fortified Home (IBHS) Silver Option 2 • `5` = Fortified Home (IBHS) Gold Option 1 • `6` = Fortified Home (IBHS) Gold Option 2 • `7` = Fortified Home for Safer Living (IBHS)

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Item	Value	Description
Default	0	If you specify 0 or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <LocationTerms Items="1">
                                .
                                .
                                .
                            </LocationTerms>
                            <Details>
                                .
                                .
                                .
                                <IBHSFortified>5</IBHSFortified>
                                .
                                .
                                .
                            </Details>
                            .
                            .
```

ID element

Specifies the alphanumeric identifier for a location, contract, or layer.

Item	Value	Description
Element name	*ID*	Specifies the alphanumeric identifier for a location, contract, or layer.
Data type	xs:string	The *string* data type can contain characters, line

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Item	Value	Description
		feeds, carriage returns, and tab characters.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Length	30 characters maximum	

Request example

```
<ISORequests>
    <RequestHeader>
      <AIR>
        <LoginID></LoginID>
        <Password></Password>
        <LicenseKey></LicenseKey>
     </AIR>
    </RequestHeader>
    <ISORequest>
      <Products>LossAnalysis</Products>
      <LossAnalysis>
        <ReturnLocationResults>true</ReturnLocationResults>
        <ReturnLayerResults>true</ReturnLayerResults>
        <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
        <Data type="Contract">
          <Contract>
            <ID>12</ID>
            <DateFrom>1/1/2000</DateFrom>
            <DateTo>12/31/2030</DateTo>
            <StrPerils>PAL</StrPerils>
            <Locations>
              .
              .
              .
            </Locations>
            <Layers>
              .
              .
              .
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
 name"/>
      </LossAnalysis>
   </ISORequest>
  </ISORequests>
```


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Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
 timespan="4.016" sequence="110" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted=""
 ASF.StatusMessage="" ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                .
                .
                .
```

Instance element

Specifies the loss analysis service instance numbers and server information used to perform the loss analysis.

Item	Value	Description
Element name	*Instance*	Specifies the loss analysis service instance numbers and server information used to perform the loss analysis.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line

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Item	Value	Description
		feeds, carriage returns, and tab characters.

Example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>

 <Instance>633257996033636475;phv1asf2;AWS;2011-09-19T11:53:23.36
                                        0400;/LM/W3SVC/1/Root/AWS-
 1-128346899831501469;</Instance>

 <Instance>633257996033636475;phv1asf2;8089;2011-09-19T11:53:23.363
 0400;
 Air.VL.ServiceHost.ServiceDriver.exe; AccumResponse;</Instance>
        </AIRTrack>
        <runtimeinformation responseid="1778385162;60591548"
 clientparam="UserHostAddress">
            <time start="3/13/2011 6:16:22 PM" end="3/13/2011
 6:16:31 PM" timespan="9.156"/>
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" …ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    .
                    .
                    .
                    <Results>
                        <AnnualSummaries>
                            .
                            .
                            .
                        </AnnualSummaries>
                        <AnnualDetails>
                            .
                            .
                            .
                        </AnnualDetails>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```


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IntPartition element

Specifies the type of material used for the internal partition walls in the building.

Item	Value	Description
Element name	*intPartition*	Specifies the type of material used for the internal partition walls in the building.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `5`, inclusive	• `0` = unknown • `1` = wood • `2` = gypsum board • `3` = plastered masonry • `4` = brick • `5` = other
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <LocationTerms Items="1">
```


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```
                    .
                    .
                    .
                </LocationTerms>
                <Details>
                    .
                    .
                    .
                    <IntPartition>2</IntPartition>
                    .
                    .
                    .
                </Details>
            </Location>
            .
            .
            .
```

ISORequest element

Contains the *Products* , *HazardAnalysis*, and *Addresses* and *LossAnalysis*elements.

Item	Value	Description
Element name	*ISORequest*	Contains the *Products* , *HazardAnalysis*, and *Addresses* and *LossAnalysis*elements.
Where used	request	A *request* contains the information the service needs to run the analysis.

Source

```
<xsd:element name="ISORequest" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="Products" />
      <xsd:element ref="LossAnalysis" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Source

```
<xs:element name="ISORequest" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:complexContent>
      <xs:extension base="Products">
        <xs:sequence>
          <xs:element ref="HazardAnalysis" />
          <xs:element ref="Addresses" />
```


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

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration Package
 Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Request example

```
<ISORequests>
    <RequestHeader>
```


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```
        .
        .
        .
    <ISORequest>
        <Products>HazardAnalysis</Products>
        <HazardAnalysis>

<Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
WinterstormHazard</Products>
        </HazardAnalysis>
        <Addresses>
            <Options geocode="yes" returnHighestScore="yes"
additionalInfo="no"/>
            <Address>
                <Latitude></Latitude>
                <Longitude></Longitude>
                <Addr1>100 Main Street</Addr1>
                <City>Seattle</City>
         <County>King</County>
                <StateProv>WA</StateProv>
                <Country>US</Country>
            </Address>
        </Addresses>
    </ISORequest>
</ISORequests>
```

ISORequests element

Contains the *RequestHeader* and *ISORequest* elements.

Item	Value	Description
Element name	*ISORequests*	Contains the *RequestHeader* and *ISORequest* elements. ISORequests is the root element for requests to the AIR Hazard Analysis Servicesingle-location and single-contract loss analysis service requests.
Where used	request	A *request* contains the information the service needs to run the analysis.

Source

```
<xs:element name="ISORequests" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="RequestHeader" />
      <xs:element ref="ISORequest" />
```


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

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    <ISORequest>
        <Products>HazardAnalysis</Products>
        <HazardAnalysis>

 <Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
 WinterstormHazard</Products>
        </HazardAnalysis>
        <Addresses>
            <Options geocode="yes" returnHighestScore="yes"
 additionalInfo="no"/>
            <Address>
                <Latitude>25.926777</Latitude>
                <Longitude>-80.342367</Longitude>
                <Addr1> </Addr1>
                <City></City>
         <County></County>
                <StateProv></StateProv>
                <Country></Country>
            </Address>
        </Addresses>
    </ISORequest>
</ISORequests>
```

Request example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            .
            .
            .
        </AIR>
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
```


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```
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration Package
 Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

ISOResponses element

Contains the *ResponseHeader* and *Reports* elements. *ISOResponses* is the root element for responses.

Item	Value	Description
Element name	*ISOResponses*	Contains the *ResponseHeader* and *Reports* elements. *ISOResponses* is the root element for responses.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Source

```
<xs:element name="ISOResponses" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="ResponseHeader" />
      <xs:element ref="Reports" />
    </xs:sequence>
  </xs:complexType>
```


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```
</xs:element>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report ...>
            <AddressProfile>
                <LocationInformation>
                    .
                    .
                    .
                </LocationInformation>
                <HazardInformation>
                    .
                    .
                    .
                    <ProfileThunderstorm>
                        <FrequencyTornado>Very Low</FrequencyTornado>
                        <FrequencyHail>Very Low</FrequencyHail>
                        <FrequencySLWind>Very Low</FrequencySLWind>
                        <Risk>
                            <Risk100YR>0-5</Risk100YR>
                            <Risk250YR>0-5</Risk250YR>
                            <RiskAnnual><0.1</RiskAnnual>
                            <RelRiskCounty>20-30</RelRiskCounty>
                            <RelRiskState>20-30</RelRiskState>
                        </Risk>
                        <HistoryEvents>
                            <HistoryEventsTornado>
                                <HistoryEvent>
                                    <Year>1969</Year>
                                    <Date>December 12</Date>
                                    <Distance> 4.89</Distance>
                                    <Intensity>3</Intensity>
                                </HistoryEvent>
                                .
                                .
                                .
                            </HistoryEventsTornado>
                            <HistoryEventsHail>
                                <HistoryEvent>
                                    <Year>1972</Year>
                                    <Date>June 8</Date>
                                    <Distance>13.72</Distance>
                                    <Intensity>1.3-2.0</Intensity>
                                </HistoryEvent>
                                .
                                .
                                .
                            </HistoryEventsHail>
                            <HistoryEventsSLWind>
                                <HistoryEvent>
```


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```
                                        <Year>1956</Year>
                                        <Date>March 3</Date>
                                        <Distance> 7.10</Distance>
                                        <Intensity>70-80</Intensity>
                                    </HistoryEvent>
                                    .
                                    .
                                    .
                                </HistoryEventsSLWind>
                            </HistoryEvents>
                        </ProfileThunderstorm>
                        .
                        .
                        .
                    </HazardInformation>
                </AddressProfile>
            </Report>
        </Reports>
</ISOResponses>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" …ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    .
                    .
                    .
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            .
                            .
                            .
                        </AnnualSummaries>
                        <AnnualDetails>
                            .
                            .
                            .
                        </AnnualDetails>
                    </Results>
                </ResultSet>
            </LossAnalysis>
```


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```
        </Report>
    </Reports>
</ISOResponses>
```

LargeMissile element

Specifies whether any objects such as garden furniture or wood planks are within 100 feet of the building and may become missiles during high winds.

Item	Value	Description
Element name	*LargeMissile*	Specifies whether any objects such as garden furniture or wood planks are within 100 feet of the building and may become missiles during high winds.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `2`, inclusive	• `0` = unknown • `1` = no • `2` = yes
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
```


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```
                    .
                    <LocationTerms Items="1">
                        .
                        .
                        .
                    </LocationTerms>
                    <Details>
                        .
                        .
                        .
                        <LargeMissile>1</LargeMissile>
                        .
                        .
                        .
                    </Details>
                </Location>
                    .
                    .
                    .
```

Latitude element

Specifies the latitude of the property.

Item	Value	Description
Element name	*Latitude*	Specifies the latitude of the property.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Data type	geocode simple type	
Length	16 characters minimum	

Request example

In the request,

- Specify a latitude and longitude instead of a street address wherever possible. See Using geocodes in service requests.
- You must specify the *Latitude* element if you do not specify the *Addr1* element.
- For latitudes south of the equator, you must specify a negative number.

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```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    <ISORequest>
        <Products>HazardAnalysisLossAnalysis</Products>
        <HazardAnalysis>

 <Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
 WinterstormHazard</Products>
        </HazardAnalysis>
        <Addresses>
            <Options geocode="yes" returnHighestScore="yes"
 additionalInfo="no"/>
            <Address>
                <Latitude>25.926777</Latitude>
                <Longitude>-80.342367</Longitude>
                <Addr1> </Addr1>
                <City></City>
         <County></County>
                <StateProv></StateProv>
                <Country></Country>
            </Address>
        </Addresses>
    </ISORequest>
</ISORequests>
```

Response example

The response will return the value you provide.

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report ...>
            <AddressProfile>
                <LocationInformation>
                    <Entered>
                        <Address>
                            <Latitude>0</Latitude>
                            <Longitude>0</Longitude>
                            <Addr1>100 Main Street</Addr1>
                            <City>Seattle</City>
                            <StateProv>WA</StateProv>
                            <Country>US</Country>
                            <MatchLevel>3</MatchLevel>
                            <County>KING</County>
                            <GeoPath AreaLevel2="53"
 AreaLevel3="033" />
                        </Address>
                    </Entered>
```


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```
                    <Matched>
                         .
                         .
                         .
                    </Matched>
                </LocationInformation>
                <HazardInformation>
                    .
                    .
                    .
                </HazardInformation>
            </AddressProfile>
        </Report>
    </Reports>
</ISOResponses>
```

Lattice element

Specifies the type of web for H-shaped steel in the building at the location.

Item	Value	Description
Element name	*Lattice*	Specifies the type of web for H-shaped steel in the building at the location.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `3`, inclusive	• `0` = unknown • `1` = full web • `2` = grid • `3` = lattice
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
      .
      .
      .
```


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```
<ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
        <Options demandSurge=”false” stormSurge=”true”/>
        <Data type="Locations">
            <Locations>
                <Location>
                    .
                    .
                    .
                    <LocationTerms Items="1">
                        .
                        .
                        .
                    </LocationTerms>
                    <Details>
                        .
                        .
                        .
                        <Lattice>1</Lattice>
                        .
                        .
                        .
                    </Details>
                </Location>
                    .
                    .
                    .
```

Layer element

Contains the details of one insurance contract layer.

Item	Value	Description
Element name	*Layer*	Contains the details of one insurance contract layer.
Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request	A *request* contains the information the service needs to run the analysis.

Source

```
<xsd:element name="Layer" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:all>
      <xsd:element ref="ID" />
```


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```
      <xsd:element name="ApplyToArea" type="xsd:string"
 minOccurs="0" />
      <xsd:element ref="StrPerils" />
      <xsd:element ref="StrDeductType" minOccurs="1" />
      <xsd:element name="Deduct_1" type="Currency" minOccurs="0" />
      <xsd:element name="Deduct_2" type="Currency" minOccurs="0" />
      <xsd:element ref="StrLimitType" minOccurs="1" />
      <xsd:element name="Limit_1" type="Currency" minOccurs="0" />
      <xsd:element name="Limit_2" type="Currency" minOccurs="0" />
      <xsd:element name="AttachAmt" type="Currency" minOccurs="0" /
>
      <xsd:element name="Limit_A" type="Currency" minOccurs="0" />
      <xsd:element name="Limit_B" type="Currency" minOccurs="0" />
      <xsd:element name="Limit_C" type="Currency" minOccurs="0" />
      <xsd:element name="Limit_D" type="Currency" minOccurs="0" />
      <xsd:element name="AttchPt_A" type="Currency" minOccurs="0" /
>
      <xsd:element name="AttchPt_B" type="Currency" minOccurs="0" /
>
      <xsd:element name="AttchPt_C" type="Currency" minOccurs="0" /
>
      <xsd:element name="AttchPt_D" type="Currency" minOccurs="0" /
>
      <xsd:element ref="Sublimits" minOccurs="0" />
    </xsd:all>
  </xsd:complexType>
</xsd:element>
```

Example

```
<ISORequests>
  <RequestHeader>
    <AIR>
      .
      .
      .
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Contract">
        <Contract>
          <ID>untitled</ID>
          <DateFrom>1/1/2000</DateFrom>
          <DateTo>12/31/2030</DateTo>
          <StrPerils>PAL</StrPerils>
          <Locations>
            <Location>
              .
              .
              .
            </Location>
```


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```
          </Locations>
          <Layers>
            <Layer>
              <ID>1</ID>
              <StrPerils>PAL</StrPerils>
              <StrDeductType>NO</StrDeductType>
              <StrLimitType>B</StrLimitType>
              <AttachAmt>0</AttachAmt>
              <Limit_A>0</Limit_A>
              <Limit_B>0</Limit_B>
              <Limit_C>0</Limit_C>
              <Limit_D>0</Limit_D>
              <AttchPt_A>0</AttchPt_A>
              <AttchPt_B>0</AttchPt_B>
              <AttchPt_C>0</AttchPt_C>
              <AttchPt_D>0</AttchPt_D>
              <Sublimits>
                <Sublimit>
                  <ID>1</ID>
                  <StrPerils>PAL</StrPerils>
                  <StrLimitType>B</StrLimitType>
                  <Limit_2>0</Limit_2>
                  <Limit_A>0</Limit_A>
                  <Limit_B>0</Limit_B>
                  <Limit_C>0</Limit_C>
                  <Limit_D>0</Limit_D>
                  <AttachAmt>0</AttachAmt>
                  <AttchPt_A>0</AttchPt_A>
                  <AttchPt_B>0</AttchPt_B>
                  <AttchPt_C>0</AttchPt_C>
                  <AttchPt_D>0</AttchPt_D>
                  <StrDeductType>NO</StrDeductType>
                  <Deduct_1>0</Deduct_1>
                  <Deduct_2>0</Deduct_2>
                  <ApplyToArea>DEF</ApplyToArea>
                </Sublimit>
              </Sublimits>
              <Deduct_1>0</Deduct_1>
              <Deduct_2>0</Deduct_2>
              <Limit_1>11111111</Limit_1>
              <Limit_2>0</Limit_2>
            </Layer>
          </Layers>
        </Contract>
      </Data>
      <ResultSet type="Preset" name="Your configuration package
 name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```

Layers element

Contains the details for a set of layers.

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Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request	A *request* contains the information the service needs to run the analysis.

Source

```
<xsd:element name="Layers" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="Layer" minOccurs="0"
 maxOccurs="unbounded" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Example

```
<ISORequests>
   <RequestHeader>
     <AIR>
       <LoginID></LoginID>
       <Password></Password>
       <LicenseKey></LicenseKey>
    </AIR>
   </RequestHeader>
   <ISORequest>
     <Products>LossAnalysis</Products>
     <LossAnalysis>
       <ReturnLocationResults>true</ReturnLocationResults>
       <ReturnLayerResults>true</ReturnLayerResults>
       <Options stormSurge="true" demandSurge="true" ssValue="10"
 pfValue="100"/>
       <Data type="Contract">
         <Contract>
           <ID>untitled</ID>
           <DateFrom>1/1/2000</DateFrom>
           <DateTo>12/31/2030</DateTo>
           <StrPerils>PAL</StrPerils>
           <Locations>
             .
             .
             .
           </Locations>
           <Layers>
             <Layer>
               <ID>1</ID>
               <StrPerils>PAL</StrPerils>
               <StrDeductType>NO</StrDeductType>
               <StrLimitType>B</StrLimitType>
```


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```
                <AttachAmt>0</AttachAmt>
                <Limit_A>0</Limit_A>
                <Limit_B>0</Limit_B>
                <Limit_C>0</Limit_C>
                <Limit_D>0</Limit_D>
                <AttchPt_A>0</AttchPt_A>
                <AttchPt_B>0</AttchPt_B>
                <AttchPt_C>0</AttchPt_C>
                <AttchPt_D>0</AttchPt_D>
                <Sublimits>
                  <Sublimit>
                    <ID>1</ID>
                    <StrPerils>PAL</StrPerils>
                    <StrLimitType>B</StrLimitType>
                    <Limit_2>0</Limit_2>
                    <Limit_A>0</Limit_A>
                    <Limit_B>0</Limit_B>
                    <Limit_C>0</Limit_C>
                    <Limit_D>0</Limit_D>
                    <AttachAmt>0</AttachAmt>
                    <AttchPt_A>0</AttchPt_A>
                    <AttchPt_B>0</AttchPt_B>
                    <AttchPt_C>0</AttchPt_C>
                   <AttchPt_D>0</AttchPt_D>
                    <StrDeductType>NO</StrDeductType>
                    <Deduct_1>0</Deduct_1>
                    <Deduct_2>0</Deduct_2>
                    <ApplyToArea>DEF</ApplyToArea>
                  </Sublimit>
                </Sublimits>
                <Deduct_1>0</Deduct_1>
                <Deduct_2>0</Deduct_2>
                <Limit_1>11111111</Limit_1>
                <Limit_2>0</Limit_2>
              </Layer>
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
name"/>
      </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Level element

Specifies the risk that generated the losses in the *AnnualSummary*, *AnnualDetail*, or *EventDetail* elements.

Item	Value	Description
Element name	*xxx*	Specifies the risk that generated the losses in the *AnnualSummary*, *AnnualDetail*, or *EventDetail* elements.

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Item	Value	Description
		See AnnualSummary element and AnnualDetail element and EventDetail element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Attributes

Item	Value	Description
Attribute name	*description*	Specifies the relationship of the value of the *Level* element to the risk. For example, the *Level* element may contain the identifier of the risk.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*type*	Specifies the type of risk that generated the losses, for example, Location or Contract.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
```


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```
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    .
                    .
                    .
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            .
                            .
                            .
                        </AnnualSummaries>
                        <AnnualDetails>
                            <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                                <Level type="Location"
 descriptor="ID">Loc02</Level>
                                <ResultAnnualDetailRows>
                                    <ResultRowAnnualDetail>
                                        <ReturnPeriod>1000</
ReturnPeriod>

            <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                        <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                        <Occurrence_Year>9763</
Occurrence_Year>
                                        <Occurrence_Peril>1</
Occurrence_Peril>
                                        <Occurrence_Model>27</
Occurrence_Model>
                                        <Occurrence_Event>32360</
Occurrence_Event>
                                    </ResultRowAnnualDetail>
                                    .
                                    .
                                    .
                                </ResultAnnualDetailRows>
                            </AnnualDetail>
                        </AnnualDetails>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```


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LicenseKey element

Specifies your license key for AIR's web services.

Item	Value	Description
Element name	*LicenseKey*	Specifies your license key for AIR's web services. If you need login credentials, contact your AIR representative.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	20 characters maximum	

Request xample

```
<ISORequests>
    <RequestHeader>
        <AIR>
            <LoginID>YourLogin</LoginID>
            <Password>YourSecretPassword</Password>
            <LicenseKey>YourLicenseKey</LicenseKey>
        </AIR>
    </RequestHeader>
    <ISORequest>
        .
        .
        .
    </ISORequest>
</ISORequests>
```

Limit_1 element

Specifies a limit amount for a layer or sublimit.

Item	Value	Description
Element name	*Limit_1*	Specifies a limit amount for a layer or sublimit.
Data type	Currency Simple Type	

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Item	Value	Description
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Layer values	A value from the list	• If the value of StrLimitType element is `B`, the layer value is the blanket or total insured limit. • If the value of *StrLimitType* is `E`, the value is the primary limit for the layer, regardless of participation. For example, if you insure 4% of $100 million in excess of $5 million, then the primary limit is $100 million. • If the value of *StrLimitType* is CSL100 or CSLAI, the value is the Combined Single Limit 100% Participation or Combined Single Limit Assured Interest limit.
Sublimit values	A value from the list	• If the value of *StrLimitType* is `B`, the value is the total insured limit. • If the value of *StrLimitType* is `E`, the value is the primary limit for the applicable area, regardless of your participation.
Default value	`0`	

Example

```
<ISORequests>
    <RequestHeader>
        .
        .
```


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```
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
                            <ID>1</ID>
                            <StrPerils>PAL</StrPerils>
                            <StrDeductType>MM</StrDeductType>
                            <Deduct_1>50000</Deduct_1>
                            <Deduct_2>100000</Deduct_2>
                            <StrLimitType>B</StrLimitType>
                            <Limit_1>3000000</Limit_1>
                            <Limit_2>0</Limit_2>
                            <AttachAmt>0</AttachAmt>
                            <Limit_A>0</Limit_A>
                            <Limit_B>0</Limit_B>
                            <Limit_C>0</Limit_C>
                            <Limit_D>0</Limit_D>
                            <AttchPt_A>0</AttchPt_A>
                            <AttchPt_B>0</AttchPt_B>
                            <AttchPt_C>0</AttchPt_C>
                            <AttchPt_D>0</AttchPt_D>
                        </Layer>
                    </Layers>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name" />
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Limit_2 element

Specifies the gross limit value for a layer or sublimit as the participation limit before reinsurance when the StrLimitType is E.

Item	Value	Description
Element name	*Limit_2*	Specifies the gross limit value for a layer or sublimit as the participation limit before

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Item	Value	Description
		reinsurance when the StrLimitType is E.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Values	A monetary value	
Example	For example, if you insure 4% of $100 million in excess of $5 million, then the gross limit is $4 million.	
Default value	1	

Example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <ExchRate>0</ExchRate>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
                            <ID>1</ID>
                            <StrPerils>PAL</StrPerils>
                            <StrDeductType>MM</StrDeductType>
                            <Deduct_1>50000</Deduct_1>
                            <Deduct_2>100000</Deduct_2>
                            <StrLimitType>B</StrLimitType>
                            <Limit_1>3000000</Limit_1>
                            <Limit_2>0</Limit_2>
                            <AttachAmt>0</AttachAmt>
```


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```
                            <Limit_A>0</Limit_A>
                            <Limit_B>0</Limit_B>
                            <Limit_C>0</Limit_C>
                            <Limit_D>0</Limit_D>
                            <AttchPt_A>0</AttchPt_A>
                            <AttchPt_B>0</AttchPt_B>
                            <AttchPt_C>0</AttchPt_C>
                            <AttchPt_D>0</AttchPt_D>
                        </Layer>
                    </Layers>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name" />
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Limit_A element

Specifies the insured limit for coverage A, insured limit for coverages A, B, and C, or priority of coverage A at the location.

