



U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Environmental Design Tool (AEDT)

Version 4b

Supplemental Manual
AEDT Standard Input File (ASIF)

September 2026



Table of Contents

1	INTRODUCTION	1
1.1	Overview of the ASIF Format.....	1
1.2	ASIF Schema Documentation	1
1.2.1	ASIF Schema Files	1
1.2.2	AsifMerge.html.....	1
1.3	Importing External Studies	2
2	ASIF IMPORT TYPES	3
2.1	Full Study Import	3
2.2	Partial ASIF Import.....	3
2.3	Sample ASIFs.....	4
3	ASIF EXAMPLES.....	5
3.1	Create a Simple Study.....	5
1.	Create empty study file.....	5
2.	Populate airport layouts section.....	6
3.	Create receptor set	7
4.	Create scenario and case hierarchy.....	7
5.	Populate cases with tracks and air operations.....	8
6.	Create annualization	10
7.	Full ASIF	10
3.2	Create an Emissions Dispersion Study.....	15
1.	Create empty study file.....	16
2.	Populate airport layouts section.....	16
a)	Define airport layout	16
b)	Define stationary sources.....	16
c)	Define airport gates/terminals	17
d)	Define taxiways	18
e)	Define runways	19
f)	Assemble taxipaths	20
g)	Define tracks	21
h)	Define airport operating configurations.....	22
i)	Define operational profiles.....	24
3.	Define receptor set	26
4.	Define scenario and case hierarchy.....	26
a)	Define scenario properties	26
b)	Define the case for non-aircraft operations	27
c)	Define the case for aircraft operations	27
5.	Full ASIF	30
4	USER-DEFINED ANP AND BADA 4 PROFILES	31
4.1	Overview.....	31
4.2	User-Defined ANP Airplane Profiles	32
4.2.1	Key Requirements for a New ANP Profile	32
4.2.2	ANP Airplane Profile – Procedure Steps.....	32
	Sample ASIF for User-Defined ANP Procedural Profile.....	33
4.2.3	ANP Airplane Profile – Fixed-Point	34
	Sample ASIF for User-Defined ANP Fixed-Point Profile.....	34
4.3	User-Defined BADA 4 Profiles (for Existing BADA 4 Aircraft)	35

4.3.1	Key Requirements for a New BADA 4 Profile	35
	Sample ASIF for User-Defined BADA 4 Profile	37
4.4	Create User-Defined ANP and BADA 4 Profiles for New or Existing Aircraft by Using the GUI	
	Export Aircraft Feature	38
4.4.1	Create a New User-Defined Aircraft with Custom Profiles	38
1.	Copy an existing system aircraft to create a new user-defined aircraft	38
2.	Export the new aircraft then delete it	38
3.	Open and edit the exported ASIF	38
4.	Import the ASIF	38
4.4.2	Add Custom Profiles to Existing Aircraft	39
1.	Export an existing aircraft and its profiles	39
2.	Open and edit the exported ASIF	39
3.	Import the ASIF	39
5	ASIF CONSIDERATION	40
5.1	Airport Layout and Runways	40
5.2	Event Consolidation	41
5.3	Control Codes	41
5.4	Assign Default Ground Support Equipment (GSE) to Aircraft Operations	43
5.5	Import User-Defined Spectral Class Data	45
5.5.1	Sample ASIF for User-Defined Spectral Class Data	45
5.6	Importing an Older Version of ASIF File	46
5.7	AEDT 3e – ASIF Version 1.2.18 Update for Stationary Sources	46
5.7.1	Deprecated Boiler/Heater and Fuel Tank Sources and Operations	46
	How to View/Edit Intermediate ASIF	47
5.8	AEDT 3f – ASIF Version 1.2.20 Update for Runup Operations	48
5.9	AEDT 3f – ASIF Version 1.2.21, 1.2.22, and 1.2.23 Updates	48
5.9.1	Stationary Sources	48
5.9.2	Ground Support Equipment	48
5.9.3	Airframe	49
5.10	AEDT 3g – ASIF Version 1.2.24 Update for Runup Operations	49
5.11	AEDT 4a – ASIF Version 1.2.32	49
5.12	AEDT 4b – ASIF Version 4.01.0	49
6	ASIF SCHEMA DOCUMENTATION	51

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 4.01.0**. 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

1.2.1 ASIF Schema Files

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

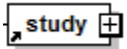
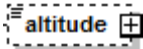
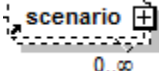
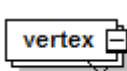
- ASIF.xsd
- ASIF_Airport.xsd
- ASIF_Common.xsd
- ASIF_Fleet.xsd
- ASIF_Receptors.xsd

1.2.2 AsifMerge.html

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	 	Represented by a rectangle with solid or dotted border Solid rectangle – required element Dotted rectangle – optional element
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: Quick Start Tutorial 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="4.01.0"
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_emissions_study_scheduled_ops.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_runup_operationalProfiles.xml
- PartialASIF_scenario.xml
- PartialASIF_scenario_runups.xml
- PartialASIF_stationarySourceSet.xml
- PartialASIF_userGroundSupportEquipmentSet.xml
- UserDefinedANPPProfiles-ProcedureSteps.xml
- UserDefinedANPPProfiles-ProfilePoints.xml
- UserDefinedBADA4Profiles.xml
- UserDefinedSpectralClass.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.

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="4.01.0" 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>
```

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>
```

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>
```

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>
```

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>
      </operation>
    </operations>
```

```
<!-- 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>
```

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 annulalization name -->
  <name>Baseline_Annualization</name>

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

    <!-- Define rolloup 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>
```

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="4.01.0" 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>
        </subtrack>
      </track>
    </trackOpSet>
  </case>
</caseSet>
```

```
<!-- 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.

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="4.01.0" 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>
```

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.

a) 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>
```

b) 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>
```

c) 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>
    </polygonCoords>
  </gate>
</gateSet>
```

```
<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>
```

d) 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>
```

```
<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>
```

e) 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>
```

f) 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>
```

g) 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>
```

```
    </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>
```

h) 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>
        <arrivalPercentage>0.8</arrivalPercentage>
      </runwayAssignment>
    </runwayAssignmentSet>
  </airportConfig>
</airportConfigSet>
```

```
<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>
```

i) 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>
```

```
</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>
```

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 -->
  </pointReceptor>

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

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

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

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.

a) 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>
    </scenarioAirportLayout>
  </scenarioAirportLayoutSet>
</scenario>
```

```
<mixingHeight>2226</mixingHeight> <!-- in feet -->
</scenarioAirportLayout>
</scenarioAirportLayoutSet>
```

b) 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>
```

c) 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>
      </groundSupportEquipmentLT00operationSet>
    </aircraftType>
  </operation>
```

```
<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>
<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>
  <groundSupportEquipmentLT00operationSet>
    <groundSupportEquipmentLT00operation>
      <gseID>8</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>88</horsepower>
      <loadFactor>0.8</loadFactor>
      <departureOpTime>3.9</departureOpTime>
    </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>
```

```
        </groundSupportEquipmentLT00operation>
    </groundSupportEquipmentLT00operationSet>
</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>
```

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 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 Airplane Profiles

4.2.1 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 Airplane 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	
Weight	weight	WEIGHT (lb)	

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

4.2.2 ANP Airplane 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)	THR_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>

```

4.2.3 ANP Airplane 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 (ft)	
Altitude	altitude	ALTITUDE (AFE ft)	
Speed	speed	SPEED (TAS)	
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)

4.3.1 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		

Parameter	ASIF Element Name	Field Name in Table FltBada4AirplaneProfile	Reference Fields (where applicable)
Operation Type	operationType	OperationType	
Weight Class	weightClass	WeightClass	
Weight	weight	Weight (lb)	

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, 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 (AFE ft)	
Calibrated Airspeed	calibratedAirspeed	CalibratedAirspeed (kt)	
Mach Number	mach	MachNumber	
Thrust	thrust	Thrust (lb)	
Angle	angle	Angle (deg)	
Climb Rate	climbRate	ClimbRate (ft/minute)	
Flight Segment Length	distance	Distance (ft)	
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 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.

4.4.1 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:

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.

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.

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.

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.

4.4.2 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:

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.

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.

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 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

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>
      </groundSupportEquipmentLT0Operation>
    </groundSupportEquipmentLT0OperationSet>
  </aircraftType>
</operation>
```

```
<groundSupportEquipmentLT00operation>
  <gseID>41</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>235</horsepower>
  <loadFactor>0.2</loadFactor>
  <departureOpTime>8</departureOpTime>
  <arrivalOpTime>7</arrivalOpTime>
</groundSupportEquipmentLT00operation>
</groundSupportEquipmentLT00operationSet>
</aircraftType>
<numOperations>1</numOperations>
<opType>D</opType>
.....
.....
```

5.5 Import User-Defined Spectral Class Data

5.5.1 Sample ASIF for User-Defined Spectral Class Data

Following is a sample ASIF block that allows for the partial import of user-defined spectral class data. Refer to the accompanying ASIF file named *UserDefinedSpectralClass.xml* for the complete sample file, which is located in *C:\Program Files\FAA\AEDT\Examples* directory.

```
<fleet>
  <spectralClass>
    <!--ID -->
    <spectralClassId>20000</spectralClassId>
    <flightTypes>AL</flightTypes>
    <frequencyBand17>25.1</frequencyBand17>
    <frequencyBand18>26.1</frequencyBand18>
    .....
    .....
```

- The ***spectralClassId*** element specifies the user-defined Spectral Class ID. Valid value is in the range of 20,000 to 30,000 - inclusive.
- The ***flightTypes*** element is used to indicate flight types: A (arrival), D (departure), L (Level/Afterburner), or U (Unknown). In the example above, the ***flightTypes*** is set to “AL”, indicating Arrival and Level/Afterburner.

To import this file:

1. In the Equipment tab, *Aircraft* screen, then click the *Import Aircraft* button.
2. Select this file and click *Open*.
3. The Equipment list will be refreshed.

To assign the user-defined spectral classes to an aircraft:

1. Select an aircraft and click the *Copy* button to create a user-defined aircraft.
2. Go to the *ANP Airplane, Noise* screen (for a helicopter, go to the *ANP Helicopter, Noise* screen).
3. From the *Spectral class approach* dropdown menu, select the desired user-defined class ID.
4. From the *Spectral class departure* dropdown menu, select the desired user-defined class ID.
5. Enter a Suffix for the new aircraft and make other changes, then click the *Save* button.

5.6 Importing an Older Version of ASIF File

When importing an older version of ASIF file, AEDT will upgrade the file to the latest ASIF version by applying intermediate version updates in sequence. During this process, AEDT will generate ASIF files for each intermediate version. An intermediate ASIF file will have the ASIF version number added as a suffix to the file name.

These intermediate files are saved in the **AsifImport** directory under the AEDT data folder (e.g., **C:\AEDT\AsifImport**). Please note that these files are temporary; they will be deleted before the next ASIF import.

5.7 AEDT 3e – ASIF Version 1.2.18 Update for Stationary Sources

Stationary sources modeling methodology updates in the AEDT 3e release affect fuel tank, boiler/heater, solvent degreaser, and sand/salt pile sources and operations. This also resulted in a major change to stationary sources schema in ASIF version 1.2.18.



Due to significant changes in stationary sources input data and modeling methodology, users are strongly encouraged to **review the intermediate files**, created by the ASIF update process, that are saved in the AsifImport directory under the AEDT data folder (e.g., C:\AEDT\AsifImport) and **review comments** contained within the intermediate ASIF files, logging stationary source upgrade actions.

Importing an older version of ASIF file in AEDT 3e/3f will upgrade the file to the latest ASIF version. The following list summarizes ASIF schema changes that are applied during this upgrade process:

- Stationary sources where input data and modeling methodology was not changed will be migrated from earlier ASIF versions to version 1.2.18 and higher as-is.
- Stationary sources where a superset of existing input data is required in AEDT 3e/3f as a result of the change in modeling methodology, AEDT will fill in new input parameters with default values (based on AP-42) when upgrading an older ASIF file to ASIF version 1.2.18 or higher. These actions will be noted as comments in the intermediate ASIF file(s). For example:

```
<!--ASIF update added PM10_EI field with a value of 0.239652854-->  
<!--ASIF update removed the ashTermPm10 element-->
```

- Stationary sources where different input data is required in AEDT 3e/3f as a result of an incompatible change in the modeling methodology and/or the input parameters, AEDT will remove such stationary sources when upgrading an older ASIF file to ASIF version 1.2.18 or higher. These actions will be noted as comments in the intermediate ASIF file(s). For example:

```
<!--ASIF update removed the categoryBoilerHeater block with typeCode 14-->  
<!--ASIF update removed the categoryFuelTank block with typeCode 10-->
```

5.7.1 Deprecated Boiler/Heater and Fuel Tank Sources and Operations

While the ASIF upgrade process will remove deprecated stationary sources from an older ASIF file, it will not automatically locate and remove any operations referencing or using those sources. As a result, ASIF import may fail with bad data integrity error (see Figure 5-1) if it contains any orphaned operations that

reference stationary source that have been removed during the upgrade. Figure 5-2 displays sample error messages that get logged to aedt.log file when importing such ASIF file with orphaned operations.

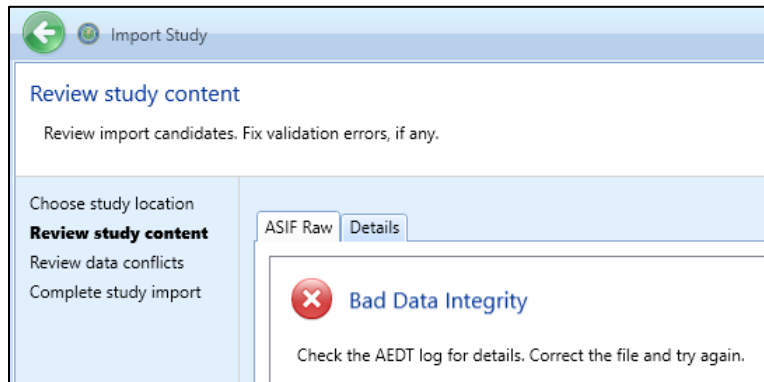


Figure 5-1 AEDT Import Study Dialog, Bad Data Integrity Error Message

