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Aviation Environmental Design Tool (AEDT)

Supplemental Manual

AEDT Standard Input File (ASIF)

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1 Introduction

The AEDT Standard Input File (ASIF) provides a standard file format to allow for the import of data into AEDT. The ASIF format allows users to create a new study by importing a complete study including airports, scenarios, cases, operations, tracks, and other study definitions. Users can also use the partial ASIF import to import data into an existing AEDT study.

This Manual provides a description of the ASIF format for the ASIF schema version 1.2.16. It also provides an overview of ASIF usage and annotated sample studies. The Manual is intended for analysts and programmers who wish to create ASIF.

It is recommended to use the ASIF schema documentation, **AsifMerge.html**, in conjunction with the Manual. It provides diagrams that illustrate the structure and contents of each XML element as well as rules and properties of each element, see Section 1.2.

1.1 Overview of the ASIF Format

ASIF is based on the XML file format. XML is a text-based file format that is readable by both humans and computers. Data values are tagged with elements and organized in a hierarchical manner such that the elements can contain other elements or data. XML elements can also have attributes which provide metadata that affect how the ASIF importer processes the data in the XML file. This document assumes users have basic familiarity with the XML file format. For additional information about XML, see <http://xmlfiles.com/xml/>.

An ASIF can be created and edited in a standard XML editor. The *XML Notepad* and *Notepad++* are XML editors that can be downloaded for free online.

1.2 ASIF Schema Documentation

The ASIF schema (.xsd) files are located under *C:\Program Files\FAA\AEDT\Examples* directory.

- ASIF.xsd
- ASIF_Airport.xsd
- ASIF_Common.xsd
- ASIF_Fleet.xsd
- ASIF_Receptors.xsd

The ASIF schema documentation, **AsifMerge.html**, is located under the *C:\Program Files\FAA\AEDT\Examples\ASIF Schema Reference* directory. This is a HTML file which contains schema diagrams that illustrate the structure and contents of each XML element. The links in the HTML file facilitates understanding the schema hierarchy and the rules and properties of each element.

The following table describes the notations used in the ASIF schema diagram.

Notation for Schema Diagram

Notation	Icon	Description
Choice indicator		Only one of the elements contained in the selected group can be present
Sequence indicator		Child elements must appear in the specified sequence
Element	 	<p>Represented by a rectangle with solid or dotted border</p> <p>Solid rectangle – required element</p> <p>Dotted rectangle – optional element</p>
Element with (+) sign	 	Indicates that the element has child element(s) and/or attribute(s)
Element with min and max bound	 	Specifies the min/max number of times an element can occur in the parent element

1.3 Importing External Studies

AEDT also supports import of INM and EDMS studies by converting these legacy tools into ASIF format and importing into AEDT. See the AEDT User Manual and the AEDT Supplemental Manual for more information on importing legacy studies.

2 ASIF Import Types

There are two types of ASIF import files: a full-study import and a partial-study import. The following sections describe each type of import file.

2.1 Full Study Import

AEDT supports the creation of new studies via ASIF. For a full-study import, the **content** attribute of the **AsifXML** element must be set to “study”.

Please see Section 3 for two sample studies.

2.2 Partial ASIF Import

Partial ASIF is used to import specific pieces of data into an existing AEDT study. A partial ASIF is organized similarly to a full ASIF, except that it contains a single type of data – the **content** attribute of the **AsifXML** element must specify the data type. The data types that can be imported via partial ASIF are listed below:

- airportLayoutSet
- annualization
- case
- fleet
- receptorSets
- scenario
- boundary
- trackOpSet
- runup
- userGroundSupportEquipmentSet
- stationarySourceSet
- operationalProfileSet

The format for a partial ASIF is outlined below. The header is the same as a full ASIF, except that the **content** attribute is not “study”. Instead, the **content** attribute should specify the data element that appears in the file.

```
<AsifXml xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.15"
content="ENTER_CONTENT_TYPE_HERE">
```

```
<!-- The content block follows here: -->
```

```
    <*content type here*>
```

```
    ...
```

```
    </*end content type*>
```

```
</AsifXml>
```

Note that some of these elements rely on information provided in other data blocks. If this information is not provided by the base study when loading the partial ASIF, an error will be generated. For example, attempting to load a partial ASIF containing scenario data that references an airport that does not exist in the base study will cause an error.

2.3 Sample ASIFs

Sample ASIFs, including full study files and partial ASIFs, are located in *C:\Program Files\FAA\AEDT\Examples* directory.

Full study ASIF

- asif_emissions_study.xml
- asif_sensor_path_study.xml
- asif_small.xml

Partial ASIF

- PartialASIF_airportLayoutSet.xml
- PartialASIF_annualization.xml
- PartialASIF_boundary.xml
- PartialASIF_operationalProfileSet.xml
- PartialASIF_receptorSets.xml
- PartialASIF_runup.xml
- PartialASIF_scenario.xml
- PartialASIF_stationarySourceSet.xml
- PartialASIF_userGroundSupportEquipmentSet.xml

3 ASIF Examples

This section provides simple steps to assist in the creation of ASIFs for possible studies. See Section 3.1 on developing an ASIF for a simple study and Section 3.2 for an emissions dispersion study.

3.1 Create a Simple Study

Follow the steps below to create an ASIF for a simple study:

1. Create an empty study file.
2. Populate the airport layout section.
3. Define receptor set.
4. Define scenario and case hierarchy.
5. Populate the case with tracks and air operations.
6. Create annualization.

The following sections provide examples of each of the above steps. This example should be used as an aid for understanding the ASIF format, and not as a data reference.

Step 1: Create empty study file

At a minimum, an ASIF consists of the standard XML declaration, a study section, and study metadata.



Study name must be at least five characters long and must not contain periods (.) or spaces.

```
<AsifXml version="1.2.15" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

  <study xmlns:asif="http://www.faa.gov/ASIF">
    <!-- User-defined study name -->
    <name>ASIF_example</name>

    <!-- Study type - Emissions, Dispersion, Noise and Emissions, or Noise and
Dispersion -->
    <studyType>Noise and Emissions</studyType>

    <!-- Indicate the units used in the study -->
    <emissionsUnits>Kilograms</emissionsUnits>

    <!-- User-defined study description -->
    <description>A sample study</description>

    <!-- Add airport layouts here -->

    <!-- Add receptors here -->

    <!-- Add scenarios here -->

  </study>
</AsifXml>
```


Step 2: Populate airport layouts section

AEDT requires all airports in the study area to be declared. The airport runway definitions are specified using the **runwaySet** element. If runways are not specified in ASIF, then the runway data from the Airport database will be used during the ASIF import.

In the example below, KMDW airport is defined using user-specified runways.

```
<airportLayoutSet>
  <airportLayout>
    <!-- User can specify an airport with user-defined runway -->
    <airportCode type="ICAO">KMDW</airportCode>

    <!-- Airports can have one or more runways defined -->
    <runwaySet>
      <runway>
        <!-- Runway length (in feet) -->
        <length>5932</length>

        <!-- Runway width (in feet) -->
        <width>150</width>

        <!-- One or more runway ends -->
        <runwayEnd>
          <!-- user-defined name for runway end -->
          <name>04R</name>

          <!-- latitude and longitude of runway end -->
          <latitude>41.779496</latitude>
          <longitude>-87.75876</longitude>

          <!-- elevation in feet -->
          <elevation>0.0</elevation>

          <!-- threshold crossing height (in feet) -->
          <threshCrossHeight>50.0</threshCrossHeight>

          <!-- glide slope for an approach to this runway end -->
          <glideSlope>3.0</glideSlope>

          <!-- displaced threshold for departure-->
          <depDispThresh>0.0</depDispThresh>

          <!-- displaced threshold for approach -->
          <appDispThresh>0.0</appDispThresh>

          <!-- Percent change in airport average headwind -->
          <percentWind>0.0</percentWind>
        </runwayEnd>
      </runwayEnd>
      <runwayEnd>
        <name>22L</name>
        <latitude>41.791167</latitude>
        <longitude>-87.743554</longitude>
        <elevation>0.0</elevation>
        <threshCrossHeight>50.0</threshCrossHeight>
        <glideSlope>3.0</glideSlope>
      </runwayEnd>
    </runwaySet>
  </airportLayout>
</airportLayoutSet>
```

```
<depDispThresh>0.0</depDispThresh>  
<appDispThresh>0.0</appDispThresh>  
<percentWind>0.0</percentWind>  
</runwayEnd>  
</runway>  
</runwaySet>  
</airportLayout>  
</airportLayoutSet>
```

Step 3: Create receptor set

If the study includes noise or dispersion analysis, then one or more receptor sets are required. Receptor sets define locations (grid or point) where noise/dispersion measurements are taken. The example below defines a grid type receptor set.

```
<receptorSet>  
<!-- user-defined name -->  
<name>gridfile_100x100</name>  
<grid>  
<!-- Latitude and longitude of southwest corner of grid -->  
<latitude>41.97872</latitude>  
<longitude>-87.90439</longitude>  
  
<!-- Width and height of grid (in nautical miles) -->  
<width>100.0</width>  
<height>100.0</height>  
  
<!-- Number of points across height and width of grid -->  
<numWidth>100</numWidth>  
<numHeight>100</numHeight>  
</grid>  
</receptorSet>
```

Step 4: Create scenario and case hierarchy

Scenarios contain a set of cases (i.e. operation group) that are used to group aircraft tracks and operations.

The following example demonstrates a simple scenario and case structure. A case can contain one or more child cases.

```
<scenario>  
<!-- user-defined scenario name and description -->  
<name>Baseline_Scenario</name>  
  
<!-- user-defined start time for scenario -->  
<startTime>2009-11-10T15:02:00</startTime>  
  
<!-- Duration of scenario (in hours) -->  
<duration>24</duration>  
  
<!-- Taxi model for scenario -->  
<taxiModel>UserSpecified</taxiModel>  
  
<!-- Aircraft performance model -->  
<acftPerfModel>SAE1845</acftPerfModel>
```

```
<!-- Enable/disable bank angle calculations for aircraft performance
modeling -->
<bankAngle>>true</bankAngle>

<!-- Sulfur related settings -->
<sulfurConversionRate>0.05</sulfurConversionRate>
<fuelSulfurContent>6.8E-4</fuelSulfurContent>

<!-- A description of the scenario -->
<description>Simple scenario</description>

<!-- List of airports to use for the scenario -->
<scenarioAirportLayoutSet>
  <scenarioAirportLayout>
    <airportLayoutName>KMDW</airportLayoutName>
  </scenarioAirportLayout>
</scenarioAirportLayoutSet>

<caseSet>
  <!-- One or more case elements -->
  <case>
    <!-- sequential case number unique in this scenario -->
    <caseId>0</caseId>

    <!-- user-defined case name -->
    <name>CaseA</name>

    <!-- Noise emissions source -->
    <source>Aircraft</source>

    <!-- Case start time and duration -->
    <startTime>2009-11-10T15:02:00</startTime>
    <duration>24</duration>

    <!-- Add trackOpSet elements here -->

  </case>
</caseSet>
</scenario>
```

Step 5: Populate cases with tracks and air operations

The **trackOpSet** element defines a single track and any number of aircraft operations to be flown on that track. A track can be composed of one or more subtracks with dispersion values. An un-dispersed track has one subtrack with dispersion weight of 1. A dispersed track consists of multiple subtracks. The sum of the dispersion weights for all subtracks within a given track must equal 1. Operations defined for the track will be dispersed based on the dispersion weight amongst any subtracks that make up the track.

```
<trackOpSet>
  <!-- Single track element -->
  <track>
    <!-- user-defined track name -->
    <name>04R_Dep</name>
```

```
--> <!-- Track operation type: A = Arrival, D = Departure, O = Overflight -->
<optype>D</optype>

<!-- Airport and runway for this track -->
<airport type="ICAO">KMDW</airport>
<runway>04R</runway>

<!-- tracks can be composed of multiple dispersed subtracks -->
<subtrack>

  <!-- the user-defined ID for the subtrack -->
  <id>0</id>

  <!-- The sum of the dispersionWeights for all subtracks within a
given track must equal 1 -->
  <dispersionWeight>1.0</dispersionWeight>

  <!-- Set of trackNode or trackVector elements, all must be the same
for each subtrack -->
  <trackNodes>
    <trackNode>
      <latitude>40.65640</latitude>
      <longitude>-73.71322</longitude>
    </trackNode>
    <trackNode>
      <latitude>40.65640</latitude>
      <longitude>-53.71322</longitude>
    </trackNode>
  </trackNodes>

</subtrack>
</track>

<operations>
<!--operation element represents one or more flights on a track-->
<operation>
  <!-- user-defined operation id -->
  <id>T9.1</id>

  <!-- AEDT aircraftType for this operation -->
  <aircraftType>
    <airframeModel>Raytheon Beech 1900-C</airframeModel>
    <engineCode>PT67B</engineCode>
    <engineModCode>NONE </engineModCode>
  </aircraftType>

  <!-- number of times to fly this operation -->
  <numOperations>1.0</numOperations>

  <!-- user-defined flight number, optional -->
  <flightNumber>CKE545</flightNumber>

  <!-- user-defined operation type, optional -->
  <userType>MU3001</userType>
```

```
<!-- user-defined parameter data, optional -->
<userParam>J</userParam>

<!-- arrival or departure airport and runway -->
<departureAirport type="ICAO">KMDW</departureAirport>
<departureRunway>04R</departureRunway>
<arrivalAirport type="FAA">LIT</arrivalAirport>

<!-- offTime for departures or onTime for arrivals -->
<offTime>2009-11-10T15:02:00</offTime>

<!-- aircraft profile for this operation -->
<saeProfile>STANDARD</saeProfile>
</operation>
</operations>
</trackOpSet>
```

Step 6: Create annualization

Annualization is the process of performing a weighted summation¹ over the noise and emission results from some or all of the cases within a scenario in order to create results that represent noise and emissions exposures over a time period of interest. Each scenario element may contain an annualization element describing the weighted annualization tree.

```
<annualization>
  <!-- user-defined annualization name -->
  <name>Baseline_Annualization</name>

  <!-- Define one or more groups of cases and groups -->
  <annualizationGroup>

    <!-- Define rollup weight for this group -->
    <weight>1.0</weight>
    <!-- Associate scenario case with this annualization group -->
    <annualizationCase>
      <!-- Specify case name -->
      <name>CaseA</name>
      <!-- Define rollup weight for this case -->
      <weight>1.0</weight>
    </annualizationCase>

  </annualizationGroup>
</annualization>
```

Step 7: Full ASIF

The full study ASIF is as follows:

¹ The word 'summation' is used figuratively and the actual process of correctly summing or adding together noise or emissions results depends upon the metric being used. For example: energy metric results would not be directly added together for a result since they are logarithmic values, but would rather be log-added.

```
<AsifXml version="1.2.15" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

  <study xmlns:asif="http://www.faa.gov/ASIF">

    <!-- User-defined study name -->
    <name>ASIF_example</name>

    <!-- Study type - Emissions, Dispersion, Noise and Emissions, or Noise and
Dispersion -->
    <studyType>Noise and Emissions</studyType>

    <!-- Indicate the units used in the study -->
    <emissionsUnits>Kilograms</emissionsUnits>

    <!-- User-defined study description -->
    <description>A sample study</description>

    <airportLayoutSet>
      <airportLayout>
        <!-- User can specify an airport with user-defined runway -->
        <airportCode type="ICAO">KMDW</airportCode>

        <!-- Airports can have one or more runways defined -->
        <runwaySet>
          <runway>
            <!-- Runway length (in feet) -->
            <length>5932</length>

            <!-- Runway width (in feet) -->
            <width>150</width>

            <!-- One or more runway ends -->
            <runwayEnd>
              <!-- user-defined name for runway end -->
              <name>04R</name>

              <!-- latitude and longitude of runway end -->
              <latitude>41.779496</latitude>
              <longitude>-87.75876</longitude>

              <!-- elevation in feet -->
              <elevation>0.0</elevation>

              <!-- threshold crossing height (in feet) -->
              <threshCrossHeight>50.0</threshCrossHeight>

              <!-- glide slope for an approach to this runway end -->
              <glideSlope>3.0</glideSlope>

              <!-- displaced threshold for departure-->
              <depDispThresh>0.0</depDispThresh>

              <!-- displaced threshold for approach -->
              <appDispThresh>0.0</appDispThresh>
            </runwayEnd>
          </runway>
        </runwaySet>
      </airportLayout>
    </airportLayoutSet>
  </study>
</AsifXml>
```

```
    <!-- Percent change in airport average headwind -->
    <percentWind>0.0</percentWind>
  </runwayEnd>
</runwayEnd>
  <name>22L</name>
  <latitude>41.791167</latitude>
  <longitude>-87.743554</longitude>
  <elevation>0.0</elevation>
  <threshCrossHeight>50.0</threshCrossHeight>
  <glideSlope>3.0</glideSlope>
  <depDispThresh>0.0</depDispThresh>
  <appDispThresh>0.0</appDispThresh>
  <percentWind>0.0</percentWind>
</runwayEnd>
</runway>
</runwaySet>
</airportLayout>
</airportLayoutSet>

<receptorSet>
  <!-- user-defined name -->
  <name>gridfile_100x100</name>
  <grid>
    <!-- Latitude and longitude of southwest corner of grid -->
    <latitude>41.97872</latitude>
    <longitude>-87.90439</longitude>

    <!-- Width and height of grid (in nautical miles) -->
    <width>100.0</width>
    <height>100.0</height>

    <!-- Number of points across height and width of grid -->
    <numWidth>100</numWidth>
    <numHeight>100</numHeight>
  </grid>
</receptorSet>

<scenario>
  <!-- user-defined scenario name and description -->
  <name>Baseline_Scenario</name>

  <!-- user-defined start time for scenario -->
  <startTime>2009-11-10T15:02:00</startTime>

  <!-- Duration of scenario (in hours) -->
  <duration>24</duration>

  <!-- Taxi model for scenario -->
  <taxiModel>UserSpecified</taxiModel>

  <!-- Aircraft performance model -->
  <acftPerfModel>SAE1845</acftPerfModel>

  <!-- Enable/disable bank angle calculations for aircraft performance
modeling -->
```

```
<bankAngle>>true</bankAngle>

<!-- Sulfur related settings -->
<sulfurConversionRate>0.05</sulfurConversionRate>
<fuelSulfurContent>6.8E-4</fuelSulfurContent>

<!-- A description of the scenario -->
<description>A sample scenario</description>

<!-- List of airports to use for the scenario -->
<scenarioAirportLayoutSet>
  <scenarioAirportLayout>
    <airportLayoutName>KMDW</airportLayoutName>
  </scenarioAirportLayout>
</scenarioAirportLayoutSet>

<caseSet>
  <!-- One or more case elements -->
  <case>
    <!-- sequential case number unique in this scenario -->
    <caseId>0</caseId>

    <!-- user-defined case name -->
    <name>CaseA</name>

    <!-- Noise emissions source -->
    <source>Aircraft</source>

    <!-- Case start time and duration -->
    <startTime>2009-11-10T15:02:00</startTime>
    <duration>24</duration>

    <trackOpSet>
      <!-- Single track element -->
      <track>
        <!-- user-defined track name -->
        <name>04R_Dep</name>
        <!-- Track operation type: A = Arrival, D = Departure, O = Overflight -->
        <optype>D</optype>

        <!-- Airport and runway for this track -->
        <airport type="ICAO">KMDW</airport>
        <runway>04R</runway>

        <!-- tracks can be composed of multiple dispersed subtracks -->
        <subtrack>

          <!-- the user-defined ID for the subtrack -->
          <id>0</id>

          <!-- The sum of the dispersionWeights for all subtracks within a
          given track must equal 1 -->
          <dispersionWeight>1.0</dispersionWeight>

```



```
<!-- Set of trackNode or trackVector elements, all must be the same
for each subtrack -->
<trackNodes>
  <trackNode>
    <latitude>40.65640</latitude>
    <longitude>-73.71322</longitude>
  </trackNode>
  <trackNode>
    <latitude>40.65640</latitude>
    <longitude>-53.71322</longitude>
  </trackNode>
</trackNodes>

</subtrack>
</track>

<operations>
<!--operation element represents one or more flights on a track-->
<operation>
  <!-- user-defined operation id -->
  <id>T9.1</id>

  <!-- AEDT aircraftType for this operation -->
  <aircraftType>
    <airframeModel>Raytheon Beech 1900-C</airframeModel>
    <engineCode>PT67B</engineCode>
    <engineModCode>NONE </engineModCode>
  </aircraftType>

  <!-- number of times to fly this operation -->
  <numOperations>1.0</numOperations>

  <!-- user-defined flight number, optional -->
  <flightNumber>CKE545</flightNumber>

  <!-- user-defined operation type, optional -->
  <userType>MU3001</userType>

  <!-- user-defined parameter data, optional -->
  <userParam>J</userParam>

  <!-- arrival or departure airport and runway -->
  <departureAirport type="ICAO">KMDW</departureAirport>
  <departureRunway>04R</departureRunway>
  <arrivalAirport type="FAA">LIT</arrivalAirport>

  <!-- offTime for departures or onTime for arrivals -->
  <offTime>2009-11-10T15:02:00</offTime>

  <!-- aircraft profile for this operation -->
  <saeProfile>STANDARD</saeProfile>
</operation>
</operations>
</trackOpSet>

</case>
```

```
</caseSet>

<annualization>
  <!-- user-defined annualization name -->
  <name>Baseline_Annualization</name>

  <!-- Define one or more groups of cases and groups -->
  <annualizationGroup>

    <!-- Define rollup weight for this group -->
    <weight>1.0</weight>
    <!-- Associate scenario case with this annualization group -->
    <annualizationCase>
      <!-- Specify case name -->
      <name>CaseA</name>
      <!-- Define rollup weight for this case -->
      <weight>1.0</weight>
    </annualizationCase>

  </annualizationGroup>
</annualization>

</scenario>
</study>
</AsifXml>
```

3.2 Create an Emissions Dispersion Study

An emissions dispersion study contains the same core elements as a simple study (Section 3.1). In addition, a typical dispersion study includes additional airport features (gates, taxiways, taxipaths), operational profiles, airport configuration, and stationary sources.

1. Create an empty study file.
2. Populate the airport layout section.
 - a. Basic airport information (airport code and location)
 - b. Stationary sources
 - c. Airport gates/terminals
 - d. Taxiways
 - e. Runways
 - f. Taxipaths
 - g. Tracks
 - h. Airport configurations
3. Create receptor set.
4. Create scenario and case hierarchy.
 - a. Airport scenario properties
 - b. Non-aircraft operations case
 - c. Aircraft operations case

The following sections provide examples of the steps. This ASIF example should be used as an aid for understanding the ASIF format, and not as a data reference. This example is based on the STUDY_PVD

study included with AEDT installation; but it has been much simplified for illustrative purposes. Please note that both the aircraft operations and the non-aircraft operations in this study are defined using operational profiles. When running profile-based aircraft operations, the “Apply Delay & Sequencing Model on Taxi” modeling option must be selected, and operating configuration and taxi network must exist in the airport layout.

Step 1: Create empty study file

At a minimum, an ASIF consists of the standard XML declaration, a study section, and study metadata.



Study name must be at least five characters long and must not contain periods (.) or spaces.

```
<?xml version="1.0" encoding="utf-8"?>
<AsifXml xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.15" content="study">
  <study>
    <name>PVD2004_small</name>
    <studyType>Dispersion</studyType>
    <emissionsUnits>Kilograms</emissionsUnits>
    <description>A sample emissions study</description>

    <!-- Add airport layouts here -->
    <!-- Add receptors here -->
    <!-- Add scenarios here -->

  </study>
</AsifXml>
```

Step 2: Populate airport layouts section

AEDT requires all airports in the study area to be declared. In addition to runways and tracks, the airport layout section can contain buildings, stationary sources of emissions (such as generators, training fires, or boilers), gates, terminals, taxiways, taxipaths, airport configurations, and operational profiles.

Step 2a: Define airport layout

Define the basic airport layout properties including layout name, airport code, and location.

```
<airportLayoutSet>
  <airportLayout>
    <name>Baseline_PVD2004_layout</name>
    <airportCode type="ICAO">KPVD</airportCode>
    <startDate>2004-01-01</startDate>
    <elevation>55</elevation>    <!-- in feet -->
    <taxiInTime>7</taxiInTime>  <!-- in minutes -->
    <taxiOutTime>19</taxiOutTime> <!-- in minutes -->
    <latitude>41.723999</latitude>
    <longitude>-71.428221</longitude>
```

Step 2b: Define stationary sources

Define each stationary source with an individual location definition, as well as other properties that describe the nature or amount of emissions. Each stationary source may have different elements associated with it. The example below defines an emergency generator.

```
<stationarySourceSet>
  <stationarySource>
    <name>600kw Emergency Gen-Baseline-KPVD-2004</name>
    <pointStationarySource>
      <pointCoord>
        <latitude>41.743248909695488</latitude>
        <longitude>-71.412168090784959</longitude>
      </pointCoord>
      <baseElevation>16.764</baseElevation> <!-- in meters -->
      <releaseHeight>12.192</releaseHeight> <!-- in meters -->
      <gasVelocity>15</gasVelocity> <!-- in meters/sec -->
      <stackDiameter>0.100584</stackDiameter> <!-- in meters -->
      <temperature>400</temperature> <!-- in Fahrenheit -->
    </pointStationarySource>
    <categoryGenerator>
      <typeCode>2</typeCode>
      <powerRatingHorsepower>1340</powerRatingHorsepower>
      <CO_EF>3.03</CO_EF>
      <TOC_EF>1.14</TOC_EF>
      <NOx_EF>14</NOx_EF>
      <SOx_EF>0.93</SOx_EF>
      <PM10_EF>0.998</PM10_EF>
      <pollutionControlFactorTOC>0</pollutionControlFactorTOC>
      <pollutionControlFactorCO>0</pollutionControlFactorCO>
      <pollutionControlFactorNOx>0</pollutionControlFactorNOx>
      <pollutionControlFactorSOx>0</pollutionControlFactorSOx>
      <pollutionControlFactorPM10>0</pollutionControlFactorPM10>
      <pm25ToPm10Ratio>1</pm25ToPm10Ratio>
    </categoryGenerator>
  </stationarySource>
</stationarySourceSet>
```

Step 2c: Define airport gates/terminals

Airport gates can be defined as a point or a polygon. In AEDT, a polygon gate is referred as a terminal. For dispersion modeling, gates are modeled in AERMOD as either volume or area sources. A single-point gate (a pair of X/Y coordinates) is modeled as a volume source; while a polygon gate is modeled as an area source.

This example declares a terminal (polygon with eight points) which is defined by a set of latitude and longitude coordinates.

```
<gateSet>
  <gate>
    <name>AC</name>
    <elevation>16.76</elevation> <!-- in meters -->
    <releaseHeight>1.499616</releaseHeight> <!-- in meters -->
    <sigmaY>0.1</sigmaY>
    <sigmaZ>0.1</sigmaZ>
    <polygonCoords>
      <vertex>
        <latitude>41.745139410943032</latitude>
        <longitude>-71.410155909148983</longitude>
      </vertex>
      <vertex>
        <latitude>41.74454094786433</latitude>
```

```
    <longitude>-71.4088479272253</longitude>
  </vertex>
<vertex>
  <latitude>41.739914698711225</latitude>
  <longitude>-71.412700204036113</longitude>
</vertex>
<vertex>
  <latitude>41.740535077085347</latitude>
  <longitude>-71.414048427664284</longitude>
</vertex>
<vertex>
  <latitude>41.742143089180551</latitude>
  <longitude>-71.4130440975597</longitude>
</vertex>
<vertex>
  <latitude>41.741863092089559</latitude>
  <longitude>-71.412435917483549</longitude>
</vertex>
<vertex>
  <latitude>41.743155491944563</latitude>
  <longitude>-71.411380309779929</longitude>
</vertex>
<vertex>
  <latitude>41.74350128931475</latitude>
  <longitude>-71.411515795803126</longitude>
</vertex>
</polygonCoords>
</gate>
</gateSet>
```

Step 2d: Define taxiways

Taxiways are line segments that link gates, runways, and other taxiways. They are composed of sequences of latitude and longitude coordinates, and specify the speed of aircraft that use them at each node.

Only the first two taxiways out of 24 are shown here for brevity. The entire taxiways are included in the example file.

```
<taxiwaySet>
  <taxiway>
    <name>A2 to 3</name>
    <dispersionWidth>22.86</dispersionWidth> <!-- in meters -->
    <taxiNodeSet>
      <taxiNode>
        <latitude>41.747442309926434</latitude>
        <longitude>-71.399033659570691</longitude>
        <elevation>16.76</elevation> <!-- in meters -->
        <speed>17</speed> <!-- in mph -->
      </taxiNode>
      <taxiNode>
        <latitude>41.746840990624833</latitude>
        <longitude>-71.397780701750833</longitude>
        <elevation>16.76</elevation>
        <speed>17</speed>
      </taxiNode>
    </taxiNodeSet>
  </taxiway>
</taxiwaySet>
```

```
    </taxiNodeSet>
  </taxiway>

  <taxiway>
    <name>AC inout 1 to 2</name>
    <dispersionWidth>22.86</dispersionWidth>
    <taxiNodeSet>
      <taxiNode>
        <latitude>41.742510604805076</latitude>
        <longitude>-71.411486739128023</longitude>
        <elevation>16.76</elevation>
        <speed>17</speed>
      </taxiNode>
      <taxiNode>
        <latitude>41.742008226242724</latitude>
        <longitude>-71.410307016216962</longitude>
        <elevation>16.76</elevation>
        <speed>17</speed>
      </taxiNode>
    </taxiNodeSet>
  </taxiway>

  .....

</taxiwaySet>
```

Step 2e: Define runways

A runway in AEDT is defined by two runway ends. Runways are used by departing and arriving aircraft, and are linked to gates by taxipaths. The example below defines two runways: 05-23 and 16-34.

```
<runwaySet>
  <runway>
    <length>7069</length> <!-- in feet -->
    <width>150</width> <!-- in feet -->
    <runwayEnd>
      <name>05</name>
      <latitude>41.73040290796537</latitude>
      <longitude>-71.411541169743472</longitude>
      <elevation>54.986876640419943</elevation> <!-- in feet -->
      <glideSlope>3</glideSlope>
    </runwayEnd>
    <runwayEnd>
      <name>23</name>
      <latitude>41.746840990624833</latitude>
      <longitude>-71.397780701750833</longitude>
      <elevation>54.986876640419943</elevation>
      <glideSlope>3</glideSlope>
    </runwayEnd>
  </runway>

  <runway>
    <length>5961</length>
    <width>150</width>
    <runwayEnd>
      <name>16</name>
```

```
<latitude>41.748017908874452</latitude>  
<longitude>-71.4087003031238</longitude>  
<elevation>54.986876640419943</elevation>  
<glideSlope>3</glideSlope>  
</runwayEnd>  
<runwayEnd>  
<name>34</name>  
<latitude>41.735182619491127</latitude>  
<longitude>-71.395155630736014</longitude>  
<elevation>54.986876640419943</elevation>  
<glideSlope>3</glideSlope>  
</runwayEnd>  
</runway>  
</runwaySet>
```

Step 2f: Assemble taxipaths

Taxipaths are a series of taxiways that aircraft takes from a gate to a runway end (outbound) or from a runway end to a gate (inbound). Taxipaths can be composed of multiple taxiway line segments; and separate taxipaths may share taxiways in common as paths across the airport.

Only the first two taxipaths out of eight are shown here for brevity. The entire taxipaths are included in the example file.

```
<taxipathSet>
  <taxipath>
    <gateName>AC</gateName>
    <runwayName>05</runwayName>
    <direction>Outbound</direction>
    <taxiwayName>AC inout 1 to 2</taxiwayName>
    <taxiwayName>T3 to 4</taxiwayName>
    <taxiwayName>T4 to 5</taxiwayName>
    <taxiwayName>T5 to 6</taxiwayName>
    <taxiwayName>E1 to 2</taxiwayName>
    <taxiwayName>S2 to 3</taxiwayName>
    <taxiwayName>S3 to 4</taxiwayName>
  </taxipath>

  <taxipath>
    <gateName>AC</gateName>
    <runwayName>05</runwayName>
    <direction>Inbound</direction>
    <taxiwayName>N5 to 6</taxiwayName>
    <taxiwayName>N4 to 5</taxiwayName>
    <taxiwayName>N3 to 4</taxiwayName>
    <taxiwayName>N2 to 3</taxiwayName>
    <taxiwayName>T1 to 2</taxiwayName>
    <taxiwayName>T2 to 3</taxiwayName>
    <taxiwayName>AC inout 1 to 2</taxiwayName>
  </taxipath>

  .....
</taxipathSet>
```


Step 2g: Define tracks

Tracks are paths flown by aircraft, and are defined for an aircraft type (fixed-wing or rotary-wing) and an operation type (arrival, departure, or touch & go). This sample ASIF contains a total of 12 tracks consisting of arrival, departure, and touch & go tracks for each of the four runway ends. Only the first three tracks are shown here for brevity.

```
<trackSet>
  <track>
    <name>05_D_FixedWing</name>
    <optype>D</optype>
    <wingtype>F</wingtype>
    <airport type="ICAO">KPVD</airport>
    <runway>05</runway>
    <subtrack>
      <id>0</id>
      <dispersionWeight>1</dispersionWeight>
      <trackNodes>
        <trackNode>
          <latitude>41.73040290796537</latitude>
          <longitude>-71.411541169743472</longitude>
        </trackNode>
        <trackNode>
          <latitude>41.746840990624833</latitude>
          <longitude>-71.397780701750833</longitude>
        </trackNode>
        <trackNode>
          <latitude>43.137117876102565</latitude>
          <longitude>-70.202867639935235</longitude>
        </trackNode>
      </trackNodes>
    </subtrack>
  </track>

  <track>
    <name>23_D_FixedWing</name>
    <optype>D</optype>
    <wingtype>F</wingtype>
    <airport type="ICAO">KPVD</airport>
    <runway>23</runway>
    <subtrack>
      <id>0</id>
      <dispersionWeight>1</dispersionWeight>
      <trackNodes>
        <trackNode>
          <latitude>41.746840990624833</latitude>
          <longitude>-71.397780701750833</longitude>
        </trackNode>
        <trackNode>
          <latitude>41.73040290796537</latitude>
          <longitude>-71.411541169743472</longitude>
        </trackNode>
        <trackNode>
          <latitude>40.32809642691705</latitude>
          <longitude>-72.555207007763542</longitude>
        </trackNode>
      </trackNodes>
    </subtrack>
  </track>
```

```
    </trackNodes>
  </subtrack>
</track>

<track>
  <name>05_A_FixedWing</name>
  <optype>A</optype>
  <wingtype>F</wingtype>
  <airport type="ICAO">KPVD</airport>
  <runway>05</runway>
  <subtrack>
    <id>0</id>
    <dispersionWeight>1</dispersionWeight>
    <trackNodes>
      <trackNode>
        <latitude>40.32809642691705</latitude>
        <longitude>-72.555207007763542</longitude>
      </trackNode>
      <trackNode>
        <latitude>41.73040290796537</latitude>
        <longitude>-71.411541169743472</longitude>
      </trackNode>
    </trackNodes>
  </subtrack>
</track>
```

Step 2h: Define airport operating configurations

Airport operating configurations specify the weather conditions and times under which particular runway assignments are made for aircraft based on the aircraft weight category (Small, Large, or Heavy). Operating configurations are only used if the Delay and Sequencing Modeling is selected.

A single configuration is defined in this example, but multiple configurations could be defined in an airport layout. Please note that the following <airportConfig> section does not contain any activation parameters (such as wind direction, wind speed, hour of day, ceiling, visibility, and temperature). This means that all the activation parameters are set to no bound.

```
<airportConfigSet>
  <airportConfig>
    <configurationName>Configuration</configurationName>
    <useDistribution>>false</useDistribution>
    <airportCapacity>
      <capacityPoint>
        <arrivalsPerHour>27</arrivalsPerHour>
        <departuresPerHour>52</departuresPerHour>
      </capacityPoint>
      <capacityPoint>
        <arrivalsPerHour>52</arrivalsPerHour>
        <departuresPerHour>27</departuresPerHour>
      </capacityPoint>
    </airportCapacity>

    <runwayAssignmentSet>
      <runwayAssignment>
        <aircraftSize>S</aircraftSize>
        <runway>16</runway>
      </runwayAssignment>
    </runwayAssignmentSet>
  </airportConfig>
</airportConfigSet>
```

```
<arrivalPercentage>0.8</arrivalPercentage>
<departurePercentage>1.32</departurePercentage>
<tgoPercentage>0</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>S</aircraftSize>
  <runway>23</runway>
  <arrivalPercentage>50.74</arrivalPercentage>
  <departurePercentage>52.33</departurePercentage>
  <tgoPercentage>50</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>S</aircraftSize>
  <runway>34</runway>
  <arrivalPercentage>13.04</arrivalPercentage>
  <departurePercentage>8.06</departurePercentage>
  <tgoPercentage>15</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>S</aircraftSize>
  <runway>05</runway>
  <arrivalPercentage>35.42</arrivalPercentage>
  <departurePercentage>38.29</departurePercentage>
  <tgoPercentage>35</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>L</aircraftSize>
  <runway>16</runway>
  <arrivalPercentage>0.8</arrivalPercentage>
  <departurePercentage>1.32</departurePercentage>
  <tgoPercentage>0</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>L</aircraftSize>
  <runway>23</runway>
  <arrivalPercentage>50.74</arrivalPercentage>
  <departurePercentage>52.33</departurePercentage>
  <tgoPercentage>50</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>L</aircraftSize>
  <runway>34</runway>
  <arrivalPercentage>13.04</arrivalPercentage>
  <departurePercentage>8.06</departurePercentage>
  <tgoPercentage>15</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>L</aircraftSize>
  <runway>05</runway>
  <arrivalPercentage>35.42</arrivalPercentage>
  <departurePercentage>38.29</departurePercentage>
  <tgoPercentage>35</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>H</aircraftSize>
  <runway>16</runway>
  <arrivalPercentage>0.8</arrivalPercentage>
```

```
        <departurePercentage>1.32</departurePercentage>
        <tgoPercentage>0</tgoPercentage>
    </runwayAssignment>
</runwayAssignment>
    <aircraftSize>H</aircraftSize>
    <runway>23</runway>
    <arrivalPercentage>50.74</arrivalPercentage>
    <departurePercentage>52.33</departurePercentage>
    <tgoPercentage>50</tgoPercentage>
</runwayAssignment>
</runwayAssignment>
    <aircraftSize>H</aircraftSize>
    <runway>34</runway>
    <arrivalPercentage>13.04</arrivalPercentage>
    <departurePercentage>8.06</departurePercentage>
    <tgoPercentage>15</tgoPercentage>
</runwayAssignment>
</runwayAssignment>
    <aircraftSize>H</aircraftSize>
    <runway>05</runway>
    <arrivalPercentage>35.42</arrivalPercentage>
    <departurePercentage>38.29</departurePercentage>
    <tgoPercentage>35</tgoPercentage>
</runwayAssignment>
</runwayAssignmentSet>
</airportConfig>
</airportConfigSet>
```

Step 2i: Define operational profiles

Operational profiles allows the user to define variations in activity throughout a day, week, or year. The three types of operational profiles are Quarter-Hourly, Daily, and Monthly. When using operational profiles in a study, at least one profile for each profile type (Quarter Hourly, Daily, and Monthly) must be defined.

These profiles provide a weighting factor that determines how often activity occurs during the time period. Aircraft and non-aircraft sources can all be assigned operational profiles. For this example, the same profiles are used for all both aircraft and non-aircraft sources; but in practice different profiles will be defined for aircraft, GSEs, or stationary sources.

Only the first part of the quarterly-hour profile is shown here for brevity. The entire profile is given in the example file.

```
<quarterHourlyProfileSet>
  <quarterHourlyProfile>
    <profileName>Aircraft-Baseline-KPVD</profileName>
    <temporalFactor startHour="0" startMinutes="0">0.1092</temporalFactor>
    <temporalFactor startHour="0" startMinutes="15">0.0712</temporalFactor>
    <temporalFactor startHour="0" startMinutes="30">0.0452</temporalFactor>
    <temporalFactor startHour="0" startMinutes="45">0.0274</temporalFactor>
    <temporalFactor startHour="1" startMinutes="0">0.0226</temporalFactor>
    <temporalFactor startHour="1" startMinutes="15">0.0144</temporalFactor>
    <temporalFactor startHour="1" startMinutes="30">0.0135</temporalFactor>
    <temporalFactor startHour="1" startMinutes="45">0.0087</temporalFactor>
```

```
.....  
  
</quarterHourlyProfile>  
</quarterHourlyProfileSet>  
  
<dailyProfileSet>  
  <dailyProfile>  
    <profileName>Aircraft-Baseline-KPVD</profileName>  
    <temporalFactorSunday>0.8889</temporalFactorSunday>  
    <temporalFactorMonday>0.9354</temporalFactorMonday>  
    <temporalFactorTuesday>0.9565</temporalFactorTuesday>  
    <temporalFactorWednesday>0.9494</temporalFactorWednesday>  
    <temporalFactorThursday>1</temporalFactorThursday>  
    <temporalFactorFriday>0.9494</temporalFactorFriday>  
    <temporalFactorSaturday>0.8103</temporalFactorSaturday>  
  </dailyProfile>  
</dailyProfileSet>  
  
<monthlyProfileSet>  
  <monthlyProfile>  
    <profileName>Aircraft-Baseline-KPVD</profileName>  
    <temporalFactorJanuary>0.6097</temporalFactorJanuary>  
    <temporalFactorFebruary>0.768</temporalFactorFebruary>  
    <temporalFactorMarch>0.7468</temporalFactorMarch>  
    <temporalFactorApril>0.6508</temporalFactorApril>  
    <temporalFactorMay>0.7803</temporalFactorMay>  
    <temporalFactorJune>0.9452</temporalFactorJune>  
    <temporalFactorJuly>0.9967</temporalFactorJuly>  
    <temporalFactorAugust>1</temporalFactorAugust>  
    <temporalFactorSeptember>0.963</temporalFactorSeptember>  
    <temporalFactorOctober>0.9657</temporalFactorOctober>  
    <temporalFactorNovember>0.8889</temporalFactorNovember>  
    <temporalFactorDecember>0.8374</temporalFactorDecember>  
  </monthlyProfile>  
</monthlyProfileSet>  
  
<activityProfileSet>  
  <activityProfile name="ActivityProfile-Baseline-KPVD-0-0-0">  
    <quarterHourlyProfile>Aircraft-Baseline-KPVD</quarterHourlyProfile>  
    <dailyProfile>Aircraft-Baseline-KPVD</dailyProfile>  
    <monthlyProfile>Aircraft-Baseline-KPVD</monthlyProfile>  
  </activityProfile>  
</activityProfileSet>
```

Step 3: Define receptor set

The receptor set defines a set of points or a grid in which noise or emission concentrations will be modeled. A receptor set is required for dispersion modeling.

```
<receptorSet>
  <name>CartesianReceptors-Baseline-KPVD</name>
  <pointReceptor>
    <name>01</name>
    <latitude>41.755692229957511</latitude>
    <longitude>-71.401734634031868</longitude>
    <elevation>54.986876640419943</elevation>      <!-- in feet -->
    <receptorHeight>5.909999999999993</receptorHeight> <!-- in feet -->
  </pointReceptor>

  <pointReceptor>
    <name>05</name>
    <latitude>41.757757081502177</latitude>
    <longitude>-71.387029661597552</longitude>
    <elevation>54.986876640419943</elevation>
    <receptorHeight>5.909999999999993</receptorHeight>
  </pointReceptor>

  <pointReceptor>
    <name>11</name>
    <latitude>41.729547105591479</latitude>
    <longitude>-71.399671869272</longitude>
    <elevation>54.986876640419943</elevation>
    <receptorHeight>5.909999999999993</receptorHeight>
  </pointReceptor>

  <pointReceptor>
    <name>17</name>
    <latitude>41.727308139168834</latitude>
    <longitude>-71.418091960358765</longitude>
    <elevation>54.986876640419943</elevation>
    <receptorHeight>5.909999999999993</receptorHeight>
  </pointReceptor>
</receptorSet>
```

Step 4: Define scenario and case hierarchy

A scenario contains a set of cases, which contain groups of aircraft operations, non-aircraft operations, and runup operations.

Step 4a: Define scenario properties

Define the basic scenario properties including airport information, weather data, and study time.

```
<scenario>
  <name>2004-Baseline</name>
  <startTime>2004-01-01T00:00:00</startTime>
  <duration>8784</duration> <!-- in hours -->
  <taxiModel>Sequencing</taxiModel>
  <timeInModeBasis>Performance</timeInModeBasis>
  <acftPerfModel>SAE1845</acftPerfModel>
  <bankAngle>false</bankAngle>
```

```
<sulfurConversionRate>0.005</sulfurConversionRate>
<description> for year 2004</description>
<scenarioAirportLayoutSet>
  <scenarioAirportLayout>
    <airportLayoutName>Baseline_PVD2004_layout</airportLayoutName>
    <mixingHeight>2226</mixingHeight> <!-- in feet -->
    <useHourlyMetData>true</useHourlyMetData>
    <averageTemperature>50.4</averageTemperature> <!-- in Fahrenheit -->
    <dailyHighTemperature>69.35</dailyHighTemperature> <!-- in Fahrenheit -->
    <dailyLowTemperature>48.65</dailyLowTemperature> <!-- in Fahrenheit -->
    <pressure>29.92</pressure> <!-- in inches of Hg -->
    <pressureMSL>29.92</pressureMSL> <!-- in inches of Hg -->
    <humidty>60</humidty> <!-- in percentage -->
    <windSpeed>8</windSpeed> <!-- in knots -->
    <windDirection>0</windDirection> <!-- in degrees -->
    <ceiling>99999.99</ceiling> <!-- in feet -->
    <visibility>50</visibility> <!-- in miles -->
  </scenarioAirportLayout>
</scenarioAirportLayoutSet>
```

Step 4b: Define the case for non-aircraft operations

This study contains two cases. The first case contains non-aircraft operations (i.e., stationary source operations). The second case contains aircraft operations and GSEs assigned to those aircraft.

The example below declares the first case (non-aircraft operations). The second case (aircraft operations) is described in the next Step 4c.

```
<caseSet>
  <case>
    <caseId>-1623425151</caseId>
    <name>2004_Baseline_NonAircraft</name>
    <startTime>2004-01-01T00:00:00</startTime>
    <duration>8784</duration>
    <stationarySourceOperationSet>
      <stationarySourceOperation>
        <refName>600kw Emergency Gen-Baseline-KPVD-2004</refName>
        <emissionsUsage>
          <yearlyValue>500</yearlyValue>
          <activityProfile>ActivityProfile-Baseline-KPVD-0-0-0</activityProfile>
        </emissionsUsage>
      </stationarySourceOperation>
    </stationarySourceOperationSet>
  </case>
```

Step 4c: Define the case for aircraft operations

This section defines aircraft operations, as well as GSEs assigned to those aircraft. In this example, a single aircraft type is used with a simplified set of assigned GSEs. In practice, a variety of aircraft types and GSEs would appear in a single study.

```
<case>
  <caseId>466140608</caseId>
  <name>2004_Baseline_Operations</name>
  <startTime>2004-01-01T00:00:00</startTime>
  <duration>8784</duration>
  <operation>
```

```
<id>D_1</id>
<aircraftType>
  <airframeModel>Airbus A319-100 Series</airframeModel>
  <engineCode>3CM028</engineCode>
  <apuName>APU GTCP 36-300 (80HP)</apuName>
  <groundSupportEquipmentLT00operationSet>
    <groundSupportEquipmentLT00operation>
      <gseID>8</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>88</horsepower>
      <loadFactor>0.8</loadFactor>
      <departureOpTime>3.9</departureOpTime> <!-- in minutes -->
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>13</gseID>
      <fuelType>Gasoline</fuelType>
      <horsepower>107</horsepower>
      <loadFactor>0.55</loadFactor>
      <departureOpTime>8</departureOpTime>
      <arrivalOpTime>8</arrivalOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>14</gseID>
      <fuelType>Gasoline</fuelType>
      <horsepower>107</horsepower>
      <loadFactor>0.5</loadFactor>
      <departureOpTime>11</departureOpTime>
      <arrivalOpTime>12</arrivalOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>17</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>210</horsepower>
      <loadFactor>0.53</loadFactor>
      <departureOpTime>9.7</departureOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>29</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>175</horsepower>
      <loadFactor>0.25</loadFactor>
      <departureOpTime>14</departureOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>36</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>56</horsepower>
      <loadFactor>0.25</loadFactor>
      <arrivalOpTime>2.1</arrivalOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>41</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>235</horsepower>
      <loadFactor>0.2</loadFactor>
      <departureOpTime>8</departureOpTime>
      <arrivalOpTime>7</arrivalOpTime>
    </groundSupportEquipmentLT00operation>
  </groundSupportEquipmentLT00operationSet>
</aircraftType>
```



```
        </groundSupportEquipmentLT0operation>
    </groundSupportEquipmentLT0operationSet>
</aircraftType>
<numOperations>366</numOperations>
<opType>D</opType>
<departureAirport type="ICAO">KPVD</departureAirport>
<departureGate>AC</departureGate>
<departureApuTime>3.5</departureApuTime> <!-- in minutes -->
<taxiOutDuration>10.72</taxiOutDuration> <!-- in minutes -->
<taxiInDuration>6.24</taxiInDuration> <!-- in minutes -->
<activityProfile>ActivityProfile-Baseline-KPVD-0-0-0</activityProfile>
<actypeWeight>146100</actypeWeight> <!-- in pounds -->
<fuelSulfurContent>0.00068</fuelSulfurContent>
</operation>

<operation>
    <id>A_1</id>
    <aircraftType>
        <airframeModel>Airbus A319-100 Series</airframeModel>
        <engineCode>3CM028</engineCode>
        <apuName>APU GTCP 36-300 (80HP)</apuName>
        <groundSupportEquipmentLT0operationSet>
            <groundSupportEquipmentLT0operation>
                <gseID>8</gseID>
                <fuelType>Diesel</fuelType>
                <horsepower>88</horsepower>
                <loadFactor>0.8</loadFactor>
                <departureOpTime>3.9</departureOpTime>
            </groundSupportEquipmentLT0operation>
            <groundSupportEquipmentLT0operation>
                <gseID>13</gseID>
                <fuelType>Gasoline</fuelType>
                <horsepower>107</horsepower>
                <loadFactor>0.55</loadFactor>
                <departureOpTime>8</departureOpTime>
                <arrivalOpTime>8</arrivalOpTime>
            </groundSupportEquipmentLT0operation>
            <groundSupportEquipmentLT0operation>
                <gseID>14</gseID>
                <fuelType>Gasoline</fuelType>
                <horsepower>107</horsepower>
                <loadFactor>0.5</loadFactor>
                <departureOpTime>11</departureOpTime>
                <arrivalOpTime>12</arrivalOpTime>
            </groundSupportEquipmentLT0operation>
            <groundSupportEquipmentLT0operation>
                <gseID>17</gseID>
                <fuelType>Diesel</fuelType>
                <horsepower>210</horsepower>
                <loadFactor>0.53</loadFactor>
                <departureOpTime>9.7</departureOpTime>
            </groundSupportEquipmentLT0operation>
            <groundSupportEquipmentLT0operation>
                <gseID>29</gseID>
                <fuelType>Diesel</fuelType>
                <horsepower>175</horsepower>
                <loadFactor>0.25</loadFactor>
            </groundSupportEquipmentLT0operation>
        </groundSupportEquipmentLT0operationSet>
    </aircraftType>
</operation>
```

```
        <departureOpTime>14</departureOpTime>
    </groundSupportEquipmentLT0Operation>
</groundSupportEquipmentLT0Operation>
    <gseID>36</gseID>
    <fuelType>Diesel</fuelType>
    <horsepower>56</horsepower>
    <loadFactor>0.25</loadFactor>
    <arrivalOpTime>2.1</arrivalOpTime>
</groundSupportEquipmentLT0Operation>
</groundSupportEquipmentLT0Operation>
    <gseID>41</gseID>
    <fuelType>Diesel</fuelType>
    <horsepower>235</horsepower>
    <loadFactor>0.2</loadFactor>
    <departureOpTime>8</departureOpTime>
    <arrivalOpTime>7</arrivalOpTime>
</groundSupportEquipmentLT0Operation>
</groundSupportEquipmentLT0OperationSet>
</aircraftType>
<numOperations>366</numOperations>
<opType>A</opType>
<arrivalAirport type="ICAO">KPVD</arrivalAirport>
<arrivalGate>AC</arrivalGate>
<arrivalApuTime>3.5</arrivalApuTime>
<taxiOutDuration>10.72</taxiOutDuration>
<taxiInDuration>6.24</taxiInDuration>
<activityProfile>ActivityProfile-Baseline-KPVD-0-0-0</activityProfile>
<actypeWeight>137800</actypeWeight>
<fuelSulfurContent>0.00068</fuelSulfurContent>
</operation>
</case>
</caseSet>
```

Step 5: Full ASIF

The full ASIF, *asif_emissions_study.xml*, is located in the directory: C:\Program Files\FAA\AEDT\Examples

1. Import the full ASIF in AEDT.
2. Create an annualization.
3. Create a metric result.

Please note that both the aircraft operations and the non-aircraft operations in this study are defined using operational profiles. When running profile-based aircraft operations, the “Apply Delay & Sequencing Model on Taxi” modeling option must be selected, and operating configuration and taxi network must exist in the airport layout.

4 User-Defined ANP and BADA 4 Profiles

4.1 Overview

There are three ways of creating and adding user-defined ANP and BADA 4 profiles in an AEDT study:

- By using the profile editor in the AEDT Graphical User Interface (GUI), Equipment tab (see Section 7.2.1 in AEDT User Manual);
- Creating and importing ASIF partial; and
- Direct database injection.

Of these methods, the first two are preferred because they include application-provided constraint and error checking. The following table provides a feature summary of the the three methods.

This Chapter focuses on the ASIF method and the direct database injection method for adding user-defined profiles

- Section 4.2 and Section 4.3 provide information on creating ASIF files that can be imported using ASIF partial import and provide details that would facilitate direct database injection to create user-defined profiles.
- Section 4.4 describes how the AEDT GUI’s export functionality can be used to generate ASIF files that can subsequently be edited by the user to create their own or custom ANP and BADA 4 flight profiles.

Three Different Methods of Adding User-Defined Profiles

	Validation & error checking	ANP procedural profile for fixed-wing aircraft	BADA 4 procedural profile for fixed-wing aircraft	ANP fixed-point profile for fixed-wing aircraft	ANP profiles for helicopters	Overflight profiles
Profile Editor in AEDT GUI	✓	✓	✓			
ASIF	✓	✓	✓	✓	✓	✓
Direct DB Injection		✓	✓	✓	✓	✓



It is expected that users who create and use user-defined profiles are knowledgeable about the physics of flight performance modeling and understand the significance and use of individual profile elements. Users are responsible for entering valid values that are within the expected ranges for each type of parameter. For detailed explanations of flight profiles, please refer to the AEDT Technical Manual and the AEDT User Manual.



Using non-default profiles, for review of FAA federal actions or other FAA regulatory purposes, require prior approval by the FAA office of Environment and Energy (AEE). Please refer to the AEDT User Manual, Appendix J for further information on requesting approval for use of non-default profiles

4.2 User-Defined ANP Profiles

Key Requirements for a New ANP Profile

User-defined ANP profiles can be added to an existing ANP aircraft or created in conjunction with a new ANP aircraft definition. A key requirement for a new profile is that the Profile Name cannot be a duplicate of an existing record for that aircraft type. The primary key that uniquely defines a Profile is composed of the Operation Type, Profile Name, and the Stage Length.

In addition, any user-defined ANP profiles should have a PROFILE_ID value in the FLT_ANP_AIRPLANE_PROFILES table that is both unique and greater than 100,000. When creating user-defined ANP profiles via the AEDT GUI or importing via ASIF, the requirement that the Profile ID be greater than 100,000 is automatically handled. When the user is creating user-defined ANP profiles via manual database injection, the user must ensure that this requirement is met.

ANP profile entries are stored in the FLT_ANP_AIRPLANE_PROFILES table in a study database. Each unique profile entry in this table is determined by the combination of the ANP Aircraft Type, the Operation Type, the Profile Name, and the Stage Length. The integer value for Profile ID also uniquely identifies each entry in this table. The table below provides a mapping of the input ASIF elements for ANP profiles to specific database columns.