Item	Value	Description
Element name	*Limit_A*	Specifies the insured limit for coverage A, insured limit for coverages A, B, and C, or priority of coverage A at the location.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Values for a layer or sublimit	An insured limit amount or priority ranking	• If the value of StrLimitType element is `C`, specify the limit for coverage A. • If the value of *StrLimitType* is `CB`, specify the limit for coverages A, B and C. • If the value of *StrLimitType* corresponds to a combined single limit, specify the priority of coverage A as a

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Item	Value	Description
		number from `1` to `4`. However, if coverage A is not included in the combined single limit, specify `0`. • If the value of *StrLimitType* is `B` or `E`, specify `0`.
Values for a location	An insured limit amount	Specify the insured limit for coverage A.
Default value	`0`	

Example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <ExchRate>0</ExchRate>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
                            <ID>1</ID>
                            <StrPerils>PAL</StrPerils>
                            <StrDeductType>MM</StrDeductType>
                            <Deduct_1>50000</Deduct_1>
                            <Deduct_2>100000</Deduct_2>
                            <StrLimitType>B</StrLimitType>
                            <Limit_1>3000000</Limit_1>
                            <Limit_2>0</Limit_2>
                            <AttachAmt>0</AttachAmt>
                            <Limit_A>0</Limit_A>
                            <Limit_B>0</Limit_B>
                            <Limit_C>0</Limit_C>
                            <Limit_D>0</Limit_D>
                            <AttchPt_A>0</AttchPt_A>
                            <AttchPt_B>0</AttchPt_B>
```


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```
                            <AttchPt_C>0</AttchPt_C>
                            <AttchPt_D>0</AttchPt_D>
                        </Layer>
                    </Layers>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name" />
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Limit_B element

Specifies the insured limit for coverage B or priority of coverage B at the location.

Item	Value	Description
Element name	*Limit_B*	Specifies the insured limit for coverage B or priority of coverage B at the location.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Values for a layer or sublimit	An insured limit amount or priority ranking	• If the value of StrLimitType element is `C`, specify the limit for coverage B. • If the value of *StrLimitType* corresponds to a combined single limit, specify the priority of coverage B as a number from `1` to `4`. However, if coverage A is not included in the combined single limit, specify `0`. • If the value of *StrLimitType* is not `C` or a combined single limit, specify `0`.
Values for a location	An insured limit amount	Specify the insured limit for coverage B.

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Item	Value	Description
Default value	0	

Example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <ExchRate>0</ExchRate>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
                            <ID>1</ID>
                            <StrPerils>PAL</StrPerils>
                            <StrDeductType>MM</StrDeductType>
                            <Deduct_1>50000</Deduct_1>
                            <Deduct_2>100000</Deduct_2>
                            <StrLimitType>B</StrLimitType>
                            <Limit_1>3000000</Limit_1>
                            <Limit_2>0</Limit_2>
                            <AttachAmt>0</AttachAmt>
                            <Limit_A>0</Limit_A>
                            <Limit_B>0</Limit_B>
                            <Limit_C>0</Limit_C>
                            <Limit_D>0</Limit_D>
                            <AttchPt_A>0</AttchPt_A>
                            <AttchPt_B>0</AttchPt_B>
                            <AttchPt_C>0</AttchPt_C>
                            <AttchPt_D>0</AttchPt_D>
                        </Layer>
                    </Layers>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name" />
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```


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Limit_C element

Specifies the insured limit for coverage C or priority of coverage C at the location.

Item	Value	Description
Element name	*Limit_C*	Specifies the insured limit for coverage C or priority of coverage C at the location.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	10 characters maximum	
Values for a layer or sublimit	An insured limit amount or priority ranking	• If the value of StrLimitType element is `C`, specify the limit for coverage C. • If the value of *StrLimitType* corresponds to a combined single limit, specify the priority of coverage C as a number from `1` to `4` . However, if coverage A is not included in the combined single limit, specify `0`. • If the value of *StrLimitType* is not `C` or a combined single limit, specify `0`.
Values for a location	An insured limit amount	Specify the insured limit for coverage C.
Default value	`0`	

Example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
```


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```
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <ExchRate>0</ExchRate>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
                            <ID>1</ID>
                            <StrPerils>PAL</StrPerils>
                            <StrDeductType>MM</StrDeductType>
                            <Deduct_1>50000</Deduct_1>
                            <Deduct_2>100000</Deduct_2>
                            <StrLimitType>B</StrLimitType>
                            <Limit_1>3000000</Limit_1>
                            <Limit_2>0</Limit_2>
                            <AttachAmt>0</AttachAmt>
                            <Limit_A>0</Limit_A>
                            <Limit_B>0</Limit_B>
                            <Limit_C>0</Limit_C>
                            <Limit_D>0</Limit_D>
                            <AttchPt_A>0</AttchPt_A>
                            <AttchPt_B>0</AttchPt_B>
                            <AttchPt_C>0</AttchPt_C>
                            <AttchPt_D>0</AttchPt_D>
                        </Layer>
                    </Layers>
                </Contract>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name" />
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Limit_D element

Specifies the insured limit for coverage D or priority of coverage D at the location.

Item	Value	Description
Element name	*Limit_D*	Specifies the insured limit for coverage D or priority of coverage D at the location.
Data type	Currency Simple Type	
Where used	request	A *request* contains the information the service needs to run the analysis.

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Item	Value	Description
Length	10 characters maximum	
Values for a layer or sublimit	An insured limit amount or priority ranking	• If the value of StrLimitType element is `C`, specify the limit for coverage D. • If the value of *StrLimitType* corresponds to a combined single limit, specify the priority of coverage D as a number from `1` to `4` . However, if coverage A is not included in the combined single limit, specify `0`. • If the value of *StrLimitType* is not `C` or a combined single limit, specify `0`.
Values for a location	An insured limit amount	Specify the insured limit for coverage D.
Default value	`0`	

Example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Contract">
                <Contract>
                    <ID>Test1</ID>
                    <DateFrom>1/1/2011</DateFrom>
                    <DateTo>12/31/2011</DateTo>
                    <StrPerils>PAL</StrPerils>
                    <StrCurrency>USD</StrCurrency>
                    <ExchRate>0</ExchRate>
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                    <Layers>
                        <Layer>
```


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```
                                <ID>1</ID>
                                <StrPerils>PAL</StrPerils>
                                <StrDeductType>MM</StrDeductType>
                                <Deduct_1>50000</Deduct_1>
                                <Deduct_2>100000</Deduct_2>
                                <StrLimitType>B</StrLimitType>
                                <Limit_1>3000000</Limit_1>
                                <Limit_2>0</Limit_2>
                                <AttachAmt>0</AttachAmt>
                                <Limit_A>0</Limit_A>
                                <Limit_B>0</Limit_B>
                                <Limit_C>0</Limit_C>
                                <Limit_D>0</Limit_D>
                                <AttchPt_A>0</AttchPt_A>
                                <AttchPt_B>0</AttchPt_B>
                                <AttchPt_C>0</AttchPt_C>
                                <AttchPt_D>0</AttchPt_D>
                            </Layer>
                        </Layers>
                    </Contract>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name" />
            </LossAnalysis>
        </ISORequest>
</ISORequests>
```

Location element

Contains the details for one location, including structural information and insurance values.

Item	Value	Description
Element name	*Location*	Contains the details for one location, including structural information and insurance values.
Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Notes		You can include up to 10 locations in a policy. Whenever possible, you should specify the

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Item	Value	Description
		Latitude and *Longitude* elements rather than providing the street address. You can use the AIR Address Service to obtain the latitude and longitude.

Request source

```
<xsd:element name="Location" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:choice minOccurs="0" maxOccurs="unbounded">
      <xsd:element ref="Details" minOccurs="0" maxOccurs="1" />
      <xsd:element ref="PolicyID" minOccurs="0" />
      <xsd:element ref="ID" />
      <xsd:element ref="Name" minOccurs="0" />
      <xsd:element name="RiskCount" type="xsd:positiveInteger"
 minOccurs="0" />
      <xsd:element name="YearBuilt" minOccurs="0">
        <xsd:simpleType>
          <xsd:restriction base="xsd:integer">
            <xsd:minInclusive value="0" />
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:element>
      <xsd:element name="Height" type="xsd:nonNegativeInteger"
 minOccurs="0" />
      <xsd:element ref="DateFrom" minOccurs="0" />
      <xsd:element ref="DateTo" minOccurs="0" />
      <xsd:element name="Premium" type="Currency" minOccurs="0" />
      <xsd:element name="StrConstructType" type="xsd:string" />
      <xsd:element name="StrConstructBldg" type="xsd:string" />
      <xsd:element name="StrConstructOStr" type="xsd:string" />
      <xsd:element name="StrOccupancyType" type="xsd:string" />
      <xsd:element name="StrOccupancyClass" type="xsd:string" />
      <xsd:element name="DamageModFactor" type="xsd:string"
 minOccurs="0" />
      <xsd:element ref="StrCurrency" minOccurs="0" />
      <xsd:element ref="ExchRate" minOccurs="0" />
      <xsd:element ref="GrossArea" minOccurs="0" />
      <xsd:choice maxOccurs="unbounded">
        <xsd:element name="RV_A" type="Currency" />
        <xsd:element name="RV_B" type="Currency" />
        <xsd:element name="RV_C" type="Currency" />
        <xsd:element name="RV_D" type="Currency" />
      </xsd:choice>
      <xsd:element name="RV_D_DaysCovered">
        <xsd:simpleType>
          <xsd:restriction base="xsd:double">
            <xsd:minExclusive value="0" />
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:element>
```


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```
      <xsd:element ref="Address" />
      <xsd:element ref="LocationTerms" minOccurs="0" />
    </xsd:choice>
  </xsd:complexType>
</xsd:element>
```

Response source

```
<<xs:element name="Location" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="ID" />
      <xs:element ref="LocationTerms" minOccurs="0" />
      <xs:element ref="Address" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Request example

```
<ISORequests>
   <RequestHeader>
     <AIR>
       <LoginID></LoginID>
       <Password></Password>
       <LicenseKey></LicenseKey>
    </AIR>
   </RequestHeader>
   <ISORequest>
     <Products>LossAnalysis</Products>
     <LossAnalysis>
       <ReturnLocationResults>true</ReturnLocationResults>
       <ReturnLayerResults>true</ReturnLayerResults>
       <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
       <Data type="Contract">
         <Contract>
           <ID>untitled</ID>
           <DateFrom>1/1/2000</DateFrom>
           <DateTo>12/31/2030</DateTo>
           <StrPerils>PAL</StrPerils>
           <Locations>
             <Location>
               <ID>3,1</ID>
               <RiskCount>1</RiskCount>
               <YearBuilt>1980</YearBuilt>
               <DateFrom>1/1/2011</DateFrom>
               <DateTo>12/31/2020</DateTo>
               <Height>1</Height>
               <StrConstructType/>
               <StrConstructBldg>101</StrConstructBldg>
               <StrConstructOStr/>
               <StrOccupancyType/>
               <StrOccupancyClass>311</StrOccupancyClass>
```


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```
                <GrossArea>0</GrossArea>
                <Premium>1000</Premium>
                <RV_A>156000</RV_A>
                <RV_B>0</RV_B>
                <RV_C>0</RV_C>
                <RV_D>16000</RV_D>
                <RV_D_DaysCovered>365</RV_D_DaysCovered>
                <Address>
                  <Country/>
                  <StreetAddress>2149 N MAIN ST</StreetAddress>
                  <City>SUMMERVILLE</City>
                  <Area>SC</Area>
                  <PostalCode>29456</PostalCode>
                  <Latitude>33.045993</Latitude>
                  <Longitude>-80.110809</Longitude>
                </Address>
                <LocationTerms>
                  <LocationTerm>
                    <StrPerils>PES</StrPerils>
                    <StrLimitType>C</StrLimitType>
                    <Limit_A>1560000</Limit_A>
                    <Limit_C>0</Limit_C>
                    <Limit_D>16000000</Limit_D>
                    <StrDeductType>CP</StrDeductType>
                    <Deduct_A>0.02</Deduct_A>
                    <Deduct_C>0.02</Deduct_C>
                    <Deduct_D>0.0082</Deduct_D>
                    <Participation>1.0</Participation>
                    <Participation2>1.0</Participation2>
                    <AreaName>DEF</AreaName>
                  </LocationTerm>
                </LocationTerms>
              </Location>
            </Locations>
            <Layers>
              .
              .
              .
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
 name"/>
      </LossAnalysis>
    </ISORequest>
 </ISORequests>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
       .
       .
       .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
 timespan="4.016" sequence="110" success="True" ASF.ErrorCode="0"
```


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```
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted=""
 ASF.StatusMessage="" ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>US</Country>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCodeModeled>02116</
PostalCodeModeled>
                                <SubareaModeled>Suffolk</
SubareaModeled>
                                <GeoPoint>
                                    <GeoLat>42.3476066589355</
GeoLat>
                                    <GeoLong>-71.0762481689453</
GeoLong>
                                    <MatchLevel>UserSupplied</
MatchLevel>
                                </GeoPoint>
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                .
                .
                .
```

Locations element

Contains the details for a set of locations.

Item	Value	Description
Element name	*Locations*	Contains the details for a set of locations.
Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.

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Source

```
<xsd:element name="Locations" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="Location" minOccurs="1"
 maxOccurs="unbounded" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Request example

```
<ISORequests>
   <RequestHeader>
     <AIR>
       <LoginID></LoginID>
       <Password></Password>
       <LicenseKey></LicenseKey>
    </AIR>
   </RequestHeader>
   <ISORequest>
     <Products>LossAnalysis</Products>
     <LossAnalysis>
       <ReturnLocationResults>true</ReturnLocationResults>
       <ReturnLayerResults>true</ReturnLayerResults>
       <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
       <Data type="Contract">
         <Contract>
           <ID>untitled</ID>
           <DateFrom>1/1/2000</DateFrom>
           <DateTo>12/31/2030</DateTo>
           <StrPerils>PAL</StrPerils>
           <Locations>
             <Location>
               <ID>3,1</ID>
               <RiskCount>1</RiskCount>
               <YearBuilt>1980</YearBuilt>
               <DateFrom>1/1/2011</DateFrom>
               <DateTo>12/31/2020</DateTo>
               <Height>1</Height>
               <StrConstructType/>
               <StrConstructBldg>101</StrConstructBldg>
               <StrConstructOStr/>
               <StrOccupancyType/>
               <StrOccupancyClass>311</StrOccupancyClass>
               <GrossArea>0</GrossArea>
               <Premium>1000</Premium>
               <RV_A>156000</RV_A>
               <RV_B>0</RV_B>
               <RV_C>0</RV_C>
               <RV_D>16000</RV_D>
               <RV_D_DaysCovered>365</RV_D_DaysCovered>
               <Address>
```


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```
                <Country/>
                <StreetAddress>2149 N MAIN ST</StreetAddress>
                <City>SUMMERVILLE</City>
                <Area>SC</Area>
                <PostalCode>29456</PostalCode>
                <Latitude>33.045993</Latitude>
                <Longitude>-80.110809</Longitude>
              </Address>
              <LocationTerms>
                <LocationTerm>
                  <StrPerils>PES</StrPerils>
                  <StrLimitType>C</StrLimitType>
                  <Limit_A>1560000</Limit_A>
                  <Limit_C>0</Limit_C>
                  <Limit_D>16000000</Limit_D>
                  <StrDeductType>CP</StrDeductType>
                  <Deduct_A>0.02</Deduct_A>
                  <Deduct_C>0.02</Deduct_C>
                  <Deduct_D>0.0082</Deduct_D>
                  <Participation>1.0</Participation>
                  <Participation2>1.0</Participation2>
                  <AreaName>DEF</AreaName>
                </LocationTerm>
              </LocationTerms>
            </Location>
          </Locations>
          <Layers>
            .
            .
            .
          </Layers>
        </Contract>
      </Data>
      <ResultSet type="Preset" name="Your configuration package
name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ….ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
```


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```
                                    <StreetAddress>100 Main St</
StreetAddress>
                                    <City>SALEM</City>
                                    <AreaCode>25</AreaCode>
                                    <AreaModeled>NH</AreaModeled>
                                    <SubareaModeled>Rockingham</
SubareaModeled>
                                    <PostalCode>03079</PostalCode>
                                    <PostalCodeModeled>03079</
PostalCodeModeled>
                                    <Country>US</Country>
                                    <GeoPoint>
                                        <GeoLat>42.78189</GeoLat>
                                        <GeoLong>-71.229232</GeoLong>
                                        <MatchLevel>Exact</MatchLevel>
                                    </GeoPoint>
                                </Address>
                            </Location>
                        </Locations>
                    </Data>
                    <ResultSet type="Preset" name="Your Configuration
 Package Name">
                        <Results>
                            .
                            .
                            .
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
        </Reports>
</ISOResponses>
```

LocationTerm element

Contains one set of insurance terms for a location, including covered perils, insurance limits, and deductibles.

Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.

Request source

```
<xsd:element name="LocationTerm" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
```


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```
        <xsd:complexType>
        <xsd:all>
        <xsd:element ref="StrPerils" />
        <xsd:element ref="StrLimitType" minOccurs="1" />
        <xsd:element name="AreaName" type="xsd:string"
 minOccurs="0" />
        <xsd:element name="Limit_A" type="Currency" minOccurs="0" /
>
        <xsd:element name="Limit_B" type="Currency" minOccurs="0" /
>
        <xsd:element name="Limit_C" type="Currency" minOccurs="0" /
>
        <xsd:element name="Limit_D" type="Currency" minOccurs="0" /
>
        <xsd:element ref="StrDeductType" minOccurs="1" />
        <xsd:element name="Deduct_A" type="Currency"
 minOccurs="0" />
        <xsd:element name="Deduct_B" type="Currency"
 minOccurs="0" />
        <xsd:element name="Deduct_C" type="Currency"
 minOccurs="0" />
        <xsd:element name="Deduct_D" type="Currency"
 minOccurs="0" />
        <xsd:element name="Participation" type="xsd:double"
 minOccurs="0" />
        <xsd:element name="Participation2" type="xsd:double"
 minOccurs="0" />
        </xsd:all>
        </xsd:complexType>
        </xsd:element>
```

Response source

```
<xs:element name="LocationTerm" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
        <xs:complexType>
        <xs:choice minOccurs="1">
        <xs:element name="StrPerils" type="xs:string" />
        </xs:choice>
        </xs:complexType>
        </xs:element>
```

Request example

```
<ISORequests>
        <RequestHeader>
        <AIR>
        .
        .
        .
        </AIR>
        </RequestHeader>
        <ISORequest>
        <Products>LossAnalysis</Products>
```


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```
        <LossAnalysis>
        <ReturnLocationResults>true</ReturnLocationResults>
        <ReturnLayerResults>true</ReturnLayerResults>
        <Options stormSurge="true" demandSurge="true" SSValue="10"
PFValue="100"/>
        <Data type="Contract">
        <Contract>
        <ID>untitled</ID>
        <DateFrom>1/1/2000</DateFrom>
        <DateTo>12/31/2030</DateTo>
        <StrPerils>PAL</StrPerils>
        <Locations>
        <Location>
        <ID>3,1</ID>
        <RiskCount>1</RiskCount>
        <YearBuilt>1980</YearBuilt>
        <DateFrom>1/1/2011</DateFrom>
        <DateTo>12/31/2020</DateTo>
        <Height>1</Height>
        <StrConstructType/>
        <StrConstructBldg>101</StrConstructBldg>
        <StrConstructOStr/>
        <StrOccupancyType/>
        <StrOccupancyClass>311</StrOccupancyClass>
        <GrossArea>0</GrossArea>
        <Premium>1000</Premium>
        <RV_A>156000</RV_A>
        <RV_B>0</RV_B>
        <RV_C>0</RV_C>
        <RV_D>16000</RV_D>
        <RV_D_DaysCovered>365</RV_D_DaysCovered>
        <Address>
        .
        .
        .
        </Address>
        <LocationTerms Items="1">
        <LocationTerm>
        <StrPerils>PES</StrPerils>
        <StrLimitType>C</StrLimitType>
        <Limit_A>1560000</Limit_A>
        <Limit_C>0</Limit_C>
        <Limit_D>16000000</Limit_D>
        <StrDeductType>CP</StrDeductType>
        <Deduct_A>0.02</Deduct_A>
        <Deduct_C>0.02</Deduct_C>
        <Deduct_D>0.0082</Deduct_D>
        <Participation>1.0</Participation>
        <Participation2>1.0</Participation2>
        <AreaName>DEF</AreaName>
        </LocationTerm>
        </LocationTerms>
        </Location>
        </Locations>
        .
        .
        .
        </Contract>
        </Data>
```


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```
        <ResultSet type="Preset" name="Your configuraton package
 name"/>
        </LossAnalysis>
        </ISORequest>
        </ISORequests>
```

Response example

```
<ISOResponses>
        <ResponseHeader>
        .
        .
        .
        </ResponseHeader>
        <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
 timespan="4.016" sequence="110" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted=""
 ASF.StatusMessage="" ASF.Logfile="">
        <LossAnalysis engine="15.0.0 20130531">
        <Data type="Locations">
        <Locations>
        <Location>
        <ID>Loc06</ID>
        <LocationTerms>
        <LocationTerm>
        <StrPerils>PWH</StrPerils>
        </LocationTerm>
        </LocationTerms>
        <Address>
        <Country>US</Country>
        <AreaModeled>MA</AreaModeled>
        <PostalCodeModeled>02116</PostalCodeModeled>
        <SubareaModeled>Suffolk</SubareaModeled>
        <GeoPoint>
        <GeoLat>42.3476066589355</GeoLat>
        <GeoLong>-71.0762481689453</GeoLong>
        <MatchLevel>UserSupplied</MatchLevel>
        </GeoPoint>
        </Address>
        </Location>
        </Locations>
        </Data>
        .
        .
        .
```

LocationTerms element

Contains a set of location insurance terms.

Data type	xsd:complexType	An element with this data type may contain other elements.

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Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Attribute	*Items* (xsd:integer)	Optional. Specifies the number of *LocationTerm* elements contained in the *LocationTerms* element.

Request source

```
<xsd:element name="LocationTerms" xmlns:xsd="http://
www.w3.org/2001/XMLSchema">
  <xsd:complexType mixed="true">
    <xsd:sequence>
      <xsd:element ref="LocationTerm" minOccurs="1"
 maxOccurs="unbounded" />
    </xsd:sequence>
    <xsd:attribute name="Items" use="optional" type="xsd:integer" /
>
  </xsd:complexType>
</xsd:element>
```

Request example

```
<ISORequests>
  <RequestHeader>
    <AIR>
      .
      .
      .
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Contract">
        <Contract>
          <ID>untitled</ID>
          <DateFrom>1/1/2000</DateFrom>
          <DateTo>12/31/2030</DateTo>
          <StrPerils>PAL</StrPerils>
          <Locations>
            <Location>
              <ID>3,1</ID>
              <RiskCount>1</RiskCount>
```


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```
            <YearBuilt>1980</YearBuilt>
            <DateFrom>1/1/2011</DateFrom>
            <DateTo>12/31/2020</DateTo>
            <Height>1</Height>
            <StrConstructType/>
            <StrConstructBldg>101</StrConstructBldg>
            <StrConstructOStr/>
            <StrOccupancyType/>
            <StrOccupancyClass>311</StrOccupancyClass>
            <GrossArea>0</GrossArea>
            <Premium>1000</Premium>
            <RV_A>156000</RV_A>
            <RV_B>0</RV_B>
            <RV_C>0</RV_C>
            <RV_D>16000</RV_D>
            <RV_D_DaysCovered>365</RV_D_DaysCovered>
            <Address>
              .
              .
              .
            </Address>
            <LocationTerms Items="1">
              <LocationTerm>
                <StrPerils>PES</StrPerils>
                <StrLimitType>C</StrLimitType>
                <Limit_A>1560000</Limit_A>
                <Limit_C>0</Limit_C>
                <Limit_D>16000000</Limit_D>
                <StrDeductType>CP</StrDeductType>
                <Deduct_A>0.02</Deduct_A>
                <Deduct_C>0.02</Deduct_C>
                <Deduct_D>0.0082</Deduct_D>
                <Participation>1.0</Participation>
                <Participation2>1.0</Participation2>
                <AreaName>DEF</AreaName>
              </LocationTerm>
            </LocationTerms>
          </Location>
        </Locations>
        <Layers>
          <Layer>
            <ID>1</ID>
            <StrPerils>PAL</StrPerils>
            <StrDeductType>NO</StrDeductType>
            <StrLimitType>B</StrLimitType>
            <AttachAmt>0</AttachAmt>
            <Limit_A>0</Limit_A>
            <Limit_B>0</Limit_B>
            <Limit_C>0</Limit_C>
            <Limit_D>0</Limit_D>
            <AttchPt_A>0</AttchPt_A>
            <AttchPt_B>0</AttchPt_B>
            <AttchPt_C>0</AttchPt_C>
            <AttchPt_D>0</AttchPt_D>
            <Sublimits>
              <Sublimit>
                .
                .
                .
```


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```
                </Sublimit>
              </Sublimits>
              <Deduct_1>0</Deduct_1>
              <Deduct_2>0</Deduct_2>
              <Limit_1>11111111</Limit_1>
              <Limit_2>0</Limit_2>
            </Layer>
          </Layers>
        </Contract>
      </Data>
      <ResultSet type="Preset" name="Your configuraton package
 name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```

Response source

```
<xs:element name="LocationTerms" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="LocationTerm" minOccurs="1"></xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
 timespan="4.016" sequence="110" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted=""
 ASF.StatusMessage="" ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>US</Country>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCodeModeled>02116</
PostalCodeModeled>
```


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```
                                    <SubareaModeled>Suffolk</
SubareaModeled>
                                    <GeoPoint>
                                        <GeoLat>42.3476066589355</
GeoLat>
                                        <GeoLong>-71.0762481689453</
GeoLong>
                                        <MatchLevel>UserSupplied</
MatchLevel>
                                    </GeoPoint>
                                </Address>
                            </Location>
                        </Locations>
                    </Data>
                    .
                    .
                    .
```

LoginID element

Specifies your login identifier for AIR's web services.

If you need login credentials, contact your AIR representative.

Item	Value	Description
Element name	*LoginID*	Specifies your login identifier for AIR's web services.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	20 characters maximum	

Request example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            <LoginID>YourLogin</LoginID>
            <Password>YourSecretPassword</Password>
            <LicenseKey>YourLicenseKey</LicenseKey>
        </AIR>
    </RequestHeader>
    <ISORequest>
        .
        .
        .
    </ISORequest>
</ISORequests>
```


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Longitude element

Specifies the longitude of the property.

Item	Value	Description
Element name	*Longitude*	Specifies the longitude of the property.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	16 characters maximum	

Request example

In the request,

- Specify a latitude and longitude instead of a street address wherever possible. See Using geocodes in service requests.
- You must specify the *Longitude* element if you do not specify the *Addr1StreetAddress* element.
- For latitudes west of the Greenwich meridian, you must specify a negative number.

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    <ISORequest>
        <Products>HazardAnalysis</Products>
        <HazardAnalysis>

 <Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
 WinterstormHazard</Products>
        </HazardAnalysis>
        <Addresses>
            <Options geocode="yes" returnHighestScore="yes"
 additionalInfo="no"/>
            <Address>
                <Latitude>25.926777</Latitude>
                <Longitude>-80.342367</Longitude>
                <Addr1> </Addr1>
```


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```
                <City></City>
         <County></County>
                <StateProv></StateProv>
                <Country></Country>
            </Address>
        </Addresses>
    </ISORequest>
</ISORequests>
```

Response example

The response returns the value you provide, but the *GeoCode* element specifies the longitude used by the service.

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report ...>
            <AddressProfile>
                <LocationInformation>
                    <Entered>
                        <Address>
                            <Latitude>0</Latitude>
                            <Longitude>0</Longitude>
                            <Addr1>100 Main Street</Addr1>
                            <City>Seattle</City>
                            <StateProv>WA</StateProv>
                            <Country>US</Country>
                            <MatchLevel>3</MatchLevel>
                            <County>KING</County>
                            <GeoPath AreaLevel2="53"
 AreaLevel3="033" />
                        </Address>
                    </Entered>
                    <Matched>
                        .
                        .
                        .
                    </Matched>
                </LocationInformation>
                <HazardInformation>
                    .
                    .
                    .
                </HazardInformation>
            </AddressProfile>
        </Report>
    </Reports>
</ISOResponses>
```

Loss_Aggregate element

Specifies the annual aggregate loss for a given year.