```
ASIF Data Error: # Errors:16 - Message: An invalid stationary source reference name was
specified.
ERROR #1: (Parent Name)=Baseline - (Stationary source reference name)=Boiler14-Baseline -
ERROR #2: (Parent Name)=Baseline - (Stationary source reference name)=Boiler28-Baseline -
ERROR #3: (Parent Name)=Baseline - (Stationary source reference name)=Boiler29-Baseline -
ERROR #4: (Parent Name)=Baseline - (Stationary source reference name)=Boiler30-Baseline -
ERROR #5: (Parent Name)=Baseline - (Stationary source reference name)=Boiler31-Baseline -
ERROR #6: (Parent Name)=Baseline - (Stationary source reference name)=Boiler32-Baseline -
ERROR #7: (Parent Name)=Baseline - (Stationary source reference name)=Boiler33-Baseline -
ERROR #8: (Parent Name)=Baseline - (Stationary source reference name)=Boiler34-Baseline -
ERROR #9: (Parent Name)=Baseline - (Stationary source reference name)=Boiler37-Baseline -
ERROR #10: (Parent Name)=Baseline - (Stationary source reference name)=Boiler38-Baseline -
ERROR #11: (Parent Name)=Baseline - (Stationary source reference name)=Boiler39-Baseline -
ERROR #12: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank10-Baseline -
ERROR #13: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank6-Baseline -
ERROR #14: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank7-Baseline -
ERROR #15: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank8-Baseline -
ERROR #16: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank9-Baseline -
```

Figure 5-2 Invalid Stationary Source Reference Errors in AEDT Log File

How to View/Edit Intermediate ASIF

Follow the steps below to manually edit the intermediate ASIF file and to import it into AEDT:

1. View the ASIF data error messages in the aedt.log file and note invalid stationary source reference names.
2. Locate the last intermediate ASIF file (e.g., ASIF version 1.2.20) saved in the **C:\AEDT\AsifImport** folder.
3. In the ASIF file, search for the stationary source reference names then manually remove matching operations from the ASIF file.
4. Import the manually edited ASIF file into AEDT.
5. Re-create new operations to replace those sources in AEDT GUI.

5.8 AEDT 3f – ASIF Version 1.2.20 Update for Runup Operations

In AEDT 3f, the existing runup operation feature has been expanded to support emissions dispersion modeling and to harmonize noise and emissions inputs for runups. The following changes were made in ASIF schema version 1.2.20 to support this feature.

- For the “runup” complex type in ASIF schema:
 - Replaced thrust with thrust per engine (thrustPerEngine); and
 - Added number of engines used (numEnginesUsed).

5.9 AEDT 3f – ASIF Version 1.2.21, 1.2.22, and 1.2.23 Updates

AEDT 3f release resulted in changes to the ASIF schema in versions 1.2.21, 1.2.22, and 1.2.23. These schema changes are summarized in the following sections.



Due to significant changes in stationary sources, GSE, and airframe input data and modeling methodology, users are strongly encouraged to **review the intermediate/final ASIF files**, created by the ASIF update process, that are saved in the AsifImport directory under the AEDT data folder (e.g., C:\AEDT\AsifImport).

5.9.1 Stationary Sources

- Stationary sources where input data and modeling methodology was not changed will be migrated from earlier ASIF versions to version 1.2.23 and higher as-is. These include:
 - Salt/Sand Piles
 - Solvent Degreasing
 - Surface Coating
 - Deicing
 - Fuel Tanks
- For stationary sources where a superset of existing input data is required in AEDT 3f, as a result of changes in modeling methodology, AEDT will fill in new input parameters with default values (based on EPA’s AP-42) when upgrading an older ASIF file to ASIF version 1.2.21 or higher.
 - Boiler/Space Heater
 - Emergency Generator
 - Incinerator
 - Other
 - Training Fire

5.9.2 Ground Support Equipment

Expanded the emissionFactorSet for GSE.

5.9.3 Airframe

Added "maxSeats" element to complexType airframe.

5.10 AEDT 3g – ASIF Version 1.2.24 Update for Runup Operations

In AEDT 3g, support for runup operations has been expanded to include the assignment and use of operational profiles. When defining a runup operation, users can assign quarter-hourly, daily, and monthly profiles for expansion into a given year. The following changes were made in ASIF schema version 1.2.24 to support this feature.

- For the “runup” complex type in ASIF schema:
 - Added quarterHourlyProfile;
 - Added dailyProfile;
 - Added monthlyProfile; and
 - Added year.

5.11 AEDT 4a – ASIF Version 1.2.32

This section summarizes the ASIF updates that have been made since the AEDT 3g Public Release (ASIF version 1.2.24).

- Added the noise source height for ANP airplanes and helicopters.
- Removed the building/releaseHeight element.
- Added optional thrustUnit element to sensorPath element.
- Added support for the helicopter fixed-point profiles.
- Updated the anpHeloNoiseGroup element to support the expanded helicopter spectral data format.
- Allowed for specification of fuelLeadContent for scenario elements.
- Increased the runwayEnd/name element from 8 characters to 25 (string25).
- Removed unused elements from the scenarioAirportLayoutType.
- Added support for user defined NPD op modes for helicopter.

5.12 AEDT 4b – ASIF Version 4.01.0

This section summarizes the ASIF updates that have been made since the AEDT 4a Public Release (ASIF version 1.2.32).

- Standardized the ASIF version numbering scheme (starting with AEDT 4b release, the major version starts at 4).
- Removed the specification of BADA 3 aircraft data. As of AEDT 4b release, the BADA 3 aircraft data are encrypted and no longer displayed in the AEDT Equipment tab. Therefore, the ability to create user-defined BADA 3 aircraft data has been deprecated.
- Added the optional fuelFlowMode element for the anpHeloProfilePoint.

- Renamed all “building” elements to “structure” to represent different structure types which include building, barrier, and building row.
- Removed the gear down element from the bada4ProcedureStep.
- Revised the anpProcedureStep to replace the PARAM1/2/3 elements with altitudeAFE, calibratedAirspeed, climbRate, distance, thrust, angle, and percentAcceleration.
- Updated the structure definition to specify two or more points (coordinates) to define building, barrier, or building row.
- Updated the anpHeloNoiseOpMode complexType definition to add the new opModeDescription element and to make the npdCurves element as required.

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](#)
[annualization](#)
[annualizationCase](#)
[annualizationGroup](#)
[areaStationarySource](#)
[AsifXml](#)
[backbone](#)
[backboneNode](#)
[backboneNodes](#)
[boilerHeaterTypeCode](#)
[boundary](#)
[capacityPoint](#)
[case](#)
[caseSet](#)
[categoryAircraftEngine](#)
[categoryBoilerHeater](#)
[categoryDeicingArea](#)
[categoryFuelTank](#)
[categoryGenerator](#)
[categoryIncinerator](#)
[categoryOther](#)
[categoryRecordCode](#)
[categorySandSaltPile](#)
[categorySolventDegreaser](#)
[categorySurfaceCoatingPainting](#)
[categoryTrainingFire](#)
[centroid](#)
[climate](#)
[dailyProfile](#)
[dailyProfileSet](#)
[dispersionWeight](#)
[emissionsUsage](#)
[engineModeEmissionFactors](#)
[gate](#)
[gateSet](#)
[grid](#)
[groundSupportEquipmentGateAssignment](#)
[groundSupportEquipmentGateAssignmentSet](#)
[groundSupportEquipmentLTOOperation](#)
[groundSupportEquipmentLTOOperationSet](#)
[groundSupportEquipmentPopulationOperation](#)
[groundSupportEquipmentPopulationOperationSet](#)
[monthlyProfile](#)
[monthlyProfileSet](#)
[operation](#)
[operationalProfileSet](#)
[operations](#)
[options](#)
[parkingFacility](#)
[parkingFacilityOperation](#)
[parkingFacilityOperationSet](#)
[parkingFacilitySet](#)
[pointReceptor](#)
[pointStationarySource](#)
[polarGrid](#)
[polarReceptor](#)
[quarterHourlyProfile](#)
[quarterHourlyProfileSet](#)
[receptorSet](#)
[recordCode](#)

Groups

[airportActivityGroup](#)
[annualizationGroupCase](#)
[coord2DGroup](#)
[latlonCoordGroup](#)
[nodeIdGroup](#)
[oneOrThreeCoords2DGroupSet](#)
[pm10TermGroup](#)
[receptorGroup](#)
[thcElGroup](#)
[tnmocElGroup](#)
[tocElGroup](#)
[utmCoordGroup](#)
[vocElGroup](#)

Complex types

[aircraft](#)
[aircraftEngine](#)
[aircraftEngineMod](#)
[aircraftType](#)
[airframe](#)
[airport](#)
[airportCode](#)
[airportLayoutType](#)
[anpAirplane](#)
[anpFlaps](#)
[anpFlapsSet](#)
[anpHelicopter](#)
[anpHeloDirectivity](#)
[anpHeloDirectivitySet](#)
[anpHeloNoiseGroup](#)
[anpHeloNoiseOpMode](#)
[anpHeloNPDCurve](#)
[anpHeloNPDCurves](#)
[anpHeloProcedureStep](#)
[anpHeloProcedureSteps](#)
[anpHeloProfile](#)
[anpHeloProfilePoint](#)
[anpHeloProfilePoints](#)
[anpHeloProfileSet](#)
[anpNoiseGroup](#)
[anpNPDCurve](#)
[anpNPDCurves](#)
[anpProcedureStep](#)
[anpProcedureSteps](#)
[anpProfile](#)
[anpProfilePoint](#)
[anpProfilePoints](#)
[anpProfileSet](#)
[anpThrustGeneral](#)
[anpThrustJet](#)
[anpThrustProp](#)
[anpThrustSet](#)
[anpTsfcCoefficients](#)
[auxiliaryPowerUnit](#)
[bada4ProcedureStep](#)
[bada4ProcedureSteps](#)
[bada4Profile](#)
[bada4ProfileSet](#)
[coord2DType](#)
[coord3DElevationType](#)
[dispersionWeight1Type](#)
[dispersionWeight3Type](#)
[dispersionWeight5Type](#)
[dispersionWeight7Type](#)
[dispersionWeight9Type](#)
[emissionFactorSet](#)
[energyShare](#)
[engineModeEmissions](#)
[fleet](#)
[latitudeDecimalType](#)
[longitudeDecimalType](#)
[polygon2DType](#)
[polygon3DElevationType](#)
[profiles](#)
[runup](#)
[runwayEnd](#)
[scenarioAirportLayoutType](#)
[spectralClass](#)

Simple types

[aircraftPerformanceModelType](#)
[AircraftSizeType](#)
[airframeModel](#)
[airportCodeType](#)
[anpAirplaneId](#)
[anpCoeffType](#)
[anpFlapId](#)
[anpHeloDirectId](#)
[anpHeloDirectivityId](#)
[anpHeloGroundType](#)
[anpHeloId](#)
[anpHeloNoiseId](#)
[anpHeloNpdOpMode](#)
[anpHeloSideType](#)
[anpNoiseId](#)
[anpNpdNoiseType](#)
[anpNpdOpMode](#)
[anpOwnerType](#)
[anpSizeCode](#)
[apuName](#)
[bada3AirplaneId](#)
[bada4AirplaneModel](#)
[bada4Engine](#)
[bada4Suffix](#)
[badaPhaseType](#)
[badaWakeType](#)
[directionType](#)
[doubleExclusive0Inclusive10](#)
[doubleExclusive10](#)
[doubleExclusive100](#)
[doubleExclusive1000](#)
[doubleExclusive10000](#)
[doubleExclusive2000](#)
[doubleExclusiveRange100](#)
[doubleInclusive1](#)
[doubleInclusive100](#)
[doubleInclusive1000](#)
[doubleInclusive10000](#)
[doubleInclusive2000](#)
[doubleInclusive24](#)
[doubleInclusive4000](#)
[doubleInclusive500](#)
[doubleInclusiveRange0to600](#)
[doubleInclusiveRange1to30](#)
[doubleLeadContentRange](#)
[doubleMin0](#)
[emissionsSourceType](#)
[emissionsUnitsType](#)
[empty-string](#)
[engineCode](#)
[engineModCode](#)
[engineModel](#)
[engineType](#)
[floatExclusive0Inclusive10](#)
[floatExclusive10](#)
[floatExclusive100](#)
[floatExclusive1000](#)
[floatExclusive10000](#)
[floatExclusive2000](#)
[floatExclusiveRange100](#)
[floatInclusive1](#)
[floatInclusive100](#)
[floatInclusive1000](#)
[floatInclusive10000](#)
[floatInclusive180](#)
[floatInclusive2000](#)
[floatInclusive24](#)

[roadway](#)
[roadwayOperation](#)
[roadwayOperationSet](#)
[roadwaySet](#)
[runway](#)
[runwayAssignment](#)
[runwayAssignmentSet](#)
[runwaySet](#)
[scenario](#)
[scenarioAirportLayoutSet](#)
[sensorNode](#)
[sensorPath](#)
[stationarySource](#)
[stationarySourceOperation](#)
[stationarySourceOperationSet](#)
[stationarySourceSet](#)
[structure](#)
[structureSet](#)
[study](#)
[subtrack](#)
[taxiNode](#)
[taxiNodeSet](#)
[taxipath](#)
[taxipathSet](#)
[taxiTime](#)
[taxiway](#)
[taxiwaySet](#)
[track](#)
[trackNode](#)
[trackNodes](#)
[trackOpSet](#)
[trackref](#)
[trackSet](#)
[trackVector](#)
[trackVectors](#)
[userDefinedAirportSet](#)
[userGroundSupportEquipment](#)
[userGroundSupportEquipmentSet](#)
[vehicleEmissionFactors](#)
[volumeStationarySource](#)
[weatherData](#)
[windRose](#)
[windRoseData](#)
[windRoseStation](#)

[floatInclusive4000](#)
[floatInclusiveRange1to30](#)
[floatInclusiveRange32to600](#)
[fuelFlowMode](#)
[fuelType](#)
[gapFraction](#)
[groundVehicleType](#)
[int0to23](#)
[int0to360](#)
[int0to5](#)
[int0to87](#)
[int1to13](#)
[int1to15](#)
[int1to2](#)
[int1to25](#)
[int1to4](#)
[int1to5](#)
[int1to8](#)
[int1to93](#)
[int1to9999](#)
[int5to15](#)
[int5to65](#)
[int6to13](#)
[int89to148](#)
[latitudeDMSType](#)
[longitudeDMSType](#)
[nodeControlType](#)
[noiseReductionCoefficient](#)
[opType](#)
[originSourceType](#)
[profileType](#)
[quarterHourMinutes](#)
[spectralClassId](#)
[spectralFlightType](#)
[string1](#)
[string10](#)
[string100](#)
[string1024](#)
[string11](#)
[string12](#)
[string14](#)
[string15](#)
[string16](#)
[string2](#)
[string20](#)
[string200](#)
[string25](#)
[string255](#)
[string3](#)
[string30](#)
[string32](#)
[string4](#)
[string40](#)
[string42](#)
[string5](#)
[string50](#)
[string6](#)
[string64](#)
[string66](#)
[string7](#)
[string8](#)
[string9](#)
[structureType](#)
[studyType](#)
[taxiModelType](#)
[timeInModeBasisType](#)
[trackType](#)
[trainingFireFuelType](#)
[vectorTrackType](#)
[weatherDataYear](#)
[wingType](#)
[yesNoType](#)

diagram	The diagram shows the structure of the activityProfile element. It is a container element with a compartment labeled activityProfile and a description: "Supports definitions of combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES." It has an attribute compartment labeled attributes containing the name attribute. It also has three child elements: quarterHourlyProfile (described as "Defines scaling factors for operations during a particular quarter-hour."), dailyProfile (described as "Defines scaling factors for operations on a particular day."), and monthlyProfile (described as "Defines scaling factors for operations during a particular month.").												
properties	content complex												
children	quarterHourlyProfile dailyProfile monthlyProfile												
used by	element activityProfileSet												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>name</td><td>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 definitions of combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES.												

attribute **activityProfile/@name**

type	string100
properties	use required
facets	Kind Value Annotation minLength 0 maxLength 100

element **activityProfile/quarterHourlyProfile**

diagram	quarterHourlyProfile Defines scaling factors for operations during a particular quarter-hour.
type	<u>string100</u>
properties	content simple
used by	element <u>quarterHourlyProfileSet</u>
facets	KindValue Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations during a particular quarter-hour.

element **activityProfile/dailyProfile**

diagram	dailyProfile Defines scaling factors for operations on a particular day.
type	<u>string100</u>
properties	content simple
used by	element <u>dailyProfileSet</u>
facets	KindValue Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations on a particular day.

element **activityProfile/monthlyProfile**

diagram	monthlyProfile Defines scaling factors for operations during a particular month.
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	activityProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations. attributes dummy activityProfile Supports definitions of combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES. 0..∞												
properties	content complex												
children	activityProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></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	airportCapacity Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport. attributes dummy capacityPoint Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport. 0..3												
properties	content complex												
children	capacityPoint												
used by	element airportConfig complexTypes airportLayoutType scenarioAirportLayoutType												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											

annotation	documentation Supports content related to the APTCONFIG 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**

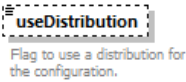
diagram	configurationName Runway configuration name. useDistribution Flag to use a distribution for the configuration. weight Runway configuration weight factor. startWindAngle Start wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees endWindAngle End wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees minWindSpeed Minimum wind speed. Valid values: 0.00 to 100.00. UNITS: knots maxWindSpeed Maximum wind speed. Valid values: 0.00 to 100.00. UNITS: knots startHour Start hour. Valid values: 0.00 to 23.00. endHour End hour. Valid values: 0.00 to 23.00. minCeiling Minimum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet maxCeiling Maximum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet minVisibility Minimum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles maxVisibility Maximum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles minTemperature Minimum temperature. Valid values: -100.00 to 150.00. (°F) maxTemperature Maximum temperature. Valid values: -100.00 to 150.00. (°F) airportCapacity Airport runway capacity points. runwayAssignmentSet The runway assignments. airportConfig Supports content relating to the APTCONFIG 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.
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 content relating to the APTCONFIG 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.

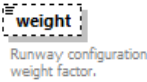
element **airportConfig/configurationName**

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

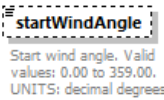
element **airportConfig/useDistribution**

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

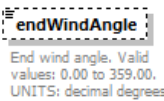
element **airportConfig/weight**

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

element **airportConfig/startWindAngle**

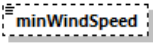
diagram	
type	int0to360
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation Start wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees

element **airportConfig/endWindAngle**

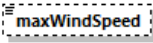
diagram	
---------	---

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. UNITS: decimal degrees

element **airportConfig/minWindSpeed**

diagram	 Minimum wind speed. Valid values: 0.00 to 100.00. UNITS: knots
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. UNITS: knots

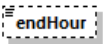
element **airportConfig/maxWindSpeed**

diagram	 Maximum wind speed. Valid values: 0.00 to 100.00. UNITS: knots
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. UNITS: knots

element **airportConfig/startHour**

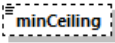
diagram	 Start hour. Valid values: 0.00 to 23.00.
type	doubleInclusive24
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation Start hour. Valid values: 0.00 to 23.00.

element **airportConfig/endHour**

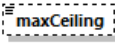
diagram	 End hour. Valid values: 0.00 to 23.00.
---------	---

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.

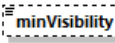
element **airportConfig/minCeiling**

diagram	 Minimum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet

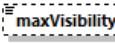
element **airportConfig/maxCeiling**

diagram	 Maximum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet

element **airportConfig/minVisibility**

diagram	 Minimum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles

element **airportConfig/maxVisibility**

diagram	 Maximum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles

element **airportConfig/minTemperature**

diagram	minTemperature Minimum temperature. Valid values: -100.00 to 150.00. (°F)
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	maxTemperature Maximum temperature. Valid values: -100.00 to 150.00. (°F)
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	airportConfigSet Contains one or more airportConfig elements. airportConfig Supports content relating to the APTCONFIG 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. 1..∞
properties	content complex
children	airportConfig
used by	complexType airportLayoutType scenarioAirportLayoutType
annotation	documentation Contains one or more airportConfig elements.

element airportLayoutSet

diagram	airportLayoutSet Contains layouts for ASIF partial import into an existing study. attributes dummy airportLayout Contains information about the available layout of each airport in the study. 1..∞												
properties	content complex												
children	airportLayout												
used by	elements AsifXml study .												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>dummy.</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	dummy .	xs:int	optional			
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**

diagram

airportLayoutType

name

ID of the layout. Must be unique.

airportCode

ICAO code of airport in the layout.

startDate

Date airport is included in the study.

elevation

Elevation of the layout in feet above MSL. (feet) Valid values: -1500 to 15000.

peakMonthAverageDayScalingFa...

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.

taxiInTime

Number of minutes to complete a taxi-in. (min)

taxiOutTime

Number of minutes to complete a taxi-out. (min)

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.

coord2DGroup

Indicates how a two-dimensional group is specified.

latlonCoordGroup
Specifies a coordinate using latitude and longitude.

utmCoordGroup
Specifies a point using Universal Transverse Mercator coordinates.

utmN

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

utmE

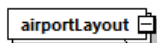
UTM Easting of the point in decimal meters east from a central meridian.

utmZone

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

structureSet

Supports data in the APTLAYOUT_STRUCTURE and APTLAYOUT_STRUCTURE_POINTS database tables. These elements support the definitions of structures as part of an airport layout. These structures are either buildings, building rows, or barriers and impact noise modeling as they can interfere with the path from the noise source to the noise receptors. These structures have no impact on emissions inventory or emissions dispersion model results and only impact noise results when the structures are



1..∞
Contains information about the available layout of each airport in the study.

within the Noise Structures Region.

parkingFacilitySet

NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.

stationarySourceSet

Container of stationary sources contributing emissions.

gateSet

Supports data contained in the APTLAYOUT_GATE 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

NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.

taxiwaySet

Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.

runwaySet

Container for runways.

taxipathSet

Supports data contained in the APTLAYOUT_TAXIPATH 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 content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.

quarterHourlyProfileSet

Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations.

dailyProfileSet

Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of

type	airportLayoutType	operations. monthlyProfileSet Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations.
properties	minOcc 1 maxOcc unbounded content complex	
children	name airportCode startDate elevation peakMonth averageDay scalingFactor taxiInTime taxiOutTime latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone structureSet 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	
properties	content complex
children	airportWeatherStationId startDate endDate weatherStationCode weatherStationName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone weatherStationElevationFeet distanceToStation cooperativeld wbanld weatherData
used by	element airportWeather

element [airportWeatherStation/airportWeatherStationId](#)

diagram	
type	xs:int
properties	content simple

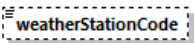
element [airportWeatherStation/startDate](#)

diagram	
type	xs:date
properties	content simple

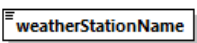
element **airportWeatherStation/endDate**

diagram	
type	xs:date
properties	content simple

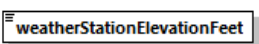
element **airportWeatherStation/weatherStationCode**

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

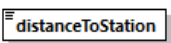
element **airportWeatherStation/weatherStationName**

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

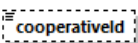
element **airportWeatherStation/weatherStationElevationFeet**

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/wbanld**

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.

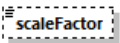
element
 annualizationCase/name

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

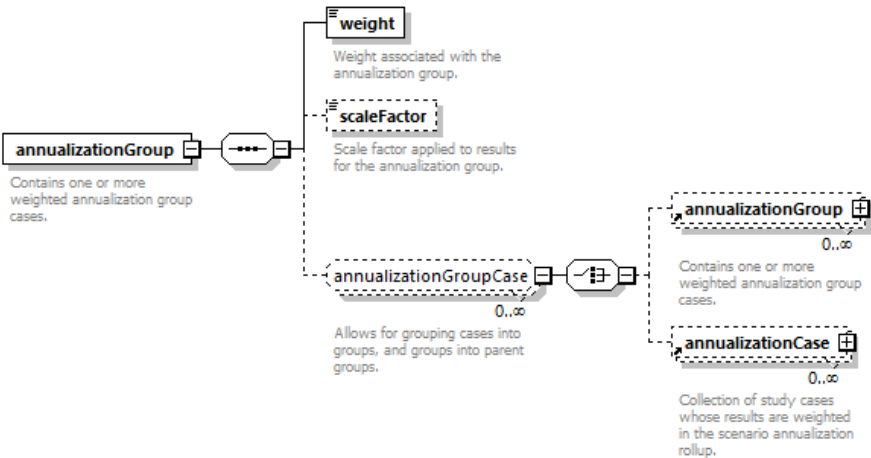
element **annualizationCase/weight**

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

element **annualizationCase/scaleFactor**

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

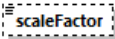
element **annualizationGroup**

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.

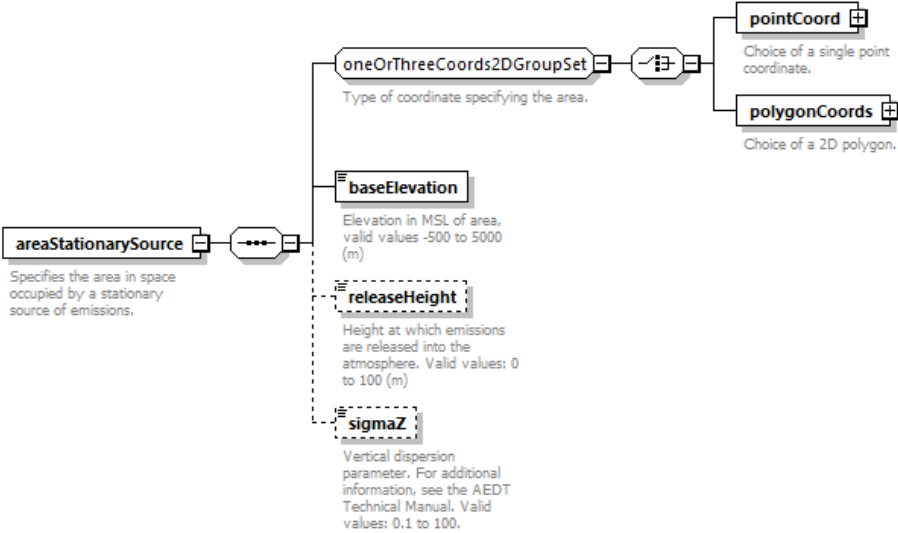
element **annualizationGroup/weight**

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

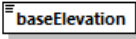
element **annualizationGroup/scaleFactor**

diagram	 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	 The diagram shows the structure of the areaStationarySource element. It is a container element (rectangle with a small square in the top-left corner) that contains several sub-elements. A dashed line connects the container to a group of elements: oneOrThreeCoords2DGroupSet, baseElevation, releaseHeight, and sigmaZ. The oneOrThreeCoords2DGroupSet element is further expanded to show a choice between pointCoord and polygonCoords.
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	 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	 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

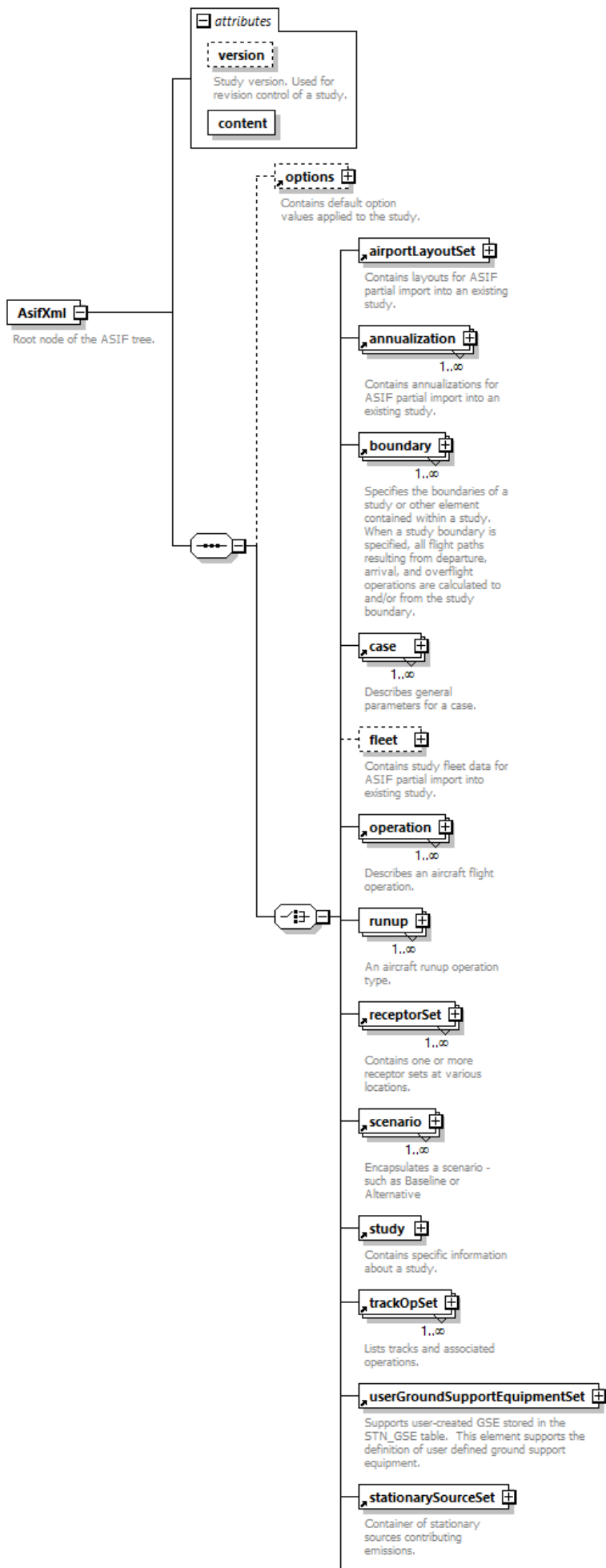
	maxInclusive 100
annotation	documentation Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)