ANP Profile – Mapping of ASIF Element to Database Table & Columns

Parameter	ASIF Element Name	Column in Table FLT_ANP_AIRPLANE _PROFILES	Reference Columns (where applicable)
ANP Aircraft Type	anpAirplaneId	ACFT_ID	FLT_ANP_AIRPLANES.ACFT_ID
Operation Type	operationType	OP_TYPE	
Profile Name	profileGroupId	PROF_ID1	
Stage Length	profileStageLength	PROF_ID2	
Profile ID	n/a	PROFILE_ID	

ANP profiles can consist of either procedure steps or fixed-points. Both types of profiles can be defined for any given ANP aircraft type.

ANP Profile – Procedure Steps

Individual steps for procedural ANP profiles are stored in the FLT_ANP_AIRPLANE_PROCEDURES table. Each unique profile in this table is determined by the combination of the ANP Aircraft Type, the Operation Type, the Profile Name, and the Stage Length. Each unique row in this table is determined by the combination of the previous four fields plus the Step Number. The table below provides a mapping of the input ASIF elements for ANP procedural steps to specific database columns.

ANP Profile, Procedural Steps – Mapping of ASIF Elements to Database Table & Columns

Parameter	ASIF Element Name	Column in Table FLT_ANP_AIRPLANE _PROCEDURES	Reference Columns (where applicable)
ANP Aircraft Type	anpAirplaneId	ACFT_ID	FLT_ANP_AIRPLANES.ACFT_ID
Operation Type	operationType	OP_TYPE	FLT_ANP_AIRPLANE_PROFILES.OP_TYPE
Profile Name	profileGroupId	PROF_ID1	FLT_ANP_AIRPLANE_PROFILES.PROF_ID1
Stage Length	profileStageLength	PROF_ID2	FLT_ANP_AIRPLANE_PROFILES.PROF_ID2
Step Number	stepNum	STEP_NUM	
Flap ID	flapId (optional)	FLAP_ID (nullable)	FLT_ANP_AIRPLANE_FLAPS.FLAP_ID
Step Type	stepType (optional)	STEP_TYPE (nullable)	
Thrust Type	thrustType (optional)	THRUST_TYPE (nullable)	
First Parameter	param1	PARAM1	
Second Parameter	param2	PARAM2	
Third Parameter	param3 (optional)	PARAM3 (nullable)	

Sample ASIF for User-Defined ANP Procedural Profile

Following is a sample ASIF block that allows for the partial import of user-defined ANP procedural profiles. Refer to the accompanying ASIF file named *UserDefinedANPPProfiles-ProcedureSteps.xml* for the complete sample file.

```
<fleet>
  <anpProfileSet>
    <anpAirplaneId>1900D</anpAirplaneId>
    <profile>
      <operationType>A</operationType>
      <profileGroupId>USER</profileGroupId>
      <profileStageLength>1</profileStageLength>
      <weight>14000</weight>
      <procedureSteps>
        <step>
          <stepNum>1</stepNum>
          <flapId>ZERO-A</flapId>
          <stepType>D</stepType>
          <param1>6000</param1>
          <param2>160</param2>
          <param3>3</param3>
        </step>
        <step>
          <stepNum>2</stepNum>
          <stepType>B</stepType>
          <thrustType>V</thrustType>
          <param1>515.2</param1>
          <param2>84</param2>
          <param3>40</param3>
        </step>
        <!-- more steps -->
      </procedureSteps>
    </profile>
  </anpProfileSet>
</fleet>
```

```

    </profile>
    <!-- additional profiles -->
  </anpProfileSet>
</fleet>

```

ANP Profile – Fixed-Point

The points of fixed-point ANP profiles are stored in the FLT_ANP_AIRPLANE_PROFILE_POINTS table. Each unique profile in this table is determined by the combination of the ANP Aircraft Type, the Operation Type, the Profile Name, and the Stage Length. Each unique row in this table is determined by the combination of the previous four fields plus the Point Number. The table below provides a mapping of the input ASIF elements for ANP fixed-point profiles to specific database columns.

ANP Profile, Fixed-Points – Mapping of ASIF Elements to Database Table & Columns

Parameter	ASIF Element Name	Column in Table FLT_ANP_AIRPLANE _PROFILE_POINTS	Reference Columns (where applicable)
ANP Aircraft Type	anpAirplaneId	ACFT_ID	FLT_ANP_AIRPLANES.ACFT_ID
Operation Type	operationType	OP_TYPE	FLT_ANP_AIRPLANE_PROFILES.OP_TYPE
Profile Name	profileGroupId	PROF_ID1	FLT_ANP_AIRPLANE_PROFILES.PROF_ID1
Stage Length	profileStageLength	PROF_ID2	FLT_ANP_AIRPLANE_PROFILES.PROF_ID2
Point Number	pointNum	PT_NUM	
Distance	distance	DISTANCE	
Altitude	altitude	ALTITUDE	
Speed	speed	SPEED	
Net Thrust per Engine	thrustSet	THR_SET	
Operation Mode	opMode (optional)	OP_MODE (nullable)	

Sample ASIF for User-Defined ANP Fixed-Point Profile

Following is a sample ASIF block that allows for the partial import of user-defined ANP fixed-point profiles. Refer to the accompanying ASIF file named *UserDefinedANPProfiles-ProfilePoints.xml* for the complete sample file.

```

<fleet>
  <anpProfileSet>
    <anpAirplaneId>1900D</anpAirplaneId>
    <profile>
      <operationType>A</operationType>
      <profileGroupId>USER</profileGroupId>
      <profileStageLength>1</profileStageLength>
      <weight>14000</weight>
      <profilePoints>
        <point>
          <pointNum>1</pointNum>
          <distance>-114487.00</distance>
          <altitude>6000.00</altitude>
          <speed>250.00</speed>
          <thrustSet>520.00</thrustSet>
        </point>
      </profilePoints>
    </profile>
  </anpProfileSet>
</fleet>

```

```

        <opMode>A</opMode>
    </point>
    <point>
        <pointNum>2</pointNum>
        <distance>-57243.00</distance>
        <altitude>3000.00</altitude>
        <speed>124.00</speed>
        <thrustSet>3560.00</thrustSet>
        <opMode>A</opMode>
    </point>
    <!-- more points -->
</profilePoints>
</profile>
<!-- additional profiles -->
</anpProfileSet>
</fleet>

```

4.3 User-Defined BADA 4 Profiles (for Existing BADA 4 Aircraft)

Key Requirements for a New BADA 4 Profile

User-defined BADA 4 profiles can be added to an existing BADA 4 aircraft (either system or user-created) or created in conjunction with a new BADA 4 aircraft definition. BADA 4 profile entries are stored in the FltBada4AirplaneProfile table.

A user-defined BADA 4 profile entry has several key identifiers. The first is a unique Profile ID that is a value greater than or equal to 400,000. When creating user-defined BADA 4 profiles via the AEDT GUI, or when importing new profiles via ASIF, the requirement that the Profile ID be greater than or equal to 400,000 is automatically handled. When the user is creating user-defined BADA 4 profiles via manual database injection, the user must ensure that this requirement is met.

The other required identifying components are the reference ANP Aircraft Type and the reference BADA 4 Aircraft Model. These fields are references to an existing ANP Aircraft from the FLT_ANP_AIRPLANES table (ACFT_ID field) and an existing BADA 4 Aircraft from the FLT_BADA4_ACM table (BADA4_ID). In ASIF, the BADA 4 Aircraft reference field is specified with a combination of the BADA 4 Model and the BADA 4 Engine Model from the FLT_BADA4_ACM table that uniquely identify the BADA 4 Aircraft.

The table below provides a mapping of the input ASIF elements for BADA 4 profiles to specific database columns.

BADA 4 Profile – Mapping of ASIF Elements to Database Table & Columns

Parameter	ASIF Element Name	Field Name in Table FltBada4AirplaneProfile	Reference Fields (where applicable)
Profile ID	n/a	ProfileID	
Profile Name	flightProcedure	FlightProcedure	
Reference ANP Aircraft	anpAirplaneId	AnpAirplaneID	FLT_ANP_AIRPLANES.ACFT_ID
Reference BADA4 Aircraft	bada4AirplaneModel	Bada4AirplaneID	FLT_BADA4_ACM.BADA4_ID matched using the MODEL and ENGINE fields from FLT_BADA4_ACM
Reference BADA4 Engine	bada4Engine		

Operation Type	operationType	OperationType	
Weight Class	weightClass	WeightClass	
Weight	weight	Weight	

Note that unlike the other elements, the bada4AirplaneModel and bada4Engine elements specified in ASIF are only used to determine a specific record match to a BADA4_ID value from the FLT_BADA4_ACM table and are not explicitly persisted as part of the new profile.

In AEDT 3c, only procedural profiles may be defined for user-defined BADA 4 profiles. Individual steps for BADA 4 profiles are stored in the FltBada4AirplaneProcedure table. The records for each unique profile in this table are solely determined by the Profile ID key which references the parent profile in the FltBada4AirplaneProfile table. Each row in this table has a unique identifier in the form of the auto-incremented database field of ProcedureStepID. However, each unique procedure step for any given profile is determined by the combination of the Profile ID and the Step Number.

The table below provides a mapping of the input ASIF elements for BADA 4 procedure steps to specific database columns.

BADA 4 Profile, Procedural Steps – Mapping of ASIF Elements to Database Table & Columns

Parameter	ASIF Element Name	Field Name in Table FltBada4AirplaneProcedure	Reference Fields (where applicable)
Step ID	n/a	ProcedureStepID	
Profile ID	n/a	ProfileID	FltBada4AirplaneProfile.ProfileID
Step Number	stepNumber	StepNumber	
Reference Configuration ID	configId	ConfigurationID	FLT_BADA4_AFCM_CONFIG.CONFIG_ID
Reference ANP Aircraft for Flaps	anpAirplaneId	AnpAirplaneID	FLT_ANP_AIRPLANE_FLAPS.ACFT_ID
Reference ANP Flap Setting	anpFlapId	AnpFlapID	FLT_ANP_AIRPLANE_FLAPS.FLAP_ID
Step Type	stepType	StepType	
Thrust Type	thrustType	ThrustType	
Altitude	altitude	Altitude	
Calibrated Airspeed	calibratedAirspeed	CalibratedAirspeed	
Mach Number	mach	MachNumber	
Thrust	thrust	Thrust	
Angle	angle	Angle	
Climb Rate	climbRate	ClimbRate	
Flight Segment Length	distance	Distance	
Percent Acceleration	percent	Percent	
Gear Down	gearDown	GearDown	

Sample ASIF for User-Defined BADA 4 Profile

Following is a sample ASIF block that allows for the partial import of user-defined BADA 4 profiles. Refer to the accompanying ASIF file named *UserDefinedBADA4Profiles.xml* for the complete sample file.

```
<fleet>
  <bada4ProfileSet>
    <anpAirplaneId>737300</anpAirplaneId>
    <bada4AirplaneModel>737-300</bada4AirplaneModel>
    <bada4Engine>CFM56-3B1 (20K)</bada4Engine>
    <bada4profile>
      <operationType>A</operationType>
      <flightProcedure>UserBADA4_A</flightProcedure>
      <weightClass>1</weightClass>
      <weight>102600</weight>
      <bada4ProcedureSteps>
        <step>
          <stepNumber>1</stepNumber>
          <configId>229</configId>
          <anpAirplaneId>737300</anpAirplaneId>
          <anpFlapId>ZERO</anpFlapId>
          <stepType>D</stepType>
          <altitude>6000</altitude>
          <calibratedAirspeed>250</calibratedAirspeed>
          <mach>0</mach>
          <thrust>0</thrust>
          <angle>3</angle>
          <climbRate>0</climbRate>
          <distance>0</distance>
          <percent>0</percent>
          <gearDown>0</gearDown>
        </step>
        <!-- more steps -->
      </bada4ProcedureSteps>
    </bada4profile>
    <!-- additional profiles -->
  </bada4ProfileSet>
</fleet>
```

4.4 Create User-Defined ANP and BADA 4 Profiles for New or Existing Aircraft by Using the GUI Export Aircraft Feature

AEDT 3c GUI supports adding and editing user-defined ANP and BADA 4 flight profiles of existing fixed-wing aircraft as well as creating new user-defined aircraft. This section explains how to add custom ANP and BADA 4 flight profiles to existing and new aircraft by exporting existing aircraft, modifying the exported ASIF, and reimporting the modified ASIF.

Create a New User-Defined Aircraft with Custom Profiles

Follow the steps below to create a new user-defined aircraft with custom ANP and/or BADA 4 flight profiles:

Step 1: Copy an existing system aircraft to create a new user-defined aircraft

1. In AEDT, go to the *Equipment* tab, *Aircraft*.

2. Select the aircraft to modify and click *Copy*.
3. Enter a suffix and click *Save*.
4. A new user-defined aircraft is created.

Step 2: Export the new aircraft then delete it

1. Select the new aircraft and click *Export Aircraft* button.
2. The aircraft data is exported as a partial ASIF.
3. Click the *Delete* button to delete the new aircraft. This aircraft is no longer needed, because it will be edited in the ASIF and imported back into AEDT.

Step 3: Open and edit the exported ASIF

1. Open the exported ASIF.
2. Under the <anpProfileSet> or the <bada4ProfileSet>, copy and paste one of the existing <profile> or <bada4Profile> sections.
3. Modify the new <profile> and/or <bada4profile> section by editing the profile properties. Ensure that profile names within each section are unique. Refer to the AEDT User Manual Appendix for details on how to define profiles for civil airplanes and helicopters.
4. Add additional profiles as needed.
5. Save the ASIF.

Step 4: Import the ASIF

1. In AEDT, in the *Equipment* tab, click *Import Aircraft* button, select the updated ASIF and click *Open*. The new aircraft is listed in the *Equipment* tab.
2. Select the new aircraft and confirm that custom profiles have been added.

Add Custom Profiles to Existing Aircraft

Follow the steps below to add user-defined ANP and/or BADA 4 flight profiles to existing system or user-defined aircraft:

Step 1: Export an existing aircraft and its profiles

1. In AEDT, go to the *Equipment* tab, *Aircraft*.
2. Select the aircraft to export.
3. Select the new aircraft and click *Export Aircraft* button.
4. The aircraft data is exported as a partial ASIF.

Step 2: Open and edit the exported ASIF

1. Open the exported ASIF.
2. Edit the file to only keep the <anpProfileSet> and/or the <bada4ProfileSet> sections and remove all the other sections.
3. Modify the <profile> or <bada4profile> sections by editing each profile's properties. Ensure that the Profile Name is changed for each profile to be different from any of the profile names that already exist for that aircraft. Refer to the AEDT User Manual Appendix for details on how to define profiles for civil airplanes and helicopters.
4. Add additional profiles as needed.
5. Save the ASIF.

Step 3: Import the ASIF

1. In AEDT, in the *Equipment* tab, click *Import Aircraft* button, select the updated ASIF and click *Open*.
2. Select the relevant aircraft and confirm that custom profiles have been added.

5 ASIF Design Consideration

5.1 Airport Layout and Runways

When defining an airport under the **airportLayout** element, users have the option to specify runway definitions using the **runwaySet** element. If runways are not specified in ASIF, then the runway data from the AEDT Airport database will be copied during the ASIF import.

When you add an existing airport to a study in AEDT GUI, AEDT will create a new airport layout for each instance when there has been a runway modification (e.g., extended runways or renamed runways). For example, add the KATL airport in AEDT GUI and confirm that multiple airport layouts are listed, each with different effective - expiration date range.

However, if you import such airport using ASIF without providing runway specifications, then AEDT will copy all the runways (both expired and the latest) from the Airport database into a single airport layout instead of creating multiple layouts. This means that the single airport layout will contain duplicate runway items once such airport is imported into AEDT.

In the example below, KATL is defined without any runway specifications. During ASIF import, AEDT will copy the entire history of KATL runways from the Airport database into the study database.

```
<airportLayout>  
  <airportCode type="ICAO">KATL</airportCode>  
</airportLayout>
```

The following screenshot shows the single airport layout for the KATL airport in AEDT GUI after importing the above ASIF example. Note that some items are listed twice – runway ends 09L and 27R, runways 09L-27R, and helipad H1.

In such a case, it is recommended to delete the duplicate runway ends and runways from the study. Review the effective date and expiration date of the runway ends/runways in the study database to determine which ones are expired vs. latest. Alternatively, specify runways in the ASIF using the **runwaySet** element.

Layout: KATL
 Effective date: 1/1/1900 Taxi-in time: 0 minutes 0 seconds
 Expiration date: 6/6/2079 Taxi-out time: 0 minutes 0 seconds

Ground Elements Tracks

Drag a column header and drop it here to group by that column

Choose Columns

Type	ID	Name
Runway end	72254	08L
Runway end	84857	26R
Runway end	72255	08R
Runway end	84858	26L
Runway end	72256	09L
Runway end	84859	27R
Runway end	72257	09R
Runway end	84860	27L
Runway end	72258	10
Runway end	84861	28
Runway end	121432	27R
Runway end	122606	09L
Runway	36926	08L - 26R
Runway	36927	08R - 26L
Runway	36928	09L - 27R
Runway	36929	09R - 27L
Runway	36930	10 - 28
Runway	36931	H1
Runway	67816	27R - 09L
Runway	69090	H1
Helipad	72259	H1
Helipad	124455	H1

22 of 22 item(s) shown. 1 item(s) selected.

5.2 Event Consolidation

AEDT calculates noise for all air operations (e.g. all instances of an aircraft and track) in a given case, which differs from the legacy tool, NIRS. In order to optimize noise modeling performance in AEDT, it is suggested to combine like operations in a case into a representative single air operation for entry into the ASIF.

5.3 Control Codes

The altitude and/or speed of an airplane as it passes over a track node can be controlled to some extent by assigning track controls to that track node. Track controls are an optional feature that are used to specify targets and restrictions on altitude and/or speed on tracks – altitude controls affect airplane altitude; and speed controls affect airplane speed.

Each track control has two components: a value and a code. The value establishes a reference altitude or speed (appropriate to the control type), and the code specifies how that value should be interpreted in flight analysis.

In the ASIF schema, an altitude control is assigned to a **trackNode** by providing the control altitude as **trackNode/altitude**, and the control code as **trackNode/altitude/control**. Likewise, a speed control is defined by providing **trackNode/speed**, and the control code as **trackNode/speed/control**. Note that no control is defined if any of the following are true:

- A value is not provided;
- A code is not provided; or
- The code provided has a value of "0" or "None".

Furthermore, AEDT will ignore the following controls:

- Altitude controls with altitude values below 500 ft. AFE.
- All speed controls, if using the Doc 29/BADA 3 performance model.
- All speed controls, if the operation is an overflight.
- All controls, if the operation is a circuit or touch-and-go.

Also note that if there are any controls defined on an overflight, there must be controls defined (and observed, per the control-ignoring rules above) on the first and last nodes of the track.

AEDT computes performance to the following extents:

- Departure and approach performance is computed between ground roll and the observed control that is trackwise furthest from ground roll.
- Overflight performance is computed from the first track point to the last track point (both of which must have observed controls).

Performance is computed as close as possible to the observed control values, subject to the airplane's performance capabilities, as described in the AEDT Technical Manual. The computed best effort to achieve these targeted values is checked against the restrictions implied by the control codes:

- Control code "1" or "At or Below": the airplane is not allowed above the value
- Control code "2" or "Match": the airplane is not allowed above or below the value
- Control code "3" or "At or Above": the airplane is not allowed below the value

If the best effort fails to comply with the restriction, the flight's performance is discarded by AEDT, logged in the error log, and its impact is excluded from environmental metrics. For more information on track controls, refer to Section 3.9.1 Track Control Flights in the AEDT Technical Manual.

When translating NIRS inputs to ASIF, omitting altitude controls with altitude values below 3000 ft AFE will lead to the most comparable result, as NIRS ignored these controls. When modeling runway to runway operations using sensor path data, define the flight path using the ASIF **sensorPath** element rather than the track element. Sensor paths provide more direct control of altitude for an aircraft trajectory.

5.4 Assign Default Ground Support Equipment (GSE) to Aircraft Operations

The *assignDefaultGse* element in the ASIF schema is used to assign default ground support equipment (GSE) to aircraft operation instead of writing out each GSE operation.

In this departure operation example, the *assignDefaultGse* is set to true. This will assign the default GSE for “Airbus A319-100 Series” to the operation. The default GSEs for the Airbus A319-100 Series, departure operation are listed in the table below. The default GSE assignments for airframe is stored in the FLT_GSE_AC_DEFAULTS table.

```
<operation>
  <id>D_1</id>
  <aircraftType>
    <airframeModel>Airbus A319-100 Series</airframeModel>
    <engineCode>3CM028</engineCode>
    <apuName>APU GTCP 36-300 (80HP)</apuName>
    <assignDefaultGse>true</assignDefaultGse>
  </aircraftType>
  <numOperations>1</numOperations>
  <opType>D</opType>
  .....
  .....
```

Default GSEs for Airbus A319-100 Series – Departure Operation

GSE Name	Duration (mins)	Horsepower	Load Factor	Manufacture Year
Electric - None - Air Conditioner	23	0	0.75	NA
Diesel - ACE 180 - Air Start	7	425	0.9	NA
"Diesel - Stewart & Stevenson TUG GT-35, Douglas TBL-180 - Aircraft Tractor"	8	88	0.8	NA
Gasoline - Stewart & Stevenson TUG MA 50 - Baggage Tractor	38	107	0.55	NA
Gasoline - Stewart & Stevenson TUG 660 - Belt Loader	24	107	0.5	NA
Diesel - Hi-Way F650 - Cabin Service Truck	10	210	0.53	NA
Diesel - Hi-Way F650 - Catering Truck	8	210	0.53	NA
Diesel - F250 / F350 - Hydrant Truck	12	235	0.7	NA
Diesel - TLD 1410 - Lavatory Truck	0	56	0.25	NA
Diesel - F250 / F350 - Service Truck	8	235	0.2	NA
Electric - Gate Service - Water Service	12	0	0.2	NA

To specify individual GSEs for the aircraft operation, use the **groundSupportEquipmentLT0OperationSet**, as follows:

```
<operation>
  <id>D_1</id>
  <aircraftType>
    <airframeModel>Airbus A319-100 Series</airframeModel>
    <engineCode>3CM028</engineCode>
    <apuName>APU GTCP 36-300 (80HP)</apuName>
    <groundSupportEquipmentLT0OperationSet>
      <groundSupportEquipmentLT0Operation>
        <gseID>8</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>88</horsepower>
        <loadFactor>0.8</loadFactor>
        <departureOpTime>3.9</departureOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>13</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.55</loadFactor>
        <departureOpTime>8</departureOpTime>
        <arrivalOpTime>8</arrivalOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>14</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.5</loadFactor>
        <departureOpTime>11</departureOpTime>
        <arrivalOpTime>12</arrivalOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>17</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>210</horsepower>
        <loadFactor>0.53</loadFactor>
        <departureOpTime>9.7</departureOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>29</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>175</horsepower>
        <loadFactor>0.25</loadFactor>
        <departureOpTime>14</departureOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>36</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>56</horsepower>
        <loadFactor>0.25</loadFactor>
        <arrivalOpTime>2.1</arrivalOpTime>
    </groundSupportEquipmentLT0OperationSet>
  </aircraftType>
</operation>
```



```
</groundSupportEquipmentLT0operation>  
<groundSupportEquipmentLT0operation>  
  <gseID>41</gseID>  
  <fuelType>Diesel</fuelType>  
  <horsepower>235</horsepower>  
  <loadFactor>0.2</loadFactor>  
  <departureOpTime>8</departureOpTime>  
  <arrivalOpTime>7</arrivalOpTime>  
</groundSupportEquipmentLT0operation>  
</groundSupportEquipmentLT0operationSet>  
</aircraftType>  
<numOperations>1</numOperations>  
<opType>D</opType>  
.....  
.....
```

6 ASIF Schema Documentation

Click on the following links to view descriptions for ASIF elements, groups, complex types and simple types.

Schema ASIFMerge.xsd

schema location: [ASIFMerge.xsd](#)

attributeFormDefault: **unqualified**

elementFormDefault: **qualified**

Elements

[activityProfile](#)
[activityProfileSet](#)
[airportCapacity](#)
[airportConfig](#)
[airportConfigSet](#)
[airportLayoutSet](#)
[airportWeather](#)
[airportWeatherStation](#)
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[annualizationCase](#)
[annualizationGroup](#)
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[AsifXml](#)
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[groundSupportEquipmentPopulationOperation](#)
[groundSupportEquipmentPopulationOperationSet](#)
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[airport](#)
[airportCode](#)
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[anpFlaps](#)
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[anpNPDCurve](#)
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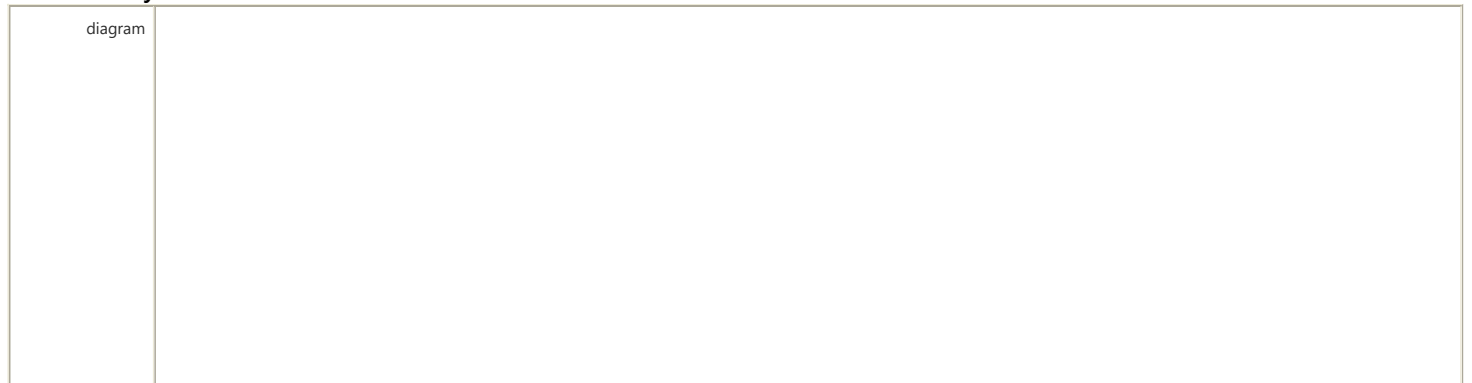
Simple types

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[anpCoeffType](#)
[anpFlapId](#)
[anpHeloDirectId](#)
[anpHeloDirectivityId](#)
[anpHeloGroundType](#)
[anpHeloid](#)
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[anpHeloSideType](#)
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[doubleInclusive2000](#)
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[string8](#)
[string9](#)
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[taxiModelType](#)
[timeInModeBasisType](#)
[trackType](#)
[trainingFireFuelType](#)
[vectorTrackType](#)
[wingType](#)
[yesNoType](#)

element **activityProfile**



	<p>activityProfile Supports legacy EDMS studies relating to content combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES.</p> <p>attributes name</p> <p>quarterHourlyProfile Defines scaling factors for operations during a particular quarter-hour.</p> <p>dailyProfile Defines scaling factors for operations on a particular day.</p> <p>monthlyProfile Defines scaling factors for operations during a particular month.</p>												
properties	content complex												
children	quarterHourlyProfile dailyProfile monthlyProfile												
used by	element activityProfileSet												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>name</td> <td>string100</td> <td>required</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	name	string100	required			
Name	Type	Use	Default	Fixed	Annotation								
name	string100	required											
annotation	documentation Supports legacy EDMS studies relating to content combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES.												

attribute **activityProfile/@name**

type	string100									
properties	use required									
facets	<table border="1"> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>100</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	100	
Kind	Value	Annotation								
minLength	0									
maxLength	100									


element **activityProfile/quarterHourlyProfile**

diagram	<p>quarterHourlyProfile Defines scaling factors for operations during a particular quarter-hour.</p>									
type	string100									
properties	content simple									
used by	element quarterHourlyProfileSet									
facets	<table border="1"> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>100</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	100	
Kind	Value	Annotation								
minLength	0									
maxLength	100									
annotation	documentation Defines scaling factors for operations during a particular quarter-hour.									

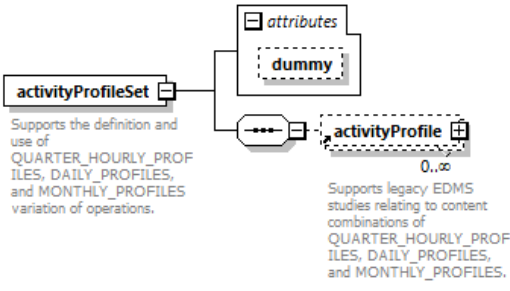
element **activityProfile/dailyProfile**

diagram	<p>dailyProfile Defines scaling factors for operations on a particular day.</p>									
type	string100									
properties	content simple									
used by	element dailyProfileSet									
facets	<table border="1"> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>100</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	100	
Kind	Value	Annotation								
minLength	0									
maxLength	100									
annotation	documentation Defines scaling factors for operations on a particular day.									

element **activityProfile/monthlyProfile**

diagram	 <p>monthlyProfile Defines scaling factors for operations during a particular month.</p>
type	string100
properties	content simple
used by	element monthlyProfileSet
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations during a particular month.

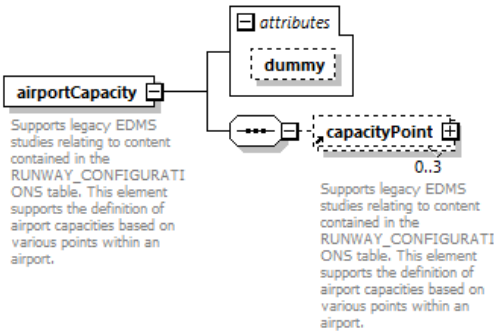
element **activityProfileSet**

diagram	 <p>activityProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.</p> <p>attributes dummy</p> <p>activityProfile 0..∞ Supports legacy EDMS studies relating to content combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES.</p>												
properties	content complex												
children	activityProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.												

attribute **activityProfileSet/@dummy**

type	xs:int
properties	use optional

element **airportCapacity**

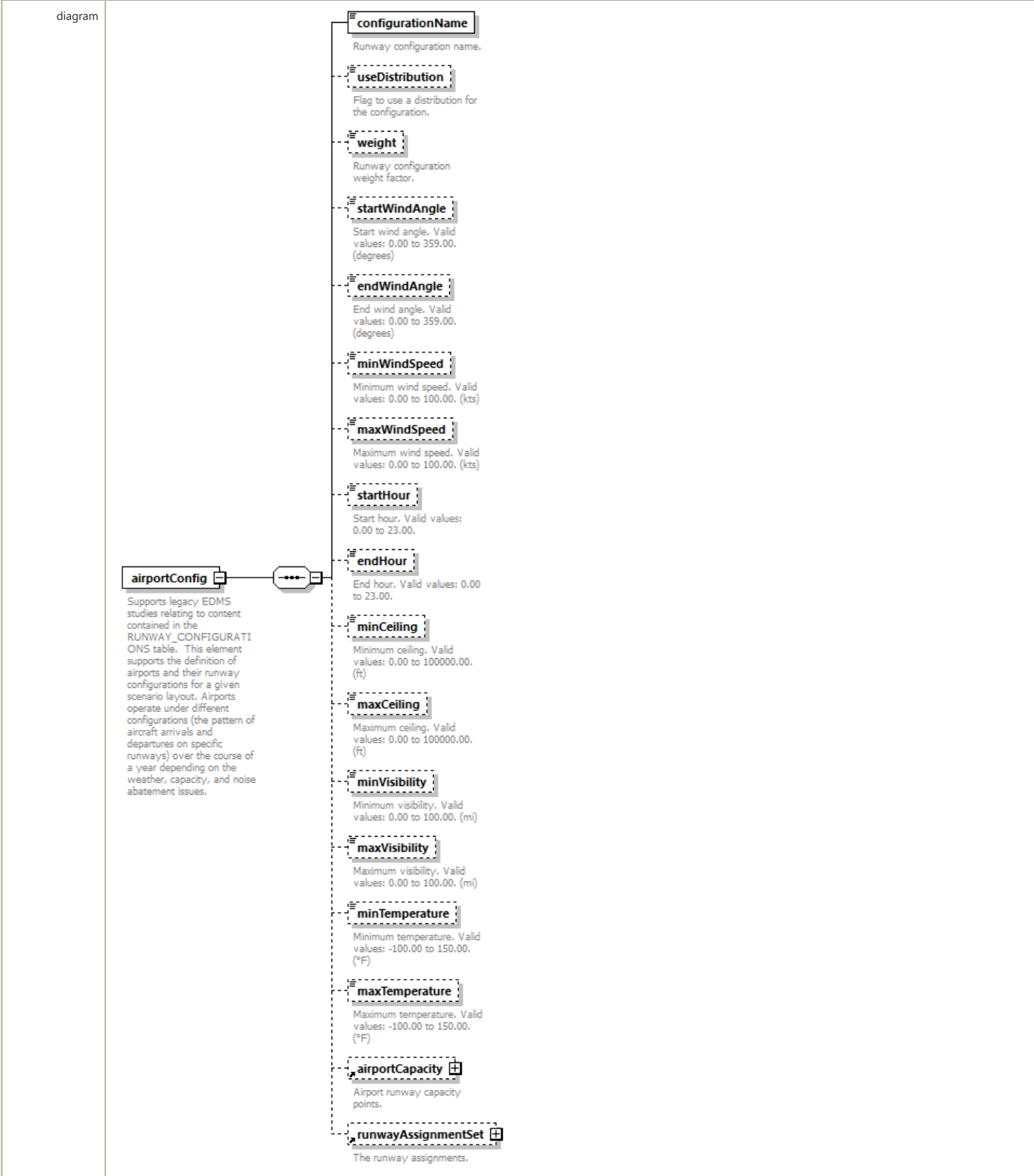
diagram	 <p>airportCapacity Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p> <p>attributes dummy</p> <p>capacityPoint 0..3 Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p>												
properties	content complex												
children	capacityPoint												
used by	element airportConfig complexTypes airportLayoutType scenarioAirportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											

annotation	documentation Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.
------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

attribute **airportCapacity/@dummy**

type	xs:int
properties	use optional

element **airportConfig**

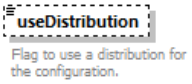


properties	content complex
children	configurationName useDistribution weight startWindAngle endWindAngle minWindSpeed maxWindSpeed startHour endHour minCeiling maxCeiling minVisibility maxVisibility minTemperature maxTemperature airportCapacity runwayAssignmentSet
used by	element airportConfigSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airports and their runway configurations for a given scenario layout. Airports operate under different configurations (the pattern of aircraft arrivals and departures on specific runways) over the course of a year depending on the weather, capacity, and noise abatement issues.

element [airportConfig/configurationName](#)

diagram	
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Runway configuration name.

element [airportConfig/useDistribution](#)

diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flag to use a distribution for the configuration.


element [airportConfig/weight](#)

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Runway configuration weight factor.

element [airportConfig/startWindAngle](#)

diagram	
type	int0to360
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation Start wind angle. Valid values: 0.00 to 359.00. (degrees)

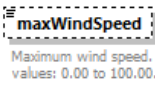
element **airportConfig/endWindAngle**

diagram	
type	int0to360
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation End wind angle. Valid values: 0.00 to 359.00. (degrees)

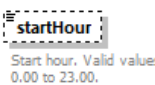
element **airportConfig/minWindSpeed**

diagram	
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Minimum wind speed. Valid values: 0.00 to 100.00. (kts)

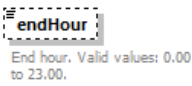
element **airportConfig/maxWindSpeed**

diagram	
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Maximum wind speed. Valid values: 0.00 to 100.00. (kts)

element **airportConfig/startHour**

diagram	
type	doubleInclusive24
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation Start hour. Valid values: 0.00 to 23.00.

element **airportConfig/endHour**

diagram	
type	doubleInclusive24
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation End hour. Valid values: 0.00 to 23.00.

element **airportConfig/minCeiling**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum ceiling. Valid values: 0.00 to 100000.00. (ft)

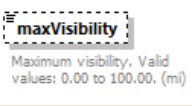
element **airportConfig/maxCeiling**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum ceiling. Valid values: 0.00 to 100000.00. (ft)

element **airportConfig/minVisibility**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum visibility. Valid values: 0.00 to 100.00. (mi)

element **airportConfig/maxVisibility**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Maximum visibility. Valid values: 0.00 to 100.00. (mi)
------------	-------------------------------------------------------------------------

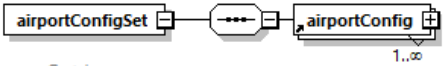
element **airportConfig/minTemperature**

diagram	 <p>Minimum temperature. Valid values: -100.00 to 150.00. (°F)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum temperature. Valid values: -100.00 to 150.00. (°F)

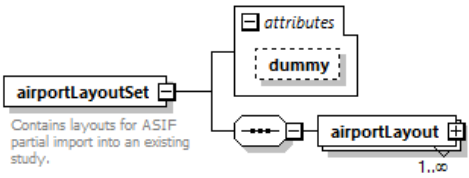
element **airportConfig/maxTemperature**

diagram	 <p>Maximum temperature. Valid values: -100.00 to 150.00. (°F)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum temperature. Valid values: -100.00 to 150.00. (°F)

element **airportConfigSet**

diagram	 <p>Contains one or more airportConfig elements.</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airports and their runway configurations for a given scenario layout. Airports operate under different configurations (the pattern of aircraft arrivals and departures on specific runways) over the course of a year depending on the weather, capacity, and noise abatement issues.</p>
properties	content complex
children	airportConfig
used by	complexType airportLayoutType scenarioAirportLayoutType
annotation	documentation Contains one or more airportConfig elements.

element **airportLayoutSet**

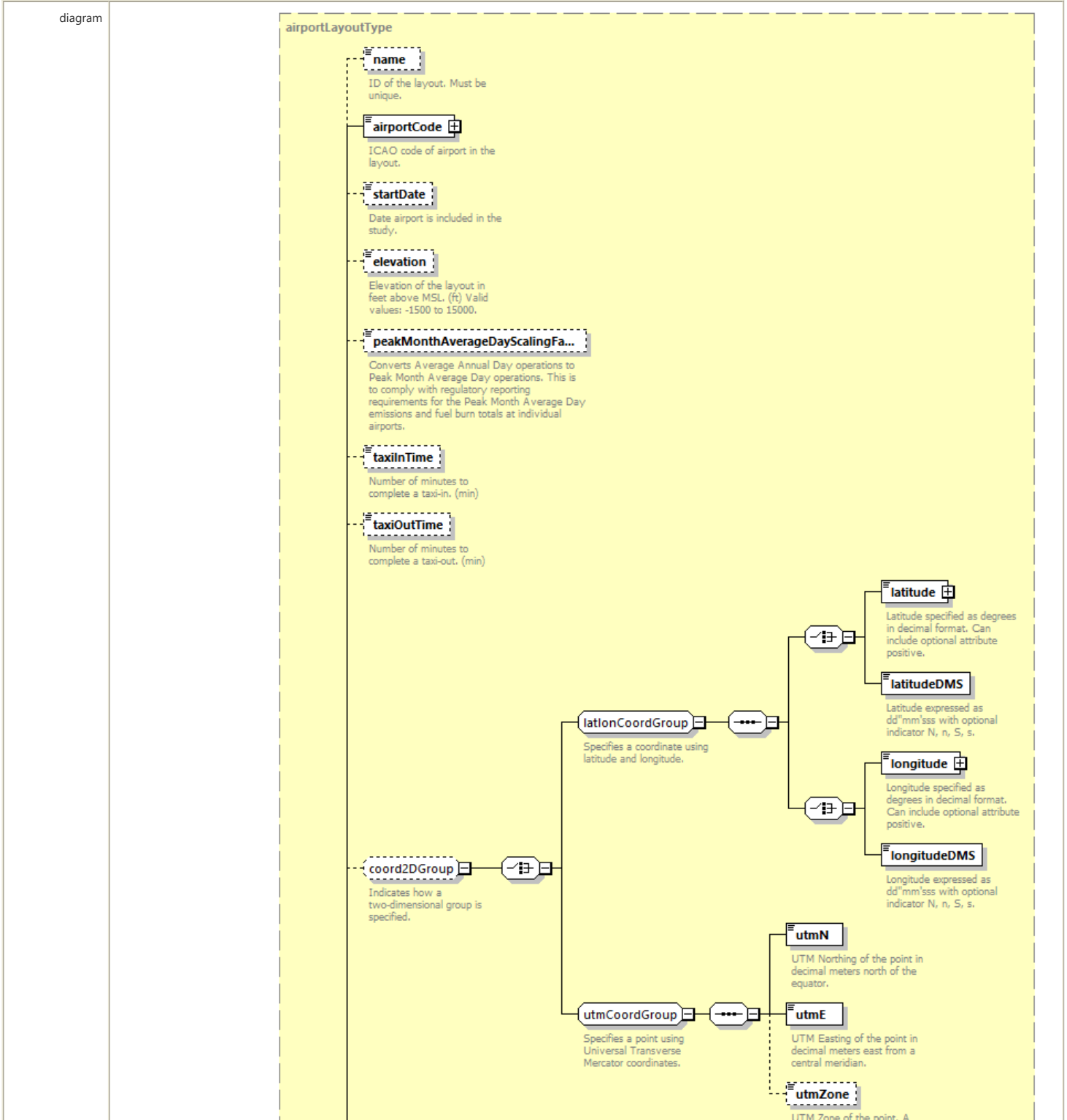
diagram	 <p>Contains layouts for ASIF partial import into an existing study.</p> <p>Contains information about the available layout of each airport in the study.</p>
properties	content complex

children	airportLayout					
used by	elements AsifXml study					
attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy	xs:int	optional			
annotation	documentation Contains layouts for ASIF partial import into an existing study.					

attribute **airportLayoutSet/@dummy**

type	xs:int
properties	use optional

element **airportLayoutSet/airportLayout**



default zone can be set in the <options> tag.



buildingSet

Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.

parkingFacilitySet

Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.

stationarySourceSet

Container of stationary sources contributing emissions.

gateSet

Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.

roadwaySet

Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.

taxiwaySet

Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.

runwaySet

Container for runways.

taxipathSet

Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.

trackSet

A set of flight tracks.

airportConfigSet

Contains one or more

	<div style="border: 1px dashed black; padding: 10px; background-color: #ffffcc;"> <p>airportConfig elements.</p> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>airportCapacity </p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p> </div> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>quarterHourlyProfileSet </p> <p>Supports the definition and use of QUARTER_HOURLY_PROFILE_S for the quarter hourly variation of operations.</p> </div> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>dailyProfileSet </p> <p>Supports the definition and use of DAILY_PROFILES for the daily variation of operations.</p> </div> <div style="border: 1px dashed black; padding: 5px; margin-bottom: 10px;"> <p>monthlyProfileSet </p> <p>Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.</p> </div> <div style="border: 1px dashed black; padding: 5px;"> <p>activityProfileSet </p> <p>Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES and MONTHLY_PROFILES variation of operations.</p> </div> </div>
type	airportLayoutType
properties	minOcc 1 maxOcc unbounded content complex
children	name airportCode startDate elevation peakMonthAverageDayScalingFactor taxiInTime taxiOutTime latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone buildingSet parkingFacilitySet stationarySourceSet gateSet roadwaySet taxiwaySet runwaySet taxipathSet trackSet airportConfigSet airportCapacity quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
annotation	documentation Contains information about the available layout of each airport in the study.

element **airportWeather**

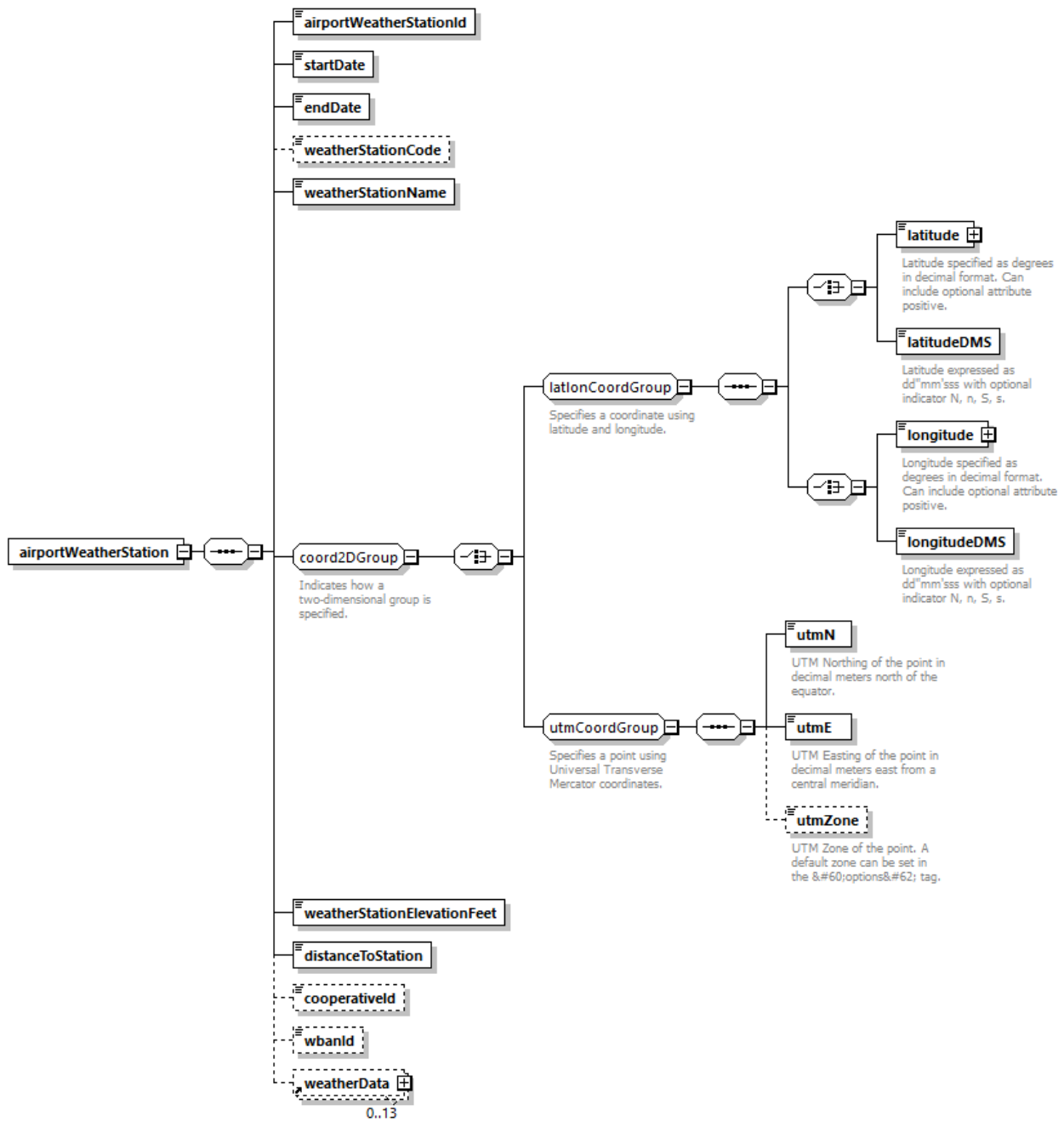
diagram	
properties	content complex
children	airportWeatherStationId airportWeatherStation
used by	complexType airport

element **airportWeather/airportWeatherStationId**

diagram	
type	xs:int
properties	content simple

element **airportWeatherStation**

diagram	
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properties	content complex
children	airportWeatherStationId startDate endDate weatherStationCode weatherStationName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone weatherStationElevationFeet distanceToStation cooperativeld wband weatherData
used by	element airportWeather

element **airportWeatherStation/airportWeatherStationId**

diagram	airportWeatherStationId
type	xs:int
properties	content simple

element **airportWeatherStation/startDate**

diagram	startDate
type	xs:date
properties	content simple

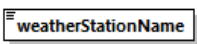
element **airportWeatherStation/endDate**

diagram	
type	xs:date
properties	content simple

element **airportWeatherStation/weatherStationCode**

diagram	
type	string5
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 5

element **airportWeatherStation/weatherStationName**

diagram	
type	string25
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 25

element **airportWeatherStation/weatherStationElevationFeet**

diagram	
type	xs:int
properties	content simple

element **airportWeatherStation/distanceToStation**

diagram	
type	xs:double
properties	content simple

element **airportWeatherStation/cooperativeld**

diagram	
type	string6
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6

element **airportWeatherStation/wbandl**

diagram	
type	string5
properties	minOcc 0 maxOcc 1

	content simple
facets	Kind Value Annotation minLength 0 maxLength 5

element **annualization**

diagram	
properties	content complex
children	name annualizationGroup
used by	elements AsifXml scenario
annotation	documentation Contains annualizations for ASIF partial import into an existing study.

element **annualization/name**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Name of annualization.

element **annualizationCase**

diagram	
properties	content complex
children	name weight scaleFactor
used by	group annualizationGroupCase
annotation	documentation Collection of study cases whose results are weighted in the scenario annualization rollup.

element **annualizationCase/name**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of the case.