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Item	Value	Description
Element name	*Loss_Aggregate*	Specifies the annual aggregate loss for a given year. The year is specified in the adjacent Aggregate_Year element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            .
                            .
                            .
                        </AnnualSummaries>
                        <AnnualDetails>
                            <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                                <Level type="Location"
 descriptor="ID">Loc02</Level>
```


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```
                                    <ResultAnnualDetailRows>
                                        <ResultRowAnnualDetail>
                                            <ReturnPeriod>1000</
ReturnPeriod>

             <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                            <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                            <Occurrence_Year>9763</
Occurrence_Year>
                                            <Occurrence_Peril>1</
Occurrence_Peril>
                                            <Occurrence_Model>27</
Occurrence_Model>
                                            <Occurrence_Event>32360</
Occurrence_Event>
                                        </ResultRowAnnualDetail>
                                        <ResultRowAnnualDetail>
                                            .
                                            .
                                            .
                                        </ResultRowAnnualDetail>
                                    </ResultAnnualDetailRows>
                                </AnnualDetail>
                            </AnnualDetails>
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
        </Reports>
</ISOResponses>
```

LossAnalysis element

Contains options, location or contract information, and the name of a result set for a loss analysis.

Item	Value	Description
Element name	*LossAnalysis*	Contains options, location or contract information, and the name of a result set for a loss analysis.
Data type	xsd:complexType	An element with this data type may contain other elements.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and

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Item	Value	Description
		the information used to compute the results.

Request source

```
<xsd:element name="LossAnalysis" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="GeocodeType" minOccurs="0"
 type="xsd:string"></xsd:element>
      <xsd:element name="ReturnLocationResults" minOccurs="0"
 type="xsd:boolean"></xsd:element>
      <xsd:element name="ReturnLayerResults" minOccurs="0"
 type="xsd:boolean"></xsd:element>
      <xsd:element name="Options" minOccurs="0" maxOccurs="1">
        <xsd:complexType>
          <xsd:attribute name="demandSurge" form="unqualified"
 type="xsd:boolean" />
          <xsd:attribute name="stormSurge" form="unqualified"
 type="xsd:boolean" />
          <xsd:attribute name="SSValue" form="unqualified"
 type="xsd:double" />
          <xsd:attribute name="PFValue" form="unqualified"
 type="xsd:double" />
        </xsd:complexType>
      </xsd:element>
      <xsd:element ref="Data" />
      <xsd:element name="ResultSet" minOccurs="1" maxOccurs="1">
        <xsd:complexType>
          <xsd:attribute name="type" form="unqualified"
 type="xsd:string" />
          <xsd:attribute name="name" form="unqualified"
 type="xsd:string" />
        </xsd:complexType>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false”/>
            <Data type="Locations">
```


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```
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

Response source

The response contains the results of the loss analysis as well as the options, location or contract information, and name of the result set that you supplied in the request.

```
<xs:element name="LossAnalysis" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="Data" />
      <xs:element ref="ResultSet" />
    </xs:sequence>
    <xs:attribute name="engine" use="optional" type="xs:string" />
  </xs:complexType>
</xs:element>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
```


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```
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            <AnnualSummary type="Both" perils="PWH
+PSH" percentPSH=”100” losstype="Gross" coverage="Total">
                                .
                                .
                                .
                            </AnnualSummary>
                        </AnnualSummaries>
                        <AnnualDetails>
                            <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                                <Level type="Location"
 descriptor="ID">Loc02</Level>
                                <ResultAnnualDetailRows>
                                    <ResultRowAnnualDetail>
                                        .
                                        .
                                        .
                                    </ResultRowAnnualDetail>
                                    <ResultRowAnnualDetail
                                        .
                                        .
                                        .
                                    </ResultRowAnnualDetail>
                                </ResultAnnualDetailRows>
                            </AnnualDetail>
                        </AnnualDetails>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```


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Loss_Occurrence element

Specifies the largest occurrence loss for a given year.

Item	Value	Description
Element name	*Loss_Occurrence*	Specifies the largest occurrence loss for a given year. The year is specified in the adjacent Occurrence_Year element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            .
```


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```
                                .
                                .
                            </AnnualSummaries>
                            <AnnualDetails>
                                <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                                    <Level type="Location"
 descriptor="ID">Loc02</Level>
                                    <ResultAnnualDetailRows>
                                        <ResultRowAnnualDetail>
                                            <ReturnPeriod>1000</
ReturnPeriod>

             <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                            <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                            <Occurrence_Year>9763</
Occurrence_Year>
                                            <Occurrence_Peril>1</
Occurrence_Peril>
                                            <Occurrence_Model>27</
Occurrence_Model>
                                            <Occurrence_Event>32360</
Occurrence_Event>
                                        </ResultRowAnnualDetail>
                                        <ResultRowAnnualDetail>
                                            .
                                            .
                                            .
                                        </ResultRowAnnualDetail>
                                    </ResultAnnualDetailRows>
                                </AnnualDetail>
                            </AnnualDetails>
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
        </Reports>
</ISOResponses>
```

MatchLevel element

Specifies the level of accuracy of the *GeoLat* and *GeoLong* elements.

Item	Value	Description
Element name	*MatchLevel*	Specifies the level of accuracy of the *GeoLat* and *GeoLong* elements.
Where used	response	A *response* returns the analysis results and the information used to compute the results.

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Item	Value	Description
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Values	An integer between `0` and `11`, inclusive.	• `0` = Exact • `1` = POBox • `2` = ZIP9 • `3` = RelaxedAddress • `4` = PostCodeCentroid • `5` = StreetCentroid • `6` = CityCentroid • `7` = CountyCentroid • `8` = None • `9` = UserSupplied If you supplied a geocode in the the *Latitude* and *Longitude* elements of the request, *MatchLevel* is *UserSupplied* (`9`). • `10` = Country • `11` = County

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report ...>
            <AddressProfile>
                <LocationInformation>
                    <Entered>
                        <Address>
                            <Latitude>0</Latitude>
                            <Longitude>0</Longitude>
                            <Addr1>100 Main Street</Addr1>
                            <City>Seattle</City>
                            <StateProv>WA</StateProv>
                            <Country>US</Country>
                            <MatchLevel>3</MatchLevel>
                            <County>KING</County>
                            <GeoPath AreaLevel2="53"
 AreaLevel3="033" />
                        </Address>
```


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```
                    </Entered>
                    <Matched>
                        <ParsedAddr>
                            .
                            .
                            .
                        </ParsedAddr>
                        <AddrValidator>
                            <ValidateResult>
                                <AttemptedAt>Match5</AttemptedAt>

 <ValidatorMatchLevel>MatchLevel_StreetInCity</ValidatorMatchLevel>
                                <InputAddress>
                                    <Addr1>100 MAIN STREET</Addr1>
                                    .
                                    .
                                    .
                                </InputAddress>
                                <ResultAddress>
                                    <Addr1>100 S MAIN ST</Addr1>
                                    .
                                    .
                                    .
                                </ResultAddress>
                                <Message>No Rows found for given
 House Number;House Number out of range;Street Info is in City;Input
 ZIP5 is blank;</Message>
                            </ValidateResult>
                            <ProcessErrors>None</ProcessErrors>
                            <ProcessWarnings>None</ProcessWarnings>
                        </AddrValidator>
                        <GeoCode Latitude="47.600124"
 Longitude="-122.33406" MatchLevel="MatchLevel_Relaxed" MatchNorm="0"
 Vendor="AIR" />
                        <GeoPath GUID="{3c780a86-f76d-11d2-
bb8d-00a0c9d56dce}" AreaScheme="1003" AreaLevel1="1" AreaLevel2="53"
 AreaLevel3="33" AreaLevel4="98104" PostalCode="98104" City="SEATTLE"
 State="WA" County="KING" />
                        <Match>
                            .
                            .
                            .
                        </Match>
                    </Matched>
                </LocationInformation>
                <HazardInformation>
                    .
                    .
                    .
                </HazardInformation>
            </AddressProfile>
        </Report>
    </Reports>
</ISOResponses>
```


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Response example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" ….ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <Address>
                                <StreetAddress>131 Dartmouth St</
StreetAddress>
                                <City>BOSTON</City>
                                <Area>MA</Area>
                                <AreaModeled>MA</AreaModeled>
                                <SubareaModeled>Suffolk</
SubareaModeled>
                                <PostalCode>02116</PostalCode>
                                <PostalCodeModeled>02116</
PostalCodeModeled>
                                <Country>US</Country>
                                <GeoPoint>
                                    <GeoLat>42.346809</GeoLat>
                                    <GeoLong>-71.075202</GeoLong>
                                    <MatchLevel>Exact</MatchLevel>
                                </GeoPoint>
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                .
```

Mean_Agg element

Specifies the expected mean annual aggregate loss for the years included in the analysis.

Item	Value	Description
Element name	*Mean_Agg*	Specifies the expected mean annual aggregate loss for the years included in the analysis. The service computes the loss by summing the simulated losses and then dividing the sum by the number of simulated years.

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Item	Value	Description
		The aggregate loss is the loss resulting from all events that occurred during a specified period. If the period is twelve months, then the loss is an annual loss.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ….ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            <AnnualSummary type="Both" perils="PWH
+PSH" percentPSH=”100” losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">34228</Level>
                                <Mean_Agg>1888191.42034</Mean_Agg>
```


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```
                                    <StdDev_Agg>14415118.60624</
StdDev_Agg>
                                </AnnualSummary>
                                <AnnualSummary type="Both" perils="PWH
+PSH" percentPSH=”100” losstype="Gross" coverage="Total">
                                    <Level type="Location"
 descriptor="ID">34228</Level>
                                    <Mean_Agg>1817685.1183</Mean_Agg>
                                    <StdDev_Agg>13721928.13641</
StdDev_Agg>
                                    <Mean_Occ>1796711.01226</Mean_Occ>
                                    <StdDev_Occ>13600157.85021</
StdDev_Occ>
                                </AnnualSummary>
                            </AnnualSummaries>
                            <AnnualDetails>
                                .
                                .
                                .
                            </AnnualDetails>
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
        </Reports>
</ISOResponses>
```

Mean_Occ element

Specifies the expected mean annual loss per peril occurrence for the years included in the analysis.

Item	Value	Description
Element name	*Mean_Occ*	Specifies the expected mean annual loss per peril occurrence for the years included in the analysis. The service computes the loss by summing the simulated occurrence losses and then dividing the sum by the number of simulated years. The occurrence loss is the loss resulting per occurrence during a specified period. If the period is twelve months, then the loss is an annual loss.

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Item	Value	Description
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ….ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            <AnnualSummary type="Both" perils="PWH
+PSH" percentPSH=”100” losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">34228</Level>
                                <Mean_Agg>1888191.42034</Mean_Agg>
                                <StdDev_Agg>14415118.60624</
StdDev_Agg>
                            </AnnualSummary>
                            <AnnualSummary type="Both" perils="PWH
+PSH" percentPSH=”100” losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">34228</Level>
                                <Mean_Agg>1817685.1183</Mean_Agg>
```


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```
                                    <StdDev_Agg>13721928.13641</
StdDev_Agg>
                                    <Mean_Occ>1796711.01226</Mean_Occ>
                                    <StdDev_Occ>13600157.85021</
StdDev_Occ>
                                </AnnualSummary>
                            </AnnualSummaries>
                            <AnnualDetails>
                                .
                                .
                                .
                            </AnnualDetails>
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
        </Reports>
</ISOResponses>
```

MechSystem element

Specifies the type of structure on the roof of the property.

Item	Value	Description
Element name	*MechSystem*	Specifies the type of structure on the roof of the property.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	2 characters maximum	
Values	An integer between `0` and `13`, inclusive, or blank	• `0` = unknown • `1` = chimneys • `2` = A/C units • `3` = skylights • `4` = parapet walls • `5` = overhang or rake (8"-36") • `6` = dormers • `7` = other • `8` = none • `9` = overhang or rake (<8")

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Item	Value	Description
		• `10` = overhang or ranke (>36") • `11` = waterproof membrane or fabric • `12` = secondary water resistance such as bitumen tape • `13` = secondary water resistance-no
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options demandSurge=”false”/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                        <MechSystem>1</MechSystem>
                                        .
                                        .
                                       .
                                   </Details>
                                   .
                                   .
                                   .
```


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MultiStoryHall element

Specifies whether the building at the location includes a multi-story hall.

Item	Value	Description
Element name	*MultiStoryHall*	Specifies whether the building at the location includes a multi-story hall.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `2`, inclusive, or blank	• `0` = unknown • `1` = no • `2` = yes
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options demandSurge=”false” stormSurge=”true”/
>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
```


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```
                                        .
                                        <MultiStoryHall>1</
MultiStoryHall>
                                        .
                                        .
                                        .
                                    </Details>
                                    .
                                    .
                                    .
```

Name element

Specifies the name of the location.

Item	Value	Description
Element name	*Name*	Specifies the name of the location.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Request example

```
<ISORequests>
     <RequestHeader>
       <AIR>
         <LoginID></LoginID>
         <Password></Password>
         <LicenseKey></LicenseKey>
      </AIR>
     </RequestHeader>
     <ISORequest>
       <Products>LossAnalysis</Products>
       <LossAnalysis>
         <ReturnLocationResults>true</ReturnLocationResults>
         <ReturnLayerResults>true</ReturnLayerResults>
         <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
         <Data type="Contract">
           <Contract>
             <ID>32</ID>
             <name>ABC</name>
             <DateFrom>1/1/2000</DateFrom>
             <DateTo>12/31/2030</DateTo>
             <StrPerils>PAL</StrPerils>
             <Locations>
               .
```


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```
                .
                .
            </Locations>
            <Layers>
                .
                .
                .
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
name"/>
      </LossAnalysis>
    </ISORequest>
  </ISORequests>
```

Occurrence_Event element

Specifies the event identifier for the event associated with the value of the *Loss_Occurrence* element.

Item	Value	Description
Element name	*Occurrence_Event*	Specifies the event identifier for the event associated with the value of the *Loss_Occurrence* element. See Loss_Occurrence element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.

Example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        .
                        .
```


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```
                    .
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your configuration
 package name">
                <Options>
                    .
                    .
                    .
                </Options>
                <StrPerils>PAL+PWH+PWX</StrPerils>
                <Results>
                    <AnnualSummaries>
                        .
                        .
                        .
                    </AnnualSummaries>
                    <AnnualDetails>
                        <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                            <Level type="Location"
 descriptor="ID">Loc02</Level>
                            <ResultAnnualDetailRows>
                                <ResultRowAnnualDetail>
                                    <ReturnPeriod>1000</
ReturnPeriod>

            <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                    <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                    <Occurrence_Year>9763</
Occurrence_Year>
                                    <Occurrence_Peril>1</
Occurrence_Peril>
                                    <Occurrence_Model>27</
Occurrence_Model>
                                    <Occurrence_Event>32360</
Occurrence_Event>
                                </ResultRowAnnualDetail>
                                <ResultRowAnnualDetail
                                    .
                                    .
                                    .
                                </ResultRowAnnualDetail>
                            </ResultAnnualDetailRows>
                        </AnnualDetail>
                    </AnnualDetails>
                </Results>
            </ResultSet>
        </LossAnalysis>
    </Report>
  </Reports>
</ISOResponses>
```


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Occurrence_Model element

Specifies the code for the model associated with the value of the *Loss_Occurrence* element.

Item	Value	Description
Element name	*Occurrence_Model*	Specifies the code for the model associated with the value of the *Loss_Occurrence* element. See Loss_Occurrence element. For a list of codes, see the `tModel` table description in the *Touchstone Database Reference* on the AIR Developer Zone.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.

Example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
```


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```
                    <Results>
                        <AnnualSummaries>
                            .
                            .
                            .
                        </AnnualSummaries>
                        <AnnualDetails>
                            <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                                <Level type="Location"
 descriptor="ID">Loc02</Level>
                                <ResultAnnualDetailRows>
                                    <ResultRowAnnualDetail>
                                        <ReturnPeriod>1000</
ReturnPeriod>

            <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                        <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                        <Occurrence_Year>9763</
Occurrence_Year>
                                        <Occurrence_Peril>1</
Occurrence_Peril>
                                        <Occurrence_Model>27</
Occurrence_Model>
                                        <Occurrence_Event>32360</
Occurrence_Event>
                                    </ResultRowAnnualDetail>
                                    <ResultRowAnnualDetail
                                        .
                                        .
                                        .
                                    </ResultRowAnnualDetail>
                                </ResultAnnualDetailRows>
                            </AnnualDetail>
                        </AnnualDetails>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

Occurrence_Peril element

Specifies the code for the type of peril associated with the value of the *Loss_Occurrence* element.

Item	Value	Description
Element name	*Occurrence_Peril*	Specifies the code for the type of peril associated with the value

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Item	Value	Description
		of the *Loss_Occurrence* element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Values	An integer from the list	• `-1` = All • `1` = WindHurricane • `2` = WindThunderstorm, WindSevereStorm (or WindThunderstorm + WindWinterStorm), and Wind (WindHurricane + WindSevereStorm) • `4` = Earthquake • `8` = Fire or FireEQ • `16` = Flood • `32` = Terror • `64` = WindWinterStorm • `128` = EarthquakeSprinklerLeakage • `256` = StormSurge • `512` = Wildfire

Example

```
<ISOResponses>
     <ResponseHeader>
          .
          .
          .
     </ResponseHeader>
     <Reports>
         <Report product="LossAnalysis" … ASF.LogFile="">
             <LossAnalysis engine=”12.0.3 20100826”>
                 <Data type = "Locations">
                     <Locations>
                          .
                          .
                          .
                     </Locations>
                 </Data>
```


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```
                  <ResultSet type="Preset" name="Your configuration
 package name">
                      <Options>
                          .
                          .
                          .
                      </Options>
                     <StrPerils>PAL+PWH+PWX</StrPerils>
                      <Results>
                          <AnnualSummaries>
                              .
                              .
                              .
                          </AnnualSummaries>
                          <AnnualDetails>
                              <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                                  <Level type="Location"
 descriptor="ID">Loc02</Level>
                                  <ResultAnnualDetailRows>
                                      <ResultRowAnnualDetail>
                                          <ReturnPeriod>1000</
ReturnPeriod>

               <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                          <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                          <Occurrence_Year>9763</
Occurrence_Year>
                                          <Occurrence_Peril>1</
Occurrence_Peril>
                                          <Occurrence_Model>27</
Occurrence_Model>
                                          <Occurrence_Event>32360</
Occurrence_Event>
                                      </ResultRowAnnualDetail>
                                      <ResultRowAnnualDetail
                                          .
                                          .
                                          .
                                      </ResultRowAnnualDetail>
                                  </ResultAnnualDetailRows>
                              </AnnualDetail>
                          </AnnualDetails>
                      </Results>
                  </ResultSet>
              </LossAnalysis>
          </Report>
      </Reports>
 </ISOResponses>
```

Occurrence_Year element

Specifies the simulated year associated with the value of the *Loss_Occurrence* element.

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Item	Value	Description
Element name	*Occurrence_Year*	Specifies the simulated year associated with the value of the *Loss_Occurrence* element. See Loss_Occurrence element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.

Example

```
<ISOResponses>
     <ResponseHeader>
          .
          .
          .
     </ResponseHeader>
     <Reports>
          <Report product="LossAnalysis" … ASF.LogFile="">
               <LossAnalysis engine=”12.0.3 20100826”>
                    <Data type = "Locations">
                         <Locations>
                              .
                              .
                              .
                         </Locations>
                    </Data>
                    <ResultSet type="Preset" name="Your configuration
 package name">
                         <Options>
                              .
                              .
                              .
                         </Options>
                        <StrPerils>PAL+PWH+PWX</StrPerils>
                         <Results>
                              <AnnualSummaries>
                                   .
                                   .
                                   .
                              </AnnualSummaries>
                              <AnnualDetails>
                                   <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
```


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```
                                    <Level type="Location"
 descriptor="ID">Loc02</Level>
                                    <ResultAnnualDetailRows>
                                        <ResultRowAnnualDetail>
                                            <ReturnPeriod>1000</
ReturnPeriod>

               <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                            <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                            <Occurrence_Year>9763</
Occurrence_Year>
                                            <Occurrence_Peril>1</
Occurrence_Peril>
                                            <Occurrence_Model>27</
Occurrence_Model>
                                            <Occurrence_Event>32360</
Occurrence_Event>
                                        </ResultRowAnnualDetail>
                                        <ResultRowAnnualDetail
                                            .
                                            .
                                            .
                                        </ResultRowAnnualDetail>
                                    </ResultAnnualDetailRows>
                                </AnnualDetail>
                            </AnnualDetails>
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
        </Reports>
 </ISOResponses>
```

Option element

Specifies the options included in the loss analysis.

Item	Value	Description
Element name	*Option*	Specifies the options included in the loss analysis. The service obtains the options from the The configuration package or the Options element of the request.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:integer	The *integer* data type is used to specify a numeric

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Item	Value	Description
		value without a fractional component.

Attributes

Item	Value	Description
Attribute name	*name*	Specifies the name of a loss analysis option. For example, DemandSurge.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ... ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>US</Country>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCodeModeled>02116</
PostalCodeModeled>
                                <SubareaModeled>Suffolk</
SubareaModeled>
                                <GeoPoint>
                                    <GeoLat>42.3476066589355</
GeoLat>
                                    <GeoLong>-71.0762481689453</
GeoLong>
                                    <MatchLevel>UserSupplied</
MatchLevel>
                                </GeoPoint>
                            </Address>
```


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```
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <StrPerils>PWH</StrPerils>
                    <Options>
                        <Option name="DemandSurge">True</Option>
                        <Option name="StormSurge">False</Option>
                    </Options>
                    <Results>
                        <AnnualSummaries>
                            <AnnualSummary type="Aggregate"
 perils="PWH" percentPSH="0" losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">Loc06</Level>
                                <Mean_Agg>391.56243</Mean_Agg>
                                <StdDev_Agg>3712.33856</StdDev_Agg>
                            </AnnualSummary>
                        </AnnualSummaries>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

Options element

Specifies whether to include demand surge and storm surge in the loss analysis.

Item	Value	Description
Element name	*Options*	Specifies whether to include demand surge and storm surge in the loss analysis.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Attributes

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Item	Value	Description
Attribute name	*demandSurge*	Indicates whether to include demand surge in the loss analysis. Demand surge is the increase in material, services, and labor costs due to increased demand following a catastrophic event. The *demandSurge* attribute overrides the demand surge setting in the configuration file.
Data type	xsd:boolean	The *boolean* data type is used to specify a true or false value.
Use	optional	

Item	Value	Description
Attribute name	*stormSurge*	Indicates whether to include storm surge in the loss analysis. Storm surge is the abnormal rise in sea level that accompanies storms such as hurricanes. The *stormSurge* attribute overrides the storm surge setting in the configuration file.
Data type	xsd:boolean	The *boolean* data type is used to specify a true or false value.
Use	optional	

Item	Value	Description
Attribute name	*SSValue*	Specfies the percentage of loss due to storm surge to include when storm surge is not explicitly covered.
Data type	xsd:double	The value space of *xsd:double* is double

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Item	Value	Description
		(64 bits) floating-point numbers.
Use	optional	

Item	Value	Description
Attribute name	*PFValue*	Specfies the percentage of loss due to precipitation flood to include when storm surge is not explicitly covered.
Data type	xsd:double	The value space of *xsd:double* is double (64 bits) floating-point numbers.
Use	optional	

Source

```
<xs:element name="Options" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="Option" minOccurs="2"
 maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Request example

```
 <ISORequests>
          <RequestHeader>
            .
            .
            .
          </RequestHeader>
          <ISORequest>
            <Products>LossAnalysis</Products>
            <LossAnalysis>
              <ReturnLocationResults>true</ReturnLocationResults>
              <ReturnLayerResults>true</ReturnLayerResults>
              <Options stormSurge="true" demandSurge="true"
SSValue="10" PFValue="100"/>
              <Data type="Locations">
                <Locations>
                  <Location>
                    .
                    .
                    .
```


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```
                  </Location>
                </Locations>
              </Data>
              <ResultSet type="preset" name="Your configuration
 package name"/>
           </LossAnalysis>
         </ISORequest>
</ISORequests>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
       .
       .
       .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ... ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>US</Country>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCodeModeled>02116</
PostalCodeModeled>
                                <SubareaModeled>Suffolk</
SubareaModeled>
                                <GeoPoint>
                                    <GeoLat>42.3476066589355</
GeoLat>
                                    <GeoLong>-71.0762481689453</
GeoLong>
                                    <MatchLevel>UserSupplied</
MatchLevel>
                                </GeoPoint>
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <StrPerils>PWH</StrPerils>
                    <Options>
                        <Option name="DemandSurge">True</Option>
                        <Option name="StormSurge">False</Option>
                    </Options>
                    <Results>
                        <AnnualSummaries>
```


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```
                                <AnnualSummary type="Aggregate"
 perils="PWH" percentPSH="0" losstype="Gross" coverage="Total">
                                    <Level type="Location"
 descriptor="ID">Loc06</Level>
                                    <Mean_Agg>391.56243</Mean_Agg>
                                    <StdDev_Agg>3712.33856</StdDev_Agg>
                                </AnnualSummary>
                            </AnnualSummaries>
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
        </Reports>
</ISOResponses>
```

Ornamentation element

Specifies the quantity of decorative elements attached to the exterior of the building at the location.