element **areaStationarySource/sigmaZ**

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

element **AsifXml**

diagram



	operationalProfileSet					
properties	content complex					
children	options airportLayoutSet annualization boundary case fleet operation runup receptorSet scenario study trackOpSet userGroundSupportEquipmentSet stationarySourceSet operationalProfileSet					
attributes	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	KindValueAnnotation minLength 0 maxLength 16
annotation	documentation Study version. Used for revision control of a study.

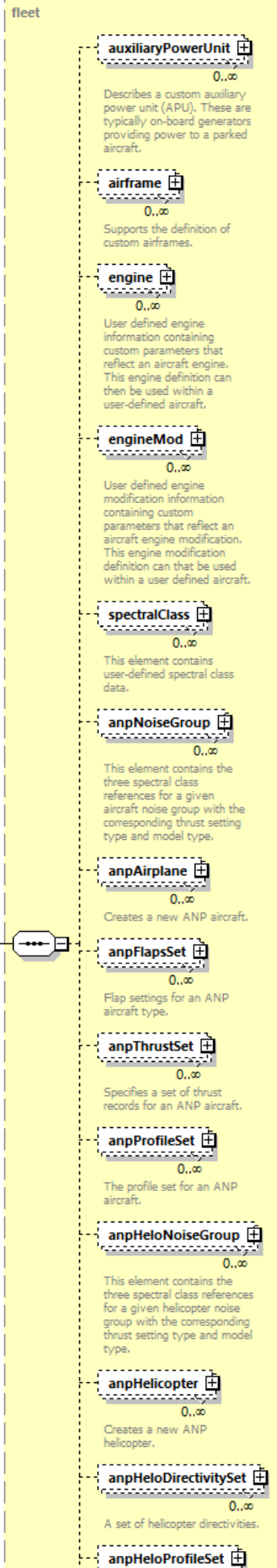
attribute **AsifXml/@content**

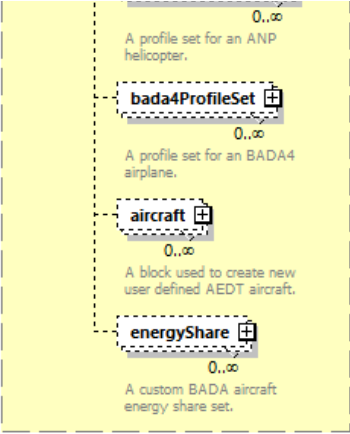
type	restriction of xs:string		
properties	use required		
facets	Kind	Value	Annotation
	enumeration	airportLayoutSet	
	enumeration	annualization	
	enumeration	case	
	enumeration	fleet	
	enumeration	receptorSets	
	enumeration	scenario	
	enumeration	study	
	enumeration	boundary	
	enumeration	trackOpSet	
	enumeration	runup	
	enumeration	userGroundSupportEquipmentSet	
	enumeration	stationarySourceSet	
	enumeration	operationalProfileSet	

element **AsifXml/fleet**

diagram

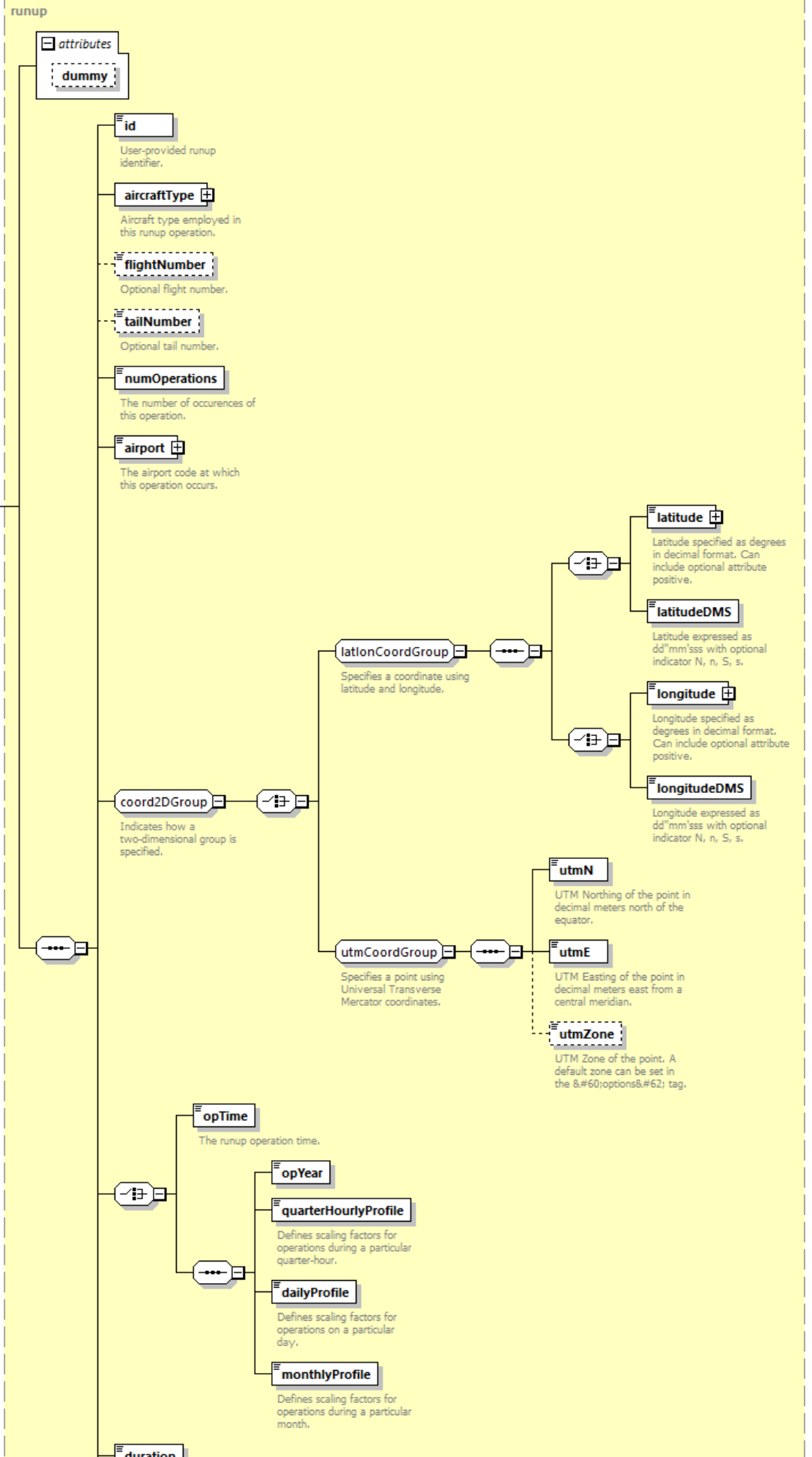
fleet
Contains study fleet data for ASIF partial import into existing study.



	 The diagram illustrates a fleet structure within a yellow dashed box. It contains four main components, each with a title, a description, and a range (0..∞): bada4ProfileSet: A profile set for an ANP helicopter. aircraft: A profile set for an BADA4 airplane. energyShare: A block used to create new user defined AEDT aircraft. energyShare: A custom BADA aircraft energy share set.
type	<u>fleet</u>
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod spectralClass anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet bada4ProfileSet aircraft energyShare
annotation	documentation Contains study fleet data for ASIF partial import into existing study.

element **AsifXml/runup**

runup
1..∞
An aircraft runup operation type.



type	runup												
properties	minOcc 1 maxOcc unbounded content complex												
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime opYear quarterHourlyProfile dailyProfile monthlyProfile duration heading numEnginesUsed isPreFlight thrustPerEngine												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></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 runup 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:int , restriction of xs:int , restriction of xs:int , restriction of xs:int , restriction of xs:int)
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 27, 33 to 34, 38 to 62, 69 to 75, 80 to 91.

element **boundary**

diagram													
properties	content complex												
children	<u>polygon</u>												
used by	elements <u>AsifXml study</u>												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td><u>dummy</u></td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	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 **capacityPoint**

diagram	
properties	content complex
children	arrivalsPerHour departuresPerHour
used by	element airportCapacity
annotation	documentation Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.

element **capacityPoint/arrivalsPerHour**

diagram	
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	
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

case
Describes general parameters for a case.

caseld

Case ID.

name

The name of the case (must be unique within the scenario).

source

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.

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).

climateId

ID of a climate condition.

hourlyWxFile

The file containing the hourly weather data used for emissions calculations. This element is not supported in AEDT.

hourlyWxMD5

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.

description

Description of the case.

case

1..∞

Describes general parameters for a case.

trackOpSet

1..∞

Lists tracks and associated operations.

operation

1..∞

Describes an aircraft flight operation.

runup

1..∞

parkingFacilityOperationSet

NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.

roadwayOperationSet

NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.

stationarySourceOperationSet

Container of operations conducted at a stationary source contributing emissions.

airportActivityGroup

Contains a set of activities conducted at an airport.

	groundSupportEquipmentPopul... Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage. reference 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.
properties	content complex
children	caselid name source startTime duration climateId 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.

element **case/caselid**

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

element **case/name**

diagram	name 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).

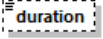
element **case/source**

diagram	source
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

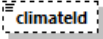
element **case/startTime**

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.

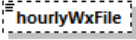
element **case/duration**

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).
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).

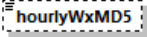
element **case/climateId**

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.

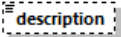
element **case/hourlyWxFile**

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**

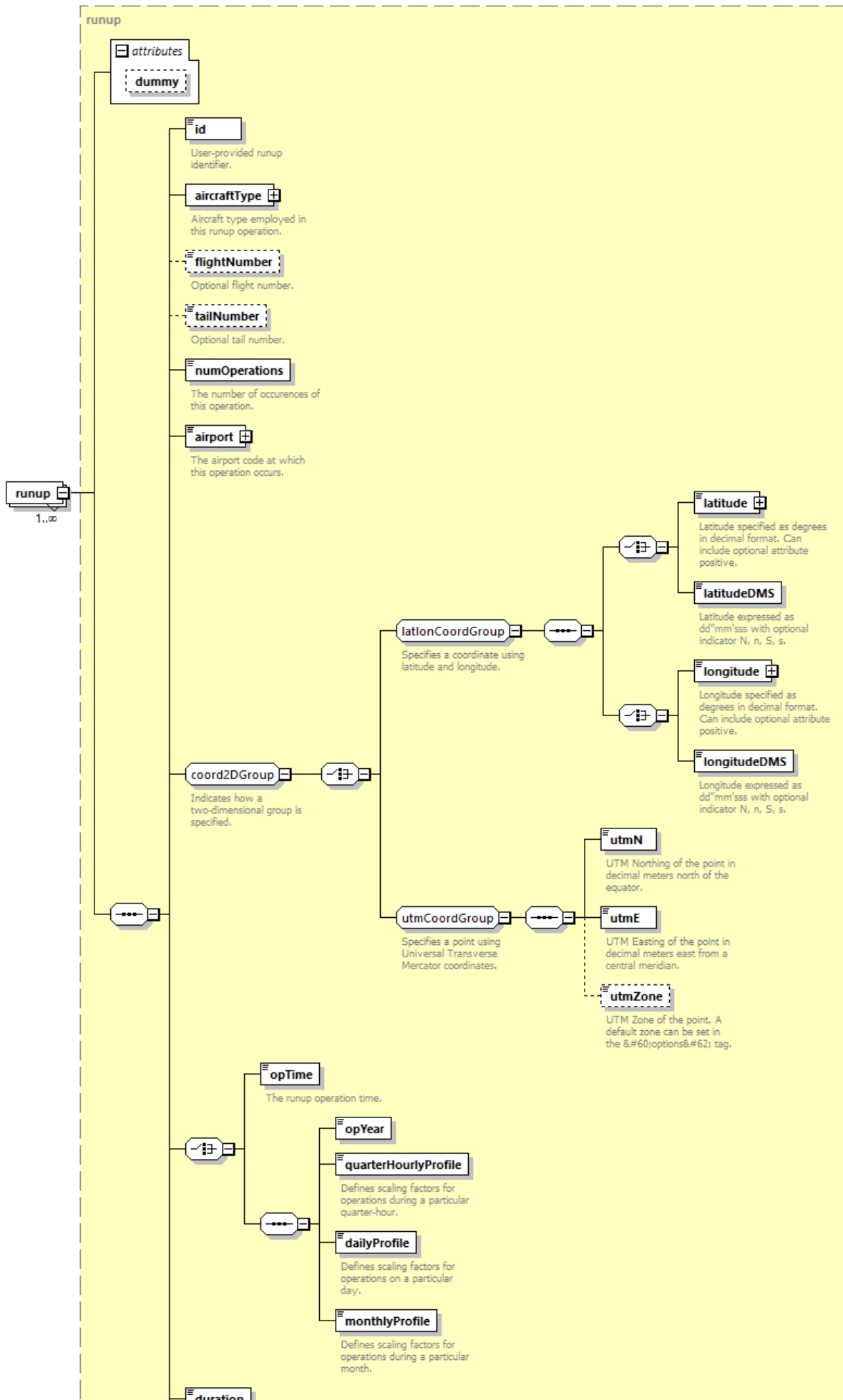
diagram	 The weather file's MD5 checksum. If not present, the MD5 checksum will be computed for the user at the time of importing the ASIF. This element is not supported in AEDT.
type	<u>string16</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	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	<u>string255</u>
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



type	runup												
properties	minOcc 1 maxOcc unbounded content complex												
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime opYear quarterHourlyProfile dailyProfile monthlyProfile duration heading numEnginesUsed isPreFlight thrustPerEngine												
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>Annotation</td></tr><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											

element **case/reference**

diagram	
properties	content complex
children	<u>refScenario</u> <u>refCase</u>
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	refScenario Scenario under which an existing case appears.
type	<u>string255</u>
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	
---------	--

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													
properties	content complex												
children	case												
used by	element scenario												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
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	Kind Value Annotation minLength 0 maxLength 255

element **categoryAircraftEngine/timePercentPower7**

diagram	timePercentPower7 Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min)
type	doubleExclusive1000
properties	content simple default 0
facets	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	timePercentPower30 Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)
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	timePercentPower85 Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)
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	timePercentPower100 Time at which engine is operating at 100% (takeoff) power. Valid values: 0 to 1000. (min)
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

boilerHeaterTypeCode

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 27, 33 to 34, 38 to 62, 69 to 75, 80 to 91.

CO_EI

CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorCO

Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%)

tnmocElGroup

Contains the definition for the TNMOC EI and accompanying pollution control factor.

TNMOC_EI

TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorTNMOC

Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)

vocElGroup

Contains the definition for the VOC EI and accompanying pollution control factor.

VOC_EI

VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorVOC

Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)

tocElGroup

Contains the definition for the TOC EI and accompanying pollution control factor.

TOC_EI

Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorTOC

Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)

thcElGroup

Contains the definition for the THC EI and accompanying pollution control factor.

THC_EI

Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorTHC

Percent of total hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)

vocElGroup

Contains the definition for the VOC EI and accompanying pollution control factor.

VOC_EI

VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorVOC

Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)

tocElGroup

Contains the definition for the TOC EI and

TOC_EI

Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

categoryBoilerHeater
Describes the operational characteristics of a source in the boiler/heater category.

One or more Emissions Indices for organic compounds.

accompanying pollution control factor.

thcEIGroup
Contains the definition for the THC EI and accompanying pollution control factor.

tocEIGroup
Contains the definition for the TOC EI and accompanying pollution control factor.

thcEIGroup
Contains the definition for the THC EI and accompanying pollution control factor.

thcEIGroup
Contains the definition for the THC EI and accompanying pollution control factor.

pollutionControlFactorTOC
Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100.(%)

THC_EI
Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorTHC
Percent of total hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)

TOC_EI
Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorTOC
Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100.(%)

THC_EI
Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorTHC
Percent of total hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)

THC_EI
Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorTHC
Percent of total hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)

NOx_EI
NOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorNOx
Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 100. (%)

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

pollutionControlFactorSOx
Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 100. (%)

pm10TermGroup

constantTermPm10
PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

sulfurTermPm10
PM10 sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m³ - %Sulfur, or Kg/Kiloliter - %Sulfur)

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 100. (%)

element **categoryBoilerHeater/sulfurTermSOx**

diagram	 sulfurTermSOx SOx 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	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 m^3 - %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 100. (%)
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 100. (%)

element **categoryBoilerHeater/fuelAshContent**

diagram	 fuelAshContent Percent of fuel that is ash. Valid values: 0 to 1000. (%)
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/fuelAshContent**

diagram	 fuelAshContent Percent of fuel that is ash. Valid values: 0 to 1000. (%)
type	doubleExclusive100

properties	content simple default 0
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	pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%)
type	<u>doubleInclusive100</u>
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 100. (%)

element **categoryBoilerHeater/PM10_EI**

diagram	PM10_EI PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 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/pm25ToPm10Ratio**

diagram	pm25ToPm10Ratio PM 2.5 to PM 10 ratio (dimensionless). Valid values: 0 to 1.
type	<u>doubleInclusive1</u>
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM 2.5 to PM 10 ratio (dimensionless). Valid values: 0 to 1.

element **categoryBoilerHeater/fuelSulfurContent**

diagram	fuelSulfurContent Percent of fuel that is sulfur. Valid values 0 to 1000. (%)
type	<u>doubleExclusive100</u>

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 **categoryBoilerHeater/CO2_EI**

diagram	CO2_EI CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.

element **categoryBoilerHeater/pollutionControlFactorCO2**

diagram	pollutionControlFactorCO2 Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.
type	<u>doubleInclusive100</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.

element **categoryBoilerHeater/CH4_EI**

diagram	CH4_EI Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.

element **categoryBoilerHeater/pollutionControlFactorCH4**

diagram	pollutionControlFactorCH4 Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.

element **categoryDeicingArea**

diagram	categoryDeicingArea Describes the operational characteristics of a source in the deicing area category. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category. VOC_EI VOC emissions index, fuel type dependent. Valid values: 0 to 1000. g/Kg of Propylene or Ethylene Glycol ethyleneGlycolDensity Ethylene glycol solution density. Valid values: 0 to 1000. (g/L) propyleneGlycolDensity Propylene glycol solution density. Valid values: 0 to 1000. (g/L) solutionConcentrationPercent Concentration of deicing solution. Valid values: 0 to 1000. (%)
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	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.
type	int1to4
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.

element **categoryDeicingArea/VOC_EI**

diagram	 VOC emissions index, fuel type dependent. Valid values: 0 to 1000. g/Kg of Propylene or Ethylene Glycol
type	<u>doubleInclusive1000</u>
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. g/Kg of Propylene or Ethylene Glycol

element **categoryDeicingArea/ethyleneGlycolDensity**

diagram	 Ethylene glycol solution density. Valid values: 0 to 1000. (g/L)
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	 Propylene glycol solution density. Valid values: 0 to 1000. (g/L)
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	 Concentration of deicing solution. Valid values: 0 to 1000. (%)
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	categoryFuelTank Describes the operational characteristics of a source in the fuel tank category. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category. tankDiameter Diameter of tank. Valid values: 0 to 1000. (m) horizontalFixedRoofTank Describes a horizontal fixed roof tank. verticalOrFloatingTank Describes either a vertical fixed roof tank or a floating internal/external/domed roof tank. reidVaporPressure Reid vapor pressure. Valid values: 5 to 15. (PSI)
properties	content complex
children	typeCode tankDiameter horizontalFixedRoofTank verticalOrFloatingTank reidVaporPressure
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the fuel tank category.

element **categoryFuelTank/typeCode**

diagram	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.
type	int1to25
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 25
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.

element **categoryFuelTank/tankDiameter**

diagram	tankDiameter Diameter of tank. Valid values: 0 to 1000. (m)
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/horizontalFixedRoofTank**

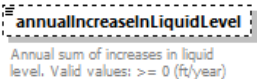
diagram	horizontalFixedRoofTank Describes a horizontal fixed roof tank. tankLength Length of tank. Valid values: 0 to 1000. (m) annualIncreaseInLiquidLevel Annual sum of increases in liquid level. Valid values: >= 0 (ft/year)
---------	--

properties	content complex
children	tankLength annualIncreaseInLiquidLevel
annotation	documentation Describes a horizontal fixed roof tank.

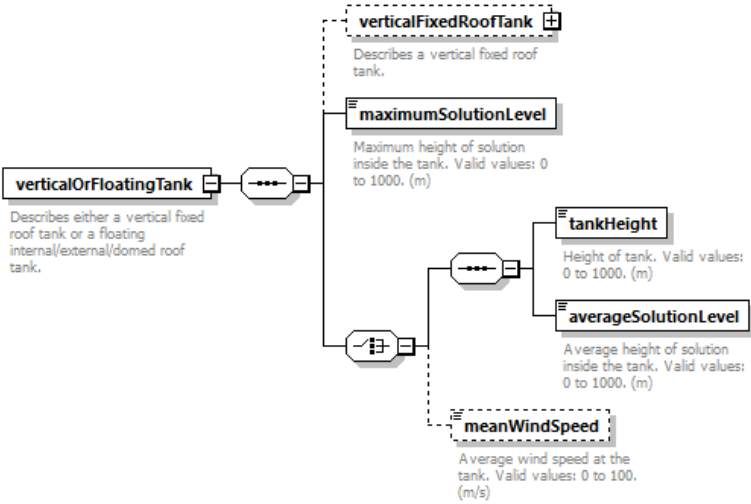
element **categoryFuelTank/horizontalFixedRoofTank/tankLength**

diagram	
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/horizontalFixedRoofTank/annualIncreaseInLiquidLevel**

diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0
annotation	documentation Annual sum of increases in liquid level. Valid values: >= 0 (ft/year)

element **categoryFuelTank/verticalOrFloatingTank**

diagram	
properties	content complex
children	verticalFixedRoofTank maximumSolutionLevel tankHeight averageSolutionLevel meanWindSpeed
annotation	documentation Describes either a vertical fixed roof tank or a floating internal/external/domed roof tank.

element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank**

diagram	verticalFixedRoofTank Describes a vertical fixed roof tank. annualIncreaseInLiquidLevel Annual sum of increases in liquid level. Valid values: ≥ 0 (ft/year) coneRoof A vertical fixed tank with a cone roof domeRoof A vertical fixed roof tank with a dome roof
properties	minOcc 0 maxOcc 1 content complex
children	annualIncreaseInLiquidLevel coneRoof domeRoof
annotation	documentation Describes a vertical fixed roof tank.

element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/annualIncreaseInLiquidLevel**

diagram	annualIncreaseInLiquidLevel Annual sum of increases in liquid level. Valid values: ≥ 0 (ft/year)
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0
annotation	documentation Annual sum of increases in liquid level. Valid values: ≥ 0 (ft/year)

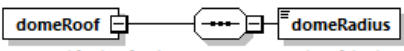
element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/coneRoof**

diagram	coneRoof A vertical fixed tank with a cone roof roofSlope Slope of the cone roof. Default of 0.0625
properties	content complex
children	roofSlope
annotation	documentation A vertical fixed tank with a cone roof

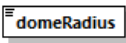
element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/coneRoof/roofSlope**

diagram	roofSlope Slope of the cone roof. Default of 0.0625
type	doubleInclusive1
properties	content simple default 0.0625
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation Slope of the cone roof. Default of 0.0625

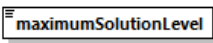
element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof**

diagram	 A vertical fixed roof tank with a dome roof Radius of the dome roof in meters. Default value can be assumed to be the tank radius.
properties	content complex
children	domeRadius
annotation	documentation A vertical fixed roof tank with a dome roof

element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof/domeRadius**

diagram	 Radius of the dome roof in meters. Default value can be assumed to be the tank radius.
type	doubleInclusive500
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 500
annotation	documentation Radius of the dome roof in meters. Default value can be assumed to be the tank radius.

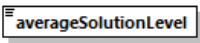
element **categoryFuelTank/verticalOrFloatingTank/maximumSolutionLevel**

diagram	 Maximum height of solution inside the tank. Valid values: 0 to 1000. (m)
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/verticalOrFloatingTank/tankHeight**

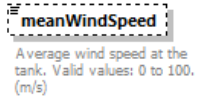
diagram	 Height of tank. Valid values: 0 to 1000. (m)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Height of tank. Valid values: 0 to 1000. (m)

element **categoryFuelTank/verticalOrFloatingTank/averageSolutionLevel**

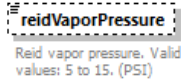
diagram	 Average height of solution inside the tank. Valid values: 0 to 1000. (m)
type	doubleExclusive1000
properties	content simple

	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/verticalOrFloatingTank/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 100. (m/s)

element **categoryFuelTank/reidVaporPressure**

diagram	
type	int5to15
properties	minOcc 0 maxOcc 1 content simple default 10
facets	Kind Value Annotation minInclusive 5 maxInclusive 15
annotation	documentation Reid vapor pressure. Valid values: 5 to 15. (PSI)

element **categoryGenerator**

diagram

typeCode

Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

powerRatingHorsepower

The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp)

CO_EF

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

TOC_EF

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

NOx_EF

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

SOx_EF

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

PM10_EF

PM10 emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

pollutionControlFactorTOC

Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)

CO_EI

CO emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)

VOC_EI

VOC emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)

NOx_EI

NOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)

SOx_EI

SOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)

PM10_EI

PM10 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)

pollutionControlFactorVOC

Amount of volatile organic compounds emitted. Valid values: 0 to 100. (%)

fuelSulfurContent

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. (%)

pollutionControlFactorCO

Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%)

categoryGenerator

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

	pollutionControlFactorNOx Percent of nitrous oxides removed by pollution control measures. Valid values 0 to 100. (%) pollutionControlFactorSOx Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 100. (%) pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%) pm25ToPm10Ratio PM 2.5 to PM 10 ratio (dimensionless). Valid values: 0 to 1. CO2_EF CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr). NOTE: Not used in AEDT. CO2_EI CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT. pollutionControlFactorCO2 Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT. CH4_EF Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr). NOTE: Not used in AEDT. CH4_EI Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT. pollutionControlFactorCH4 Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.
properties	content complex
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 CO2_EF CO2_EI pollutionControlFactorCO2 CH4_EF CH4_EI pollutionControlFactorCH4
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the generator category.

element
 categoryGenerator/typeCode

diagram	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.
type	int1to8
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation

Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

element **categoryGenerator/powerRatingHorsepower**

diagram	 The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp)
type	<u>doubleInclusive10000</u>
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	<u>doubleInclusive1000</u>
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	<u>doubleInclusive1000</u>
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	<u>doubleInclusive1000</u>
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 100. (%)
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 **categoryGenerator/CO_EI**

diagram	 CO emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)
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	 VOC emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)
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/Kiloliter or Kg/1000 m ³)

element **categoryGenerator/NOx_EI**

diagram	 NOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)
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/Kiloliter or Kg/1000 m ³)

element **categoryGenerator/SOx_EI**

diagram	 SOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)
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/Kiloliter or Kg/1000 m ³)

element **categoryGenerator/PM10_EI**

diagram	 PM10 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m³)
type	<u>doubleInclusive1000</u>
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	 Amount of volatile organic compounds emitted. Valid values: 0 to 100. (%)
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 100. (%)

element **categoryGenerator/fuelSulfurContent**

diagram	 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. (%)
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. (%)

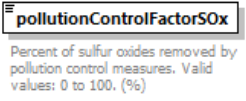
element **categoryGenerator/pollutionControlFactorCO**

diagram	 Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%)
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 100. (%)

element **categoryGenerator/pollutionControlFactorNOx**

diagram	 Percent of nitrous oxides removed by pollution control measures. Valid values 0 to 100. (%)
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 100. (%)

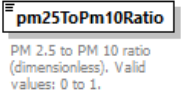
element **categoryGenerator/pollutionControlFactorSOx**

diagram	 Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 100. (%)
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 100. (%)

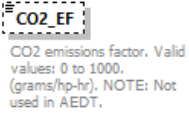
element **categoryGenerator/pollutionControlFactorPM10**

diagram	 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%)
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 100. (%)

element **categoryGenerator/pm25ToPm10Ratio**

diagram	 PM 2.5 to PM 10 ratio (dimensionless). Valid values: 0 to 1.
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). Valid values: 0 to 1.

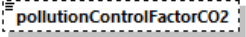
element **categoryGenerator/CO2_EF**

diagram	 CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr). NOTE: Not used in AEDT.
type	doubleInclusive1000
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr). NOTE: Not used in AEDT.

element **categoryGenerator/CO2_EI**

diagram	 CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.

element **categoryGenerator/pollutionControlFactorCO2**

diagram	 Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.
type	<u>doubleInclusive100</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.

element **categoryGenerator/CH4_EF**

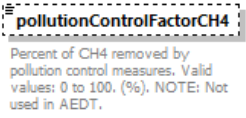
diagram	 Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr). NOTE: Not used in AEDT.

element **categoryGenerator/CH4_EI**

diagram	 Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple