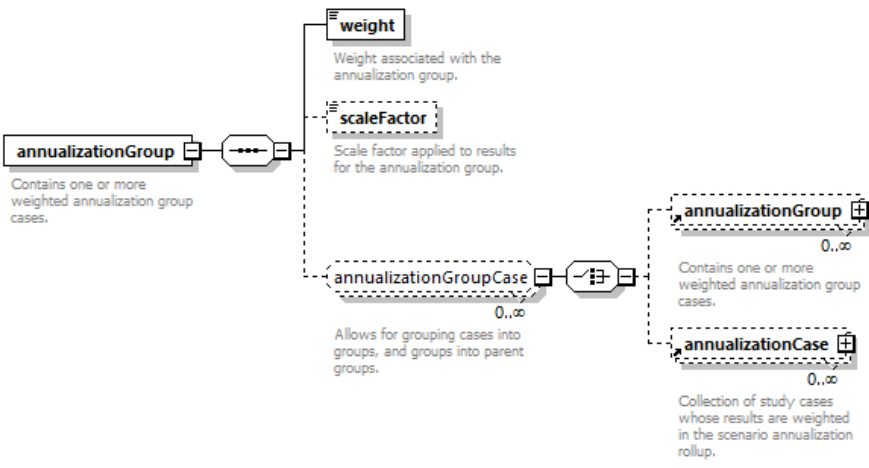
element **annualizationCase/weight**

diagram	
type	xs:double
properties	content simple
annotation	documentation Weight associated with the case.

element **annualizationCase/scaleFactor**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Scale factor applied to results for the case.

element **annualizationGroup**

diagram	
properties	content complex
children	weight scaleFactor annualizationGroup annualizationCase
used by	element annualization group annualizationGroupCase
annotation	documentation Contains one or more weighted annualization group cases.

element **annualizationGroup/weight**

diagram	
type	xs:double
properties	content simple
annotation	documentation Weight associated with the annualization group.

element **annualizationGroup/scaleFactor**

diagram	
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	<div style="border: 1px dashed black; padding: 2px; display: inline-block;"> scaleFactor </div> Scale factor applied to results for the annualization group.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Scale factor applied to results for the annualization group.

element **areaStationarySource**

diagram	
properties	content complex
children	pointCoord polygonCoords baseElevation releaseHeight sigmaZ
used by	element stationarySource
annotation	documentation Specifies the area in space occupied by a stationary source of emissions.

element **areaStationarySource/baseElevation**

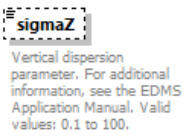
diagram	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> baseElevation </div> Elevation in MSL of area, valid values -500 to 5000 (m)
type	xs:double
properties	content simple
annotation	documentation Elevation in MSL of area, valid values -500 to 5000 (m)

element **areaStationarySource/releaseHeight**

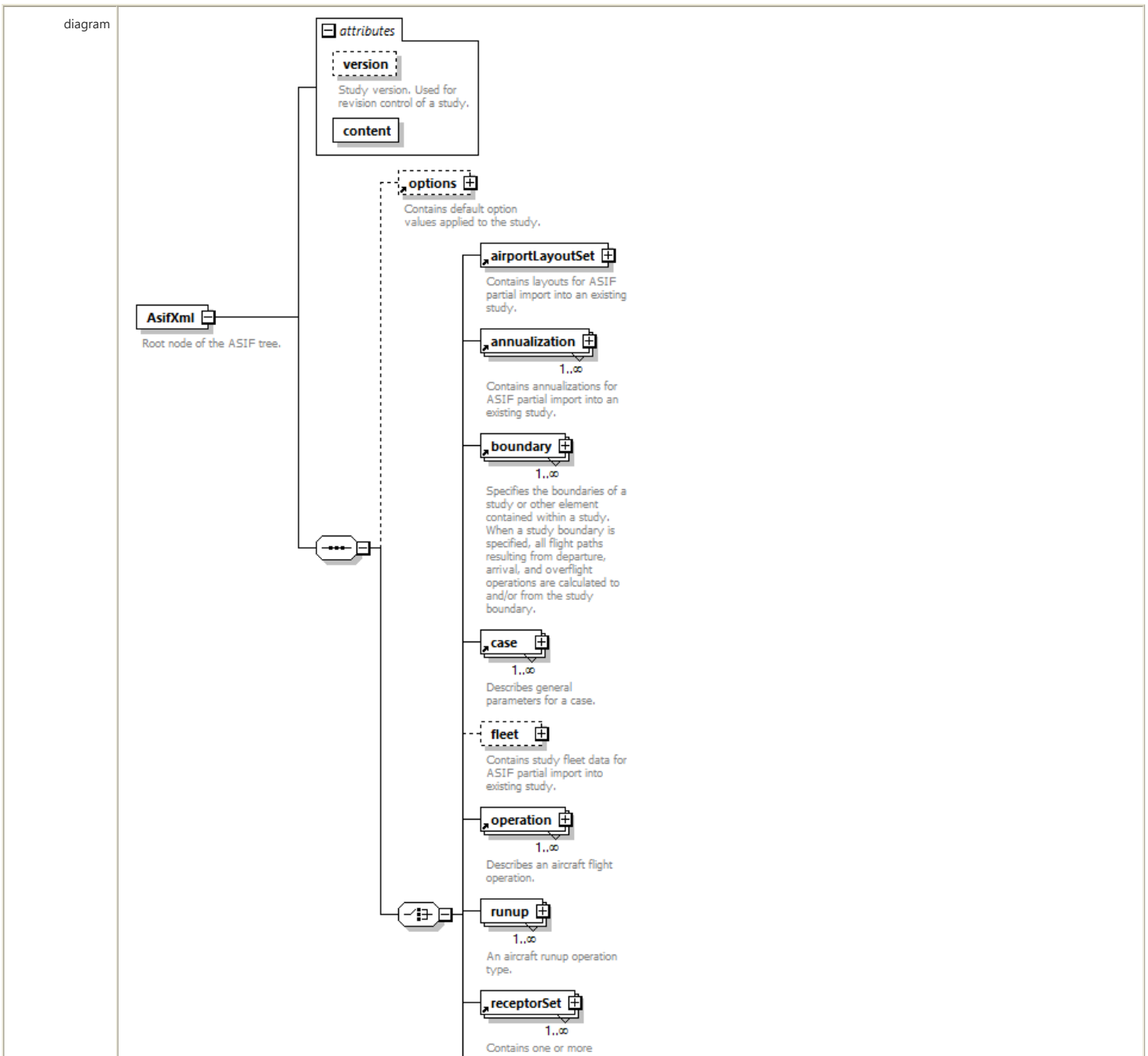
diagram	<div style="border: 1px dashed black; padding: 2px; display: inline-block;"> releaseHeight </div> Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0

	maxInclusive 100
annotation	documentation Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)

element **areaStationarySource/sigmaZ**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.

element **AsifXml**



	<p>receptor sets at various locations.</p> <p>scenario 1..∞ Encapsulates a scenario - such as Baseline or Alternative</p> <p>study Contains specific information about a study.</p> <p>trackOpSet 1..∞ Lists tracks and associated operations.</p> <p>userGroundSupportEquipmentSet Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p> <p>stationarySourceSet Container of stationary sources contributing emissions.</p> <p>operationalProfileSet</p>																		
properties	content complex																		
children	options airportLayoutSet annualization boundary case fleet operation runup receptorSet scenario study trackOpSet userGroundSupportEquipmentSet stationarySourceSet operationalProfileSet																		
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>version</td> <td>string16</td> <td>optional</td> <td></td> <td></td> <td>documentation Study version. Used for revision control of a study.</td> </tr> <tr> <td>content</td> <td>derived by: xs:string</td> <td>required</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	version	string16	optional			documentation Study version. Used for revision control of a study.	content	derived by: xs:string	required			
Name	Type	Use	Default	Fixed	Annotation														
version	string16	optional			documentation Study version. Used for revision control of a study.														
content	derived by: xs:string	required																	
annotation	documentation Root node of the ASIF tree.																		

attribute **AsifXml/@version**

type	string16									
properties	use optional									
facets	<table border="1"> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>16</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	16	
Kind	Value	Annotation								
minLength	0									
maxLength	16									
annotation	documentation Study version. Used for revision control of a study.									

attribute **AsifXml/@content**

type	restriction of xs:string																																										
properties	use required																																										
facets	<table border="1"> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>enumeration</td> <td>airportLayoutSet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>annualization</td> <td></td> </tr> <tr> <td>enumeration</td> <td>case</td> <td></td> </tr> <tr> <td>enumeration</td> <td>fleet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>receptorSets</td> <td></td> </tr> <tr> <td>enumeration</td> <td>scenario</td> <td></td> </tr> <tr> <td>enumeration</td> <td>study</td> <td></td> </tr> <tr> <td>enumeration</td> <td>boundary</td> <td></td> </tr> <tr> <td>enumeration</td> <td>trackOpSet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>runup</td> <td></td> </tr> <tr> <td>enumeration</td> <td>userGroundSupportEquipmentSet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>stationarySourceSet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>operationalProfileSet</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	enumeration	airportLayoutSet		enumeration	annualization		enumeration	case		enumeration	fleet		enumeration	receptorSets		enumeration	scenario		enumeration	study		enumeration	boundary		enumeration	trackOpSet		enumeration	runup		enumeration	userGroundSupportEquipmentSet		enumeration	stationarySourceSet		enumeration	operationalProfileSet	
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enumeration	airportLayoutSet																																										
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enumeration	runup																																										
enumeration	userGroundSupportEquipmentSet																																										
enumeration	stationarySourceSet																																										
enumeration	operationalProfileSet																																										

element **AsifXml/fleet**

diagram	
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fleet

Contains study fleet data for ASIF partial import into existing study.

auxiliaryPowerUnit

0..∞

Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.

airframe

0..∞

Supports the definition of custom airframes.

engine

0..∞

User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.

engineMod

0..∞

User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.

anpNoiseGroup

0..∞

This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type.

anpAirplane

0..∞

Creates a new ANP aircraft.

anpFlapsSet

0..∞

Flap settings for an ANP aircraft type.

anpThrustSet

0..∞

Specifies a set of thrust records for an ANP aircraft.

anpProfileSet

0..∞

The profile set for an ANP aircraft.

anpHeloNoiseGroup

0..∞

This element contains the three spectral class references for a given helicopter noise group with the corresponding thrust setting type and model type.

anpHelicopter

0..∞

Creates a new ANP helicopter.

anpHeloDirectivitySet

0..∞

A set of helicopter directivities.

anpHeloProfileSet

0..∞

A profile set for an ANP helicopter.

badaAirplane

0..∞

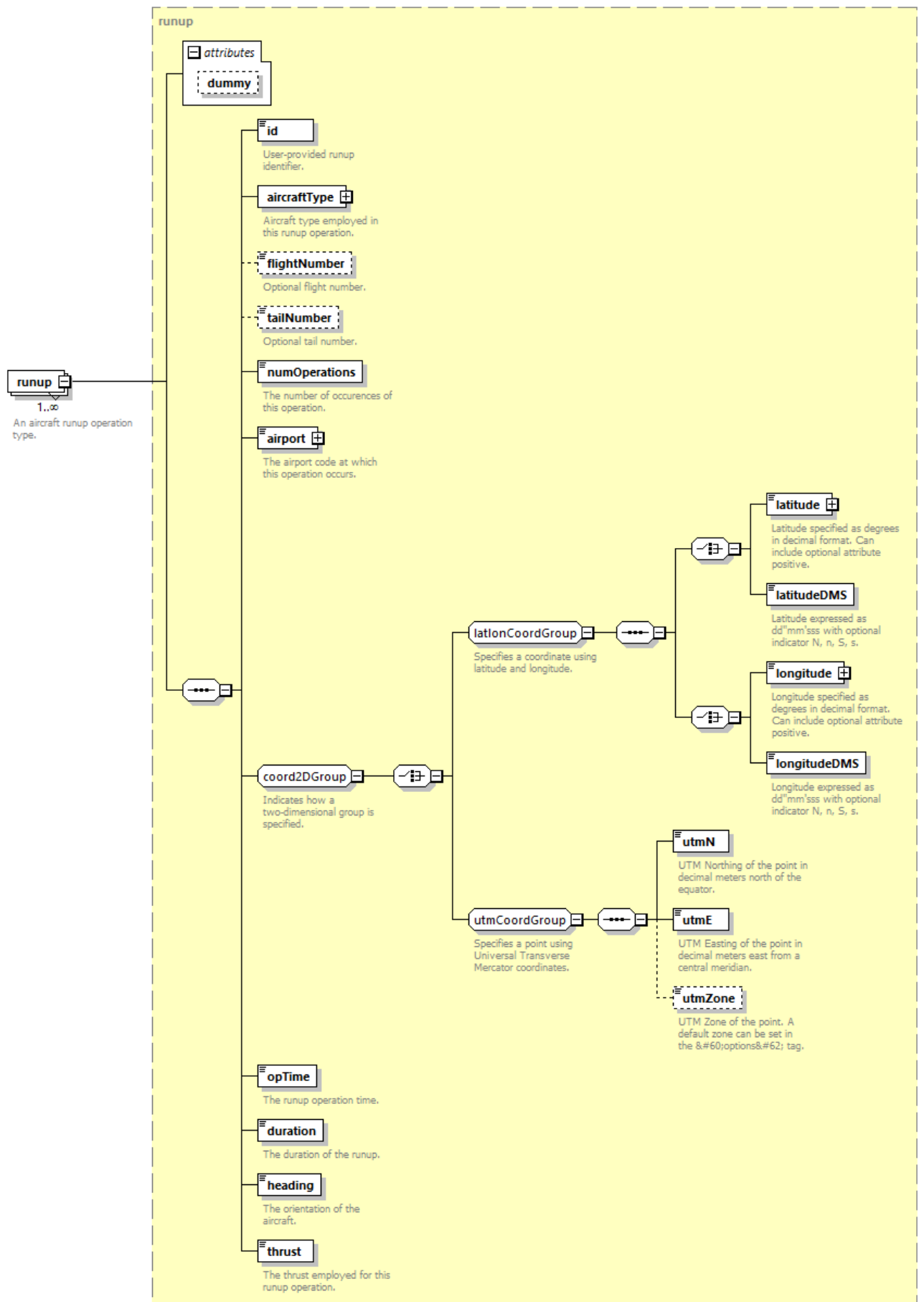
Describes a new



type	fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust bada4ProfileSet aircraft energyShare
annotation	documentation Contains study fleet data for ASIF partial import into existing study.

element **AsifXml/runup**

diagram	
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type	runup
properties	minOcc 1 maxOcc unbounded

	content complex												
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime duration heading thrust												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation An aircraft runway operation type.												

element **backbone**

diagram	
properties	content complex
children	dispersionWeight backboneNodes
used by	element track
annotation	documentation Represents the centerline of a set of dispersed tracks.

element **backboneNode**

diagram	
properties	content complex
children	trackNode halfwidth
used by	element backboneNodes
annotation	documentation A 3D node that is part of a backbone.

element **backboneNode/halfwidth**

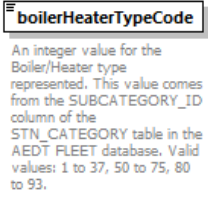
diagram	
type	xs:double
properties	content simple
annotation	documentation Halfwidth in nautical miles. (nmi)

element **backboneNodes**

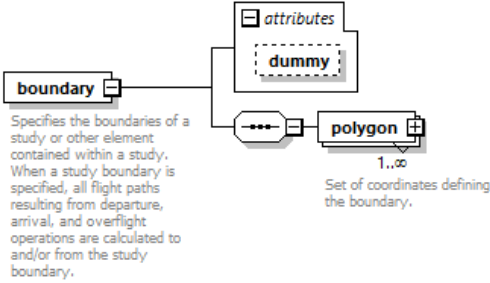
diagram	
properties	content complex
children	backboneNode

used by	element backbone
annotation	documentation The set of 3D nodes for the backbone.

element **boilerHeaterTypeCode**

diagram	
type	union of (restriction of xs:integer , restriction of xs:integer , restriction of xs:integer)
properties	content simple
used by	element categoryBoilerHeater
annotation	documentation An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid values: 1 to 37, 50 to 75, 80 to 93.

element **boundary**

diagram													
properties	content complex												
children	polygon												
used by	elements AsifXml study												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Specifies the boundaries of a study or other element contained within a study. When a study boundary is specified, all flight paths resulting from departure, arrival, and overflight operations are calculated to and/or from the study boundary.												

attribute **boundary/@dummy**

type	xs:int
properties	use optional

element **boundary/polygon**

diagram	
type	polygon2DType
properties	minOcc 1 maxOcc unbounded content complex
children	dummy vertex

annotation	documentation Set of coordinates defining the boundary.
------------	------------------------------------------------------------

element **building**

diagram	<p>Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.</p> <p>name Name of the building.</p> <p>elevation Elevation of building. Valid values: -500 to 5000. (m)</p> <p>height Height of building. Valid values: 0 to 100 (m)</p> <p>releaseHeight Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p> <p>oneOrThreeCoords2DGroupSet Type of coordinate specifying the area.</p> <p>pointCoord Choice of a single point coordinate.</p> <p>polygonCoords Choice of a 2D polygon.</p>
properties	content complex
children	name elevation height releaseHeight pointCoord polygonCoords
used by	element buildingSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.

element **building/name**

diagram	<p>name Name of the building.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Name of the building.

element **building/elevation**

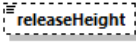
diagram	<p>elevation Elevation of building. Valid values: -500 to 5000. (m)</p>
type	xs:double
properties	content simple
annotation	documentation Elevation of building. Valid values: -500 to 5000. (m)

element **building/height**

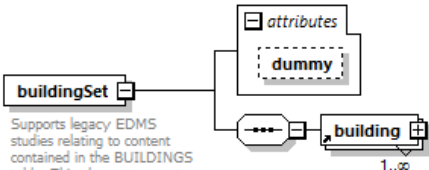
diagram	<p>height Height of building. Valid values: 0 to 100 (m)</p>
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type	xs:double
properties	content simple
annotation	documentation Height of building. Valid values: 0 to 100 (m)

element **building/releaseHeight**

diagram	 <p>releaseHeight</p> <p>Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

element **buildingSet**

diagram	 <p>buildingSet</p> <p>Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.</p> <p>attributes</p> <p>dummy</p> <p>building</p> <p>1..∞</p> <p>Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.</p>												
properties	content complex												
children	building												
used by	complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.												

attribute **buildingSet/@dummy**

type	xs:int
properties	use optional

element **capacityPoint**

diagram	
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	<p>capacityPoint Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p> <p>arrivalsPerHour Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)</p> <p>departuresPerHour Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>
properties	content complex
children	arrivalsPerHour departuresPerHour
used by	element airportCapacity
annotation	documentation Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.

element [capacityPoint/arrivalsPerHour](#)

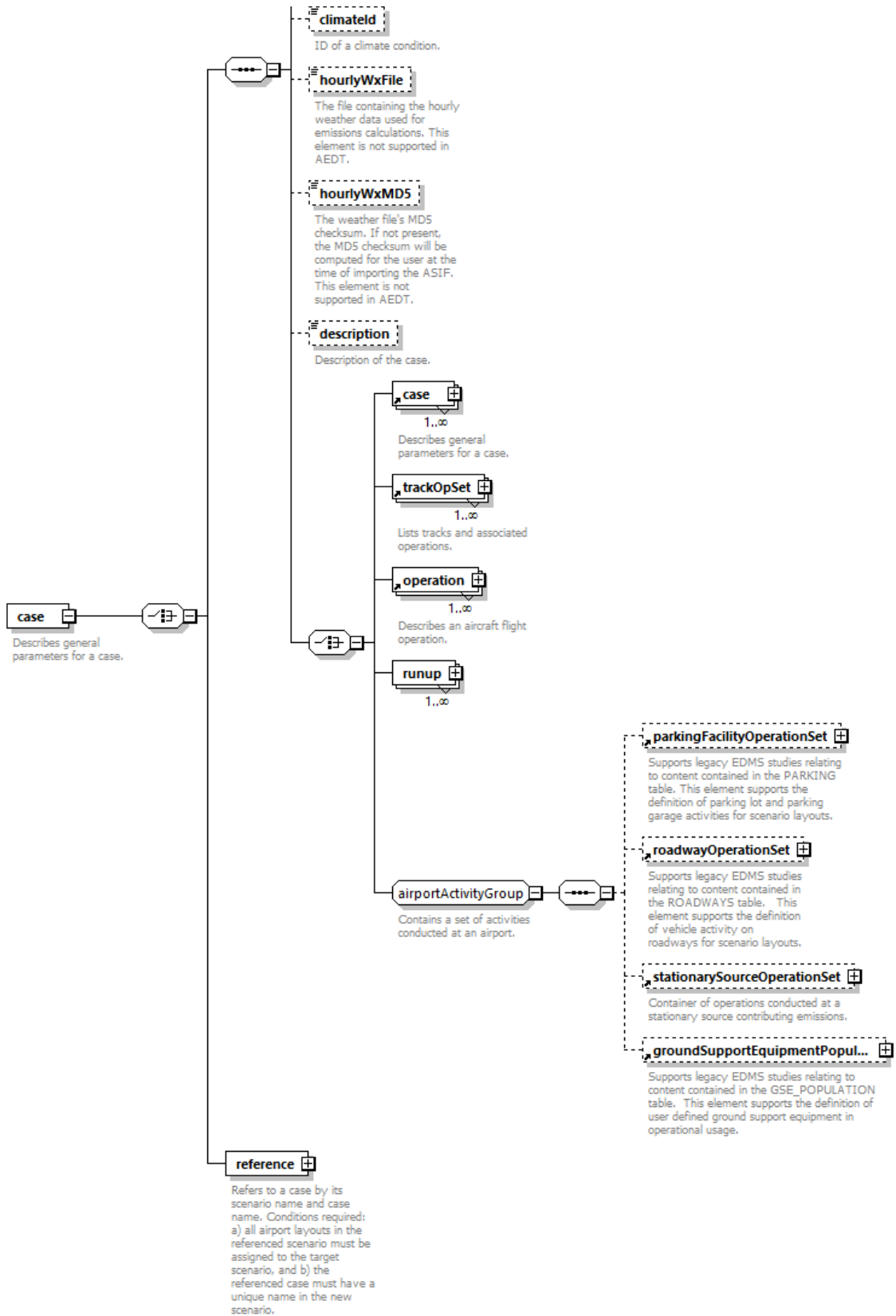
diagram	<p>arrivalsPerHour Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>
type	xs:double
properties	content simple
annotation	documentation Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)

element [capacityPoint/departuresPerHour](#)

diagram	<p>departuresPerHour Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>
type	xs:double
properties	content simple
annotation	documentation Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)

element [case](#)


diagram	<p>caseld Case ID.</p> <p>name The name of the case (must be unique within the scenario).</p> <p>source</p> <p>startTime Case's start time. If not defined, the value specified in the scenario element will be used. Must match the value for startTime for the scenario. Accepts dateTime string.</p> <p>duration Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a scenario must have the same duration as the scenario. (hr).</p>
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properties	content complex
children	caseld name source startTime duration climatemeld hourlyWxFile hourlyWxMD5 description case trackOpSet operation runup parkingFacilityOperationSet roadwayOperationSet stationarySourceOperationSet groundSupportEquipmentPopulationOperationSet reference
used by	elements AsifXml case caseSet
annotation	documentation Describes general parameters for a case.

diagram	 Case ID.
type	xs:int
properties	content simple
annotation	documentation Case ID.


element **case/name**

diagram	 The name of the case (must be unique within the scenario).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The name of the case (must be unique within the scenario).

element **case/source**

diagram	
type	emissionsSourceType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration Container enumeration Aircraft enumeration GSE Population enumeration Parking Facilities enumeration Roadways enumeration Stationary Sources

element **case/startTime**

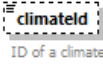
diagram	 Case's start time. If not defined, the value specified in the scenario element will be used. Must match the value for startTime for the scenario. Accepts dateTime string.
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Case's start time. If not defined, the value specified in the scenario element will be used. Must match the value for startTime for the scenario. Accepts dateTime string.

element **case/duration**

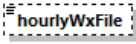
diagram	 Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a scenario must have the same duration as the scenario. (hr).
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type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a scenario must have the same duration as the scenario. (hr).

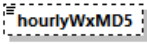
element **case/climateId**

diagram	 ID of a climate condition.
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation ID of a climate condition.

element **case/hourlyWxFile**

diagram	 The file containing the hourly weather data used for emissions calculations. This element is not supported in AEDT.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The file containing the hourly weather data used for emissions calculations. This element is not supported in AEDT.

element **case/hourlyWxMD5**

diagram	 The weather file's MD5 checksum. If not present, the MD5 checksum will be computed for the user at the time of importing the ASIF. This element is not supported in AEDT.
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation The weather file's MD5 checksum. If not present, the MD5 checksum will be computed for the user at the time of importing the ASIF. This element is not supported in AEDT.

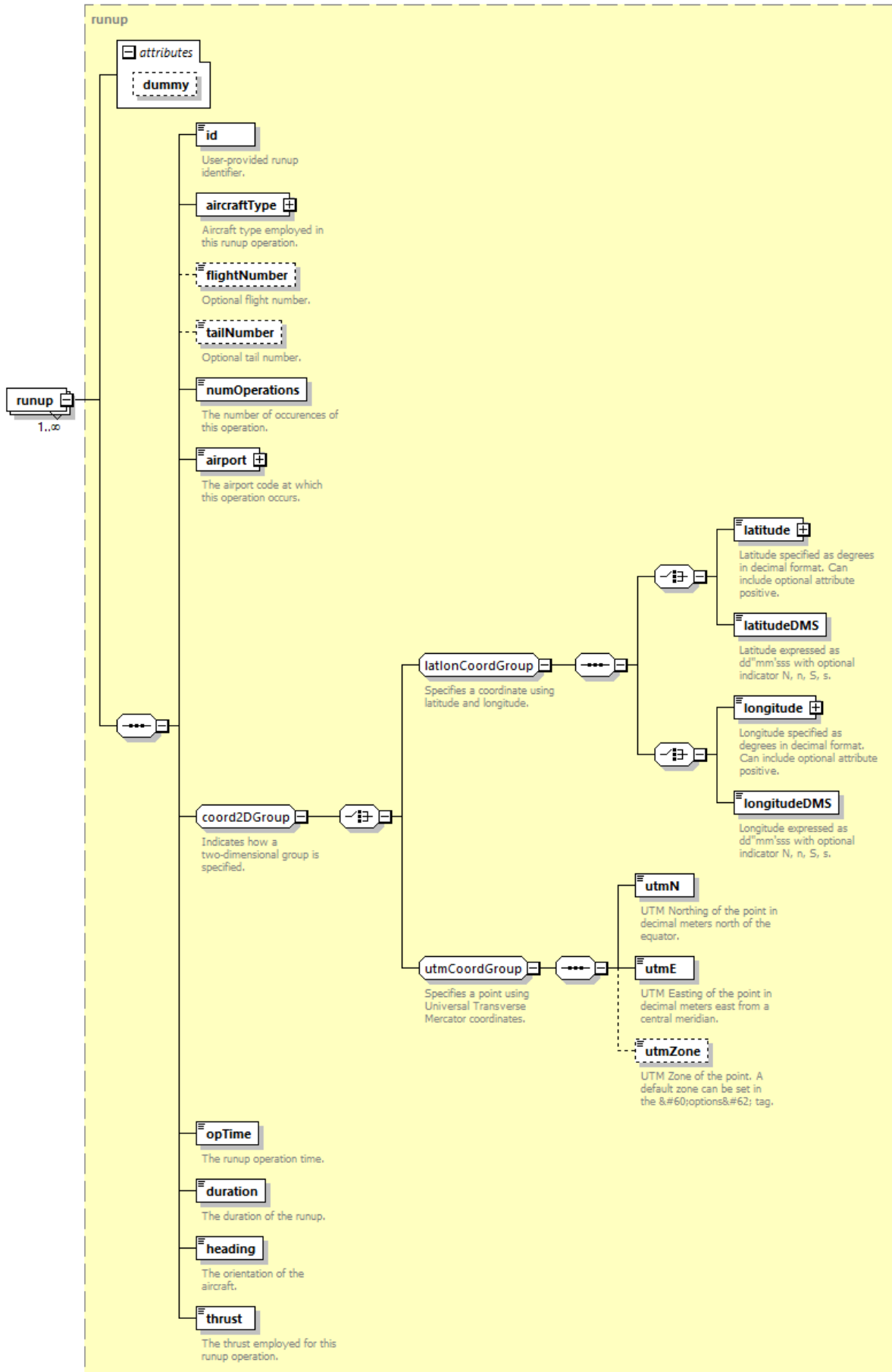
element **case/description**

diagram	 Description of the case.
type	string255

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of the case.

element **case/runup**

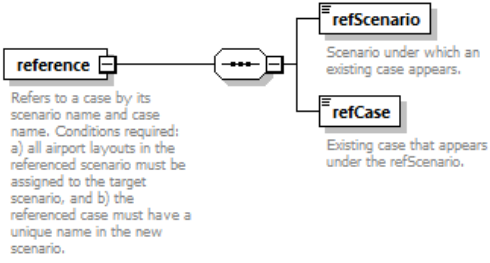
diagram	
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type	runup
properties	minOcc 1 maxOcc unbounded

	content complex					
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime duration heading thrust					
attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy	xs:int	optional			

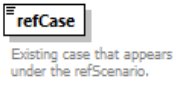
element **case/reference**

diagram	 <p>reference</p> <p>Refers to a case by its scenario name and case name. Conditions required: a) all airport layouts in the referenced scenario must be assigned to the target scenario, and b) the referenced case must have a unique name in the new scenario.</p> <p>refScenario</p> <p>Scenario under which an existing case appears.</p> <p>refCase</p> <p>Existing case that appears under the refScenario.</p>
properties	content complex
children	refScenario refCase
annotation	documentation Refers to a case by its scenario name and case name. Conditions required: a) all airport layouts in the referenced scenario must be assigned to the target scenario, and b) the referenced case must have a unique name in the new scenario.

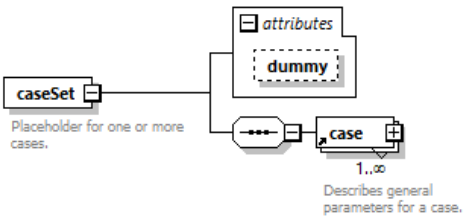
element **case/reference/refScenario**

diagram	 <p>refScenario</p> <p>Scenario under which an existing case appears.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Scenario under which an existing case appears.

element **case/reference/refCase**

diagram	 <p>refCase</p> <p>Existing case that appears under the refScenario.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Existing case that appears under the refScenario.

element **caseSet**

diagram	 <p>caseSet</p> <p>Placeholder for one or more cases.</p> <p>attributes</p> <p>dummy</p> <p>case</p> <p>1..∞</p> <p>Describes general parameters for a case.</p>
properties	content complex
children	case
used by	element scenario

attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy	xs:int	optional			
annotation	documentation Placeholder for one or more cases.					

attribute **caseSet/@dummy**

type	xs:int
properties	use optional

element **categoryAircraftEngine**

diagram	
properties	content complex
children	engineCode timePercentPower7 timePercentPower30 timePercentPower85 timePercentPower100
used by	element stationarySource
annotation	documentation Describes a category for the time an aircraft engine is at various power levels.

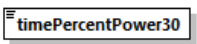
element **categoryAircraftEngine/engineCode**

diagram										
type	string255									
properties	content simple									
facets	<table border="1"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									


element **categoryAircraftEngine/timePercentPower7**

diagram										
type	doubleExclusive1000									
properties	content simple default 0									
facets	<table border="1"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minInclusive</td> <td>0</td> <td></td> </tr> <tr> <td>maxExclusive</td> <td>1000</td> <td></td> </tr> </table>	Kind	Value	Annotation	minInclusive	0		maxExclusive	1000	
Kind	Value	Annotation								
minInclusive	0									
maxExclusive	1000									
annotation	documentation Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min)									


element **categoryAircraftEngine/timePercentPower30**

diagram	 <p>Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)




element **categoryAircraftEngine/timePercentPower85**

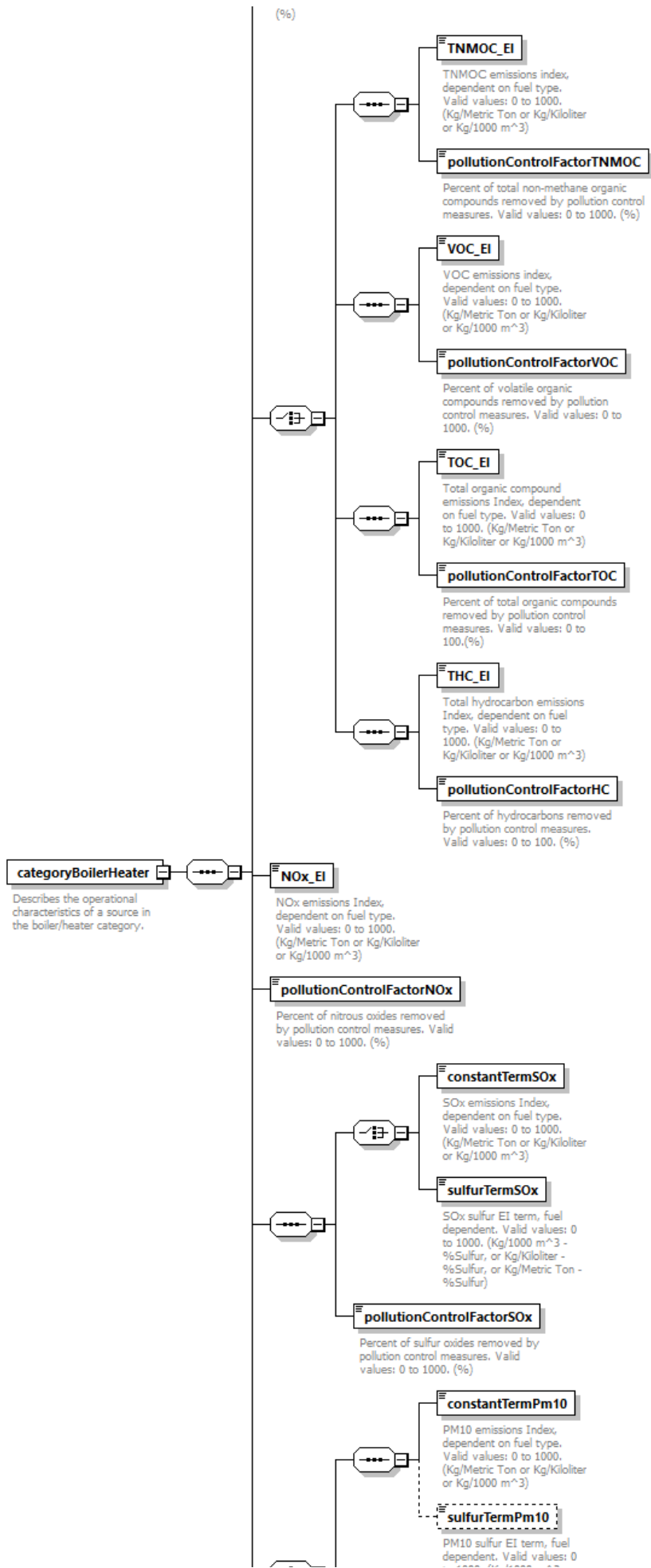
diagram	 <p>Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)

element **categoryAircraftEngine/timePercentPower100**

diagram	 <p>Time at which engine is operating at 100% (takeoff) power. Valid values: 0 to 1000. (min)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 100% (takeoff) power. Valid values: 0 to 1000. (min)

element **categoryBoilerHeater**

diagram	 <p>An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid values: 1 to 37, 50 to 75, 80 to 93.</p>  <p>CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>  <p>Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000.</p>
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	<p>to 1000. (Kg/1000 m³ - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)</p> <p>ashTermPm10 PM10 ash term. Valid values: 0 to 1000.(Kg/Metric Ton - %Ash)</p> <p>fuelAshContent Percent of fuel that is ash. Valid values: 0 to 1000. (%)</p> <p>pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p> <p>pm25ToPm10Ratio PM 2.5 to PM 10 ratio. Valid values: 0 to 1000. (dimensionless)</p> <p>fuelCalciumSulfurRatio Ratio of calcium to sulfur within the fuel. Valid values: 0 to 1000. (dimensionless)</p> <p>fuelSulfurContent Percent of fuel that is sulfur. Valid values 0 to 1000. (%)</p>
properties	content complex
children	boilerHeaterTypeCode CO_EI pollutionControlFactorCO TNMOC_EI pollutionControlFactorTNMOC VOC_EI pollutionControlFactorVOC TOC_EI pollutionControlFactorTOC THC_EI pollutionControlFactorHC NOx_EI pollutionControlFactorNOx constantTermSOx sulfurTermSOx pollutionControlFactorSOx constantTermPm10 sulfurTermPm10 ashTermPm10 fuelAshContent pollutionControlFactorPM10 pm25ToPm10Ratio fuelCalciumSulfurRatio fuelSulfurContent
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the boiler/heater category.

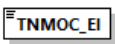
element **categoryBoilerHeater/CO_EI**

diagram	<p>CO_EI CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)


element **categoryBoilerHeater/pollutionControlFactorCO**

diagram	<p>pollutionControlFactorCO Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

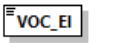
element **categoryBoilerHeater/TNMOC_EI**

diagram	 <p>TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)


element **categoryBoilerHeater/pollutionControlFactorTNMOC**

diagram	 <p>Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)


element **categoryBoilerHeater/VOC_EI**

diagram	 <p>VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)

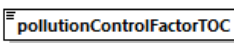
element **categoryBoilerHeater/pollutionControlFactorVOC**

diagram	 <p>Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)


element **categoryBoilerHeater/TOC_EI**

diagram	 <p>Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)


element **categoryBoilerHeater/pollutionControlFactorTOC**

diagram	 <p>Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100.(%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100.(%)


element **categoryBoilerHeater/THC_EI**

diagram	 <p>Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)


element **categoryBoilerHeater/pollutionControlFactorHC**

diagram	 <p>Percent of hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)


element **categoryBoilerHeater/NOx_EI**

diagram	 <p>NOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)

element **categoryBoilerHeater/pollutionControlFactorNOx**

diagram	 <p>Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryBoilerHeater/constantTermSOx**


diagram	 <p>SOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)

element **categoryBoilerHeater/sulfurTermSOx**


diagram	 <p>SOx sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m³ - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation

SOx sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m³ - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)


element **categoryBoilerHeater/pollutionControlFactorSOx**

diagram	 pollutionControlFactorSOx Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)


element **categoryBoilerHeater/constantTermPm10**

diagram	 constantTermPm10 PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)

element **categoryBoilerHeater/sulfurTermPm10**

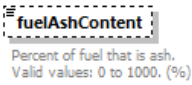
diagram	 sulfurTermPm10 PM10 sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m ³ - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)
type	doubleInclusive1000
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m ³ - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)

element **categoryBoilerHeater/ashTermPm10**

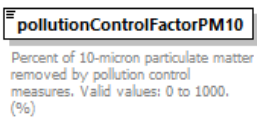
diagram	 ashTermPm10 PM10 ash term. Valid values: 0 to 1000.(Kg/Metric Ton - %Ash)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000

annotation	documentation PM10 ash term. Valid values: 0 to 1000.(Kg/Metric Ton - %Ash)
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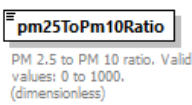
element **categoryBoilerHeater/fuelAshContent**

diagram	
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Percent of fuel that is ash. Valid values: 0 to 1000. (%)

element **categoryBoilerHeater/pollutionControlFactorPM10**

diagram	
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryBoilerHeater/pm25ToPm10Ratio**

diagram	
type	doubleInclusive1
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM 2.5 to PM 10 ratio. Valid values: 0 to 1000. (dimensionless)

element **categoryBoilerHeater/fuelCalciumSulfurRatio**

diagram	
type	doubleExclusive1000
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation

Ratio of calcium to sulfur within the fuel. Valid values: 0 to 1000. (dimensionless)

element **categoryBoilerHeater/fuelSulfurContent**

diagram	
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Percent of fuel that is sulfur. Valid values 0 to 1000. (%)

element **categoryDeicingArea**

diagram	
properties	content complex
children	typeCode VOC_EI ethyleneGlycolDensity propyleneGlycolDensity solutionConcentrationPercent
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the deicing area category.

element **categoryDeicingArea/typeCode**

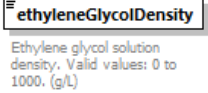
diagram	
type	int1to4
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation Describes this category.

element **categoryDeicingArea/VOC_EI**

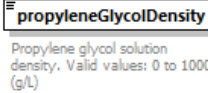
diagram	
type	doubleInclusive1000

properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index, fuel type dependent. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter)

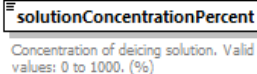
element **categoryDeicingArea/ethyleneGlycolDensity**

diagram	 <p>Ethylene glycol solution density. Valid values: 0 to 1000. (g/L)</p>
type	<u>doubleExclusive2000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation Ethylene glycol solution density. Valid values: 0 to 1000. (g/L)

element **categoryDeicingArea/propyleneGlycolDensity**

diagram	 <p>Propylene glycol solution density. Valid values: 0 to 1000. (g/L)</p>
type	<u>doubleExclusive2000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation Propylene glycol solution density. Valid values: 0 to 1000. (g/L)

element **categoryDeicingArea/solutionConcentrationPercent**

diagram	 <p>Concentration of deicing solution. Valid values: 0 to 1000. (%)</p>
type	<u>doubleExclusive100</u>
properties	content simple default 50
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Concentration of deicing solution. Valid values: 0 to 1000. (%)

element **categoryFuelTank**

diagram	
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	<p>categoryFuelTank Describes the operational characteristics of a source in the fuel tank category.</p> <p>typeCode Describes this category.</p> <p>tankDiameter Diameter of tank. Valid values: 0 to 1000. (m)</p> <p>horizontalTank Describes a horizontal tank.</p> <p>verticalTank Describes a vertical tank.</p> <p>reidVaporPressure Reid vapor pressure. Valid values: 0 to 1000. (PSI)</p>
properties	content complex
children	typeCode tankDiameter horizontalTank verticalTank reidVaporPressure
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the fuel tank category.

element [categoryFuelTank/typeCode](#)

diagram	<p>typeCode Describes this category.</p>
type	int1to25
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 25
annotation	documentation Describes this category.

element [categoryFuelTank/tankDiameter](#)

diagram	<p>tankDiameter Diameter of tank. Valid values: 0 to 1000. (m)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Diameter of tank. Valid values: 0 to 1000. (m)

element [categoryFuelTank/horizontalTank](#)

diagram	<p>horizontalTank Describes a horizontal tank.</p> <p>tankLength Length of tank. Valid values: 0 to 1000. (m)</p>
properties	content complex
children	tankLength
annotation	documentation Describes a horizontal tank.

element [categoryFuelTank/horizontalTank/tankLength](#)

diagram	
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	<div style="border: 1px solid black; padding: 2px; width: fit-content;"> tankLength </div> <p>Length of tank. Valid values: 0 to 1000. (m)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Length of tank. Valid values: 0 to 1000. (m)

element **categoryFuelTank/verticalTank**

diagram	<pre> classDiagram class verticalTank { Describes a vertical tank. } class maximumSolutionLevel { Maximum height of solution inside the tank. Valid values: 0 to 1000. (m) } class tankHeight { Height of tank. Valid values: 0 to 1000. (m) } class averageSolutionLevel { A verage height of solution inside the tank. Valid values: 0 to 1000. (m) } class meanWindSpeed { Average wind speed at the tank. Valid values: 0 to 1000. (m/s) } verticalTank < -- maximumSolutionLevel verticalTank < -- tankHeight verticalTank < -- averageSolutionLevel verticalTank < -- meanWindSpeed </pre>
properties	content complex
children	maximumSolutionLevel tankHeight averageSolutionLevel meanWindSpeed
annotation	documentation Describes a vertical tank.

element **categoryFuelTank/verticalTank/maximumSolutionLevel**

diagram	<div style="border: 1px solid black; padding: 2px; width: fit-content;"> maximumSolutionLevel </div> <p>Maximum height of solution inside the tank. Valid values: 0 to 1000. (m)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Maximum height of solution inside the tank. Valid values: 0 to 1000. (m)

element **categoryFuelTank/verticalTank/tankHeight**

diagram	<div style="border: 1px solid black; padding: 2px; width: fit-content;"> tankHeight </div> <p>Height of tank. Valid values: 0 to 1000. (m)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Height of tank. Valid values: 0 to 1000. (m)

element **categoryFuelTank/verticalTank/averageSolutionLevel**

diagram	
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Average height of solution inside the tank. Valid values: 0 to 1000. (m)

element **categoryFuelTank/verticalTank/meanWindSpeed**

diagram	
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple default 5
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Average wind speed at the tank. Valid values: 0 to 1000. (m/s)

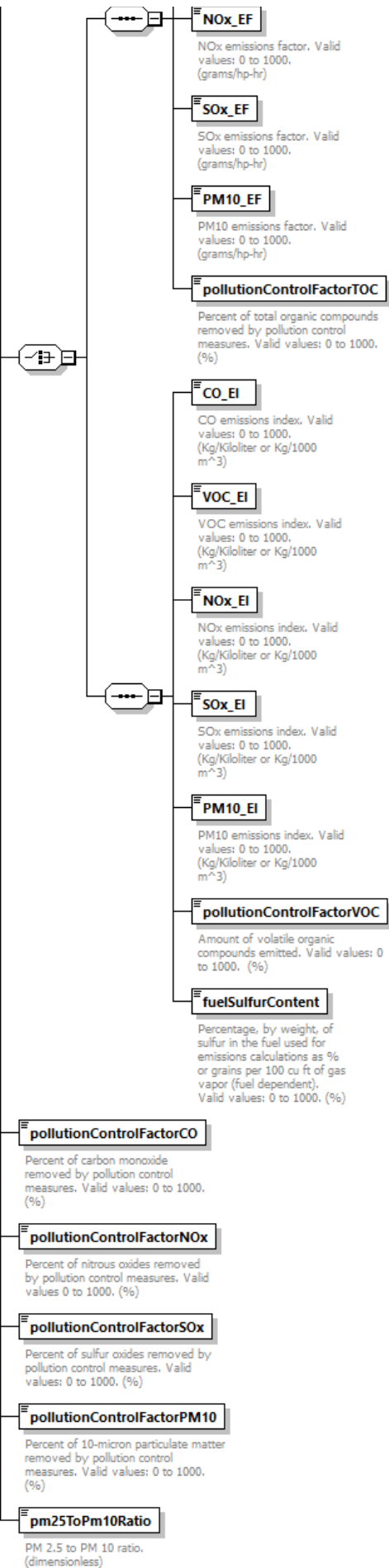
element **categoryFuelTank/reidVaporPressure**

diagram	
type	int6to13
properties	minOcc 0 maxOcc 1 content simple default 10
facets	Kind Value Annotation minInclusive 6 maxInclusive 13
annotation	documentation Reid vapor pressure. Valid values: 0 to 1000. (PSI)

element **categoryGenerator**

diagram	
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categoryGenerator
Describes the operational characteristics of a source in the generator category.




children	typeCode powerRatingHorsepower CO_EF TOC_EF NOx_EF SOx_EF PM10_EF pollutionControlFactorTOC_CO_EI VOC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorVOC_fuelSulfurContent pollutionControlFactorCO pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the generator category.


element **categoryGenerator/typeCode**

diagram	 Describes this category.
type	int1to8
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation Describes this category.

element **categoryGenerator/powerRatingHorsepower**

diagram	 The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp)
type	doubleInclusive10000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 10000
annotation	documentation The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp)

element **categoryGenerator/CO_EF**

diagram	 CO emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element **categoryGenerator/TOC_EF**

diagram	 TOC emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation

TOC emissions factor. Valid values: 0 to 1000. (grams/hp-hr)


element **categoryGenerator/NOx_EF**

diagram	 NOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

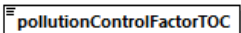
element **categoryGenerator/SOx_EF**

diagram	 SOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)


element **categoryGenerator/PM10_EF**

diagram	 PM10 emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions factor. Valid values: 0 to 1000. (grams/hp-hr)


element **categoryGenerator/pollutionControlFactorTOC**

diagram	 Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)


element **categoryGenerator/CO_EI**

diagram	 <p>CO emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m ³)


element **categoryGenerator/VOC_EI**

diagram	 <p>VOC emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m ³)


element **categoryGenerator/NOx_EI**

diagram	 <p>NOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m ³)


element **categoryGenerator/SOx_EI**

diagram	 <p>SOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m ³)


element **categoryGenerator/PM10_EI**

diagram	 <p>PM10 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m ³)


element **categoryGenerator/pollutionControlFactorVOC**

diagram	 <p>Amount of volatile organic compounds emitted. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Amount of volatile organic compounds emitted. Valid values: 0 to 1000. (%)

element **categoryGenerator/fuelSulfurContent**

diagram	 <p>Percentage, by weight, of sulfur in the fuel used for emissions calculations as % or grains per 100 cu ft of gas vapor (fuel dependent). Valid values: 0 to 1000. (%)</p>
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Percentage, by weight, of sulfur in the fuel used for emissions calculations as % or grains per 100 cu ft of gas vapor (fuel dependent). Valid values: 0 to 1000. (%)

element **categoryGenerator/pollutionControlFactorCO**

diagram	 <p>Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryGenerator/pollutionControlFactorNOx**

diagram	<p>Percent of nitrous oxides removed by pollution control measures. Valid values 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values 0 to 1000. (%)

element **categoryGenerator/pollutionControlFactorSOx**

diagram	<p>Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryGenerator/pollutionControlFactorPM10**

diagram	<p>Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryGenerator/pm25ToPm10Ratio**

diagram	<p>PM 2.5 to PM 10 ratio. (dimensionless)</p>
type	doubleInclusive1
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM 2.5 to PM 10 ratio. (dimensionless)

element **categoryIncinerator**


diagram	
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	<p>categoryIncinerator Describes the operational characteristics of a source in the incinerator category.</p> <ul style="list-style-type: none"> typeCode Describes this category. CO_EI CO emissions index. Valid values: 0 to 1000. (Kg/Metric Ton) VOC_EI VOC emissions index. Valid values: 0 to 1000. (Kg/Metric Ton) NOx_EI NOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton) SOx_EI SOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton) PM10_EI PM10 emissions index. Valid values: 0 to 1000. (Kg/Metric Ton) pollutionControlFactorCO Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%) pollutionControlFactorVOC Amount of volatile organic compounds emitted (kg/unit). Valid values: 0 to 1000. (%) pollutionControlFactorNOx Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%) pollutionControlFactorSOx Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%) pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%) pm25ToPm10Ratio PM2.5 to PM10 ratio. Valid values: 0 to 1000.
properties	content complex
children	typeCode CO_EI VOC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorCO pollutionControlFactorVOC pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the incinerator category.

element **categoryIncinerator/typeCode**

diagram	<p>typeCode Describes this category.</p>
type	int1to2
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 2
annotation	documentation Describes this category.

element **categoryIncinerator/CO_EI**

diagram	 <p>CO emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)</p>
type	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)


element **categoryIncinerator/VOC_EI**

diagram	 <p>VOC emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)</p>
type	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

element **categoryIncinerator/NOx_EI**


diagram	 <p>NOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)</p>
type	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

element **categoryIncinerator/SOx_EI**


diagram	 <p>SOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)</p>
type	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

element **categoryIncinerator/PM10_EI**


diagram	
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	 <p>PM10 emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)


element **categoryIncinerator/pollutionControlFactorCO**

diagram	 <p>Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryIncinerator/pollutionControlFactorVOC**


diagram	 <p>Amount of volatile organic compounds emitted (kg/unit). Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Amount of volatile organic compounds emitted (kg/unit). Valid values: 0 to 1000. (%)

element **categoryIncinerator/pollutionControlFactorNOx**


diagram	 <p>Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryIncinerator/pollutionControlFactorSOx**

diagram	
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	 <p>Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryIncinerator/pollutionControlFactorPM10**

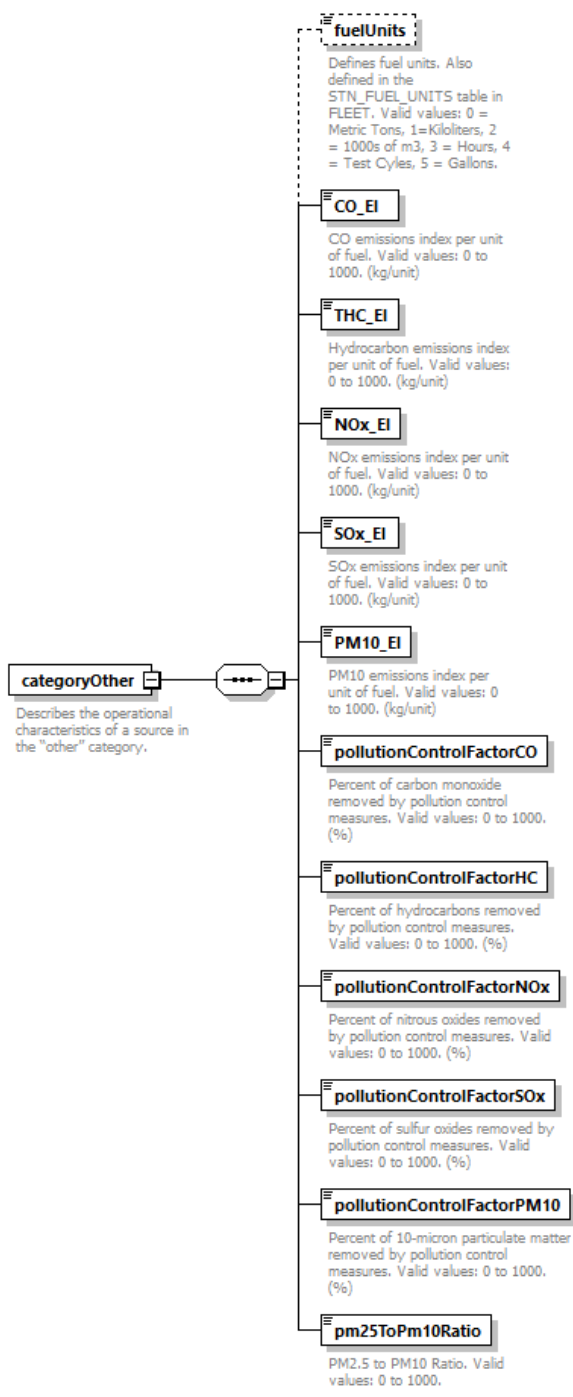
diagram	 <p>Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryIncinerator/pm25ToPm10Ratio**

diagram	 <p>PM2.5 to PM10 ratio. Valid values: 0 to 1000.</p>
type	doubleInclusive1
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM2.5 to PM10 ratio. Valid values: 0 to 1000.

element **categoryOther**

diagram	
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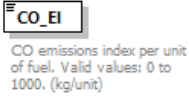
properties	content complex
children	fuelUnits CO_EI THC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorCO pollutionControlFactorHC pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the "other" category.

element **categoryOther/fuelUnits**

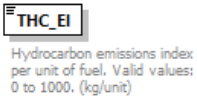
diagram	<p>fuelUnits Defines fuel units. Also defined in the STN_FUEL_UNITS table in FLEET. Valid values: 0 = Metric Tons, 1=Kiloliters, 2 = 1000s of m3, 3 = Hours, 4 = Test Cyles, 5 = Gallons.</p>
type	int0to5

properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 5
annotation	documentation Defines fuel units. Also defined in the STN_FUEL_UNITS table in FLEET. Valid values: 0 = Metric Tons, 1=Kiloliters, 2 = 1000s of m3, 3 = Hours, 4 = Test Cyles, 5 = Gallons.

element **categoryOther/CO_EI**

diagram	
type	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)


element **categoryOther/THC_EI**

diagram	
type	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Hydrocarbon emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

element **categoryOther/NOx_EI**

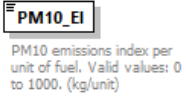
diagram	
type	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

element **categoryOther/SOx_EI**

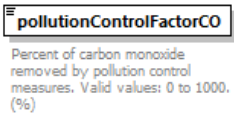
diagram	
type	<u>doubleInclusive1000</u>
properties	content simple

	default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

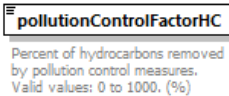
element **categoryOther/PM10_EI**

diagram	
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)


element **categoryOther/pollutionControlFactorCO**

diagram	
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryOther/pollutionControlFactorHC**

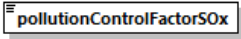
diagram	
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of hydrocarbons removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryOther/pollutionControlFactorNOx**


diagram	
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation

	minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryOther/pollutionControlFactorSOx**

diagram	 <p>Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

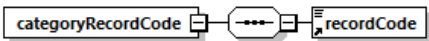
element **categoryOther/pollutionControlFactorPM10**

diagram	 <p>Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryOther/pm25ToPm10Ratio**

diagram	 <p>PM2.5 to PM10 Ratio. Valid values: 0 to 1000.</p>
type	doubleInclusive1
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM2.5 to PM10 Ratio. Valid values: 0 to 1000.

element **categoryRecordCode**

diagram	 <p>An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database.</p> <p>An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database. Valid values: 0 to 87, 89 to 148.</p>
properties	content complex
children	recordCode

used by	element stationarySource
annotation	documentation An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database.

element **categorySandSaltPile**

diagram	<p>categorySandSaltPile Describes the emissions characteristics of a source in the sand or salt pile category.</p> <ul style="list-style-type: none"> typeCode Describes this category. surfaceWindSpeedFraction Surface wind speed fraction. Valid values: 0 to 1000, (unitless) surfaceRoughness The surface roughness of the pile. Valid values: 0 to 1000, (cm) frictionVelocity Friction velocity. Valid values: 0 to 1000, (m/s) fastestMileOfWind Fastest mile of wind. Valid values: 0 to 1000, (m/s) meanWindSpeed Average wind speed at sand or salt pile. Valid values: 0 to 1000, (m/s) moistureContent Percentage of sand or salt pile that is moisture. Valid values: 0 to 1000, (%) massDisturbedPerDisturbance The mass disturbed per disturbance. Valid values: 0 to 1000, (Metric Tons) erodedSurfaceArea Eroded surface area of pile. Valid values: 0 to 1000, (meters²)
properties	content complex
children	typeCode surfaceWindSpeedFraction surfaceRoughness frictionVelocity fastestMileOfWind meanWindSpeed moistureContent massDisturbedPerDisturbance erodedSurfaceArea
used by	element stationarySource
annotation	documentation Describes the emissions characteristics of a source in the sand or salt pile category.

element **categorySandSaltPile/typeCode**

diagram	<p>typeCode Describes this category.</p>
type	int1to5
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation Describes this category.

element **categorySandSaltPile/surfaceWindSpeedFraction**

diagram	<p>surfaceWindSpeedFraction Surface wind speed fraction. Valid values: 0 to 1000, (unitless)</p>
type	doubleInclusive1

properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation Surface wind speed fraction. Valid values: 0 to 1000. (unitless)

element **categorySandSaltPile/surfaceRoughness**

diagram	
type	doubleExclusiveRange100
properties	content simple default 0.01
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation The surface roughness of the pile. Valid values: 0 to 1000. (cm)

element **categorySandSaltPile/frictionVelocity**

diagram	
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Friction velocity. Valid values: 0 to 1000. (m/s)

element **categorySandSaltPile/fastestMileOfWind**

diagram	
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Fastest mile of wind. Valid values: 0 to 1000. (m/s)

element **categorySandSaltPile/meanWindSpeed**

diagram	
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0

	maxExclusive 100
annotation	documentation Average wind speed at sand or salt pile. Valid values: 0 to 1000. (m/s)

element **categorySandSaltPile/moistureContent**

diagram	
type	doubleExclusiveRange100
properties	content simple default 0.01
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation Percentage of sand or salt pile that is moisture. Valid values: 0 to 1000. (%)

element **categorySandSaltPile/massDisturbedPerDisturbance**

diagram	
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation The mass disturbed per disturbance. Valid values: 0 to 1000. (Metric Tons)

element **categorySandSaltPile/erodedSurfaceArea**


diagram	
type	doubleExclusive10000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation Eroded surface area of pile. Valid values: 0 to 1000. (meters ²)

element **categorySolventDegreaser**


diagram	
properties	content complex
children	typeCode solutionDensity percentSolventDisposed

used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the solvent degreaser category.


element **categorySolventDegreaser/typeCode**

diagram	 <p>Describes this category.</p>
type	int1to13
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 13
annotation	documentation Describes this category.