Item	Value	Description
Element name	*Ornamentation*	Specifies the quantity of decorative elements attached to the exterior of the building at the location.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `3`, inclusive, or blank	• `0` = unknown • `1` = none • `2` = average • `3` = extensive
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
```


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```
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options demandSurge=”false” stormSurge=”true”/
>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                        <Ornamentation>0</
Ornamentation>
                                        .
                                        .
                                       .
                                   </Details>
                                   .
                                   .
                                   .
```

Participation element

Specifies the percentage of risk that the insurer covers for the location term.

Item	Value	Description
Element name	*Participation*	Specifies the percentage of risk that the insurer covers for the location term.
Data type	xsd:double	The value space of *xsd:double* is double (64 bits) floating-point numbers.
Where used	request	A *request* contains the information the service needs to run the analysis.
Values	A decimal greater than or equal to 0 and less than or equal to 999. For example, `0.12` represents 12%.	If the *StrLimitType* for the layer is a combined single limit or the *StrLimitType* for the sublimit is C100 or CAI, *Participation*

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Item	Value	Description
		represents the assured interest percentage, which Touchstone applies by conditioning the layer losses by a weighted average of the losses for each location in the subarea or policy.

Example

```
<ISORequests>
     .
     .
     .
     <ISORequest>
         <Products>LossAnalysis</Products>
         <LossAnalysis>
             <Options demandSurge=”false” stormSurge=”true”/>
             <Data type="Locations">
                 <Locations>
                     <Location>
                         .
                         .
                         .
                         <LocationTerms Items="1">
                             <LocationTerm>
                                 <StrPerils>PAL+PWH+PWX+PWF</
StrPerils>
                                 <StrLimitType>C</StrLimitType>
                                 <Limit_A>300000</Limit_A>
                                 <Limit_B>5000</Limit_B>
                                 <Limit_C>10000</Limit_C>
                                 <Limit_D>20000</Limit_D>
                                 <StrDeductType>CA</StrDeductType>
                                 <Deduct_A>0.015</Deduct_A>
                                 <Deduct_B>0.01</Deduct_B>
                                 <Deduct_C>0.01</Deduct_C>
                                 <Deduct_D>0.1</Deduct_D>
                                 <Participation>1</Participation>
                             </LocationTerm>
                         </LocationTerms>
                         <Details>
                             .
                             .
                             .
```

Participation2 element

Specifies the percentage of risk that the insured party owns for the location term.

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Item	Value	Description
Element name	*Participation2*	Specifies the percentage of risk that the insured party owns for the location term. Use when more than one entity shares ownership of the risk.
Data type	xsd:double	The value space of *xsd:double* is double (64 bits) floating-point numbers.
Where used	request	A *request* contains the information the service needs to run the analysis.
Values	A decimal greater than or equal to 0 and less than or equal to 999.	For example, `0.12` represents 12%.

Example

```
<ISORequests>
     .
     .
     .
     <ISORequest>
         <Products>LossAnalysis</Products>
         <LossAnalysis>
             <Options demandSurge=”false” stormSurge=”true”/>
             <Data type="Locations">
                 <Locations>
                     <Location>
                         .
                         .
                         .
                         <LocationTerms Items="1">
                             <LocationTerm>
                                 <StrPerils>PAL+PWH+PWX+PWF</
StrPerils>
                                 <StrLimitType>C</StrLimitType>
                                 <Limit_A>300000</Limit_A>
                                 <Limit_B>5000</Limit_B>
                                 <Limit_C>10000</Limit_C>
                                 <Limit_D>20000</Limit_D>
                                 <StrDeductType>CA</StrDeductType>
                                 <Deduct_A>0.015</Deduct_A>
                                 <Deduct_B>0.01</Deduct_B>
                                 <Deduct_C>0.01</Deduct_C>
                                 <Deduct_D>0.1</Deduct_D>
                                 <Participation>.35</Participation>
                                 <Participation2>.1</
Participation2>
                             </LocationTerm>
```


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```
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
```

Password element

Specifies your password for AIR's web services.

Item	Value	Description
Element name	*Password*	Specifies your password for AIR's web services. If you need login credentials, contact your AIR representative.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Request example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            <LoginID>YourLogin</LoginID>
            <Password>YourSecretPassword</Password>
            <LicenseKey>YourLicenseKey</LicenseKey>
        </AIR>
    </RequestHeader>
    <ISORequest>
        .
        .
        .
    </ISORequest>
</ISORequests>
```

Percentile element

Specifies the rank of the loss.

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Item	Value	Description
Element name	*Percentile*	Specifies the rank of the loss. For example, a *Percentile* of 99% indicates that for the given return period, the loss is among the highest losses. The service computes the percentile using the loss amounts over the return period and the number of years in the catalog.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    .
                    .
                    .
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    .
                    .
                    .
                        <AnnualDetails>
                            <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                                <Level type="Location"
 descriptor="ID">Loc02</Level>
                                <ResultAnnualDetailRows>
                                    <ResultRowAnnualDetail>
                                        <ReturnPeriod>1000</
ReturnPeriod>

             <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                        <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
```


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```
                                          <Occurrence_Year>9763</
Occurrence_Year>
                                          <Occurrence_Peril>1</
Occurrence_Peril>
                                          <Occurrence_Model>27</
Occurrence_Model>
                                          <Occurrence_Event>32360</
Occurrence_Event>
        <Uncertainty type="Aggregate">
                                           <Percentile1>
 <Percentile></Percentile>
                   <Loss></Loss>
     </Percentile1>
                                           <Percentile2>
 <Percentile></Percentile>
                   <Loss></Loss>
     </Percentile2>
        </Uncertainty>
                                      </ResultRowAnnualDetail>
                                       <ResultRowAnnualDetail>
                                            .
                                            .
                                            .
                                       </ResultRowAnnualDetail>
                                  </ResultAnnualDetailRows>
                              </AnnualDetail>
                         </AnnualDetails>
```

Percentile1 element

Specifies the likelihood that the loss will not be met or exceeded in a given year.

Item	Value	Description
Element name	*Percentile1*	Specifies the likelihood that the loss will not be met or exceeded in a given year. The service reports the mean loss from the loss distribution curve as well as the loss at the *Percentile1* and Percentile2 element percentile values. Your AIR representative sets *Percentile1* and *Percentile2* in your The configuration package.
Where used	response	A *response* returns the analysis results and

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Item	Value	Description
		the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    .
                    .
                    .
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    .
                    .
                    .
                        <AnnualDetails>
                            <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                                <Level type="Location"
 descriptor="ID">Loc02</Level>
                                <ResultAnnualDetailRows>
                                    <ResultRowAnnualDetail>
                                        <ReturnPeriod>1000</
ReturnPeriod>

<Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                        <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                        <Occurrence_Year>9763</
Occurrence_Year>
                                        <Occurrence_Peril>1</
Occurrence_Peril>
                                        <Occurrence_Model>27</
Occurrence_Model>
                                        <Occurrence_Event>32360</
Occurrence_Event>
        <Uncertainty type="Aggregate">
                                         <Percentile1>
 <Percentile></Percentile>
                    <Loss></Loss>
     </Percentile1>
                                         <Percentile2>
 <Percentile></Percentile>
                    <Loss></Loss>
     </Percentile2>
```


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```
        </Uncertainty>
                                        </ResultRowAnnualDetail>
                                        <ResultRowAnnualDetail>
                                            .
                                            .
                                            .
                                        </ResultRowAnnualDetail>
                                    </ResultAnnualDetailRows>
                                </AnnualDetail>
                            </AnnualDetails>
                        .
                        .
                        .
```

Percentile2 element

Specifies the likelihood that the loss will not be met or exceeded in a given year.

Item	Value	Description
Element name	*Percentile2*	Specifies the likelihood that the loss will not be met or exceeded in a given year. The service reports the mean loss from the loss distribution curve as well as the loss at the *Percentile1* and *Percentile2* values. Your AIR representative sets these values in your The configuration package.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    .
                    .
```


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```
                .
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name">
                .
                .
                .
                    <AnnualDetails>
                        <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                            <Level type="Location"
 descriptor="ID">Loc02</Level>
                            <ResultAnnualDetailRows>
                                <ResultRowAnnualDetail>
                                    <ReturnPeriod>1000</
ReturnPeriod>


 <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                    <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                    <Occurrence_Year>9763</
Occurrence_Year>
                                    <Occurrence_Peril>1</
Occurrence_Peril>
                                    <Occurrence_Model>27</
Occurrence_Model>
                                    <Occurrence_Event>32360</
Occurrence_Event>
        <Uncertainty type="Aggregate">
                                     <Percentile1>
 <Percentile></Percentile>
                <Loss></Loss>
     </Percentile1>
                                     <Percentile2>
 <Percentile></Percentile>
                <Loss></Loss>
     </Percentile2>
        </Uncertainty>
                                <ResultRowAnnualDetail>
                                <ResultRowAnnualDetail>
                                    .
                                    .
                                    .
                                </ResultRowAnnualDetail>
                            </ResultAnnualDetailRows>
                        </AnnualDetail>
                    </AnnualDetails>
                .
                .
                .
```

PostalCode element

Specifies the fiveor nine-digit ZIP code for the property street address.

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Item	Value	Description
Element name	*PostalCode*	Specifies the fiveor nine-digit ZIP code for the property street address.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	5 or 9 characters.	
Notes	If you supply an incorrect ZIP code, the service provides the best ZIP-code match for the other address information that you provided.	If you specify the nine-digit ZIP code, do not include a hyphen.

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    <ISORequest>
        <Products><HazardAnalysisLossAnalysis</Products>
        <HazardAnalysis>

 <Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
 WinterstormHazard</Products>
        </HazardAnalysis>
        <Addresses>
            <Options geocode="yes" returnHighestScore="yes"
 additionalInfo="no"/>
            <Address>
                <Latitude></Latitude>
                <Longitude></Longitude>
                <Addr1>100 Main Street</Addr1>
                <City>Seattle</City>
                <County>King</County>
                <PostalCode>98104</PostalCode>
                <StateProv>WA</StateProv>
                <Country>US</Country>
            </Address>
```


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```
        </Addresses>
    </ISORequest>
</ISORequests>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="HazardAnalysis" version="2.9.0.8"
 timespan="2.469" sequence="0" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted="0"
 ASF.StatusMessage="Completed" ASF.Logfile="">
            <AddressProfile>
                <LocationInformation>
                    <Entered>
                        <Address>
                            <Latitude>0</Latitude>
                            <Longitude>0</Longitude>
                            <Addr1>100 Main Street</Addr1>
                            <City>Seattle</City>
                            <StateProv>WA</StateProv>
                            <Country>US</Country>
                            <MatchLevel>3</MatchLevel>
                            <County>KING</County>
    <PostalCode>98104</PostalCode>
                            <GeoPath AreaLevel2="53"
 AreaLevel3="033" />
                        </Address>
                    </Entered>
                    <Matched>
                        .
                        .
                        .
                    </Matched>
                </LocationInformation>
                <HazardInformation>
                    .
                    .
                    .
                </HazardInformation>
            </AddressProfile>
        </Report>
    </Reports>
</ISOResponses>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
```


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```
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ... .ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
                                <Country>US</Country>
                                <StreetAddress>1850 Massachusetts
 Ave</StreetAddress>
                                <City>CAMBRIDGE</City>
                                <Area>MA</Area>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCode>02138</PostalCode>
                                <PostalCodeModeled>02138</
PostalCodeModeled>
                                <SubareaModeled>Middlesex</
SubareaModeled>
                                <GeoPoint>
                                    <GeoLat>42.385719</GeoLat>
                                    <GeoLong>-71.076202</GeoLong>
                                    <MatchLevel>Exact</MatchLevel>
                                </GeoPoint>
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <Results>
                        .
                        .
                        .
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

PostalCodeModeled element

Specifies the postal code included in the analysis.

Item	Value	Description
Element name	*PostalCodeModeled*	Specifies the postal code included in the analysis.

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Item	Value	Description
		PostalCodeModeled differs from the PostalCode element of the request if the service finds a better postal code match for the location.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ... .ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
                                <Country>US</Country>
                                <StreetAddress>1850 Massachusetts
 Ave</StreetAddress>
                                <City>CAMBRIDGE</City>
                                <Area>MA</Area>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCode>02138</PostalCode>
                                <PostalCodeModeled>02138</
PostalCodeModeled>
                                <SubareaModeled>Middlesex</
SubareaModeled>
                                <GeoPoint>
                                    <GeoLat>42.385719</GeoLat>
                                    <GeoLong>-71.076202</GeoLong>
                                    <MatchLevel>Exact</MatchLevel>
                                </GeoPoint>
                            </Address>
                        </Location>
                    </Locations>
                </Data>
```


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```
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <Results>
                        .
                        .
                        .
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

Pounding element

Specifies the distance from the building at the location to the closest structure.

Item	Value	Description
Element name	*Pounding*	Specifies the distance from the building at the location to the closest structure.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `5`, inclusive, or blank	• `0` = unknown • `1` = 0m-0.25m • `2` = 0.25m-0.5m • `3` = 0.5m-1.0m • `4` = 1.0m-2.0m • `5` = >2.0m
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
```


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```
.
<ISORequest>
   <Products>LossAnalysis</Products>
        <LossAnalysis>
           <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                       .
                        .
                        <LocationTerms Items="1">
                            .
                            .
                            .
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                            <Pounding>0</Pounding>
                            .
                            .
                          .
                        </Details>
                        .
                        .
                        .
```

Premium element

Specifies the sum of all written premiums for all risks covered in the location record.

Item	Value	Description
Element name	*Premium*	Specifies the sum of all written premiums for all risks covered in the location record.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	20 characters maximum	
Default	0	

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Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            .
                            .
                            .
```

Products element

Specifies the type of web service to use or the type of hazard analysis to run

Item	Value	Description
Element name	*Products*	Specifies the type of web service to use or the type of hazard analysis to run
Where used	request	A *request* contains the information the service needs to run the analysis.
Where used	response	A *response* returns the analysis results and

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Item	Value	Description
		the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Values	*HurricaneHazard* | *ThunderstormHazard* | *EarthquakeHazard* | *FEMAFlood* | *Terrorism*	When *Products* is a child element of the *ISORequest* element, the value specifies the type of web service to use. You must specify *HazardAnalysisLossAnalysis*. When *Products* is a child element of the *HazardAnalysis element*, the value specifies the type of hazard analysis to run.

Request example

```
<ISORequests>
    <RequestHeader>
        .
        .
        .
    <ISORequest>
        <Products>HazardAnalysis</Products>
        <HazardAnalysis>

 <Products>HurricaneHazard,ThunderstormHazard,EarthquakeHazard,FEMAFlood,Terroris
 WinterstormHazard</Products>
        </HazardAnalysis>
        <Addresses>
            <Options geocode="yes" returnHighestScore="yes"
 additionalInfo="no"/>
            <Address>
                <Latitude>25.926777</Latitude>
                <Longitude>-80.342367</Longitude>
                <Addr1> </Addr1>
                <City></City>
         <County></County>
                <StateProv></StateProv>
                <Country></Country>
            </Address>
        </Addresses>
    </ISORequest>
</ISORequests>
```


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Request example

```
<ISORequests>
  <RequestHeader>
    <AIR>
      .
      .
      .
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Contract">
        .
        .
        .
        </Contract>
      </Data>
      .
```

Response example

```
<ISORequests>
  <RequestHeader>
    <AIR>
      .
      .
      .
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Contract">
        .
        .
        .
        </Contract>
      </Data>
      .
      .
      .
```

ProjectCompletion element

Specifies the completeness of the building project.

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Item	Value	Description
Element name	*ProjectCompletion*	Specifies the completeness of the building project.
Data type	xsd:double	The value space of *xsd:double* is double (64 bits) floating-point numbers.
Where used	request	A *request* contains the information the service needs to run the analysis.
Values	A value between 0 and .99	
Default	0	

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options demandSurge=”false”
 stormSurge=”true”/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                        <ProjectCompletion>.5</
ProjectCompletion>
                                        .
                                        .
                                       .
                                   </Details>
                                   .
                                   .
                                   .
```


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ProjectPhase element

Specifies the phase of construction on the building at the location.

Item	Value	Description
Element name	*ProjectPhase*	Specifies the phase of construction on the building at the location.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `6`, inclusive, or blank	• `0` = The project is completed. • `1` = foundation and substructure • `2` = superstructure • `3` = walls and roofing • `4` = interiors, mechanical (conveying, plumbing, HVAC, fire protection), electrical, furnishings, miscellaneous • `5` = average project loss over the duration of the project • `6` = highest loss potential
Default	`0`	

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options demandSurge=”false”
 stormSurge=”true”/>
                      <Data type="Locations">
                          <Locations>
```


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```
                                <Location>
                                    .
                                   .
                                    .
                                    <LocationTerms Items="1">
                                         .
                                         .
                                         .
                                    </LocationTerms>
                                    <Details>
                                         .
                                         .
                                         .
                                         <ProjectPhase>5</
ProjectPhase>
                                         .
                                         .
                                        .
                                    </Details>
                                    .
                                    .
                                    .
```

Proximity element

Specifies the distance from the property's boundary to the closest structure that is not on the property.

Item	Value	Description
Element name	*Proximity*	Specifies the distance from the property's boundary to the closest structure that is not on the property.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	request	A *request* contains the information the service needs to run the analysis.
Length	1 character	
Values	An integer between `0` and `4`, inclusive, or blank	• `0` = unknown • `1` = 0-.25m • `2` = .25-.5m • `3` = .5-1.0m • `4` = >1.0m
Default	`0`	If you specify `0` or leave the element blank, the

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Item	Value	Description
		service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                        <Proximity>2</Proximity>
                                        .
                                        .
                                       .
                                   </Details>
                                   .
```

Redundancy element

Specifies whether there are multiple lateral load-resisting elements such as frames or shear walls in the building at the location.

Item	Value	Description
Name	*redundancy*	Specifies whether there are multiple lateral load-resisting elements such as frames or shear walls in the building at the location.

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Item	Value	Description
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `2`, inclusive, or blank	• `0` = unknown • `1` = no • `0` = yes
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
         <ISORequest>
            <Products>LossAnalysis</Products>
                 <LossAnalysis>
                    <Options/>
                     <Data type="Locations">
                         <Locations>
                             <Location>
                                  .
                                 .
                                  .
                                  <LocationTerms Items="1">
                                       .
                                       .
                                       .
                                  </LocationTerms>
                                  <Details>
                                       .
                                       .
                                       .
                                       <Redundancy>0</Redundancy>
                                       .
                                       .
                                      .
                                  </Details>
                                  .
                                  .
                                  .
```


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Report element

Contains processing information for the AIR Address Service.

Item	Value	Description
Element name	*Report*	Contains processing information for the AIR Address Service.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Attributes

Item	Value	Description
Attribute name	*ASF.ErrorCode*	Specifies the code associated with the error message in the ASF.ErrorMessage field.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Use	required	

Item	Value	Description
Attribute name	*ASF.ErrorMessage*	Specifies any error that occurred during processing in an abbreviated format.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*ASF.InfoMessage*	Specifies any error that occurred during processing in human-readable format.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

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Item	Value	Description
Attribute name	*ASF.Logfile*	Specifies the processing log file.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*ASF.PercentCompleted*	Specifies the percentage of the processing that the service completed during asynchronous bulk tasks.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Use	required	

Item	Value	Description
Attribute name	*ASF.StatusMessage*	Specifies the status of the processing tasks in human-readable format.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*product*	Specifies the name of the service that processed the request.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*sequence*	Specifies when the service received the request. Sequence is an administrative counter.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Use	required	

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Item	Value	Description
Attribute name	*success*	Specifies whether the service was available and functioning.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*timespan*	Specfies the total processing time for the request.
Data type	xs:decimal	
Use	required	

Item	Value	Description
Attribute name	*version*	Specifies the version number of the service that processed the request.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	optional	

Source

```
<xs:element name="Report" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="AddressProfile" />
    </xs:sequence>
    <xs:attribute name="ASF.ErrorCode" use="required"
 type="xs:integer" />
    <xs:attribute name="ASF.ErrorMessage" use="required" />
    <xs:attribute name="ASF.InfoMessage" use="required" />
    <xs:attribute name="ASF.Logfile" use="required" />
    <xs:attribute name="ASF.PercentCompleted" use="required"
 type="xs:integer" />
    <xs:attribute name="ASF.StatusMessage" use="required"
 type="xs:string" />
    <xs:attribute name="product" use="required" type="xs:string" />
    <xs:attribute name="version" type="xs:string" />
    <xs:attribute name="sequence" use="required" type="xs:integer" />
    <xs:attribute name="success" use="required" type="xs:string" />
    <xs:attribute name="timespan" use="required" type="xs:decimal" />
  </xs:complexType>
</xs:element>
```


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Response example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance></Instance>
        </AIRTrack>
        <runtimeinformation
 responseid="1476783114;636428872887964084"
 clientparam="UnknownUserHostAddress">
            <time start="10/6/2017 11:48:06 AM" end="10/6/2017
 11:48:08 AM" timespan="2.547" />
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="HazardAnalysis" version="2.9.0.8"
 timespan="2.469" sequence="0" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted="0"
 ASF.StatusMessage="Completed" ASF.Logfile="">
            <AddressProfile>
           .
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.0"
 timespan="0.172" sequence="143321" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage=";" ASF.InfoMessage=";"
 ASF.PercentCompleted="" ASF.StatusMessage="" ASF.Logfile="">
            <LossAnalysis engine="12.0.3 20100826">
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
```


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```
                                .
                                .
                                .
                            </AnnualSummaries>
                            <AnnualDetails>
                                .
                                .
                                .
                            </AnnualDetails>
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
    </Reports>
</ISOResponses>
```

Reports element

Contains the *Report* element.

Item	Value	Description
Element name	*Reports*	Contains the *Report* element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Source

```
<xs:element name="Reports" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="Report" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance></Instance>
        </AIRTrack>
        <runtimeinformation
 responseid="1476783114;636428872887964084"
 clientparam="UnknownUserHostAddress">
```


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```
            <time start="10/6/2017 11:48:06 AM" end="10/6/2017
 11:48:08 AM" timespan="2.547" />
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="HazardAnalysis" version="2.9.0.8"
 timespan="2.469" sequence="0" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted="0"
 ASF.StatusMessage="Completed" ASF.Logfile="">
            <AddressProfile>
           .
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance></Instance>
        </AIRTrack>
        <runtimeinformation
 responseid="1476783114;636428872887964084"
 clientparam="UnknownUserHostAddress">
            <time start="10/6/2017 11:48:06 AM" end="10/6/2017
 11:48:08 AM" timespan="2.547" />
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="HazardAnalysis" version="2.9.0.8"
 timespan="2.469" sequence="0" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted="0"
 ASF.StatusMessage="Completed" ASF.Logfile="">
            <AddressProfile>
          .
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.0"
 timespan="0.172" sequence="143321" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage=";" ASF.InfoMessage=";"
 ASF.PercentCompleted="" ASF.StatusMessage="" ASF.Logfile="">
            <LossAnalysis engine="12.0.3 20100826">
                <Data type = "Locations">
                    <Locations>
                        .
                        .
                        .
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <Options>
                        .
```


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```
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            .
                            .
                            .
                        </AnnualSummaries>
                        <AnnualDetails>
                            .
                            .
                            .
                        </AnnualDetails>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

RequestHeader element

Contains the *AIR* element.

Item	Value	Description
Element name	*RequestHeader*	Contains the *AIR* element.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Source

```
<xs:element name="RequestHeader" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="AIR" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Request example

```
<ISORequests>
    <RequestHeader>
        <AIR>
```


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```
            <LoginID>YourLogin</LoginID>
            <Password>YourSecretPassword</Password>
            <LicenseKey>YourLicenseKey</LicenseKey>
        </AIR>
    </RequestHeader>
    <ISORequest>
        .
        .
        .
    </ISORequest>
</ISORequests>
```

ResponseHeader element

Contains the *AIRTrack* and *runtimeinformation* elements.

Item	Value	Description
Element name	*ResponseHeader*	Contains the *AIRTrack* and *runtimeinformation* elements.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Source

```
<xs:element name="ResponseHeader" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="AIRTrack" minOccurs="0"
 maxOccurs="unbounded" />
      <xs:element ref="runtimeinformation" minOccurs="1"
 maxOccurs="1" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance></Instance>
        </AIRTrack>
        <runtimeinformation
 responseid="1476783114;636428872887964084"
 clientparam="UnknownUserHostAddress">
```


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```
            <time start="10/6/2017 11:48:06 AM" end="10/6/2017
11:48:08 AM" timespan="2.547" />
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        .
        .
        .
    </Reports>
```

ResultAnnualDetailRows element

Contains one or more *ResultRowAnnualDetail* elements.

Item	Value	Description
Element name	*ResultAnnualDetailRows*	Contains one or more *ResultRowAnnualDetail* elements. See ResultRowAnnualDetail element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Source

```
<xs:element name="ResultAnnualDetailRows" xmlns:xs="http://
www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="ResultRowAnnualDetail"
 maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
```


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```
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                    <AnnualSummaries>
                        .
                        .
                        .
                    </AnnualSummaries>
                    <AnnualDetails>
                        <AnnualDetail type="Both" perils="PES+PEF
+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                            <Level type="Location"
 descriptor="ID">Loc02</Level>
                            <ResultAnnualDetailRows>
                                <ResultRowAnnualDetail>
                                    <ReturnPeriod>1000</
ReturnPeriod>

<Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                    <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                    <Occurrence_Year>9763</
Occurrence_Year>
                                    <Occurrence_Peril>1</
Occurrence_Peril>
                                    <Occurrence_Model>27</
Occurrence_Model>
                                    <Occurrence_Event>32360</
Occurrence_Event>
                                </ResultRowAnnualDetail>
                                <ResultRowAnnualDetail>
                                    .
                                    .
                                    .
                                </ResultRowAnnualDetail>
                            </ResultAnnualDetailRows>
                        </AnnualDetail>
                    </AnnualDetails>
                </Results>
            </ResultSet>
```


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```
        </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

ResultRowAnnualDetail element

Contains loss information for one risk for a given return period.