	default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.

element **categoryGenerator/pollutionControlFactorCH4**

diagram	 The diagram shows a rectangular box with a dashed border. Inside the box, the text 'pollutionControlFactorCH4' is written in a bold, sans-serif font. Below this text, there is a smaller, lighter-colored box containing the text: 'Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.'
type	<u>doubleInclusive100</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.

element **categoryIncinerator**

diagram

categoryIncinerator
Describes the operational characteristics of a source in the incinerator category.

typeCode

Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

CO_EI

CO emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

TOC_EI

Total organic compound emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

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 100. (%)

pollutionControlFactorTOC

Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)

pollutionControlFactorNOx

Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 100. (%)

pollutionControlFactorSOx

Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 100. (%)

pollutionControlFactorPM10

Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%)

pm25ToPm10Ratio

PM2.5 to PM10 ratio (dimensionless). Valid values: 0 to 1.

CO2_EI

CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³). NOTE: Not used in AEDT.

pollutionControlFactorCO2

Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.

CH4_EI

Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³). NOTE: Not used in AEDT.

pollutionControlFactorCH4

Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not

	used in A&D1.
properties	content complex
children	typeCode CO_EI TOC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorCO pollutionControlFactorTOC pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio CO2_EI pollutionControlFactorCO2 CH4_EI pollutionControlFactorCH4
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the incinerator category.

element **categoryIncinerator/typeCode**

diagram	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.									
type	int1to2									
properties	content simple									
facets	<table><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>2</td><td></td></tr></table>	Kind	Value	Annotation	minInclusive	1		maxInclusive	2	
Kind	Value	Annotation								
minInclusive	1									
maxInclusive	2									
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.									

element **categoryIncinerator/CO_EI**

diagram	CO_EI CO emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)
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/TOC_EI**

diagram	TOC_EI 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)
type	<u>doubleInclusive1000</u>
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 **categoryIncinerator/NOx_EI**

diagram	 NOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)
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/Metric Ton)

element **categoryIncinerator/SOx_EI**

diagram	 SOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)
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/Metric Ton)

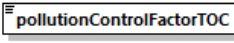
element **categoryIncinerator/PM10_EI**

diagram	 PM10 emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)
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	 Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%)
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 100. (%)

element **categoryIncinerator/pollutionControlFactorTOC**

diagram	 Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)
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 **categoryIncinerator/pollutionControlFactorNOx**

diagram	pollutionControlFactorNOx Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 100. (%)
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 100. (%)

element **categoryIncinerator/pollutionControlFactorSOx**

diagram	pollutionControlFactorSOx Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 100. (%)
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 100. (%)

element **categoryIncinerator/pollutionControlFactorPM10**

diagram	pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%)
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 100. (%)

element **categoryIncinerator/pm25ToPm10Ratio**

diagram	pm25ToPm10Ratio PM2.5 to PM10 ratio (dimensionless). Valid values: 0 to 1.
type	doubleInclusive1
properties	content simple default 1

facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM2.5 to PM10 ratio (dimensionless). Valid values: 0 to 1.

element **categoryIncinerator/CO2_EI**

diagram	 CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.

element **categoryIncinerator/pollutionControlFactorCO2**

diagram	 Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.
type	<u>doubleInclusive100</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.

element **categoryIncinerator/CH4_EI**

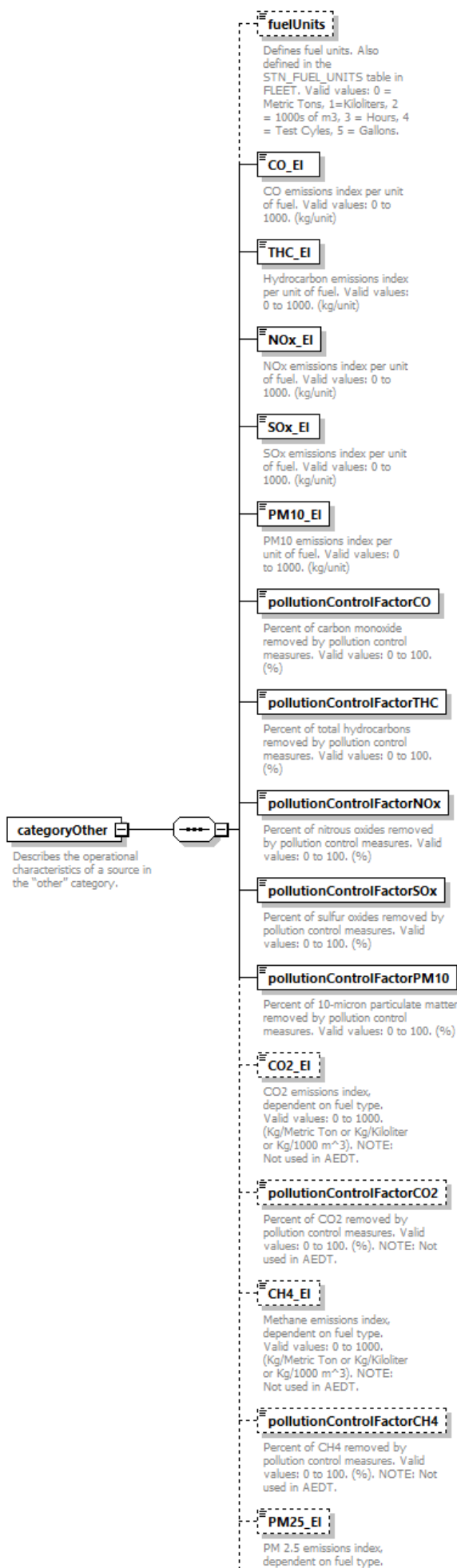
diagram	 Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.

element **categoryIncinerator/pollutionControlFactorCH4**

diagram	 Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.
type	<u>doubleInclusive100</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.

element **categoryOther**

diagram



	valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3) pollutionControlFactorPM25 Percent of PM 2.5 removed by pollution control measures. Valid values: 0 to 100. (%)
properties	content complex
children	fuelUnits CO_EI THC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorCO pollutionControlFactorTHC pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 CO2_EI pollutionControlFactorCO2 CH4_EI pollutionControlFactorCH4 PM25_EI pollutionControlFactorPM25
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the "other" category.

element **categoryOther/fuelUnits**

diagram	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.
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	CO_EI CO emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	doubleInclusive1000
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	THC_EI Hydrocarbon emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	doubleInclusive1000
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	 NOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	doubleInclusive1000
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	 SOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	doubleInclusive1000
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	 PM10 emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
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	 Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%)
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 100. (%)

element **categoryOther/pollutionControlFactorTHC**

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

element **categoryOther/pollutionControlFactorNOx**

diagram	pollutionControlFactorNOx Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 100. (%)
type	<u>doubleInclusive100</u>
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 100. (%)

element **categoryOther/pollutionControlFactorSOx**

diagram	pollutionControlFactorSOx Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 100. (%)
type	<u>doubleInclusive100</u>
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 100. (%)

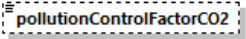
element **categoryOther/pollutionControlFactorPM10**

diagram	pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%)
type	<u>doubleInclusive100</u>
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 100. (%)

element **categoryOther/CO2_EI**

diagram	 CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³). NOTE: Not used in AEDT.

element **categoryOther/pollutionControlFactorCO2**

diagram	 Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.
type	<u>doubleInclusive100</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.

element **categoryOther/CH4_EI**

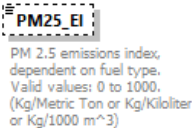
diagram	 Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³). NOTE: Not used in AEDT.

element **categoryOther/pollutionControlFactorCH4**

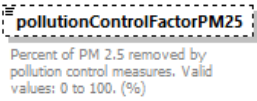
diagram	 Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.
type	<u>doubleInclusive100</u>
properties	minOcc 0 maxOcc 1 content simple

	default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%). NOTE: Not used in AEDT.

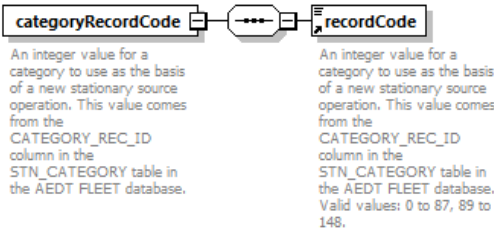
element **categoryOther/PM25_EI**

diagram	
type	doubleInclusive1000
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

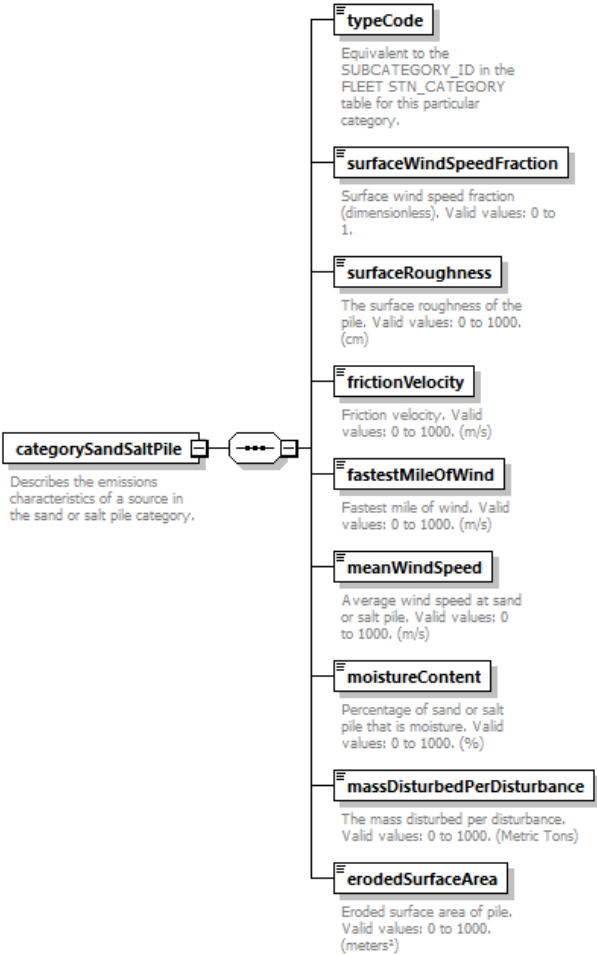
element **categoryOther/pollutionControlFactorPM25**

diagram	
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of PM 2.5 removed by pollution control measures. Valid values: 0 to 100. (%)

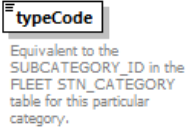
element **categoryRecordCode**

diagram	
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.

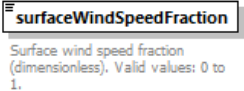
element **categorySandSaltPile**

diagram	 The diagram shows a central box labeled categorySandSaltPile with the description "Describes the emissions characteristics of a source in the sand or salt pile category." To its right is a vertical stack of eight boxes, each representing a property: typeCode, surfaceWindSpeedFraction, surfaceRoughness, frictionVelocity, fastestMileOfWind, meanWindSpeed, moistureContent, and massDisturbedPerDisturbance. A horizontal line with a diamond-shaped connector links the central box to the first property box, typeCode. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category. surfaceWindSpeedFraction Surface wind speed fraction (dimensionless). Valid values: 0 to 1. 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	 The diagram shows a box labeled typeCode with the description "Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category."
type	int1to5
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

element
 categorySandSaltPile/surfaceWindSpeedFraction

diagram	 The diagram shows a box labeled surfaceWindSpeedFraction with the description "Surface wind speed fraction (dimensionless). Valid values: 0 to 1."
type	doubleInclusive1

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

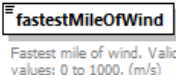
element **categorySandSaltPile/surfaceRoughness**

diagram	 The surface roughness of the pile. Valid values: 0 to 1000. (cm)
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)

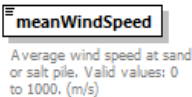
element **categorySandSaltPile/frictionVelocity**

diagram	 Friction velocity. Valid values: 0 to 1000. (m/s)
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	 Fastest mile of wind. Valid values: 0 to 1000. (m/s)
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**

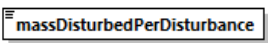
diagram	 Average wind speed at sand or salt pile. Valid values: 0 to 1000. (m/s)
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0

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

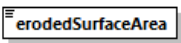
element **categorySandSaltPile/moistureContent**

diagram	 moistureContent Percentage of sand or salt pile that is moisture. Valid values: 0 to 1000. (%)
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. (%)

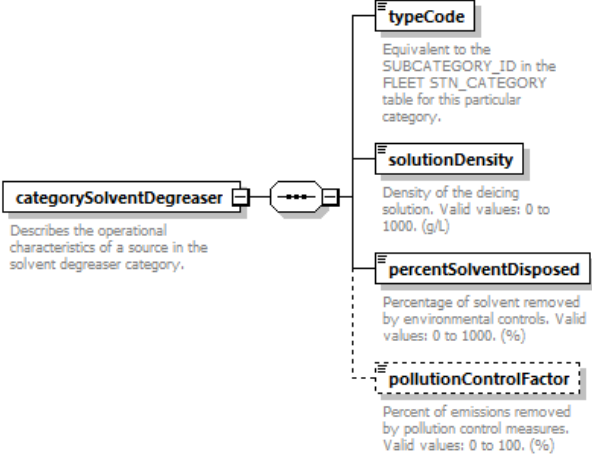
element **categorySandSaltPile/massDisturbedPerDisturbance**

diagram	 massDisturbedPerDisturbance The mass disturbed per disturbance. Valid values: 0 to 1000. (Metric Tons)
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)

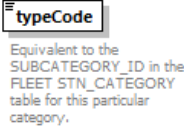
element **categorySandSaltPile/erodedSurfaceArea**

diagram	 erodedSurfaceArea Eroded surface area of pile. Valid values: 0 to 1000. (meters²)
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)

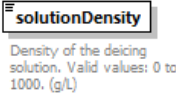
element **categorySolventDegreaser**

diagram	 The diagram shows the structure of the categorySolventDegreaser element. It is a container element (rectangle with a small square on the right) that contains four child elements. The first child is typeCode (rectangle with a small square on the right). The second child is solutionDensity (rectangle with a small square on the right). The third child is percentSolventDisposed (rectangle with a small square on the right). The fourth child is pollutionControlFactor (rectangle with a small square on the right, shown with a dashed border). The categorySolventDegreaser element is described as: "Describes the operational characteristics of a source in the solvent degreaser category." typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category. solutionDensity Density of the deicing solution. Valid values: 0 to 1000. (g/L) percentSolventDisposed Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%) pollutionControlFactor Percent of emissions removed by pollution control measures. Valid values: 0 to 100. (%)
properties	content complex
children	typeCode solutionDensity percentSolventDisposed pollutionControlFactor
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the solvent degreaser category.

element **categorySolventDegreaser/typeCode**

diagram	 The diagram shows the typeCode element, which is a simple content element (rectangle). It is described as: "Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category."
type	int1to13
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 13
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.

element **categorySolventDegreaser/solutionDensity**

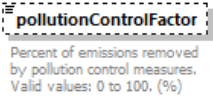
diagram	 The diagram shows the solutionDensity element, which is a simple content element (rectangle). It is described as: "Density of the deicing solution. Valid values: 0 to 1000. (g/L)"
type	doubleExclusive2000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation Density of the deicing solution. Valid values: 0 to 1000. (g/L)

element **categorySolventDegreaser/percentSolventDisposed**

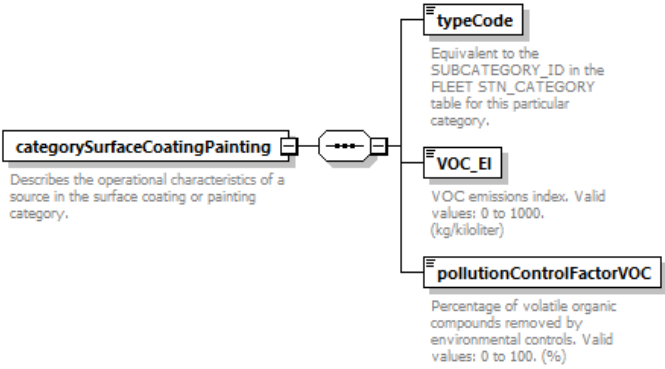
diagram	 The diagram shows the percentSolventDisposed element, which is a simple content element (rectangle). It is described as: "Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%)"
type	xs:double
properties	content simple default 0

annotation	documentation Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%)
------------	--

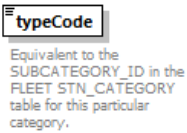
element **categorySolventDegreaser/pollutionControlFactor**

diagram	 pollutionControlFactor Percent of emissions removed by pollution control measures. Valid values: 0 to 100. (%)
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of emissions removed by pollution control measures. Valid values: 0 to 100. (%)

element **categorySurfaceCoatingPainting**

diagram	 categorySurfaceCoatingPainting Describes the operational characteristics of a source in the surface coating or painting category. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category. VOC_EI VOC emissions index. Valid values: 0 to 1000. (kg/kiloliter) pollutionControlFactorVOC Percentage of volatile organic compounds removed by environmental controls. Valid values: 0 to 100. (%)
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	 typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.
type	int1to8
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.

element **categorySurfaceCoatingPainting/VOC_EI**

diagram	 VOC_EI VOC emissions index. Valid values: 0 to 1000. (kg/kiloliter)
type	doubleInclusive1000

properties	content complex
children	typeCode CO EI VOC EI NOx EI SOx EI PM10 EI CO2 EI CH4 EI PM25 EI
used by	element stationarySource
annotation	documentation Supports data in the STN_TRAINING_FIRE 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	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.
type	int1to5
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

element **categoryTrainingFire/CO_EI**

diagram	CO_EI Carbon monoxide emissions index. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation Carbon monoxide emissions index. Valid values: 0 to 10. (kg/gal)

element **categoryTrainingFire/VOC_EI**

diagram	VOC_EI Volatile organic compounds emissions index. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation Volatile organic compounds emissions index. Valid values: 0 to 10. (kg/gal)

element **categoryTrainingFire/NOx_EI**

diagram	NOx_EI Nitrous oxides emissions index. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation Nitrous oxides emissions index. Valid values: 0 to 10. (kg/gal)

element **categoryTrainingFire/SOx_EI**

diagram	SOx_EI Sulfur oxides emissions index. Valid values: 0 to 10. (kg/gal)
---------	---

type	xs:double
properties	content simple
annotation	documentation Sulfur oxides emissions index. Valid values: 0 to 10. (kg/gal)

element **categoryTrainingFire/PM10_EI**

diagram	PM10_EI 10-micron particulate matter emissions index. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation 10-micron particulate matter emissions index. Valid values: 0 to 10. (kg/gal)

element **categoryTrainingFire/CO2_EI**

diagram	CO2_EI CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.

element **categoryTrainingFire/CH4_EI**

diagram	CH4_EI Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3). NOTE: Not used in AEDT.

element **categoryTrainingFire/PM25_EI**

diagram	PM25_EI PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	<u>doubleInclusive1000</u>
properties	content simple

	default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **centroid**

diagram	
properties	content complex
children	stateFips countyFips blockId bnaId 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	 Optional census state identifier.
type	xs:int
properties	content simple
annotation	documentation Optional census state identifier.

element **centroid/countyFips**

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

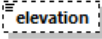
element **centroid/blockId**

diagram	 Optional census BLOCK ID.
type	xs:int
properties	content simple
annotation	documentation Optional census BLOCK ID.

element **centroid/bnald**

diagram	 Optional census BNA ID.
type	<u>string6</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Optional census BNA ID.

element **centroid/elevation**

diagram	 The centroid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.
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	 The population count of the centroid. Valid values: 0 to 999999.
---------	---

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

element **climate**

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

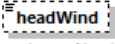
element **climate/temperature**

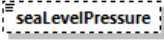
diagram	
type	xs:float
properties	content simple

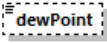
annotation	documentation Temperature in the climate condition. (°F)
------------	---

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

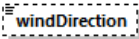
element climate/humidity	
diagram	 Humidity in the climate condition. (%)
type	xs:double
properties	content simple
annotation	documentation Humidity in the climate condition. (%)

element climate/headWind	
diagram	 Velocity of headwind. (knots)
type	xs:float
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Velocity of headwind. (knots)

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

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

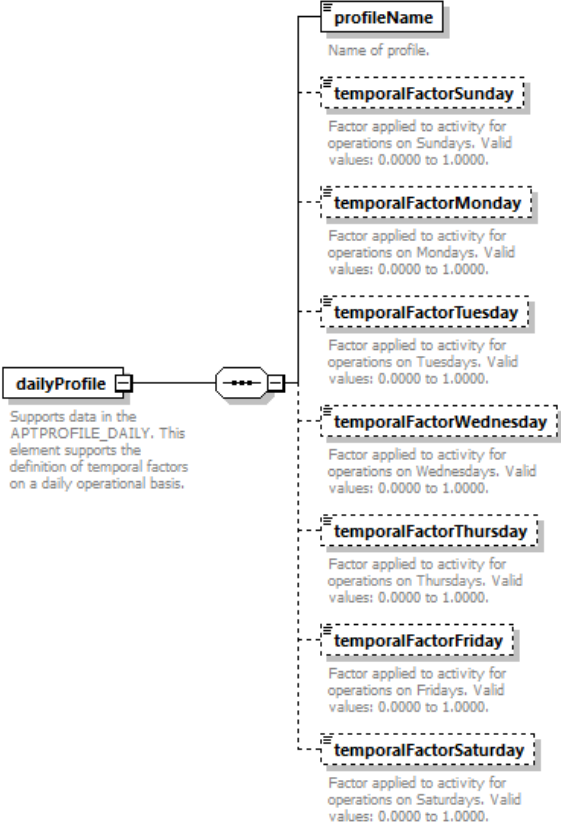
element climate/windDirection	
--------------------------------------	--

diagram	 Wind direction. Valid values: 0-360. (decimal degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Wind direction. Valid values: 0-360. (decimal degrees)

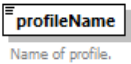
element **climate/visibility**

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

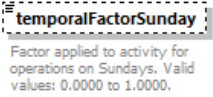
element **dailyProfile**

diagram	
properties	content complex
children	profileName temporalFactorSunday temporalFactorMonday temporalFactorTuesday temporalFactorWednesday temporalFactorThursday temporalFactorFriday temporalFactorSaturday .
used by	element dailyProfileSet
annotation	documentation Supports data in the APTPROFILE_DAILY. This element supports the definition of temporal factors on a daily operational basis.

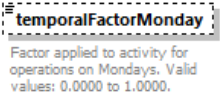
element **dailyProfile/profileName**

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

element **dailyProfile/temporalFactorSunday**

diagram	
type	<u>doubleMin0</u>
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.

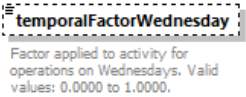
element **dailyProfile/temporalFactorMonday**

diagram	
type	<u>doubleMin0</u>
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**

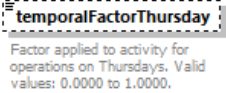
diagram	
type	<u>doubleMin0</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Tuesdays. Valid values: 0.0000 to 1.0000.

element **dailyProfile/temporalFactorWednesday**

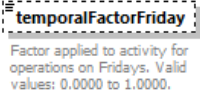
diagram	
---------	---

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.

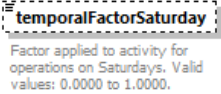
element **dailyProfile/temporalFactorThursday**

diagram	
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	
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	
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 The diagram shows a hierarchical structure for dispersionWeight3Type. A root box labeled dispersionWeight3 is connected to two subtrack boxes. The top subtrack box is connected to a backbone box (described as 'Represents the centerline of a set of dispersed tracks.') and a weightl1 box (described as 'Specify the dispersion weight for the first left subtrack.'). The bottom subtrack box is connected to a weightr1 box (described as 'Specify the dispersion weight for the first right subtrack.').	
type <u>dispersionWeight3Type</u>	
properties content complex	
children <u>backbone</u> <u>weightl1</u> <u>weightr1</u>	

element **dispersionWeight/dispersionWeight5**

diagram The diagram shows a hierarchical structure for dispersionWeight5Type. A root box labeled dispersionWeight5 is connected to three subtrack boxes. The top subtrack box is connected to a backbone box (described as 'Represents the centerline of a set of dispersed tracks.') and a weightl1 box (described as 'Specify the dispersion weight for the first left subtrack.'). The middle subtrack box is connected to a weightr1 box (described as 'Specify the dispersion weight for the first right subtrack.'). The bottom subtrack box is connected to a weightl2 box (described as 'Specify the dispersion weight for the second left subtrack.') and a weightr2 box (described as 'Specify the dispersion weight for the second right subtrack.').	
type <u>dispersionWeight5Type</u>	
properties content complex	
children <u>backbone</u> <u>weightl1</u> <u>weightr1</u> <u>weightl2</u> <u>weightr2</u>	

element **dispersionWeight/dispersionWeight7**

diagram	dispersionWeight7 dispersionWeight7Type backbone Represents the centerline of a set of dispersed tracks. weightl1 Specify the dispersion weight for the first left subtrack. weightr1 Specify the dispersion weight for the first right subtrack. weightl2 Specify the dispersion weight for the second left subtrack. weightr2 Specify the dispersion weight for the second right subtrack. weightl3 Specify the dispersion weight for the third left subtrack. weightr3 Specify the dispersion weight for the third right subtrack.
type	dispersionWeight7Type
properties	content complex
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3

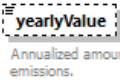
element **dispersionWeight**/dispersionWeight9

diagram	
type dispersionWeight9Type	
properties content complex	
children backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3 weightl4 weightr4	

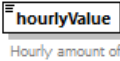
element
 emissionsUsage

diagram	
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.	

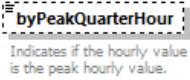
element
 emissionsUsage/yearlyValue

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Annualized amount of emissions.

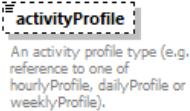
element **emissionsUsage/hourlyValue**

diagram	
type	xs:double
properties	content simple
annotation	documentation Hourly amount of emissions.

element **emissionsUsage/byPeakQuarterHour**

diagram	
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	
type	<u>string40</u>
properties	minOcc 0 maxOcc 1 content simple
used by	element <u>activityProfileSet</u>
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	
properties	content complex
children	time fuel CO HC NOx PM SN
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of custom emission factor elements.

element
 engineModeEmissionFactors/time

diagram	
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	
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	 Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s)
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	 Amount of hydrocarbons emitted. Valid values: nonnegative. (kg/s)
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	 Amount of nitrous oxide emitted. Valid values: nonnegative. (kg/s)
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	 Amount of particulate matter emitted. Valid values: nonnegative. (kg/s)
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	 Smoke number for the engine mode. Valid values: nonnegative. (kg/s)
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	
properties	content complex
children	name elevation releaseHeight sigmaY sigmaZ pointCoord polygonCoords
used by	element gateSet
annotation	documentation Supports data contained in the APTLAYOUT_GATE 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**

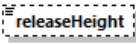
diagram	
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of gate.

element **gate/elevation**

diagram	
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	 releaseHeight Height above ground level at which emissions are released into the atmosphere. Valid values: Variable, by airport. (m)
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)

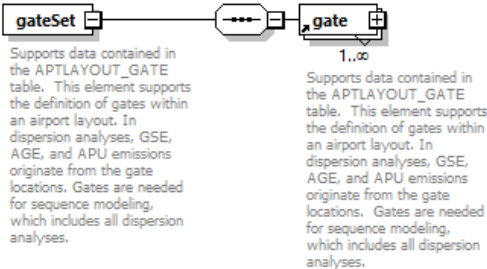
element **gate/sigmaY**

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

element **gate/sigmaZ**

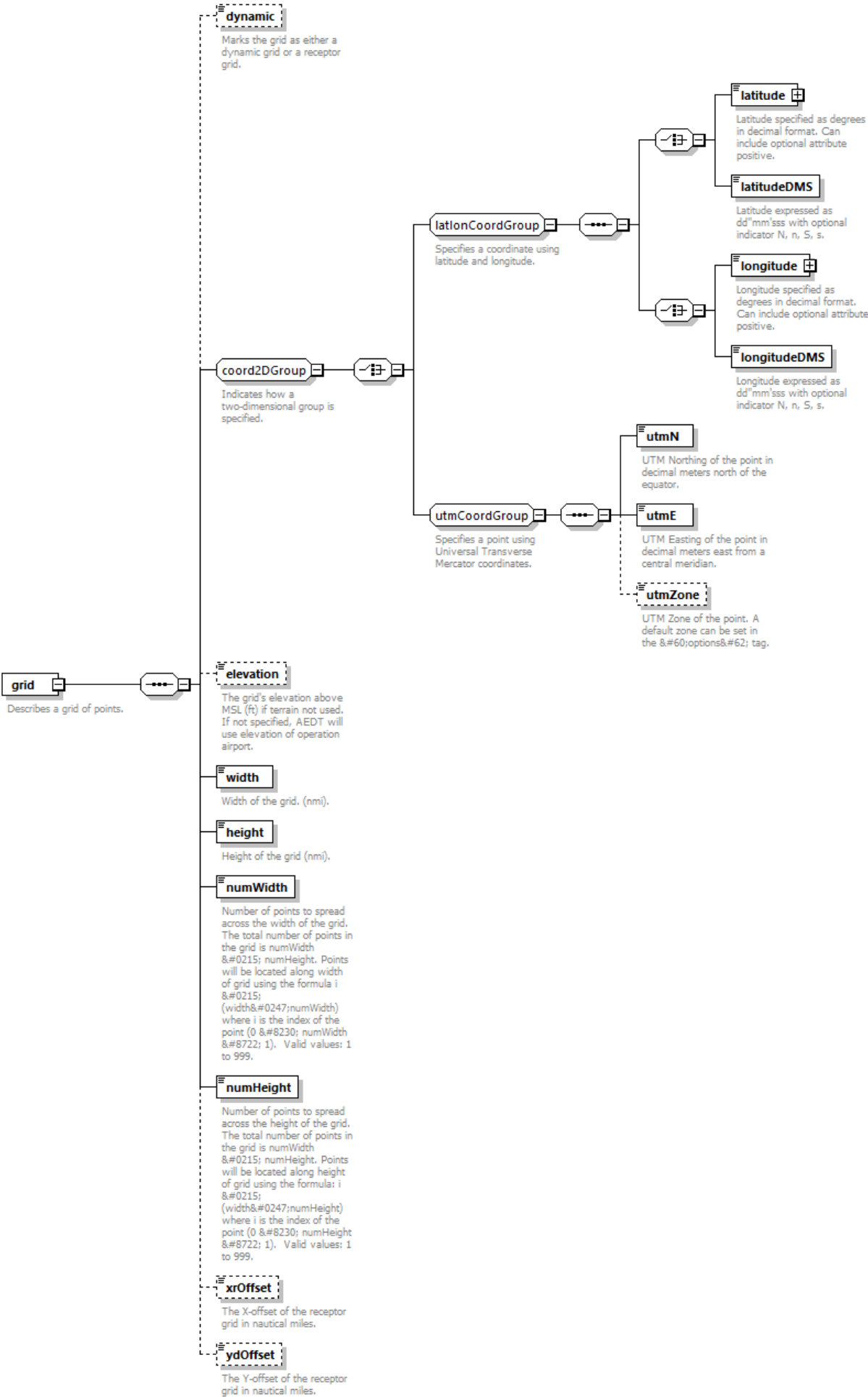