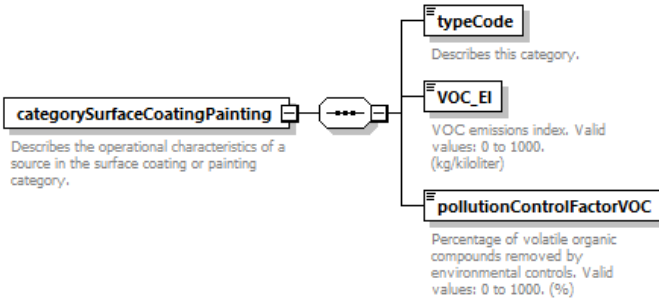
element **categorySolventDegreaser/solutionDensity**

diagram	 <p>Density of the deicing solution. Valid values: 0 to 1000. (g/L)</p>
type	doubleExclusive2000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation Density of the deicing solution. Valid values: 0 to 1000. (g/L)

element **categorySolventDegreaser/percentSolventDisposed**

diagram	 <p>Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%)</p>
type	xs:double
properties	content simple default 0
annotation	documentation Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%)


element **categorySurfaceCoatingPainting**

diagram	 <p>Describes the operational characteristics of a source in the surface coating or painting category.</p>
properties	content complex
children	typeCode VOC_EI pollutionControlFactorVOC
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the surface coating or painting category.


element **categorySurfaceCoatingPainting/typeCode**

diagram	 <p>Describes this category.</p>
type	int1to8
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation Describes this category.

element **categorySurfaceCoatingPainting/VOC_EI**

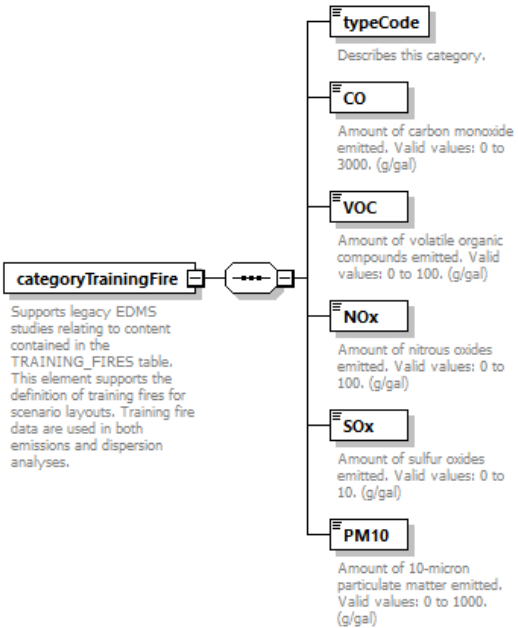
diagram	 <p>VOC emissions index. Valid values: 0 to 1000. (kg/kiloliter)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index. Valid values: 0 to 1000. (kg/kiloliter)

element **categorySurfaceCoatingPainting/pollutionControlFactorVOC**


diagram	 <p>Percentage of volatile organic compounds removed by environmental controls. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percentage of volatile organic compounds removed by environmental controls. Valid values: 0 to 1000. (%)

element **categoryTrainingFire**

diagram	
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	 <p>categoryTrainingFire</p> <p>Supports legacy EDMS studies relating to content contained in the TRAINING_FIRES table. This element supports the definition of training fires for scenario layouts. Training fire data are used in both emissions and dispersion analyses.</p> <p>typeCode Describes this category.</p> <p>CO Amount of carbon monoxide emitted. Valid values: 0 to 3000. (g/gal)</p> <p>VOC Amount of volatile organic compounds emitted. Valid values: 0 to 100. (g/gal)</p> <p>NOx Amount of nitrous oxides emitted. Valid values: 0 to 100. (g/gal)</p> <p>SOx Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal)</p> <p>PM10 Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (g/gal)</p>
properties	content complex
children	typeCode CO VOC NOx SOx PM10
used by	element stationarySource
annotation	documentation Supports legacy EDMS studies relating to content contained in the TRAINING_FIRES table. This element supports the definition of training fires for scenario layouts. Training fire data are used in both emissions and dispersion analyses.

element [categoryTrainingFire/typeCode](#)

diagram	 <p>typeCode Describes this category.</p>									
type	int1to5									
properties	content simple									
facets	<table border="0"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minInclusive</td> <td>1</td> <td></td> </tr> <tr> <td>maxInclusive</td> <td>5</td> <td></td> </tr> </table>	Kind	Value	Annotation	minInclusive	1		maxInclusive	5	
Kind	Value	Annotation								
minInclusive	1									
maxInclusive	5									
annotation	documentation Describes this category.									

element [categoryTrainingFire/CO](#)

diagram	 <p>CO Amount of carbon monoxide emitted. Valid values: 0 to 3000. (g/gal)</p>
type	xs:double
properties	content simple
annotation	documentation Amount of carbon monoxide emitted. Valid values: 0 to 3000. (g/gal)

element [categoryTrainingFire/VOC](#)

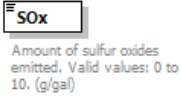
diagram	 <p>VOC Amount of volatile organic compounds emitted. Valid values: 0 to 100. (g/gal)</p>
type	xs:double
properties	content simple

annotation	documentation Amount of volatile organic compounds emitted. Valid values: 0 to 100. (g/gal)
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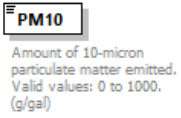
element **categoryTrainingFire/NOx**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of nitrous oxides emitted. Valid values: 0 to 100. (g/gal)

element **categoryTrainingFire/SOx**

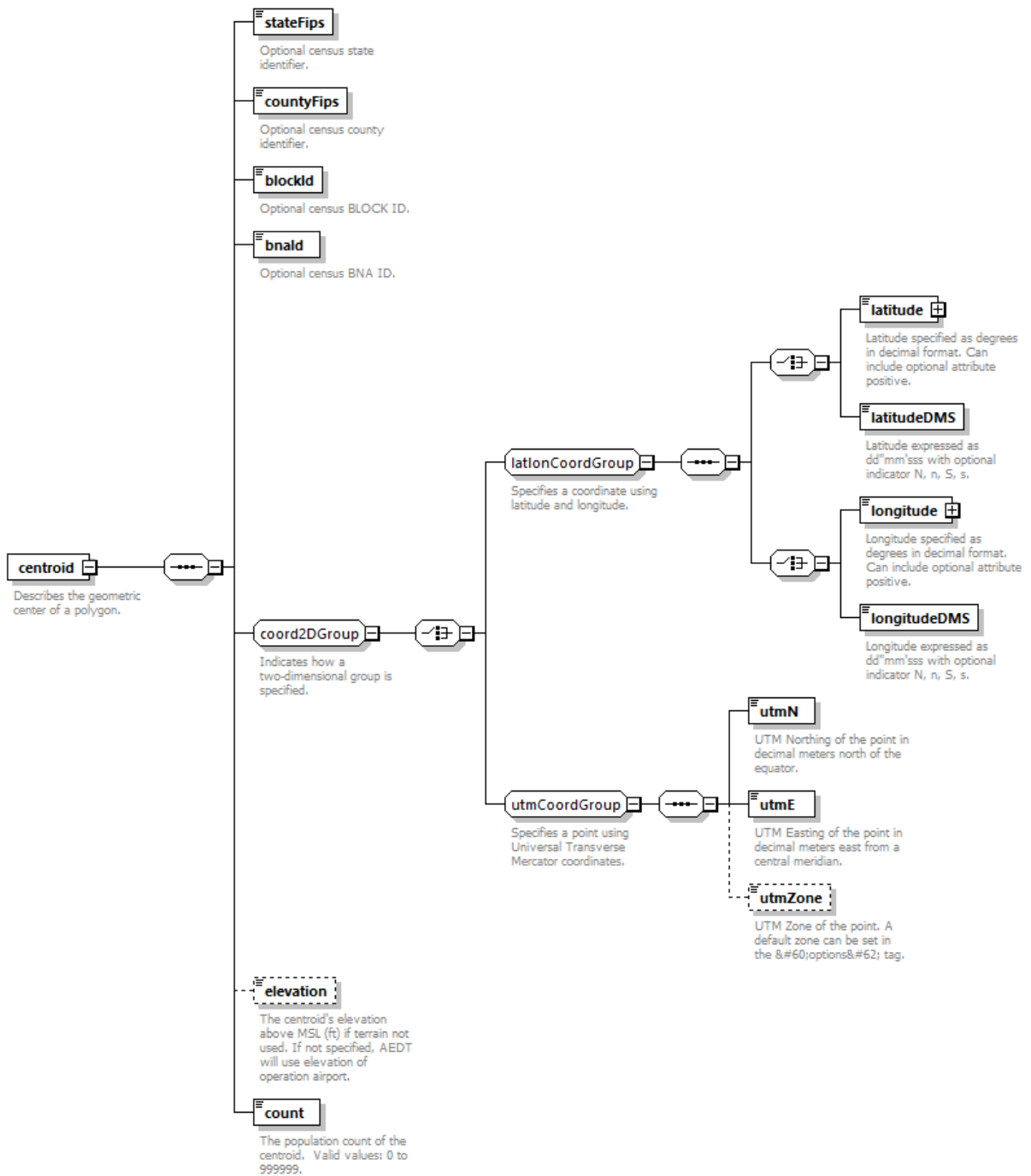
diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal)

element **categoryTrainingFire/PM10**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (g/gal)

element **centroid**

diagram	
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properties	content complex
children	stateFips countyFips blockId bnald latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation count
used by	group receptorGroup
annotation	documentation Describes the geometric center of a polygon.

element **centroid/stateFips**

diagram	stateFips Optional census state identifier.
type	xs:int
properties	content simple
annotation	documentation Optional census state identifier.

element **centroid/countyFips**

diagram	 <p>Optional census county identifier.</p>
type	xs:int
properties	content simple
annotation	documentation Optional census county identifier.


element **centroid/blockId**

diagram	 <p>Optional census BLOCK ID.</p>
type	xs:int
properties	content simple
annotation	documentation Optional census BLOCK ID.


element **centroid/bnald**

diagram	 <p>Optional census BNA ID.</p>									
type	string6									
properties	content simple									
facets	<table border="0"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>6</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	6	
Kind	Value	Annotation								
minLength	0									
maxLength	6									
annotation	documentation Optional census BNA ID.									

element **centroid/elevation**

diagram	 <p>The centroid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The centroid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.

element **centroid/count**

diagram	 <p>The population count of the centroid. Valid values: 0 to 999999.</p>
type	xs:int
properties	content simple
annotation	documentation The population count of the centroid. Valid values: 0 to 999999.

element **climate**

diagram	
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	<p>climate Characterizes the climate during the study.</p> <ul style="list-style-type: none"> identifier Identifier of the climate condition. temperature Temperature in the climate condition. (°F) pressure Atmospheric pressure in the climate condition. (in Hg) humidity Humidity in the climate condition. (%) headWind Velocity of headwind. (kts) seaLevelPressure Atmospheric pressure at sea level. (in Hg) dewPoint Dew point in the climate condition. (°F) windDirection Wind direction. Valid values: 0-360. (degrees) visibility Visibility in the climate condition. (mi)
properties	content complex
children	identifier temperature pressure humidity headWind seaLevelPressure dewPoint windDirection visibility
used by	element study
annotation	documentation Characterizes the climate during the study.

element **climate/identifier**

diagram	<p>identifier Identifier of the climate condition.</p>
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Identifier of the climate condition.

element **climate/temperature**

diagram	<p>temperature Temperature in the climate condition. (°F)</p>
type	xs:float
properties	content simple
annotation	documentation Temperature in the climate condition. (°F)

element **climate/pressure**

diagram	<p>pressure Atmospheric pressure in the climate condition. (in Hg)</p>
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type	xs:float
properties	content simple
annotation	documentation Atmospheric pressure in the climate condition. (in Hg)

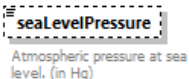
element **climate/humidity**

diagram	
type	xs:double
properties	content simple
annotation	documentation Humidity in the climate condition. (%)

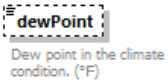
element **climate/headWind**

diagram	
type	xs:float
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Velocity of headwind. (kts)

element **climate/seaLevelPressure**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Atmospheric pressure at sea level. (in Hg)

element **climate/dewPoint**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Dew point in the climate condition. (°F)

element **climate/windDirection**

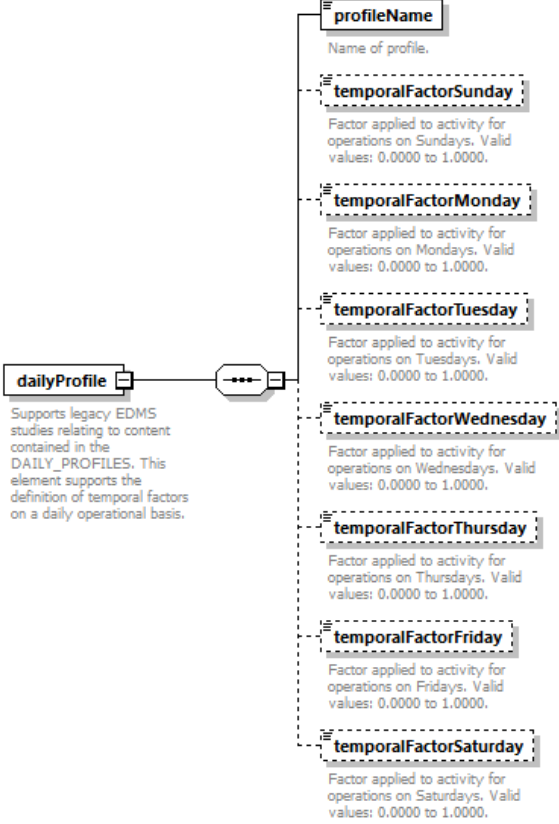
diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Wind direction. Valid values: 0-360. (degrees)

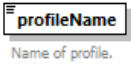
element **climate/visibility**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Visibility in the climate condition. (mi)

element **dailyProfile**

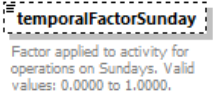
diagram	
properties	content complex
children	profileName temporalFactorSunday temporalFactorMonday temporalFactorTuesday temporalFactorWednesday temporalFactorThursday temporalFactorFriday temporalFactorSaturday
used by	element dailyProfileSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the DAILY_PROFILES. This element supports the definition of temporal factors on a daily operational basis.

element **dailyProfile/profileName**

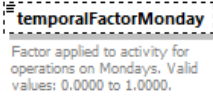
diagram	
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation

Name of profile.

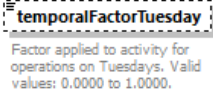
element **dailyProfile/temporalFactorSunday**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Sundays. Valid values: 0.0000 to 1.0000.

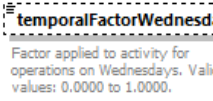
element **dailyProfile/temporalFactorMonday**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Mondays. Valid values: 0.0000 to 1.0000.

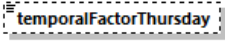
element **dailyProfile/temporalFactorTuesday**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Tuesdays. Valid values: 0.0000 to 1.0000.

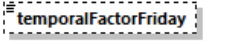
element **dailyProfile/temporalFactorWednesday**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Wednesdays. Valid values: 0.0000 to 1.0000.

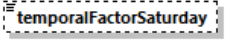
element **dailyProfile/temporalFactorThursday**

diagram	 <p>Factor applied to activity for operations on Thursdays. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Thursdays. Valid values: 0.0000 to 1.0000.

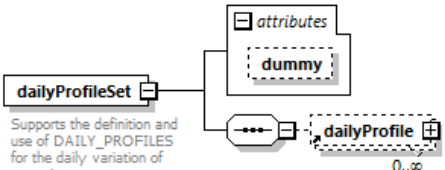
element **dailyProfile/temporalFactorFriday**

diagram	 <p>Factor applied to activity for operations on Fridays. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Fridays. Valid values: 0.0000 to 1.0000.

element **dailyProfile/temporalFactorSaturday**

diagram	 <p>Factor applied to activity for operations on Saturdays. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Saturdays. Valid values: 0.0000 to 1.0000.

element **dailyProfileSet**

diagram	 <p>Supports the definition and use of DAILY_PROFILES for the daily variation of operations.</p> <p>Supports legacy EDMS studies relating to content contained in the DAILY_PROFILES. This element supports the definition of temporal factors on a daily operational basis.</p>												
properties	content complex												
children	dailyProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											

annotation	documentation Supports the definition and use of DAILY_PROFILES for the daily variation of operations.
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attribute **dailyProfileSet/@dummy**

type	xs:int
properties	use optional

element **dispersionWeight**

diagram	<p>Dispersion weights associated with the subtracks for this backbone. Subtracks are numbered in increasing order from the backbone outward. The allowable number of subtracks for a backbone are 1, 3, 5, 7 and 9. Valid dispersion weight values are greater than one and less than or equal to 1. The sum of the dispersion weights for this backbone must equal 1.</p>
properties	content complex
children	dispersionWeight1 dispersionWeight3 dispersionWeight5 dispersionWeight7 dispersionWeight9
used by	element backbone
annotation	documentation Dispersion weights associated with the subtracks for this backbone. Subtracks are numbered in increasing order from the backbone outward. The allowable number of subtracks for a backbone are 1, 3, 5, 7 and 9. Valid dispersion weight values are greater than one and less than or equal to 1. The sum of the dispersion weights for this backbone must equal 1.

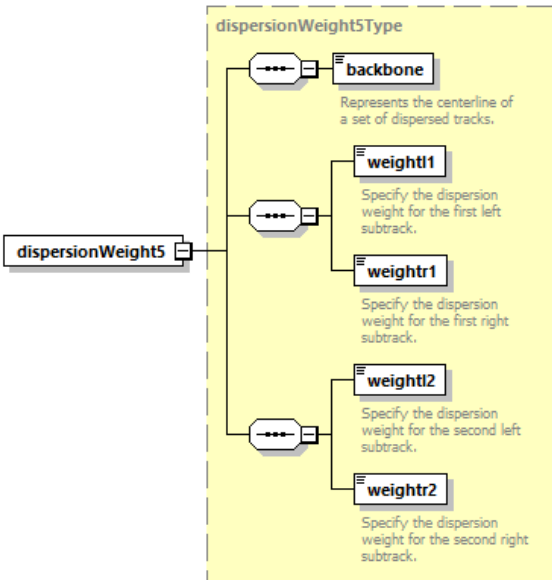
element **dispersionWeight/dispersionWeight1**

diagram	<p>Represents the centerline of a set of dispersed tracks.</p>
type	dispersionWeight1Type
properties	content complex
children	backbone

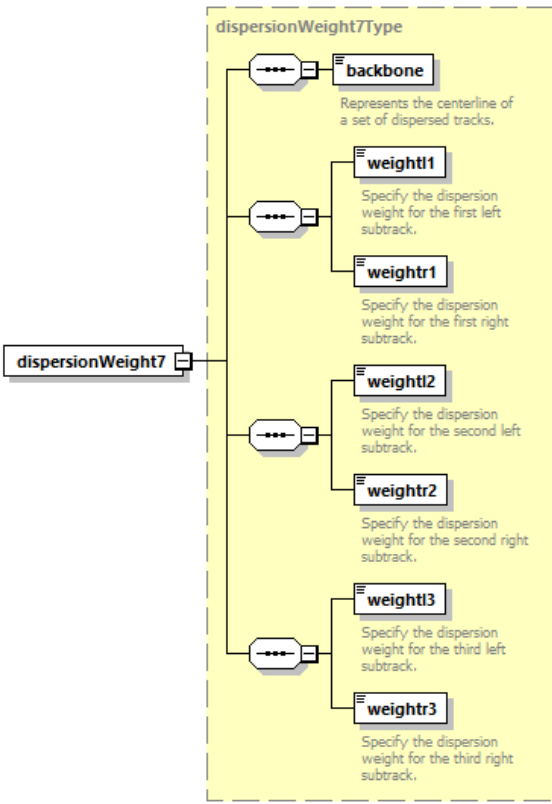
element **dispersionWeight/dispersionWeight3**

diagram	<p>Represents the centerline of a set of dispersed tracks.</p> <p>Specify the dispersion weight for the first left subtrack.</p> <p>Specify the dispersion weight for the first right subtrack.</p>
type	dispersionWeight3Type
properties	content complex
children	backbone weight1 weightr1

element **dispersionWeight/dispersionWeight5**

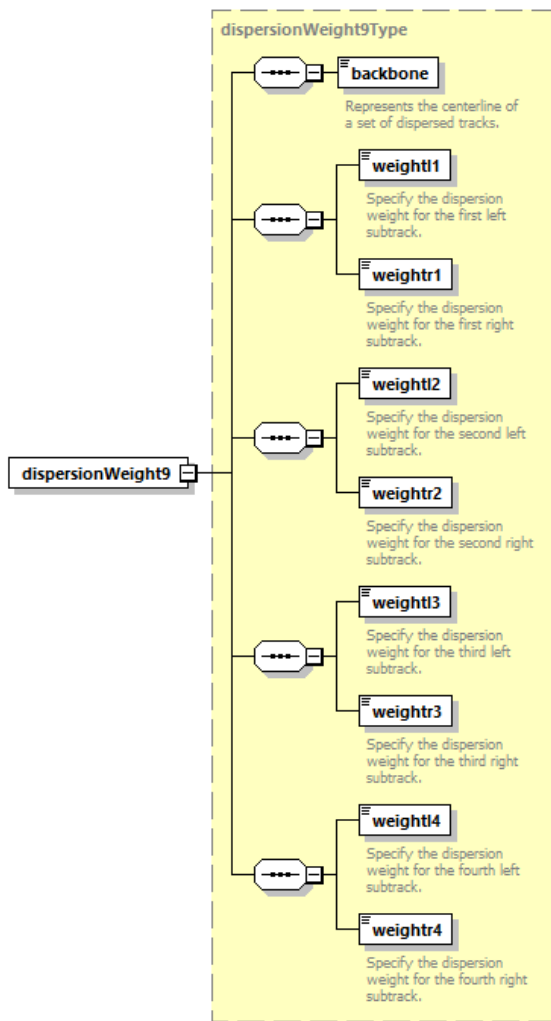
<p>diagram</p>	 <p>The diagram shows a tree structure for dispersionWeight5Type. The root node is dispersionWeight5. It branches into three main sub-nodes, each represented by a dashed-line box with a right-pointing arrow:</p> <ul style="list-style-type: none"> backbone: Represents the centerline of a set of dispersed tracks. weight1: Specify the dispersion weight for the first left subtrack. This node further branches into weightr1 (Specify the dispersion weight for the first right subtrack). weight2: Specify the dispersion weight for the second left subtrack. This node further branches into weightr2 (Specify the dispersion weight for the second right subtrack).
<p>type</p>	<p>dispersionWeight5Type</p>
<p>properties</p>	<p>content complex</p>
<p>children</p>	<p>backbone weight1 weightr1 weight2 weightr2</p>

element **dispersionWeight/dispersionWeight7**

<p>diagram</p>	 <p>The diagram shows a tree structure for dispersionWeight7Type. The root node is dispersionWeight7. It branches into four main sub-nodes, each represented by a dashed-line box with a right-pointing arrow:</p> <ul style="list-style-type: none"> backbone: Represents the centerline of a set of dispersed tracks. weight1: Specify the dispersion weight for the first left subtrack. This node further branches into weightr1 (Specify the dispersion weight for the first right subtrack). weight2: Specify the dispersion weight for the second left subtrack. This node further branches into weightr2 (Specify the dispersion weight for the second right subtrack). weight3: Specify the dispersion weight for the third left subtrack. This node further branches into weightr3 (Specify the dispersion weight for the third right subtrack).
<p>type</p>	<p>dispersionWeight7Type</p>
<p>properties</p>	<p>content complex</p>
<p>children</p>	<p>backbone weight1 weightr1 weight2 weightr2 weight3 weightr3</p>

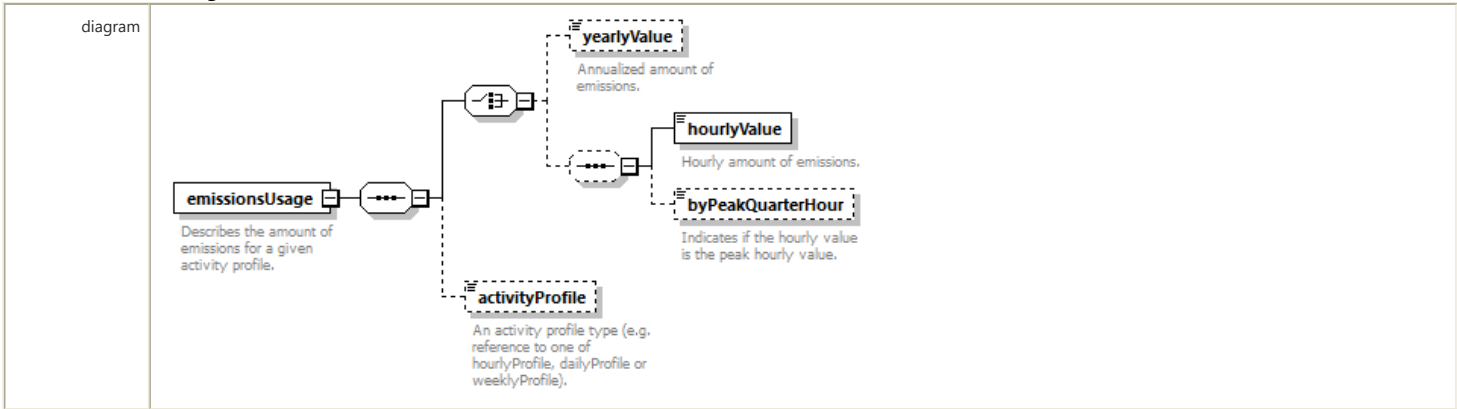
element **dispersionWeight/dispersionWeight9**

<p>diagram</p>	Empty diagram area
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type	dispersionWeight9Type
properties	content complex
children	backbone weight1 weightr1 weight2 weightr2 weight3 weightr3 weight4 weightr4

element **emissionsUsage**



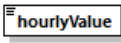
properties	content complex
children	yearlyValue hourlyValue byPeakQuarterHour activityProfile
used by	elements parkingFacilityOperation roadwayOperation stationarySourceOperation
annotation	documentation Describes the amount of emissions for a given activity profile.

element **emissionsUsage/yearlyValue**

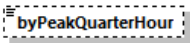
diagram	
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diagram	 <p>yearlyValue Annualized amount of emissions.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Annualized amount of emissions.

element **emissionsUsage/hourlyValue**

diagram	 <p>hourlyValue Hourly amount of emissions.</p>
type	xs:double
properties	content simple
annotation	documentation Hourly amount of emissions.

element **emissionsUsage/byPeakQuarterHour**

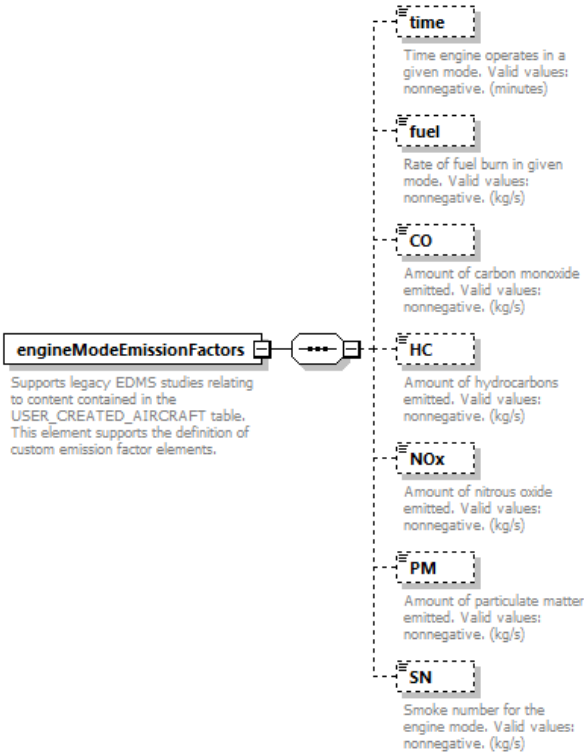
diagram	 <p>byPeakQuarterHour Indicates if the hourly value is the peak hourly value.</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if the hourly value is the peak hourly value.

element **emissionsUsage/activityProfile**

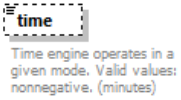
diagram	 <p>activityProfile An activity profile type (e.g. reference to one of hourlyProfile, dailyProfile or weeklyProfile).</p>
type	string40
properties	minOcc 0 maxOcc 1 content simple
used by	element activityProfileSet
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation An activity profile type (e.g. reference to one of hourlyProfile, dailyProfile or weeklyProfile).

element **engineModeEmissionFactors**

diagram	
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	 <p>engineModeEmissionFactors</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_AIRCRAFT table. This element supports the definition of custom emission factor elements.</p> <p>time Time engine operates in a given mode. Valid values: nonnegative. (minutes)</p> <p>fuel Rate of fuel burn in given mode. Valid values: nonnegative. (kg/s)</p> <p>CO Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s)</p> <p>HC Amount of hydrocarbons emitted. Valid values: nonnegative. (kg/s)</p> <p>NOx Amount of nitrous oxide emitted. Valid values: nonnegative. (kg/s)</p> <p>PM Amount of particulate matter emitted. Valid values: nonnegative. (kg/s)</p> <p>SN Smoke number for the engine mode. Valid values: nonnegative. (kg/s)</p>
properties	content complex
children	time fuel CO HC NOx PM SN
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_AIRCRAFT table. This element supports the definition of custom emission factor elements.

element **engineModeEmissionFactors/time**

diagram	 <p>time Time engine operates in a given mode. Valid values: nonnegative. (minutes)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Time engine operates in a given mode. Valid values: nonnegative. (minutes)

element **engineModeEmissionFactors/fuel**

diagram	 <p>fuel Rate of fuel burn in given mode. Valid values: nonnegative. (kg/s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Rate of fuel burn in given mode. Valid values: nonnegative. (kg/s)

element **engineModeEmissionFactors/CO**

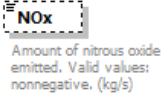
diagram	 <p>CO Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s)</p>
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type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s)

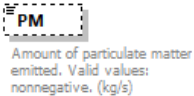
element **engineModeEmissionFactors/HC**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of hydrocarbons emitted. Valid values: nonnegative. (kg/s)

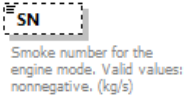
element **engineModeEmissionFactors/NOx**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of nitrous oxide emitted. Valid values: nonnegative. (kg/s)

element **engineModeEmissionFactors/PM**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of particulate matter emitted. Valid values: nonnegative. (kg/s)

element **engineModeEmissionFactors/SN**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Smoke number for the engine mode. Valid values: nonnegative. (kg/s)

element **gate**

diagram	<p>Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.</p> <p>name Identifying name of gate.</p> <p>elevation Gate's elevation above mean sea level in meters. Valid values: -500 to 5000. (m)</p> <p>releaseHeight Height above ground level at which emissions are released into the atmosphere. Valid values: Variable, by airport. (m)</p> <p>sigmaY Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)</p> <p>sigmaZ Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)</p> <p>oneOrThreeCoords2DGroupSet Type of coordinate specifying the area.</p> <p>pointCoord Choice of a single point coordinate.</p> <p>polygonCoords Choice of a 2D polygon.</p>
properties	content complex
children	name elevation releaseHeight sigmaY sigmaZ pointCoord polygonCoords
used by	element gateSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.

element **gate/name**


diagram	<p>Identifying name of gate.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of gate.

element **gate/elevation**


diagram	<p>Gate's elevation above mean sea level in meters. Valid values: -500 to 5000. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Gate's elevation above mean sea level in meters. Valid values: -500 to 5000. (m)


element **gate/releaseHeight**

diagram	 <p>releaseHeight</p> <p>Height above ground level at which emissions are released into the atmosphere. Valid values: Variable, by airport. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height above ground level at which emissions are released into the atmosphere. Valid values: Variable, by airport. (m)

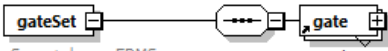
element **gate/sigmaY**

diagram	 <p>sigmaY</p> <p>Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)

element **gate/sigmaZ**

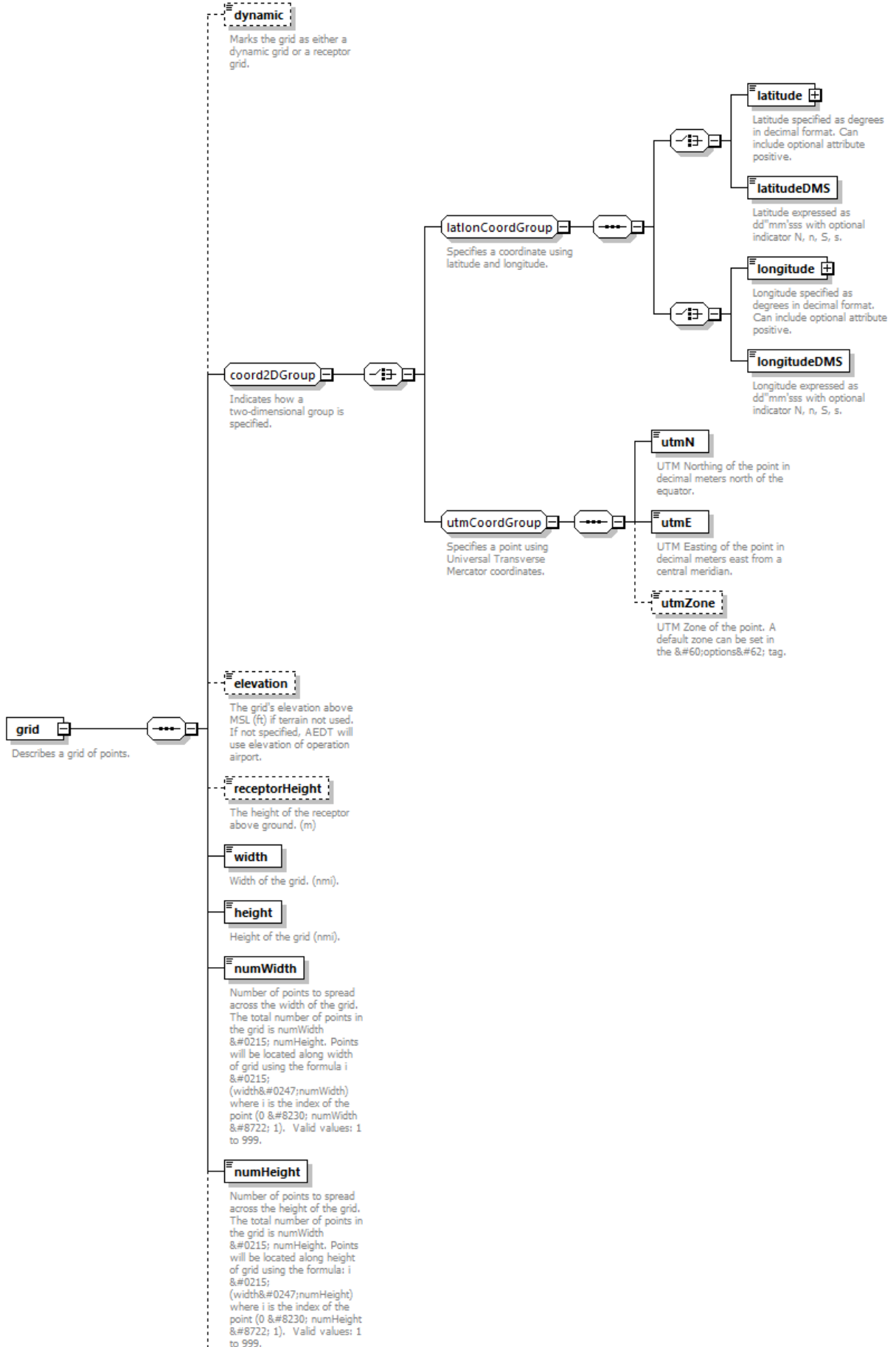
diagram	 <p>sigmaZ</p> <p>Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)

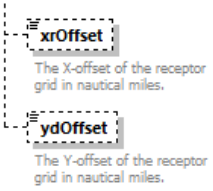
element **gateSet**

diagram	 <p>gateSet</p> <p>1,∞</p> <p>Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modelling, which includes all dispersion analyses.</p> <p>Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modelling, which includes all dispersion analyses.</p>
properties	content complex
children	gate
used by	complexType airportLayoutType
annotation	documentation Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE,

element **grid**

diagram

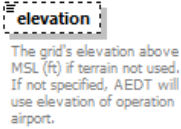


	
properties	content complex
children	dynamic latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation receptorHeight width height numWidth numHeight xrOffset ydOffset
used by	group receptorGroup
annotation	documentation Describes a grid of points.


element **grid/dynamic**

diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Marks the grid as either a dynamic grid or a receptor grid.

element **grid/elevation**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The grid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.

element **grid/receptorHeight**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The height of the receptor above ground. (m)

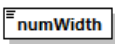
element **grid/width**

diagram	
type	xs:double
properties	content simple
annotation	documentation Width of the grid. (nmi).

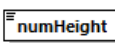
element **grid/height**

diagram	 <p>Height of the grid (nmi).</p>
type	xs:double
properties	content simple
annotation	documentation Height of the grid (nmi).


element **grid/numWidth**

diagram	 <p>Number of points to spread across the width of the grid. The total number of points in the grid is numWidth &#0215; numHeight. Points will be located along width of grid using the formula $i \times \text{numWidth}$ where i is the index of the point (0 &#8230; numWidth &#8722; 1). Valid values: 1 to 999.</p>
type	xs:int
properties	content simple
annotation	documentation Number of points to spread across the width of the grid. The total number of points in the grid is numWidth × numHeight. Points will be located along width of grid using the formula $i \times \text{numWidth}$ where i is the index of the point (0 … numWidth − 1). Valid values: 1 to 999.

element **grid/numHeight**

diagram	 <p>Number of points to spread across the height of the grid. The total number of points in the grid is numWidth &#0215; numHeight. Points will be located along height of grid using the formula: $i \times \text{numHeight}$ where i is the index of the point (0 &#8230; numHeight &#8722; 1). Valid values: 1 to 999.</p>
type	xs:int
properties	content simple
annotation	documentation Number of points to spread across the height of the grid. The total number of points in the grid is numWidth × numHeight. Points will be located along height of grid using the formula: $i \times \text{numHeight}$ where i is the index of the point (0 … numHeight − 1). Valid values: 1 to 999.

element **grid/xrOffset**

diagram	 <p>The X-offset of the receptor grid in nautical miles.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The X-offset of the receptor grid in nautical miles.

element **grid/ydOffset**

diagram	 <p>The Y-offset of the receptor grid in nautical miles.</p>
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type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The Y-offset of the receptor grid in nautical miles.

element **groundSupportEquipmentGateAssignment**

diagram	<p>The diagram shows the groundSupportEquipmentGateAssignment element (represented by a box with a small square icon) connected to a container element (represented by a box with a dashed line and a small square icon). This container element is connected to two child elements: gate and fractionAssigned. The gate element is represented by a box with a small square icon and the text "Gate to which GSE is assigned." The fractionAssigned element is represented by a box with a small square icon and the text "Fraction of GSE assigned to this gate. Must sum to 1.0 for all gate assignments for the GSE. Valid values: 0.0 to 1.0."</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p>
properties	content complex
children	gate fractionAssigned
used by	element groundSupportEquipmentGateAssignmentSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.

element **groundSupportEquipmentGateAssignment/gate**

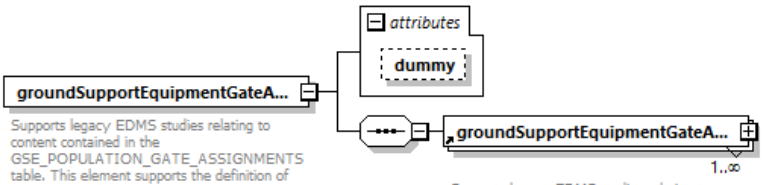
diagram	<p>The diagram shows the gate element (represented by a box with a small square icon) and the text "Gate to which GSE is assigned."</p>
type	string20
properties	content simple
used by	element gateSet
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation Gate to which GSE is assigned.

element **groundSupportEquipmentGateAssignment/fractionAssigned**

diagram	<p>The diagram shows the fractionAssigned element (represented by a box with a small square icon) and the text "Fraction of GSE assigned to this gate. Must sum to 1.0 for all gate assignments for the GSE. Valid values: 0.0 to 1.0."</p>
type	doubleInclusive1
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation Fraction of GSE assigned to this gate. Must sum to 1.0 for all gate assignments for the GSE. Valid values: 0.0 to 1.0.

element **groundSupportEquipmentGateAssignmentSet**

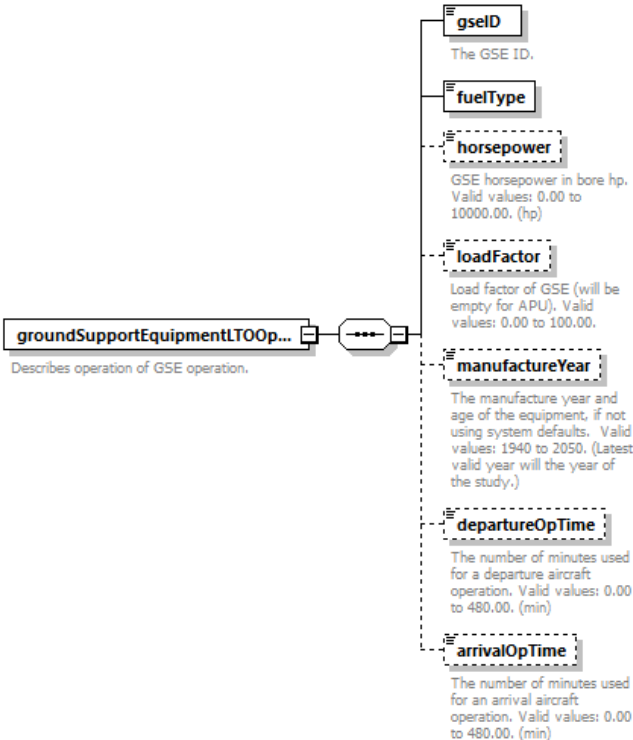
diagram	
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	 <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION_GATE_ASSIGNMENTS table. This element supports the definition of gate to ground support equipment assignments.</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p>												
properties	content complex												
children	groundSupportEquipmentGateAssignment												
used by	element groundSupportEquipmentPopulationOperation												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION_GATE_ASSIGNMENTS table. This element supports the definition of gate to ground support equipment assignments.												

attribute [groundSupportEquipmentGateAssignmentSet/@dummy](#)

type	xs:int
properties	use optional

element [groundSupportEquipmentLTOOperation](#)


diagram	 <p>Describes operation of GSE operation.</p> <p>The GSE ID.</p> <p>The GSE ID.</p> <p>GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)</p> <p>Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.</p> <p>The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will be the year of the study.)</p> <p>The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min)</p> <p>The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)</p>
properties	content complex
children	gseID fuelType horsepower loadFactor manufactureYear departureOpTime arrivalOpTime
used by	element groundSupportEquipmentLTOOperationSet
annotation	documentation Describes operation of GSE operation.

element [groundSupportEquipmentLTOOperation/gseID](#)

diagram	 <p>The GSE ID.</p>
type	xs:int

properties	content simple
annotation	documentation The GSE ID.


element **groundSupportEquipmentLTOOperation/fuelType**

diagram	
type	fuelType
properties	content simple
facets	Kind Value Annotation pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric

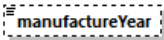
element **groundSupportEquipmentLTOOperation/horsepower**

diagram	 GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)


element **groundSupportEquipmentLTOOperation/loadFactor**

diagram	 Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.

element **groundSupportEquipmentLTOOperation/manufactureYear**

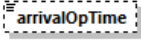
diagram	 The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will be the year of the study.)
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will be the year of the study.)

element **groundSupportEquipmentLTOOperation/departureOpTime**

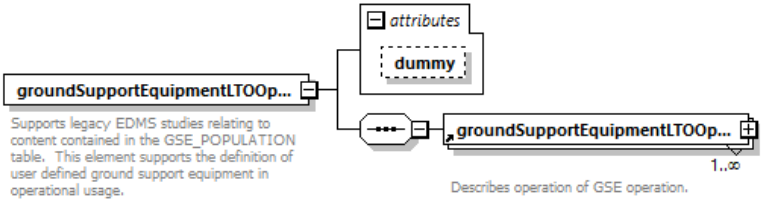
diagram	 The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min)
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min)

element **groundSupportEquipmentLTOOperation/arrivalOpTime**

diagram	 <p>The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)

element **groundSupportEquipmentLTOOperationSet**

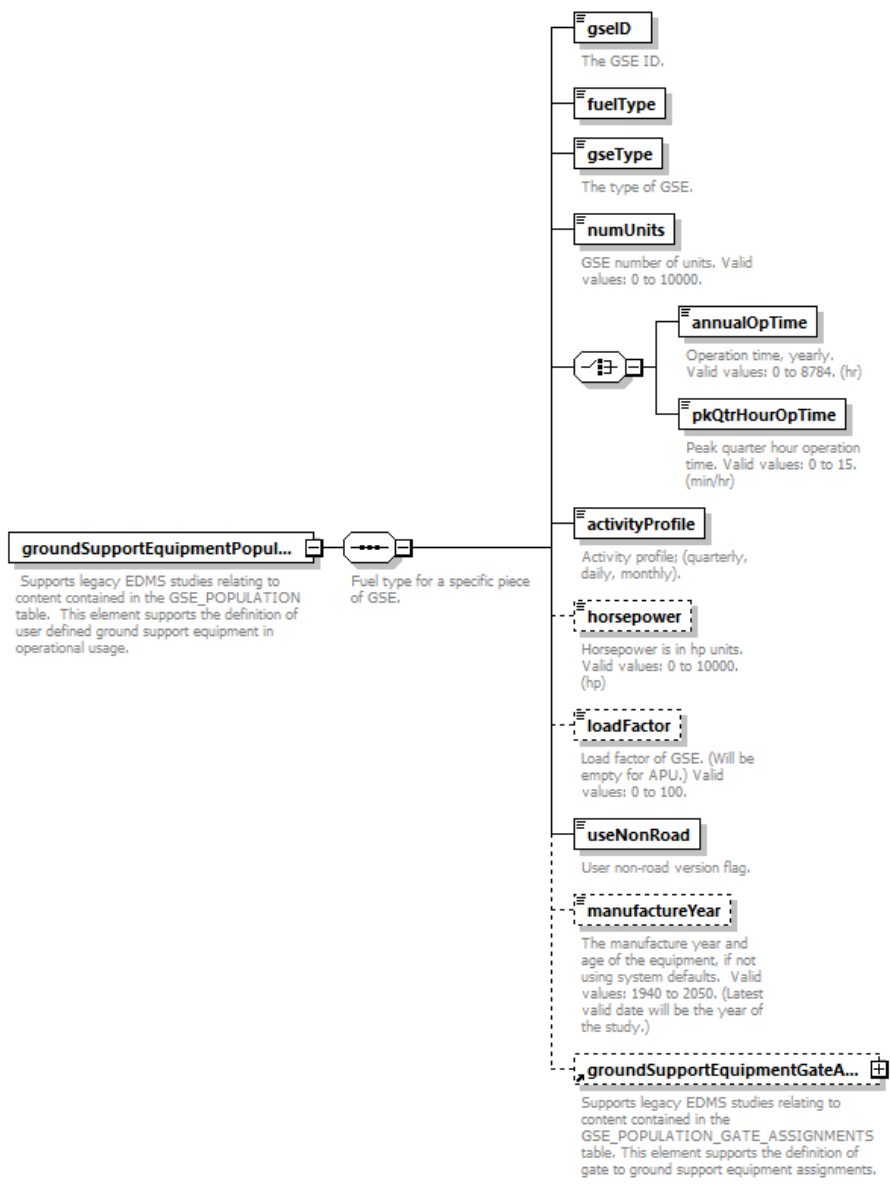
diagram	 <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p> <p>Describes operation of GSE operation. 1..∞</p>												
properties	content complex												
children	groundSupportEquipmentLTOOperation												
used by	complexType aircraftType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.												

attribute **groundSupportEquipmentLTOOperationSet/@dummy**

type	xs:int
properties	use optional

element **groundSupportEquipmentPopulationOperation**

diagram	
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properties	content complex
children	gseID fuelType gseType numUnits annualOpTime pkQtrHourOpTime activityProfile horsepower loadFactor useNonRoad manufactureYear groundSupportEquipmentGateAssignmentSet
used by	element groundSupportEquipmentPopulationOperationSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.

element [groundSupportEquipmentPopulationOperation/gseID](#)


diagram	
type	xs:int
properties	content simple
annotation	documentation The GSE ID.

element [groundSupportEquipmentPopulationOperation/fuelType](#)

diagram	
type	fuelType

properties	content simple	
facets	Kind Value pattern G(Gasoline)D(Diesel)C(Compressed Natural Gas)L(Liquefied Petroleum Gas)E(Electric)	Annotation

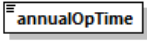
element **groundSupportEquipmentPopulationOperation/gseType**

diagram	 <p>The type of GSE.</p>	
type	xs:string	
properties	content simple	
annotation	documentation The type of GSE.	

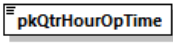
element **groundSupportEquipmentPopulationOperation/numUnits**

diagram	 <p>GSE number of units. Valid values: 0 to 10000.</p>	
type	xs:double	
properties	content simple	
annotation	documentation GSE number of units. Valid values: 0 to 10000.	


element **groundSupportEquipmentPopulationOperation/annualOpTime**

diagram	 <p>Operation time, yearly. Valid values: 0 to 8784. (hr)</p>	
type	xs:double	
properties	content simple	
annotation	documentation Operation time, yearly. Valid values: 0 to 8784. (hr)	

element **groundSupportEquipmentPopulationOperation/pkQtrHourOpTime**

diagram	 <p>Peak quarter hour operation time. Valid values: 0 to 15. (min/hr)</p>	
type	xs:double	
properties	content simple	
annotation	documentation Peak quarter hour operation time. Valid values: 0 to 15. (min/hr)	

element **groundSupportEquipmentPopulationOperation/activityProfile**

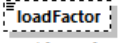
diagram	 <p>Activity profile; (quarterly, daily, monthly).</p>	
type	string40	
properties	content simple	
used by	element activityProfileSet	
facets	Kind Value Annotation minLength 0 maxLength 40	
annotation	documentation Activity profile; (quarterly, daily, monthly).	

element **groundSupportEquipmentPopulationOperation/horsepower**

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diagram	 <p>horsepower</p> <p>Horsepower is in hp units. Valid values: 0 to 10000. (hp)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Horsepower is in hp units. Valid values: 0 to 10000. (hp)

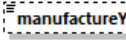
element **groundSupportEquipmentPopulationOperation/loadFactor**

diagram	 <p>loadFactor</p> <p>Load factor of GSE. (Will be empty for APU.) Valid values: 0 to 100.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Load factor of GSE. (Will be empty for APU.) Valid values: 0 to 100.

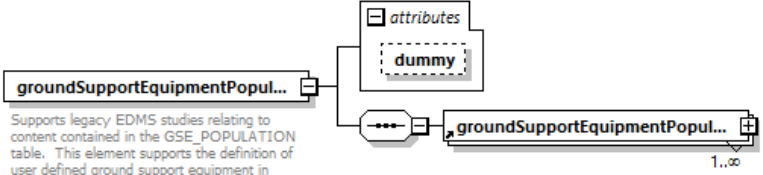
element **groundSupportEquipmentPopulationOperation/useNonRoad**

diagram	 <p>useNonRoad</p> <p>User non-road version flag.</p>
type	xs:boolean
properties	content simple
annotation	documentation User non-road version flag.

element **groundSupportEquipmentPopulationOperation/manufactureYear**

diagram	 <p>manufactureYear</p> <p>The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid date will be the year of the study.)</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid date will be the year of the study.)

element **groundSupportEquipmentPopulationOperationSet**

diagram	 <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p> <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p> <p>1..∞</p>
properties	content complex
children	groundSupportEquipmentPopulationOperation
used by	group airportActivityGroup

attributes	Name	Type	Use	Default	Fixed	Annotation
	<u>dummy</u>	xs:int	optional			
annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.					

attribute **groundSupportEquipmentPopulationOperationSet/@dummy**

type	xs:int
properties	use optional

element **monthlyProfile**

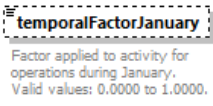
diagram	<p>monthlyProfile</p> <p>Supports legacy EDMS studies relating to content contained in the MONTHLY_PROFILES. This element supports the definition of temporal factors on a monthly operational basis.</p> <p>temporalFactorJanuary Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorFebruary Factor applied to activity for operations during February. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorMarch Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorApril Factor applied to activity for operations during April. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorMay Factor applied to activity for operations during May. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorJune Factor applied to activity for operations during June. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorJuly Factor applied to activity for operations during July. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorAugust Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorSeptember Factor applied to activity for operations during September. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorOctober Factor applied to activity for operations during October. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorNovember Factor applied to activity for operations during November. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorDecember Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.</p>
properties	content complex
children	<u>profileName</u> <u>temporalFactorJanuary</u> <u>temporalFactorFebruary</u> <u>temporalFactorMarch</u> <u>temporalFactorApril</u> <u>temporalFactorMay</u> <u>temporalFactorJune</u> <u>temporalFactorJuly</u> <u>temporalFactorAugust</u> <u>temporalFactorSeptember</u> <u>temporalFactorOctober</u> <u>temporalFactorNovember</u> <u>temporalFactorDecember</u>

used by	element monthlyProfileSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the MONTHLY_PROFILES. This element supports the definition of temporal factors on a monthly operational basis.


element **monthlyProfile/profileName**

diagram	
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Name of profile.

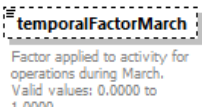
element **monthlyProfile/temporalFactorJanuary**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000.


element **monthlyProfile/temporalFactorFebruary**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during February. Valid values: 0.0000 to 1.0000.


element **monthlyProfile/temporalFactorMarch**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000.


element **monthlyProfile/temporalFactorApril**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during April. Valid values: 0.0000 to 1.0000.


element **monthlyProfile/temporalFactorMay**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during May. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorJune**

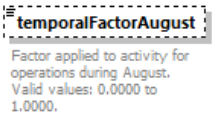
diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during June. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorJuly**


diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during July. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorAugust**

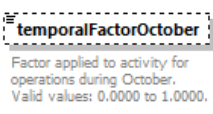
diagram	
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diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000.

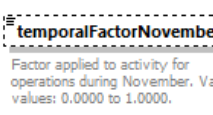
element **monthlyProfile/temporalFactorSeptember**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during September. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorOctober**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during October. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorNovember**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during November. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorDecember**

diagram	
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	<div style="border: 1px dashed black; padding: 2px; display: inline-block;"> temporalFactorDecember </div> Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.

element **monthlyProfileSet**

diagram													
properties	content complex												
children	monthlyProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.												

attribute **monthlyProfileSet/@dummy**

type	xs:int
properties	use optional

element **operation**

diagram	
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suggested approach is to just set the UserID field to unique number or set of characters. This will allow the user to distinguish the AirOperations if the need ever arises. Nevertheless, one can leave all the id fields empty or non-unique set of ids; however, in doing so, the user will be forced to use other identifying fields of the AirOperation if they should ever want to distinguish between AirOperations.

aircraftType

Type of aircraft in the flight.

cruiseAltitude

Override aircraft cruise altitude for this operation. (ft)

numOperations

Number of operations comprising this operation.

opType

carrier

Carrier flying the flight. Not fully supported in AEDT.

flightNumber

Flight number. Not fully supported in AEDT.

tailNumber

Flight's tail number. Not fully supported in AEDT.

userType

User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.

userParam

User-defined parameter associated with the operation. Not fully supported in AEDT.

departureAirport

Departure airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.

departureRunway

Airport's departure runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.

departureGate

Airport's departure gate. Not fully supported in AEDT.

departureApuTime

Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)

arrivalAirport

Arrival airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.

arrivalRunway

Airport's arrival runway ID. Required if the operation is

operation

Describes an aircraft flight operation.

used with a `<trackOpSet>` or a `<trackOpSet>` modeling arrivals, circuits, runups, or touch-and-goes.

arrivalGate

Airport's arrival gate. Not fully supported in AEDT.

arrivalApuTime

Number of minutes the auxiliary power unit is attached to an arrival aircraft. (min)

offTime

Wheels-off time. Required for any departure or runup, circuit, runup, or touch-and-go operation.

onTime

Wheels on time. Required for any arrival operation.

enrouteStartTime

Time aircraft reaches the first en route node. Required for en route or overflight flights. Not fully supported in AEDT.

outTime

Time aircraft pushed back from the gate for a departure. When present, $\text{taxiOutDuration} = (\text{offTime} - \text{outTime})$. Not fully supported in AEDT.

taxiOutDuration

Number of seconds during taxi-out. Required for emissions modeling, optional for noise modeling. Not fully supported in AEDT. (s)

inTime

Time aircraft arrives at arrival gate. When present, $\text{taxiInDuration} = (\text{onTime} - \text{inTime})$.

taxiInDuration

Number of seconds during taxi-in. Required for emissions modeling, optional for noise modeling. (s)

activityProfile

References an existing hourly, daily, or monthly profile.

saeProfile

Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when the override is unambiguously arrival or departure.

saeProfiles

Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when it is necessary to specify both the arrival and departure profiles.