Item	Value	Description
Element name	*ResultRowAnnualDetail*	Contains loss information for one risk for a given return period.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Source

```
<xs:element name="ResultRowAnnualDetail" xmlns:xs="http://
www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="ReturnPeriod" minOccurs="0" />
      <xs:element ref="Loss_Aggregate" minOccurs="0" />
      <xs:element ref="Aggregate_Year" minOccurs="0" />
      <xs:element ref="Loss_Occurrence" minOccurs="0" />
      <xs:element ref="Occurrence_Year" minOccurs="0" />
      <xs:element ref="Occurrence_Peril" minOccurs="0" />
      <xs:element ref="Occurrence_Model" minOccurs="0" />
      <xs:element ref="Occurrence_Event" minOccurs="0" />
      <xs:element ref="Uncertainty" minOccurs="0" maxOccurs="2" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.3"
 timespan="67.155" sequence="73" success="True" ASF.ErrorCode="0"
```


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```
ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted=""
ASF.StatusMessage="" ASF.Logfile="">
           <LossAnalysis engine="3.0.0 20170210">
               <Data type="Locations">
                   <Locations>
                       <Location>
                           <ID>37899</ID>
                           <LocationTerms>
                               <LocationTerm>
                                   <StrPerils>PFL</StrPerils>
                               </LocationTerm>
                           </LocationTerms>
                           <Address>
                               .
                               .
                               .
                           </Address>
                       </Location>
                       <Location>
                           <ID>37900</ID>
                           <LocationTerms>
                               <LocationTerm>
                                   <StrPerils>PFL</StrPerils>
                               </LocationTerm>
                           </LocationTerms>
                           <Address>
                               .
                               .
                               .
                           </Address>
                       </Location>
                       <Location>
                           <ID>37901</ID>
                           <LocationTerms>
                               <LocationTerm>
                                   <StrPerils>PFL</StrPerils>
                               </LocationTerm>
                           </LocationTerms>
                           <Address>
                               .
                               .
                               .
                           </Address>
                       </Location>
                       <Location>
                           .
                           .
                           .
                   </Locations>
               </Data>
               <ResultSet type="preset" name="Your configuration
package name">
                   <StrPerils>PFL</StrPerils>
                   <Options>
                       .
                       .
                       .
                   </Options>
                   <Results>
```


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```
                        <AnnualSummaries>
                            .
                            .
                            .
                        </AnnualSummaries>
                        <AnnualDetails>
                            <AnnualDetail type="Aggregate"
 perils="PFL" losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">37899</Level>
                                <ResultAnnualDetailRows>
                                    <ResultRowAnnualDetail>
                                        <ReturnPeriod>50</
ReturnPeriod>
                                        <Loss_Aggregate>0</
Loss_Aggregate>
                                        <Aggregate_Year>0</
Aggregate_Year>
                                    </ResultRowAnnualDetail>
                                    <ResultRowAnnualDetail>
                                        <ReturnPeriod>100</
ReturnPeriod>
                                        <Loss_Aggregate>0</
Loss_Aggregate>
                                        <Aggregate_Year>0</
Aggregate_Year>
                                    </ResultRowAnnualDetail>
                                    <ResultRowAnnualDetail>
                                        <ReturnPeriod>250</
ReturnPeriod>
                                        <Loss_Aggregate>0</
Loss_Aggregate>
                                        <Aggregate_Year>0</
Aggregate_Year>
                                    </ResultRowAnnualDetail>
                                    <ResultRowAnnualDetail>
                                        .
                                        .
                                        .
                                </ResultAnnualDetailRows>
                            </AnnualDetail>
                            .
                            .
                            .
                            <AnnualDetail type="Aggregate"
 perils="PFL" losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">37900</Level>
                                <ResultAnnualDetailRows>
                                    <ResultRowAnnualDetail>
                                        <ReturnPeriod>50</
ReturnPeriod>
                                        <Loss_Aggregate>0</
Loss_Aggregate>
                                        <Aggregate_Year>0</
Aggregate_Year>
                                    </ResultRowAnnualDetail>
                                    <ResultRowAnnualDetail>
```


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```
                                        <ReturnPeriod>100</
ReturnPeriod>
                                        <Loss_Aggregate>0</
Loss_Aggregate>
                                        <Aggregate_Year>0</
Aggregate_Year>
                                    </ResultRowAnnualDetail>
                                    <ResultRowAnnualDetail>
                                        <ReturnPeriod>250</
ReturnPeriod>
                                        <Loss_Aggregate>0</
Loss_Aggregate>
                                        <Aggregate_Year>0</
Aggregate_Year>
                                    </ResultRowAnnualDetail>
                                    .
                                    .
                                    .
                                </ResultAnnualDetailRows>
                            </AnnualDetail>
                            .
                            .
                            .
```

Results element

Contains the *AnnualSummaries*, *AnnualDetails*, and *EventDetails* elements.

Item	Value	Description
Element name	*Results*	Contains the *AnnualSummaries*, *AnnualDetails*, and *EventDetails* elements. SeeAnnualSummaries element and AnnualDetails element and EventDetails element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xsd:complexType	An element with this data type may contain other elements.

Source

```
<xs:element name="Results" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
```


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```
      <xs:element ref="AnnualSummaries" minOccurs="0"
 maxOccurs="1" />
  <xs:element ref="AnnualDetails" minOccurs="0" maxOccurs="1" />
  <xs:element ref="EventDetails" minOccurs="0" maxOccurs="1" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Example

```
<ISOResponses>
     <ResponseHeader>
          .
          .
          .
     </ResponseHeader>
     <Reports>
          <Report product="LossAnalysis" … ASF.LogFile="">
               <LossAnalysis engine=”12.0.3 20100826”>
                    <Data type = "Locations">
                         <Locations>
                              .
                              .
                              .
                         </Locations>
                    </Data>
                    <ResultSet type="Preset" name="Your configuration
 package name">
                         <Options>
                              .
                              .
                              .
                         </Options>
                        <StrPerils>PAL+PWH+PWX</StrPerils>
                         <Results>
                              <AnnualSummaries>
                                   .
                                   .
                                   .
                              </AnnualSummaries>
                              <AnnualDetails>
                                   .
                                   .
                                   .
                              </AnnualDetails>
                              <EventDetails>
                                   .
                                   .
                                   .
                              </EventDetails>
                         </Results>
                    </ResultSet>
               </LossAnalysis>
          </Report>
     </Reports>
 </ISOResponses>
```


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ResultSet element

Specifies the name of the loss analysis package.

Item	Value	Description
Element name	*ResultSet*	Specifies the name of the loss analysis package. Your AIR representative can provide you with a name. The result contains the results of a loss anlaysis as well as the configuration package name, options, and perils that you supplied in the request.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Attributes

Item	Value	Description
Attribute name	*name*	Specifies the name of the configuration package you supplied in the ResultSet element of the request.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*type*	Specifies the type of the configuration package you supplied in the ResultSet element of the request.

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Item	Value	Description
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Source

```
<xs:element name="ResultSet" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="StrPerils" />
      <xs:element ref="Options" minOccurs="0" />
      <xs:element ref="Results" />
    </xs:sequence>
    <xs:attribute name="name" use="required" />
    <xs:attribute name="type" use="required" type="xs:string" />
  </xs:complexType>
</xs:element>
```

Request example

```
<ISORequests>
  <RequestHeader>
    .
    .
    .
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Locations">
        <Locations>
          <Location>
            .
            .
            .
          </Location>
        </Locations>
      </Data>
      <ResultSet type="preset" name="Your configuration package
 name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```


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Response example

```
<ISOResponses>
     <ResponseHeader>
          .
          .
          .
     </ResponseHeader>
     <Reports>
          <Report product="LossAnalysis" … ASF.LogFile="">
               <LossAnalysis engine=”12.0.3 20100826”>
                    <Data type = "Locations">
                         <Locations>
                              .
                              .
                              .
                         </Locations>
                    </Data>
                    <ResultSet type="Preset" name="Your configuration
 package name">
                         <Options>
                              .
                              .
                              .
                         </Options>
                        <StrPerils>PAL+PWH+PWX</StrPerils>
                         <Results>
                              <AnnualSummaries>
                                   .
                                   .
                                   .
                              </AnnualSummaries>
                              <AnnualDetails>
                                   .
                                   .
                                   .
                              </AnnualDetails>
                         </Results>
                    </ResultSet>
               </LossAnalysis>
          </Report>
     </Reports>
 </ISOResponses>
```

Retrofit element

Specifies retrofitting to the building or building components.

Item	Value	Description
Element name	*Retrofit*	Specifies retrofitting to the building or building components.
Where used	response	A *response* returns the analysis results and

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Item	Value	Description
		the information used to compute the results.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `7`, inclusive, or blank	• `0` = unknown • `1` = bracing of cripple walls • `2` = bracing of parapets • `3` = bracing of soft story • `4` = foundation anchorage (bolting) • `5` = glass/window strengthening • `6` = tilt up • `7` = general
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
         <ISORequest>
            <Products>LossAnalysis</Products>
                 <LossAnalysis>
                    <Options/>
                     <Data type="Locations">
                         <Locations>
                             <Location>
                                 .
                                .
                                 .
                                 <LocationTerms Items="1">
                                      .
                                      .
                                      .
                                 </LocationTerms>
                                 <Details>
                                      .
```


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```
                                        .
                                        .
                                        <Retrofit>1</Retrofit>
                                        .
                                        .
                                        .
                                    </Details>
                                    .
                                    .
                                    .
```

ReturnLayerResults element

Indicates whether to include losses by layer when you submit a loss analysis.

Item	Value	Description
Element name	*ReturnLayerResults*	Indicates whether to include losses by layer when you submit a loss analysis.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xsd:boolean	The *boolean* data type is used to specify a true or false value.
Default value	`False`	xxx

Example

```
<ISORequests>
  <RequestHeader>
    .
    .
    .
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Locations">
        <Locations>
          <Location>
            .
            .
            .
          </Location>
```


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```
        </Locations>
      </Data>
      <ResultSet type="preset" name="Your configuration package
 name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```

ReturnLocationResults element

Indicates whether to include losses by location in addition to losses by contract when you submit a loss analysis for a contract.

Item	Value	Description
Element name	*ReturnLocationResults*	Indicates whether to include losses by location in addition to losses by contract when you submit a loss analysis for a contract.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xsd:boolean	The *boolean* data type is used to specify a true or false value.
Default value	`False`	

Example

```
<ISORequests>
  <RequestHeader>
    .
    .
    .
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Locations">
        <Locations>
          <Location>
            .
            .
            .
          </Location>
```


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```
        </Locations>
      </Data>
      <ResultSet type="preset" name="Your configuration package
 name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```

ReturnPeriod element

Specifies the return period associated with the other values in the *ResultRowAnnualDetail* element.

Item	Value	Description
Element name	*ReturnPeriod*	Specifies the return period associated with the other values in the *ResultRowAnnualDetail* element. See ResultRowAnnualDetail element. The return period indicates the interval at which a loss is likely to be equaled or exceeded.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Where used	response	A *response* returns the analysis results and the information used to compute the results.

Response Example

```
<ISOResponses>
          .
          .
          .
          <Reports>
            <Report product="LossAnalysis" … ASF.LogFile="">
              <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                  .
                  .
                  .
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
```


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```
                    .
                    .
                    .
                    <AnnualDetails>
                      <AnnualDetail type="Both" perils="PES+PEF+PSL
+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                        <Level type="Location"
 descriptor="ID">Loc02</Level>
                        <ResultAnnualDetailRows>
                          <ResultRowAnnualDetail>
                            <ReturnPeriod>1000</ReturnPeriod>
                            <Loss_Aggregate>204375615.217306</
Loss_Aggregate>
                            <Aggregate_Year>1878</Aggregate_Year>
                            <Loss_Occurrence>203926094.191751</
Loss_Occurrence>
                            <Occurrence_Year>9763</Occurrence_Year>
                            <Occurrence_Peril>1</Occurrence_Peril>
                            <Occurrence_Model>27</Occurrence_Model>
                            <Occurrence_Event>32360</
Occurrence_Event>
                          </ResultRowAnnualDetail>
                          <ResultRowAnnualDetail
                            .
                            .
                            .
                          </ResultRowAnnualDetail>
                        </ResultAnnualDetailRows>
                      </AnnualDetail>
                    </AnnualDetails>
                    .
                    .
                    .
```

RiskCount element

Specifies the number of risks for the location record.

Item	Value	Description
Element name	*RiskCount*	Specifies the number of risks for the location record.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:positiveInteger	The *positiveInteger* data type is used to specify an integer with a value greater than or equal to 0.
Length	12 characters maximum	

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Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            .
                            .
                            .
                        </LocationTerms>
                        .
                        .
                        .
```

RoofAnchorage element

Specifies the type of connection used to secure the roof support systems to the walls.

Item	Value	Description
Element name	*RoofAnchorage*	Specifies the type of connection used to secure the roof support systems to the walls.

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Item	Value	Description
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `7`, inclusive, or blank	• `0` = unknown • `1` = hurricane ties • `2` = nails or screws • `3` = anchor bolts • `4` = gravity or friction • `5` = adhesive apoxy • `6` = structurally connected • `7` = clips
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                   .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
```


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```
                                        <RoofAnchorage>1</
RoofAnchorage>
                                        .
                                        .
                                        .
                                    </Details>
                                    .
                                    .
                                    .
```

RoofCover element

Specifies the roof cover material on the property.

Item	Value	Description
Element name	*RoofCover*	Specifies the roof cover material on the property.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	2 characters maximum	
Values	An integer between `0` and `11`, inclusive, or blank	• `0` = unknown • `1` = asphalt shingles • `2` = wooden shingles • `3` = clay or concrete tiles • `4` = light metal panels • `5` = slate • `6` = built-up roof with gravel • `7` = single-ply membrane • `8` = standing seam metal roof • `9` = built-up roof without gravel • `10` = single-ply membrane ballasted • `11` = Florida Building Code (FBC)
Default value	`0`	If you specify `0` or leave the element blank, the

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Item	Value	Description
		service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                        <RoofCover>3</RoofCover>
                                        .
                                        .
                                       .
                                   </Details>
                                   .
                                   .
                                   .
```

RoofCoverAttch element

Specifies the method used to attach the roof cover to the roof deck.

Item	Value	Description
Element name	*RoofCoverAttch*	Specifies the method used to attach the roof cover to the roof deck.
Where used	request	A *request* contains the information the service needs to run the analysis.

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Item	Value	Description
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	2 characters maximum	
Values	An integer between `0` and `4`, inclusive, or blank	• `0` = unknown • `1` = screws • `2` = nails or staples • `3` = adhesive or epoxy • `4` = light metal panels • `5` = mortar
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                        <RoofCoverAttch>1</
RoofCoverAttch>
                                        .
                                        .
                                       .
                                   </Details>
                                   .
                                   .
```


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.

RoofDeck element

Specifies the material used for the building's roof deck.

Item	Value	Description
Element name	*RoofDeck*	Specifies the material used for the building's roof deck.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `8`, inclusive, or blank	• `0` = unknown • `1` = plywood • `2` = wood planks • `3` = particle board or OSB • `4` = metal desk with insulation board • `5` = metal desk with concrete • `6` = pre-cast concrete slabs • `7` = reinforced concrete slabs • `8` = light metal
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
```


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```
<LossAnalysis>
   <Options/>
    <Data type="Locations">
        <Locations>
            <Location>
                .
               .
                .
                <LocationTerms Items="1">
                    .
                    .
                    .
                </LocationTerms>
                <Details>
                    .
                    .
                    .
                    <RoofDeck>2</RoofDeck>
                    .
                    .
                   .
                </Details>
                .
                .
                .
```

RoofDeckAttch element

Specifies the type of connectors that secure the roof deck to the roof support system on the building.

Item	Value	Description
Element name	*RoofDeckAttch*	Specifies the type of connectors that secure the roof deck to the roof support system on the building.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `7`, inclusive, or blank	• `0` = unknown • `1` = screws or bolts • `2` = nails • `3` = adhesive or epoxy

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Item	Value	Description
		• 4 = structurally connected • 5 = 6d nails @ 6" spacing, 12" on center • 6 = 8d nails @ 6" spacing, 12" on center • 7 = 8d nails @ 6" spacing, 6" on center
Default value	0	If you specify 0 or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                        <RoofDeckAttch>1</
RoofDeckAttch>
                                        .
                                        .
                                       .
                                   </Details>
                                   .
                                   .
                                   .
```


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RoofGeometry element

Specifies the shape of the roof that is most prevalent on the building.

Item	Value	Description
Element name	*RoofGeometry*	Specifies the shape of the roof that is most prevalent on the building.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 or 2 characters	
Values	An integer between `0` and `10`, inclusive, or blank	• `0` = unknown • `1` = flat • `2` = gable end without bracing • `3` = hip • `4` = complex • `5` = stepped • `6` = mansard • `7` = gable end with bracing
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
         <ISORequest>
            <Products>LossAnalysis</Products>
                 <LossAnalysis>
                    <Options/>
                     <Data type="Locations">
                         <Locations>
                             <Location>
                                  .
                                 .
                                  .
```


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```
                                    <LocationTerms Items="1">
                                         .
                                         .
                                         .
                                    </LocationTerms>
                                    <Details>
                                         .
                                         .
                                         .
                                        <RoofGeometry>3</RoofGeometry>
                                         .
                                         .
                                        .
                                    </Details>
                                    .
                                    .
                                    .
```

RoofHailImpactResistance element

Specifies the class of the hail impact-resistant roof covering material for the building at this location.

Item	Value	Description
Element name	*RoofHailImpactResistance*	Specifies the class of the hail impact-resistant roof covering material for the building at this location. The value is based on UL2218, *Impact Resistance of Prepared Roof Covering Materials for AIR Severe Thunderstorm for the United States* model. UL2218 defines four classes of prepared sheets of panels installed in overlapping rows on roofs. This field applies only to the hail sub-peril.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	

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Item	Value	Description
Values	An integer between `0` and `4`, inclusive, or blank	• `0` = unknown/non-impact-resistant • `1` = impact-resistant A (least impact-resistant) • `2` = impact-resistant B • `3` = impact-resistant C • `4` = impact-resistant D (most impact-resistant)
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <LocationTerms Items="1">
                                .
                                .
                                .
                            </LocationTerms>
                            <Details>
                                .
                                .
                                .
                        <RoofHailImpactResistance>2</
RoofHailImpactResistance>
                                .
                                .
                                .
                            </Details>
                            .
                            .
```


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RoofPitch element

Specifies the slope on the roof of the property.

Item	Value	Description
Element name	*RoofPitch*	Specifies the slope on the roof of the property.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `3`, inclusive, or blank	• `0` = unknown • `1` = low (< 10) • `2` = medium (10-30) • `3` = high (> 30
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                  .
                                 .
                                  .
                                  <LocationTerms Items="1">
                                       .
                                       .
                                       .
                                  </LocationTerms>
                                  <Details>
                                       .
                                       .
                                       .
```


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```
                                        <TallOneStory>2</TallOneStory>
                                        .
                                        .
                                       .
                                    </Details>
                                    .
                                    .
                                    .
```

RoofYearBuilt element

Specifies the year that the roof on the building was last replaced or built.

Item	Value	Description
Element name	*RoofYearBuilt*	Specifies the year that the roof on the building was last replaced or built.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	4 characters maximum	You must specify the year in *YYYY* format.
Values	A number between `1000` and `2100`, or `0000`, or blank	
Default value	`0000`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
```


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```
                                    .
                                     .
                                     <LocationTerms Items="1">
                                          .
                                          .
                                          .
                                     </LocationTerms>
                                     <Details>
                                          .
                                          .
                                          .
                                         <RoofYearBuilt>0</
RoofYearBuilt>
                                          .
                                          .
                                        .
                                     </Details>
                                     .
                                     .
                                     .
```

runtimeinformation element

Specifies processing information for the analysis service.

Item	Value	Description
Element name	*runtimeinformation*	Specifies processing information for the analysis service.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:element	The *element* data type defines an element.

Attributes

Item	Value	Description
Attribute name	*clientparam*	Specifies the client's host address.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

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Item	Value	Description
Attribute name	*responseparam*	Specifies an identification code for the response
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Source

```
<xs:element name="runtimeinformation" xmlns:xs="http://
www.w3.org/2001/XMLSchema">
  <xs:complexType>
    <xs:all>
      <xs:element ref="time" />
      <xs:element ref="count" />
    </xs:all>
    <xs:attribute name="clientparam" use="required"
 type="xs:string" />
    <xs:attribute name="responseid" use="required" type="xs:string" /
>
  </xs:complexType>
</xs:element>
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance></Instance>
        </AIRTrack>
        <runtimeinformation
 responseid="1476783114;636428872887964084"
 clientparam="UnknownUserHostAddress">
            <time start="10/6/2017 11:48:06 AM" end="10/6/2017
 11:48:08 AM" timespan="2.547" />
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="HazardAnalysis" version="2.9.0.8"
 timespan="2.469" sequence="0" success="True" ASF.ErrorCode="0"
 ASF.ErrorMessage="" ASF.InfoMessage="" ASF.PercentCompleted="0"
 ASF.StatusMessage="Completed" ASF.Logfile="">
            <AddressProfile>
           .
           .
```


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Source

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance></Instance>
        </AIRTrack>
        <runtimeinformation
 responseid="1141238794;636378838301730395"
 clientparam="UnknownUserHostAddress">
            <time start="8/9/2017 1:57:07 PM" end="8/9/2017 1:57:10
 PM" timespan="2.922" />
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ... ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your configuration
 package name">
                    <StrPerils>PWH</StrPerils>
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <Results>
                        <AnnualSummaries>
                            <AnnualSummary type="Aggregate"
 perils="PWH" percentPSH="0" losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">Loc06</Level>
                                <Mean_Agg>391.56243</Mean_Agg>
                                <StdDev_Agg>3712.33856</StdDev_Agg>
                            </AnnualSummary>
                        </AnnualSummaries>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

RV_A element

Specifies the replacement value for all the buildings in the location record.

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Item	Value	Description
Element name	*RV_A*	Specifies the replacement value for all the buildings in the location record. You can specify the actual replacement value or the insurance-to-value assumption.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	Currency Simple Type	
Length	10 characters maximum	
Default value	0	You must specify a value greater than 0.

Example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            .
            .
            .
        </AIR>
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
```


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```
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

RV_B element

Specifies the replacement value for all the structures apart from the main building in the location record.

Item	Value	Description
Element name	*RV_B*	Specifies the replacement value for all the structures apart from the main building in the location record. You can specify the actual replacement value or the insurance-to-value assumption.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	Currency Simple Type	
Length	10 characters maximum	
Default value	0	You must specify a value greater than 0.

Example

```
<ISORequests>
    <RequestHeader>
```


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```
        <AIR>
            .
            .
            .
        </AIR>
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```


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RV_C element

Specifies the replacement value or cash value of all the contents covered in the location record.

Item	Value	Description
Element name	*RV_C*	Specifies the replacement value or cash value of all the contents covered in the location record. You can specify the actual replacement value or the insurance-to-value assumption.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	Currency Simple Type	
Length	10 characters maximum	
Default value	0	You must specify a value greater than 0.

Example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            .
            .
            .
        </AIR>
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
```


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```
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

RV_D element

Specifies the time element coverage for the location record.

Item	Value	Description
Element name	*RV_D*	Specifies the time element coverage for the location record. By default, *RV_D* represents the yearly time element coverage. However, you can modify the RV_D_DaysCovered element to indicate how many days the *RV_D* value represents.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	Currency Simple Type	
Length	10 characters maximum	

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Item	Value	Description
Default value	0	

Example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            .
            .
            .
        </AIR>
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
```


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```
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

RV_D_DaysCovered element

Specifies the number of days that the *RV_D* element represents.

Item	Value	Description
Element name	*RV_D_DaysCovered*	Specifies the number of days that the *RV_D* element represents.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	restriction of xsd:double	
Length	4 characters maximum	
Values	An integer that represents a number of days.	For example, if the RV_D element value is per diem, specify `1`.
Default value	`365`	

Example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            .
            .
            .
        </AIR>
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
```


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```
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

SealOfApproval element

Specifies the level of attention given by engineers to the design of the building at the location.

Item	Value	Description
Element name	*SealOfApproval*	Specifies the level of attention given by engineers to the design of the building at the location. This element only applies if you specify the YearBuilt element.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric

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Item	Value	Description
		value without a fractional component.
Values	An integer between `0` and `7`, inclusive, or blank	• `0` = unknown • `1` = Fully engineered structure. The building was designed by a professional engineer, who was required by the local jurisdiction to seal any calculations and drawings. • `2` = Partially engineered structure. The building was inspected by a professional engineer and deemed to comply with building codes. The local jurisdiction did not require the engineer to seal any calculations. • `3` = Minimally engineered structure. The structure does not satisfy the definition of a fully or partially engineered structure.
Length	1 character	
Default value	`0`	

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
```


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```
                                        .
                                        .
                                    </LocationTerms>
                                    <Details>
                                        .
                                        .
                                        .
                                        <SealOfApproval>0</
SealOfApproval>
                                        .
                                        .
                                        .
                                    </Details>
                                    .
                                    .
                                    .
```

ServiceEquipmentProtection element

Indicates the level of protection to mechanical, electrical, or plumbing service equipment in the floodable parts of the basement of the building at this location.