diagram	 sigmaZ Vertical dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: Variable, by airport. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Vertical dispersion parameter. For additional information, see the AEDT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

element **gateSet**

diagram	 gateSet 1,∞ Supports data contained in the APTLAYOUT_GATE 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. gate 1,∞ Supports data contained in the APTLAYOUT_GATE 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.
properties	content complex

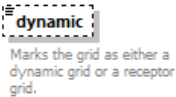
children	gate
used by	complexType airportLayoutType
annotation	documentation Supports data contained in the APTLAYOUT_GATE table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.

element **grid**

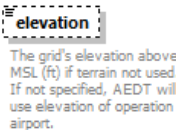


properties	content complex
children	dynamic latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation width height numWidth numHeight xrOffset ydOffset
used by	group receptorGroup
annotation	documentation Describes a grid of points.

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/width**

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

element **grid/height**

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

element **grid/numWidth**

diagram	 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: $i \&\#0215; (width\&\#0247;numWidth)$ where i is the index of the point (0 &#8230; numWidth &#8722; 1). Valid values: 1 to 999.
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 &#0215; numHeight. Points will be located along width of grid using the formula: $i \&\#0215; (width\&\#0247;numWidth)$ where i is the index of the point (0 &#8230; numWidth &#8722; 1). Valid values: 1 to 999.

element **grid/numHeight**

diagram	 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: $i \&\#0215; (width\&\#0247;numHeight)$ where i is the index of the point (0 &#8230; numHeight &#8722; 1). Valid values: 1 to 999.
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 &#0215; numHeight. Points will be located along height of grid using the formula: $i \&\#0215; (width\&\#0247;numHeight)$ where i is the index of the point (0 &#8230; numHeight &#8722; 1). Valid values: 1 to 999.

element **grid/xrOffset**

diagram	 The X-offset of the receptor grid in nautical miles.
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	 The Y-offset of the receptor grid in nautical miles.
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**

annotation	documentation Supports gate assignments for GSE operations in the STN_OP_GSE table. This element supports the definition of gate to ground support equipment assignments.
------------	--

attribute **groundSupportEquipmentGateAssignmentSet/@dummy**

type	xs:int
properties	use optional

element **groundSupportEquipmentLTOperation**

diagram	The diagram shows the groundSupportEquipmentLTOperation element as a container for several child elements. The children are: gselID (The GSE ID.), fuelType, horsepower (GSE horsepower in bore hp. Valid values: 0.00 to 10000.00, (hp)), loadFactor (Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.), manufactureYear (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.)), departureOpTime (The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00, (min)), and arrivalOpTime (The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00, (min)).
properties	content complex
children	gselID fuelType horsepower loadFactor manufactureYear departureOpTime arrivalOpTime
used by	element groundSupportEquipmentLTOperationSet
annotation	documentation Describes operation of GSE operation.

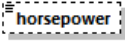
element **groundSupportEquipmentLTOperation/gselID**

diagram	The diagram shows the gselID element as a container for a single child element: gselID (The GSE ID.).
type	xs:int
properties	content simple
annotation	documentation The GSE ID.

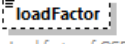
element **groundSupportEquipmentLTOperation/fuelType**

diagram	The diagram shows the fuelType element as a container for a single child element: fuelType.
type	fuelType
properties	content simple
facets	Kind Value Annotation pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric

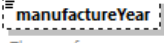
element **groundSupportEquipmentLTOperation/horsepower**

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)

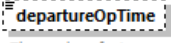
element **groundSupportEquipmentLTOOperation/loadFactor**

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**

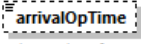
diagram	 The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

diagram	
properties	content complex
children	gselID fuelType gseType numUnits annualOpTime pkQtrHourOpTime activityProfile horsepower loadFactor useNonRoad manufactureYear groundSupportEquipmentGateAssignmentSet
used by	element groundSupportEquipmentPopulationOperationSet
annotation	documentation Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage.

element **groundSupportEquipmentPopulationOperation/gselID**

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

element **groundSupportEquipmentPopulationOperation/fuelType**

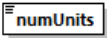
diagram	
type	fuelType
properties	content simple

facets	Kind Value	Annotation
	pattern G[Gasoline]D[Diesel]C[Compressed Natural Gas]L[Liquefied Petroleum Gas]E[Electric]	

element **groundSupportEquipmentPopulationOperation/gseType**

diagram	 gseType The type of GSE.	
type	xs:string	
properties	content simple	
annotation	documentation The type of GSE.	

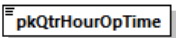
element **groundSupportEquipmentPopulationOperation/numUnits**

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

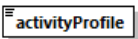
element **groundSupportEquipmentPopulationOperation/annualOpTime**

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

element **groundSupportEquipmentPopulationOperation/pkQtrHourOpTime**

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

element **groundSupportEquipmentPopulationOperation/activityProfile**

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

element **groundSupportEquipmentPopulationOperation/horsepower**

diagram	horsepower Horsepower is in hp units. Valid values: 0 to 10000. (hp)
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	loadFactor Load factor of GSE. (Will be empty for APU.) Valid values: 0 to 100.
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	useNonRoad User non-road version flag.
type	xs:boolean
properties	content simple
annotation	documentation User non-road version flag.

element groundSupportEquipmentPopulationOperation/manufactureYear

diagram	manufactureYear The manufacture year and age of the equipment, if not using system defaults. Valid values: 1900 to 2050. (Latest valid date 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: 1900 to 2050. (Latest valid date will be the year of the study.)

element groundSupportEquipmentPopulationOperationSet

diagram	attributes dummy groundSupportEquipmentPopul... Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage. groundSupportEquipmentPopul... Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage. 1..∞
properties	content complex
children	groundSupportEquipmentPopulationOperation

used by	group airportActivityGroup					
attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy .	xs:int	optional			
annotation	documentation Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage.					

attribute **groundSupportEquipmentPopulationOperationSet/@dummy**

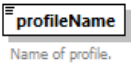
type	xs:int
properties	use optional

element **monthlyProfile**

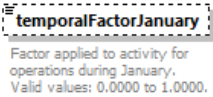
diagram	monthlyProfile Supports data in the APTPROFILE_MONTHLY. This element supports the definition of temporal factors on a monthly operational basis. profileName Name of profile. temporalFactorJanuary Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000. temporalFactorFebruary Factor applied to activity for operations during February. Valid values: 0.0000 to 1.0000. temporalFactorMarch Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000. temporalFactorApril Factor applied to activity for operations during April. Valid values: 0.0000 to 1.0000. temporalFactorMay Factor applied to activity for operations during May. Valid values: 0.0000 to 1.0000. temporalFactorJune Factor applied to activity for operations during June. Valid values: 0.0000 to 1.0000. temporalFactorJuly Factor applied to activity for operations during July. Valid values: 0.0000 to 1.0000. temporalFactorAugust Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000. temporalFactorSeptember Factor applied to activity for operations during September. Valid values: 0.0000 to 1.0000. temporalFactorOctober Factor applied to activity for operations during October. Valid values: 0.0000 to 1.0000. temporalFactorNovember Factor applied to activity for operations during November. Valid values: 0.0000 to 1.0000. temporalFactorDecember Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.
properties	content complex
children	profileName temporalFactorJanuary temporalFactorFebruary temporalFactorMarch temporalFactorApril temporalFactorMay temporalFactorJune temporalFactorJuly temporalFactorAugust temporalFactorSeptember temporalFactorOctober temporalFactorNovember temporalFactorDecember

used by	element monthlyProfileSet
annotation	documentation Supports data in the APTPROFILE_MONTHLY. This element supports the definition of temporal factors on a monthly operational basis.

element **monthlyProfile/profileName**

diagram	 The diagram shows a box labeled 'profileName' with a dashed border. Below the box, the text 'Name of profile.' is displayed.
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Name of profile.

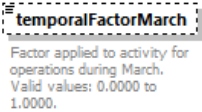
element **monthlyProfile/temporalFactorJanuary**

diagram	 The diagram shows a box labeled 'temporalFactorJanuary' with a dashed border. Below the box, the text 'Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000.' is displayed.
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	 The diagram shows a box labeled 'temporalFactorFebruary' with a dashed border. Below the box, the text 'Factor applied to activity for operations during February. Valid values: 0.0000 to 1.0000.' is displayed.
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	 The diagram shows a box labeled 'temporalFactorMarch' with a dashed border. Below the box, the text 'Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000.' is displayed.
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	

annotation	documentation Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000.
------------	--

element **monthlyProfile/temporalFactorApril**

diagram	
type	<u>doubleMin0</u>
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	<u>doubleMin0</u>
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.

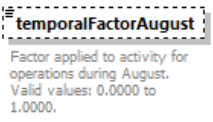
element **monthlyProfile/temporalFactorJune**

diagram	
type	<u>doubleMin0</u>
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	<u>doubleMin0</u>
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	
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.

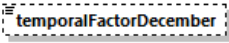
element **monthlyProfile/temporalFactorOctober**

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	 temporalFactorDecember 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	monthlyProfileSet Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations. attributes dummy monthlyProfile 0..∞ Supports data in the APTPROFILE_MONTHLY. This element supports the definition of temporal factors on a monthly operational basis.												
properties	content complex												
children	<u>monthlyProfile</u>												
used by	element <u>operationalProfileSet</u> complexType <u>airportLayoutType</u>												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td><u>dummy</u></td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	documentation Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations.												

attribute **monthlyProfileSet/@dummy**

type	xs:int
properties	use optional

element **operation**

diagram

id

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.

aircraftType

Type of aircraft in the flight.

cruiseAltitude

Override aircraft cruise altitude MSL for this operation. UNITS: feet.

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.

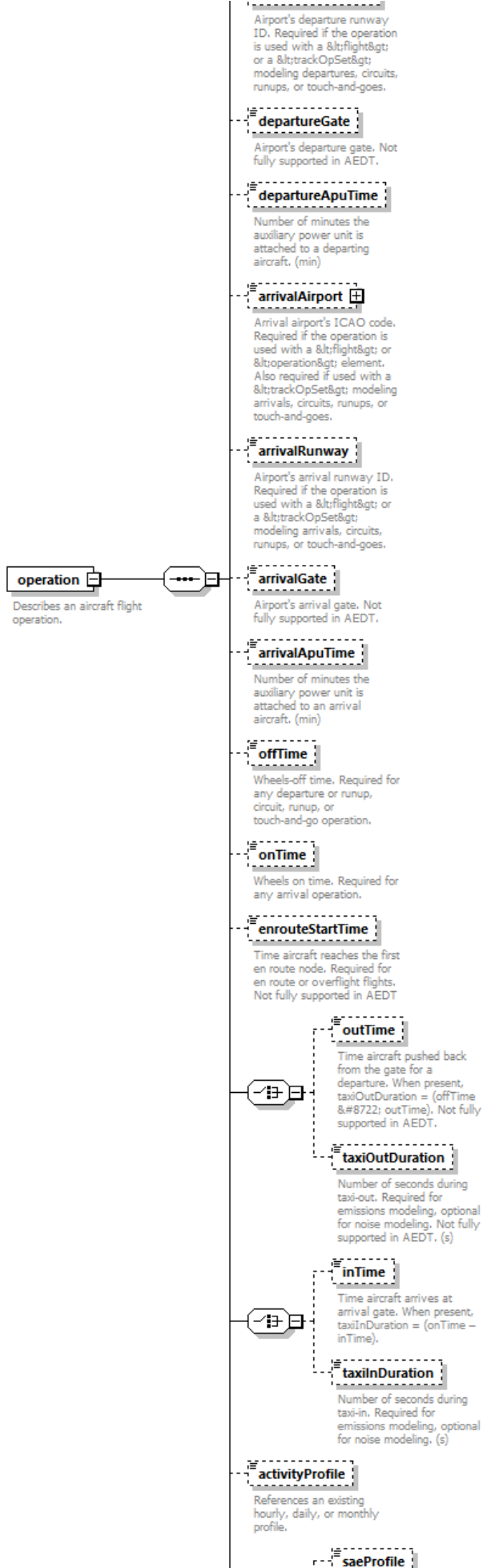
userParam

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



properties	content complex			Overrides default profile assignment for a flight's arrival and departure phases by SAE International.	
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		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.	
annotation	documentation	Describes an aircraft flight operation.		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.	
element operation/id	diagram	 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.			
type	string16			stageLength 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. actypeWeight Aircraft's weight. (lb) departureStageLength Overrides default departure stage length. Applicable if the phase is a departure phase. 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.	
properties	content simple				
facets	Kind Value Annotation minLength 0 maxLength 16			glideSlope Glide slope angle for this operation. (decimal degrees)	
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	
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 MSL for this operation. UNITS: feet.

element **operation/numOperations**

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

element **operation/opType**

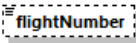
diagram	
type	opType
properties	minOcc 0

	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

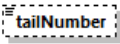
element **operation/carrier**

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.

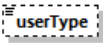
element **operation/flightNumber**

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**

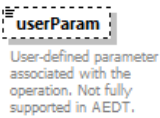
diagram	 Flight's tail number. Not fully supported in AEDT.
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Flight's tail number. Not fully supported in AEDT.

element **operation/userType**

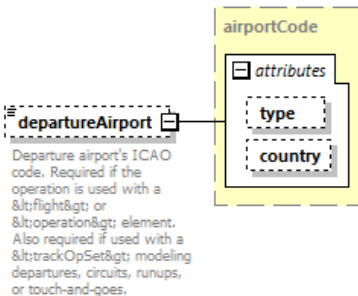
diagram	 User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.
type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0

	maxLength 12
annotation	documentation User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.

element **operation/userParam**

diagram	
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	 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. airportCode attributes type country																		
type	airportCode																		
properties	minOcc 0 maxOcc 1 content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>type</td><td>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**

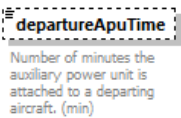
diagram	
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8

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

element **operation/departureGate**

diagram	 <pre> graph LR departureGate[departureGate] departureGate --- doc[Airport's departure gate. Not fully supported in AEDT.] </pre>
type	<code>string40</code>
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.

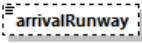
element **operation/departureApuTime**

diagram	 <pre> graph LR departureApuTime[departureApuTime] departureApuTime --- doc[Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)] </pre>
type	<code>xs:double</code>
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)

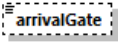
element **operation/arrivalAirport**

diagram	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. airportCode attributes type country																		
type	airportCode																		
properties	minOcc 0 maxOcc 1 content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td><u>type</u></td><td>airportCodeType</td><td>optional</td><td>ANY</td><td></td><td></td></tr><tr><td><u>country</u></td><td>string3</td><td>optional</td><td>ANY</td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	<u>type</u>	airportCodeType	optional	ANY			<u>country</u>	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
<u>type</u>	airportCodeType	optional	ANY																
<u>country</u>	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.																		

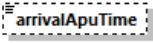
element **operation/arrivalRunway**

diagram	 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.
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	 Airport's arrival gate. Not fully supported in AEDT.
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	 Number of minutes the auxiliary power unit is attached to an arrival aircraft. (min)
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	 Wheels-off time. Required for any departure or runup, circuit, runup, or touch-and-go operation.
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	 Wheels on time. Required for any arrival operation.
---------	--

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

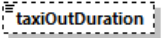
element **operation/enrouteStartTime**

diagram	 Time aircraft reaches the first en route node. Required for en route or overflight flights. Not fully supported in AEDT
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	 Time aircraft pushed back from the gate for a departure. When present, taxiOutDuration = (offTime &#8722; outTime). Not fully supported in AEDT.
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	 Number of seconds during taxi-out. Required for emissions modeling, optional for noise modeling. Not fully supported in AEDT. (s)
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	 Time aircraft arrives at arrival gate. When present, taxiInDuration = (onTime – inTime).
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Time aircraft arrives at arrival gate. When present, taxiInDuration = (onTime – inTime).

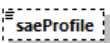
element **operation/taxiInDuration**

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

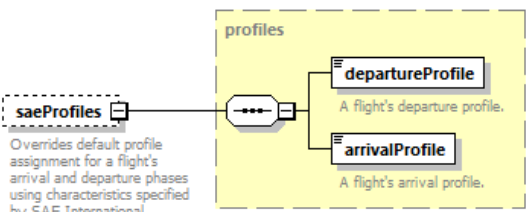
element **operation/activityProfile**

diagram	 References an existing hourly, daily, or monthly profile.
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**

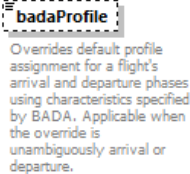
diagram	 Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when the override is unambiguously arrival or departure.
type	profileType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation 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**

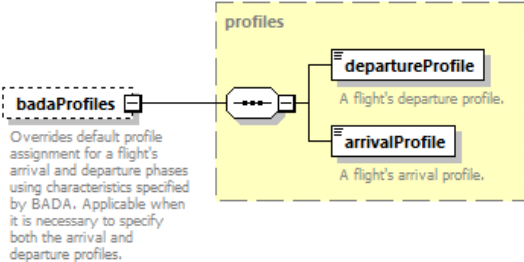
diagram	 Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when it is necessary to specify both the arrival and departure profiles.
---------	---

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.

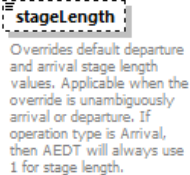
element **operation/badaProfile**

diagram	 The diagram shows a dashed box labeled badaProfile. Inside the box, the text reads: "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."
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	 The diagram shows a dashed box labeled badaProfiles. Inside the box, the text reads: "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." To the right of the box is a yellow-shaded area labeled profiles. Inside this area, there are two sub-elements: departureProfile (with the description "A flight's departure profile.") and arrivalProfile (with the description "A flight's arrival profile."). A line connects the badaProfiles box to a connector box, which then branches to connect to both the departureProfile and arrivalProfile boxes.
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	 The diagram shows a dashed box labeled stageLength. Inside the box, the text reads: "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."
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	actypeWeight Aircraft's weight. (lb)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Aircraft's weight. (lb)

element **operation/departureStageLength**

diagram	departureStageLength Overrides default departure stage length. Applicable if the phase is a departure phase.
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	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.
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	glideSlope Glide slope angle for this operation. (decimal degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

	Glide slope angle for this operation. (decimal degrees)
--	---

element **operation/fuelSulfurContent**

diagram	fuelSulfurContent Sulfur content of the fuel used in this operation. (%)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Sulfur content of the fuel used in this operation. (%)

element **operationalProfileSet**

diagram	operationalProfileSet quarterHourlyProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations. dailyProfileSet Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of operations. monthlyProfileSet Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations. activityProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.
properties	content complex
children	quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element AsifXml

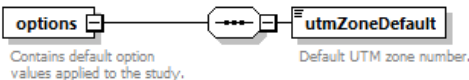
element **operations**

diagram													
properties	content complex												
children	operation												
used by	element trackOpSet												
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>Annotation</td></tr><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></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

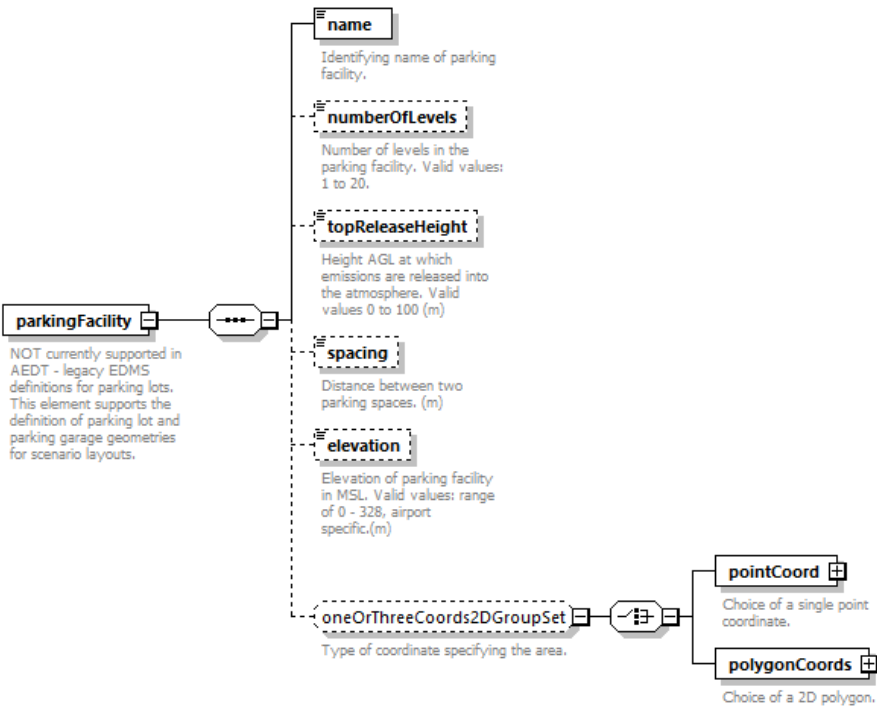
element **options**

diagram	 The diagram shows the 'options' element connected to the 'utmZoneDefault' element. The 'options' element is a rectangle with a small square icon on its left side. The 'utmZoneDefault' element is a rectangle with a small square icon on its left side. A line connects the two elements, with a small circle containing three dots in the middle. options Contains default option values applied to the study. utmZoneDefault Default UTM zone number.
properties	content complex
children	utmZoneDefault
used by	element AsifXml
annotation	documentation Contains default option values applied to the study.

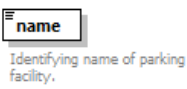
element **options/utmZoneDefault**

diagram	 The diagram shows the 'utmZoneDefault' element, which is a rectangle with a small square icon on its left side. utmZoneDefault Default UTM zone number.
type	xs:int
properties	content simple default -1
annotation	documentation Default UTM zone number.

element **parkingFacility**

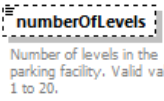
diagram	 The diagram shows the 'parkingFacility' element connected to a group of child elements. The 'parkingFacility' element is a rectangle with a small square icon on its left side. The child elements are: 'name' (rectangle with small square icon), 'numberOfLevels' (dashed rectangle with small square icon), 'topReleaseHeight' (dashed rectangle with small square icon), 'spacing' (dashed rectangle with small square icon), 'elevation' (dashed rectangle with small square icon), and 'oneOrThreeCoords2DGroupSet' (dashed rectangle with small square icon). The 'oneOrThreeCoords2DGroupSet' element is further connected to 'pointCoord' (rectangle with small square icon) and 'polygonCoords' (rectangle with small square icon). The 'pointCoord' element is connected to the 'polygonCoords' element. The 'parkingFacility' element is connected to the group of child elements by a line with a small circle containing three dots in the middle. parkingFacility NOT currently supported in AEDT - legacy EDMS definitions for parking lots. This element supports the definition of parking lot and parking garage geometries for scenario layouts. name Identifying name of parking facility. numberOfLevels Number of levels in the parking facility. Valid values: 1 to 20. topReleaseHeight Height AGL at which emissions are released into the atmosphere. Valid values 0 to 100 (m) spacing Distance between two parking spaces. (m) elevation Elevation of parking facility in MSL. Valid values: range of 0 - 328, airport specific.(m) oneOrThreeCoords2DGroupSet Type of coordinate specifying the area. pointCoord Choice of a single point coordinate. polygonCoords Choice of a 2D polygon.
properties	content complex
children	name numberOfLevels topReleaseHeight spacing elevation pointCoord polygonCoords
used by	element parkingFacilitySet
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions for parking lots. This element supports the definition of parking lot and parking garage geometries for scenario layouts.

element **parkingFacility/name**

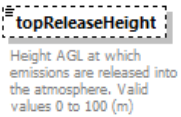
diagram	 The diagram shows the 'name' element, which is a rectangle with a small square icon on its left side. name Identifying name of parking facility.
type	string40
properties	content simple

facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of parking facility.

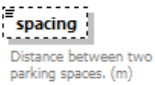
element **parkingFacility/numberOfLevels**

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

element **parkingFacility/elevation**

diagram	
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)

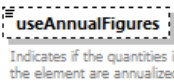
element **parkingFacilityOperation**