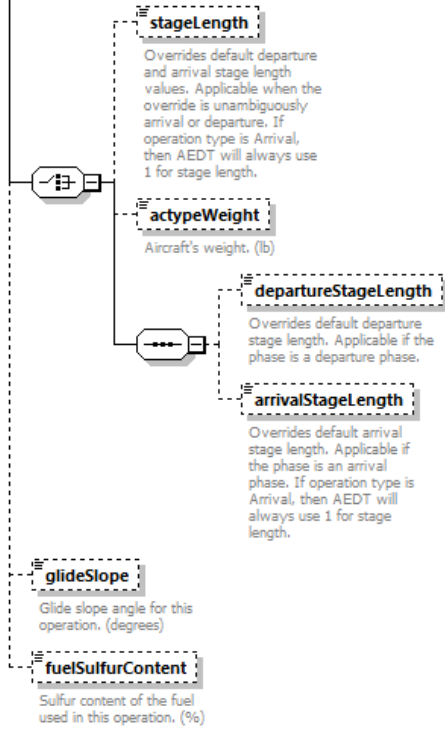
badaProfile

Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when the override is unambiguously arrival or departure.

badaProfiles

Overrides default profile

assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when it is necessary to specify both the arrival and departure profiles.



properties	content complex
children	id aircraftType cruiseAltitude numOperations opType carrier flightNumber tailNumber userType userParam departureAirport departureRunway departureGate departureApuTime arrivalAirport arrivalRunway arrivalGate arrivalApuTime offTime onTime enrouteStartTime outTime taxiOutDuration inTime taxiInDuration activityProfile saeProfile saeProfiles badaProfile badaProfiles stageLength actypeWeight departureStageLength arrivalStageLength glideSlope fuelSulfurContent
used by	elements AsifXml case operations
annotation	documentation Describes an aircraft flight operation.

element **operation/id**

diagram	
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	<div style="border: 1px solid black; padding: 2px;">id</div> <p>User specified identifier for the operation. One purpose served by this field is to allow the user to tie the AEDT AirOperations back to some original data source by setting the id field to an identifying identifier from the original data source. Another purpose is to set each ID to a project-specific value for each AirOperation. The ID field is used in several AEDT lists and reports that print out the AirOperations. In addition, the Impact Evaluation dialog uses the ID as its main method of distinguishing AirOperations when allowing the user to pick and choose operations to be moved to alternative flight tracks. If, however, the user has no outside data sources that need to be tied to the AEDT AirOperations, or if each AirOperation is identical in the sense that no specific AirOperation is more valuable than another or that there will be no intent to distinguish one AirOperation over another, then the suggested approach is to just set the UserID field to unique number or set of characters. This will allow the user to distinguish the AirOperations if the need ever arises. Nevertheless, one can leave all the id fields empty or non-unique set of ids; however, in doing so, the user will be forced to use other identifying fields of the AirOperation if they should ever want to distinguish between AirOperations.</p>
type	string16
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation User specified identifier for the operation. One purpose served by this field is to allow the user to tie the AEDT AirOperations back to some original data source by setting the id field to an identifying identifier from the original data source. Another purpose is to set each ID to a project-specific value for each AirOperation. The ID field is used in several AEDT lists and reports that print out the AirOperations. In addition, the Impact Evaluation dialog uses the ID as its main method of distinguishing AirOperations when allowing the user to pick and choose operations to be moved to alternative flight tracks. If, however, the user has no outside data sources that need to be tied to the AEDT AirOperations, or if each AirOperation is identical in the sense that no specific AirOperation is more valuable than another or that there will be no intent to distinguish one AirOperation over another, then the suggested approach is to just set the UserID field to unique number or set of characters. This will allow the user to distinguish the AirOperations if the need ever arises. Nevertheless, one can leave all the id fields empty or non-unique set of ids; however, in doing so, the user will be forced to use other identifying fields of the AirOperation if they should ever want to distinguish between AirOperations.

element **operation/aircraftType**

diagram	
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type	aircraftType
properties	content complex
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOperationSet assignDefaultGse
annotation	documentation Type of aircraft in the flight.

element **operation/cruiseAltitude**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Override aircraft cruise altitude for this operation. (ft)

element **operation/numOperations**

diagram	
type	xs:double
properties	content simple
annotation	documentation Number of operations comprising this operation.

element **operation/opType**

diagram	
type	opType
properties	minOcc 0 maxOcc 1

	content simple	
facets	Kind Value pattern A Arrival D Departure V Overflight F Circuit T TouchAndGo R Runup W RunwayToRunway L LTO LandingTakoff X Taxi	Annotation

element **operation/carrier**

diagram	 Carrier flying the flight. Not fully supported in AEDT.
type	string4
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 4
annotation	documentation Carrier flying the flight. Not fully supported in AEDT.

element **operation/flightNumber**

diagram	 Flight number. Not fully supported in AEDT.
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation Flight number. Not fully supported in AEDT.

element **operation/tailNumber**

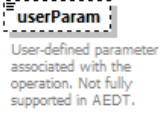
diagram	 Flight's tail number. Not fully supported in AEDT.
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Flight's tail number. Not fully supported in AEDT.

element **operation/userType**

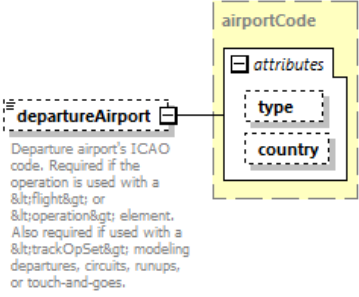
diagram	 User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.
type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12

annotation	documentation User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.
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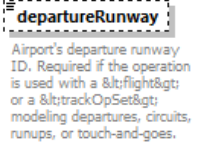
element **operation/userParam**

diagram	 <p>User-defined parameter associated with the operation. Not fully supported in AEDT.</p>
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation User-defined parameter associated with the operation. Not fully supported in AEDT.


element **operation/departureAirport**

diagram	 <p>Departure airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.</p>																		
type	airportCode																		
properties	minOcc 0 maxOcc 1 content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> <tr> <td>country</td> <td>string3</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY			country	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
type	airportCodeType	optional	ANY																
country	string3	optional	ANY																
annotation	documentation Departure airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.																		

element **operation/departureRunway**

diagram	 <p>Airport's departure runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.</p>
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Airport's departure runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.

element **operation/departureGate**

diagram	 <p>departureGate</p> <p>Airport's departure gate. Not fully supported in AEDT.</p>
type	string40
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Airport's departure gate. Not fully supported in AEDT.

element **operation/departureApuTime**

diagram	 <p>departureApuTime</p> <p>Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)

element **operation/arrivalAirport**


diagram	 <p>arrivalAirport</p> <p>Arrival airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.</p>																		
type	airportCode																		
properties	minOcc 0 maxOcc 1 content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> <tr> <td>country</td> <td>string3</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY			country	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
type	airportCodeType	optional	ANY																
country	string3	optional	ANY																
annotation	documentation Arrival airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.																		

element **operation/arrivalRunway**

diagram	 <p>arrivalRunway</p> <p>Airport's arrival runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.</p>
type	string8

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Airport's arrival runway ID. Required if the operation is used with a <flight> or a <trackOpSet>; modeling arrivals, circuits, runups, or touch-and-goes.

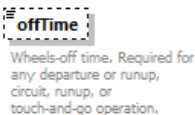
element **operation/arrivalGate**

diagram	
type	string40
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Airport's arrival gate. Not fully supported in AEDT.

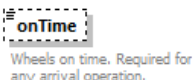
element **operation/arrivalApuTime**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes the auxiliary power unit is attached to an arrival aircraft. (min)


element **operation/offTime**

diagram	
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Wheels-off time. Required for any departure or runup, circuit, runup, or touch-and-go operation.


element **operation/onTime**

diagram	
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Wheels on time. Required for any arrival operation.


element **operation/enrouteStartTime**

diagram	 <p>Time aircraft reaches the first en route node. Required for en route or overflight flights. Not fully supported in AEDT.</p>
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Time aircraft reaches the first en route node. Required for en route or overflight flights. Not fully supported in AEDT


element **operation/outTime**

diagram	 <p>Time aircraft pushed back from the gate for a departure. When present, taxiOutDuration = (offTime &#8722; outTime). Not fully supported in AEDT.</p>
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Time aircraft pushed back from the gate for a departure. When present, taxiOutDuration = (offTime − outTime). Not fully supported in AEDT.

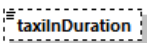
element **operation/taxiOutDuration**

diagram	 <p>Number of seconds during taxi-out. Required for emissions modeling, optional for noise modeling. Not fully supported in AEDT. (s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of seconds during taxi-out. Required for emissions modeling, optional for noise modeling. Not fully supported in AEDT. (s)

element **operation/inTime**


diagram	 <p>Time aircraft arrives at arrival gate. When present, taxiInDuration = (onTime - inTime).</p>
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Time aircraft arrives at arrival gate. When present, taxiInDuration = (onTime - inTime).

element **operation/taxiInDuration**

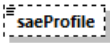
diagram	 <p>Number of seconds during taxi-in. Required for emissions modeling, optional for noise modeling. (s)</p>
type	xs:double

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of seconds during taxi-in. Required for emissions modeling, optional for noise modeling. (s)

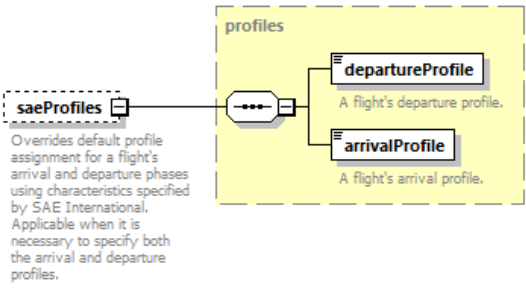
element **operation/activityProfile**

diagram	 <p>activityProfile References an existing hourly, daily, or monthly profile.</p>
type	string100
properties	minOcc 0 maxOcc 1 content simple
used by	element activityProfileSet
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation References an existing hourly, daily, or monthly profile.


element **operation/saeProfile**

diagram	 <p>saeProfile Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when the override is unambiguously arrival or departure.</p>
type	profileType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when the override is unambiguously arrival or departure.

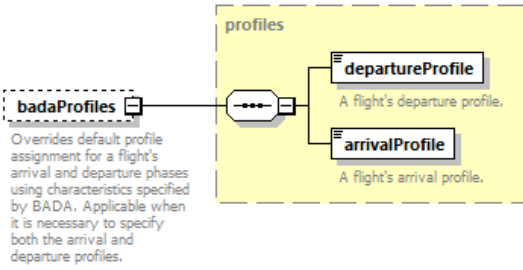
element **operation/saeProfiles**

diagram	 <p>saeProfiles Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when it is necessary to specify both the arrival and departure profiles.</p> <p>The diagram shows a dashed box labeled 'saeProfiles' connected to a larger dashed box labeled 'profiles'. Inside the 'profiles' box, there are two sub-elements: 'departureProfile' (A flight's departure profile.) and 'arrivalProfile' (A flight's arrival profile.).</p>
type	profiles
properties	minOcc 0 maxOcc 1 content complex
children	departureProfile arrivalProfile
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when it is necessary to specify both the arrival and departure profiles.


element **operation/badaProfile**

diagram	 <p>Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when the override is unambiguously arrival or departure.</p>
type	profileType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when the override is unambiguously arrival or departure.

element **operation/badaProfiles**

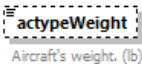
diagram	 <p>Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when it is necessary to specify both the arrival and departure profiles.</p>
type	profiles
properties	minOcc 0 maxOcc 1 content complex
children	departureProfile arrivalProfile
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when it is necessary to specify both the arrival and departure profiles.

element **operation/stageLength**


diagram	 <p>Overrides default departure and arrival stage length values. Applicable when the override is unambiguously arrival or departure. If operation type is Arrival, then AEDT will always use 1 for stage length.</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Overrides default departure and arrival stage length values. Applicable when the override is unambiguously arrival or departure. If operation type is Arrival, then AEDT will always use 1 for stage length.

element **operation/actypeWeight**

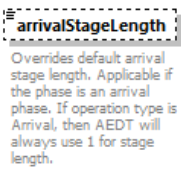
diagram	
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	 <p>actypeWeight Aircraft's weight. (lb)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Aircraft's weight. (lb)

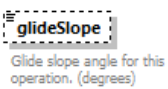
element **operation/departureStageLength**

diagram	 <p>departureStageLength Overrides default departure stage length. Applicable if the phase is a departure phase.</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Overrides default departure stage length. Applicable if the phase is a departure phase.

element **operation/arrivalStageLength**

diagram	 <p>arrivalStageLength Overrides default arrival stage length. Applicable if the phase is an arrival phase. If operation type is Arrival, then AEDT will always use 1 for stage length.</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Overrides default arrival stage length. Applicable if the phase is an arrival phase. If operation type is Arrival, then AEDT will always use 1 for stage length.

element **operation/glideSlope**

diagram	 <p>glideSlope Glide slope angle for this operation. (degrees)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Glide slope angle for this operation. (degrees)

element **operation/fuelSulfurContent**

diagram	 <p>fuelSulfurContent Sulfur content of the fuel used in this operation. (%)</p>
type	xs:double

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Sulfur content of the fuel used in this operation. (%)

element **operationalProfileSet**

diagram	<p>quarterHourlyProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations.</p> <p>dailyProfileSet Supports the definition and use of DAILY_PROFILES for the daily variation of operations.</p> <p>monthlyProfileSet Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.</p> <p>activityProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.</p>
properties	content complex
children	quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element AsifXml

element **operations**

diagram	<p>operations Contains a list of aircraft flight operations.</p> <p>attributes dummy</p> <p>operation 1..∞ Describes an aircraft flight operation.</p>												
properties	content complex												
children	operation												
used by	element trackOpSet												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Contains a list of aircraft flight operations.												

attribute **operations/@dummy**


type	xs:int
properties	use optional

element **options**

diagram	<p>options Contains default option values applied to the study.</p> <p>utmZoneDefault Default UTM zone number.</p>
properties	content complex
children	utmZoneDefault

used by	element AsifXml
annotation	documentation Contains default option values applied to the study.

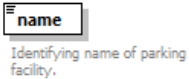
element **options/utmZoneDefault**

diagram	
type	xs:int
properties	content simple default -1
annotation	documentation Default UTM zone number.

element **parkingFacility**

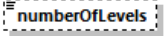
diagram	
properties	content complex
children	name numberOfLevels topReleaseHeight spacing elevation pointCoord polygonCoords
used by	element parkingFacilitySet
annotation	documentation Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage geometries for scenario layouts.

element **parkingFacility/name**

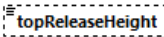
diagram	
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of parking facility.

element **parkingFacility/numberOfLevels**


diagram	
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diagram	 <p>numberOfLevels Number of levels in the parking facility. Valid values: 1 to 20.</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Number of levels in the parking facility. Valid values: 1 to 20.


element **parkingFacility/topReleaseHeight**

diagram	 <p>topReleaseHeight Height AGL at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height AGL at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

element **parkingFacility/spacing**

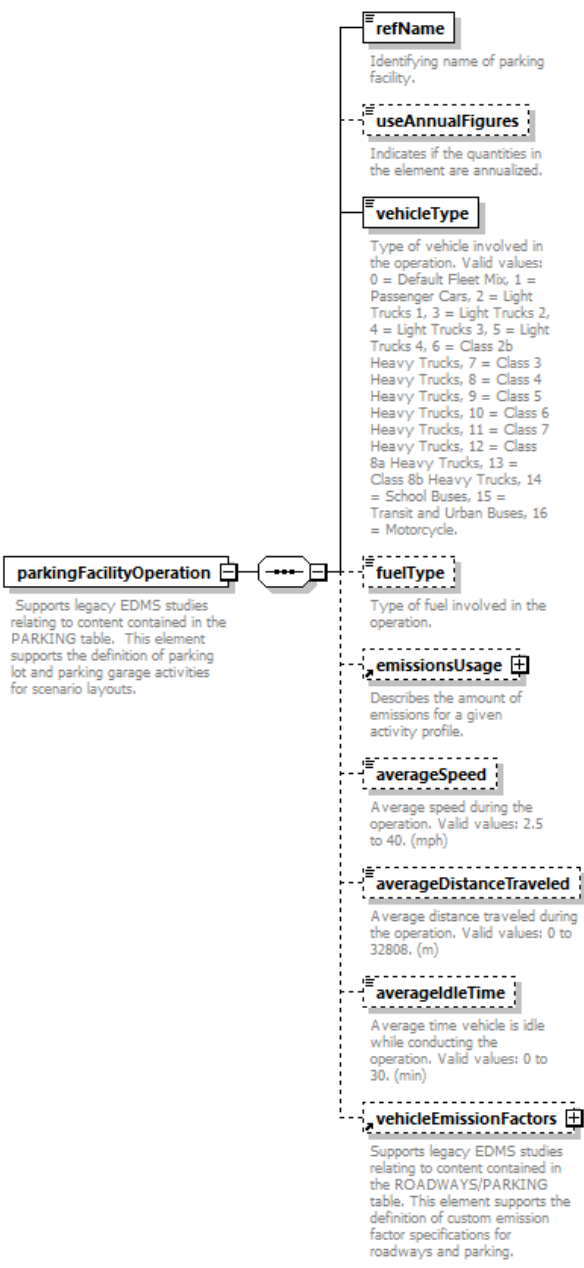
diagram	 <p>spacing Distance between two parking spaces. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Distance between two parking spaces. (m)

element **parkingFacility/elevation**

diagram	 <p>elevation Elevation of parking facility in MSL. Valid values: range of 0 - 328, airport specific.(m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Elevation of parking facility in MSL. Valid values: range of 0 - 328, airport specific.(m)

element **parkingFacilityOperation**

diagram	
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properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage averageSpeed averageDistanceTraveled averageIdleTime vehicleEmissionFactors
used by	element parkingFacilityOperationSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.

element **parkingFacilityOperation/refName**

diagram	<p>refName Identifying name of parking facility.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of parking facility.


element **parkingFacilityOperation/useAnnualFigures**

diagram	 <p>Indicates if the quantities in the element are annualized.</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if the quantities in the element are annualized.

element **parkingFacilityOperation/vehicleType**

diagram	 <p>Type of vehicle involved in the operation. Valid values: 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.</p>
type	groundVehicleType
properties	content simple
facets	Kind Value Annotation pattern 0 Default Fleet Mix 1 Passenger Cars 2 Light Trucks 1 3 Light Trucks 2 4 Light Trucks 3 5 Light Trucks 4 6 Class 2b Heavy Trucks 7 Class 3 Heavy Trucks 8 Class 4 Heavy Trucks 9 Class 5 Heavy Trucks 10 Class 6 Heavy Trucks 11 Class 7 Heavy Trucks 12 Class 8a Heavy Trucks 13 Class 8b Heavy Trucks 14 School Buses 15 Transit and Urban Buses 16 Motorcycle
annotation	documentation Type of vehicle involved in the operation. Valid values: 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.

element **parkingFacilityOperation/fuelType**

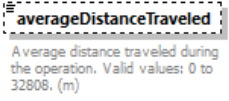
diagram	 <p>Type of fuel involved in the operation.</p>
type	fuelType
properties	minOcc 0 maxOcc 1 content simple default G
facets	Kind Value Annotation pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric
annotation	documentation Type of fuel involved in the operation.

element **parkingFacilityOperation/averageSpeed**

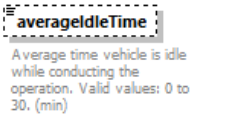
diagram	 <p>Average speed during the operation. Valid values: 2.5 to 40. (mph)</p>
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple default 10
annotation	documentation Average speed during the operation. Valid values: 2.5 to 40. (mph)

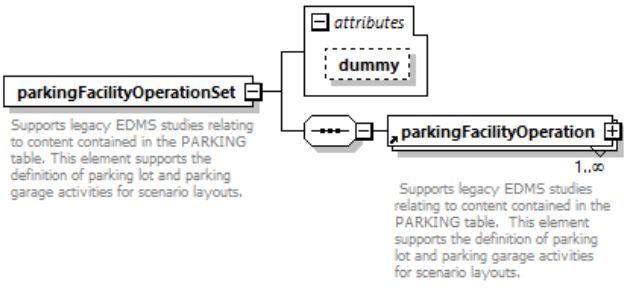
element **parkingFacilityOperation/averageDistanceTraveled**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average distance traveled during the operation. Valid values: 0 to 32808. (m)

element **parkingFacilityOperation/averageIdleTime**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average time vehicle is idle while conducting the operation. Valid values: 0 to 30. (min)

element **parkingFacilityOperationSet**

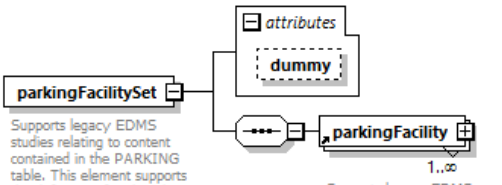
diagram													
properties	content complex												
children	parkingFacilityOperation												
used by	group airportActivityGroup												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.												

attribute **parkingFacilityOperationSet/@dummy**

type	xs:int
properties	use optional

element **parkingFacilitySet**

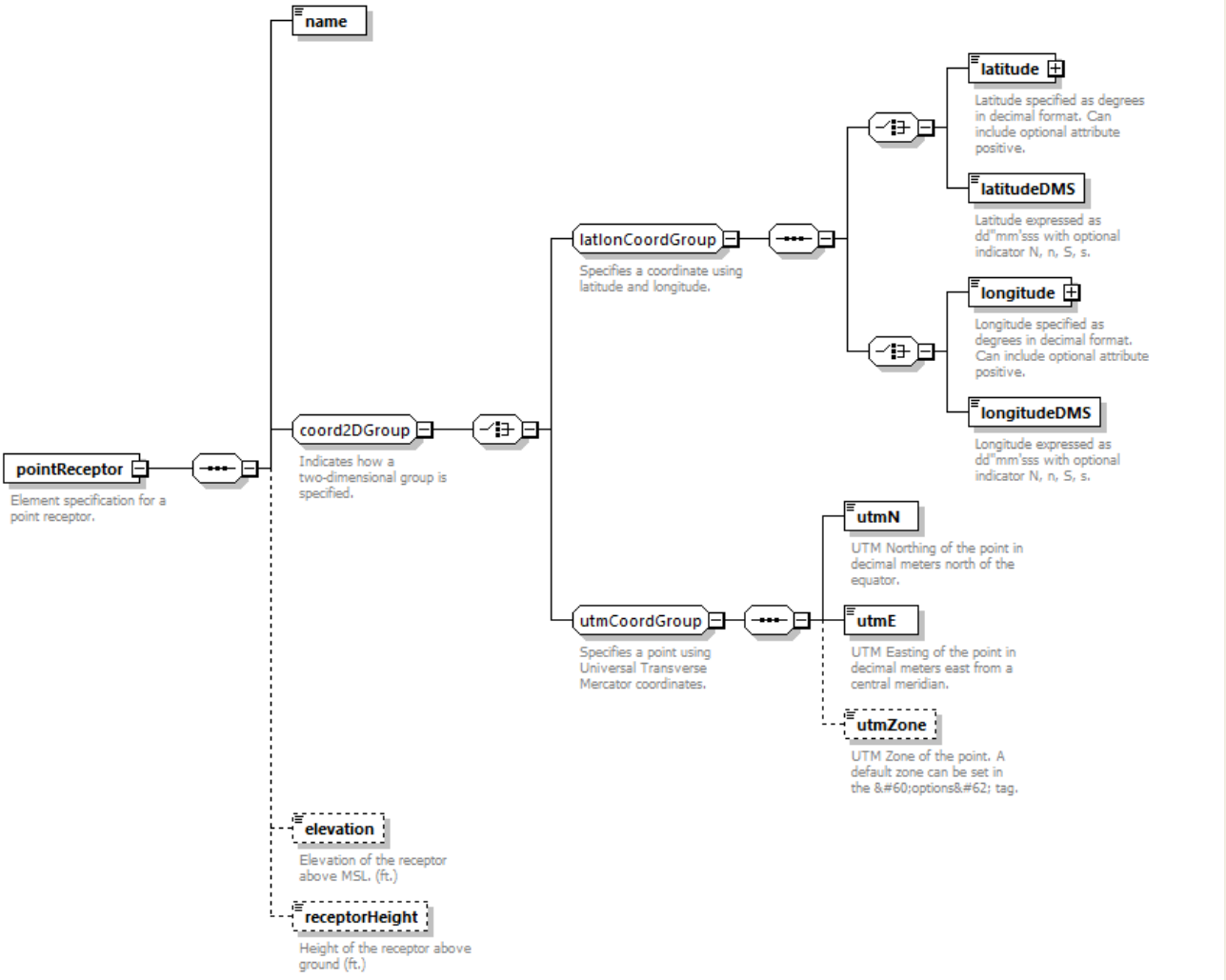
diagram	
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	 <p>parkingFacilitySet Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>attributes dummy</p> <p>parkingFacility 1..∞ Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage geometries for scenario layouts.</p>												
properties	content complex												
children	parkingFacility												
used by	complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.												

attribute **parkingFacilitySet/@dummy**

type	xs:int
properties	use optional

element **pointReceptor**

<p>diagram</p>  <p>pointReceptor Element specification for a point receptor.</p> <p>name</p> <p>coord2DGroup Indicates how a two-dimensional group is specified.</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>longitude Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p> <p>elevation Elevation of the receptor above MSL. (ft.)</p> <p>receptorHeight Height of the receptor above ground. (ft.)</p>	
properties	content complex

children	name latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation receptorHeight
used by	group receptorGroup
annotation	documentation Element specification for a point receptor.


element **pointReceptor/name**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element **pointReceptor/elevation**

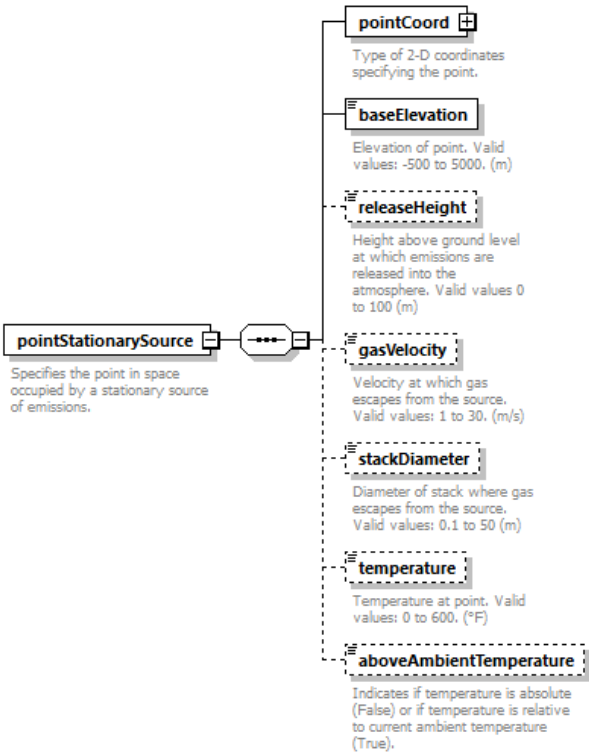
diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of the receptor above MSL. (ft.)

element **pointReceptor/receptorHeight**

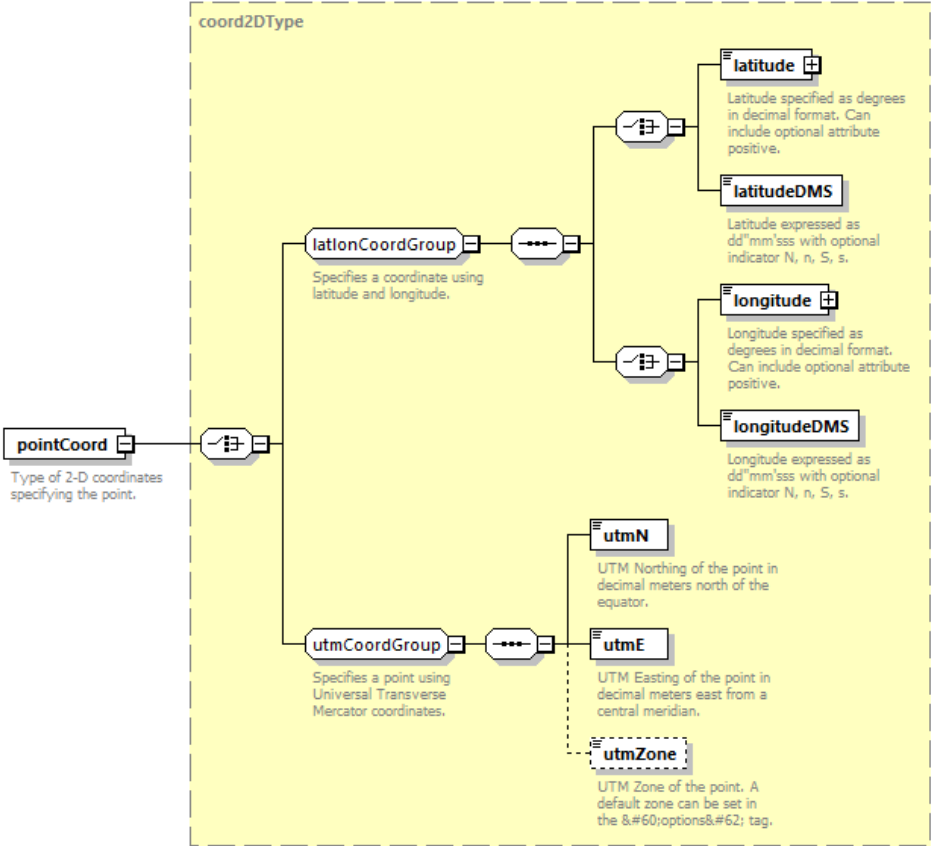
diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height of the receptor above ground (ft.)

element **pointStationarySource**

diagram	
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	 <p>pointStationarySource Specifies the point in space occupied by a stationary source of emissions.</p> <ul style="list-style-type: none"> pointCoord Type of 2-D coordinates specifying the point. baseElevation Elevation of point. Valid values: -500 to 5000. (m) releaseHeight Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m) gasVelocity Velocity at which gas escapes from the source. Valid values: 1 to 30. (m/s) stackDiameter Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m) temperature Temperature at point. Valid values: 0 to 600. (°F) aboveAmbientTemperature Indicates if temperature is absolute (False) or if temperature is relative to current ambient temperature (True).
properties	content complex
children	pointCoord baseElevation releaseHeight gasVelocity stackDiameter temperature aboveAmbientTemperature
used by	element stationarySource
annotation	documentation Specifies the point in space occupied by a stationary source of emissions.

element **pointStationarySource/pointCoord**

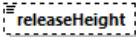
diagram	 <p>pointCoord Type of 2-D coordinates specifying the point.</p> <ul style="list-style-type: none"> latlonCoordGroup Specifies a coordinate using latitude and longitude. <ul style="list-style-type: none"> latitude Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s. longitude Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s. utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates. <ul style="list-style-type: none"> utmN UTM Northing of the point in decimal meters north of the equator. utmE UTM Easting of the point in decimal meters east from a central meridian. utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.
type	coord2DType

properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation Type of 2-D coordinates specifying the point.


element [pointStationarySource/baseElevation](#)

diagram	 <p>Elevation of point. Valid values: -500 to 5000. (m)</p>
type	xs:double
properties	content simple
annotation	documentation Elevation of point. Valid values: -500 to 5000. (m)

element [pointStationarySource/releaseHeight](#)

diagram	 <p>Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p>
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

element [pointStationarySource/gasVelocity](#)

diagram	 <p>Velocity at which gas escapes from the source. Valid values: 1 to 30. (m/s)</p>
type	doubleInclusiveRange1to30
properties	minOcc 0 maxOcc 1 content simple default 1
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation Velocity at which gas escapes from the source. Valid values: 1 to 30. (m/s)

element [pointStationarySource/stackDiameter](#)


diagram	 <p>Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)</p>
type	doubleExclusive0Inclusive10
properties	minOcc 0 maxOcc 1 content simple default 0.1
facets	Kind Value Annotation

	maxInclusive 10 minExclusive 0
annotation	documentation Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)

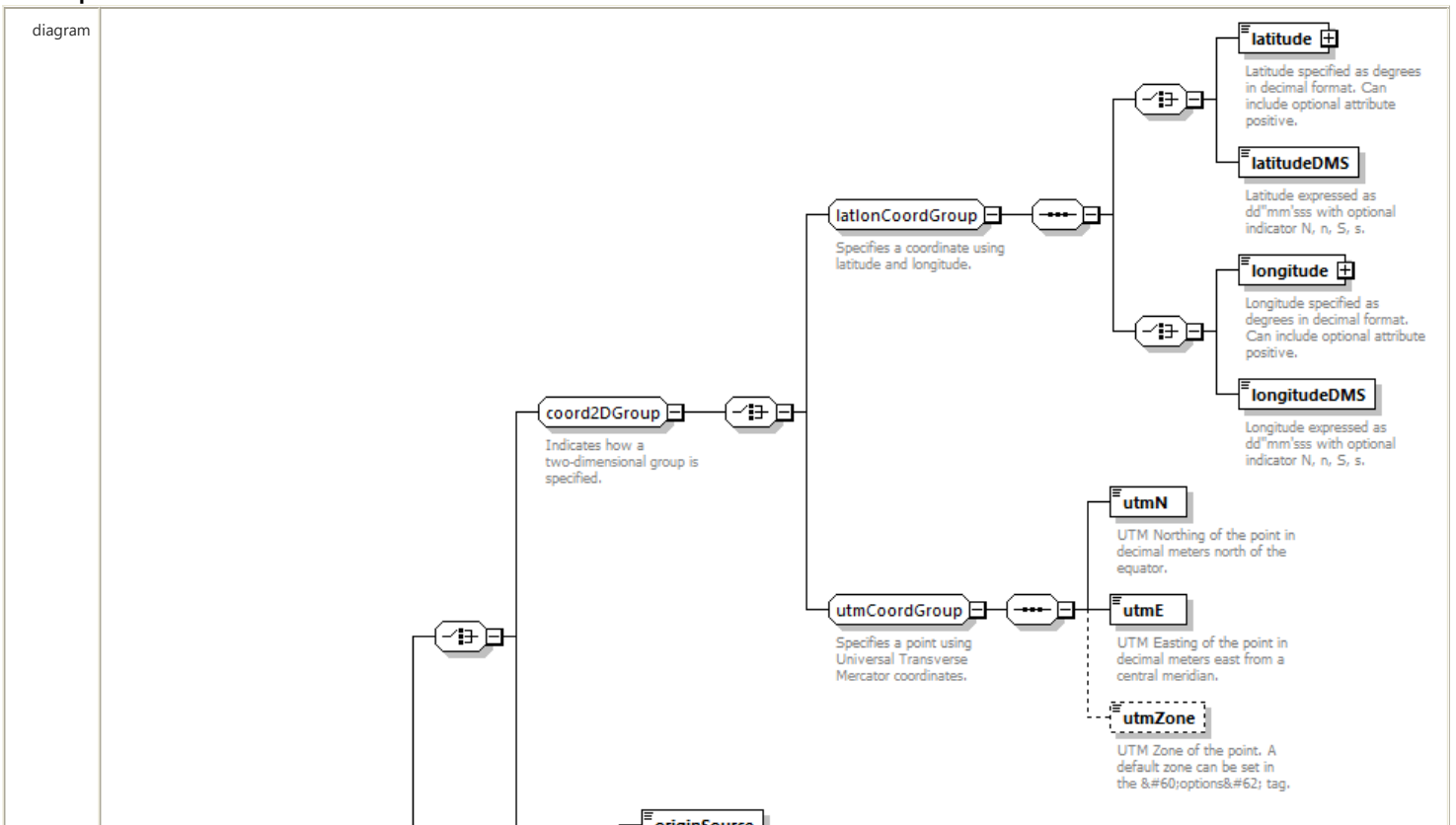
element **pointStationarySource/temperature**

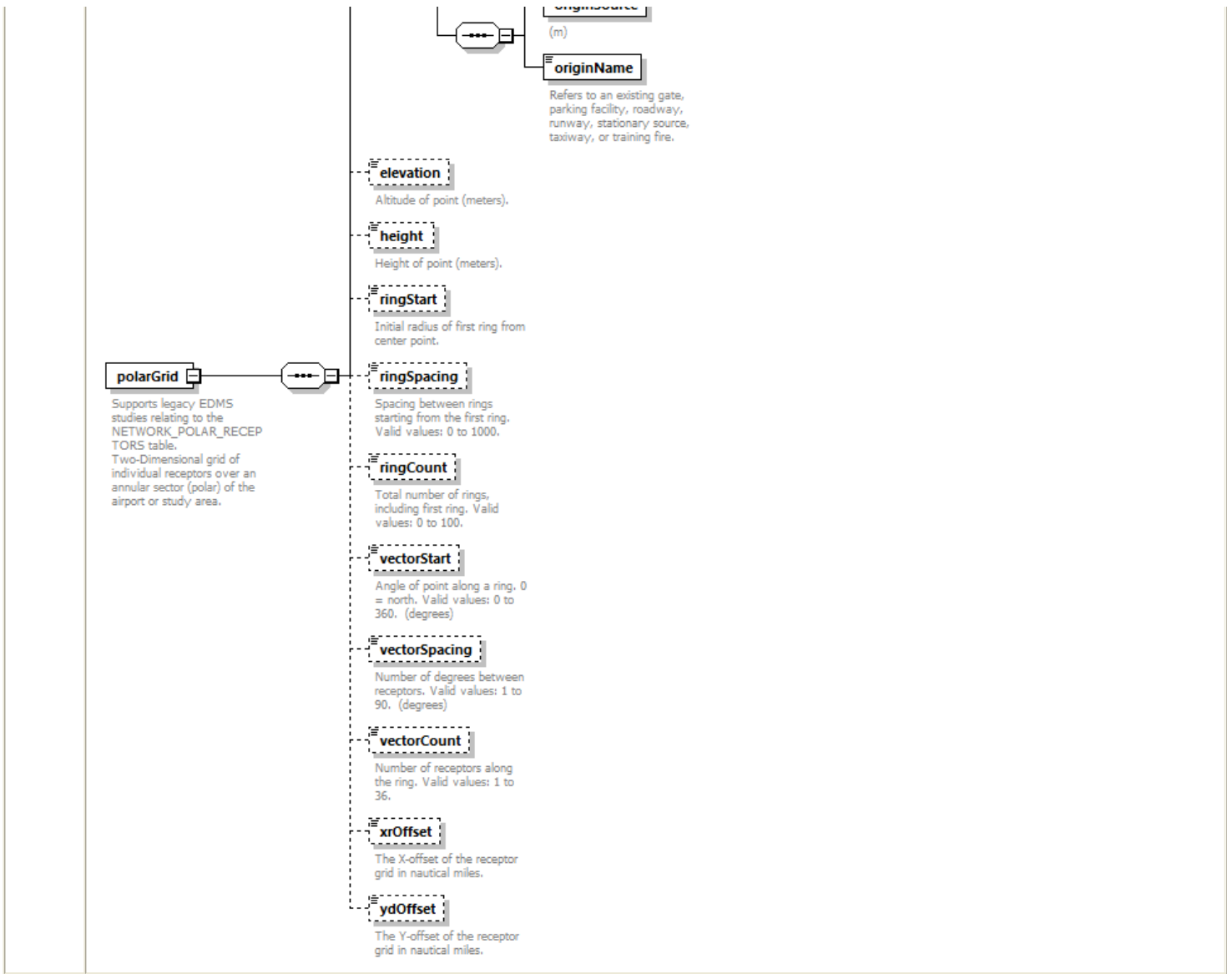
diagram	 <p>Temperature at point. Valid values: 0 to 600. (°F)</p>
type	doubleInclusiveRange0to600
properties	minOcc 0 maxOcc 1 content simple default 32
facets	Kind Value Annotation minInclusive 0 maxInclusive 600
annotation	documentation Temperature at point. Valid values: 0 to 600. (°F)

element **pointStationarySource/aboveAmbientTemperature**

diagram	 <p>Indicates if temperature is absolute (False) or if temperature is relative to current ambient temperature (True).</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if temperature is absolute (False) or if temperature is relative to current ambient temperature (True).

element **polarGrid**





properties	content complex
children	latitudeDMS longitudeDMS utmN utmE utmZone originSource originName elevation height ringStart ringSpacing ringCount vectorStart vectorSpacing vectorCount xrOffset ydOffset
used by	group receptorGroup
annotation	documentation Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEPTORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.

element **polarGrid/originSource**

diagram	
type	originSourceType
properties	content simple
facets	Kind Value Annotation pattern Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire
annotation	documentation (m)

element **polarGrid/originName**


diagram	
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	 <p>Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.

element **polarGrid/elevation**

diagram	 <p>Altitude of point (meters).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude of point (meters).

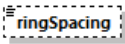
element **polarGrid/height**

diagram	 <p>Height of point (meters).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Height of point (meters).

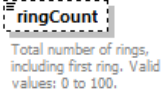
element **polarGrid/ringStart**

diagram	 <p>Initial radius of first ring from center point.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Initial radius of first ring from center point.

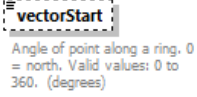
element **polarGrid/ringSpacing**

diagram	 <p>Spacing between rings starting from the first ring. Valid values: 0 to 1000.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Spacing between rings starting from the first ring. Valid values: 0 to 1000.

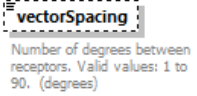
element **polarGrid/ringCount**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Total number of rings, including first ring. Valid values: 0 to 100.

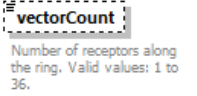
element **polarGrid/vectorStart**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Angle of point along a ring. 0 = north. Valid values: 0 to 360. (degrees)

element **polarGrid/vectorSpacing**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Number of degrees between receptors. Valid values: 1 to 90. (degrees)

element **polarGrid/vectorCount**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Number of receptors along the ring. Valid values: 1 to 36.

element **polarGrid/xrOffset**

diagram	
type	xs:double
properties	minOcc 0

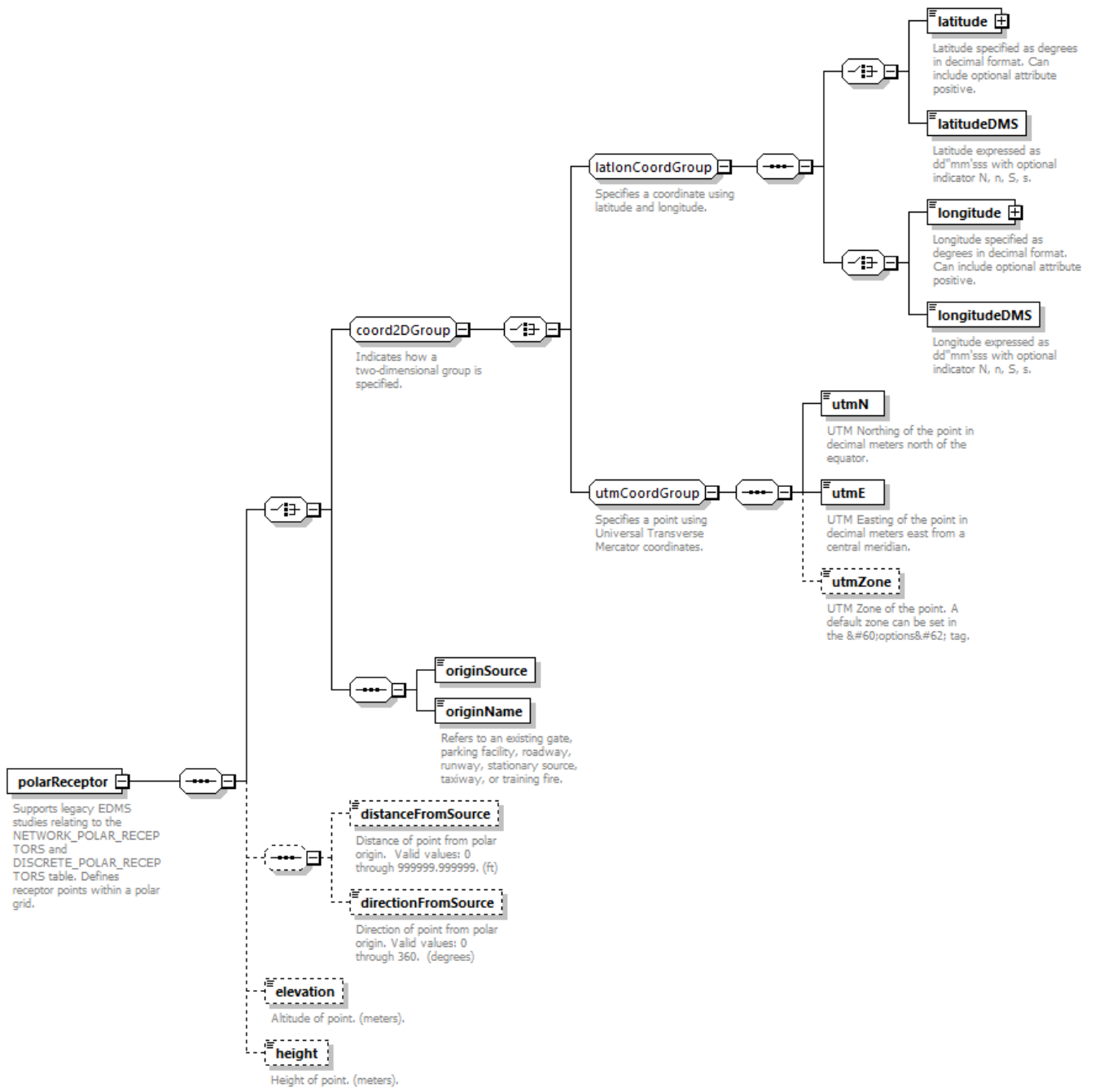
	maxOcc 1 content simple default 0
annotation	documentation The X-offset of the receptor grid in nautical miles.

element **polarGrid/ydOffset**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The Y-offset of the receptor grid in nautical miles.

element **polarReceptor**

diagram	
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properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone originSource originName distanceFromSource directionFromSource elevation height
used by	group receptorGroup
annotation	documentation Supports legacy EDM5 studies relating to the NETWORK_POLAR_RECEPTORS and DISCRETE_POLAR_RECEPTORS table. Defines receptor points within a polar grid.

element **polarReceptor/originSource**

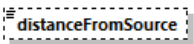
diagram	
type	originSourceType
properties	content simple
facets	Kind Value Annotation pattern Gate Parking Facility Roadway Runway Stionary Source Taxiway Training Fire

element **polarReceptor/originName**


diagram	
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	 <p>originName</p> <p>Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.

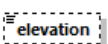
element **polarReceptor/distanceFromSource**

diagram	 <p>distanceFromSource</p> <p>Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft)


element **polarReceptor/directionFromSource**

diagram	 <p>directionFromSource</p> <p>Direction of point from polar origin. Valid values: 0 through 360. (degrees)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Direction of point from polar origin. Valid values: 0 through 360. (degrees)

element **polarReceptor/elevation**

diagram	 <p>elevation</p> <p>Altitude of point. (meters).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Altitude of point. (meters).

element **polarReceptor/height**

diagram	 <p>height</p> <p>Height of point. (meters).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Height of point. (meters).

element **quarterHourlyProfile**

diagram	<p>Supports legacy EDMS studies relating to content contained in the QUARTER_HOURLY_PROFILES. This element supports the definition of temporal factors on a quarter-hourly operational basis.</p>
properties	content complex
children	profileName temporalFactor
used by	element quarterHourlyProfileSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the QUARTER_HOURLY_PROFILES. This element supports the definition of temporal factors on a quarter-hourly operational basis.

element **quarterHourlyProfile/profileName**

diagram	<p>Name of profile.</p>
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Name of profile.

element **quarterHourlyProfile/temporalFactor**

diagram	<p>Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000.</p> <p>The starting hour as an integer between 0 and 23.</p> <p>The starting quarter-hourly minute value as either 0, 15, 30, or 45.</p>																		
type	extension of doubleMin0																		
properties	minOcc 0 maxOcc unbounded content complex																		
facets	Kind Value Annotation minInclusive 0																		
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>startHour</td> <td>int0to23</td> <td>required</td> <td></td> <td></td> <td>documentation The starting hour as an integer between 0 and 23.</td> </tr> <tr> <td>startMinutes</td> <td>quarterHourMinutes</td> <td>required</td> <td></td> <td></td> <td>documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.</td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	startHour	int0to23	required			documentation The starting hour as an integer between 0 and 23.	startMinutes	quarterHourMinutes	required			documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.
Name	Type	Use	Default	Fixed	Annotation														
startHour	int0to23	required			documentation The starting hour as an integer between 0 and 23.														
startMinutes	quarterHourMinutes	required			documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.														
annotation	documentation Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000.																		

attribute **quarterHourlyProfile/temporalFactor/@startHour**

type	int0to23
properties	use required
facets	Kind Value Annotation

	minInclusive 0 maxInclusive 23
annotation	documentation The starting hour as an integer between 0 and 23.

attribute **quarterHourlyProfile/temporalFactor/@startMinutes**

type	quarterHourMinutes
properties	use required
facets	Kind Value Annotation enumeration 0 enumeration 15 enumeration 30 enumeration 45
annotation	documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.

element **quarterHourlyProfileSet**

diagram	<p>Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations.</p> <p>Supports legacy EDMS studies relating to content contained in the QUARTER_HOURLY_PROFILES. This element supports the definition of temporal factors on a quarter-hourly operational basis.</p>												
properties	content complex												
children	quarterHourlyProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of operations.												

attribute **quarterHourlyProfileSet/@dummy**

type	xs:int
properties	use optional

element **receptorSet**

diagram	
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	<p>receptorSet Contains one or more receptor sets at various locations.</p> <p>name Descriptive name of the receptor set.</p> <p>receptorGroup Description of a receptor group.</p> <p>centroid 1..∞ Describes the geometric center of a polygon.</p> <p>pointReceptor 1..∞ Element specification for a point receptor.</p> <p>grid Describes a grid of points.</p> <p>polarReceptor 1..∞ Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS and DISCRETE_POLAR_RECEP TORS table. Defines receptor points within a polar grid.</p> <p>polarGrid Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.</p>
properties	content complex
children	name centroid pointReceptor grid polarReceptor polarGrid
used by	elements AsifXml study
annotation	documentation Contains one or more receptor sets at various locations.

element **receptorSet/name**

diagram	<p>name Descriptive name of the receptor set.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Descriptive name of the receptor set.

element **recordCode**

diagram	<p>recordCode An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database. Valid values: 0 to 87, 89 to 148.</p>
type	union of (restriction of xs:int , restriction of xs:int)
properties	content simple
used by	element categoryRecordCode
annotation	documentation An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the

element **roadway**

diagram	<p>Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle geometry on roadways for scenario layouts.</p> <p>name Identifying name for the roadway.</p> <p>width Roadway's width. Valid values: 1 to 99. (m)</p> <p>coordinates Set of three-dimensional coordinates describing the roadway.</p>
properties	content complex
children	name width coordinates
used by	element roadwaySet
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle geometry on roadways for scenario layouts.

element **roadway/name**

diagram	<p>Identifying name for the roadway.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name for the roadway.

element **roadway/width**

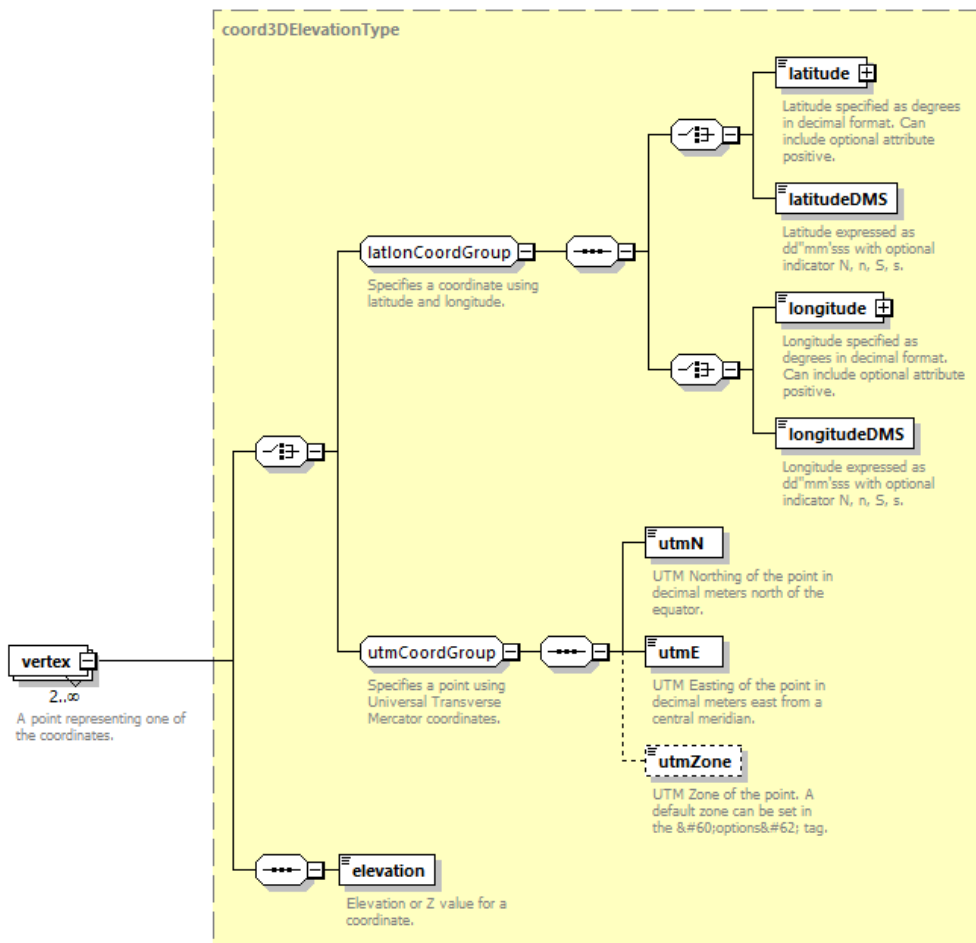
diagram	<p>Roadway's width. Valid values: 1 to 99. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Roadway's width. Valid values: 1 to 99. (m)

element **roadway/coordinates**

diagram	<p>Set of three-dimensional coordinates describing the roadway.</p> <p>vertex 2..∞ A point representing one of the coordinates.</p>
properties	minOcc 0 maxOcc 1 content complex
children	vertex
annotation	documentation Set of three-dimensional coordinates describing the roadway.

element **roadway/coordinates/vertex**

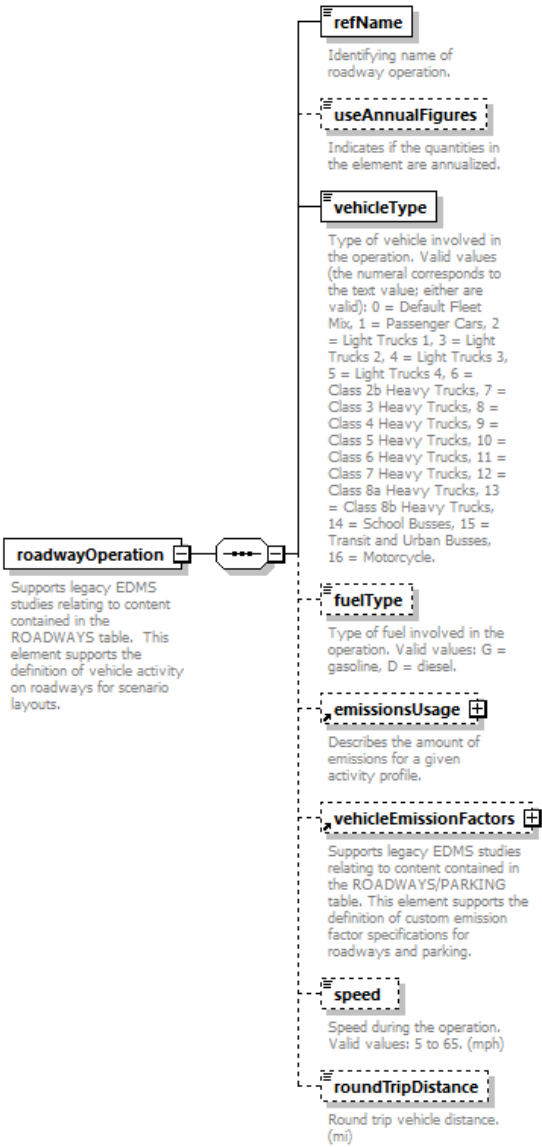
diagram	
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type	coord3DElevationType
properties	minOcc 2 maxOcc unbounded content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation
annotation	documentation A point representing one of the coordinates.

element **roadwayOperation**

diagram	
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	 <p>roadwayOperation</p> <p>Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <ul style="list-style-type: none"> refName Identifying name of roadway operation. useAnnualFigures Indicates if the quantities in the element are annualized. vehicleType Type of vehicle involved in the operation. Valid values (the numeral corresponds to the text value; either are valid): 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle. fuelType Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel. emissionsUsage Describes the amount of emissions for a given activity profile. vehicleEmissionFactors Supports legacy EDMS studies relating to content contained in the ROADWAYS/PARKING table. This element supports the definition of custom emission factor specifications for roadways and parking. speed Speed during the operation. Valid values: 5 to 65. (mph) roundTripDistance Round trip vehicle distance. (mi)
properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage vehicleEmissionFactors speed roundTripDistance
used by	element roadwayOperationSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.

element **roadwayOperation/refName**

diagram	 <p>refName Identifying name of roadway operation.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of roadway operation.

element **roadwayOperation/useAnnualFigures**

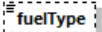
diagram	 <p>useAnnualFigures Indicates if the quantities in the element are annualized.</p>
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type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if the quantities in the element are annualized.


element **roadwayOperation/vehicleType**

diagram	 <p>vehicleType</p> <p>Type of vehicle involved in the operation. Valid values (the numeral corresponds to the text value; either are valid): 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.</p>
type	groundVehicleType
properties	content simple
facets	Kind Value Annotation pattern 0 Default Fleet Mix 1 Passenger Cars 2 Light Trucks 1 3 Light Trucks 2 4 Light Trucks 3 5 Light Trucks 4 6 Class 2b Heavy Trucks 7 Class 3 Heavy Trucks 8 Class 4 Heavy Trucks 9 Class 5 Heavy Trucks 10 Class 6 Heavy Trucks 11 Class 7 Heavy Trucks 12 Class 8a Heavy Trucks 13 Class 8b Heavy Trucks 14 School Buses 15 Transit and Urban Buses 16 Motorcycle
annotation	documentation Type of vehicle involved in the operation. Valid values (the numeral corresponds to the text value; either are valid): 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.