Item	Value	Description
Element name	*ServiceEquipmentProtection*	Indicates the level of protection to mechanical, electrical, or plumbing service equipment in the floodable parts of the basement of the building at this location. Protection can be in the form of the equipment being elevated or in the form of some type of floodproofing.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `4`, inclusive, or blank	• `0` = unknown/default • `1` = unprotected • `2` = Low protection for flood

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Item	Value	Description
		• 3 = Medium protection for flood • 4 = High protection for flood
Default value	0	

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <LocationTerms Items="1">
                                .
                                .
                                .
                            </LocationTerms>
                            <Details>
                                .
                                .
                                .
                    <ServiceEquipmentProtection>3</
ServiceEquipmentProtection>
                                .
                                .
                                .
                            </Details>
                            .
                            .
```

Shape element

Specifies the shape of the footprint of the building.

Item	Value	Description
Element name	*Shape*	Specifies the shape of the footprint of the building.
Where used	request	A *request* contains the information the service needs to run the analysis.

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Item	Value	Description
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `8`, inclusive, or blank	• `0` = unknown • `1` = square • `2` = rectangle • `3` = circle • `4` = L-shaped • `5` = T-shaped • `6` = U-shaped • `7` = H-shaped • `8` = complex
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                        <Shape>1</Shape>
                                        .
                                        .
                                       .
                                   </Details>
```


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```
.
.
.
```

ShortColumn element

Specifies whether short columns are present in the building at the location.

Item	Value	Description
Element name	*ShortColumn*	Specifies whether short columns are present in the building at the location. Short columns may be columns with fill height restricted by spandrel beams or infill walls.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `2`, inclusive, or blank	• `0` = unknown • `1` = no • `2` = yes
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
         <ISORequest>
            <Products>LossAnalysis</Products>
                 <LossAnalysis>
                    <Options/>
                     <Data type="Locations">
                         <Locations>
                             <Location>
```


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```
.
.
.
<LocationTerms Items="1">
     .
     .
     .
</LocationTerms>
<Details>
     .
     .
     .
     <ShortColumn>1</ShortColumn>
     .
     .
     .
</Details>
.
.
.
```

SmallDebris element

Specifies whether any small debris such as roof gravel, trash bins, or tree branches are within 200 feet of the building and may become missiles during high winds.

Item	Value	Description
Element name	*SmallDebris*	Specifies whether any small debris such as roof gravel, trash bins, or tree branches are within 200 feet of the building and may become missiles during high winds.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `2`, inclusive, or blank	• `0` = unknown • `1` = no • `2` = yes
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted

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Item	Value	Description
		average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                       <ShortColumn>1</ShortColumn>
                                        .
                                        .
                                      .
                                   </Details>
                                   .
                                   .
                                   .
```

SoftStory element

Specifies whether any of the floors in the building have structural weaknesses such as weakness in the lateral load-resisting capacity, if the building has more than one floor.

Item	Value	Description
Element name	*SoftStory*	Specifies whether any of the floors in the building have structural weaknesses such as weakness in the lateral load-resisting capacity, if the building has more than one floor.

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Item	Value	Description
		In residential buildings, weaknesses often arise on the first floor from large openings such as atriums or garages. In multi-story buildings, though a large number of case histories involve a collapse of the first floor, weaknesses may be present on any floor.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `2`, inclusive, or blank	• `0` = unknown • `1` = no • `2` = yes
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
         <ISORequest>
            <Products>LossAnalysis</Products>
                 <LossAnalysis>
                    <Options/>
                     <Data type="Locations">
                         <Locations>
                             <Location>
                                  .
                                 .
                                  .
                                 <LocationTerms Items="1">
                                      .
                                      .
                                      .
```


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```
                                    </LocationTerms>
                                    <Details>
                                         .
                                         .
                                         .
                                        <SoftStory>1</SoftStory>
                                         .
                                         .
                                        .
                                    </Details>
                                    .
                                    .
                                    .
```

Special element

Specifies whether earthquake-resisting systems are installed in the building.

Item	Value	Description
Element name	*Special*	Specifies whether earthquake-resisting systems are installed in the building.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `3`, inclusive, or blank	• `0` = unknown • `1` = base isolation • `2` = visco-elastic dampers • `3` = other energy dissipaters
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
```


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```
.
<ISORequest>
   <Products>LossAnalysis</Products>
        <LossAnalysis>
           <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                       .
                        .
                        <LocationTerms Items="1">
                            .
                            .
                            .
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                            <Special>0</Special>
                            .
                            .
                          .
                        </Details>
                        .
                        .
                        .
```

State element

Specifies the state where the property resides as a 2-character abbreviation or numeric code.

Item	Value	Description
Element name	*State*	Specifies the state where the property resides as a 2-character abbreviation or numeric code. See United States state and FIPS codes
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line

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Item	Value	Description
		feeds, carriage returns, and tab characters.
Length	2 characters	

StdDev_Agg element

Specifies the standard deviation around the mean annual aggregate loss.

Item	Value	Description
Element name	*StdDev_Agg*	Specifies the standard deviation around the mean annual aggregate loss. The mean annual aggregate loss is the value of the Mean_Agg element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:decimal	

Example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ….ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    <Options>
                        .
```


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```
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            <AnnualSummary type="Both" perils="PWH
+PSH" percentPSH=”100” losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">34228</Level>
                                <Mean_Agg>1888191.42034</Mean_Agg>
                                <StdDev_Agg>14415118.60624</
StdDev_Agg>
                            </AnnualSummary>
                            <AnnualSummary type="Both" perils="PWH
+PSH" percentPSH=”100” losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">34228</Level>
                                <Mean_Agg>1817685.1183</Mean_Agg>
                                <StdDev_Agg>13721928.13641</
StdDev_Agg>
                                <Mean_Occ>1796711.01226</Mean_Occ>
                                <StdDev_Occ>13600157.85021</
StdDev_Occ>
                            </AnnualSummary>
                        </AnnualSummaries>
                        <AnnualDetails>
                            .
                            .
                            .
                        </AnnualDetails>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

StdDev_Occ element

Specifies the standard deviation around the mean annual occurence loss.

Item	Value	Description
Element name	*StdDev_Occ*	Specifies the standard deviation around the mean annual occurence loss. The mean annual occurence loss is the value of the Mean_Occ element.
Where used	response	A *response* returns the analysis results and the information used to compute the results.

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Item	Value	Description
Data type	xs:decimal	

Example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ….ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    <Locations>
                        <Location>
                            <ID>LOC06</ID>
                            <YearBuilt>1970</Year Built>
                            <Address>
                                .
                                .
                                .
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    <Options>
                        .
                        .
                        .
                    </Options>
                    <StrPerils>PAL+PWH+PWX</StrPerils>
                    <Results>
                        <AnnualSummaries>
                            <AnnualSummary type="Both" perils="PWH
+PSH" percentPSH=”100” losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">34228</Level>
                                <Mean_Agg>1888191.42034</Mean_Agg>
                                <StdDev_Agg>14415118.60624</
StdDev_Agg>
                            </AnnualSummary>
                            <AnnualSummary type="Both" perils="PWH
+PSH" percentPSH=”100” losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">34228</Level>
                                <Mean_Agg>1817685.1183</Mean_Agg>
                                <StdDev_Agg>13721928.13641</
StdDev_Agg>
                                <Mean_Occ>1796711.01226</Mean_Occ>
                                <StdDev_Occ>13600157.85021</
StdDev_Occ>
                            </AnnualSummary>
                        </AnnualSummaries>
```


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```
                        <AnnualDetails>
                            .
                            .
                            .
                        </AnnualDetails>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```

StrConstructBldg element

Specifies the construction class of the main building at the location as an AIR or ISO construction class code.

Item	Value	Description
Element name	*StrConstructBldg*	Specifies the construction class of the main building at the location as an AIR or ISO construction class code.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	3 characters maximum	
Values	The code must be of the type that you specified in the StrConstructType element.	For a list of ISO construction codes and their corresponding AIR codes, see Class codes.
Default value	`100`	`100` is the AIR and ISO Earthqake (ISE) code for `Unknown`.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
```


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```
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

StrConstructOStr element

Specifies the construction class of any secondary structures at the location as an AIR or ISO construction class code.

Item	Value	Description
Element name	*StrConstructOStr*	Specifies the construction class of any secondary structures at the location

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Item	Value	Description
		as an AIR or ISO construction class code.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	3 characters maximum	
Values	The code must be of the type that you specified in the StrConstructType element.	For a list of codes, see Class codes. We recommend that you use AIR codes whenever possible.
Default value	`100`	`100` is the AIR and ISO Earthqake (ISE) code for `Unknown`.

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
```


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```
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

StrConstructType element

Specifies the source of the construction code in the location record.

Item	Value	Description
Element name	*StrConstructType*	Specifies the source of the construction code in the location record. See Class codes for a list of ISO construction class codes and their corresponding AIR codes.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	3 characters	
Values	Must be a value from the list.	• `AIR` = AIR codes • `ISE` = ISO earthquake codes

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Item	Value	Description
		• `ISF` = ISO fire commercial lines codes • `ISW` = ISO fire dwelling program codes • `ATC` = ATC codes • `RMI` = RMS industrial codes • `RMS` = RMS codes
Default value	`AIR`	

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
```


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```
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

StrCurrency element

Specifies the currency of the replacement values, limits, and deductibles as a currency code.

Item	Value	Description
Element name	*StrCurrency*	Specifies the currency of the replacement values, limits, and deductibles as a currency code. For a list of codes, see the `tCurrency` table description in the *Touchstone Database Reference* on the AIR Developer Zone.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	3 characters maximum	
Default value	`USD`	

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
```


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```
<Data type="Locations">
    <Locations>
        <Location>
            <ID>LOC06</ID>
            <RiskCount>4</RiskCount>
            <YearBuilt>1975</YearBuilt>
            <Height>6</Height>
            <Premium>10000</Premium>
            <StrConstructType>AIR</StrConstructType>
            <StrConstructBldg>117</StrConstructBldg>
            <StrConstructOStr>114</StrConstructOStr>
            <StrOccupancyType>AIR</StrOccupancyType>
            <StrOccupancyClass>304</StrOccupancyClass>
            <StrCurrency>USD</StrCurrency>
            <RV_A>500000</RV_A>
            <RV_B>40000</RV_B>
            <RV_C>20000</RV_C>
            <RV_D>500</RV_D>
            <RV_D_DaysCovered>365</RV_D_DaysCovered>
            <GrossArea>2100</GrossArea>
            <Address>
                .
                .
                .
            </Address>
            .
            .
            .
```

StrDeductType element

Specifies the deductible type for a location or layer.

Item	Value	Description
Element name	*StrDeductType*	Specifies the deductible type for a location or layer.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	2 characters	
Location deductible values	Must be a value from this list.	• `NO` = None • `BA` = Combined deductible amount, excluding time (coverage D) • `BP` = Combined deductible percentage,

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Item	Value	Description
		excluding time (coverage D) • `CA` = Coverage deductible amount • `CP` = Coverage deductible percentage • `DA` = Combined deductible amount, including time (coverage D) separately • `DP` = Combined deductible percentage, including time (coverage D) separately • `FR` = Franchise deductible amount • `MA` = Mini policy deductible amount • `MP` = Mini policy deductible percentage • `ML` = Maximum of deductible amount or percent loss • `SA` = Site or standard combined deductible amount • `SP` = Site or standard combined deductible percentage • `SL` = Site percent of loss deductible • `AA` = Annual amount deductible
Layer deductible values	Must be a value from this list.	• `NO` = None • `AP` = Attachment point deductible amount • `BL` = Blanket deductible amount • `FR` = Franchise deductible amount • `MA` = Maximum deductible amount • `MI` = Minimum deductible amount

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Item	Value	Description
		• MM = Minimum and maximum deductible amount • PL = Percent of loss deductible
Sublimit deductible values	Must be a value from this list.	• NO = None • MA = Maximum deductible amount • MI = Minimum deductible amount • MM = Minimum and Maximum deductible amounts
Default value	NO	

Example

```
<ISORequests>
   <RequestHeader>
     <AIR>
       .
       .
       .
     </AIR>
   </RequestHeader>
   <ISORequest>
     <Products>LossAnalysis</Products>
     <LossAnalysis>
       <ReturnLocationResults>true</ReturnLocationResults>
       <ReturnLayerResults>true</ReturnLayerResults>
       <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
       <Data type="Contract">
         <Contract>
           <ID>untitled</ID>
           <DateFrom>1/1/2000</DateFrom>
           <DateTo>12/31/2030</DateTo>
           <StrPerils>PAL</StrPerils>
           <Locations>
             <Location>
               .
               .
               .
             </Location>
           </Locations>
           <Layers>
             <Layer>
               <ID>1</ID>
               <StrPerils>PAL</StrPerils>
               <StrDeductType>NO</StrDeductType>
               <StrLimitType>B</StrLimitType>
               <AttachAmt>0</AttachAmt>
```


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```
                <Limit_A>0</Limit_A>
                <Limit_B>0</Limit_B>
                <Limit_C>0</Limit_C>
                <Limit_D>0</Limit_D>
                <AttchPt_A>0</AttchPt_A>
                <AttchPt_B>0</AttchPt_B>
                <AttchPt_C>0</AttchPt_C>
                <AttchPt_D>0</AttchPt_D>
                <Sublimits>
                  <Sublimit>
                    <ID>1</ID>
                    <StrPerils>PAL</StrPerils>
                    <StrLimitType>B</StrLimitType>
                    <Limit_2>0</Limit_2>
                    <Limit_A>0</Limit_A>
                    <Limit_B>0</Limit_B>
                    <Limit_C>0</Limit_C>
                    <Limit_D>0</Limit_D>
                    <AttachAmt>0</AttachAmt>
                    <AttchPt_A>0</AttchPt_A>
                    <AttchPt_B>0</AttchPt_B>
                    <AttchPt_C>0</AttchPt_C>
                    <AttchPt_D>0</AttchPt_D>
                    <StrDeductType>NO</StrDeductType>
                    <Deduct_1>0</Deduct_1>
                    <Deduct_2>0</Deduct_2>
                    <ApplyToArea>DEF</ApplyToArea>
                  </Sublimit>
                </Sublimits>
                <Deduct_1>0</Deduct_1>
                <Deduct_2>0</Deduct_2>
                <Limit_1>11111111</Limit_1>
                <Limit_2>0</Limit_2>
              </Layer>
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
name"/>
      </LossAnalysis>
    </ISORequest>
</ISORequests>
```

StreetAddress element

Specifies the house number, street name, directionals, and apartment number of the property.

Item	Value	Description
Element name	*StreetAddress*	Specifies the house number, street name, directionals, and apartment number of the property. You must specify this element if you do not

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Item	Value	Description
		specify the *Latitude* and *Longitude* elements. Whenever possible, you should specify the *Latitude* and *Longitude* elements rather than providing the street address. You can use the AIR Address Service to obtain the latitude and longitude.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	100 characters maximum	

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            <StreetAddress>14 W Evans St</
StreetAddress>
                            <City>Florence</City>
                            <Area>SC</Area>
                            <PostalCode>29501</PostalCode>
                            <Country>US</Country>
                            <Latitude></Latitude>
                            <Longitude></Longitude>
                        </Address>
                        .
                        .
                        .
```


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StrLimitType element

Specifies the limit type for a location, layer, or sublimit.

Item	Value	Description
Element name	*StrLimitType*	Specifies the limit type for a location, layer, or sublimit.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	6 characters maximum	
Location values	The type for a location may be one of these values.	• `C` = Limit by coverage • `S` = Combined limit for all policies applied to the total loss from all policies • `EF` = Combined limit for coverages A and C. The EF limit type applies only to the fire following peril.
Layer values	The type for a layer may be one of these values.	• `B` = Blanket limit • `E` = Excess limit • `C` = Limit by coverage • `CB` = Combined limit for coverages A, B, and C with separate limit for coverage D • `CSL100` = Combined single limit with 100% participation • `CSLAI` = Combined single limit with assured interest
Sublimit values	The type for a sublimit may be one these values.	• `B` = Blanket limit • `E` = Excess limit • `C` = Limit by coverage • `C100` = Limit by coverage with 100% participation

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Item	Value	Description
		• `CAI` = Limit by coverage with assured interest • `CB` = Combined limit for coverages A, B, and C with separate limit for coverage D
Default value	`N` for locations and `B` for layers.	

Example

```
<ISORequests>
   <RequestHeader>
     <AIR>
       .
       .
       .
     </AIR>
   </RequestHeader>
   <ISORequest>
     <Products>LossAnalysis</Products>
     <LossAnalysis>
       <ReturnLocationResults>true</ReturnLocationResults>
       <ReturnLayerResults>true</ReturnLayerResults>
       <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
       <Data type="Contract">
         <Contract>
           <ID>untitled</ID>
           <DateFrom>1/1/2000</DateFrom>
           <DateTo>12/31/2030</DateTo>
           <StrPerils>PAL</StrPerils>
           <Locations>
             <Location>
               .
               .
               .
             </Location>
           </Locations>
           <Layers>
             <Layer>
               <ID>1</ID>
               <StrPerils>PAL</StrPerils>
               <StrDeductType>NO</StrDeductType>
               <StrLimitType>B</StrLimitType>
               <AttachAmt>0</AttachAmt>
               <Limit_A>0</Limit_A>
               <Limit_B>0</Limit_B>
               <Limit_C>0</Limit_C>
               <Limit_D>0</Limit_D>
               <AttchPt_A>0</AttchPt_A>
               <AttchPt_B>0</AttchPt_B>
               <AttchPt_C>0</AttchPt_C>
```


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```
                <AttchPt_D>0</AttchPt_D>
                <Sublimits>
                  <Sublimit>
                    <ID>1</ID>
                    <StrPerils>PAL</StrPerils>
                    <StrLimitType>B</StrLimitType>
                    <Limit_2>0</Limit_2>
                    <Limit_A>0</Limit_A>
                    <Limit_B>0</Limit_B>
                    <Limit_C>0</Limit_C>
                    <Limit_D>0</Limit_D>
                    <AttachAmt>0</AttachAmt>
                    <AttchPt_A>0</AttchPt_A>
                    <AttchPt_B>0</AttchPt_B>
                    <AttchPt_C>0</AttchPt_C>
                    <AttchPt_D>0</AttchPt_D>
                    <StrDeductType>NO</StrDeductType>
                    <Deduct_1>0</Deduct_1>
                    <Deduct_2>0</Deduct_2>
                    <ApplyToArea>DEF</ApplyToArea>
                  </Sublimit>
                </Sublimits>
                <Deduct_1>0</Deduct_1>
                <Deduct_2>0</Deduct_2>
                <Limit_1>11111111</Limit_1>
                <Limit_2>0</Limit_2>
              </Layer>
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```

StrOccupancyClass element

Specifies the occupancy class of the location as an AIR or ISO construction class code.

Item	Value	Description
Element name	*StrOccupancyClass*	Specifies the occupancy class of the location as an AIR or ISO construction class code.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

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Item	Value	Description
Length	3 characters maximum	
Values	The code must be of the type that you specified in the StrOccupancyType element.	For a list of ISO codes and their corresponding AIR codes, see Class codes. We recommend that you use AIR codes whenever possible.
Default value	`100`	`100` is the AIR and ISO Earthqake (ISE) code for `Unknown`.

Example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            .
            .
            .
        </AIR>
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
```


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```
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

StrOccupancyType element

Specifies the source of the occupancy code in the location record.

Item	Value	Description
Element name	*StrOccupancyType*	Specifies the source of the occupancy code in the location record.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	3 characters maximum	
Values	Must be a value from this list.	• `AIR` = AIR codes • `ISO` = ISO codes • `SIC` = SIC codes • `ATC` = ATC codes • `RMS` = RMS codes • `RMI` = RMS IND codes • `RWC` = RMS WC codes

Example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            .
```


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```
            .
            .
        </AIR>
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```

StrPerils element

Specifies the perils covered for the risk.

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Item	Value	Description
Element name	*StrPerils*	Specifies the perils covered for the risk. The response returns this value.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	128 characters maximum	
Values	One or more valid peril codes.	For a list of codes, see the `tConvertUPXPerilSet` table description in the *Touchstone Database Reference* on the AIR Developer Zone. Always include perils *PWX* and *PWW* together. Do not include one without the other.
Default value	`PAL`	`PAL` indicates all licensed variables.

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <LocationTerms Items="1">
```


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```
                                <LocationTerm>
                                    <StrPerils>PAL+PWH+PWX+PWF</
StrPerils>
                                    <StrLimitType>C</StrLimitType>
                                    <Limit_A>300000</Limit_A>
                                    <Limit_B>5000</Limit_B>
                                    <Limit_C>10000</Limit_C>
                                    <Limit_D>20000</Limit_D>
                                    <StrDeductType>CA</StrDeductType>
                                    <Deduct_A>0.015</Deduct_A>
                                    <Deduct_B>0.01</Deduct_B>
                                    <Deduct_C>0.01</Deduct_C>
                                    <Deduct_D>0.1</Deduct_D>
                                </LocationTerm>
                            </LocationTerms>
                            <Details>
                                .
                                .
                                .
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" timespan="2.013"
 sequence="0" success="True" ASF.ErrorCode="0" ASF.ErrorMessage=""
 ASF.InfoMessage="" ASF.PercentCompleted="" ASF.StatusMessage=""
 ASF.Logfile="">
            <LossAnalysis engine="12.0.3 20100826">
                <Data type="Contract">
                    <Contract layers="1">
                        <StrPerils>PAL</StrPerils>
                        <Locations>
                            <Location>
                                <ID>Loc_1</ID>
                                <LocationTerms>
                                    <LocationTerm>
                                        <StrPerils>PWH+PSH</
StrPerils>
                                    </LocationTerm>
                                </LocationTerms>
                                <Address>
                                    <Country>USA</Country>
                                    <StreetAddress>3558 Kent Dr</
StreetAddress>
                                    <City>NAPLES</City>
                                    <Area>FL</Area>
                                    <AreaModeled>FL</AreaModeled>
                                    <PostalCode>34112</PostalCode>
                                    <PostalCodeModeled>34112</
PostalCodeModeled>
```


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```
                                        <SubareaModeled>Collier</
SubareaModeled>
                                        <GeoPoint>
                                            <GeoLat>26.12059</GeoLat>
                                            <GeoLong>-81.742698</
GeoLong>
                                            <MatchLevel>Exact</
MatchLevel>
                                        </GeoPoint>
                                    </Address>
                                </Location>
                            </Locations>
                        </Contract>
                    </Data>
                    <ResultSet type="Preset" name="Your Configuration
 Package Name">
                        <StrPerils>PWH+PSH</StrPerils>
                        <Options>
                            .
                            .
                            .
                        </Options>
                        <Results>
```

StrucIrreg element

Specifies the type of structural irregularity in the building at the location.

Item	Value	Description
Element name	*StrucIrreg*	Specifies the type of structural irregularity in the building at the location. Examples include irregularity in the floor plan, irregularity in structural components, and uneven weight distributions.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `5`, inclusive, or blank	• `0` = unknown • `1` = regular • `2` = vertical offset

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Item	Value	Description
		• 3 = Non-uniform floor area, which indicates that there is a sudden change in floor area along the height • 4 = Discontinuous shear wall, which indicates that load-resisting components are not in a regular, symmetric pattern • 5 = Heavy floor, which indicates that heavy items are placed on upper floors
Default value	0	

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                  .
                                 .
                                  .
                                  <LocationTerms Items="1">
                                       .
                                       .
                                       .
                                  </LocationTerms>
                                  <Details>
                                       .
                                       .
                                       .
                                      <StrucIrreg>4</StrucIrreg>
                                       .
                                       .
                                    .
                                  </Details>
                                  .
                                  .
                                  .
```


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Subarea element

Specifies the name of the subarea or county where the property resides.

Item	Value	Description
Element name	*Subarea*	Specifies the name of the subarea or county where the property resides. You must specify this element if you do not specify the Latitude element and the Longitude element or the SubareaCode element.
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	20 characters maximum	

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            <StreetAddress>100 Main St </
StreetAddress>
                            <City>Salem</City>
                            <Subarea>Rockingham</Subarea>
                            <Area>NH</Area>
                            <PostalCode>03079</PostalCode>
                            <Country> </Country>
                            <Latitude></Latitude>
```


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```
                            <Longitude></Longitude>
                        </Address>
                        <LocationTerms Items="1">
                            .
                            .
                            .
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                            .
                            .
                            .
```

Response example

```
Subarea Element
Specifies the value you provided in the Subarea Element of the
 request.
The SubareaModeled Element specifies the subarea included in the
 analysis.
Type
xs:string
Example
<ISOResponses>
    <ResponseHeader>
       .
       .
       .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ... ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>USA</Country>
                                <StreetAddress>131 Dartmouth St</
StreetAddress>
                                <City>Boston</City>
                                <Area>MA</Area>
                                <AreaModeled>MA</AreaModeled>
                                <PostalCode>02116</PostalCode>
                                <PostalCodeModeled>02116</
PostalCodeModeled>
                                <Subarea>Suffolk</Subarea>
                                <SubareaModeled>Suffolk</
SubareaModeled>
```


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```
                                    <GeoPoint>
                                        <GeoLat>42.34769</GeoLat>
                                        <GeoLong>-71.076034</GeoLong>
                                        <MatchLevel>Exact</MatchLevel>
                                    </GeoPoint>
                                </Address>
                            </Location>
                        </Locations>
                    </Data>
                    <ResultSet type="Preset" name="NORTHLIGHT_US_WSST">
                        <StrPerils>PWH</StrPerils>
                        <Options>
                            <Option name="DemandSurge">True</Option>
                            <Option name="StormSurge">False</Option>
                        </Options>
                        <Results>
                            <AnnualSummaries>
                                <AnnualSummary type="Aggregate"
 perils="PWH" percentPSH="0" losstype="Gross" coverage="Total">
                                    <Level type="Location"
 descriptor="ID">Loc06</Level>
                                    <Mean_Agg>391.57825</Mean_Agg>
                                    <StdDev_Agg>3712.49299</StdDev_Agg>
                                </AnnualSummary>
                            </AnnualSummaries>
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
        </Reports>
</ISOResponses>
```

SubareaCode element

Specifies the FIPS (Federal Information Processing Standards) numeric code for the county where the property resides.