diagram	The diagram shows the structure of the parkingFacilityOperation element. It is a container element (rectangle with a small square in the top-left corner) connected to a dashed-line container (rectangle with a dashed border and a small square in the top-left corner). Inside the dashed container are several sub-elements: refName (solid rectangle), useAnnualFigures (dashed rectangle), vehicleType (solid rectangle), fuelType (solid rectangle), emissionsUsage (dashed rectangle with a plus icon), averageSpeed (dashed rectangle), averageDistanceTraveled (dashed rectangle), averageIdleTime (dashed rectangle), and vehicleEmissionFactors (dashed rectangle with a plus icon). Each sub-element has a descriptive text block below it. refName Identifying name of parking facility. useAnnualFigures Indicates if the quantities in the element are annualized. vehicleType 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. fuelType Type of fuel involved in the operation. emissionsUsage Describes the amount of emissions for a given activity profile. averageSpeed Average speed during the operation. Valid values: 2.5 to 40. (mph) averageDistanceTraveled Average distance traveled during the operation. Valid values: 0 to 32808. (m) averageIdleTime Average time vehicle is idle while conducting the operation. Valid values: 0 to 30. (min) vehicleEmissionFactors NOT currently supported in AEDT - legacy EDMS definitions for emission factors for Roadways and Parking Lots. This element supports the definition of custom emission factor specifications for roadways and parking. parkingFacilityOperation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.
properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage averageSpeed averageDistanceTraveled averageIdleTime vehicleEmissionFactors
used by	element parkingFacilityOperationSet
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.

element **parkingFacilityOperation/refName**

diagram	The diagram shows the refName element as a solid rectangle with the text "Identifying name of parking facility." below it.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of parking facility.

element **parkingFacilityOperation/useAnnualFigures**

diagram	 useAnnualFigures Indicates if the quantities in the element are annualized.
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	 vehicleType 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.
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	 fuelType Type of fuel involved in the operation.
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**

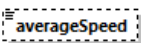
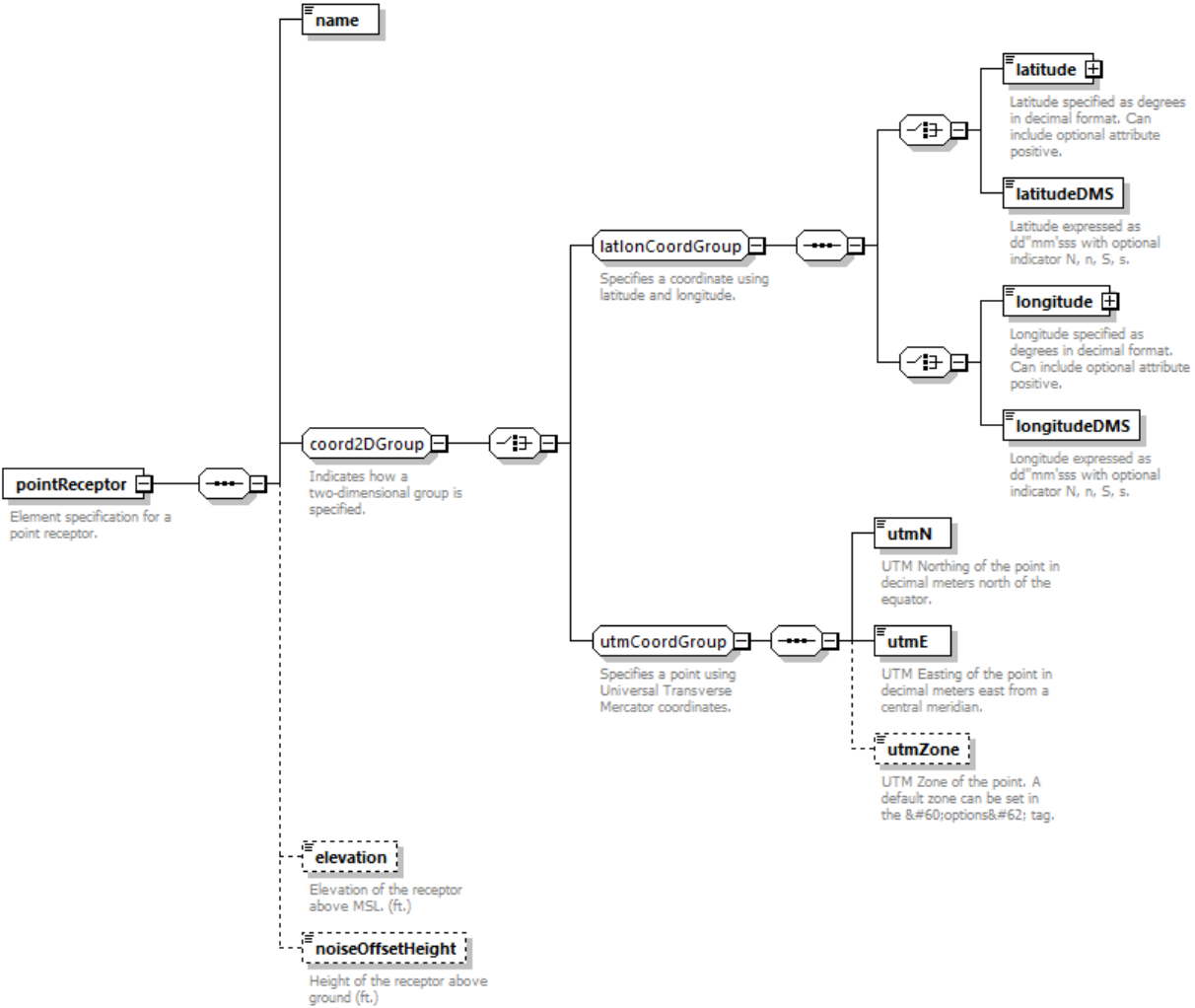
diagram	 averageSpeed Average speed during the operation. Valid values: 2.5 to 40. (mph)
type	xs:double
properties	minOcc 0 maxOcc 1

diagram	attributes dummy parkingFacilitySet NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts. parkingFacility 1..∞ NOT currently supported in AEDT - legacy EDMS definitions for parking lots. This element supports the definition of parking lot and parking garage geometries for scenario layouts.												
properties	content complex												
children	parkingFacility .												
used by	complexType airportLayoutType												
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>Annotation</td></tr><tr><td>dummy.</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	dummy .	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy .	xs:int	optional											
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions. 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**

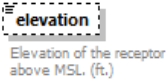
diagram	 Diagram illustrating the structure of pointReceptor. It is a complex type containing a name element, a coord2DGroup group, and a latlonCoordGroup group. The coord2DGroup group is optional (indicated by a dashed line) and contains a coord2DGroup element. The latlonCoordGroup group is optional (indicated by a dashed line) and contains a latlonCoordGroup element. The latlonCoordGroup element is also optional (indicated by a dashed line) and contains a latlonCoordGroup element. The latlonCoordGroup element is also optional (indicated by a dashed line) and contains a latlonCoordGroup element. The latlonCoordGroup element is also optional (indicated by a dashed line) and contains a latlonCoordGroup element. Element specification for a point receptor. Indicates how a two-dimensional group is specified. Specifies a coordinate using latitude and longitude. Latitude specified as degrees in decimal format. Can include optional attribute positive. Latitude expressed as dd°mm'sss with optional indicator N, n, S, s. Longitude specified as degrees in decimal format. Can include optional attribute positive. Longitude expressed as dd°mm'sss with optional indicator N, n, S, s. UTM Northing of the point in decimal meters north of the equator. UTM Easting of the point in decimal meters east from a central meridian. UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag. Elevation of the receptor above MSL. (ft.) Height of the receptor above ground (ft.)
properties	content complex
children	name latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation noiseOffsetHeight

used by	group receptorGroup
annotation	documentation Element specification for a point receptor.

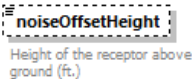
element **pointReceptor/name**

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

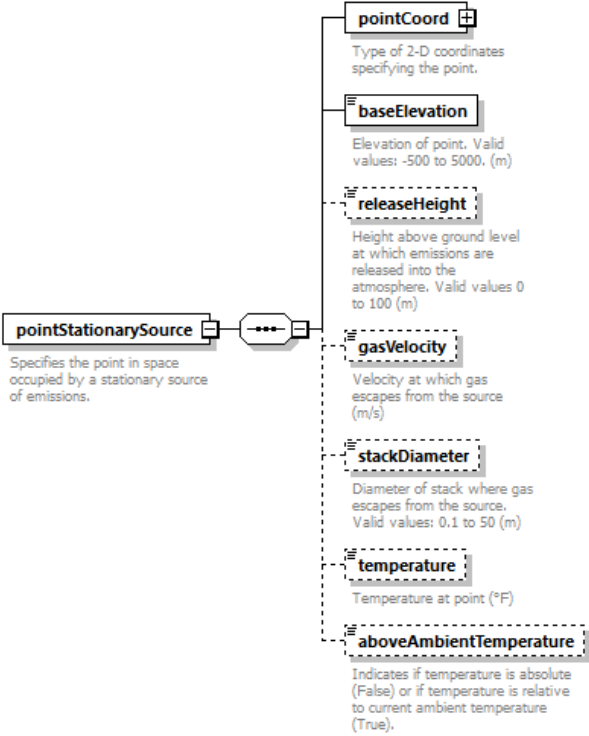
element **pointReceptor/elevation**

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

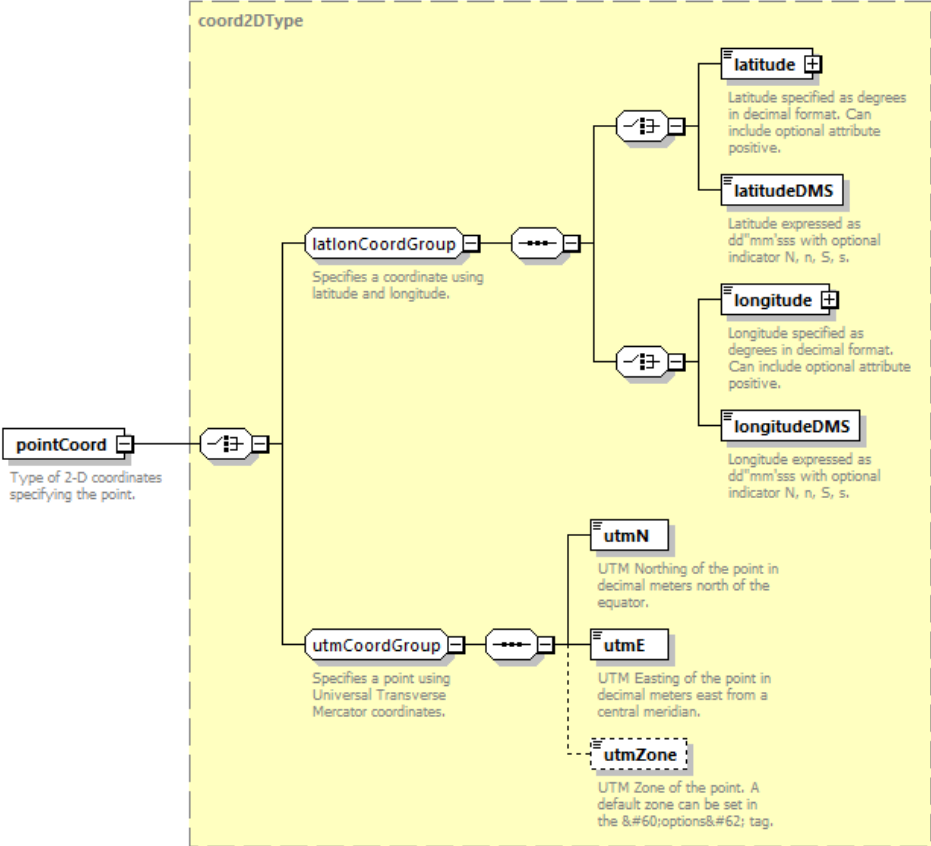
element **pointReceptor/noiseOffsetHeight**

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

element **pointStationarySource**

diagram	 The diagram shows a pointStationarySource element connected to a pointCoord element. The pointStationarySource element is described as "Specifies the point in space occupied by a stationary source of emissions." The pointCoord element is described as "Type of 2-D coordinates specifying the point." Below pointCoord, there are several optional elements: 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 (m/s)), stackDiameter (Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)), temperature (Temperature at point (°F)), and 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	 The diagram shows a pointCoord element connected to a coord2DType container. The pointCoord element is described as "Type of 2-D coordinates specifying the point." The coord2DType container contains two main groups: latlonCoordGroup and utmCoordGroup. The latlonCoordGroup is described as "Specifies a coordinate using latitude and longitude." It contains two optional elements: latitude (Latitude specified as degrees in decimal format. Can include optional attribute positive.) and latitudeDMS (Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.). The longitude (Longitude specified as degrees in decimal format. Can include optional attribute positive.) and longitudeDMS (Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.) elements are also optional. The utmCoordGroup is described as "Specifies a point using Universal Transverse Mercator coordinates." It contains two optional elements: utmN (UTM Northing of the point in decimal meters north of the equator.) and utmE (UTM Easting of the point in decimal meters east from a central meridian.). The utmZone (UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.) element is also optional.
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	baseElevation Elevation of point. Valid values: -500 to 5000. (m)
type	xs:double
properties	content simple
annotation	documentation Elevation of point. Valid values: -500 to 5000. (m)

element **pointStationarySource/releaseHeight**

diagram	releaseHeight Height above ground level 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 above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

element **pointStationarySource/gasVelocity**

diagram	gasVelocity Velocity at which gas escapes from the source (m/s)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Velocity at which gas escapes from the source (m/s)

element **pointStationarySource/stackDiameter**

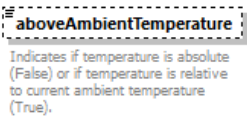
diagram	stackDiameter Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)
type	doubleExclusive0Inclusive10
properties	minOcc 0 maxOcc 1 content simple default 0.1
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation

	Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)
--	--

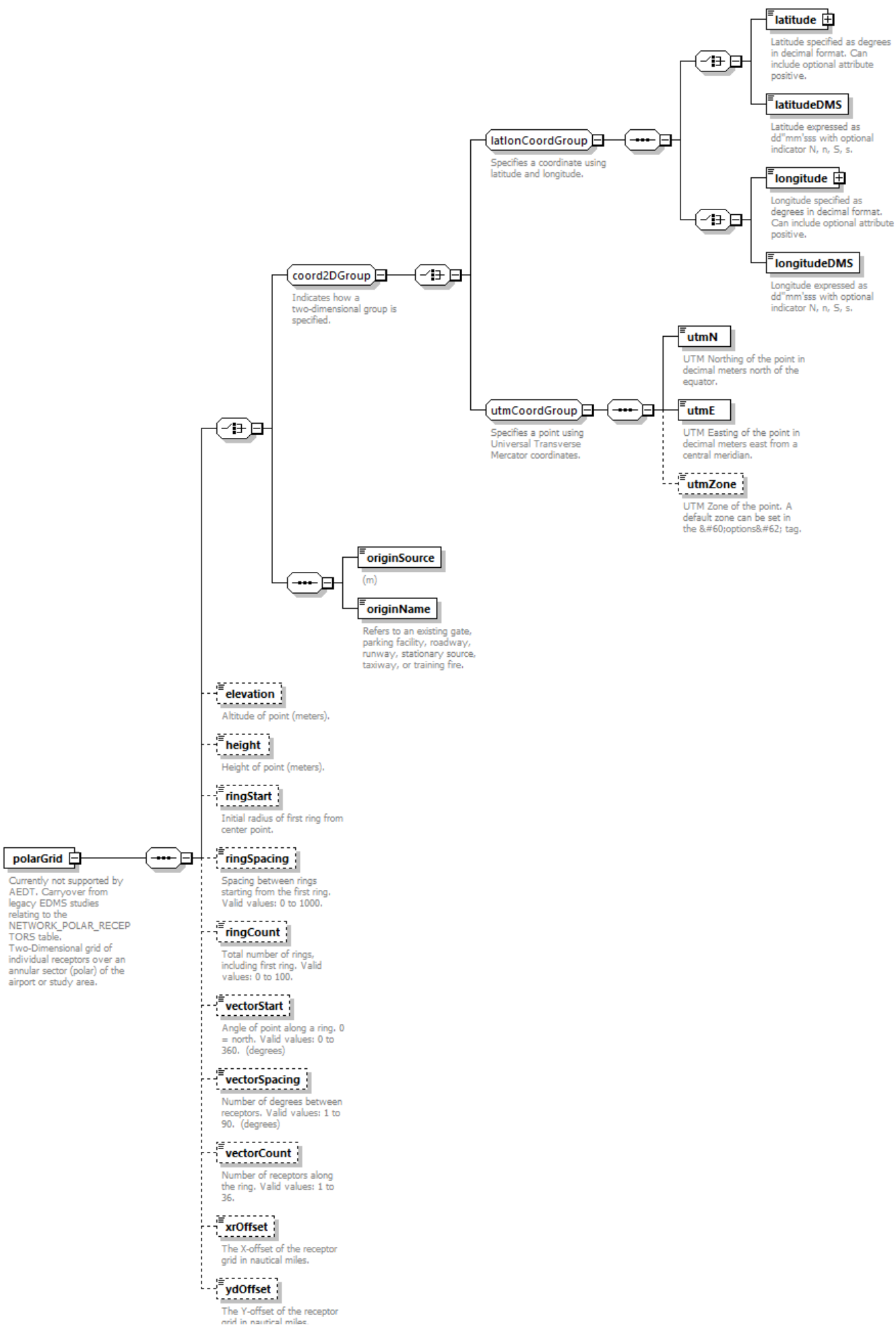
element **pointStationarySource/temperature**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 32
annotation	documentation Temperature at point (°F)

element **pointStationarySource/aboveAmbientTemperature**

diagram	
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**

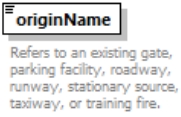


properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone originSource originName elevation height ringStart ringSpacing ringCount vectorStart vectorSpacing vectorCount xrOffset ydOffset
used by	group receptorGroup
annotation	documentation Currently not supported by AEDT. Carryover from 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 Stionary Source Taxiway Training Fire
annotation	documentation (m)

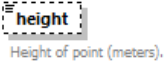
element **polarGrid/originName**

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

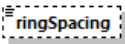
element **polarGrid/height**

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

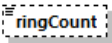
element **polarGrid/ringStart**

diagram	 Initial radius of first ring from center point.
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	 Spacing between rings starting from the first ring. Valid values: 0 to 1000.
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.

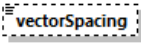
element **polarGrid/ringCount**

diagram	 Total number of rings, including first ring. Valid values: 0 to 100.
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**

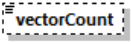
diagram	 Angle of point along a ring. 0 = north. Valid values: 0 to 360. (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Angle of point along a ring. 0 = north. Valid values: 0 to 360. (degrees)

element **polarGrid/vectorSpacing**

diagram	 Number of degrees between receptors. Valid values: 1 to 90. (degrees)
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	 Number of receptors along the ring. Valid values: 1 to 36.
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	 The X-offset of the receptor grid in nautical miles.
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	 The Y-offset of the receptor grid in nautical miles.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The Y-offset of the receptor grid in nautical miles.

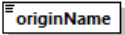
element **polarReceptor**

diagram	
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone originSource originName distanceFromSource directionFromSource elevation height
used by	group receptorGroup
annotation	documentation Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEPTORS and DISCRETE_POLAR_RECEPTORS table. Defines receptor points within a polar grid.

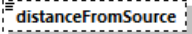
element
 polarReceptor/originSource

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

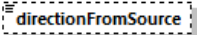
element
 polarReceptor/originName

diagram	 Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.
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.

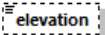
element **polarReceptor/distanceFromSource**

diagram	 Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft)
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	 Direction of point from polar origin. Valid values: 0 through 360. (degrees)
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**

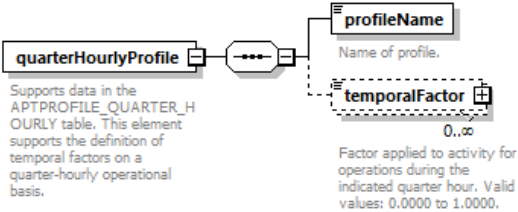
diagram	 Altitude of point. (meters).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Altitude of point. (meters).

element **polarReceptor/height**

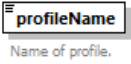
diagram	 Height of point. (meters).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0

annotation	documentation Height of point. (meters).
------------	---

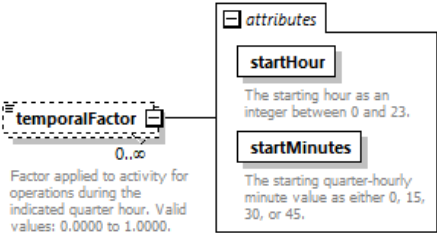
element **quarterHourlyProfile**

diagram	 Supports data in the APTPROFILE_QUARTER_HOURLY table. This element supports the definition of temporal factors on a quarter-hourly operational basis. quarterHourlyProfile profileName Name of profile. temporalFactor Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000.
properties	content complex
children	profileName temporalFactor
used by	element quarterHourlyProfileSet
annotation	documentation Supports data in the APTPROFILE_QUARTER_HOURLY table. This element supports the definition of temporal factors on a quarter-hourly operational basis.

element **quarterHourlyProfile/profileName**

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

element **quarterHourlyProfile/temporalFactor**

diagram	 temporalFactor Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000. attributes startHour The starting hour as an integer between 0 and 23. startMinutes The starting quarter-hourly minute value as either 0, 15, 30, or 45.					
type	extension of doubleMin0					
properties	minOcc 0 maxOcc unbounded content complex					
facets	Kind Value Annotation minInclusive 0					
attributes	Name startHour	Type int0to23	Use required	Default	Fixed	Annotation 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	Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations. Supports data in the APTPROFILE_QUARTER_HOURLY table. This element supports the definition of temporal factors on a quarter-hourly operational basis.					
properties	content complex					
children	quarterHourlyProfile					
used by	element operationalProfileSet complexType airportLayoutType					
attributes	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	
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	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Descriptive name of the receptor set.

element
 recordCode

diagram	
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 AEDT FLEET database. Valid values: 0 to 87, 89 to 148.

element **roadway**

diagram	
properties	content complex
children	name width coordinates
used by	element roadwaySet
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle geometry on roadways for scenario layouts.

element **roadway/name**

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

element **roadway/width**

diagram	
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	
properties	minOcc 0 maxOcc 1 content complex
children	vertex
annotation	documentation Set of three-dimensional coordinates describing the roadway.

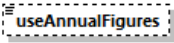
diagram	The diagram illustrates the structure of the coord3DElevationType. It shows a vertex (2..∞) representing a point, which is associated with a coord3DElevationType container. This container includes an optional elevation and a choice between two coordinate systems: latlonCoordGroup and utmCoordGroup. latlonCoordGroup further branches into latitude (which can be decimal or DMS) and longitude (which can be decimal or DMS). utmCoordGroup branches into utmN (Northing) and utmE (Easting), with an optional utmZone.
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.

diagram	
properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage vehicleEmissionFactors speed roundTripDistance
used by	element roadwayOperationSet
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.

element **roadwayOperation/refName**

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

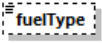
element **roadwayOperation/useAnnualFigures**

diagram	 Indicates if the quantities in the element are annualized.
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	 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 Busses, 15 = Transit and Urban Busses, 16 = Motorcycle.
type	<u>groundVehicleType</u>
properties	content simple
facets	Kind Value 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 Busses 15 Transit and Urban Busses 16 Motorcycle Annotation
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 Busses, 15 = Transit and Urban Busses, 16 = Motorcycle.

element **roadwayOperation/fuelType**

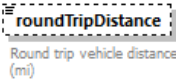
diagram	 Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel.
type	<u>fuelType</u>
properties	minOcc 0 maxOcc 1 content simple default G
facets	Kind Value pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric Annotation
annotation	documentation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

element **roadwayOperation/speed**

diagram	 Speed during the operation. Valid values: 5 to 65. (mph)
type	<u>int5to65</u>
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	 <pre> graph LR roundTripDistance[roundTripDistance] roundTripDistance --- text[Round trip vehicle distance. (mi)] </pre>
type	<u>doubleInclusive4000</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation Round trip vehicle distance. (mi)

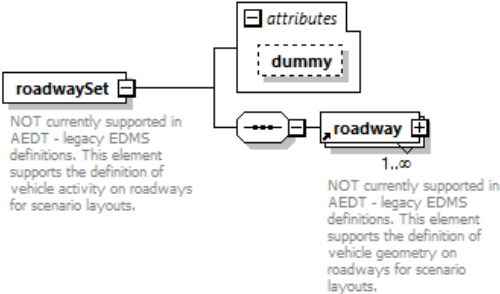
element **roadwayOperationSet**

diagram	roadwayOperationSet NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts. attributes dummy 1..∞ roadwayOperation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.												
properties	content complex												
children	roadwayOperation												
used by	group airportActivityGroup												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>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 NOT currently supported in AEDT - legacy EDMS definitions. 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	 <pre> graph LR roadwaySet[roadwaySet] roadwaySet --- attributes[attributes] attributes --- dummy[dummy] roadwaySet --- roadway[roadway] roadway --- cardinality[1..∞] </pre>
properties	content complex
children	<u>roadway</u>

used by	complexType airportLayoutType					
attributes	Name dummy .	Type xs:int	Use optional	Default	Fixed	Annotation
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions. 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	
properties	content complex
children	length width runwayEnd
used by	element runwaySet
annotation	documentation Describes dimensions of a runway.

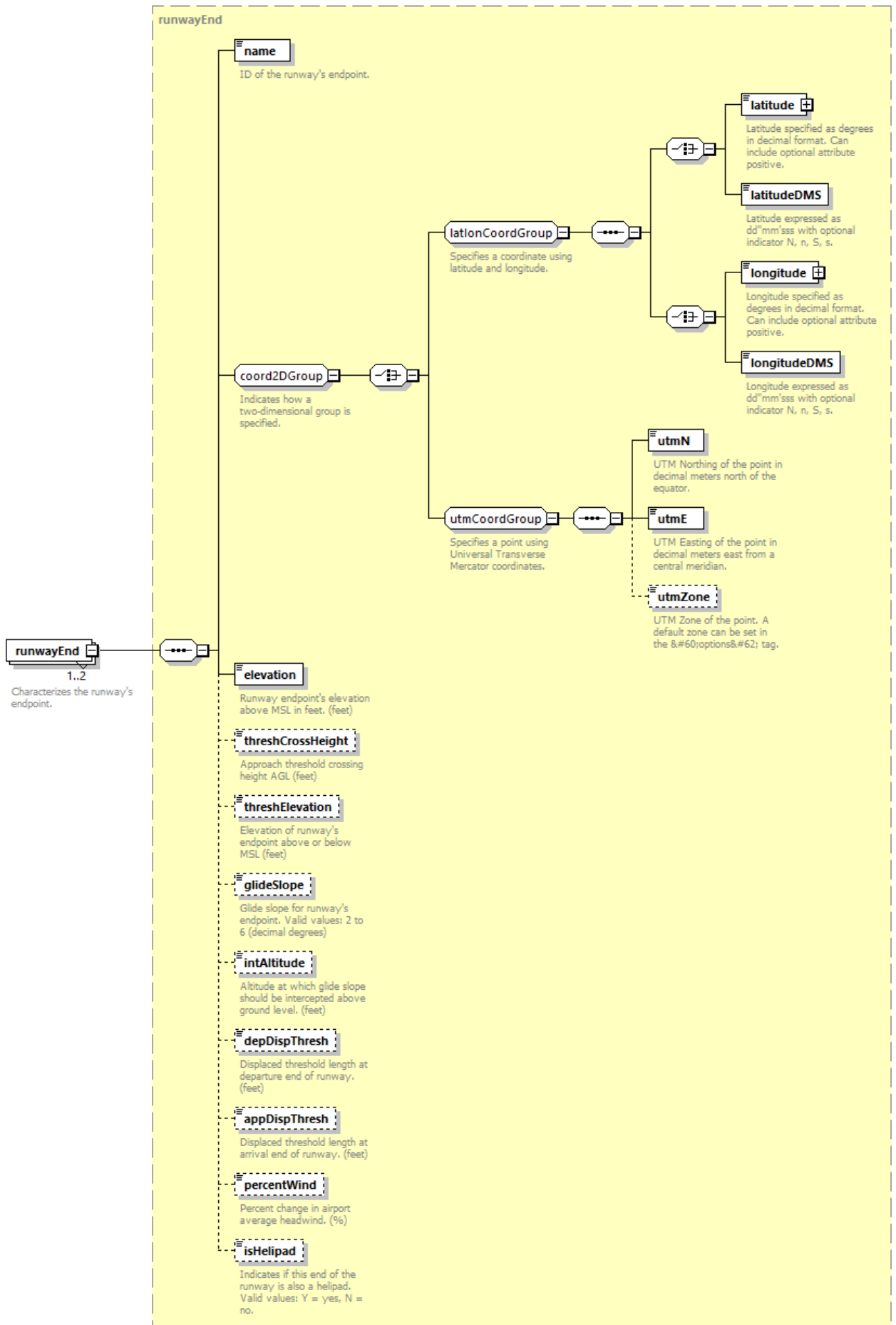
element **runway/length**

diagram	
type	xs:short
properties	content simple
annotation	documentation Length of runway. Valid values: nonnegative. (feet)

element **runway/width**

diagram	
type	xs:short
properties	content simple
annotation	documentation Width of runway. Valid values: nonnegative. (feet)

element **runway/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	
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.

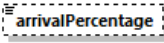
element **runwayAssignment/aircraftSize**

diagram	
type	AircraftSizeType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration S enumeration L enumeration H

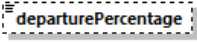
element **runwayAssignment/runway**

diagram	
type	string8
properties	content simple
used by	element runwaySet
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Name of the runway.

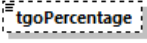
element **runwayAssignment/arrivalPercentage**

diagram	 Percentage of arrivals of the given aircraft size using this runway. Valid values: 0 to 100.(%)
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.(%)

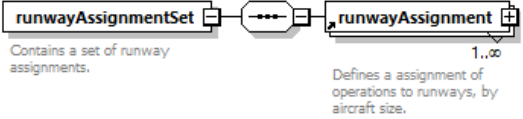
element **runwayAssignment/departurePercentage**

diagram	 Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)
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	 Percentage of touch and gos of the given aircraft size using this runway. Valid values: 0 to 100. (%)
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. (%)

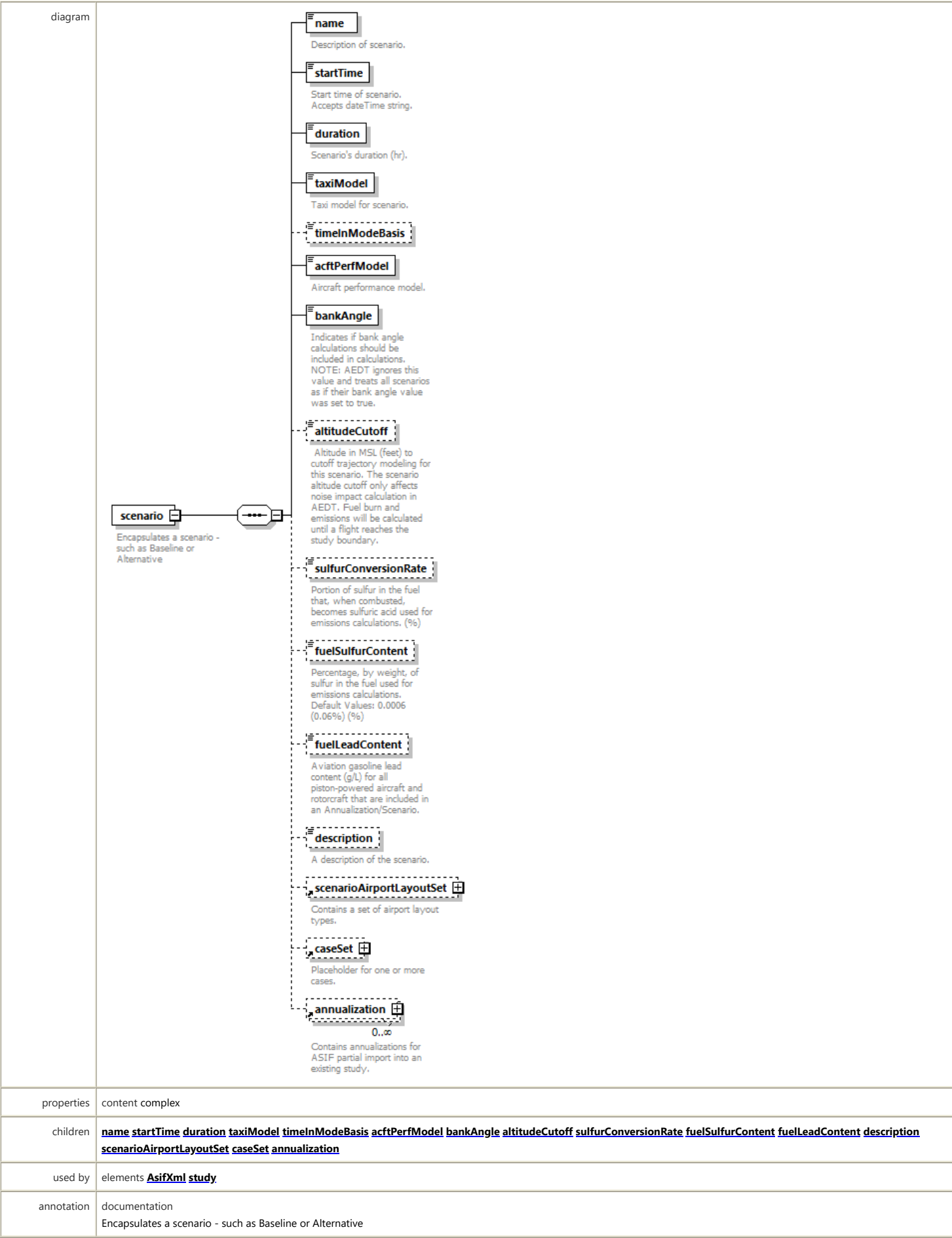
element **runwayAssignmentSet**

diagram	 Contains a set of runway assignments. Defines a assignment of operations to runways, by aircraft size. 1..∞
properties	content complex
children	runwayAssignment
used by	element airportConfig
annotation	documentation Contains a set of runway assignments.

element **runwaySet**

diagram	The diagram shows a class runwaySet with a composition relationship (indicated by a filled square) to a class runway. The relationship is mediated by an association class containing three dots. The runway class has a multiplicity of 1..∞. Below the runwaySet class is the text "Container for runways." and below the runway class is the text "Describes dimensions of a runway."
properties	content complex
children	runway .
used by	complexType airportLayoutType
annotation	documentation Container for runways.

element **scenario**



element **scenario/name**

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

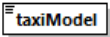
element **scenario/startTime**

diagram	 Start time of scenario. Accepts dateTime string.
type	xs:dateTime
properties	content simple
annotation	documentation Start time of scenario. Accepts dateTime string.

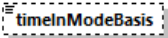
element **scenario/duration**

diagram	 Scenario's duration (hr).
type	xs:int
properties	content simple
annotation	documentation Scenario's duration (hr).

element **scenario/taxiModel**

diagram	 Taxi model for scenario.
type	taxiModelType
properties	content simple
facets	Kind Value Annotation enumeration UserSpecified enumeration Delayed enumeration Sequencing
annotation	documentation Taxi model for scenario.

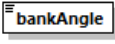
element **scenario/timeInModeBasis**

diagram	
type	timeInModeBasisType
properties	minOcc 0 maxOcc 1 content simple default ICAO
facets	Kind Value Annotation enumeration Performance enumeration ICAO

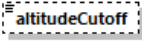
element **scenario/acftPerfModel**

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.

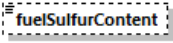
element **scenario/altitudeCutoff**

diagram	 Altitude in MSL (feet) 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.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 18000
annotation	documentation Altitude in MSL (feet) 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.

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	 Percentage, by weight, of sulfur in the fuel used for emissions calculations. Default Values: 0.0006 (0.06%) (%)
---------	---

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/fuelLeadContent**

diagram	fuelLeadContent Aviation gasoline lead content (g/L) for all piston-powered aircraft and rotorcraft that are included in an Annualization/Scenario.
type	doubleLeadContentRange
properties	minOcc 0 maxOcc 1 content simple default 0.56
facets	Kind Value Annotation minInclusive 0 maxInclusive 0.56
annotation	documentation Aviation gasoline lead content (g/L) for all piston-powered aircraft and rotorcraft that are included in an Annualization/Scenario.

element **scenario/description**

diagram	description A description of the scenario.
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	scenarioAirportLayoutSet Contains a set of airport layout types. attributes dummy 1..∞ scenarioAirportLayout Airport layout type.
properties	content complex
children	scenarioAirportLayout
used by	element scenario
attributes	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	The diagram shows the structure of the scenarioAirportLayoutType element. It is a container element (rectangle with a small square icon) that contains a complex content (dashed rectangle). The complex content is labeled scenarioAirportLayoutType and contains the following elements: airportLayoutName (text element): Airport layout name. mixingHeight (text element): Height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases takes place for the airport in a given month. Varies diurnally and seasonally. (feet AFE) airportConfigSet (list element): Contains one or more airportConfig elements. airportCapacity (list element): Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport. The scenarioAirportLayoutType element is connected to the scenarioAirportLayout element (rectangle with a small square icon) via a line with a multiplicity of 1..∞.
type	scenarioAirportLayoutType
properties	minOcc 1 maxOcc unbounded content complex
children	airportLayoutName mixingHeight airportConfigSet airportCapacity
annotation	documentation Airport layout type.

element **sensorNode**

diagram	The diagram shows the structure of the sensorNode element. It is a container element (rectangle with a small square icon) that contains a complex content (dashed rectangle). The complex content is labeled sensorNode and contains the following elements: lat (text element): Latitude for this location (decimal degrees). long (text element): Longitude for this location (decimal degrees). altitude (text element): Altitude in MSL at this location. UNITS: feet messageTime (text element): Time aircraft reaches this location. NOTE: Not used in AEDT. sequenceNum (text element): Order of this location in node list. speed (text element): Ground speed of aircraft at this location. UNITS: knots. thrust (text element): Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb) source (text element): Source of the data for this node. NOTE: Not used in AEDT. The sensorNode element is connected to the sensorNode element (rectangle with a small square icon) via a line with a multiplicity of 1..∞.
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	 Latitude for this location (decimal degrees).
type	xs:double
properties	content simple
annotation	documentation Latitude for this location (decimal degrees).

element **sensorNode/long**

diagram	 Longitude for this location (decimal degrees).
type	xs:double
properties	content simple
annotation	documentation Longitude for this location (decimal degrees).

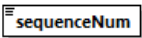
element **sensorNode/altitude**

diagram	 Altitude in MSL at this location. UNITS: feet
type	xs:double
properties	content simple
annotation	documentation Altitude in MSL at this location. UNITS: feet

element **sensorNode/messageTime**

diagram	 Time aircraft reaches this location. NOTE: Not used in AEDT.
type	xs:dateTime
properties	content simple
annotation	documentation Time aircraft reaches this location. NOTE: Not used in AEDT.

element **sensorNode/sequenceNum**

diagram	 Order of this location in node list.
type	xs:int
properties	content simple
annotation	documentation Order of this location in node list.

element **sensorNode/speed**

diagram	 Ground speed of aircraft at this location. UNITS: knots.
type	xs:double

properties	content simple
annotation	documentation Ground speed of aircraft at this location. UNITS: knots.

element **sensorNode/thrust**

diagram	thrust Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb)
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	source Source of the data for this node. NOTE: Not used in AEDT.
type	<u>string255</u>
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.