element **roadwayOperation/fuelType**

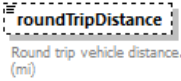
diagram	 <p>fuelType</p> <p>Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel.</p>
type	fuelType
properties	minOcc 0 maxOcc 1 content simple default G
facets	Kind Value Annotation pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric
annotation	documentation Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel.

element **roadwayOperation/speed**

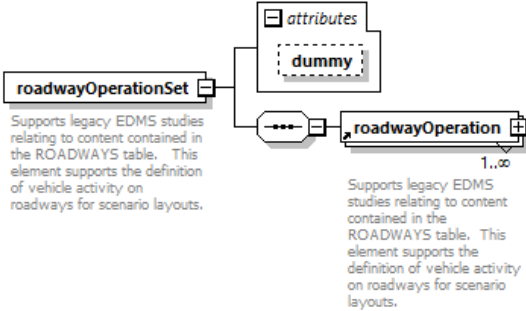
diagram	 <p>speed</p> <p>Speed during the operation. Valid values: 5 to 65. (mph)</p>
type	int5to65
properties	minOcc 0 maxOcc 1 content simple default 35
facets	Kind Value Annotation minInclusive 5 maxInclusive 65

annotation	documentation Speed during the operation. Valid values: 5 to 65. (mph)
------------	---------------------------------------------------------------------------

element **roadwayOperation/roundTripDistance**

diagram	 <p>roundTripDistance Round trip vehicle distance. (mi)</p>
type	doubleInclusive4000
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation Round trip vehicle distance. (mi)

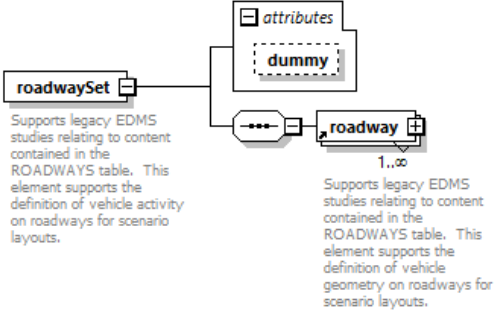
element **roadwayOperationSet**

diagram	 <p>roadwayOperationSet Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>attributes dummy</p> <p>roadwayOperation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts. 1..∞</p>												
properties	content complex												
children	roadwayOperation												
used by	group airportActivityGroup												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.												

attribute **roadwayOperationSet/@dummy**

type	xs:int
properties	use optional

element **roadwaySet**

diagram	 <p>roadwaySet Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>attributes dummy</p> <p>roadway Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle geometry on roadways for scenario layouts. 1..∞</p>												
properties	content complex												
children	roadway												
used by	complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy					
Name	Type	Use	Default	Fixed	Annotation								
dummy													

	dummy , xs:int optional
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.

attribute **roadwaySet/@dummy**

type	xs:int
properties	use optional

element **runway**

diagram	<p>runway Describes dimensions of a runway.</p> <p>length Length of runway. Valid values: nonnegative. (ft)</p> <p>width Width of runway. Valid values: nonnegative. (ft)</p> <p>runwayEnd 1..2 Characterizes the runway's endpoint.</p>
properties	content complex
children	length width runwayEnd
used by	element runwaySet
annotation	documentation Describes dimensions of a runway.

element **runway/length**

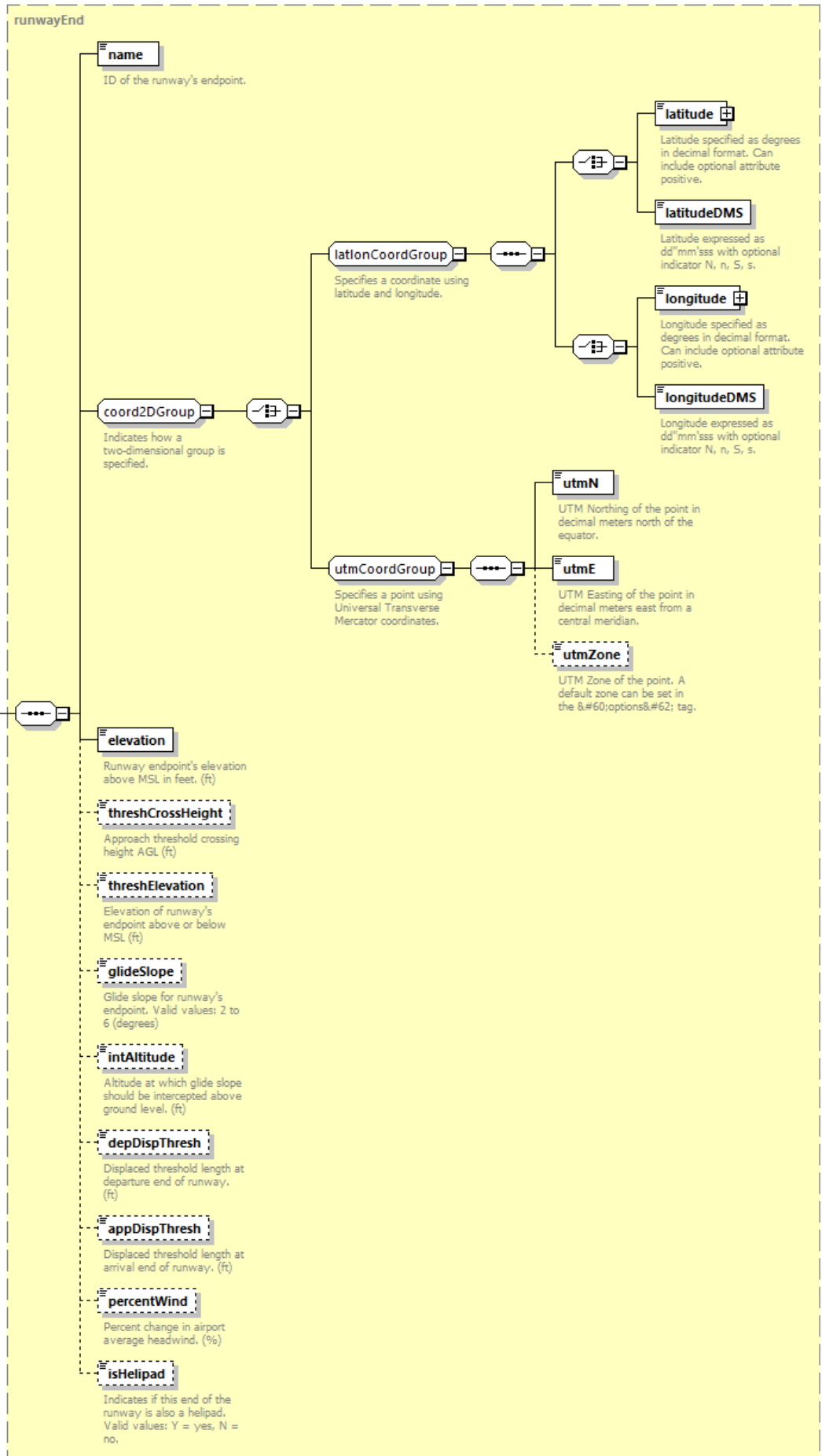
diagram	<p>length Length of runway. Valid values: nonnegative. (ft)</p>
type	xs:short
properties	content simple
annotation	documentation Length of runway. Valid values: nonnegative. (ft)

element **runway/width**

diagram	<p>width Width of runway. Valid values: nonnegative. (ft)</p>
type	xs:short
properties	content simple
annotation	documentation Width of runway. Valid values: nonnegative. (ft)

element **runway/runwayEnd**

diagram	
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runwayEnd
1..2
Characterizes the runway's endpoint.

name
ID of the runway's endpoint.

coord2DGroup
Indicates how a two-dimensional group is specified.

latlonCoordGroup
Specifies a coordinate using latitude and longitude.

latitude
Latitude specified as degrees in decimal format. Can include optional attribute positive.

latitudeDMS
Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.

longitude
Longitude specified as degrees in decimal format. Can include optional attribute positive.

longitudeDMS
Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.

utmCoordGroup
Specifies a point using Universal Transverse Mercator coordinates.

utmN
UTM Northing of the point in decimal meters north of the equator.

utmE
UTM Easting of the point in decimal meters east from a central meridian.

utmZone
UTM Zone of the point. A default zone can be set in the <options> tag.

elevation
Runway endpoint's elevation above MSL in feet. (ft)

threshCrossHeight
Approach threshold crossing height AGL (ft)

threshElevation
Elevation of runway's endpoint above or below MSL (ft)

glideSlope
Glide slope for runway's endpoint. Valid values: 2 to 6 (degrees)

intAltitude
Altitude at which glide slope should be intercepted above ground level. (ft)

depDispThresh
Displaced threshold length at departure end of runway. (ft)

appDispThresh
Displaced threshold length at arrival end of runway. (ft)

percentWind
Percent change in airport average headwind. (%)

isHelipad
Indicates if this end of the runway is also a helipad. Valid values: Y = yes, N = no.

type	runwayEnd
properties	minOcc 1

	maxOcc 2 content complex
children	name latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation threshCrossHeight threshElevation glideSlope intAltitude depDispThresh appDispThresh percentWind isHelipad
annotation	documentation Characterizes the runway's endpoint.

element **runwayAssignment**

diagram	<pre> classDiagram class runwayAssignment { +aircraftSize } class aircraftSize { +runway +arrivalPercentage +departurePercentage +tgoPercentage } runwayAssignment "1" *-- "1" aircraftSize </pre> <p>runwayAssignment: Defines a assignment of operations to runways, by aircraft size.</p> <p>aircraftSize: Size of the aircraft. Valid values: Small, Large, Heavy.</p> <p>runway: Name of the runway.</p> <p>arrivalPercentage: Percentage of arrivals of the given aircraft size using this runway. Valid values: 0 to 100.(%)</p> <p>departurePercentage: Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p> <p>tgoPercentage: Percentage of touch and gos of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p>
properties	content complex
children	aircraftSize runway arrivalPercentage departurePercentage tgoPercentage
used by	element runwayAssignmentSet
annotation	documentation Defines a assignment of operations to runways, by aircraft size.

element **runwayAssignment/aircraftSize**

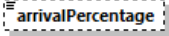
diagram	<pre> classDiagram class aircraftSize { } </pre>
type	AircraftSizeType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration S enumeration L enumeration H

element **runwayAssignment/runway**

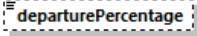
diagram	<pre> classDiagram class runway { } </pre>
type	string8
properties	content simple
used by	element runwaySet
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Name of the runway.

element **runwayAssignment/arrivalPercentage**

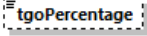
diagram	
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	 <p>arrivalPercentage Percentage of arrivals of the given aircraft size using this runway. Valid values: 0 to 100.(%)</p>
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percentage of arrivals of the given aircraft size using this runway. Valid values: 0 to 100.(%)


element **runwayAssignment/departurePercentage**

diagram	 <p>departurePercentage Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p>
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)

element **runwayAssignment/tgoPercentage**

diagram	 <p>tgoPercentage Percentage of touch and gos of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p>
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percentage of touch and gos of the given aircraft size using this runway. Valid values: 0 to 100. (%)

element **runwayAssignmentSet**

diagram	 <p>Contains a set of runway assignments.</p> <p>Defines a assignment of operations to runways, by aircraft size.</p>
properties	content complex
children	runwayAssignment
used by	element airportConfig
annotation	documentation Contains a set of runway assignments.

element **runwaySet**

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diagram	<pre> classDiagram class runwaySet { runway 1..∞ } class runway { + } runwaySet "1" -- "*" runway </pre>
properties	content complex
children	runway
used by	complexType airportLayoutType
annotation	documentation Container for runways.

element scenario


diagram	<pre> classDiagram class scenario { +name +startTime +duration +taxiModel +acftPerfModel +bankAngle +altitudeCutoff +sulfurConversionRate +fuelSulfurContent +description +scenarioAirportLayoutSet +caseSet +annualization } </pre>
properties	content complex

children	name startTime duration taxiModel timelnModeBasis acftPerfModel bankAngle altitudeCutoff sulfurConversionRate fuelSulfurContent description scenarioAirportLayoutSet caseSet annualization
used by	elements AsifXml study
annotation	documentation Encapsulates a scenario - such as Baseline or Alternative

element **scenario/name**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of scenario.

element **scenario/startTime**

diagram	
type	xs:dateTime
properties	content simple
annotation	documentation Start time of scenario. Accepts dateTime string.


element **scenario/duration**

diagram	
type	xs:int
properties	content simple
annotation	documentation Scenario's duration (hr).

element **scenario/taxiModel**

diagram	
type	taxiModelType
properties	content simple
facets	Kind Value Annotation enumeration UserSpecified enumeration Delayed enumeration Sequencing
annotation	documentation Taxi model for scenario.

element **scenario/timelnModeBasis**

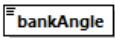
diagram	
type	timelnModeBasisType
properties	minOcc 0 maxOcc 1 content simple default ICAO

facets	Kind	Value	Annotation
	enumeration	Performance	
	enumeration	ICAO	

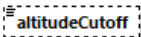
element **scenario/acftPerfModel**

diagram	 Aircraft performance model.
type	aircraftPerformanceModelType
properties	content simple
facets	Kind Value Annotation enumeration ICAO enumeration SAE1845
annotation	documentation Aircraft performance model.

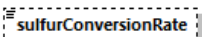
element **scenario/bankAngle**

diagram	 Indicates if bank angle calculations should be included in calculations. NOTE: AEDT ignores this value and treats all scenarios as if their bank angle value was set to true.
type	xs:boolean
properties	content simple
annotation	documentation Indicates if bank angle calculations should be included in calculations. NOTE: AEDT ignores this value and treats all scenarios as if their bank angle value was set to true.

element **scenario/altitudeCutoff**

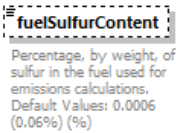
diagram	 Altitude in MSL to cutoff trajectory modeling for this scenario. The scenario altitude cutoff only affects noise impact calculation in AEDT. Fuel burn and emissions will be calculated until a flight reaches the study boundary. (ft)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 18000
annotation	documentation Altitude in MSL to cutoff trajectory modeling for this scenario. The scenario altitude cutoff only affects noise impact calculation in AEDT. Fuel burn and emissions will be calculated until a flight reaches the study boundary. (ft)

element **scenario/sulfurConversionRate**


diagram	 Portion of sulfur in the fuel that, when combusted, becomes sulfuric acid used for emissions calculations. (%)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Portion of sulfur in the fuel that, when combusted, becomes sulfuric acid used for emissions calculations. (%)

element **scenario/fuelSulfurContent**

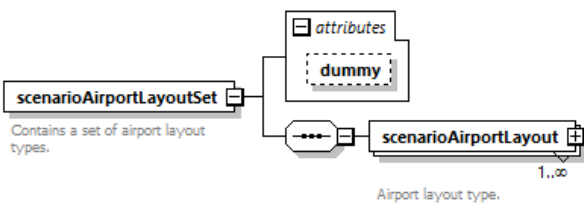
diagram	
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	 <p>fuelSulfurContent Percentage, by weight, of sulfur in the fuel used for emissions calculations. Default Values: 0.0006 (0.06%) (%)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Percentage, by weight, of sulfur in the fuel used for emissions calculations. Default Values: 0.0006 (0.06%) (%)

element **scenario/description**

diagram	 <p>description A description of the scenario.</p>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A description of the scenario.

element **scenarioAirportLayoutSet**

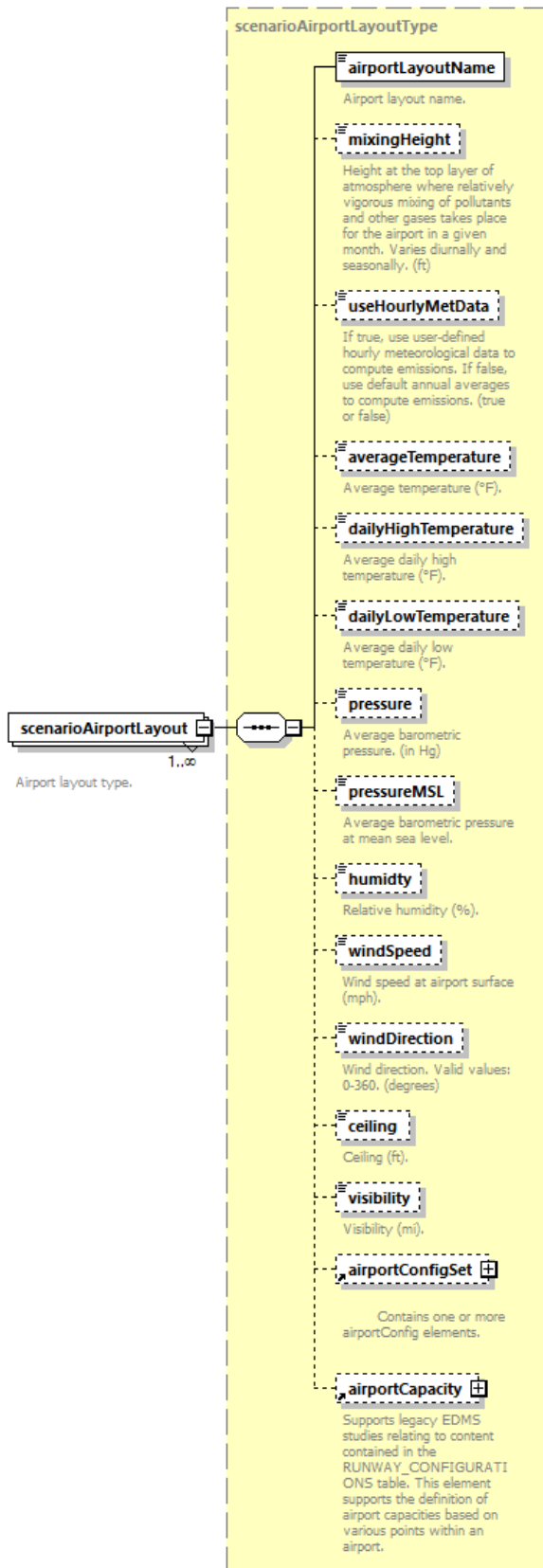
diagram	 <p>scenarioAirportLayoutSet Contains a set of airport layout types.</p> <p>attributes dummy</p> <p>scenarioAirportLayout Airport layout type. 1..∞</p>												
properties	content complex												
children	scenarioAirportLayout												
used by	element scenario												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Contains a set of airport layout types.												

attribute **scenarioAirportLayoutSet/@dummy**

type	xs:int
properties	use optional

element **scenarioAirportLayoutSet/scenarioAirportLayout**

diagram	
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type	scenarioAirportLayoutType
properties	minOcc 1 maxOcc unbounded content complex
children	airportLayoutName mixingHeight useHourlyMetData averageTemperature dailyHighTemperature dailyLowTemperature pressure pressureMSL humidity windSpeed windDirection ceiling visibility airportConfigSet airportCapacity
annotation	documentation Airport layout type.

element **sensorNode**

diagram	
properties	content complex
children	lat long altitude messageTime sequenceNum speed thrust source
used by	element sensorPath
annotation	documentation Describes a single node of a radar flight path.

element **sensorNode/lat**

diagram	
type	xs:double
properties	content simple
annotation	documentation Latitude for this location (decimal degrees).

element **sensorNode/long**


diagram	
type	xs:double
properties	content simple
annotation	documentation Longitude for this location (decimal degrees).

element **sensorNode/altitude**

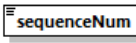
diagram	
type	xs:double
properties	content simple

annotation	documentation Altitude at this location (ft)
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
element **sensorNode/messageTime**

diagram	 <p>Time aircraft reaches this location. NOTE: Not used in AEDT.</p>
type	xs:dateTime
properties	content simple
annotation	documentation Time aircraft reaches this location. NOTE: Not used in AEDT.

element **sensorNode/sequenceNum**

diagram	 <p>Order of this location in node list.</p>
type	xs:int
properties	content simple
annotation	documentation Order of this location in node list.

element **sensorNode/speed**

diagram	 <p>Ground speed of aircraft at this location (kts).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Ground speed of aircraft at this location (kts).

element **sensorNode/thrust**

diagram	 <p>Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb)

element **sensorNode/source**

diagram	 <p>Source of the data for this node. NOTE: Not used in AEDT.</p>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255

annotation	documentation Source of the data for this node. NOTE: Not used in AEDT.
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element **sensorPath**

diagram	<p>Describes a flight path based on radar data.</p> <p>Describes a single node of a radar flight path.</p>
properties	content complex
children	sensorNode
used by	element trackOpSet
annotation	documentation Describes a flight path based on radar data.

element **stationarySource**

diagram	<p>Identifying name of the stationary source.</p> <p>Specifies the point in space occupied by a stationary source of emissions.</p> <p>Specifies the area in space occupied by a stationary source of emissions.</p> <p>Specifies the volume in space occupied by a stationary source of emissions.</p> <p>An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database.</p> <p>Describes the operational characteristics of a source in the boiler/heater category.</p> <p>Describes the operational characteristics of a source in the generator category.</p> <p>Describes the operational characteristics of a source in the incinerator category.</p> <p>Describes a category for the time an aircraft engine is at various power levels.</p> <p>Describes the operational characteristics of a source in the fuel tank category.</p> <p>Describes the operational characteristics of a source in the surface coating or painting category.</p> <p>Describes the operational characteristics of a source in the deicing area category.</p> <p>Describes the operational characteristics of a source in the solvent degreaser category.</p> <p>Specifies a stationary source.</p>
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	<p>Describes the operational characteristics of a source in the solvent degreaser category.</p> <p>categorySandSaltPile </p> <p>Describes the emissions characteristics of a source in the sand or salt pile category.</p> <p>categoryTrainingFire </p> <p>Supports legacy EDMS studies relating to content contained in the TRAINING_FIRES table. This element supports the definition of training fires for scenario layouts. Training fire data are used in both emissions and dispersion analyses.</p> <p>categoryOther </p> <p>Describes the operational characteristics of a source in the "other" category.</p>
properties	content complex
children	name pointStationarySource areaStationarySource volumeStationarySource categoryRecordCode categoryBoilerHeater categoryGenerator categoryIncinerator categoryAircraftEngine categoryFuelTank categorySurfaceCoatingPainting categoryDeicingArea categorySolventDegreaser categorySandSaltPile categoryTrainingFire categoryOther
used by	element stationarySourceSet
annotation	documentation Specifies a stationary source.

element **stationarySource/name**

diagram	<p>name</p> <p>Identifying name of the stationary source.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of the stationary source.

element **stationarySourceOperation**

diagram	
properties	content complex
children	refName elevation pointCoord emissionsUsage
used by	element stationarySourceOperationSet
annotation	documentation Defines an operation at a stationary source that generates emissions.

element **stationarySourceOperation/refName**

diagram	<p>refName</p> <p>Identifier of the operation.</p>
---------	-----------------------------------------------------------

type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifier of the operation.

element **stationarySourceOperation/elevation**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

element **stationarySourceOperation/pointCoord**

diagram	<p>The diagram shows a tree structure for coord2DType. The root is pointCoord (dashed box), which branches into latlonCoordGroup and utmCoordGroup. latlonCoordGroup (text: "Specifies a coordinate using latitude and longitude.") branches into latitude (text: "Latitude specified as degrees in decimal format. Can include optional attribute positive.") and latitudeDMS (text: "Latitude expressed as dd°mm'sss with optional indicator N, n, S, s."). longitude (text: "Longitude specified as degrees in decimal format. Can include optional attribute positive.") and longitudeDMS (text: "Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.") are also shown as children of the latlonCoordGroup branch. utmCoordGroup (text: "Specifies a point using Universal Transverse Mercator coordinates.") branches into utmN (text: "UTM Northing of the point in decimal meters north of the equator."), utmE (text: "UTM Easting of the point in decimal meters east from a central meridian."), and utmZone (text: "UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.", dashed box).</p>
type	coord2DType
properties	minOcc 0 maxOcc 1 content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone

element **stationarySourceOperationSet**

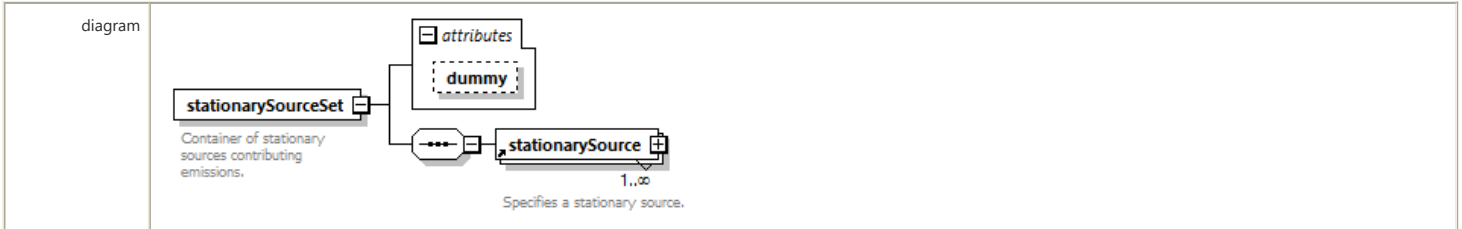
diagram	<p>The diagram shows stationarySourceOperationSet (text: "Container of operations conducted at a stationary source contributing emissions.") containing an attributes block with a dummy element (dashed box) and a list of stationarySourceOperation elements (text: "Defines an operation at a stationary source that generates emissions."). The list is indicated by a multiplicity of 1..∞.</p>
---------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

properties	content complex					
children	stationarySourceOperation					
used by	group airportActivityGroup					
attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy	xs:int	optional			
annotation	documentation Container of operations conducted at a stationary source contributing emissions.					

attribute **stationarySourceOperationSet/@dummy**

type	xs:int
properties	use optional

element **stationarySourceSet**



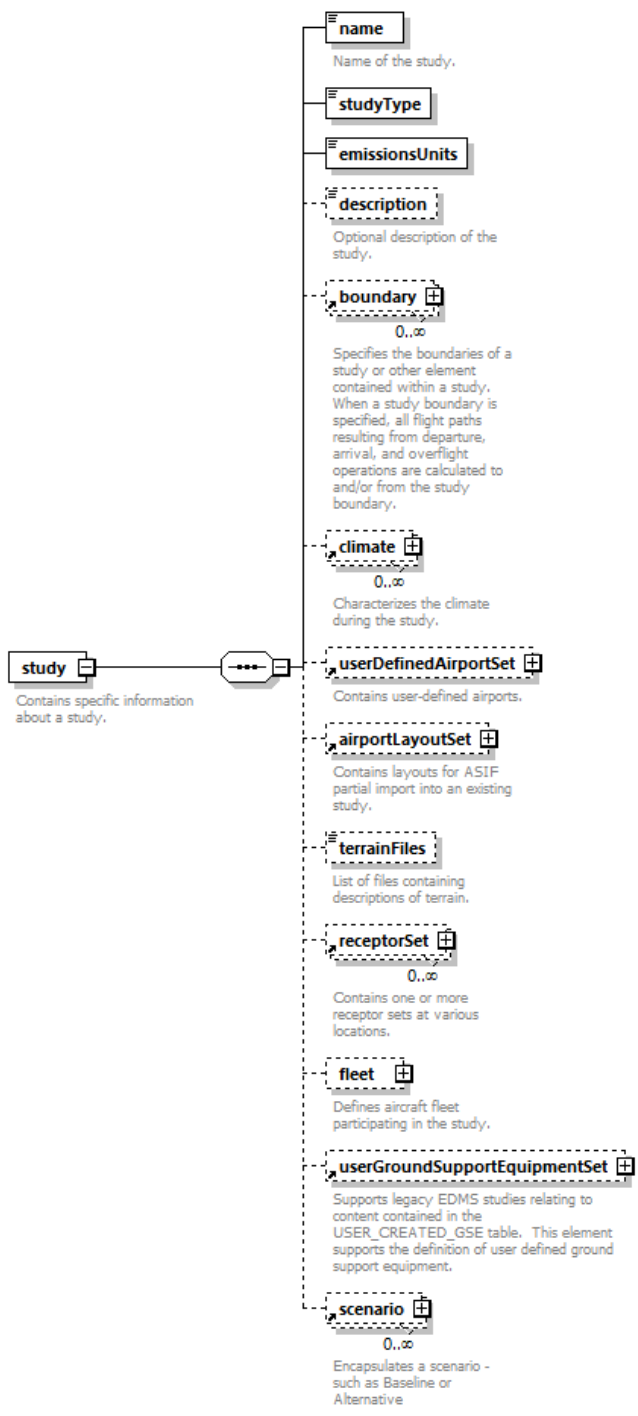
properties	content complex					
children	stationarySource					
used by	element AsifXml complexType airportLayoutType					
attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy	xs:int	optional			
annotation	documentation Container of stationary sources contributing emissions.					

attribute **stationarySourceSet/@dummy**

type	xs:int
properties	use optional

element **study**

diagram	
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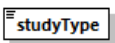
properties	content complex
children	name studyType emissionsUnits description boundary climate userDefinedAirportSet airportLayoutSet terrainFiles receptorSet fleet userGroundSupportEquipmentSet scenario
used by	element AsifXml
annotation	documentation Contains specific information about a study.

element [study/name](#)

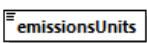
diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 255
annotation	documentation Name of the study.

element **study/studyType**

diagram																
type	studyType															
properties	content simple															
facets	<table border="0"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>enumeration</td> <td>Emissions</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Dispersion</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Noise and Emissions</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Noise and Dispersion</td> <td></td> </tr> </table>	Kind	Value	Annotation	enumeration	Emissions		enumeration	Dispersion		enumeration	Noise and Emissions		enumeration	Noise and Dispersion	
Kind	Value	Annotation														
enumeration	Emissions															
enumeration	Dispersion															
enumeration	Noise and Emissions															
enumeration	Noise and Dispersion															

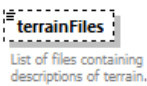
element **study/emissionsUnits**

diagram																			
type	emissionsUnitsType																		
properties	content simple																		
facets	<table border="0"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>enumeration</td> <td>MetricTonnes</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Kilograms</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Grams</td> <td></td> </tr> <tr> <td>enumeration</td> <td>ImperialTons</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Pounds</td> <td></td> </tr> </table>	Kind	Value	Annotation	enumeration	MetricTonnes		enumeration	Kilograms		enumeration	Grams		enumeration	ImperialTons		enumeration	Pounds	
Kind	Value	Annotation																	
enumeration	MetricTonnes																		
enumeration	Kilograms																		
enumeration	Grams																		
enumeration	ImperialTons																		
enumeration	Pounds																		

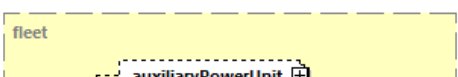
element **study/description**

diagram										
type	string255									
properties	minOcc 0 maxOcc 1 content simple									
facets	<table border="0"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	documentation Optional description of the study.									

element **study/terrainFiles**


diagram										
type	string255									
properties	minOcc 0 maxOcc 1 content simple									
facets	<table border="0"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	documentation List of files containing descriptions of terrain.									

element **study/fleet**

diagram	
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0..∞

Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.

airframe 

0..∞

Supports the definition of custom airframes.

engine 


0..∞

User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.

engineMod 


0..∞

User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can be used within a user defined aircraft.

anpNoiseGroup 


0..∞

This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type.

anpAirplane 


0..∞

Creates a new ANP aircraft.

anpFlapsSet 


0..∞

Flap settings for an ANP aircraft type.

anpThrustSet 


0..∞

Specifies a set of thrust records for an ANP aircraft.

anpProfileSet 


0..∞

The profile set for an ANP aircraft.

anpHeloNoiseGroup 


0..∞

This element contains the three spectral class references for a given helicopter noise group with the corresponding thrust setting type and model type.

anpHelicopter 


0..∞

Creates a new ANP helicopter.

anpHeloDirectivitySet 


0..∞

A set of helicopter directivities.

anpHeloProfileSet 

0..∞

A profile set for an ANP helicopter.

badaAirplane 

0..∞

Describes a new user-defined BADA airplane.

fleet 

Defines aircraft fleet participating in the study.




type	fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust bada4ProfileSet aircraft energyShare
annotation	documentation Defines aircraft fleet participating in the study.

element **subtrack**


diagram	
properties	content complex
children	id dispersionWeight trackVectors trackNodes
used by	element track
annotation	documentation

Intended to represent a dispersed child track of a parent track.

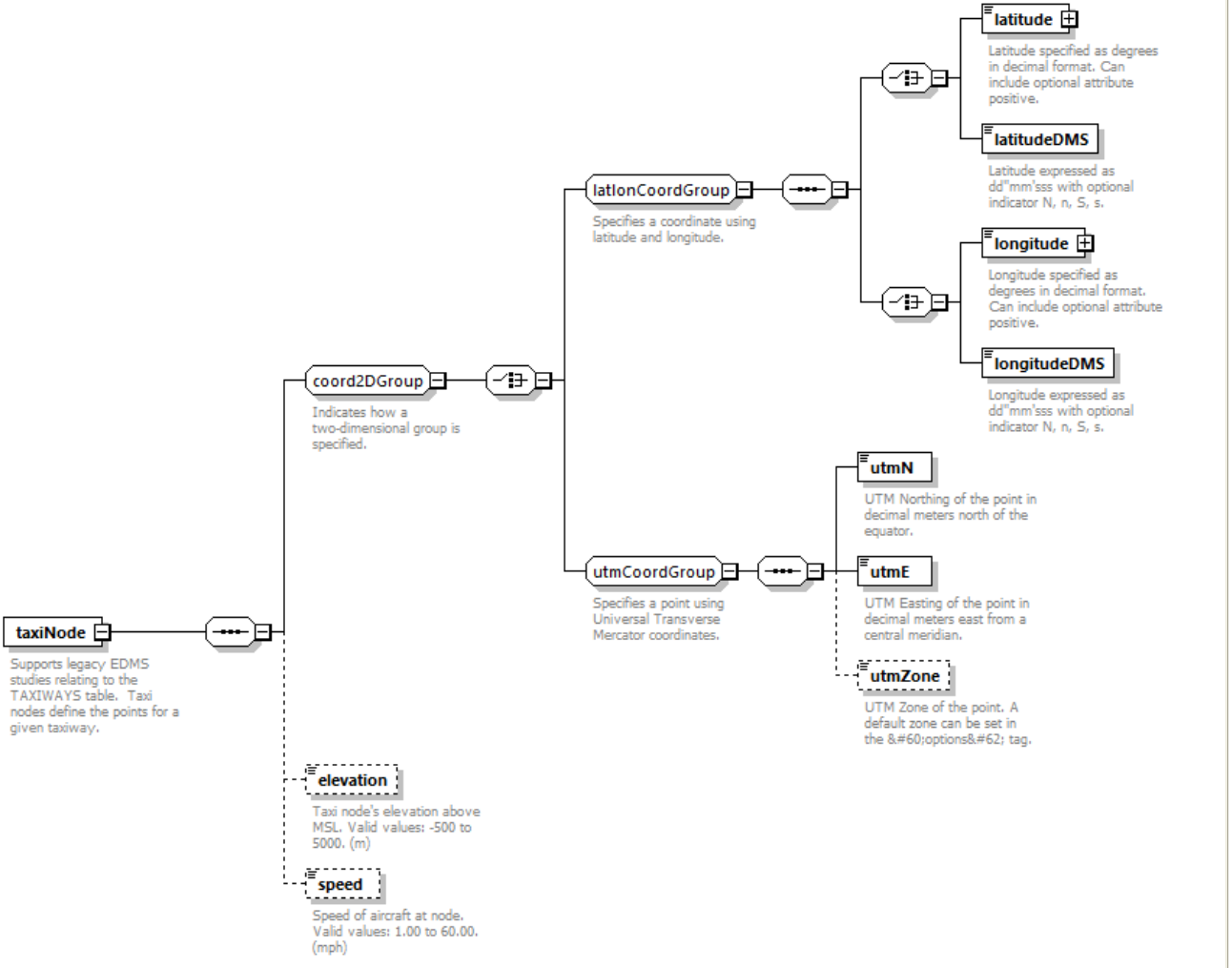
element **subtrack/id**

diagram	 <p>ID for a subtrack.</p>
type	xs:int
properties	content simple
annotation	documentation ID for a subtrack.

element **subtrack/dispersionWeight**

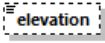
diagram	 <p>dispersion weight value; must be greater than one and less than or equal to 1.</p>
type	xs:double
properties	content simple
used by	element backbone
annotation	documentation dispersion weight value; must be greater than one and less than or equal to 1.

element **taxiNode**

diagram	 <p>taxiNode Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.</p> <p>coord2DGroup Indicates how a two-dimensional group is specified.</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>longitude Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p> <p>elevation Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)</p> <p>speed Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)</p>
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation speed
used by	element taxiNodeSet

annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.
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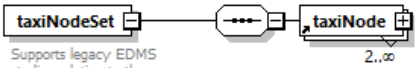
element **taxiNode/elevation**

diagram	 <p>Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)

element **taxiNode/speed**

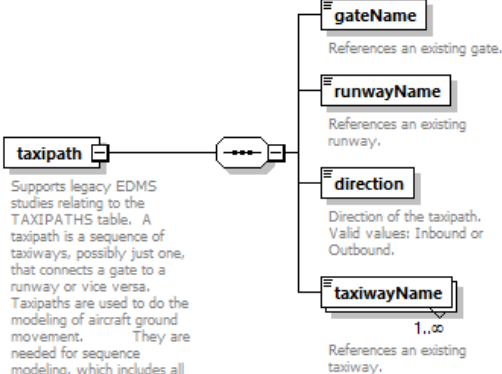
diagram	 <p>Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)

element **taxiNodeSet**

diagram	 <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.</p> <p>2..∞ Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.</p>
properties	content complex
children	taxiNode
used by	element taxiway
annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.

element **taxipath**

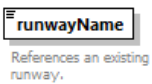
diagram	
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	 <p>taxipath</p> <p>Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxiways are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.</p> <p>gateName References an existing gate.</p> <p>runwayName References an existing runway.</p> <p>direction Direction of the taxipath. Valid values: Inbound or Outbound.</p> <p>taxiwayName 1..∞ References an existing taxiway.</p>
properties	content complex
children	gateName runwayName direction taxiwayName
used by	element taxipathSet
annotation	documentation Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.

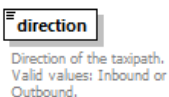
element **taxipath/gateName**

diagram	 <p>gateName References an existing gate.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation References an existing gate.

element **taxipath/runwayName**

diagram	 <p>runwayName References an existing runway.</p>
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation References an existing runway.

element **taxipath/direction**

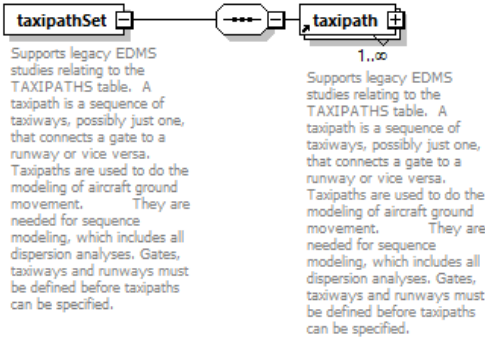
diagram	 <p>direction Direction of the taxipath. Valid values: Inbound or Outbound.</p>
type	directionType
properties	content simple
facets	Kind Value Annotation pattern A Arrival D Departure I Inbound O Outbound

annotation	documentation Direction of the taxipath. Valid values: Inbound or Outbound.
------------	--------------------------------------------------------------------------------

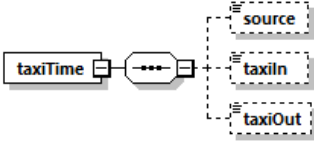
element **taxipath/taxiwayName**

diagram	
type	string20
properties	minOcc 1 maxOcc unbounded content simple
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation References an existing taxiway.

element **taxipathSet**

diagram	
properties	content complex
children	taxipath
used by	complexType airportLayoutType
annotation	documentation Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.

element **taxiTime**

diagram	
properties	content complex
children	source taxiIn taxiOut
used by	complexType airport

element **taxiTime/source**

diagram	
type	string6
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation

	minLength 0 maxLength 6
--	----------------------------

element **taxiTime/taxiIn**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element **taxiTime/taxiOut**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element **taxiway**

diagram	<p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p> <p>name Identifying name for taxiway.</p> <p>dispersionWidth Width of emission dispersion around taxiway. Valid values: 0 to 100. (m)</p> <p>taxiNodeSet Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.</p>
properties	content complex
children	name dispersionWidth taxiNodeSet
used by	element taxiwaySet
annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.

element **taxiway/name**

diagram	
type	string20
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation Identifying name for taxiway.

element **taxiway/dispersionWidth**

diagram	
type	doubleExclusive100
properties	minOcc 0

	maxOcc 1 content simple default 1
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Width of emission dispersion around taxiway. Valid values: 0 to 100. (m)

element **taxiwaySet**

diagram	<p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p>
properties	content complex
children	taxiway
used by	complexType airportLayoutType
annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.

element **track**

diagram	<p>A flight track that can be used for flight operations.</p> <p>The name of the track.</p> <p>Type of track. (A = arrival, D = departure, V = overflight, T = Touch and Go)</p> <p>Type of wing. (F = fixed wing, R = rotary wing)</p> <p>The IATA airport code.</p> <p>The name of the runway.</p> <p>Direction for helicopter operations of vector type (angle from North).</p> <p>Represents the centerline of a set of dispersed tracks.</p> <p>Intended to represent a dispersed child track of a parent track.</p>
properties	content complex
children	name optype wingtype airport runway vectorCourseHelipad backbone subtrack
used by	elements trackOpSet trackSet
annotation	documentation A flight track that can be used for flight operations.

element **track/name**

diagram	<p>The name of the track.</p>
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type	<u>string64</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation The name of the track.

element **track/optype**

diagram	
type	<u>trackType</u>
properties	content simple
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi
annotation	documentation Type of track. (A = arrival, D = departure, V = overflight, T = Touch and Go)


element **track/wingtype**

diagram	
type	<u>wingType</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern F FixedWing R RotaryWing
annotation	documentation Type of wing. (F = fixed wing, R = rotary wing)

element **track/airport**

diagram																			
type	<u>airportCode</u>																		
properties	minOcc 0 maxOcc 1 content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><u>type</u></td> <td><u>airportCodeType</u></td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> <tr> <td><u>country</u></td> <td><u>string3</u></td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>type</u>	<u>airportCodeType</u>	optional	ANY			<u>country</u>	<u>string3</u>	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
<u>type</u>	<u>airportCodeType</u>	optional	ANY																
<u>country</u>	<u>string3</u>	optional	ANY																
annotation	documentation The IATA airport code.																		

element **track/runway**

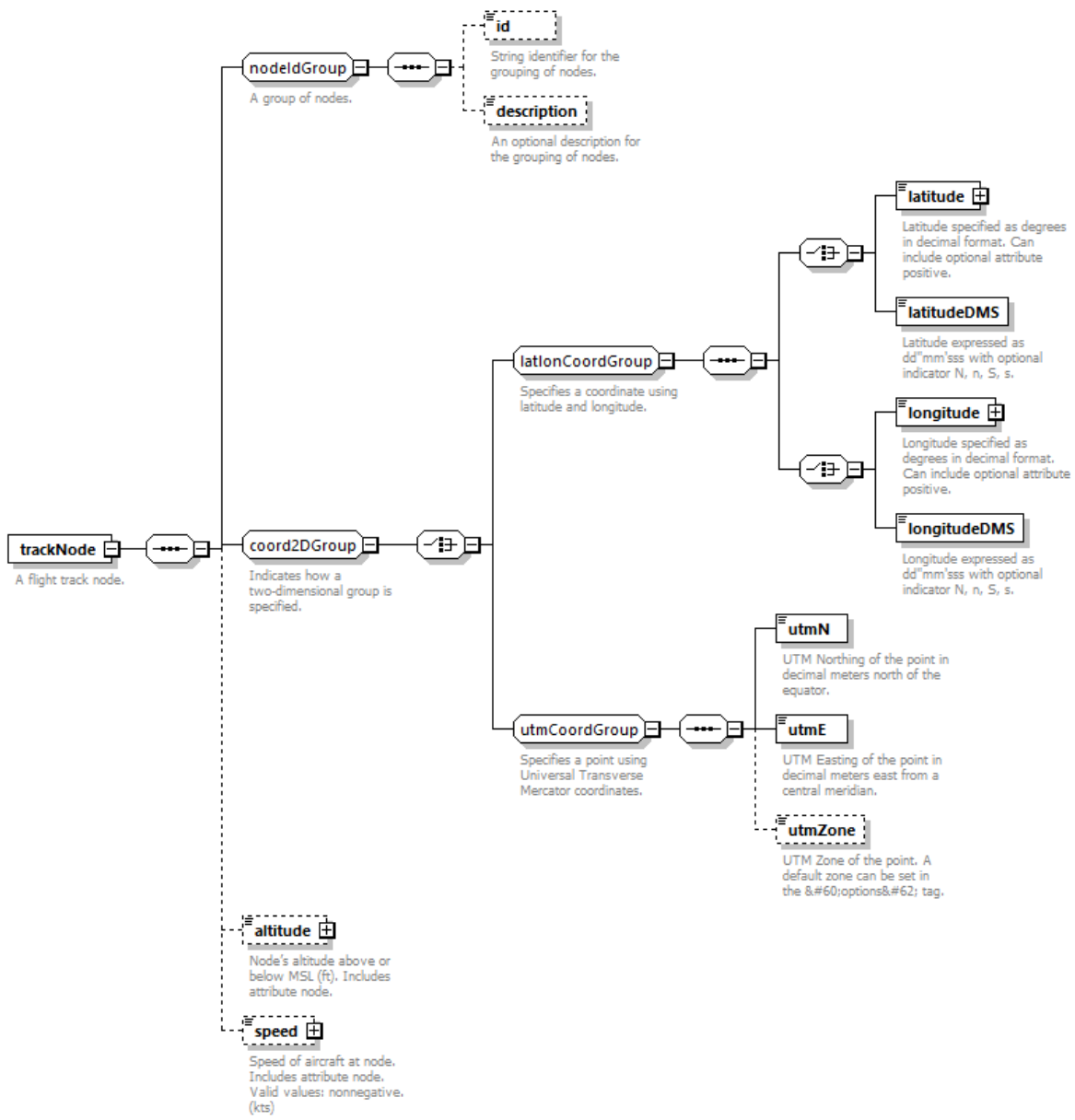
diagram	 <p>The name of the runway.</p>
type	string8
properties	minOcc 0 maxOcc 1 content simple
used by	element runwaySet
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation The name of the runway.

element **track/vectorCourseHelipad**

diagram	 <p>Direction for helicopter operations of vector type (angle from North).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Direction for helicopter operations of vector type (angle from North).

element **trackNode**

diagram	
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properties	content complex
children	id description latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone altitude speed
used by	elements backboneNode trackNodes
annotation	documentation A flight track node.

element **trackNode/altitude**

diagram						
type	extension of xs:double					
properties	minOcc 0 maxOcc 1 content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	control	nodeControlType	optional			
annotation	documentation Node's altitude above or below MSL (ft). Includes attribute node.					

attribute **trackNode/altitude/@control**

type	nodeControlType						
properties	use optional						
facets	<table border="0"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>pattern</td> <td>0 None 1 AtOrBelow 2 Match 3 AtOrAbove</td> <td></td> </tr> </table>	Kind	Value	Annotation	pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove	
Kind	Value	Annotation					
pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove						

element **trackNode/speed**

diagram	<p>Speed of aircraft at node. Includes attribute node. Valid values: nonnegative. (kts)</p>					
type	extension of xs:double					
properties	minOcc 0 maxOcc 1 content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	control	nodeControlType	optional			
annotation	documentation Speed of aircraft at node. Includes attribute node. Valid values: nonnegative. (kts)					

attribute **trackNode/speed/@control**

type	nodeControlType						
properties	use optional						
facets	<table border="0"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>pattern</td> <td>0 None 1 AtOrBelow 2 Match 3 AtOrAbove</td> <td></td> </tr> </table>	Kind	Value	Annotation	pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove	
Kind	Value	Annotation					
pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove						

element **trackNodes**

diagram	<p>A set of flight track nodes</p> <p>1..∞ A flight track node.</p>					
properties	content complex					
children	trackNode					
used by	element subtrack					
annotation	documentation A set of flight track nodes					

element **trackOpSet**

diagram	<p>Lists tracks and associated operations.</p> <p>1..∞ A flight track that can be used for flight operations.</p> <p>1..∞ Reference to a flight track.</p> <p>1..∞ Describes a flight path based on radar data.</p> <p>Contains a list of aircraft flight operations.</p>					
properties	content complex					
children	track trackref sensorPath operations					
used by	elements AsifXml case					

annotation	documentation Lists tracks and associated operations.
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element **trackref**

diagram	
properties	content complex
children	airportLayoutName trackName optype runway
used by	element trackOpSet
annotation	documentation Reference to a flight track.

element **trackref/airportLayoutName**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airport layout associated with this track.

element **trackref/trackName**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Name of flight track.

element **trackref/optype**

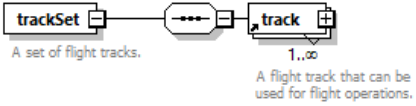
diagram	
type	trackType
properties	content simple
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi

element **trackref/runway**

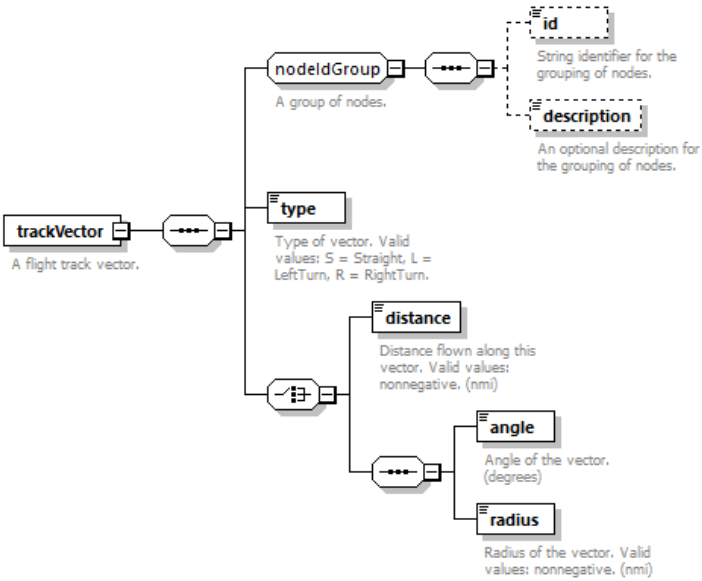
diagram	
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type	string8
properties	minOcc 0 maxOcc 1 content simple
used by	element runwaySet
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Name of runway on the flight track.