Item	Value	Description
Element name	*SubareaCode*	Specifies the FIPS (Federal Information Processing Standards) numeric code for the county where the property resides. The response returns this value. You must specify this element if you do not specify specify the Latitude element and the Longitude element or the Subarea element.

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Item	Value	Description
Where used	request, response	A *request* contains the information the service needs to run the analysis. A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Length	5 characters maximum	

Request example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Options demandSurge=”false” stormSurge=”true”/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                        .
                        .
                        <Address>
                            <StreetAddress>100 Main St </
StreetAddress>
                            <City>Salem</City>
                            <Area>NH</Area>
                            <SubareaCode>015</SubareaCode>
                            <PostalCode>03079</PostalCode>
                            <Country></Country>
                            <Latitude></Latitude>
                            <Longitude></Longitude>
                        </Address>
                        .
                        .
                        .
```

Response example

```
<ISOResponses>
    <ResponseHeader>
        .
```


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```
        .
        .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ... ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>USA</Country>
                                <StreetAddress>100 Main St</
StreetAddress>
                                <City>Salem</City>
                                <Area>NH</Area>
                                <AreaModeled>NH</AreaModeled>
                                <PostalCode>03079</PostalCode>
                                <PostalCodeModeled>030791234</
PostalCodeModeled>
                                <SubareaCode>015</SubareaCode>
                                <SubareaModeled>Rockingham</
SubareaModeled>
                                <GeoPoint>
                                    <GeoLat>42.78189</GeoLat>
                                    <GeoLong>-71.229232</GeoLong>
                                    <MatchLevel>Exact</MatchLevel>
                                </GeoPoint>
                            </Address>
                        </Location>
                    </Locations>
                </Data>
                <ResultSet type="Preset" name="NORTHLIGHT_US_WSST">
                    <StrPerils>PWH</StrPerils>
                    <Options>
                        <Option name="DemandSurge">True</Option>
                        <Option name="StormSurge">False</Option>
                    </Options>
                    <Results>
                        <AnnualSummaries>
                            <AnnualSummary type="Aggregate"
 perils="PWH" percentPSH="0" losstype="Gross" coverage="Total">
                                <Level type="Location"
 descriptor="ID">Loc06</Level>
                                <Mean_Agg>391.57825</Mean_Agg>
                                <StdDev_Agg>3712.49299</StdDev_Agg>
                            </AnnualSummary>
                        </AnnualSummaries>
                    </Results>
                </ResultSet>
            </LossAnalysis>
        </Report>
    </Reports>
</ISOResponses>
```


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SubareaModeled element

Specifies the subarea included in the analysis.

Item	Value	Description
Element name	*SubareaModeled*	Specifies the subarea included in the analysis. The value will differ from the Subarea element of the request if the service finds a better area match for the PostalCode element of the request.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.

Example

```
<ISOResponses>
    <ResponseHeader>
       .
       .
       .
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" ... ASF.Logfile="">
            <LossAnalysis engine="15.0.0 20130531">
                <Data type="Locations">
                    <Locations>
                        <Location>
                            <ID>Loc06</ID>
                            <LocationTerms>
                                <LocationTerm>
                                    <StrPerils>PWH</StrPerils>
                                </LocationTerm>
                            </LocationTerms>
                            <Address>
                                <Country>USA</Country>
                                <StreetAddress>100 Main St</
StreetAddress>
                                <City>Salem</City>
                                <Area>NH</Area>
                                <AreaModeled>NH</AreaModeled>
```


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```
                                    <PostalCode>03079</PostalCode>
                                    <PostalCodeModeled>030791234</
PostalCodeModeled>
                                    <SubareaCode>015</SubareaCode>
                                    <SubareaModeled>Rockingham</
SubareaModeled>
                                    <GeoPoint>
                                        <GeoLat>42.78189</GeoLat>
                                        <GeoLong>-71.229232</GeoLong>
                                        <MatchLevel>Exact</MatchLevel>
                                    </GeoPoint>
                                </Address>
                            </Location>
                        </Locations>
                    </Data>
                    <ResultSet type="Preset" name="NORTHLIGHT_US_WSST">
                        <StrPerils>PWH</StrPerils>
                        <Options>
                            <Option name="DemandSurge">True</Option>
                            <Option name="StormSurge">False</Option>
                        </Options>
                        <Results>
                            <AnnualSummaries>
                                <AnnualSummary type="Aggregate"
 perils="PWH" percentPSH="0" losstype="Gross" coverage="Total">
                                    <Level type="Location"
 descriptor="ID">Loc06</Level>
                                    <Mean_Agg>391.57825</Mean_Agg>
                                    <StdDev_Agg>3712.49299</StdDev_Agg>
                                </AnnualSummary>
                            </AnnualSummaries>
                        </Results>
                    </ResultSet>
                </LossAnalysis>
            </Report>
        </Reports>
</ISOResponses>
```

Sublimit element

Contains the details of one insurance contract sublimit.

Item	Value	Description
Element name	*Sublimits*	Contains the details of one insurance contract sublimit.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xsd:complexType	An element with this data type may contain other elements.

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Source

```
<xsd:element name="Sublimit" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <xsd:complexType>
    <xsd:choice minOccurs="0" maxOccurs="unbounded">
      <xsd:element ref="ID" />
      <xsd:element name="ApplyToArea" type="xsd:string"
 minOccurs="0" />
      <xsd:element ref="StrPerils" />
      <xsd:element ref="StrDeductType" minOccurs="1" />
      <xsd:element name="Deduct_1" type="Currency" minOccurs="0" />
      <xsd:element name="Deduct_2" type="Currency" minOccurs="0" />
      <xsd:element ref="StrLimitType" minOccurs="1" />
      <xsd:element name="Limit_1" type="Currency" minOccurs="0" />
      <xsd:element name="Limit_2" type="Currency" minOccurs="0" />
      <xsd:element name="AttachAmt" type="Currency" minOccurs="0" /
>
      <xsd:element name="Limit_A" type="Currency" minOccurs="0" />
      <xsd:element name="Limit_B" type="Currency" minOccurs="0" />
      <xsd:element name="Limit_C" type="Currency" minOccurs="0" />
      <xsd:element name="Limit_D" type="Currency" minOccurs="0" />
      <xsd:element name="AttchPt_A" type="Currency" minOccurs="0" /
>
      <xsd:element name="AttchPt_B" type="Currency" minOccurs="0" /
>
      <xsd:element name="AttchPt_C" type="Currency" minOccurs="0" /
>
      <xsd:element name="AttchPt_D" type="Currency" minOccurs="0" /
>
    </xsd:choice>
  </xsd:complexType>
</xsd:element>
```

Example

```
<ISORequests>
  <RequestHeader>
    <AIR>
      .
      .
      .
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Contract">
        <Contract>
          <ID>untitled</ID>
          <DateFrom>1/1/2000</DateFrom>
          <DateTo>12/31/2030</DateTo>
          <StrPerils>PAL</StrPerils>
```


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```
          <Locations>
            <Location>
              .
              .
              .
            </Location>
          </Locations>
          <Layers>
            <Layer>
              <ID>1</ID>
              <StrPerils>PAL</StrPerils>
              <StrDeductType>NO</StrDeductType>
              <StrLimitType>B</StrLimitType>
              <AttachAmt>0</AttachAmt>
              <Limit_A>0</Limit_A>
              <Limit_B>0</Limit_B>
              <Limit_C>0</Limit_C>
              <Limit_D>0</Limit_D>
              <AttchPt_A>0</AttchPt_A>
              <AttchPt_B>0</AttchPt_B>
              <AttchPt_C>0</AttchPt_C>
              <AttchPt_D>0</AttchPt_D>
              <Sublimits>
                <Sublimit>
                  <ID>1</ID>
                  <StrPerils>PAL</StrPerils>
                  <StrLimitType>B</StrLimitType>
                  <Limit_2>0</Limit_2>
                  <Limit_A>0</Limit_A>
                  <Limit_B>0</Limit_B>
                  <Limit_C>0</Limit_C>
                  <Limit_D>0</Limit_D>
                  <AttachAmt>0</AttachAmt>
                  <AttchPt_A>0</AttchPt_A>
                  <AttchPt_B>0</AttchPt_B>
                  <AttchPt_C>0</AttchPt_C>
                  <AttchPt_D>0</AttchPt_D>
                  <StrDeductType>NO</StrDeductType>
                  <Deduct_1>0</Deduct_1>
                  <Deduct_2>0</Deduct_2>
                  <ApplyToArea>DEF</ApplyToArea>
                </Sublimit>
              </Sublimits>
              <Deduct_1>0</Deduct_1>
              <Deduct_2>0</Deduct_2>
              <Limit_1>11111111</Limit_1>
              <Limit_2>0</Limit_2>
            </Layer>
          </Layers>
        </Contract>
      </Data>
      <ResultSet type="Preset" name="Your configuration package
 name"/>
    </LossAnalysis>
  </ISORequest>
</ISORequests>
```


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Sublimits element

Contains a set of sublimits.

Item	Value	Description
Element name	*Sublimits*	Contains a set of sublimits.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xsd:complexType	An element with this data type may contain other elements.

Attributes

Item	Value	Description
Attribute name	*Items*	Specifies the number of *Sublimit* elements contained in the *Sublimits* element.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Use	optional	

Example

```
<ISORequests>
  <RequestHeader>
    <AIR>
      .
      .
      .
    </AIR>
  </RequestHeader>
  <ISORequest>
    <Products>LossAnalysis</Products>
    <LossAnalysis>
      <ReturnLocationResults>true</ReturnLocationResults>
      <ReturnLayerResults>true</ReturnLayerResults>
      <Options stormSurge="true" demandSurge="true" SSValue="10"
 PFValue="100"/>
      <Data type="Contract">
        <Contract>
          <ID>untitled</ID>
          <DateFrom>1/1/2000</DateFrom>
          <DateTo>12/31/2030</DateTo>
          <StrPerils>PAL</StrPerils>
```


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```
            <Locations>
              <Location>
                <ID>3,1</ID>
                <RiskCount>1</RiskCount>
                <YearBuilt>1980</YearBuilt>
                <DateFrom>1/1/2011</DateFrom>
                <DateTo>12/31/2020</DateTo>
                <Height>1</Height>
                <StrConstructType/>
                <StrConstructBldg>101</StrConstructBldg>
                <StrConstructOStr/>
                <StrOccupancyType/>
                <StrOccupancyClass>311</StrOccupancyClass>
                <GrossArea>0</GrossArea>
                <Premium>1000</Premium>
                <RV_A>156000</RV_A>
                <RV_B>0</RV_B>
                <RV_C>0</RV_C>
                <RV_D>16000</RV_D>
                <RV_D_DaysCovered>365</RV_D_DaysCovered>
                <Address>
                  .
                  .
                  .
                </Address>
                <LocationTerms>
                  <LocationTerm>
                    .
                    .
                    .
                  </LocationTerm>
                </LocationTerms>
              </Location>
            </Locations>
            <Layers>
              <Layer>
                <ID>1</ID>
                <StrPerils>PAL</StrPerils>
                <StrDeductType>NO</StrDeductType>
                <StrLimitType>B</StrLimitType>
                <AttachAmt>0</AttachAmt>
                <Limit_A>0</Limit_A>
                <Limit_B>0</Limit_B>
                <Limit_C>0</Limit_C>
                <Limit_D>0</Limit_D>
                <AttchPt_A>0</AttchPt_A>
                <AttchPt_B>0</AttchPt_B>
                <AttchPt_C>0</AttchPt_C>
                <AttchPt_D>0</AttchPt_D>
                <Sublimits Items="1">
                  <Sublimit>
                    <ID>1</ID>
                    <StrPerils>PAL</StrPerils>
                    <StrLimitType>B</StrLimitType>
                    <Limit_2>0</Limit_2>
                    <Limit_A>0</Limit_A>
                    <Limit_B>0</Limit_B>
                    <Limit_C>0</Limit_C>
                    <Limit_D>0</Limit_D>
```


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```
                    <AttachAmt>0</AttachAmt>
                    <AttchPt_A>0</AttchPt_A>
                    <AttchPt_B>0</AttchPt_B>
                    <AttchPt_C>0</AttchPt_C>
                    <AttchPt_D>0</AttchPt_D>
                    <StrDeductType>NO</StrDeductType>
                    <Deduct_1>0</Deduct_1>
                    <Deduct_2>0</Deduct_2>
                    <ApplyToArea>DEF</ApplyToArea>
                  </Sublimit>
                </Sublimits>
                <Deduct_1>0</Deduct_1>
                <Deduct_2>0</Deduct_2>
                <Limit_1>11111111</Limit_1>
                <Limit_2>0</Limit_2>
              </Layer>
            </Layers>
          </Contract>
        </Data>
        <ResultSet type="Preset" name="Your configuration package
 name"/>
     </LossAnalysis>
   </ISORequest>
</ISORequests>
```

TallOneStory element

Specifies the height of the single-story building at the location.

Item	Value	Description
Element name	*TallOneStory*	Specifies the height of the single-story building at the location.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `3`, inclusive, or blank	• `0` = unknown • `1` = less than or equal to 20 ft • `2` = greater than 20 ft • `3`= greater than 40 ft
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted

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Item	Value	Description
		average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                       <RoofPitch>2</RoofPitch>
                                        .
                                        .
                                      .
                                   </Details>
                                   .
                                   .
                                   .
```

Tanks element

Specifies whether there are rooftop tanks on buildings adjoining the building at this location.

Item	Value	Description
Element name	*Tanks*	Specifies whether there are rooftop tanks on buildings adjoining the building at this location.
Where used	request	A *request* contains the information the service needs to run the analysis.

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Item	Value	Description
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `3`, inclusive, or blank	• `0` = unknown • `1` = no • `2` = yes
Default	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                       <Tanks>1</Tanks>
                                        .
                                        .
                                       .
                                   </Details>
                                   .
                                   .
                                   .
```


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TerrainRoughness element

Specifies the terrain conditions for the property.

Type	Value	Description
Element name	*TerrainRoughness*	Specifies the terrain conditions for the property.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	`0`, `1`, `2`, `3`, or `4`	• `0` = unknown • `1` = Terrain Type A, or a large city center where at least 50% of the buildings are over 70 ft (21.3 m). Specify `1` for areas where Type A prevails in the upwind direction for at least 0.5 mi (0.8 km) or 10 times the height of the building or other structure, whichever is greater. The service accounts for possible channeling effects or increased velocity pressures due to the building being located in the wake of an adjacent building. • `2` = Terrain Type B, or an urban area, suburban area, wooded area, or other terrain with numerous closely spaced structures that are the size of single-family dwellings or larger. Specify `2` for areas where Type B

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Type	Value	Description
		prevails in the upwind direction for a distance of at least 1,500 ft (460 m) or 10 times the height of the building or other structure, whichever is greater. • `3` = Terrain Type C, or open terrain with scattered obstructions having heights generally less than 30 ft (9.1 m). Specify `3` for flat open country and grasslands. • `4` = Terrain Type D or a flat, unobstructed area exposed to winds flowing over open water for a distance of at least 1 mi (1.61 km). Specify `4` for buildings and other structures that are exposed to winds coming off of water and 1,500 ft (460 m) or 10 times the height of the building or structure from the shoreline, whichever is greater.
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
```


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```
                                <Location>
                                    .
                                   .
                                    .
                                    <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                    </LocationTerms>
                                    <Details>
                                        .
                                        .
                                        .
                                        <TerrainRoughness>1</
TerrainRoughness>
                                        .
                                        .
                                       .
                                    </Details>
                                    .
                                    .
                                    .
```

time element

Specifies the time the service used to process the request.

Item	Value	Description
Element name	*time*	Specifies the time the service used to process the request..
Where used	response	A *response* returns the analysis results and the information used to compute the results.

Attributes

Item	Value	Description
Attribute name	*end*	Specifies the date and time that the process ended
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

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Item	Value	Description
Attribute name	*start*	Specifies the date and time that the process began
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Item	Value	Description
Attribute name	*timespan*	Specifies the total time the service used to process the request
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	required	

Response example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance></Instance>
        </AIRTrack>
        <runtimeinformation
 responseid="1476783114;636428872887964084"
 clientparam="UnknownUserHostAddress">
            <time start="10/6/2017 11:48:06 AM" end="10/6/2017
 11:48:08 AM" timespan="2.547" />
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="HazardAnalysisLossAnalysis"
 version="2.9.0.8" timespan="2.469" sequence="0" success="True"
 ASF.ErrorCode="0" ASF.ErrorMessage="" ASF.InfoMessage=""
 ASF.PercentCompleted="0" ASF.StatusMessage="Completed"
 ASF.Logfile="">
            <AddressProfile>
           .
```

Torsion element

Specifies the layout of the structural elements of the building.

Item	Value	Description
Element name	*Torsion*	Specifies the layout of the structural elements of the building.

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Item	Value	Description
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `3`, inclusive, or blank	• `0` = unknown • `1` = symmetric • `2` = asymmetric • `3` = corner building
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                       <Torsion>1</Torsion>
                                        .
                                        .
                                      .
                                   </Details>
                                   .
                                   .
```


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```
.
```

TransitionInSRC element

Specifies the type of transition from steel-reinforced concrete (SRC) to reinforced concrete (RC) in SRC columns in the building at the location.

Item	Value	Description
Element name	*TransitionInSRC*	Specifies the type of transition from steel-reinforced concrete (SRC) to reinforced concrete (RC) in SRC columns in the building at the location.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `2`, inclusive, or blank	• `0` = unknown • `1` = smooth • `2` = non-smooth
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
```


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```
                                    <LocationTerms Items="1">
                                         .
                                         .
                                         .
                                    </LocationTerms>
                                    <Details>
                                         .
                                         .
                                         .
                                        <TransitionInSRC>1</
TransitionInSRC>
                                         .
                                         .
                                        .
                                    </Details>
                                    .
                                    .
                                    .
```

TreeExposure element

Specifies whether trees near the building pose a hazard in the event of a storm.

Item	Value	Description
Element name	*TreeExposure*	Specifies whether trees near the building pose a hazard in the event of a storm.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `2`, inclusive, or blank	• `0` = unknown • `1` = no • `2` = yes
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
```


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```
.
.
.
<ISORequest>
   <Products>LossAnalysis</Products>
        <LossAnalysis>
           <Options/>
            <Data type="Locations">
                <Locations>
                    <Location>
                        .
                       .
                        .
                        <LocationTerms Items="1">
                            .
                            .
                            .
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                            <TreeExposure>1</TreeExposure>
                            .
                            .
                           .
                        </Details>
                        .
                        .
                        .
```

Uncertainty element

Contains the elements that specify the losses at two different points on the loss distribution curve.

Item	Value	Description
Element name	*Uncertainty*	Contains the elements that specify the losses at two different points on the loss distribution curve.
Where used	response	A *response* returns the analysis results and the information used to compute the results.
Data type	xsd:complexType	An element with this data type may contain other elements.

Attributes

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Item	Value	Description
Attribute name	*type*	Specifies whether the *Uncertainty* element applies to aggregate losses or occurrence losses.
Values	May be either `Aggregate` or `Occurrence`	
Data type	xs:string	The *string* data type can contain characters, line feeds, carriage returns, and tab characters.
Use	optional	

Source

```
<xs:element name="Uncertainty" xmlns:xs="http://www.w3.org/2001/
XMLSchema">
  <xs:complexType>
    <xs:sequence>
       <xs:element name="Percentile1" type="PercentileType" />
   <xs:element name="Percentile2" type="PercentileType" />
</xs:sequence>
<xs:attribute name="type" use="optional" type="xs:string" />
  </xs:complexType>
</xs:element>
```

Example

```
<ISOResponses>
    .
    .
    .
    <Reports>
        <Report product="LossAnalysis" … ASF.LogFile="">
            <LossAnalysis engine=”12.0.3 20100826”>
                <Data type = "Locations">
                    .
                    .
                    .
                </Data>
                <ResultSet type="Preset" name="Your Configuration
 Package Name">
                    .
                    .
                    .
                        <AnnualDetails>
                            <AnnualDetail type="Both" perils="PES
+PEF+PSL+PWH+PSH" percentPSH=”100” coverage="ResultDetail_CoverA">
                                <Level type="Location"
 descriptor="ID">Loc02</Level>
                                <ResultAnnualDetailRows>
                                    <ResultRowAnnualDetail>
```


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```
                                          <ReturnPeriod>1000</
ReturnPeriod>

    <Loss_Aggregate>204375615.217306</Loss_Aggregate>
                                          <Aggregate_Year>1878</
Aggregate_Year>

 <Loss_Occurrence>203926094.191751</Loss_Occurrence>
                                          <Occurrence_Year>9763</
Occurrence_Year>
                                          <Occurrence_Peril>1</
Occurrence_Peril>
                                          <Occurrence_Model>27</
Occurrence_Model>
                                          <Occurrence_Event>32360</
Occurrence_Event>
        <Uncertainty type="Aggregate">
                                           <Percentile1>
 <Percentile>90</Percentile>
                   <Loss>120403.8312674114</Loss>
     </Percentile1>
                                           <Percentile2>
 <Percentile>95</Percentile>
                   <Loss>188761.64004982647</Loss>
     </Percentile2>
        </Uncertainty>
                                    </ResultRowAnnualDetail>
                                    <ResultRowAnnualDetail
                                        .
                                        .
                                        .
                                    </ResultRowAnnualDetail>
                                </ResultAnnualDetailRows>
                            </AnnualDetail>
                        </AnnualDetails>
                    .
                    .
                    .
```

Wall element

Specifies the materials used to construct the external walls of the building.

Item	Value	Description
Element name	*Wall*	Specifies the materials used to construct the external walls of the building.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric

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Item	Value	Description
		value without a fractional component.
Length	1 character	
Values	An integer between `0` and `0`, inclusive, or blank	• `0` = unknown • `1` = brick or unreinforced masonry • `2` = reinforced masonry • `3` = plywood • `4` = wood planks • `5` = particle board • `6` = metal panels • `7` = pre-cast concrete elements • `8` = cast-in-place concrete • `9` = gypsum board
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
         <ISORequest>
            <Products>LossAnalysis</Products>
                 <LossAnalysis>
                    <Options/>
                     <Data type="Locations">
                         <Locations>
                             <Location>
                                  .
                                 .
                                  .
                                  <LocationTerms Items="1">
                                       .
                                       .
                                       .
                                  </LocationTerms>
                                  <Details>
                                       .
                                       .
                                       .
```


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WallSiding element

Specifies the material used to protect the exterior walls of the building from weathering.

Item	Value	Description
Element name	*WallSiding*	Specifies the material used to protect the exterior walls of the building from weathering.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `7`, inclusive, or blank	• `0` = unknown • `1` = veneer brick or masonry • `2` = wood shingles • `3` = clapboard • `4` = aluminum or vinyl siding • `5` = stone panels • `6` = exterior insulation finishing system (EIFS) • `7` = stucco
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                  .
```


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```
.
.
<LocationTerms Items="1">
     .
     .
     .
</LocationTerms>
<Details>
     .
     .
     .
     <WallSiding>0</WallSiding>
     .
     .
     .
</Details>
.
.
.
```

WaterHeater element

Specifies whether the water heater in the building at the location is braced.

Item	Value	Description
Element name	*WaterHeater*	Specifies whether the water heater in the building at the location is braced.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `2`, inclusive, or blank	• `0` = unknown • `1` = braced • `2` = unbraced
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

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Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                       <WaterHeater>0</WaterHeater>
                                        .
                                        .
                                      .
                                   </Details>
                                   .
                                   .
                                   .
```

Welding element

Specifies the quality of the welding in the building at the location.

Item	Value	Description
Element name	*Welding*	Specifies the quality of the welding in the building at the location.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	

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Item	Value	Description
Values	An integer between `0` and `2`, inclusive, or blank	• `0` = unknown • `1` = on-site • `2` = in-house
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
                  <LossAnalysis>
                     <Options/>
                      <Data type="Locations">
                          <Locations>
                              <Location>
                                   .
                                  .
                                   .
                                   <LocationTerms Items="1">
                                        .
                                        .
                                        .
                                   </LocationTerms>
                                   <Details>
                                        .
                                        .
                                        .
                                        <Welding>0</Welding>
                                        .
                                        .
                                       .
                                   </Details>
                                   .
                                   .
                                   .
```

WetFloodProofing element

Indicates compliance of the building with the FEMA flood zone requirements in design and construction.

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Item	Value	Description
Element name	*WetFloodProofing*	Indicates compliance of the building with the FEMA flood zone requirements in design and construction.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `4`, inclusive	• `0` = unknown/default • `1` = unprotected • `2` = Low protection, wet floodproofed by 1 foot • `3` = Medium protection, wet floodproofed by 3 feet • `4` = High protection, wet floodproofed by over 3 feet
Default value	`0`	xxx

Example

```
<ISORequests>
    .
    .
    .
    <ISORequest>
        <Products>LossAnalysis</Products>
            <LossAnalysis>
                <Options demandSurge=”false” stormSurge=”true”/>
                <Data type="Locations">
                    <Locations>
                        <Location>
                            .
                            .
                            .
                            <LocationTerms Items="1">
                                .
                                .
                                .
                            </LocationTerms>
                            <Details>
```


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```
                                    .
                                    .
                                    .
                                   <WetFloodProofing>2</
WetFloodProofing>
                                    .
                                    .
                                    .
                                </Details>
                                .
                                .
```

WindowProt element

Specifies the most common type of window protection on the building.