element **sensorPath**

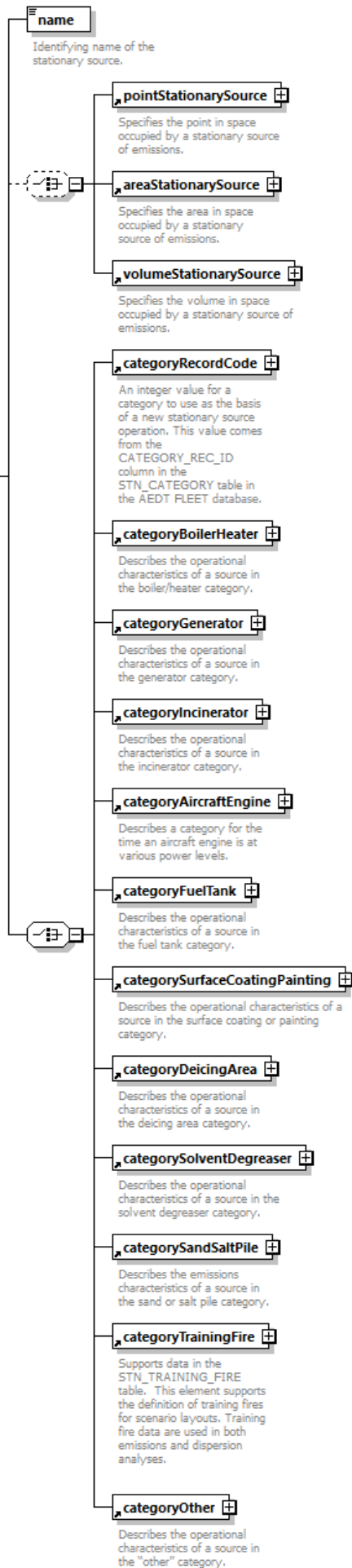
diagram	sensorPath Describes a flight path based on radar data. thrustUnit Thrust unit of each thrust value in the sensorNode element. sensorNode Describes a single node of a radar flight path. 1..∞
properties	content complex
children	<u>thrustUnit</u> <u>sensorNode</u>
used by	element <u>trackOpSet</u>
annotation	documentation Describes a flight path based on radar data.

element **sensorPath/thrustUnit**

diagram	thrustUnit Thrust unit of each thrust value in the sensorNode element.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust unit of each thrust value in the sensorNode element.

element **stationarySource**

stationarySource
Specifies a stationary source.



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	name Identifying name of the stationary source.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of the stationary source.

element **stationarySourceOperation**

diagram	stationarySourceOperation Defines an operation at a stationary source that generates emissions. refName Identifier of the operation. elevation pointCoord emissionsUsage Describes the amount of emissions for a given activity profile.
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	refName Identifier of the operation.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifier of the operation.

element **stationarySourceOperation/elevation**

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

element **stationarySourceOperation/pointCoord**

diagram	
type	coord2DType
properties	minOcc 0 maxOcc 1 content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone

element **stationarySourceOperationSet**

diagram	stationarySourceOperationSet Container of operations conducted at a stationary source contributing emissions. attributes dummy stationarySourceOperation 1..∞ Defines an operation at a stationary source that generates emissions.												
properties	content complex												
children	<u>stationarySourceOperation</u>												
used by	group <u>airportActivityGroup</u>												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td><u>dummy</u></td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	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**

diagram	<pre> classDiagram class stationarySourceSet { +attributes +dummy } class stationarySource { } stationarySourceSet "1" -- "1..∞" stationarySource </pre> stationarySourceSet: Container of stationary sources contributing emissions. stationarySource: Specifies a stationary source.					
properties	content complex					
children	<u>stationarySource</u>					
used by	element <u>AsifXml</u> complexType <u>airportLayoutType</u>					
attributes	Name	Type	Use	Default	Fixed	Annotation
	<u>dummy</u>	xs:int	optional			
annotation	documentation Container of stationary sources contributing emissions.					

attribute **stationarySourceSet/@dummy**

type	xs:int
properties	use optional

element **structure**

diagram <pre> classDiagram class structure { name elevation height coordinates noiseReductionCoefficient structureType gapFraction } class coordinates { + } structure "1" -- "1" coordinates structure "1" -- "1" noiseReductionCoefficient structure "1" -- "1" structureType structure "1" -- "1" gapFraction </pre> Supports data in the APTLAYOUT_STRUCTURE and APTLAYOUT_STRUCTURE_POINTS database tables. These elements support the definitions of structures as part of an airport layout. These structures are either buildings, building rows, or barriers and impact noise modeling as they can interfere with the path from the noise source to the noise receptors. These structures have no impact on emissions inventory or emissions dispersion model results and only impact noise results when the structures are within the Noise Structures Region.	name Name of the structure. elevation Elevation of structure relative to MSL. Valid values: -1500 to 15000. (ft msl) height Height of structure above ground. Valid values: 0 to 1000 (ft) coordinates Set of two-dimensional coordinates defining the structure. noiseReductionCoefficient Noise reduction coefficient of the structure. (float with range 0.0-1.0) structureType structure type indication: building (0), building row (1), or barrier (2). gapFraction Gap fraction for noise modeling, optional for building row type. (float range 0.2-0.8)
properties	content complex
children	<u>name</u> <u>elevation</u> <u>height</u> <u>coordinates</u> <u>noiseReductionCoefficient</u> <u>structureType</u> <u>gapFraction</u>
used by	element <u>structureSet</u>
annotation	documentation Supports data in the APTLAYOUT_STRUCTURE and APTLAYOUT_STRUCTURE_POINTS database tables. These elements support the definitions of structures as part of an airport layout. These structures are either buildings, building rows, or barriers and impact noise modeling as they can interfere with the path from the noise source to the noise receptors. These structures have no impact on emissions inventory or emissions dispersion model results and only impact noise results when the structures are within the Noise Structures Region.

element **structure/name**

diagram	 Name of the structure.
---------	---

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

element **structure/elevation**

diagram	elevation Elevation of structure relative to MSL. Valid values: -1500 to 15000. (ft msl)
type	xs:double
properties	content simple
annotation	documentation Elevation of structure relative to MSL. Valid values: -1500 to 15000. (ft msl)

element **structure/height**

diagram	height Height of structure above ground. Valid values: 0 to 1000 (ft)
type	xs:double
properties	content simple
annotation	documentation Height of structure above ground. Valid values: 0 to 1000 (ft)

element **structure/coordinates**

diagram	coordinates Set of two-dimensional coordinates defining the structure. vertex 2..∞ A point representing one of the coordinates.
properties	content complex
children	vertex
annotation	documentation Set of two-dimensional coordinates defining the structure.

element **structure/coordinates/vertex**

diagram	coord2DType vertex 2..∞ A point representing one of the coordinates. 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 &#60;options&#62; tag.
type	coord2DType
properties	minOcc 2 maxOcc unbounded content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation A point representing one of the coordinates.

element **structure/noiseReductionCoefficient**

diagram	noiseReductionCoefficient Noise reduction coefficient of the structure. (float with range 0.0-1.0)
type	noiseReductionCoefficient
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0.0 maxInclusive 1.0
annotation	documentation Noise reduction coefficient of the structure. (float with range 0.0-1.0)

element **structure/structureType**

diagram	structureType structure type indication: building (0), building row (1), or barrier (2).
type	structureType
properties	content simple
facets	Kind Value Annotation enumeration 0

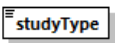
diagram	
properties	content complex
children	name studyType emissionsUnits description boundary climate userDefinedAirportSet airportLayoutSet terrainFiles receptorSet fleet userGroundSupportEquipmentSet scenario
used by	element AsifXml
annotation	documentation Contains specific information about a study.

element **study/name**

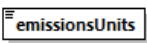
diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 255
annotation	documentation Name of the study.

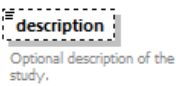
element **study/studyType**

diagram	
type	studyType
properties	content simple
facets	Kind Value Annotation enumeration Emissions enumeration Dispersion enumeration Noise and Emissions enumeration Noise and Dispersion

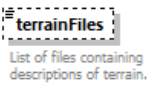
element **study/emissionsUnits**

diagram	
type	emissionsUnitsType
properties	content simple
facets	Kind Value Annotation enumeration MetricTonnes enumeration Kilograms enumeration Grams enumeration ImperialTons enumeration Pounds

element **study/description**

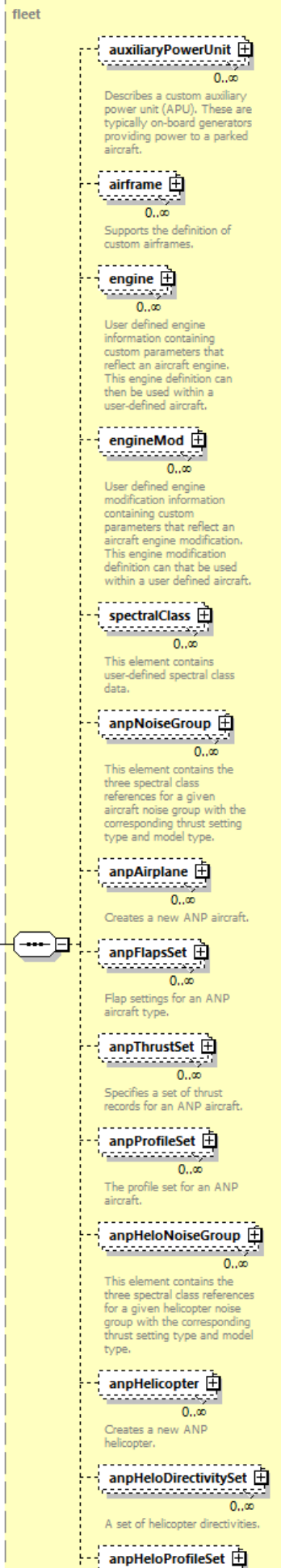
diagram	
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Optional description of the study.

element **study/terrainFiles**

diagram	
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation List of files containing descriptions of terrain.

element **study/fleet**

diagram



type	<u>fleet</u>
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod spectralClass anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet bada4ProfileSet aircraft energyShare
annotation	documentation Defines aircraft fleet participating in the study.

element **subtrack**

diagram	
properties	content complex
children	<u>id</u> <u>dispersionWeight</u> trackVectors trackNodes
used by	element <u>track</u>
annotation	documentation Intended to represent a dispersed child track of a parent track.

element **subtrack/id**

diagram	
type	xs:int
properties	content simple
annotation	documentation ID for a subtrack.

element **subtrack/dispersionWeight**

diagram	
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	
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation speed
used by	element taxiNodeSet
annotation	documentation Supports data in the APTLAYOUT_TAXIWAY_POINTS table. Taxi nodes define the points for a given taxiway.

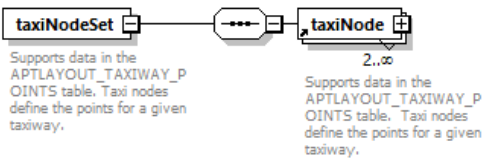
element **taxiNode/elevation**

diagram	
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)

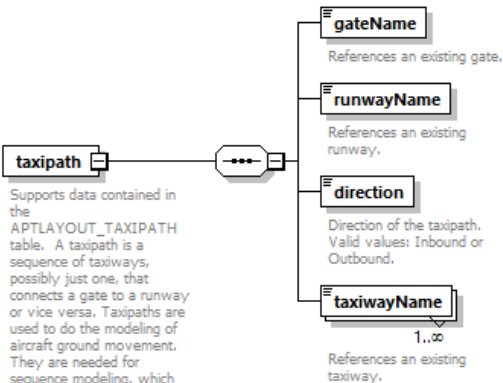
element **taxiNode/speed**

diagram	 Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)
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	 Supports data in the APTLAYOUT_TAXIWAY_P OINTS table. Taxi nodes define the points for a given taxiway. Supports data in the APTLAYOUT_TAXIWAY_P OINTS table. Taxi nodes define the points for a given taxiway.
properties	content complex
children	taxiNode
used by	element taxiway
annotation	documentation Supports data in the APTLAYOUT_TAXIWAY_POINTS table. Taxi nodes define the points for a given taxiway.

element **taxipath**

diagram	 Supports data contained in the APTLAYOUT_TAXIPATH 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. References an existing gate. References an existing runway. Direction of the taxipath. Valid values: Inbound or Outbound. References an existing taxiway.
properties	content complex
children	gateName runwayName direction taxiwayName
used by	element taxipathSet
annotation	documentation Supports data contained in the APTLAYOUT_TAXIPATH 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	 References an existing gate.
type	string40
properties	content simple

facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation References an existing gate.

element **taxipath/runwayName**

diagram	runwayName References an existing runway.
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation References an existing runway.

element **taxipath/direction**

diagram	direction Direction of the taxipath. Valid values: Inbound or Outbound.
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	taxiwayName 1..∞ References an existing taxiway.
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 taxiPathSet Supports data contained int the APTLAYOUT_TAXIPATH 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. taxiPath 1..∞ Supports data contained in the APTLAYOUT_TAXIPATH 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.	
properties	content complex
children	taxiPath
used by	complexType airportLayoutType
annotation	documentation Supports data contained int the APTLAYOUT_TAXIPATH 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	Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates. name Identifying name for taxiway. dispersionWidth Width of emission dispersion around taxiway. Valid values: 0 to 100. (m) taxiNodeSet Supports data in the APTLAYOUT_TAXIWAY_POINTS table. Taxi nodes define the points for a given taxiway.
properties	content complex
children	name dispersionWidth taxiNodeSet
used by	element taxiwaySet
annotation	documentation Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.

element **taxiway/name**

diagram	name Identifying name for taxiway.
type	string20
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation Identifying name for taxiway.

element **taxiway/dispersionWidth**

diagram	dispersionWidth Width of emission dispersion around taxiway. Valid values: 0 to 100. (m)
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 taxiwaySet Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates. taxiway Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates. 1..∞	
properties	content complex
children	taxiway
used by	complexType airportLayoutType
annotation	documentation Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.

element
 track

diagram track A flight track that can be used for flight operations. name The name of the track. optype Type of track. (A = arrival, D = departure, V = overflight, T = Touch and Go) wingtype Type of wing. (F = fixed wing, R = rotary wing) airport The IATA airport code. runway The name of the runway. vectorCourseHelipad Direction for helicopter operations of vector type (angle from North). backbone Represents the centerline of a set of dispersed tracks. subtrack Intended to represent a dispersed child track of a parent track. 1..∞	
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 name The name of the track.	
type	string64
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation The name of the track.

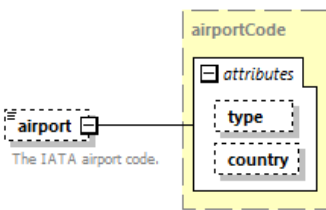
element **track/optype**

diagram	 Type of track. (A = arrival, D = departure, V = overflight, T = Touch and Go)
type	trackType
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 of wing. (F = fixed wing, R = rotary wing)
type	wingType
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	 The IATA airport code.					
type	airportCode					
properties	minOcc 0 maxOcc 1 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		
annotation	documentation The IATA airport code.					

element **track/runway**

diagram	 The name of the runway.
type	string8
properties	minOcc 0 maxOcc 1 content simple
used by	element runwaySet

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 (feet). Includes attribute node.					

attribute **trackNode/altitude/@control**

type	nodeControlType				
properties	use optional				
facets	Kind	Value	Annotation		
	pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove			

element **trackNode/speed**

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 Speed of aircraft at node (KCAS). Includes attribute node. Valid values: nonnegative, Units: knots					

attribute **trackNode/speed/@control**

type	nodeControlType				
properties	use optional				
facets	Kind	Value	Annotation		
	pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove			

element **trackNodes**

diagram						
properties	content complex					
children	trackNode					
used by	element subtrack					
annotation	documentation A set of flight track nodes					

element **trackOpSet**

diagram	
properties	content complex
children	track trackref sensorPath operations
used by	elements AsifXml case
annotation	documentation Lists tracks and associated operations.

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.

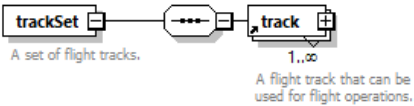
element **trackref/optype**

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	
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
annotation	documentation Type of vector. Valid values: S = Straight, L = LeftTurn, R = RightTurn.

element **trackVector/distance**

diagram	
type	xs:double
properties	content simple
annotation	documentation Distance flown along this vector. Valid values: nonnegative. (nmi)

element **trackVector/angle**

diagram	
type	xs:double
properties	content simple
annotation	documentation Angle of the vector. (decimal degrees)

element **trackVector/radius**

diagram	radius Radius of the vector. Valid values: nonnegative. (nmi)
type	xs:double
properties	content simple
annotation	documentation Radius of the vector. Valid values: nonnegative. (nmi)

element trackVectors

diagram	trackVectors A list of flight track vectors. ... 1..∞ trackVector A flight track vector.
properties	content complex
children	trackVector
used by	element subtrack
annotation	documentation A list of flight track vectors.

element userDefinedAirportSet

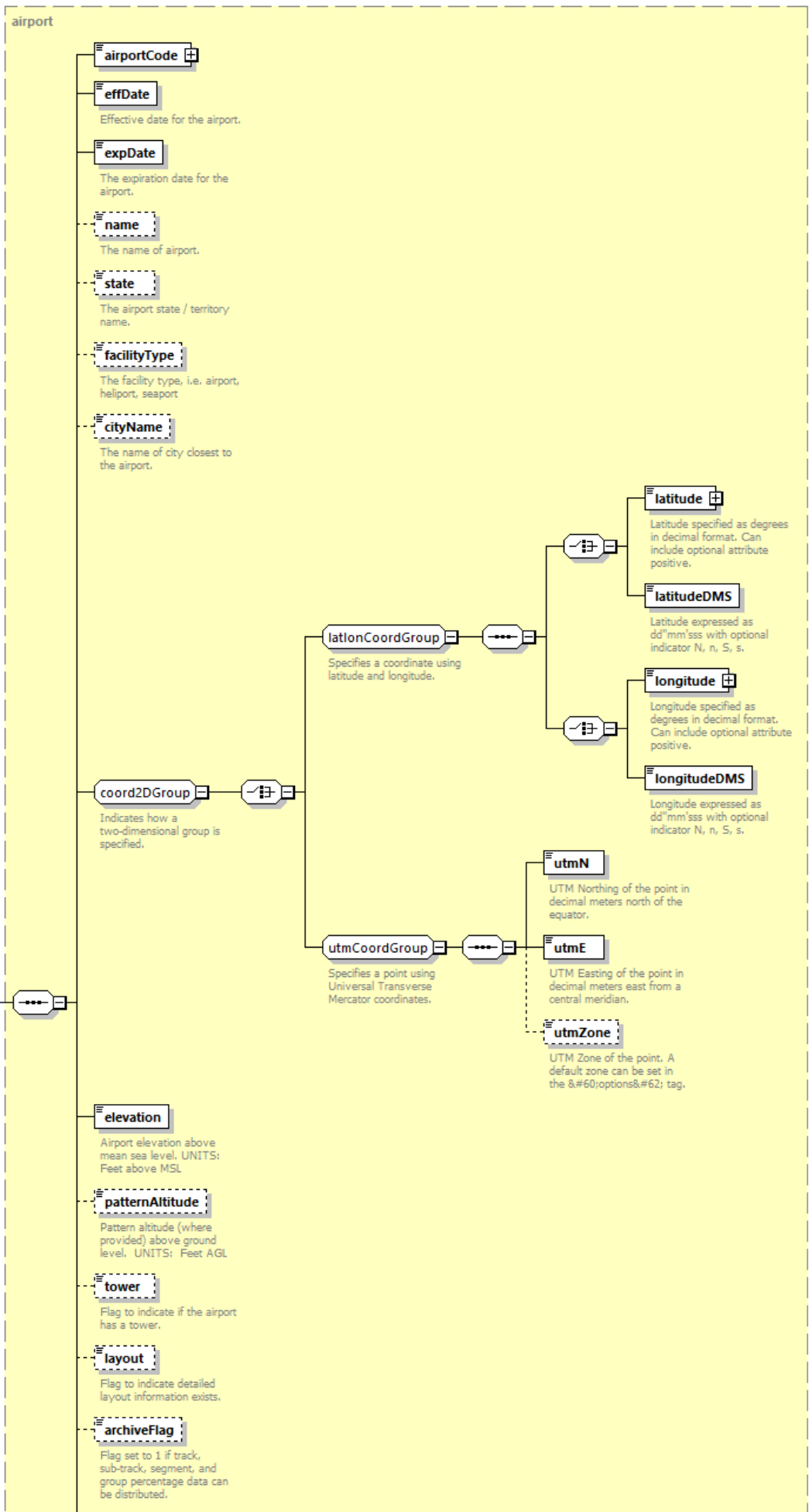
diagram	The diagram illustrates the structure of the <code>userDefinedAirportSet</code> class. It contains a <code>dummy</code> attribute (indicated by a dashed box) and a collection of <code>userDefinedAirport</code> objects (indicated by a box with a dashed line and a multiplicity of <code>1..∞</code>). The <code>userDefinedAirport</code> class contains information for each user-defined airport, with the note that <code>APT_CODE</code> must not duplicate an existing system airport.												
properties	content complex												
children	<code>userDefinedAirport</code>												
used by	element <code>study</code>												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td><code>dummy</code></td><td><code>xs:int</code></td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	<code>dummy</code>	<code>xs:int</code>	optional			
Name	Type	Use	Default	Fixed	Annotation								
<code>dummy</code>	<code>xs:int</code>	optional											
annotation	documentation Contains user-defined airports.												

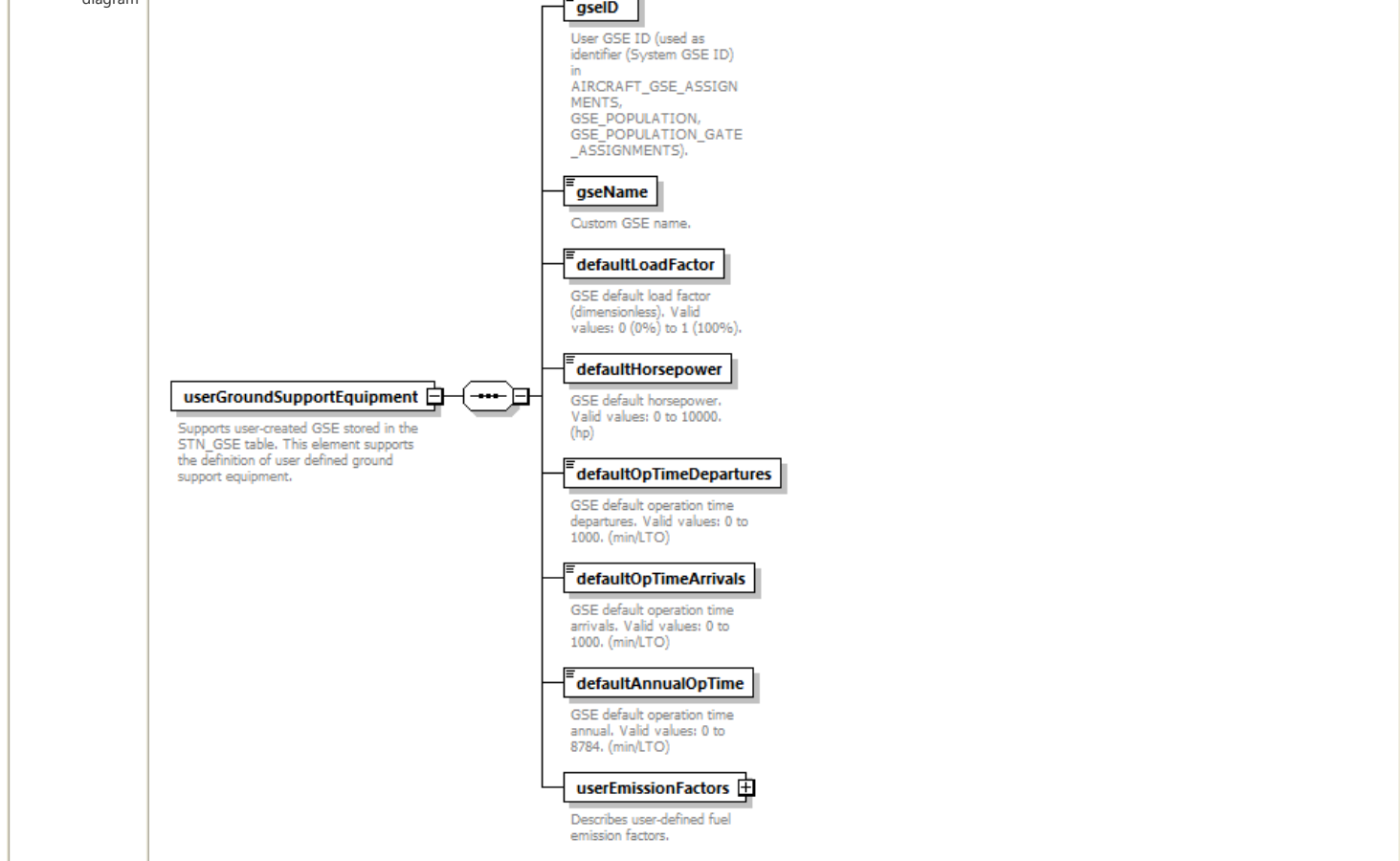
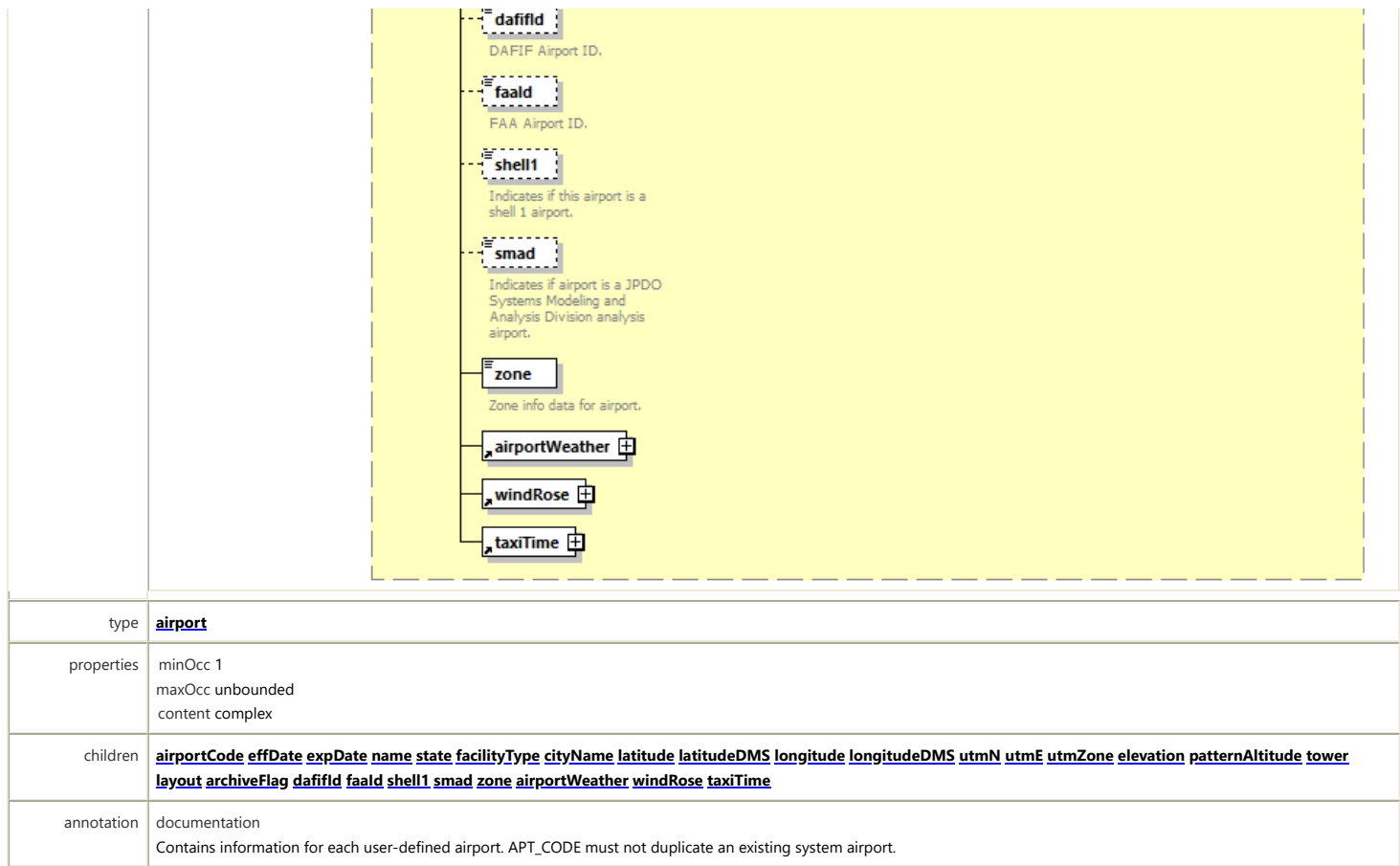
attribute userDefinedAirportSet/@dummy

type	xs:int
properties	use optional

element userDefinedAirportSet/userDefinedAirport

diagram

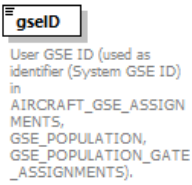




properties	content complex
------------	-----------------

children	gseID gseName defaultLoadFactor defaultHorsepower defaultOpTimeDepartures defaultOpTimeArrivals defaultAnnualOpTime userEmissionFactors
used by	element userGroundSupportEquipmentSet
annotation	documentation Supports user-created GSE stored in the STN_GSE table. This element supports the definition of user defined ground support equipment.

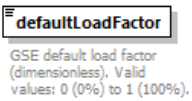
element **userGroundSupportEquipment/gseID**

diagram	
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).

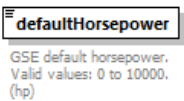
element **userGroundSupportEquipment/gseName**

diagram	
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Custom GSE name.

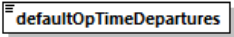
element **userGroundSupportEquipment/defaultLoadFactor**

diagram	
type	doubleInclusive1
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation GSE default load factor (dimensionless). Valid values: 0 (0%) to 1 (100%).

element **userGroundSupportEquipment/defaultHorsepower**

diagram	
type	xs:double
properties	content simple
annotation	documentation GSE default horsepower. Valid values: 0 to 10000. (hp)

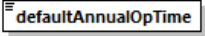
element **userGroundSupportEquipment/defaultOpTimeDepartures**

diagram	 GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)
type	xs:double
properties	content simple
annotation	documentation GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)

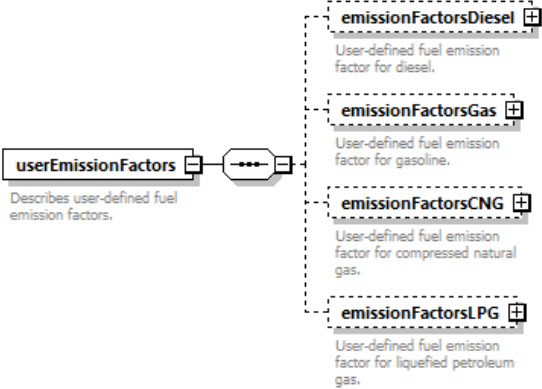
element **userGroundSupportEquipment/defaultOpTimeArrivals**

diagram	 GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)
type	xs:double
properties	content simple
annotation	documentation GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)

element **userGroundSupportEquipment/defaultAnnualOpTime**

diagram	 GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)
type	xs:double
properties	content simple
annotation	documentation GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)

element **userGroundSupportEquipment/userEmissionFactors**

diagram	
properties	content complex
children	emissionFactorsDiesel emissionFactorsGas emissionFactorsCNG emissionFactorsLPG
annotation	documentation Describes user-defined fuel emission factors.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel**

diagram	emissionFactorSet 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) CO2 CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr). Note: Not Used in AEDT CH4 Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr). Note: Not Used in AEDT PM25 PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3) emissionFactorsGas User-defined fuel emission factor for gasoline.
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10 CO2 CH4 PM25
annotation	documentation User-defined fuel emission factor for gasoline.

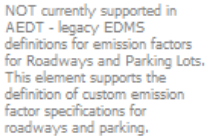
element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG**

diagram	
type	<u>emissionFactorSet</u>
properties	minOcc 0 maxOcc 1 content complex
children	<u>CO HC NOx SOx PM10 CO2 CH4 PM25</u>
annotation	documentation User-defined fuel emission factor for liquefied petroleum gas.

element **userGroundSupportEquipmentSet**

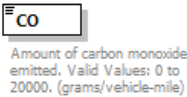
diagram	userGroundSupportEquipmentSet Supports user-created GSE stored in the STN_GSE table. This element supports the definition of user defined ground support equipment. attributes dummy (xs:int) userGroundSupportEquipment Supports user-created GSE stored in the STN_GSE table. This element supports the definition of user defined ground support equipment. 1..∞												
properties	content complex												
children	<u>userGroundSupportEquipment</u>												
used by	elements <u>AsifXml study</u>												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td><u>dummy</u></td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	documentation Supports user-created GSE stored in the STN_GSE table. This element supports the definition of user defined ground support equipment.												

type	xs:int
properties	use optional

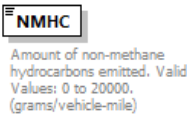


used by	elements parkingFacilityOperation roadwayOperation
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions for emission factors for Roadways and Parking Lots. This element supports the definition of custom emission factor specifications for roadways and parking.

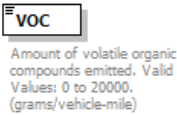
element **vehicleEmissionFactors/CO**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of carbon monoxide emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

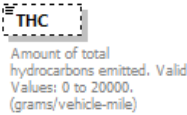
element **vehicleEmissionFactors/NMHC**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of non-methane hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

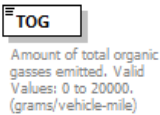
element **vehicleEmissionFactors/VOC**

diagram	
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	
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	
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	 Amount of nitrous oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
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	 Amount of sulfur oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
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	 Amount of 10-micron particulate matter emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/PM-2.5**

diagram	 Amount of 2.5-micron particulate matter emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
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**

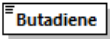
diagram	 Amount of benzene emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of benzene emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/MTBE**

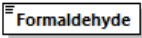
diagram	 Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile)
---------	--

type	xs:double
properties	content simple
annotation	documentation Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Butadiene**

diagram	 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	 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	 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	 Amount of acrolein emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of acrolein emitted. (grams/vehicle-mile)

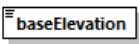
element **volumeStationarySource**

diagram	volumeStationarySource Specifies the volume in space occupied by a stationary source of emissions. pointCoord Type of 2D coordinates specifying the volume. baseElevation Height of volume. (m) releaseHeight Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m) sigmaZ Vertical dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: 0.1 to 100.0. (m) sigmaY Horizontal dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: 0.1 to 100.0. (m)
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	pointCoord Type of 2D coordinates specifying the volume. latCoordGroup Specifies a coordinate using latitude and longitude. utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates. 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. 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 2D coordinates specifying the volume.

element **volumeStationarySource/baseElevation**

diagram	 Height of volume. (m)
type	xs:double
properties	content simple
annotation	documentation Height of volume. (m)

element **volumeStationarySource/releaseHeight**

diagram	 Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)
type	<u>doubleInclusive100</u>
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	 Vertical dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: 0.1 to 100.0. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Vertical dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: 0.1 to 100.0. (m)

element **volumeStationarySource/sigmaY**

diagram	 Horizontal dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: 0.1 to 100.0. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Horizontal dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: 0.1 to 100.0. (m)

element **weatherData**

diagram	<pre> classDiagram class weatherData { <<complexType>> <<contentComplex>> year temperature seaLevelPressure stationPressure dewPoint relativeHumidity windSpeed } </pre>
properties	content complex
children	<u>year</u> <u>temperature</u> <u>seaLevelPressure</u> <u>stationPressure</u> <u>dewPoint</u> <u>relativeHumidity</u> <u>windSpeed</u>
used by	element <u>airportWeatherStation</u>

element **weatherData/year**

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