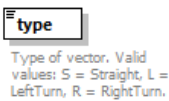
element **trackSet**

diagram	
properties	content complex
children	track
used by	complexType airportLayoutType
annotation	documentation A set of flight tracks.

element **trackVector**

diagram	
properties	content complex
children	id description type distance angle radius
used by	element trackVectors
annotation	documentation A flight track vector.

element **trackVector/type**

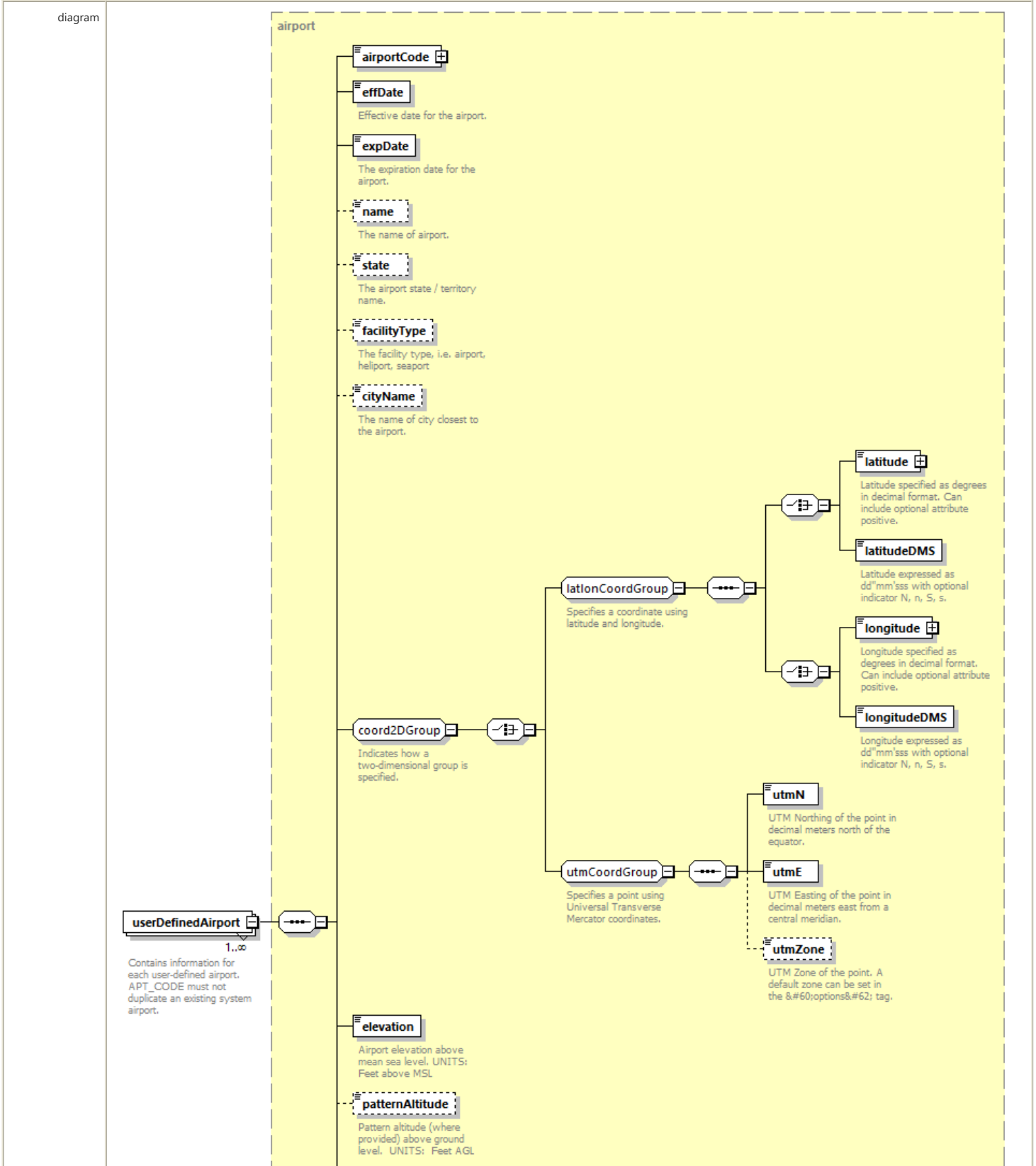
diagram	
type	vectorTrackType
properties	content simple
facets	Kind Value Annotation pattern S Straight L LeftTurn R RightTurn

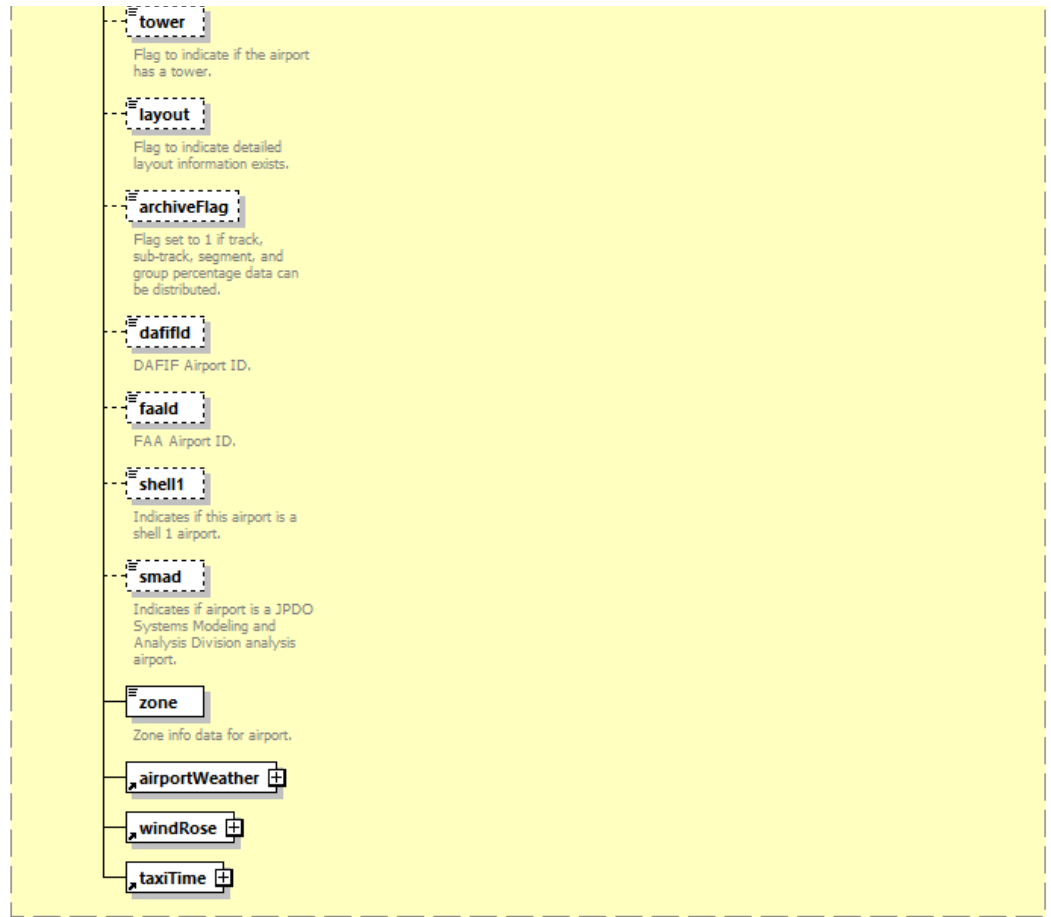
	dummy , xs:int optional
annotation	documentation Contains user-defined airports.

attribute **userDefinedAirportSet/@dummy**

type	xs:int
properties	use optional

element **userDefinedAirportSet/userDefinedAirport**

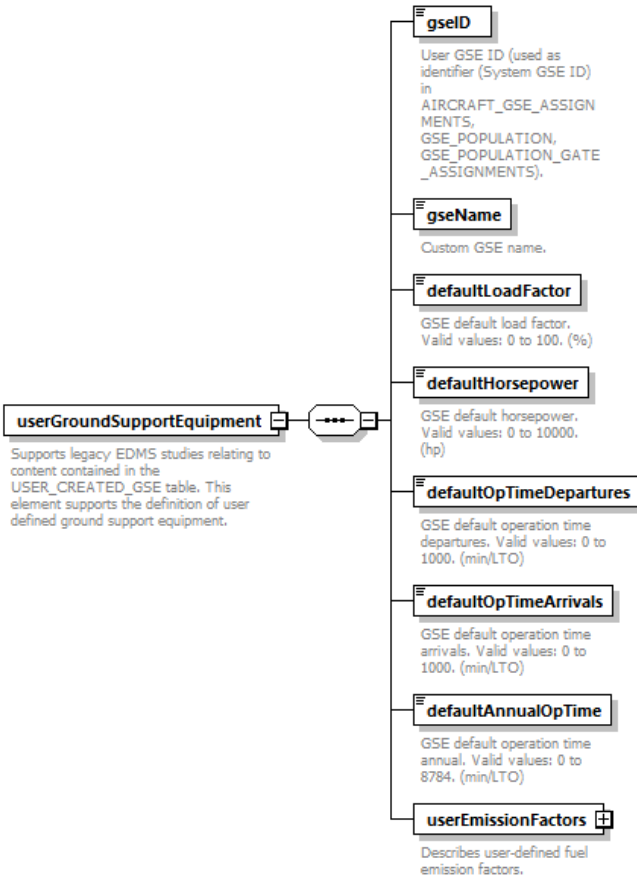




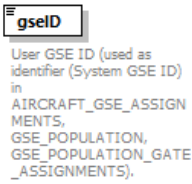
type	airport
properties	minOcc 1 maxOcc unbounded content complex
children	airportCode effDate expDate name state facilityType cityName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafifid faald shell1 smad zone airportWeather windRose taxiTime
annotation	documentation Contains information for each user-defined airport. APT_CODE must not duplicate an existing system airport.

element **userGroundSupportEquipment**

diagram	
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	 <p>userGroundSupportEquipment</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p> <ul style="list-style-type: none"> gseID: User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS). gseName: Custom GSE name. defaultLoadFactor: GSE default load factor. Valid values: 0 to 100, (%) defaultHorsepower: GSE default horsepower. Valid values: 0 to 10000, (hp) defaultOpTimeDepartures: GSE default operation time departures. Valid values: 0 to 1000, (min/LTO) defaultOpTimeArrivals: GSE default operation time arrivals. Valid values: 0 to 1000, (min/LTO) defaultAnnualOpTime: GSE default operation time annual. Valid values: 0 to 8784, (min/LTO) userEmissionFactors: Describes user-defined fuel emission factors.
properties	content complex
children	gseID gseName defaultLoadFactor defaultHorsepower defaultOpTimeDepartures defaultOpTimeArrivals defaultAnnualOpTime userEmissionFactors
used by	element userGroundSupportEquipmentSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.

element **userGroundSupportEquipment/gseID**

diagram	 <p>gseID</p> <p>User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).</p>
type	xs:int
properties	content simple
annotation	documentation User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).


element **userGroundSupportEquipment/gseName**

diagram	 <p>gseName</p> <p>Custom GSE name.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Custom GSE name.

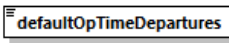
element **userGroundSupportEquipment/defaultLoadFactor**

diagram	 <p>GSE default load factor. Valid values: 0 to 100. (%)</p>
type	doubleInclusive1
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation GSE default load factor. Valid values: 0 to 100. (%)

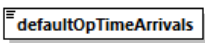
element **userGroundSupportEquipment/defaultHorsepower**

diagram	 <p>GSE default horsepower. Valid values: 0 to 10000. (hp)</p>
type	xs:double
properties	content simple
annotation	documentation GSE default horsepower. Valid values: 0 to 10000. (hp)

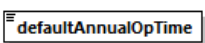
element **userGroundSupportEquipment/defaultOpTimeDepartures**

diagram	 <p>GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)</p>
type	xs:double
properties	content simple
annotation	documentation GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)

element **userGroundSupportEquipment/defaultOpTimeArrivals**

diagram	 <p>GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)</p>
type	xs:double
properties	content simple
annotation	documentation GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)

element **userGroundSupportEquipment/defaultAnnualOpTime**

diagram	 <p>GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)</p>
type	xs:double
properties	content simple
annotation	documentation GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)

element **userGroundSupportEquipment/userEmissionFactors**

diagram	
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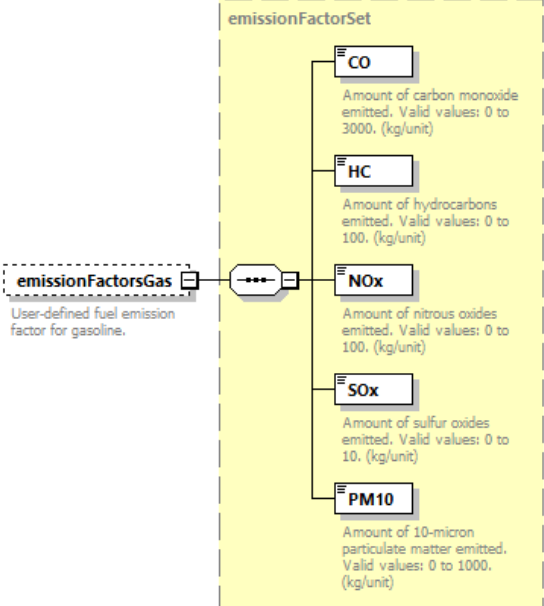
	<pre> classDiagram class userEmissionFactors { Describes user-defined fuel emission factors. } class emissionFactorsDiesel { User-defined fuel emission factor for diesel. } class emissionFactorsGas { User-defined fuel emission factor for gasoline. } class emissionFactorsCNG { User-defined fuel emission factor for compressed natural gas. } class emissionFactorsLPG { User-defined fuel emission factor for liquefied petroleum gas. } userEmissionFactors < -- emissionFactorsDiesel userEmissionFactors < -- emissionFactorsGas userEmissionFactors < -- emissionFactorsCNG userEmissionFactors < -- emissionFactorsLPG </pre>
properties	content complex
children	emissionFactorsDiesel emissionFactorsGas emissionFactorsCNG emissionFactorsLPG
annotation	documentation Describes user-defined fuel emission factors.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel**

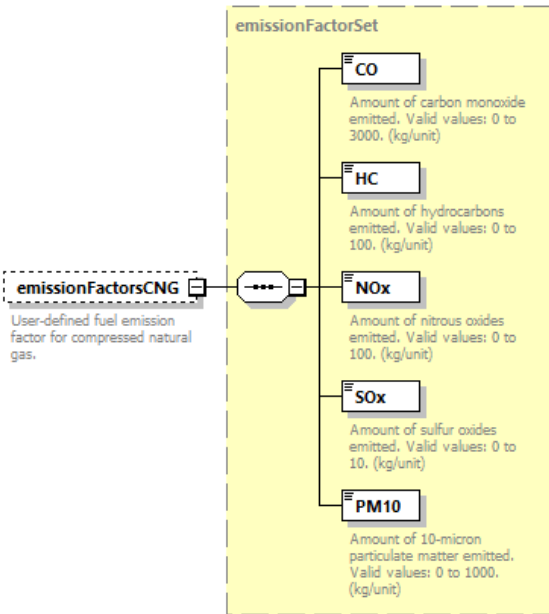
diagram	<pre> classDiagram class emissionFactorSet { Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit) Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit) Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit) Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit) Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit) } class CO { Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit) } class HC { Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit) } class NOx { Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit) } class SOx { Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit) } class PM10 { Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit) } class emissionFactorsDiesel { User-defined fuel emission factor for diesel. } emissionFactorSet < -- CO emissionFactorSet < -- HC emissionFactorSet < -- NOx emissionFactorSet < -- SOx emissionFactorSet < -- PM10 emissionFactorSet < -- emissionFactorsDiesel </pre>
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for diesel.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas**

diagram	
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type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for gasoline.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG**

diagram	
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for compressed natural gas.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG**

diagram	
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	<p>The diagram shows a dashed box labeled emissionFactorSet containing five elements: CO, HC, NOx, SOx, and PM10. Each element has a description and valid value range: <ul style="list-style-type: none"> CO: Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit) HC: Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit) NOx: Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit) SOx: Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit) PM10: Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit) </p> <p>Outside the dashed box, emissionFactorsLPG is shown as a dashed box with the description: "User-defined fuel emission factor for liquefied petroleum gas." It is connected to the emissionFactorSet box via a connector.</p>
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for liquefied petroleum gas.

element **userGroundSupportEquipmentSet**

diagram	<p>The diagram shows the userGroundSupportEquipmentSet element containing an attributes box with a dummy attribute and a userGroundSupportEquipment element. The userGroundSupportEquipment element has a cardinality of 1..∞. Both elements have the same documentation: "Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment."</p>												
properties	content complex												
children	userGroundSupportEquipment												
used by	elements AsifXml study .												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.												

attribute **userGroundSupportEquipmentSet/@dummy**

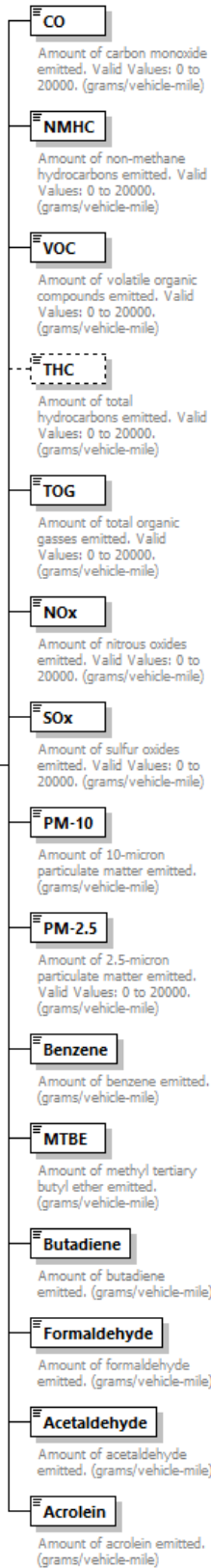
type	xs:int
properties	use optional

element **vehicleEmissionFactors**


diagram	
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vehicleEmissionFactors


Supports legacy EDMS studies relating to content contained in the ROADWAYS/PARKING table. This element supports the definition of custom emission factor specifications for roadways and parking.




properties	content complex
children	CO NMHC VOC THC TOG NOx SOx PM-10 PM-2.5 Benzene MTBE Butadiene Formaldehyde Acetaldehyde Acrolein
used by	elements parkingFacilityOperation roadwayOperation
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS/PARKING table. This element supports the definition of custom emission factor specifications for roadways and parking.

diagram	 <p>Amount of carbon monoxide emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)</p>
type	xs:double
properties	content simple
annotation	documentation Amount of carbon monoxide emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)


element **vehicleEmissionFactors/NMHC**

diagram	 <p>Amount of non-methane hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)</p>
type	xs:double
properties	content simple
annotation	documentation Amount of non-methane hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)


element **vehicleEmissionFactors/VOC**

diagram	 <p>Amount of volatile organic compounds emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)</p>
type	xs:double
properties	content simple
annotation	documentation Amount of volatile organic compounds emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)


element **vehicleEmissionFactors/THC**

diagram	 <p>Amount of total hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of total hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/TOG**

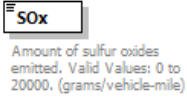
diagram	 <p>Amount of total organic gasses emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)</p>
type	xs:double
properties	content simple
annotation	documentation Amount of total organic gasses emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/NOx**

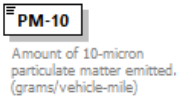
diagram	 <p>Amount of nitrous oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)</p>
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type	xs:double
properties	content simple
annotation	documentation Amount of nitrous oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

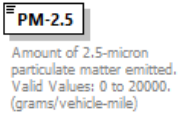
element **vehicleEmissionFactors/SOx**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of sulfur oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

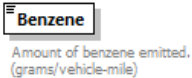
element **vehicleEmissionFactors/PM-10**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. (grams/vehicle-mile)

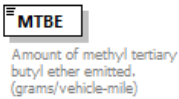
element **vehicleEmissionFactors/PM-2.5**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of 2.5-micron particulate matter emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/Benzene**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of benzene emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/MTBE**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Butadiene**

diagram	
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diagram	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Butadiene </div> Amount of butadiene emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of butadiene emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Formaldehyde**

diagram	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Formaldehyde </div> Amount of formaldehyde emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of formaldehyde emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Acetaldehyde**

diagram	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Acetaldehyde </div> Amount of acetaldehyde emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of acetaldehyde emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Acrolein**

diagram	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Acrolein </div> Amount of acrolein emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of acrolein emitted. (grams/vehicle-mile)

element **volumeStationarySource**

diagram	<pre> classDiagram class volumeStationarySource { pointCoord baseElevation releaseHeight sigmaZ sigmaY } </pre>
properties	content complex

children	pointCoord baseElevation releaseHeight sigmaZ sigmaY
used by	element stationarySource
annotation	documentation Specifies the volume in space occupied by a stationary source of emissions.

element **volumeStationarySource/pointCoord**

diagram	
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation Type of 2D coordinates specifying the volume.

element **volumeStationarySource/baseElevation**


diagram	
type	xs:double
properties	content simple
annotation	documentation Height of volume. (m)

element **volumeStationarySource/releaseHeight**


diagram	
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple default 0

facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

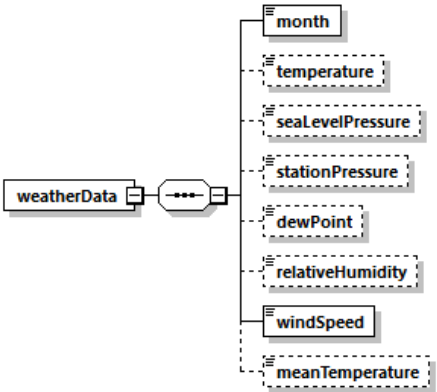
element **volumeStationarySource/sigmaZ**

diagram	 <p>Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)

element **volumeStationarySource/sigmaY**

diagram	 <p>Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)

element **weatherData**

diagram	
properties	content complex
children	month temperature seaLevelPressure stationPressure dewPoint relativeHumidity windSpeed meanTemperature
used by	element airportWeatherStation

element **weatherData/month**

diagram	
type	string3
properties	content simple
facets	Kind Value Annotation

	minLength 0 maxLength 3
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element **weatherData/temperature**

diagram	
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

element **weatherData/seaLevelPressure**

diagram	
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

element **weatherData/stationPressure**

diagram	
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

element **weatherData/dewPoint**

diagram	
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

element **weatherData/relativeHumidity**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

element **weatherData/windSpeed**

diagram	
type	xs:decimal
properties	content simple


element **weatherData/meanTemperature**

diagram	
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

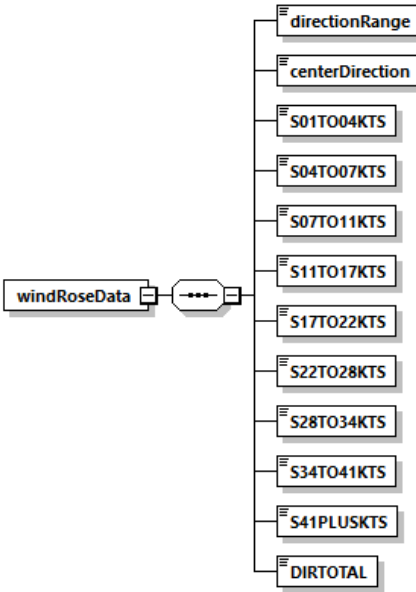
element **windRose**

diagram	
properties	content complex
children	windRoseStationId windRoseStation
used by	complexType airport

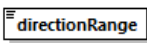
element **windRose/windRoseStationId**

diagram	
type	string5
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 5

element **windRoseData**

diagram	
properties	content complex
children	directionRange centerDirection S01TO04KTS S04TO07KTS S07TO11KTS S11TO17KTS S17TO22KTS S22TO28KTS S28TO34KTS S34TO41KTS S41PLUSKTS DIRTOTAL
used by	element windRoseStation

element **windRoseData/directionRange**

diagram	
type	string14
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 14

element **windRoseData/centerDirection**

diagram	
type	xs:int

properties	content simple
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element **windRoseData/S01TO04KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S04TO07KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S07TO11KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S11TO17KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S17TO22KTS**

diagram	
type	xs:int
properties	content simple

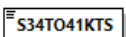
element **windRoseData/S22TO28KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S28TO34KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S34TO41KTS**


diagram	
type	xs:int
properties	content simple

element **windRoseData/S41PLUSKTS**

diagram	
properties	content simple

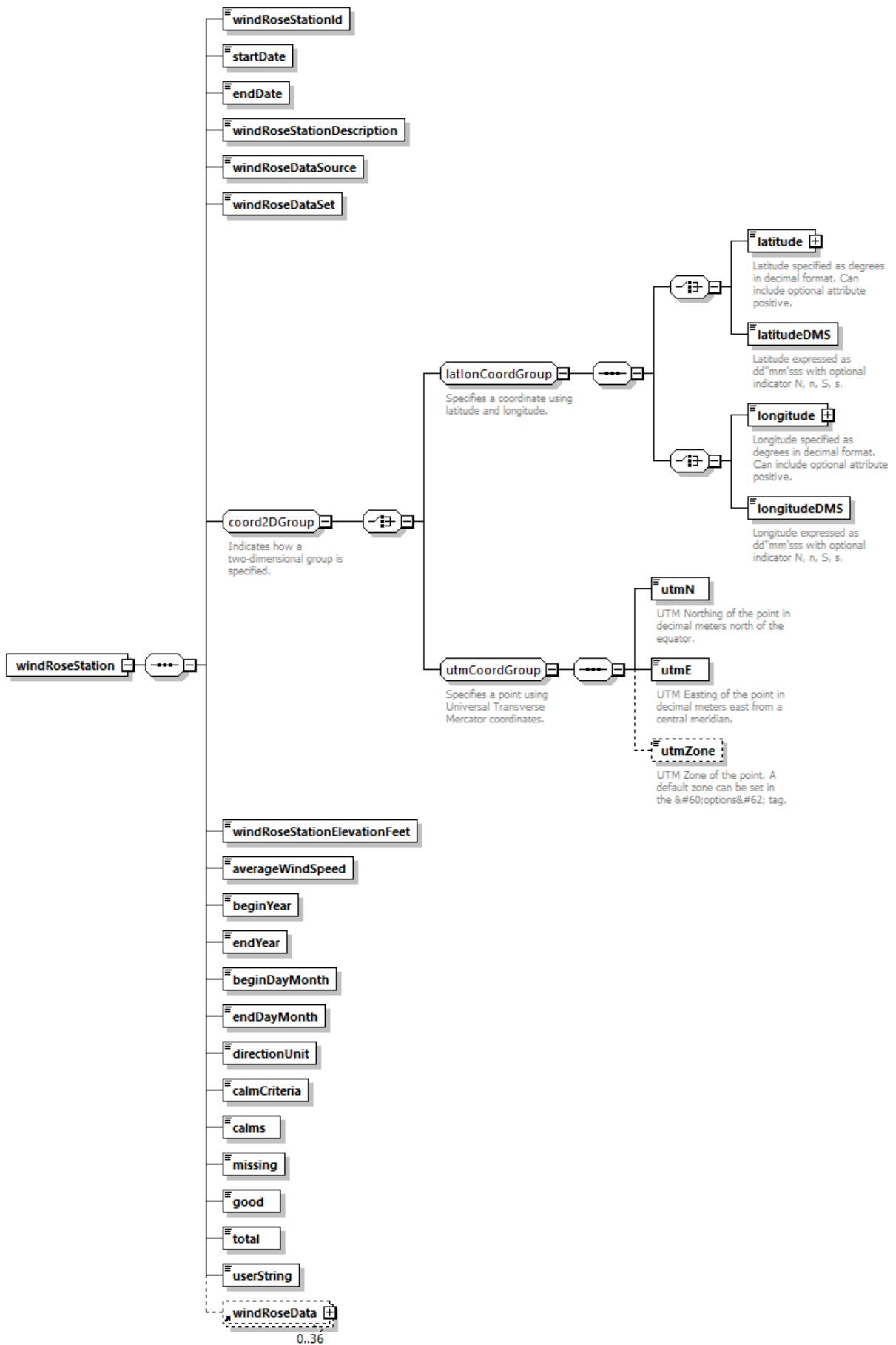
type	xs:int
properties	content simple

element **windRoseData/DIRTOTAL**

diagram	 A diagram showing a rectangular box with the text "DIRTOTAL" inside. The box has a thin border and a small icon in the top-left corner.
type	xs:int
properties	content simple

element **windRoseStation**

diagram	
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properties	content complex
children	windRoseStationId startDate endDate windRoseStationDescription windRoseDataSource windRoseDataSet latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone windRoseStationElevationFeet averageWindSpeed beginYear endYear beginDayMonth endDayMonth directionUnit calmCriteria calms missing good total

	userString windRoseData
used by	element windRose

element **windRoseStation/windRoseStationId**

diagram	
type	string5
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 5

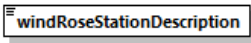
element **windRoseStation/startDate**

diagram	
type	xs:date
properties	content simple


element **windRoseStation/endDate**

diagram	
type	xs:date
properties	content simple


element **windRoseStation/windRoseStationDescription**

diagram	
type	string42
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 42

element **windRoseStation/windRoseDataSource**

diagram	
type	string32
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 32

element **windRoseStation/windRoseDataSet**

diagram	
type	string66
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 66

element **windRoseStation/windRoseStationElevationFeet**

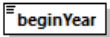
diagram	
type	xs:int

properties	content simple
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element **windRoseStation/averageWindSpeed**

diagram	
type	xs:double
properties	content simple

element **windRoseStation/beginYear**

diagram	
type	xs:int
properties	content simple

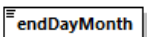
element **windRoseStation/endYear**

diagram	
type	xs:int
properties	content simple

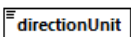
element **windRoseStation/beginDayMonth**

diagram	
type	string12
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 12

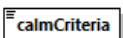
element **windRoseStation/endDayMonth**

diagram	
type	string11
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 11

element **windRoseStation/directionUnit**

diagram	
type	string9
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 9

element **windRoseStation/calmCriteria**


diagram	
type	string11
properties	content simple
facets	Kind Value Annotation minLength 0

maxLength 11

element **windRoseStation/calms**

diagram	
type	xs:int
properties	content simple


element **windRoseStation/missing**

diagram	
type	xs:int
properties	content simple

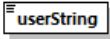
element **windRoseStation/good**

diagram	
type	xs:int
properties	content simple

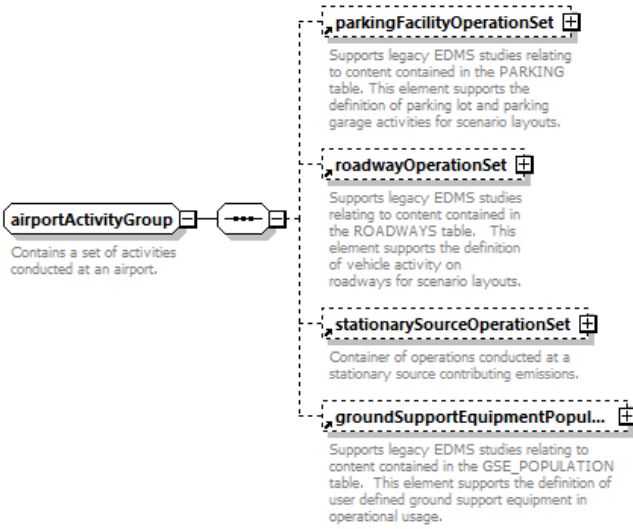
element **windRoseStation/total**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/userString**

diagram	
type	string11
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 11

group **airportActivityGroup**

diagram	 <p>airportActivityGroup Contains a set of activities conducted at an airport.</p> <p>parkingFacilityOperationSet Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>roadwayOperationSet Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>stationarySourceOperationSet Container of operations conducted at a stationary source contributing emissions.</p> <p>groundSupportEquipmentPopul... Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p>
children	parkingFacilityOperationSet roadwayOperationSet stationarySourceOperationSet groundSupportEquipmentPopulationOperationSet
used by	element case

annotation	documentation Contains a set of activities conducted at an airport.
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group **annualizationGroupCase**

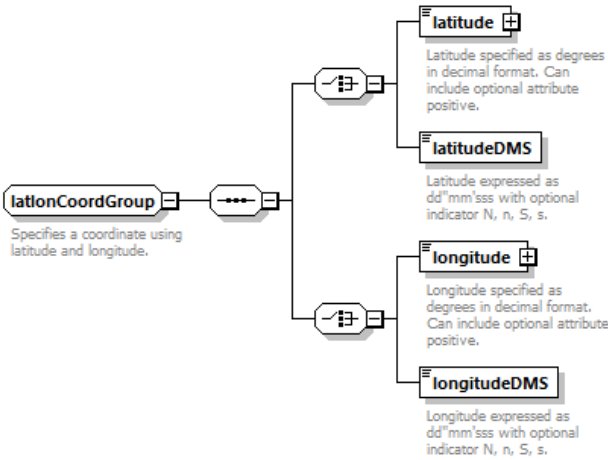
diagram	<p>annualizationGroupCase Allows for grouping cases into groups, and groups into parent groups.</p> <p>annualizationGroup 0..∞ Contains one or more weighted annualization group cases.</p> <p>annualizationCase 0..∞ Collection of study cases whose results are weighted in the scenario annualization rollup.</p>
children	annualizationGroup annualizationCase
used by	element annualizationGroup
annotation	documentation Allows for grouping cases into groups, and groups into parent groups.

group **coord2DGroup**

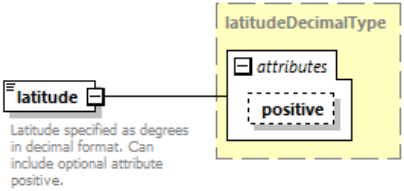
diagram	<p>coord2DGroup Indicates how a two-dimensional group is specified.</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>longitude Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
used by	elements airportWeatherStation centroid grid pointReceptor polarGrid polarReceptor taxiNode trackNode windRoseStation complexTypes airport airportLayoutType runup runwayEnd
annotation	documentation Indicates how a two-dimensional group is specified.

group **latlonCoordGroup**

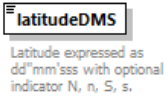
diagram	
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	 <p>The diagram shows the structure of the latlonCoordGroup element. It is a container element that specifies a coordinate using latitude and longitude. It contains two optional child elements, each in a dashed box:</p> <ul style="list-style-type: none"> latitude: Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS: Latitude expressed as dd°mm'sss with optional indicator N, n, S, s. longitude: Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS: Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.
children	latitude latitudeDMS longitude longitudeDMS
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a coordinate using latitude and longitude.

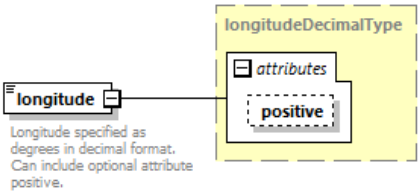
element **latlonCoordGroup/latitude**

diagram	 <p>The diagram shows the structure of the latitude element. It is a complex content element that specifies latitude in decimal format. It includes an optional attribute positive. The element is associated with the latitudeDecimalType type.</p>												
type	latitudeDecimalType												
properties	content complex												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>positive</td> <td>derived by: xs:string</td> <td>optional</td> <td>N</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	positive	derived by: xs:string	optional	N		
Name	Type	Use	Default	Fixed	Annotation								
positive	derived by: xs:string	optional	N										
annotation	documentation Latitude specified as degrees in decimal format. Can include optional attribute positive.												

element **latlonCoordGroup/latitudeDMS**

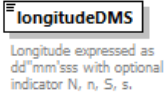
diagram	 <p>The diagram shows the structure of the latitudeDMS element. It is a simple content element that expresses latitude in degrees, minutes, and seconds (DMS) format, with an optional indicator (N, n, S, s).</p>						
type	latitudeDMSType						
properties	content simple						
facets	<table border="1"> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>[0-9]{2}\ - \&quot; [0-9]{2}\ - \&apos; [0-9]{2}(\.[0-9]{3})?[NnSs]</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	[0-9]{2}\ - \" [0-9]{2}\ - \' [0-9]{2}(\.[0-9]{3})?[NnSs]	
Kind	Value	Annotation					
pattern	[0-9]{2}\ - \" [0-9]{2}\ - \' [0-9]{2}(\.[0-9]{3})?[NnSs]						
annotation	documentation Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.						

element **latlonCoordGroup/longitude**

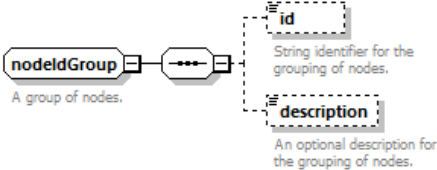
diagram	 <p>The diagram shows the structure of the longitude element. It is a complex content element that specifies longitude in decimal format. It includes an optional attribute positive. The element is associated with the longitudeDecimalType type.</p>
type	longitudeDecimalType
properties	content complex

attributes	Name positive	Type derived by: xs:string	Use optional	Default E	Fixed	Annotation
annotation	documentation Longitude specified as degrees in decimal format. Can include optional attribute positive.					

element **latlonCoordGroup/longitudeDMS**

diagram						
type	longitudeDMSType					
properties	content simple					
facets	Kind	Value				Annotation
	pattern	[0-9]?[0-9]{2}[\- \- "][0-9]{2}[\- \- '][0-9]{2}([0-9]{3})?[E e W w]				
annotation	documentation Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.					

group **nodeldGroup**

diagram						
children	id description					
used by	elements trackNode trackVector					
annotation	documentation A group of nodes.					

element **nodeldGroup/id**

diagram						
type	string16					
properties	minOcc 0 maxOcc 1 content simple					
facets	Kind	Value				Annotation
	minLength	0				
	maxLength	16				
annotation	documentation String identifier for the grouping of nodes.					

element **nodeldGroup/description**

diagram						
type	string16					
properties	minOcc 0 maxOcc 1 content simple					
facets	Kind	Value				Annotation
	minLength	0				
	maxLength	16				
annotation	documentation An optional description for the grouping of nodes.					

group **oneOrThreeCoords2DGroupSet**

diagram	<p>The diagram shows a box labeled oneOrThreeCoords2DGroupSet with the description "Type of coordinate specifying the area." This box is connected to a choice symbol (a circle with a vertical line and a horizontal line) which branches into two options: pointCoord (Choice of a single point coordinate.) and polygonCoords (Choice of a 2D polygon.).</p>
children	pointCoord polygonCoords
used by	elements areaStationarySource building gate parkingFacility
annotation	documentation Type of coordinate specifying the area.

element **oneOrThreeCoords2DGroupSet/pointCoord**

diagram	<p>The diagram shows the internal structure of pointCoord (Choice of a single point coordinate.) within a yellow dashed box labeled coord2DType. It branches into two main groups: latlonCoordGroup (Specifies a coordinate using latitude and longitude.) and utmCoordGroup (Specifies a point using Universal Transverse Mercator coordinates.).</p> <ul style="list-style-type: none"> latlonCoordGroup further branches into: <ul style="list-style-type: none"> latitude (Latitude specified as degrees in decimal format. Can include optional attribute positive.) latitudeDMS (Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.) longitude (Longitude specified as degrees in decimal format. Can include optional attribute positive.) longitudeDMS (Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.) utmCoordGroup further branches into: <ul style="list-style-type: none"> utmN (UTM Northing of the point in decimal meters north of the equator.) utmE (UTM Easting of the point in decimal meters east from a central meridian.) utmZone (UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.)
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation Choice of a single point coordinate.

element **oneOrThreeCoords2DGroupSet/polygonCoords**

diagram	<p>The diagram shows the internal structure of polygonCoords (Choice of a 2D polygon.) within a yellow dashed box labeled polygon2DType. It branches into two options: dummy and vertex. The vertex option is associated with the cardinality "3..∞" and the description "A list of vertices defining the polygon."</p>
type	polygon2DType
properties	content complex

children	dummy vertex
annotation	documentation Choice of a 2D polygon.

group **receptorGroup**

diagram	<p>The diagram shows the structure of the receptorGroup element. It is a container element (rectangle with a dashed border) containing a complexType element (circle with a dashed border). This complexType element contains five child elements, each in a box with a plus sign icon:</p> <ul style="list-style-type: none"> centroid: 1..∞. Describes the geometric center of a polygon. pointReceptor: 1..∞. Element specification for a point receptor. grid: Describes a grid of points. polarReceptor: 1..∞. Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEPTORS and DISCRETE_POLAR_RECEPTORS table. Defines receptor points within a polar grid. polarGrid: Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEPTORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.
children	centroid pointReceptor grid polarReceptor polarGrid
used by	element receptorSet
annotation	documentation Description of a receptor group.

group **utmCoordGroup**


diagram	<p>The diagram shows the structure of the utmCoordGroup element. It is a container element (rectangle with a dashed border) containing a complexType element (circle with a dashed border). This complexType element contains three child elements:</p> <ul style="list-style-type: none"> utmN: UTM Northing of the point in decimal meters north of the equator. utmE: UTM Easting of the point in decimal meters east from a central meridian. utmZone (dashed border): UTM Zone of the point. A default zone can be set in the <code>&#60;options&#62;</code> tag.
children	utmN utmE utmZone
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a point using Universal Transverse Mercator coordinates.

element **utmCoordGroup/utmN**

diagram	<p>The diagram shows the structure of the utmN element. It is a simple content element (rectangle with a plus sign icon) representing the UTM Northing of the point in decimal meters north of the equator.</p>
type	xs:double
properties	content simple
annotation	documentation

UTM Northing of the point in decimal meters north of the equator.

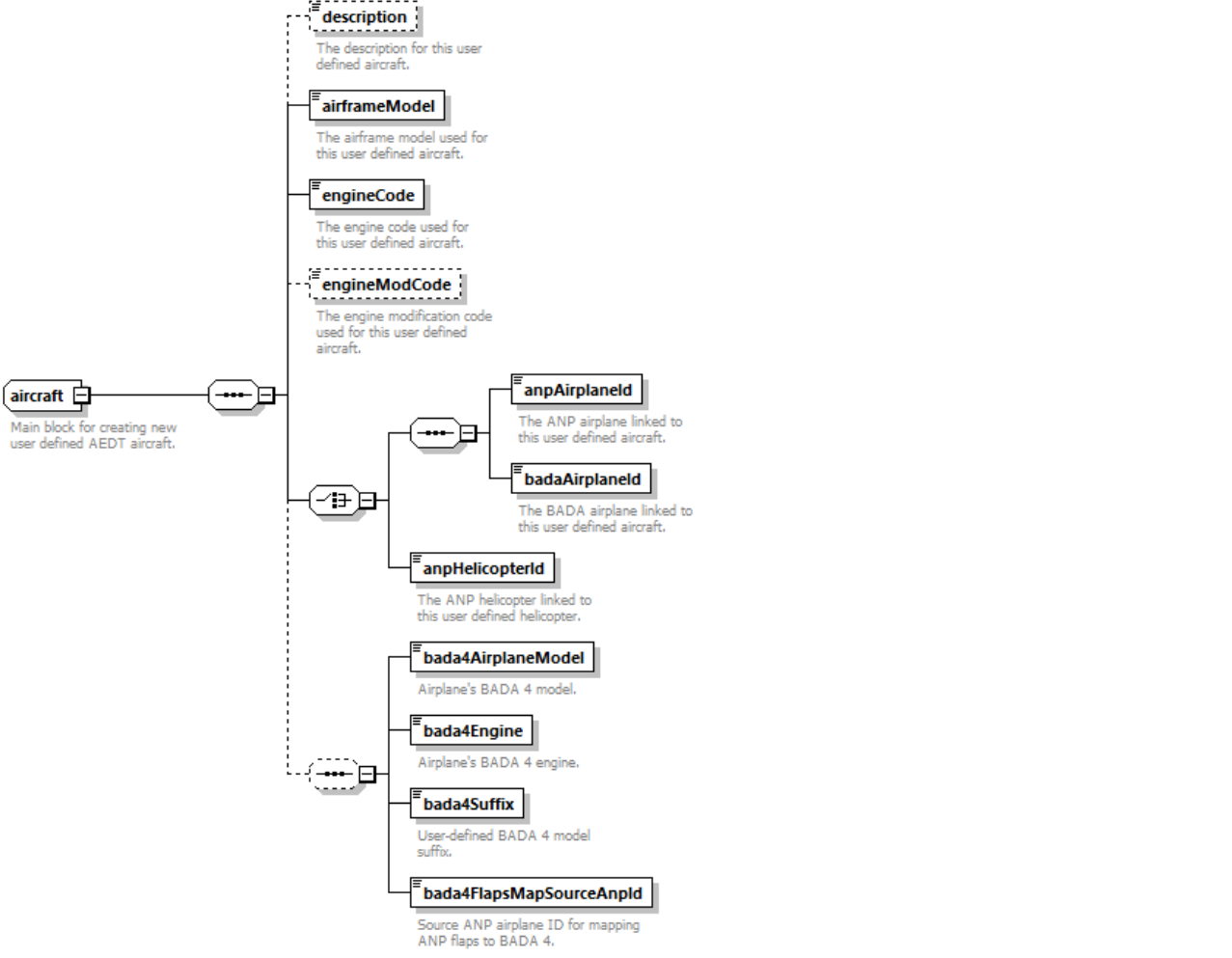
element **utmCoordGroup/utmE**

diagram	 <p>UTM Easting of the point in decimal meters east from a central meridian.</p>
type	xs:double
properties	content simple
annotation	documentation UTM Easting of the point in decimal meters east from a central meridian.

element **utmCoordGroup/utmZone**

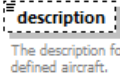
diagram	 <p>UTM Zone of the point. A default zone can be set in the <code><options></code> tag.</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple default -1
annotation	documentation UTM Zone of the point. A default zone can be set in the <code><options></code> tag.

complexType **aircraft**

diagram	 <p>The diagram shows the structure of the <code>aircraft</code> complex type. It is a main block for creating new user defined AEDT aircraft. It contains several elements: <code>description</code> (The description for this user defined aircraft), <code>airframeModel</code> (The airframe model used for this user defined aircraft), <code>engineCode</code> (The engine code used for this user defined aircraft), <code>engineModCode</code> (The engine modification code used for this user defined aircraft), <code>anpAirplaneId</code> (The ANP airplane linked to this user defined aircraft), <code>badaAirplaneId</code> (The BADA airplane linked to this user defined aircraft), <code>anpHelicopterId</code> (The ANP helicopter linked to this user defined helicopter), <code>bada4AirplaneModel</code> (Airplane's BADA 4 model), <code>bada4Engine</code> (Airplane's BADA 4 engine), <code>bada4Suffix</code> (User-defined BADA 4 model suffix), and <code>bada4FlapsMapSourceAnpld</code> (Source ANP airplane ID for mapping ANP flaps to BADA 4).</p>
children	description airframeModel engineCode engineModCode anpAirplaneId badaAirplaneId anpHelicopterId bada4AirplaneModel bada4Engine bada4Suffix bada4FlapsMapSourceAnpld

used by	element fleet/aircraft
annotation	documentation Main block for creating new user defined AEDT aircraft.

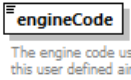
element [aircraft/description](#)

diagram	
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The description for this user defined aircraft.


element [aircraft/airframeModel](#)

diagram	
type	airframeModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The airframe model used for this user defined aircraft.

element [aircraft/engineCode](#)

diagram	
type	engineCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The engine code used for this user defined aircraft.


element [aircraft/engineModCode](#)

diagram	
type	engineModCode
properties	minOcc 0 maxOcc 1 content simple default NONE
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The engine modification code used for this user defined aircraft.


element **aircraft/anpAirplaneId**

diagram	 <p>The ANP airplane linked to this user defined aircraft.</p>
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP airplane linked to this user defined aircraft.

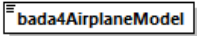
element **aircraft/badaAirplaneId**

diagram	 <p>The BADA airplane linked to this user defined aircraft.</p>
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane linked to this user defined aircraft.

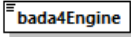
element **aircraft/anpHelicopterId**

diagram	 <p>The ANP helicopter linked to this user defined helicopter.</p>
type	anpHeloid
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP helicopter linked to this user defined helicopter.

element **aircraft/bada4AirplaneModel**

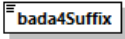
diagram	 <p>Airplane's BADA 4 model.</p>
type	bada4AirplaneModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 model.

element **aircraft/bada4Engine**

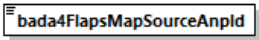
diagram	 <p>Airplane's BADA 4 engine.</p>
type	bada4Engine
properties	content simple
facets	Kind Value Annotation

	minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 engine.

element **aircraft/bada4Suffix**

diagram	 <p>User-defined BADA 4 model suffix.</p>
type	bada4Suffix
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-defined BADA 4 model suffix.

element **aircraft/bada4FlapsMapSourceAnpId**

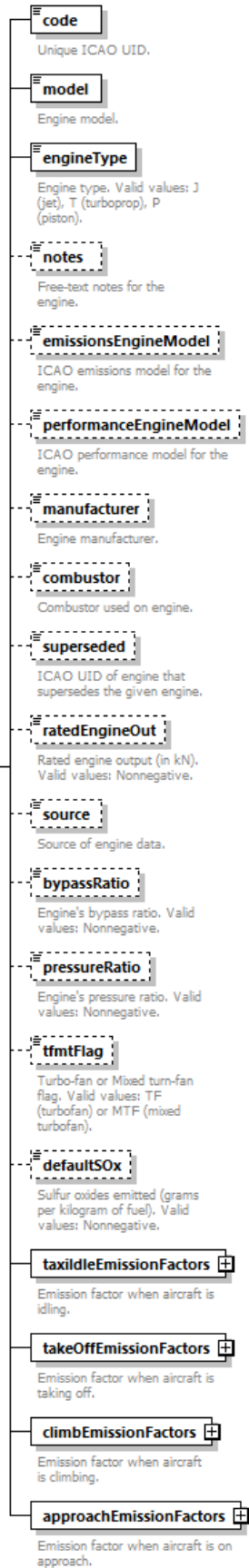
diagram	 <p>Source ANP airplane ID for mapping ANP flaps to BADA 4.</p>
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Source ANP airplane ID for mapping ANP flaps to BADA 4.

complexType **aircraftEngine**

diagram	
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aircraftEngine

User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can that be used within a user defined aircraft.




children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor superseded ratedEngineOut source bypassRatio pressureRatio tfmtFlag defaultSOx taxiIdleEmissionFactors takeOffEmissionFactors climbEmissionFactors approachEmissionFactors
used by	element fleet/engine
annotation	documentation User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can that be used within a user defined aircraft.

element **aircraftEngine/code**

diagram	 Unique ICAO UID.
type	engineCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ICAO UID.

element **aircraftEngine/model**

diagram	 Engine model.
type	engineModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Engine model.

element **aircraftEngine/engineType**

diagram	 Engine type. Valid values: J (jet), T (turbo-prop), P (piston).
type	engineType
properties	content simple
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation Engine type. Valid values: J (jet), T (turbo-prop), P (piston).

element **aircraftEngine/notes**

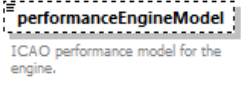
diagram	 Free-text notes for the engine.
type	string200
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 200
annotation	documentation Free-text notes for the engine.

element **aircraftEngine/emissionsEngineModel**

diagram	 ICAO emissions model for the engine.
type	string25
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation ICAO emissions model for the engine.

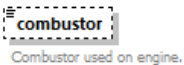
element **aircraftEngine/performanceEngineModel**

diagram	
type	string25
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation ICAO performance model for the engine.

element **aircraftEngine/manufacture**

diagram	
type	string100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Engine manufacturer.

element **aircraftEngine/combustor**

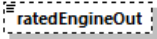
diagram	
type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Combustor used on engine.

element **aircraftEngine/superseded**


diagram	
type	string10
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation

	minLength 0 maxLength 10
annotation	documentation ICAO UID of engine that supersedes the given engine.

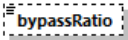
element **aircraftEngine/ratedEngineOut**

diagram	 <p>Rated engine output (in kN). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Rated engine output (in kN). Valid values: Nonnegative.

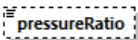
element **aircraftEngine/source**

diagram	 <p>Source of engine data.</p>
type	string100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Source of engine data.

element **aircraftEngine/bypassRatio**

diagram	 <p>Engine's bypass ratio. Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Engine's bypass ratio. Valid values: Nonnegative.

element **aircraftEngine/pressureRatio**

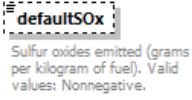
diagram	 <p>Engine's pressure ratio. Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Engine's pressure ratio. Valid values: Nonnegative.

element **aircraftEngine/tfmtFlag**

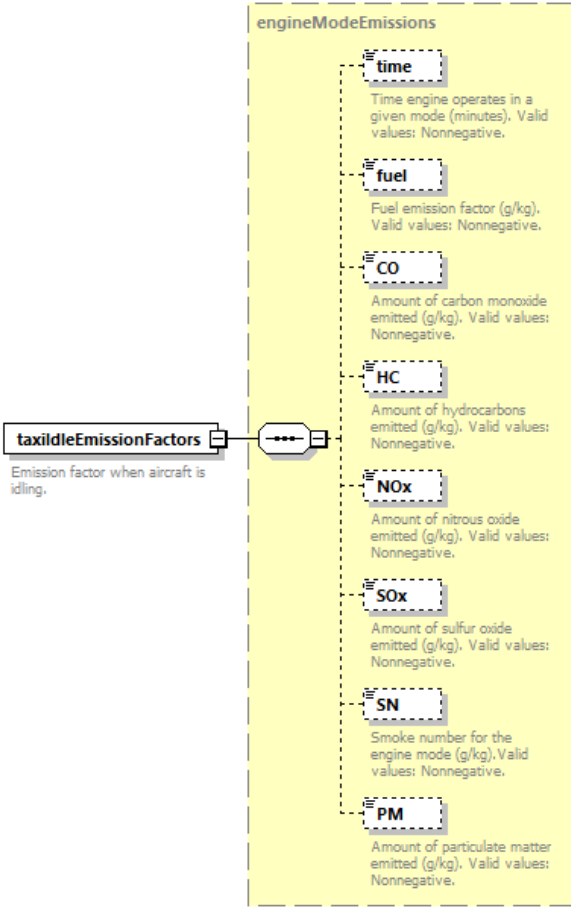
diagram	 <p>Turbo-fan or Mixed turbo-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).</p>

type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).

element **aircraftEngine/defaultSOx**

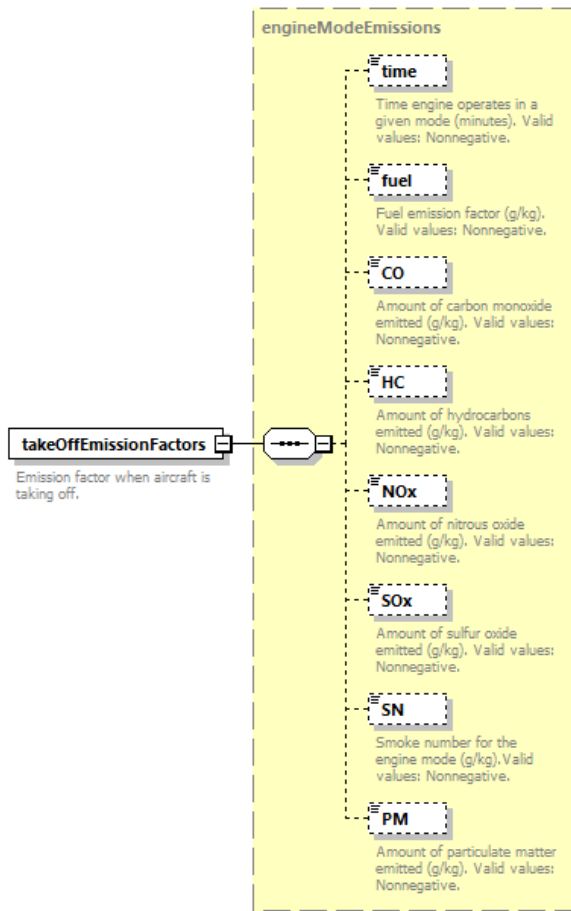
diagram	 <p>defaultSOx Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.

element **aircraftEngine/taxiIdleEmissionFactors**

diagram	 <p>taxiIdleEmissionFactors Emission factor when aircraft is idling.</p> <p>engineModeEmissions</p> <ul style="list-style-type: none"> time: Time engine operates in a given mode (minutes). Valid values: Nonnegative. fuel: Fuel emission factor (g/kg). Valid values: Nonnegative. CO: Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative. HC: Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative. NOx: Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative. SOx: Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative. SN: Smoke number for the engine mode (g/kg). Valid values: Nonnegative. PM: Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.
type	engineModeEmissions
properties	content complex
children	time fuel CO HC NOx SOx SN PM
annotation	documentation Emission factor when aircraft is idling.

element **aircraftEngine/takeOffEmissionFactors**

diagram

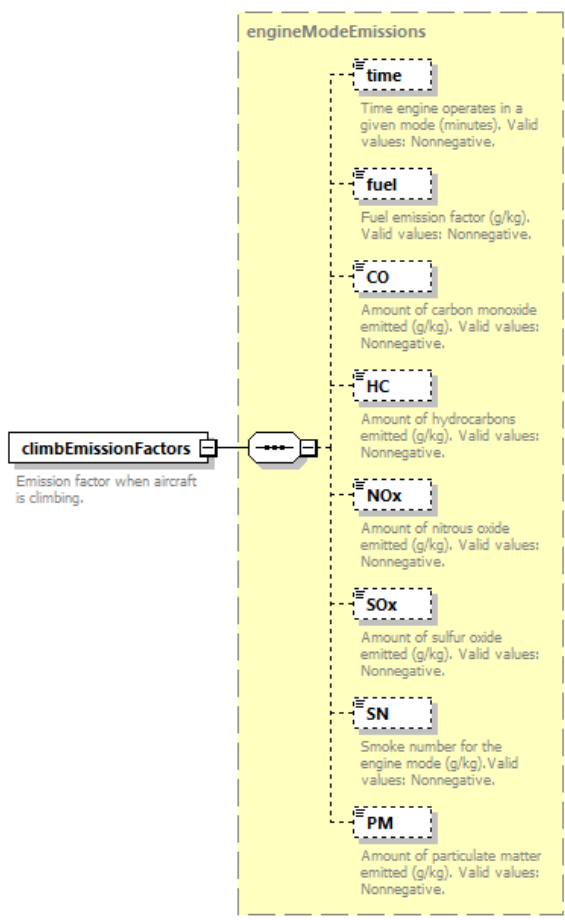


type	engineModeEmissions
properties	content complex
children	time fuel CO HC NOx SOx SN PM
annotation	documentation Emission factor when aircraft is taking off.

element **aircraftEngine/climbEmissionFactors**

diagram





type	engineModeEmissions
properties	content complex
children	time fuel CO HC NOx SOx SN PM
annotation	documentation Emission factor when aircraft is climbing.

element **aircraftEngine/approachEmissionFactors**

diagram	
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	<p>engineModeEmissions</p> <ul style="list-style-type: none"> time: Time engine operates in a given mode (minutes). Valid values: Nonnegative. fuel: Fuel emission factor (g/kg). Valid values: Nonnegative. CO: Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative. HC: Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative. NOx: Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative. SOx: Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative. SN: Smoke number for the engine mode (g/kg). Valid values: Nonnegative. PM: Amount of particulate matter emitted (g/kg). Valid values: Nonnegative. <p>approachEmissionFactors Emission factor when aircraft is on approach.</p>
type	engineModeEmissions
properties	content complex
children	time fuel CO HC NOx SOx SN PM
annotation	documentation Emission factor when aircraft is on approach.

complexType [aircraftEngineMod](#)


diagram	<p>aircraftEngineMod User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.</p> <ul style="list-style-type: none"> code: Unique ICAO UID. description: Description of engine modifications.
children	code description
used by	element fleet/engineMod
annotation	documentation User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.

element [aircraftEngineMod/code](#)

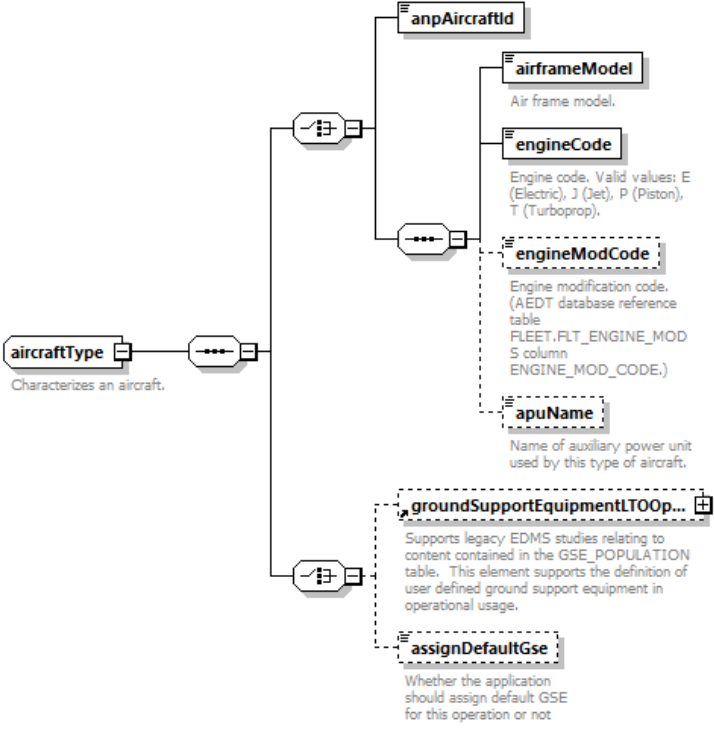
diagram	<p>code Unique ICAO UID.</p>
type	engineModCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 50

annotation	documentation Unique ICAO UID.
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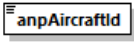
element **aircraftEngineMod/description**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of engine modifications.

complexType **aircraftType**

diagram	
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOperationSet assignDefaultGse
used by	elements operation/aircraftType runup/aircraftType
annotation	documentation Characterizes an aircraft.

element **aircraftType/anpAircraftId**


diagram	
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element **aircraftType/airframeModel**

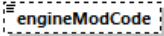
diagram	
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type	string50
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Air frame model.