Item	Value	Description
Element name	*WindowProt*	Specifies the most common type of window protection on the building.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	1 character	
Values	An integer between `0` and `3`, inclusive, or blank	• `0` = unknown • `1` = no protection • `2` = non-engineered shutters • `3` = engineered shutters
Default value	`0`	If you specify `0` or leave the element blank, the service uses a weighted average of possible values.

Example

```
<ISORequests>
          .
          .
          .
          <ISORequest>
             <Products>LossAnalysis</Products>
```


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```
<LossAnalysis>
   <Options/>
    <Data type="Locations">
        <Locations>
            <Location>
                .
               .
                .
                <LocationTerms Items="1">
                    .
                    .
                    .
                </LocationTerms>
                <Details>
                    .
                    .
                    .
                    <WindowProt>0</WindowProt>
                    .
                    .
                   .
                </Details>
                .
                .
                .
```

YearBuilt element

Specifies the year the building at the location was built or last renovated.

Item	Value	Description
Element name	*YearBuilt*	Specifies the year the building at the location was built or last renovated.
Where used	request	A *request* contains the information the service needs to run the analysis.
Data type	xs:integer	The *integer* data type is used to specify a numeric value without a fractional component.
Length	4 characters	
Values	A year in `YYYY` format. Can also be `0000` or blank.	
Default value	`0000`	If you specify `0` or leave the element blank, the service uses a weighted

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Item	Value	Description
		average of possible values.

Example

```
<ISORequests>
    <RequestHeader>
        <AIR>
            .
            .
            .
        </AIR>
    </RequestHeader>
    <ISORequest>
        <Products>LossAnalysis</Products>
        <LossAnalysis>
            <Data type="Locations">
                <Locations>
                    <Location>
                        <ID>LOC06</ID>
                        <RiskCount>4</RiskCount>
                        <YearBuilt>1975</YearBuilt>
                        <Height>6</Height>
                        <Premium>10000</Premium>
                        <StrConstructType>AIR</StrConstructType>
                        <StrConstructBldg>117</StrConstructBldg>
                        <StrConstructOStr>114</StrConstructOStr>
                        <StrOccupancyType>AIR</StrOccupancyType>
                        <StrOccupancyClass>304</StrOccupancyClass>
                        <StrCurrency>USD</StrCurrency>
                        <RV_A>500000</RV_A>
                        <RV_B>40000</RV_B>
                        <RV_C>20000</RV_C>
                        <RV_D>500</RV_D>
                        <RV_D_DaysCovered>365</RV_D_DaysCovered>
                        <GrossArea>2100</GrossArea>
                        <Address>
                            .
                            .
                            .
                        </Address>
                        <LocationTerms Items="1">
                            <LocationTerm>
                                .
                                .
                                .
                            </LocationTerm>
                        </LocationTerms>
                        <Details>
                            .
                            .
                            .
                        </Details>
                    </Location>
                </Locations>
            </Data>
```


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```
            <ResultSet type="Preset" name="Your Configuration
 Package Name"/>
        </LossAnalysis>
    </ISORequest>
</ISORequests>
```


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10 Interpreting Errors

About Loss Analysis Service errors

The service returns any errors in the XML response. It can be one of four types.

Details about an error appear in the runtimeinformation element and the Report element. It looks like this:

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance>63282156639560799</Instance>
            <Detail>0</Detail>
        </AIRTrack>
        <runtimeinformation responseid="4060195008;61566395607999"
 clientparam="UserHostAddress">
            <time start="5/2/2011 8:50:39 AM" end="5/2/2011 8:50:39
 AM" timespan="0.203" />
            <count reportcount="1" errorcount="1" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.0"
 timespan="0.141" sequence="2" success="True" ASF.ErrorCode="1"
 ASF.ErrorMessage="Validation Failed" ASF.InfoMessage=""
 ASF.PercentCompleted="" ASF.StatusMessage="" ASF.Logfile="">
            <Errors>
                <Error>InvalidRequest</Error>
                <Error>LossAnalysis</Error>
                <Error>Invalid Report Request</Error>
                .
                .
                .
            </Errors>
        </Report>
    </Reports>
</ISOResponses>
```

Error types

Item	Value	Description
Error type	Server not available	See Server not available error example
Error messages	`Primary Error: Report Request Error` or `Secondary Error: Invalid Request`	This means that the server that hosts the service is not available.

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Item	Value	Description
Success attribute value	`false`	
Recommended actions	Contact your AIR representative	

Item	Value	Description
Error type	Engine not available	See Engine not available or engine timeout error example
Error messages	`Internal Loss Analysis Error`	This means that the process the service uses to generate data is not available.
Success attribute value	`true`	
Recommended actions	Resubmit the request	

Item	Value	Description
Error type	Invalid XML payload	See Invalid XML payload error example
Error messages	`Primary Error: Validation Failed` or `Secondary Error: Failed to de-serialize request payload`	This message means that the XML file used to submit the request contains an element value is outside the valid range.
Success attribute value	`true`	
Recommended actions	Locate the element referenced in the error message and replace the value of the element with a supported value.	See Exposure validation errors reference for common errors.

Item	Value	Description
Error type	Exposure validation error	See Exposure validation error error example

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Item	Value	Description
Error messages	`Primary Error: Validation Failed` or `Secondary Error: Exposure data validation error.`	This message means that an element value is outside the valid range.
Success attribute value	`true`	
Recommended actions	Change the element value.	See Exposure validation errors reference for common errors.

Examples of Loss Analysis Service error messages

The service returns four types of errors. Here are examples of each.

- Server not available error example
- Engine not available or engine timeout error example
- Invalid XML payload error example
- Exposure validation error error example

Server not available error example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance>63282156639560799</Instance>
            <Detail>0</Detail>
        </AIRTrack>
        <runtimeinformation responseid="4060195008;61566395607999"
 clientparam="UserHostAddress">
            <time start="5/2/2011 8:50:39 AM" end="5/2/2011 8:50:39
 AM" timespan="0.203" />
            <count reportcount="1" errorcount="1" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.0"
 timespan="0.141" sequence="2" success="True" ASF.ErrorCode="1"
 ASF.ErrorMessage="Validation Failed" ASF.InfoMessage=""
 ASF.PercentCompleted="" ASF.StatusMessage="" ASF.Logfile="">
            <Errors>
                <Error>InvalidRequest</Error>
                <Error>LossAnalysis</Error>
                <Error>Invalid Report Request</Error>
                .
                .
                .
            </Errors>
        </Report>
    </Reports>
```


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```
</ISOResponses>
```

Engine not available or engine timeout error example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance>632821566395607999</Instance>
            <Detail>0</Detail>
        </AIRTrack>
        <runtimeinformation responseid="4060195008;61566395607999"
 clientparam="UserHostAddress">
            <time start="5/2/2011 8:50:39 AM" end="5/2/2011 8:50:39
 AM" timespan="0.203" />
            <count reportcount="1" errorcount="1" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.0"
 timespan="0.141" sequence="2" success="True" ASF.ErrorCode="1"
 ASF.ErrorMessage="Validation Failed" ASF.InfoMessage=""
 ASF.PercentCompleted="" ASF.StatusMessage="" ASF.Logfile="">
            <Errors>
                <Error>InvalidRequest</Error>
                <Error>LossAnalysis</Error>
                <Error>Invalid Report Request</Error>
                .
                .
                .
            </Errors>
        </Report>
    </Reports>
</ISOResponses>
```

Invalid XML payload error example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance>632822591465977220</Instance>
        </AIRTrack>
        <runtimeinformation responseid="406018;632822591465977220"
 clientparam="UserHostAddress">
            <time start="5/3/2011 1:19:06 PM" end="5/3/2011 1:19:06
 PM" timespan="0.141" />
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.0"
 timespan="0.141" sequence="2" success="True" ASF.ErrorCode="1"
 ASF.ErrorMessage="Validation Failed" ASF.InfoMessage=""
 ASF.PercentCompleted="" ASF.StatusMessage="" ASF.Logfile="">
            <Errors>
                <Error>Failed to deserialize request payload.</
Error>
```


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```
                <Error>Error cause:  Failed to set property
 'StrLimitType'. "XX" is invalid Limit Type. Exception occurred.
 Line 1, Position 800</Error>
            </Errors>
        </Report>
    </Reports>
</ISOResponses>
```

Exposure validation error error example

```
<ISOResponses>
    <ResponseHeader>
        <AIRTrack>
            <Instance>63282259604951230O</Instance>
        </AIRTrack>
        <runtimeinformation responseid="406008;63822596049512300"
 clientparam="UserHostAddress">
            <time start="5/3/2011 1:26:44 PM" end="5/3/2011 1:26:44
 PM" timespan="0.078" />
            <count reportcount="1" errorcount="0" />
        </runtimeinformation>
    </ResponseHeader>
    <Reports>
        <Report product="LossAnalysis" version="3.5.0.0"
 timespan="0.062" sequence="5" success="True" ASF.ErrorCode="1"
 ASF.ErrorMessage="Validation Failed" ASF.InfoMessage=""
 ASF.PercentCompleted="" ASF.StatusMessage="" ASF.Logfile="">
            <Errors>
                <Error>Exposure data validation error.</Error>
                <Error>Replacement Value of Other Structures
 '-15000000.000000' is negative</Error>
            </Errors>
        </Report>
    </Reports>
</ISOResponses>
```

Exposure validation errors reference

Here is a list of Loss Analysis Service errors caused by problems with exposure validation data in the request.

Location validation errors

Error message	Recommended action	More info
`Risk Count value must be greater than zero`	Change the risk count value to a number greater than 0.	See RiskCount element
`Premium value is negative`	Change the value of the premium to a number greater than zero.	See Premium element

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Error message	Recommended action	More info
`Invalid currency code in Location record`	Enter a valid currency.	See StrCurrency element.
`YearBuilt value is not valid.`	Change the year the building was built to between 1000 and the current year.	See YearBuilt element
`Construction type type is not supported for country name`	Change the construction type to a valid value for the country.	See StrConstructType element
`Occupancy type type is not supported for country name`	Change the occupancy type to a valid value for the country.	See StrOccupancyType element
`The building construction code value for construction type is not valid`	Change the building construction code to a valid value for the construction type.	See StrConstructBldg element
`Construction code value for building construction code is not supported for country name`	Change the building construction code to a valid value for the country.	See StrConstructBldg element or StrConstructOStr element
`The other structures construction code value for [construction type] is not valid`	Change the secondary structure code to a valid value for the country.	See StrConstructOStr element
`The occupancy code value for occupancy type is not valid`	Change the occupancy code to one that is valid for the occupancy type.	See StrOccupancyType element
`Occupancy code value is not supported for country name`	Change the occupancy code to one that is valid for the country.	See StrOccupancyType element
`Unknown construction and unknown occupancy combination is invalid.`	Change the construction codes and unknown occupancy combinations to codes that are valid.	See StrConstructBldg element and StrOccupancyType element
`Peril value is not supported for`	Change the peril code to one that is supported by the country.	See StrPerils element

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Error message	Recommended action	More info
`country country name`		
`The occupancy code value is not valid for construction codes value and value, and peril word value, for the specified region Model Validation: error from model`	Change the combination of perils, construction code, occupancy code, and country to valid values. This will correct the data model.	See StrPerils element and StrConstructBldg element and StrOccupancyType element
`Replacement Value of Building value is negative`	Change the replacement value of the building to a value that is greater than zero.	See RV_A element
`Replacement Value of Other Structures value is negative`	Change the replacement value of the structures to a number greater than zero.	See RV_B element
`Replacement Value of Contents value is negative`	Change the replacement value of the contents to a value that is greater than zero.	See RV_C element
`Replacement Value Time Element value is negative`	Change the replacement value time element to a number greater than zero.	See RV_D element
`A Time Basis greater than or equal to 1 must be provided with a Time Element Replacement Value`	If replacement value time element is greater than zero, change the replacement value days covered to a number greater than zero.	See RV_D element and RV_D_DaysCovered element
`Deductible type 'Annual Amount' is not supported by country country name`	Change the country to U.S. or remove the deductible type annual amount.	See Country element and StrCurrency element

Location term validation errors

Error message	Recommended action	More info
`Number of Peril combinations value is invalid Peril`	Change the peril code to a valid value. Ensure that perils PWX and PWW are always included together.	See StrPerils element

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Error message	Recommended action	More info
`Code code is not Valid.`		
`Invalid Limit Type value`	Change the limit type to be valid.	See StrLimitType element
`Building or site limit value is negative`	Change limit A to a number greater than zero.	See Limit_A element
`Other Structures limit value is negative`	Change limit B to a number greater than zero.	See Limit_B element
`Contents limit value is negative`	Change limit C to a number greater than zero.	See Limit_C element
`Time Element limit value is negative`	Change limit D to a number greater than zero.	See Limit_D element
`Invalid Deductible Type value`	Change the deductible type to be valid for the layer.	See StrDeductType element
`Deductible Amount value is a negative number`	Change the limit A, B, C, or D to a number greater than zero.	See Deduct_A element and Deduct_B element and Deduct_C element and Deduct_D element
`Deductible Amount [value] should be between (0-1)for deductible type [deductible type]`	Change the deductible amount for A, B, C, and D to be between zero and one for these deductible types: *Site Percent*, *Site Percent of Loss*, *Coverage Percent*, *Combined* (without time) *Percent*, or *Mini-Policy Percent*.	See Deduct_A element and Deduct_B element and Deduct_C element and Deduct_D element and StrDeductType element

Location Details Validation Errors

These errors are caused when a field value is outside the allowed range. When this happens, the service uses the default value for the field.

Error message	Recommended action	More info
`value is not within the valid range of values for field FloorofInterest. Default value will be used.`	Change the floors of interest to be between -1 and 999.	See FloorOfInterest element

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Error message	Recommended action	More info
value is not within the valid range of values for field RoofYearBuilt. Default value will be used.	Change the year the roof was constructed to be between 1000 and 2100.	See RoofYearBuilt element
value is not within the valid range of values for field AdBldgHeight. Default value will be used.	Change the average building height to be between 0 and 999.	See AdBldgHeight element
value is not within the valid range of values for field yyy. Default value will be used.	Change the building condition to be between 0 and 3.	See BldCond element
value is not within the valid range of values for field Proximity. Default value will be used.	Change the proximity exposure to be between 0 and 4.	See Proximity element
value is not within the valid range of values for field TreeExposure. Default value will be used.	Change the tree exposure to be between 0 and 2.	See TreeExposure element
value is not within the valid range of values for field SmallDebris. Default value will be used.	Change the small debris XML Example to be between 0 and 2.	See SmallDebris element
value is not within the valid range of values for field LargeMissile. Default value will be used.	Change the large missile XML Example to be between 0 and 2.	See LargeMissile element
value is not within the valid range of values for field TerrainRoughness. Default value will be used.	Change the terrain roughness to be between 0 and 4.	See TerrainRoughness element

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Error message	Recommended action	More info
value is not within the valid range of values for field Shape. Default value will be used.	Change the building shape to be between 0 and 8.	See Shape element
value is not within the valid range of values for field Torsion. Default value will be used.	Change the torsion to be between 0 and 3.	See Torsion element
value is not within the valid range of values for field SoftStory. Default value will be used.	Change the soft story to be between 0 and 2.	See SoftStory element
value is not within the valid range of values for field StrucIrreg. Default value will be used.	Change the structural irregularity to be between 0 and 5.	See StrucIrreg element
value is not within the valid range of values for field Special. Default value will be used.	Change the special earthquake-resistive system to be between 0 and 3.	See Special element
value is not within the valid range of values for field Retrofit. Default value will be used.	Change the retrofit measures to be between 0 and 7.	See Retrofit element
value is not within the valid range of values for field RoofGeometry. Default value will be used.	Change the roof geometry to be between 0 and 10.	See RoofGeometry element
value is not within the valid range of values for field RoofPitch. Default value will be used.	Change the roof pitch to be between 0 and 3.	See RoofPitch element
value is not within the valid range of values for field RoofCover. Default value will be used.	Change the roof covering to be between 0 and 11.	See RoofCover element

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Error message	Recommended action	More info
value is not within the valid range of values for field RoofDeck. Default value will be used.	Change the roof deck to be between 0 and 8.	See RoofDeck element
value is not within the valid range of values for field RoofCoverAttch. Default value will be used.	Change the roof covering attachment to be between 0 and 5.	See RoofCoverAttch element
value is not within the valid range of values for field Wall. Default value will be used.	Change the wall type to be between 0 and 9.	See Wall element
value is not within the valid range of values for field WallSiding. Default value will be used.	Change the wall siding to be between 0 and 7.	See WallSiding element
value is not within the valid range of values for field GlassType. Default value will be used.	Change the glass type to be between 0 and 5.	See GlassType element
value is not within the valid range of values for field GlassPercent. Default value will be used.	Change the glass percent to be between 0 and 4.	See GlassPercent element
value is not within the valid range of values for field WindowProt. Default value will be used.	Change the window protection to be between 0 and 3.	See WindowProt element
value is not within the valid range of values for field ExteriorDoors. Default value will be used.	Change the exterior doors to be between 0 and 6.	See ExteriorDoors element
value is not within the valid range of values for field	Change the building-foundation connection to be between 0 and 6.	See BldFndConn element

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Error message	Recommended action	More info
`BldFndConn. Default value will be used.`		
value `is not within the valid range of values for field Foundation. Default value will be used.`	Change the foundation type to be between 0 and 12.	See Foundation element
value `is not within the valid range of values for field IntPartition. Default value will be used.`	Change the internal partition walls to be between 0 and 5.	See IntPartition element
value `is not within the valid range of values for field AttachStruct. Default value will be used.`	Change the wall attached structures to be between 0 and 8.	See AttachStruct element
value `is not within the valid range of values for field AppurtStruct. Default value will be used.`	Change the appurtenant structures to be between 0 and 7.	See AppurtStruct element

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11 Other reference

Class codes

Here is a list of AIR construction and occupancy codes with their corresponding ISO codes.

Construction class codes

Sorted by AIR code

Item	Value	Description
Class	All	
AIR code	100	Unknown
ISO Earthquake (ISE) code (a)	0	Unknown
ISO Earthquake (ISE) code (b)	0	Unknown
ISO Fire (ISF) code	0	Unknown
ISO Fire Dwelling Program (ISW) code	0	Unknown

Item	Value	Description
Class	Construction	
AIR code	101	Wood frame
ISO Earthquake (ISE) code (a)	1	Wood frame - small
ISO Earthquake (ISE) code (b)	2	Wood frame - large
ISO Fire (ISF) code	1	Frame
ISO Fire Dwelling Program (ISW) code	5	Aluminum or plastic siding over frame

Item	Value	Description
Class	Construction	
AIR code	103	Masonry veneer
ISO Earthquake (ISE) code	n/a	n/a
ISO Fire (ISF) code	n/a	n/a

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Item	Value	Description
ISO Fire Dwelling Program (ISW) code	2	Masonry veneer

Item	Value	Description
Class	Construction	
AIR code	104	Heavy timber
ISO Earthquake (ISE) code	n/a	n/a
ISO Fire (ISF) code	7	Heavy timber joisted masonry
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	111	Masonry
ISO Earthquake (ISE) code	n/a	n/a
ISO Fire (ISF) code	4	Masonry non-combustible
ISO Fire Dwelling Program (ISW) code	3	Masonry

Item	Value	Description
Class	Construction	
AIR code	114	Unreinforced masonry—bearing wall
ISO Earthquake (ISE) code (a)	14	Unreinforced load-bearing masonry
ISO Earthquake (ISE) code (b)	15	Unreinforced load-bearing hollow masonry/adobe
ISO Fire (ISF) code	n/a	n/a
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	116	Reinforced masonry

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Item	Value	Description
ISO Earthquake (ISE) code	n/a	n/a
ISO Fire (ISF) code	n/a	n/a
ISO Fire Dwelling Program (ISW) code	4	Superior construction

Item	Value	Description
Class	Construction	
AIR code	118	Reinforced masonry shear wall (without MRF)
ISO Earthquake (ISE) code (a)	12	Mixed construction—superior
ISO Earthquake (ISE) code (b)	13	Mixed construction—ordinary EQ resistive
ISO Fire (ISF) code	n/a	n/a
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	119	Joisted masonry
ISO Earthquake (ISE) code	n/a	n/a
ISO Fire (ISF) code	2	Joisted masonry
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	131	Reinforced concrete
ISO Earthquake (ISE) code	n/a	n/a
ISO Fire (ISF) code	6	Reinforced concrete
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	

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Item	Value	Description
AIR code	132	Reinforced concrete shear wall—with MRF
ISO Earthquake (ISE) code	n/a	n/a
ISO Fire (ISF) code	9	Superior masonry non-combustible
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	133	Reinforced concrete shear wall (without MRF)
ISO Earthquake (ISE) code	9	Reinforced concrete—ordinary
ISO Fire (ISF) code	n/a	n/a
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	134	Reinforced concrete MRF —ductile
ISO Earthquake (ISE) code	8	Reinforced concrete—superior
ISO Fire (ISF) code	n/a	n/a
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	135	Reinforced concrete MRF —non-ductile
ISO Earthquake (ISE) code	11	Reinforced concrete—other
ISO Fire (ISF) code	n/a	n/a
ISO Fire Dwelling Program (ISW) code	n/a	n/a

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Item	Value	Description
Class	Construction	
AIR code	137	Precast concrete (other than tilt-up)
ISO Earthquake (ISE) code	10	Reinforced concrete—precast
ISO Fire (ISF) code	n/a	n/a
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	151	Steel
ISO Earthquake (ISE) code	n/a	n/a
ISO Fire (ISF) code	5	Modified fire resistive
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	152	Light metal
ISO Earthquake (ISE) code (a)	3	Metal building - small
ISO Earthquake (ISE) code (b)	4	Metal building - large
ISO Fire (ISF) code	3	Non-combustible
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	153	Braced steel frame
ISO Earthquake (ISE) code (a)	5	Steel frame - superior
ISO Earthquake (ISE) code (b)	16	Earthquake resistive building
ISO Fire (ISF) code	n/a	n/a

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Item	Value	Description
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	154	Steel MRF—perimeter
ISO Earthquake (ISE) code	n/a	n/a
ISO Fire (ISF) code	8	Superior non-combustible
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Item	Value	Description
Class	Construction	
AIR code	155	Steel MRF—distributed
ISO Earthquake (ISE) code (a)	6	Steel frame - ordinary
ISO Earthquake (ISE) code (b)	7	Steel frame - inferior
ISO Fire (ISF) code	n/a	n/a
ISO Fire Dwelling Program (ISW) code	n/a	n/a

Occupancy class codes

Item	Value	Description
Class	Occupancy	
AIR code	300	Unknown
ISO code	0	Unknown

Item	Value	Description
Class	Occupancy	
AIR code	302	Permanent dwelling-single family
ISO code	1	Residential

Item	Value	Description
Class	Occupancy	

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Item	Value	Description
AIR code	306	Apartment/condo
ISO code	2	Apartment house

Item	Value	Description
Class	Occupancy	
AIR code	328	Construction
ISO code	3	Contractors

Item	Value	Description
Class	Occupancy	
AIR code	304	Temporary lodging
ISO code	4	Motel/hotel

Item	Value	Description
Class	Occupancy	
AIR code	321	General industrial
ISO code	5	Industrial process

Item	Value	Description
Class	Occupancy	
AIR code	305	Group institutional house
ISO code	6	Institutional

Item	Value	Description
Class	Occupancy	
AIR code	311	General commercial
ISO code	7	Mercantile

Item	Value	Description
Class	Occupancy	
AIR code	315	Professional, technical, and business services
ISO code	8	Office

Item	Value	Description
Class	Occupancy	

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Item	Value	Description
AIR code	314	Personal and repair services
ISO code	9	Service

United States state and FIPS codes

These are the U.S. state and FIPS codes.

State	Abbreviation/Code	FIPS Code
Alabama	AL	1
Alaska	AK	2
Arizona	AZ	4
Arkansas	AR	5
California	CA	6
Colorado	CO	8
Connecticut	CT	9
Delaware	DE	10
Dist.Columbia	DC	11
Florida	FL	12
Georgia	GA	13
Hawaii	HI	15
Idaho	ID	16
Illinois	IL	17
Indiana	IN	18
Iowa	IA	19
Kansas	KS	20
Kentucky	KY	21
Louisiana	LA	22
Maine	ME	23
Maryland	MD	24
Massachusetts	MA	25
Michigan	MI	26
Minnesota	MN	27
Mississippi	MS	28

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State	Abbreviation/Code	FIPS Code
Missouri	MO	29
Montana	MT	30
Nebraska	NE	31
Nevada	NV	32
NewHampshire	NH	33
NewJersey	NJ	34
NewMexico	NM	35
NewYork	NY	36
NorthCarolina	NC	37
NorthDakota	ND	38
Ohio	OH	39
Oklahoma	OK	40
Oregon	OR	41
Pennsylvania	PA	42
RhodeIsland	RI	44
SouthCarolina	SC	45
SouthDakota	SD	46
Tennessee	TN	47
Texas	TX	48
Utah	UT	49
Vermont	VT	50
Virginia	VA	51
Washington	WA	53
WestVirginia	WV	54
Wisconsin	WI	55
Wyoming	WY	56

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AIR Worldwide (AIR) provides risk modeling solutions that make individuals, businesses, and society more resilient to extreme events. In 1987, AIR Worldwide founded the catastrophe modeling industry and today models the risk from natural catastrophes, terrorism, pandemics, casualty catastrophes, and cyber incidents. Insurance, reinsurance, financial, corporate, and government clients rely on AIR's advanced science, software, and consulting services for catastrophe risk management, insurance-linked securities, longevity modeling, site-specific engineering analyses, and agricultural risk management. AIR Worldwide, a Verisk (Nasdaq:VRSK) business, is headquartered in Boston with additional offices in North America, Europe, and Asia. For more information, please visit www.air-worldwide.com.



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