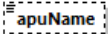
element **aircraftType/engineCode**

diagram	 engineCode Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).
type	string25
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

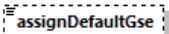
element **aircraftType/engineModCode**

diagram	 engineModCode Engine modification code. (AEDT database reference table FLEET.FLT_ENGINE_MODS column ENGINE_MOD_CODE.)
type	engineModCode
properties	minOcc 0 maxOcc 1 content simple default NONE
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Engine modification code. (AEDT database reference table FLEET.FLT_ENGINE_MODS column ENGINE_MOD_CODE.)

element **aircraftType/apuName**

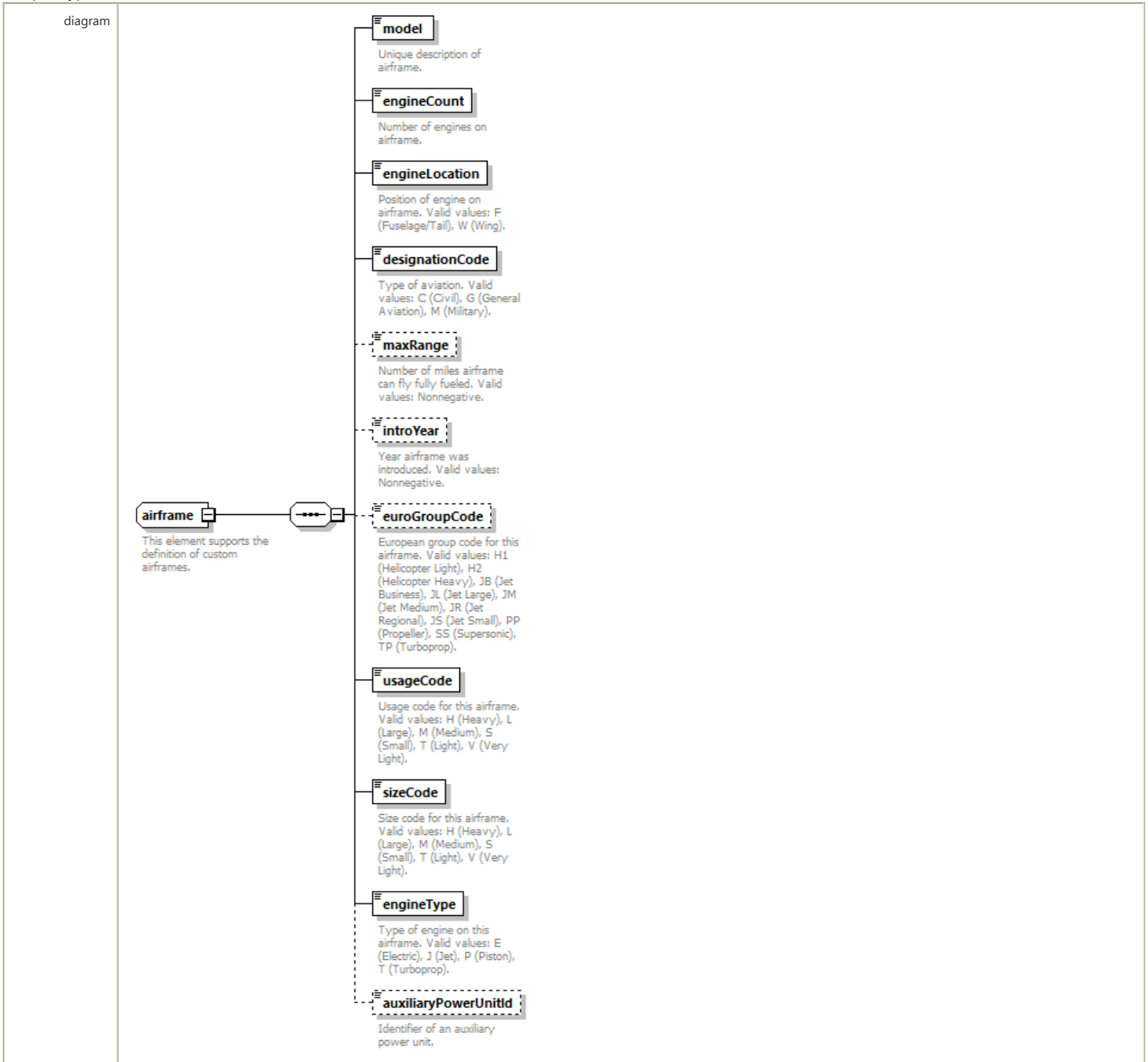
diagram	 apuName Name of auxiliary power unit used by this type of aircraft.
type	xs:string
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Name of auxiliary power unit used by this type of aircraft.

element **aircraftType/assignDefaultGse**

diagram	 assignDefaultGse Whether the application should assign default GSE for this operation or not
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple

	default false
annotation	documentation Whether the application should assign default GSE for this operation or not

complexType **airframe**



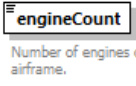
children	model engineCount engineLocation designationCode maxRange introYear euroGroupCode usageCode sizeCode engineType auxiliaryPowerUnitId
used by	element fleet/airframe
annotation	documentation This element supports the definition of custom airframes.

element **airframe/model**

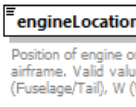
diagram	
type	airframeModel
properties	content simple

facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique description of airframe.

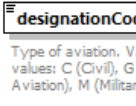
element **airframe/engineCount**

diagram	
type	xs:int
properties	content simple
annotation	documentation Number of engines on airframe.

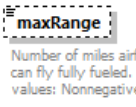
element **airframe/engineLocation**

diagram	
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Position of engine on airframe. Valid values: F (Fuselage/Tail), W (Wing).

element **airframe/designationCode**

diagram	
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of aviation. Valid values: C (Civil), G (General Aviation), M (Military).

element **airframe/maxRange**

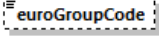
diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of miles airframe can fly fully fueled. Valid values: Nonnegative.

element **airframe/introYear**


diagram	
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type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Year airframe was introduced. Valid values: Nonnegative.

element **airframe/euroGroupCode**

diagram	 <p>European group code for this airframe. Valid values: H1 (Helicopter Light), H2 (Helicopter Heavy), JB (Jet Business), JL (Jet Large), JM (Jet Medium), JR (Jet Regional), JS (Jet Small), PP (Propeller), SS (Supersonic), TP (Turboprop).</p>
type	string2
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation European group code for this airframe. Valid values: H1 (Helicopter Light), H2 (Helicopter Heavy), JB (Jet Business), JL (Jet Large), JM (Jet Medium), JR (Jet Regional), JS (Jet Small), PP (Propeller), SS (Supersonic), TP (Turboprop).


element **airframe/usageCode**

diagram	 <p>Usage code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Usage code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).

element **airframe/sizeCode**

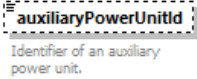
diagram	 <p>Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).

element **airframe/engineType**

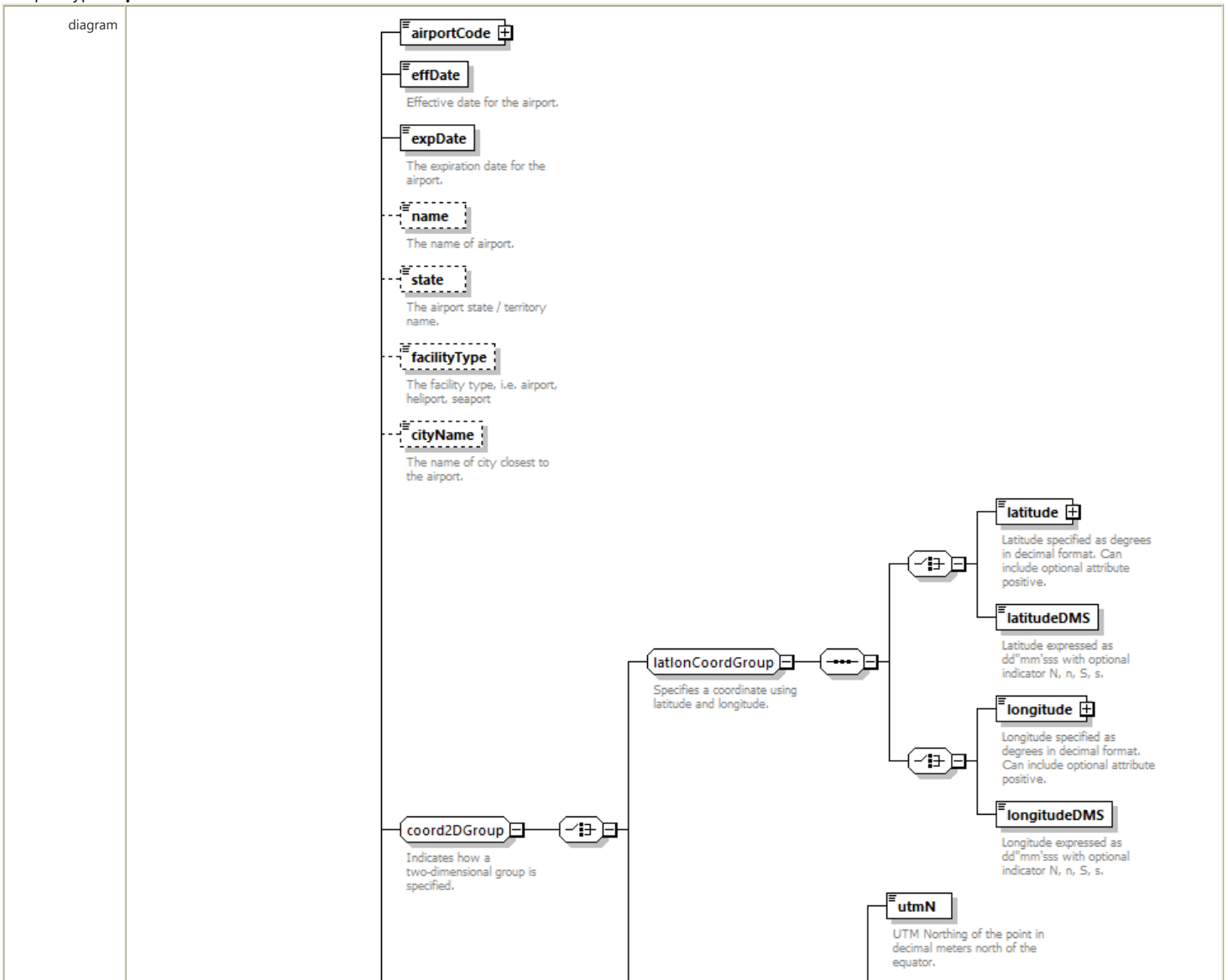
diagram	 <p>Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).</p>
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type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

element **airframe/auxiliaryPowerUnitId**

diagram	
type	apuName
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Identifier of an auxiliary power unit.

complexType **airport**



children	airportCode effDate expDate name state facilityType cityName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafifld faald shell1 smad zone airportWeather windRose taxiTime
used by	element userDefinedAirportSet/userDefinedAirport
annotation	documentation Contains core airport information such as airport name, latitude/longitude, elevation, etc.

element **airport/airportCode**


diagram	
type	airportCode
properties	content complex

facets	Kind	Value	Annotation			
	minLength	0				
	maxLength	4				
attributes	Name	Type	Use	Default	Fixed	Annotation
	type	airportCodeType	optional	ANY		
	country	string3	optional	ANY		


element **airport/effDate**

diagram	
type	xs:date
properties	content simple
annotation	documentation Effective date for the airport.

element **airport/expDate**

diagram	
type	xs:date
properties	content simple
annotation	documentation The expiration date for the airport.

element **airport/name**

diagram			
type	string100		
properties	minOcc 0 maxOcc 1 content simple		
facets	Kind	Value	Annotation
	minLength	0	
	maxLength	100	
annotation	documentation The name of airport.		

element **airport/state**

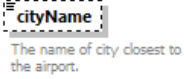
diagram			
type	string50		
properties	minOcc 0 maxOcc 1 content simple		
facets	Kind	Value	Annotation
	minLength	0	
	maxLength	50	
annotation	documentation The airport state / territory name.		

element **airport/facilityType**

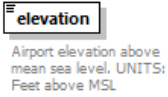
diagram	
type	string25

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation The facility type, i.e. airport, heliport, seaport

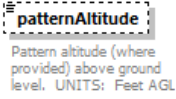
element **airport/cityName**

diagram	
type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The name of city closest to the airport.


element **airport/elevation**

diagram	
type	xs:double
properties	content simple
annotation	documentation Airport elevation above mean sea level. UNITS: Feet above MSL

element **airport/patternAltitude**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Pattern altitude (where provided) above ground level. UNITS: Feet AGL

element **airport/tower**


diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flag to indicate if the airport has a tower.

element **airport/layout**


diagram	
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diagram	 <p>Flag to indicate detailed layout information exists.</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Flag to indicate detailed layout information exists.


element **airport/archiveFlag**

diagram	 <p>Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.

element **airport/dafifld**

diagram	 <p>DAFIF Airport ID.</p>
type	string7
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 7
annotation	documentation DAFIF Airport ID.

element **airport/faald**


diagram	 <p>FAA Airport ID.</p>
type	string15
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation FAA Airport ID.

element **airport/shell1**

diagram	 <p>Indicates if this airport is a shell 1 airport.</p>
type	xs:boolean
properties	minOcc 0

	maxOcc 1 content simple default false
annotation	documentation Indicates if this airport is a shell 1 airport.

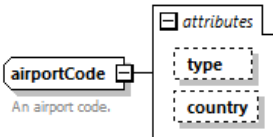
element **airport/smad**

diagram	 <p>Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.

element **airport/zone**

diagram	 <p>Zone info data for airport.</p>
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Zone info data for airport.

complexType **airportCode**

diagram	 <p>An airport code.</p>																		
type	extension of string4																		
properties	base string4																		
used by	elements track/airport runup/airport airport/airportCode airportLayoutType/airportCode operation/arrivalAirport operation/departureAirport																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> <tr> <td>country</td> <td>string3</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY			country	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
type	airportCodeType	optional	ANY																
country	string3	optional	ANY																
annotation	documentation An airport code.																		

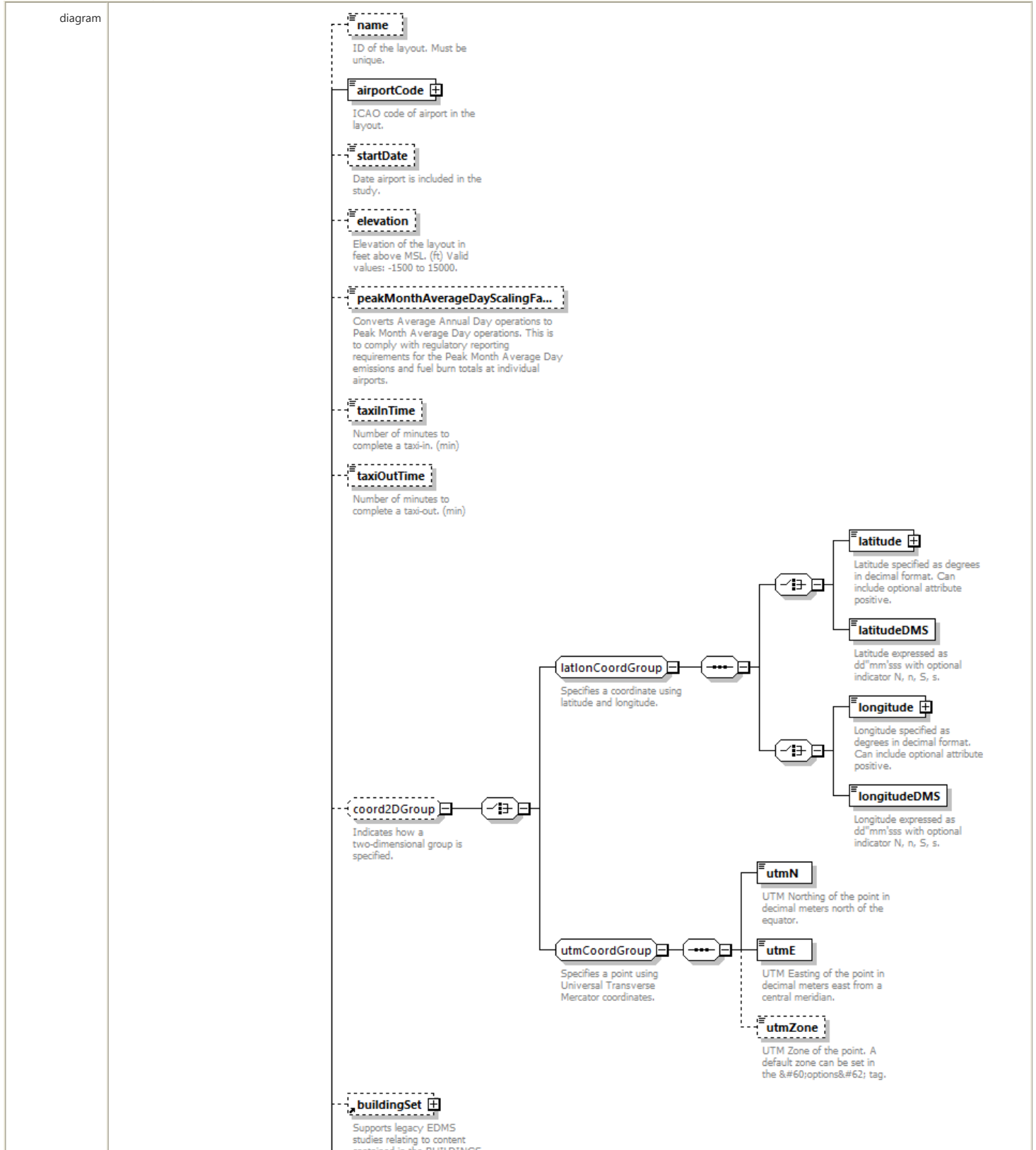
attribute **airportCode/@type**

type	airportCodeType
properties	use optional default ANY
facets	Kind Value Annotation enumeration ICAO enumeration IATA enumeration FAA enumeration OTHER enumeration ANY

attribute **airportCode/@country**

type	string3
properties	use optional default ANY
facets	Kind Value Annotation minLength 0 maxLength 3

complexType **airportLayoutType**



airportLayoutType

Fields defining an airport and its layout.

table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.

parkingFacilitySet

Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.

stationarySourceSet

Container of stationary sources contributing emissions.

gateSet

Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.

roadwaySet

Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.

taxiwaySet

Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.

runwaySet

Container for runways.

taxipathSet

Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.

trackSet

A set of flight tracks.

airportConfigSet

Contains one or more airportConfig elements.

airportCapacity

Supports legacy EDMS studies relating to content contained in the

	<p>RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p> <p>quarterHourlyProfileSet </p> <p>Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of operations.</p> <p>dailyProfileSet </p> <p>Supports the definition and use of DAILY_PROFILES for the daily variation of operations.</p> <p>monthlyProfileSet </p> <p>Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.</p> <p>activityProfileSet </p> <p>Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.</p>
children	name airportCode startDate elevation peakMonthAverageDayScalingFactor taxiInTime taxiOutTime latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone buildingSet parkingFacilitySet stationarySourceSet gateSet roadwaySet taxiwaySet runwaySet taxipathSet trackSet airportConfigSet airportCapacity quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element airportLayoutSet/airportLayout
annotation	documentation Fields defining an airport and its layout.

element **airportLayoutType/name**

diagram	
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of the layout. Must be unique.

element **airportLayoutType/airportCode**

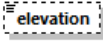
diagram													
type	airportCode												
properties	content complex												
facets	Kind Value Annotation minLength 0 maxLength 4												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation								
type	airportCodeType	optional	ANY										

	country	string3	optional	ANY
annotation	documentation	ICAO code of airport in the layout.		

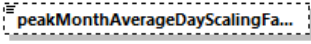
element **airportLayoutType/startDate**

diagram	 <p>Date airport is included in the study.</p>
type	xs:date
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Date airport is included in the study.

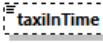
element **airportLayoutType/elevation**

diagram	 <p>Elevation of the layout in feet above MSL. (ft) Valid values: -1500 to 15000.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of the layout in feet above MSL. (ft) Valid values: -1500 to 15000.

element **airportLayoutType/peakMonthAverageDayScalingFactor**

diagram	 <p>Converts Average Annual Day operations to Peak Month Average Day operations. This is to comply with regulatory reporting requirements for the Peak Month Average Day emissions and fuel burn totals at individual airports.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1.0
annotation	documentation Converts Average Annual Day operations to Peak Month Average Day operations. This is to comply with regulatory reporting requirements for the Peak Month Average Day emissions and fuel burn totals at individual airports.

element **airportLayoutType/taxiInTime**

diagram	 <p>Number of minutes to complete a taxi-in. (min)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete a taxi-in. (min)

element **airportLayoutType/taxiOutTime**

diagram	 <p>Number of minutes to complete a taxi-out. (min)</p>
type	xs:double


properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete a taxi-out. (min)

complexType **anpAirplane**


diagram	
children	anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseId noiseCategory minBurn
used by	element fleet/anpAirplane
annotation	documentation

Creates a new ANP airplane.

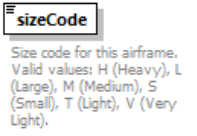
element **anpAirplane/anpAirplaneId**

diagram	
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of ANP airplane. Must be a new, unique value.

element **anpAirplane/description**

diagram	
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of ANP airplane.

element **anpAirplane/sizeCode**

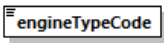
diagram	
type	anpSizeCode
properties	content simple
facets	Kind Value Annotation pattern Heavy H Large L Small S
annotation	documentation Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).

element **anpAirplane/owner**

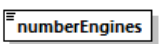
diagram	
type	anpOwnerType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Commercial C Military M General G
annotation	documentation The owner category: commercial, general aviation, military.

element **anpAirplane/engineTypeCode**

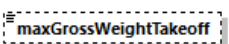
diagram	
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	 <p>engineTypeCode The engine type code: prop, jet, turbo.</p>
type	engineType
properties	content simple
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation The engine type code: prop, jet, turbo.

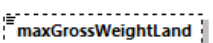
element **anpAirplane/numberEngines**

diagram	 <p>numberEngines Number of engines on this airplane. Valid values: 1 through 8.</p>
type	xs:int
properties	content simple
annotation	documentation Number of engines on this airplane. Valid values: 1 through 8.

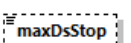
element **anpAirplane/maxGrossWeightTakeoff**

diagram	 <p>maxGrossWeightTakeoff Maximum gross weight on takeoff (min = 0, max = 999999, lbs).</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum gross weight on takeoff (min = 0, max = 999999, lbs).

element **anpAirplane/maxGrossWeightLand**

diagram	 <p>maxGrossWeightLand Maximum gross weight on landing (min = 0, max = 999999, lbs).</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum gross weight on landing (min = 0, max = 999999, lbs).

element **anpAirplane/maxDsStop**

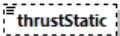
diagram	 <p>maxDsStop FAR landing field length at maximum landing weight (min = 0, max = 20000, feet).</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation FAR landing field length at maximum landing weight (min = 0, max = 20000, feet).

element **anpAirplane/depThrustCoeffType**

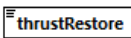
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diagram	 <p>depThrustCoeffType Type of thrust coefficients: J=jet, P=prop.</p>
type	anpCoeffType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Jet J Prop P
annotation	documentation Type of thrust coefficients: J=jet, P=prop.


element **anpAirplane/thrustStatic**

diagram	 <p>thrustStatic Static rated thrust or 100% thrust (lb, min =0, max = 200000).</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Static rated thrust or 100% thrust (lb, min =0, max = 200000).

element **anpAirplane/thrustRestore**

diagram	 <p>thrustRestore Flag indicating aircraft has automated thrust restoration system.</p>
type	yesNoType
properties	content simple default N
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Flag indicating aircraft has automated thrust restoration system.

element **anpAirplane/noiseld**

diagram	 <p>noiseld ID of a Noise Group.</p>
type	anpNoiseld
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a Noise Group.

element **anpAirplane/noiseCategory**

diagram	 <p>noiseCategory The noise category stage number.</p>
type	xs:int
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation The noise category stage number.

element **anpAirplane/minBurn**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum fuel burn rate. (kg/sec)

complexType **anpFlaps**

diagram	
children	flapId operationType coeff_R coeff_CD coeff_B
used by	element anpFlapsSet/flaps
annotation	documentation Flaps data element.

element **anpFlaps/flapId**

diagram	
type	anpFlapId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Flap-setting identifier.

element **anpFlaps/operationType**


diagram	
type	string1

properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)

element **anpFlaps/coeff_R**

diagram	 The drag-over-lift ratio. Valid values: 0.0 to 1.34.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The drag-over-lift ratio. Valid values: 0.0 to 1.34.

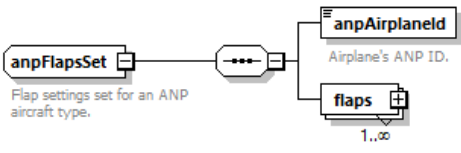
element **anpFlaps/coeff_CD**

diagram	 The takeoff and landing calibrated airspeed coefficient. Valid values: 0,0 to 1.34. (KNOTS/LB ^{1/2}).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (KNOTS/LB ^{1/2}).

element **anpFlaps/coeff_B**

diagram	 The takeoff distance coefficient. Valid values: empty or 0,0 to 1,34. (FEET/LB).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The takeoff distance coefficient. Valid values: empty or 0.0 to 1.34. (FEET/LB).

complexType **anpFlapsSet**

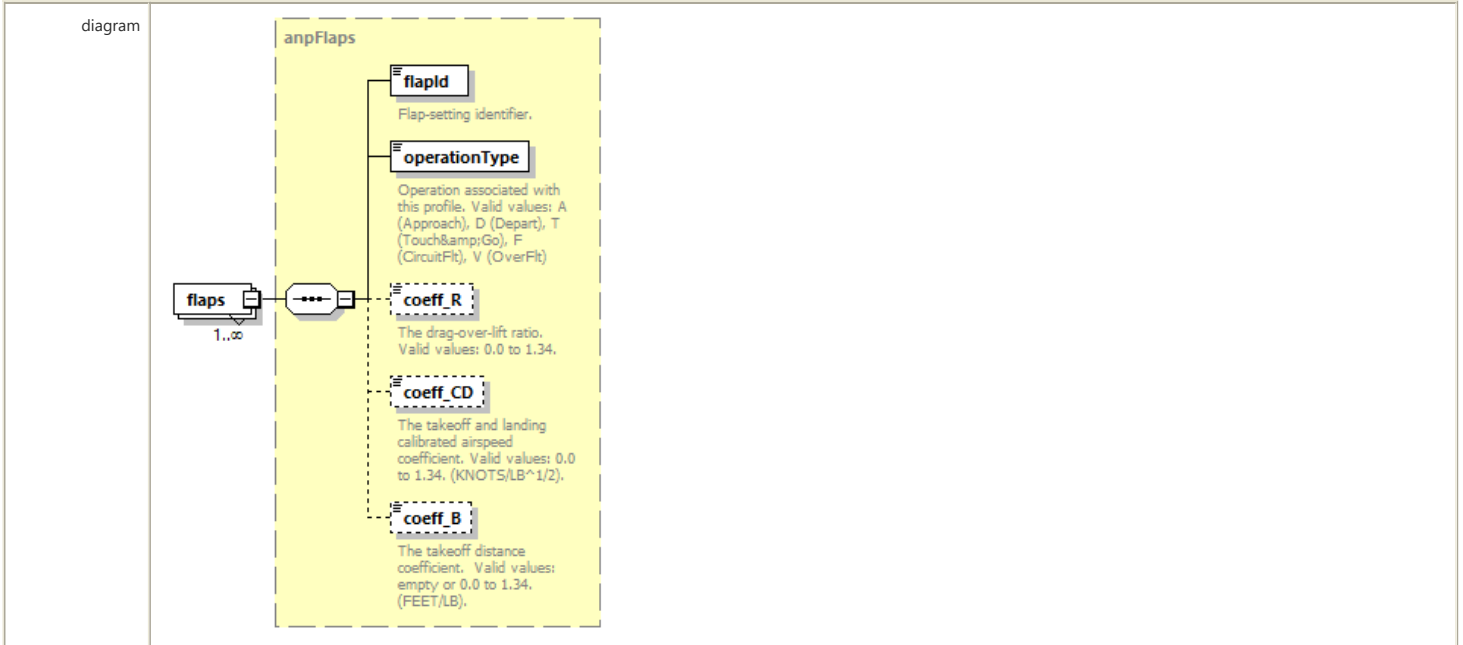
diagram	 Flap settings set for an ANP aircraft type.
children	anpAirplaneId flaps
used by	element fleet/anpFlapsSet
annotation	documentation Flap settings set for an ANP aircraft type.

element **anpFlapsSet/anpAirplaneId**

diagram	 Airplane's ANP ID.
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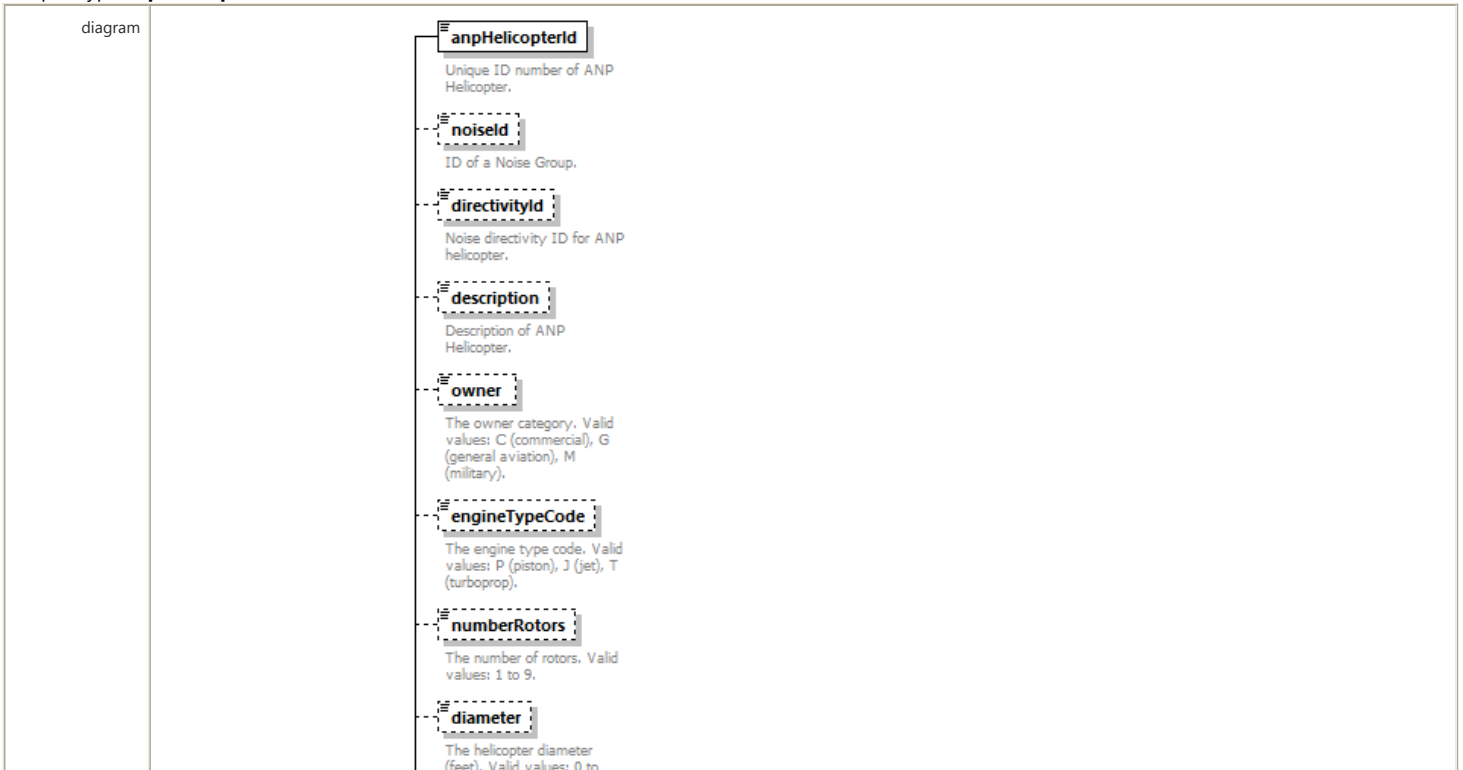
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

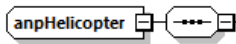
element **anpFlapsSet/flaps**



type	anpFlaps
properties	minOcc 1 maxOcc unbounded content complex
children	flapId operationType coeff_R coeff_CD coeff_B

complexType **anpHelicopter**





1000.

rpm

The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.

maxTakeoffWeight

The max gross takeoff weight (pounds). Valid values: 0 to 50000.

hasWheels

Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).

modelType

The helicopter model type. Valid values: I (INM), N (NoiseMap).

bLeft0

Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.

bLeft1

Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.

bLeft2

Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.

bCenter0

Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

bCenter1

Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

bCenter2

Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

bRight0

Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

bRight1

Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

bRight2

Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

dbVerticalAscent

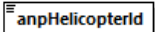
Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.

dbVerticalDescent


Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.

	<div style="border: 1px dashed black; padding: 5px;"> <p>dbHorizontalAcceleration Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbClimbAcceleration Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbHorizontalDeceleration Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbDescendDeceleration Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.</p> </div>
children	anpHelicopterId noiseld directivityId description owner engineTypeCode numberRotors diameter rpm maxTakeoffWeight hasWheels modelType bLeft0 bLeft1 bLeft2 bCenter0 bCenter1 bCenter2 bRight0 bRight1 bRight2 dbVerticalAscent dbVerticalDescent dbHorizontalAcceleration dbClimbAcceleration dbHorizontalDeceleration dbDescendDeceleration
used by	element fleet/anpHelicopter

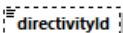
element **anpHelicopter/anpHelicopterId**

diagram	 <p>Unique ID number of ANP Helicopter.</p>
type	anpHeloid
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ID number of ANP Helicopter.

element **anpHelicopter/noiseld**

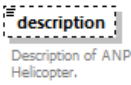
diagram	 <p>ID of a Noise Group.</p>
type	anpHeloNoiseld
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a Noise Group.

element **anpHelicopter/directivityId**

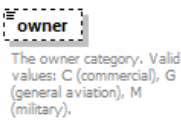
diagram	 <p>Noise directivity ID for ANP helicopter.</p>
type	anpHeloDirectivityId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12

annotation	documentation Noise directivity ID for ANP helicopter.
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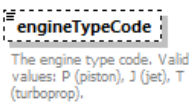
element **anpHelicopter/description**

diagram	
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of ANP Helicopter.

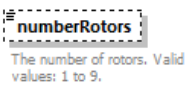
element **anpHelicopter/owner**

diagram	
type	anpOwnerType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Commercial C Military M General G
annotation	documentation The owner category. Valid values: C (commercial), G (general aviation), M (military).

element **anpHelicopter/engineTypeCode**

diagram	
type	engineType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation The engine type code. Valid values: P (piston), J (jet), T (turboprop).

element **anpHelicopter/numberRotors**


diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The number of rotors. Valid values: 1 to 9.

element **anpHelicopter/diameter**

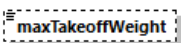
diagram	
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diagram	 <p>The helicopter diameter (feet). Valid values: 0 to 1000.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The helicopter diameter (feet). Valid values: 0 to 1000.

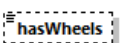
element **anpHelicopter/rpm**

diagram	 <p>The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.

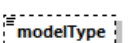
element **anpHelicopter/maxTakeoffWeight**

diagram	 <p>The max gross takeoff weight (pounds). Valid values: 0 to 50000.</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The max gross takeoff weight (pounds). Valid values: 0 to 50000.

element **anpHelicopter/hasWheels**


diagram	 <p>Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).</p>
type	yesNoType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).

element **anpHelicopter/modelType**

diagram	 <p>The helicopter model type. Valid values: I (INM), N (NoiseMap).</p>
type	string1
properties	minOcc 0 maxOcc 1

	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation The helicopter model type. Valid values: I (INM), N (NoiseMap).

element **anpHelicopter/bLeft0**

diagram	 <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.


element **anpHelicopter/bLeft1**

diagram	 <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bLeft2**


diagram	 <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bCenter0**


diagram	 <p>Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bCenter1**


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diagram	 <p>bCenter1 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.


element **anpHelicopter/bCenter2**

diagram	 <p>bCenter2 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.


element **anpHelicopter/bRight0**

diagram	 <p>bRight0 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bRight1**

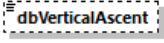
diagram	 <p>bRight1 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bRight2**

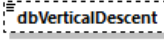
diagram	 <p>bRight2 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

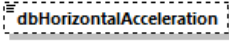
element **anpHelicopter/dbVerticalAscent**

diagram	 <p>Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.


element **anpHelicopter/dbVerticalDescent**

diagram	 <p>Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.

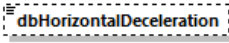
element **anpHelicopter/dbHorizontalAcceleration**

diagram	 <p>Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.

element **anpHelicopter/dbClimbAcceleration**


diagram	 <p>Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.

element **anpHelicopter/dbHorizontalDeceleration**

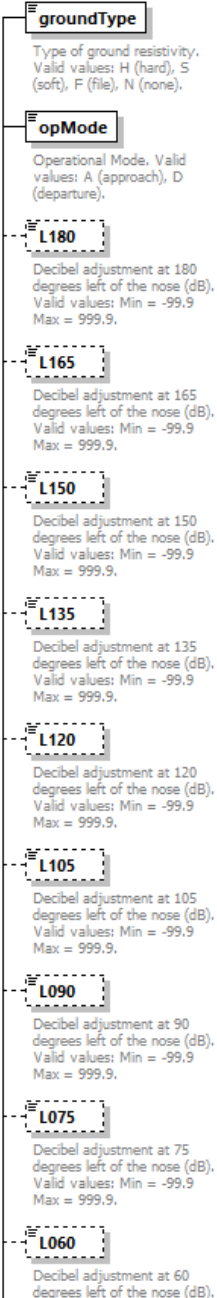
diagram	 <p>Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.</p>
type	xs:double

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.

element **anpHelicopter/dbDescendDeceleration**

diagram	 <p>dbDescendDeceleration Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.

complexType **anpHeloDirectivity**

diagram	 <p>groundType Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).</p> <p>opMode Operational Mode. Valid values: A (approach), D (departure).</p> <p>L180 Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>L165 Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>L150 Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>L135 Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>L120 Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>L105 Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>L090 Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>L075 Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>L060 Decibel adjustment at 60 degrees left of the nose (dB).</p>
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anpHeloDirectivity

Valid values: Min = -99.9
Max = 999.9.

L045

Decibel adjustment at 45
degrees left of the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

L030

Decibel adjustment at 30
degrees left of the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

L015

Decibel adjustment at 0
degrees along the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

C000

Decibel adjustment at 180
degrees left of the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

R015

Decibel adjustment at 15
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

R030

Decibel adjustment at 30
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

R045

Decibel adjustment at 45
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

R060

Decibel adjustment at 60
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

R075

Decibel adjustment at 75
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

R090

Decibel adjustment at 90
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

R105

Decibel adjustment at 105
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

R120

Decibel adjustment at 120
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

R135

Decibel adjustment at 135
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.


R150

Decibel adjustment at 150
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

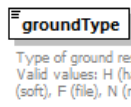
R165

Decibel adjustment at 165
degrees right of the nose
(dB). Valid values: Min =
-99.9 Max = 999.9.

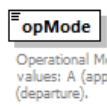
R180

	 <p>Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
children	groundType opMode L180 L165 L150 L135 L120 L105 L090 L075 L060 L045 L030 L015 C000 R015 R030 R045 R060 R075 R090 R105 R120 R135 R150 R165 R180
used by	element anpHeloDirectivitySet/anpHeloDirectivity

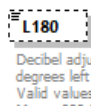
element **anpHeloDirectivity/groundType**

diagram	 <p>Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).</p>						
type	anpHeloGroundType						
properties	content simple						
facets	<table border="1"> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>Hard H Software S File F None N</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	Hard H Software S File F None N	
Kind	Value	Annotation					
pattern	Hard H Software S File F None N						
annotation	documentation Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).						

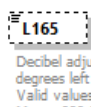
element **anpHeloDirectivity/opMode**

diagram	 <p>Operational Mode. Valid values: A (approach), D (departure).</p>									
type	string1									
properties	content simple									
facets	<table border="1"> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>1</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	1	
Kind	Value	Annotation								
minLength	0									
maxLength	1									
annotation	documentation Operational Mode. Valid values: A (approach), D (departure).									

element **anpHeloDirectivity/L180**


diagram	 <p>Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L165**


diagram	 <p>Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L150**


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diagram	 <p>Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99,9 Max = 999,9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/L135**

diagram	 <p>Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99,9 Max = 999,9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/L120**

diagram	 <p>Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99,9 Max = 999,9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L105**


diagram	 <p>Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99,9 Max = 999,9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L090**


diagram	 <p>Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99,9 Max = 999,9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/L075**

diagram	 <p>Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/L060**

diagram	 <p>Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/L045**

diagram	 <p>Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L030**


diagram	 <p>Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L015**


diagram	 <p>Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/C000**

diagram	 <p>Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/R015**

diagram	 <p>Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R030**


diagram	 <p>Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R045**


diagram	 <p>Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R060**


diagram	
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diagram	 <p>Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R075**

diagram	 <p>Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/R090**

diagram	 <p>Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R105**

diagram	 <p>Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R120**


diagram	 <p>Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R135**

diagram	 <p>Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R150**

diagram	 <p>Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

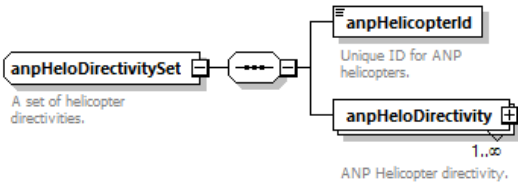
element **anpHeloDirectivity/R165**

diagram	 <p>Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R180**

diagram	 <p>Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

complexType **anpHeloDirectivitySet**

diagram	 <p>A set of helicopter directivities.</p> <p>anpHeloDirectivityId Unique ID for ANP helicopters.</p> <p>anpHeloDirectivity ANP Helicopter directivity.</p> <p>1..∞</p>
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children	anpHelicopterId anpHeloDirectivity
used by	element fleet/anpHeloDirectivitySet
annotation	documentation A set of helicopter directivities.

element [anpHeloDirectivitySet/anpHelicopterId](#)

diagram	
type	anpHeloDirectId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Unique ID for ANP helicopters.

element [anpHeloDirectivitySet/anpHeloDirectivity](#)

diagram	<p>anpHeloDirectivity</p> <ul style="list-style-type: none"> groundType Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none). opMode Operational Mode. Valid values: A (approach), D (departure). L180 Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9. L165 Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9. L150 Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9. L135 Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9. L120 Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9. L105 Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9. L090 Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9. L075 Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9. L060
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anpHeloDirectivity
1..∞
ANP Helicopter directivity.

Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L045

Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L030

Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L015

Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.

C000

Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R015

Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R030

Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R045

Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R060

Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R075

Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R090

Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R105

Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R120

Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R135

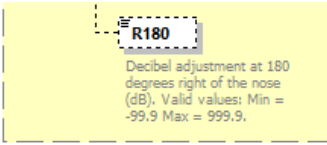
Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R150

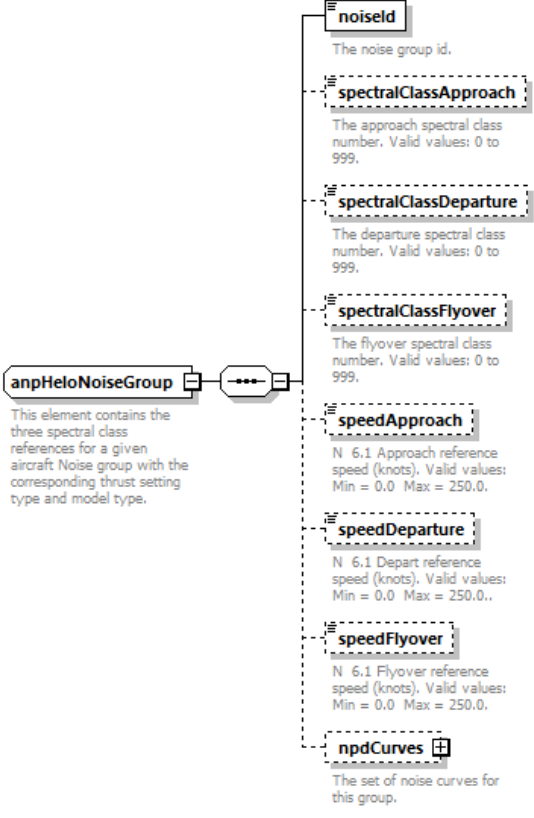
Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R165


Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

	
type	anpHeloDirectivity
properties	minOcc 1 maxOcc unbounded content complex
children	groundType opMode L180 L165 L150 L135 L120 L105 L090 L075 L060 L045 L030 L015 C000 R015 R030 R045 R060 R075 R090 R105 R120 R135 R150 R165 R180
annotation	documentation ANP Helicopter directivity.

complexType **anpHeloNoiseGroup**

diagram	
children	noiseld spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves
used by	element fleet/anpHeloNoiseGroup
annotation	documentation This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.

element **anpHeloNoiseGroup/noiseld**

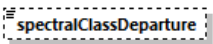
diagram	
type	anpHeloNoiseld
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The noise group id.

element **anpHeloNoiseGroup/spectralClassApproach**

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diagram	 <p>The approach spectral class number. Valid values: 0 to 999.</p>
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The approach spectral class number. Valid values: 0 to 999.

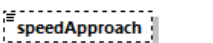
element **anpHeloNoiseGroup/spectralClassDeparture**

diagram	 <p>The departure spectral class number. Valid values: 0 to 999.</p>
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The departure spectral class number. Valid values: 0 to 999.

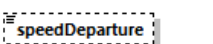
element **anpHeloNoiseGroup/spectralClassFlyover**

diagram	 <p>The flyover spectral class number. Valid values: 0 to 999.</p>
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The flyover spectral class number. Valid values: 0 to 999.

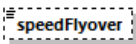
element **anpHeloNoiseGroup/speedApproach**

diagram	 <p>N 6.1 Approach reference speed (knots). Valid values: Min = 0.0 Max = 250.0.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Approach reference speed (knots). Valid values: Min = 0.0 Max = 250.0.

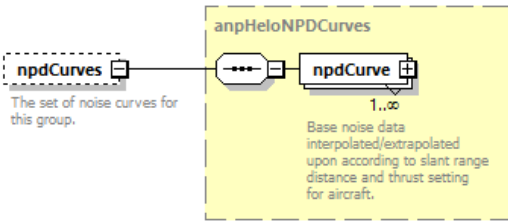
element **anpHeloNoiseGroup/speedDeparture**

diagram	 <p>N 6.1 Depart reference speed (knots). Valid values: Min = 0.0 Max = 250.0.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Depart reference speed (knots). Valid values: Min = 0.0 Max = 250.0.

element **anpHeloNoiseGroup/speedFlyover**

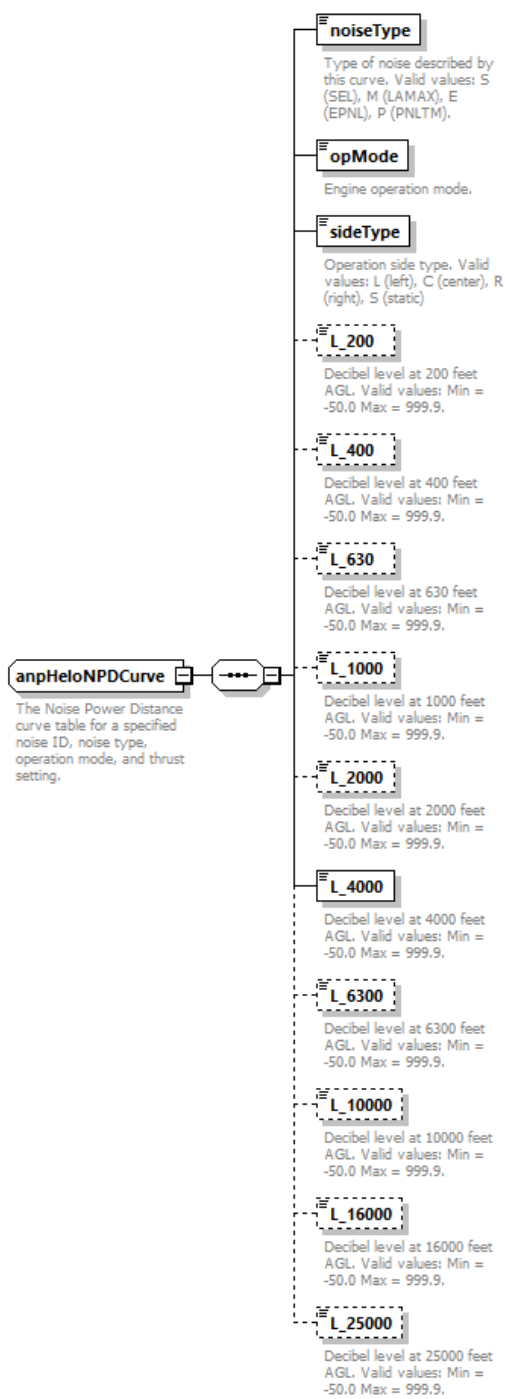
diagram	 <p>speedFlyover</p> <p>N 6.1 Flyover reference speed (knots). Valid values: Min = 0.0 Max = 250.0.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Flyover reference speed (knots). Valid values: Min = 0.0 Max = 250.0.

element **anpHeloNoiseGroup/npdCurves**

diagram	 <p>npdCurves</p> <p>The set of noise curves for this group.</p> <p>anpHeloNPDCurves</p> <p>npdCurve 1..∞</p> <p>Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.</p>
type	anpHeloNPDCurves
properties	minOcc 0 maxOcc 1 content complex
children	npdCurve
annotation	documentation The set of noise curves for this group.

complexType **anpHeloNPDCurve**

diagram	
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children	noiseType opMode sideType L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
used by	element anpHeloNPDcurves/npdCurve
annotation	documentation The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.

element **anpHeloNPDcurve/noiseType**


diagram	<p>noiseType Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).</p>
type	anpNpdNoiseType
properties	content simple
facets	Kind Value Annotation pattern S M E P

annotation	documentation Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).
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element **anpHeloNPDcurve/opMode**

diagram	 Engine operation mode.
type	anpNpdOpMode
properties	content simple
facets	Kind Value Annotation pattern A D L G H I J V W Y Z B C E F X S
annotation	documentation Engine operation mode.

element **anpHeloNPDcurve/sideType**

diagram	 Operation side type. Valid values: L (left), C (center), R (right), S (static)
type	anpHeloSideType
properties	content simple
facets	Kind Value Annotation pattern Left L Center C Right R Static S
annotation	documentation Operation side type. Valid values: L (left), C (center), R (right), S (static)

element **anpHeloNPDcurve/L_200**

diagram	 Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDcurve/L_400**


diagram	 Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDcurve/L_630**

diagram	 Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_1000**

diagram	 Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_2000**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_4000**

diagram	
type	xs:double
properties	content simple
annotation	documentation Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_6300**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_10000**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_16000**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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element **anpHeloNPDCurve/L_25000**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType **anpHeloNPDCurves**

diagram	
children	npdCurve
used by	element anpHeloNoiseGroup/npdCurves
annotation	documentation The set of noise curves.

element **anpHeloNPDCurves/npdCurve**

diagram	
type	anpHeloNPDCurve
properties	minOcc 1 maxOcc unbounded content complex
children	noiseType opMode sideType L 200 L 400 L 630 L 1000 L 2000 L 4000 L 6300 L 10000 L 16000 L 25000
annotation	documentation Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.

complexType **anpHeloProcedureStep**

diagram	
children	stepNum operationType profileGroupId profileStageLength stepType duration distance altitude speed
used by	element anpHeloProfile/step
annotation	documentation Procedure data element.

element **anpHeloProcedureStep/stepNum**

diagram	
type	xs:int
properties	content simple
annotation	documentation Step number of the procedure. Must be unique in a sequence.

element **anpHeloProcedureStep/operationType**

diagram	
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)

element **anpHeloProcedureStep/profileGroupId**

diagram	
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type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

element **anpHeloProcedureStep/profileStageLength**

diagram	
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).

element **anpHeloProcedureStep/stepType**

diagram	
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of step. (A) Approach at constant speed, (D) Depart at constant speed, (L) Level flyover at constant speed, (G) Ground idle, (H) Flight idle, (I) Hover in ground effect, (J) Hover out of ground effect, (V) Vertical ascent in ground effect, (W) Vertical ascent out of ground effect, (Y) Vertical descent in ground effect, (Z) Vertical descent out of ground effect, (B) Approach with horizontal deceleration, (C) Approach with descending deceleration, (E) Depart with horizontal acceleration, (F) Depart with climbing acceleration, (X) Taxi at constant speed, (S) Start altitude at constant speed

element **anpHeloProcedureStep/duration**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Procedure's duration (hours).

element **anpHeloProcedureStep/distance**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Distance along the ground relative to start (min = ?9999999.9, max = 9999999.9, feet).

element **anpHeloProcedureStep/altitude**

diagram	
type	xs:double
properties	minOcc 0

	maxOcc 1 content simple
annotation	documentation Altitude of aircraft (min = -9999, max = 60000, feet).

element **anpHeloProcedureStep/speed**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Ground speed at this point (min = 0, max = 600, knots).


complexType **anpHeloProfile**

diagram	
children	operationType profileGroupId profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover step
used by	element anpHeloProfileSet/profile
annotation	documentation Profile data element.

element **anpHeloProfile/operationType**

diagram	
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)

element **anpHeloProfile/profileGroupId**

diagram	 Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

element **anpHeloProfile/profileStageLength**

diagram	
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).

element **anpHeloProfile/weight**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Aircraft weight during this operation type. Valid values: 0 through 999999. (lb)

element **anpHeloProfile/useDirectivity**

diagram	
type	yesNoType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Use directivity? Y=Yes N=No.

element **anpHeloProfile/useTrack**

diagram	
type	yesNoType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Use track (static heading is relative to track)? Y=Yes N=No.

element **anpHeloProfile/headingTakeoffGround**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Takeoff ground heading. Valid values: -180 through 360. (degrees)

element **anpHeloProfile/headingTakeoffHover**

diagram	
type	xs:double
properties	content simple
annotation	documentation Takeoff hover heading. Valid values: -180 through 360. (degrees)

element **anpHeloProfile/headingLandGround**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Landing ground heading. Valid values: -180 through 360. (degrees)

element **anpHeloProfile/headingLandHover**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Landing hover heading. Valid values: -180 through 360. (degrees)

element **anpHeloProfile/step**

diagram	
type	anpHeloProcedureStep
properties	minOcc 0 maxOcc unbounded content complex
children	stepNum operationType profileGroupld profileStageLength stepType duration distance altitude speed
annotation	documentation The procedure steps.

complexType **anpHeloProfileSet**

diagram	
children	anpHelicopterld profile
used by	element fleet/anpHeloProfileSet
annotation	documentation A profile set for an ANP helicopter.

element **anpHeloProfileSet/anpHelicopterld**

diagram	
type	anpHeloid
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The anp helicopter id.

element **anpHeloProfileSet/profile**

diagram	
type	anpHeloProfile
properties	minOcc 1 maxOcc unbounded content complex
children	operationType profileGroupld profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover step
annotation	documentation One or more ANP profiles.

complexType **anpNoiseGroup**

diagram	
children	noiseId spectralClassApproach spectralClassDeparture spectralClassAfterburner thrustSetType modelType npdCurves
used by	element fleet/anpNoiseGroup
annotation	documentation This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.

element **anpNoiseGroup/noiseId**

diagram	
type	anpNoiseId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise group's ID.

element **anpNoiseGroup/spectralClassApproach**

diagram	
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for approach (min = 0, max = 999).

element **anpNoiseGroup/spectralClassDeparture**

diagram	
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for departure (min = 0, max = 999).

element **anpNoiseGroup/spectralClassAfterburner**

diagram	
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for afterburner (min = 0, max = 999).

element **anpNoiseGroup/thrustSetType**

diagram	
type	string1
properties	content simple
facets	Kind Value Annotation minLength