```
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	 The diagram shows a class named 'stationPressure' with a dashed border and a small icon in the top-left corner.
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

element **weatherData/dewPoint**

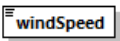
diagram	
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

element **weatherData/relativeHumidity**

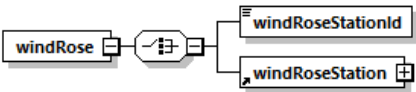
diagram	relativeHumidity
---------	------------------

type	xs:double
properties	minOcc 0 maxOcc 1 content simple

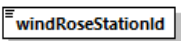
element **weatherData/windSpeed**

diagram	
type	xs:decimal
properties	content simple

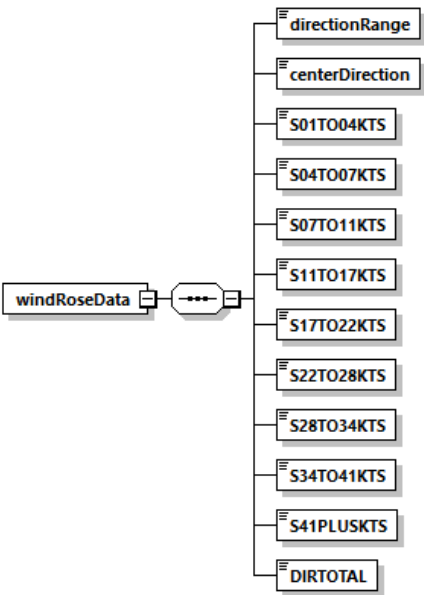
element **windRose**

diagram	
properties	content complex
children	windRoseStationId windRoseStation
used by	complexType airport

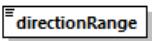
element **windRose/windRoseStationId**

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

element **windRoseData**

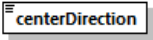
diagram	
properties	content complex
children	directionRange centerDirection S01TO04KTS S04TO07KTS S07TO11KTS S11TO17KTS S17TO22KTS S22TO28KTS S28TO34KTS S34TO41KTS S41PLUSKTS DIRTOTAL
used by	element windRoseStation

element **windRoseData/directionRange**

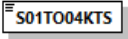
diagram	
---------	---

type	string14
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 14

element **windRoseData/centerDirection**

diagram	 A diagram showing a rectangular box with the text "centerDirection" inside. To the left of the box is a small icon consisting of three horizontal lines of increasing length, resembling a list or menu icon.
type	xs:int
properties	content simple

element **windRoseData/S01TO04KTS**

diagram	 A diagram showing a rectangular box with the text "S01TO04KTS" inside. To the left of the box is a small icon consisting of three horizontal lines of increasing length, resembling a list or menu icon.
type	xs:int
properties	content simple

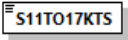
element **windRoseData/S04TO07KTS**

diagram	 A diagram showing a rectangular box with the text "S04TO07KTS" inside. To the left of the box is a small icon consisting of three horizontal lines of increasing length, resembling a list or menu icon.
type	xs:int
properties	content simple

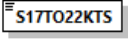
element **windRoseData/S07TO11KTS**

diagram	 A diagram showing a rectangular box with the text "S07TO11KTS" inside. To the left of the box is a small icon consisting of three horizontal lines of increasing length, resembling a list or menu icon.
type	xs:int
properties	content simple

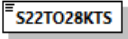
element **windRoseData/S11TO17KTS**

diagram	 A diagram showing a rectangular box with the text "S11TO17KTS" inside. To the left of the box is a small icon consisting of three horizontal lines of increasing length, resembling a list or menu icon.
type	xs:int
properties	content simple

element **windRoseData/S17TO22KTS**

diagram	 A diagram showing a rectangular box with the text "S17TO22KTS" inside. To the left of the box is a small icon consisting of three horizontal lines of increasing length, resembling a list or menu icon.
type	xs:int
properties	content simple

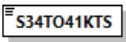
element **windRoseData/S22TO28KTS**

diagram	 A diagram showing a rectangular box with the text "S22TO28KTS" inside. To the left of the box is a small icon consisting of three horizontal lines of increasing length, resembling a list or menu icon.
type	xs:int
properties	content simple

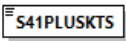
element **windRoseData/S28TO34KTS**

diagram	 A diagram showing a rectangular box with the text "S28TO34KTS" inside. To the left of the box is a small icon consisting of three horizontal lines of increasing length, resembling a list or menu icon.
type	xs:int
properties	content simple

element **windRoseData/S34TO41KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S41PLUSKTS**

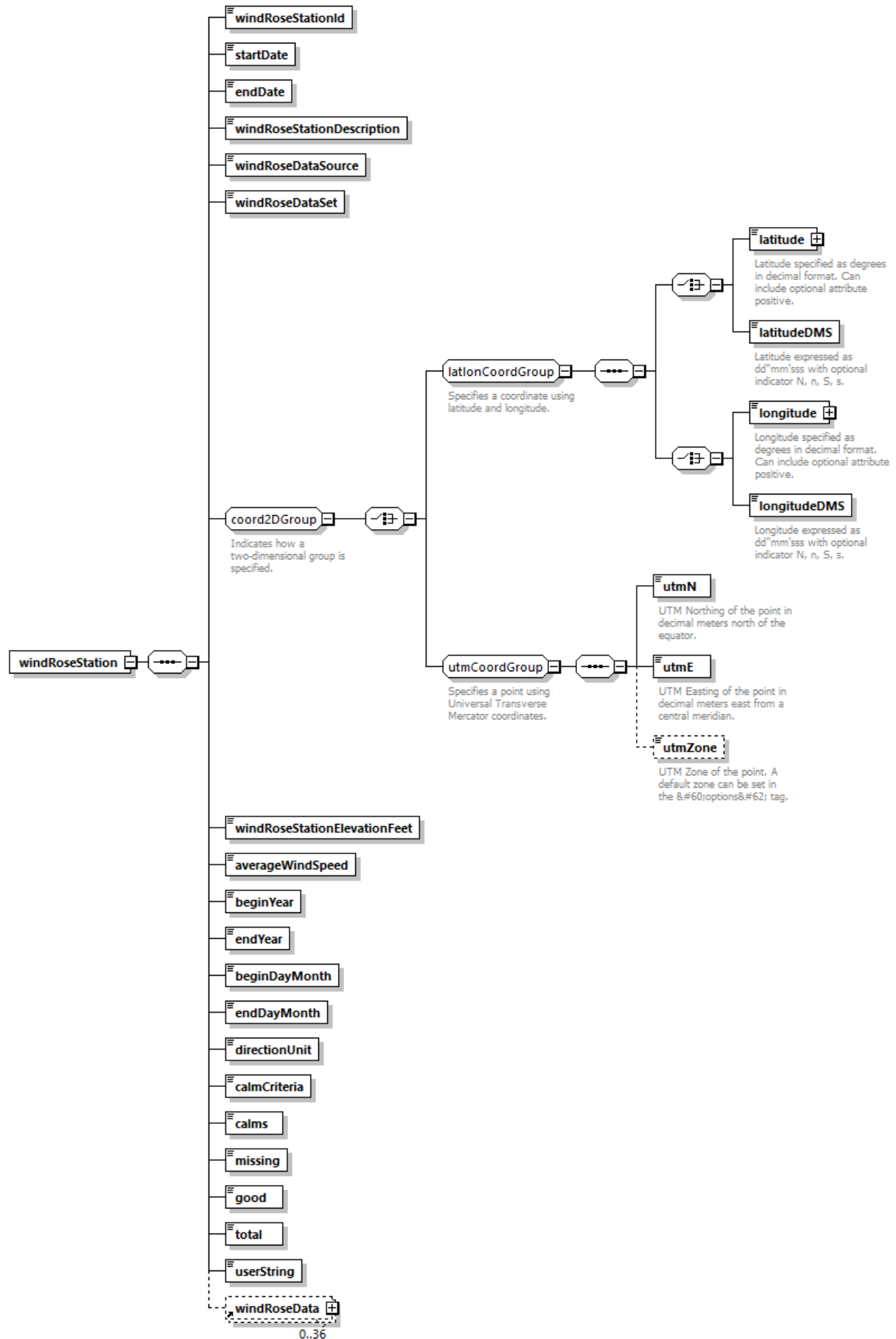
diagram	
type	xs:int
properties	content simple

element **windRoseData/DIRTOTAL**

diagram	
type	xs:int
properties	content simple

element **windRoseStation**

diagram

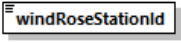


properties content complex

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

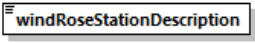
element **windRoseStation/startDate**

diagram	
type	xs:date
properties	content simple

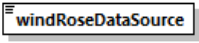
element **windRoseStation/endDate**

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**

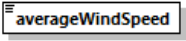
diagram	
type	string66
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 66

element **windRoseStation/windRoseStationElevationFeet**

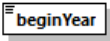
diagram	

type	xs:int
properties	content simple

element **windRoseStation/averageWindSpeed**

diagram	
type	xs:double
properties	content simple

element **windRoseStation/beginYear**

diagram	
type	xs:int
properties	content simple

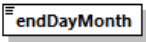
element **windRoseStation/endYear**

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	<u>string11</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 11

group **airportActivityGroup**

diagram	 parkingFacilityOperationSet NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts. roadwayOperationSet NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts. stationarySourceOperationSet Container of operations conducted at a stationary source contributing emissions. groundSupportEquipmentPopul... Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage.
children	parkingFacilityOperationSet roadwayOperationSet stationarySourceOperationSet groundSupportEquipmentPopulationOperationSet

used by	element case
annotation	documentation Contains a set of activities conducted at an airport.

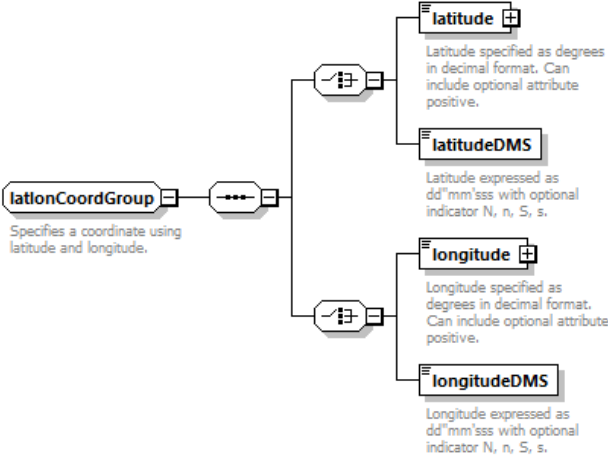
group **annualizationGroupCase**

diagram	
children	annualizationGroup annualizationCase
used by	element annualizationGroup
annotation	documentation Allows for grouping cases into groups, and groups into parent groups.

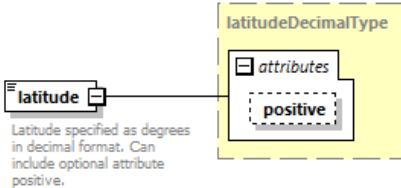
group **coord2DGroup**

diagram	
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	 The diagram shows the latlonCoordGroup element, which specifies a coordinate using latitude and longitude. It is connected to a choice element (indicated by a dashed line) that contains four sub-elements: latitude, latitudeDMS, longitude, and longitudeDMS. Each sub-element has a description: latitude and longitude are specified as degrees in decimal format and can include an optional attribute positive; latitudeDMS and longitudeDMS are expressed as dd°mm'sss with an 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.

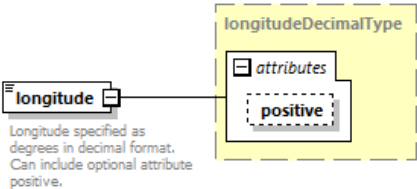
element **latlonCoordGroup/latitude**

diagram						
type	<u>latitudeDecimalType</u>					
properties	content complex					
attributes	Name <u>positive</u>	Type derived by: xs:string	Use optional	Default N	Fixed	Annotation
annotation	documentation Latitude specified as degrees in decimal format. Can include optional attribute positive.					

element **latlonCoordGroup/latitudeDMS**

diagram	latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.						
type	<u>latitudeDMSType</u>						
properties	content simple						
facets	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>pattern</td><td>[0-9]{2}[\- &quot;][0-9]{2}[\- &apos;][0-9]{2}([0-9]{3})?[NnSs]</td><td></td></tr></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	 The diagram shows the longitude element, which specifies longitude as degrees in decimal format and can include an optional attribute positive. It is connected to the longitudeDecimalType complex type, which has an attributes section containing the positive attribute.
type	longitudeDecimalType

annotation	documentation An optional description for the grouping of nodes.
------------	---

group **oneOrThreeCoords2DGroupSet**

diagram	oneOrThreeCoords2DGroupSet Type of coordinate specifying the area. pointCoord Choice of a single point coordinate. polygonCoords Choice of a 2D polygon.
children	pointCoord polygonCoords
used by	elements areaStationarySource gate parkingFacility .
annotation	documentation Type of coordinate specifying the area.

element **oneOrThreeCoords2DGroupSet/pointCoord**

diagram	pointCoord Choice of a single point coordinate. 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 &#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	polygonCoords Choice of a 2D polygon. dummy vertex 3..∞ A list of vertices defining the polygon.
---------	--

type	polygon2DType
properties	content complex
children	dummy , vertex
annotation	documentation Choice of a 2D polygon.

group **pm10TermGroup**

diagram	The diagram shows a box labeled pm10TermGroup connected to a dashed box labeled sulfurTermPm10 and a solid box labeled constantTermPm10. The constantTermPm10 box contains the text: "PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)". The sulfurTermPm10 box contains the text: "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)".
children	constantTermPm10 sulfurTermPm10
used by	element categoryBoilerHeater

element **pm10TermGroup/constantTermPm10**

diagram	The diagram shows a box labeled constantTermPm10 containing the text: "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 **pm10TermGroup/sulfurTermPm10**

diagram	The diagram shows a dashed box labeled sulfurTermPm10 containing the text: "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)

group **receptorGroup**

diagram	
children	centroid pointReceptor grid polarReceptor polarGrid
used by	element receptorSet
annotation	documentation Description of a receptor group.

group **thcEIGroup**

diagram	
children	THC EI pollutionControlFactorTHC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the THC EI and accompanying pollution control factor.

element **thcEIGroup/THC_EI**

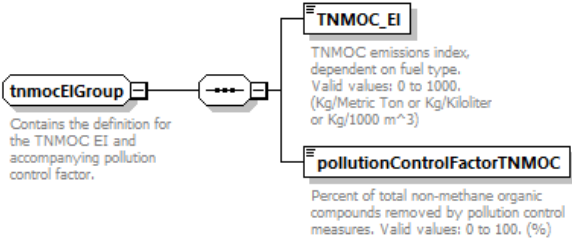
diagram	
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000

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)
------------	---

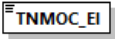
element **thcEIGroup/pollutionControlFactorTHC**

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

group **tnmocEIGroup**

diagram	 tnemocEIGroup Contains the definition for the TNMOC EI and accompanying pollution control factor. TNMOC_EI TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³) pollutionControlFactorTNMOC Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)
children	TNMOC_EI pollutionControlFactorTNMOC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the TNMOC EI and accompanying pollution control factor.

element **tnmocEIGroup/TNMOC_EI**

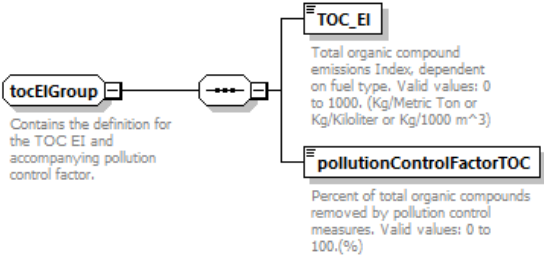
diagram	 TNMOC_EI TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation TNMOC emissions index,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

element **tnmocEIGroup/pollutionControlFactorTNMOC**

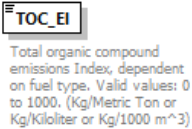
diagram	 pollutionControlFactorTNMOC Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100

annotation	documentation Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)
------------	--

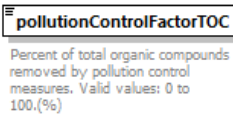
group **tocElGroup**

diagram	 The diagram shows a box labeled tocElGroup with the text "Contains the definition for the TOC EI and accompanying pollution control factor." This box is connected to a central box with four dots. To the right of this central box are two stacked boxes: TOC_EI (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)) and pollutionControlFactorTOC (Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100.(%)).
children	TOC_EI pollutionControlFactorTOC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the TOC EI and accompanying pollution control factor.

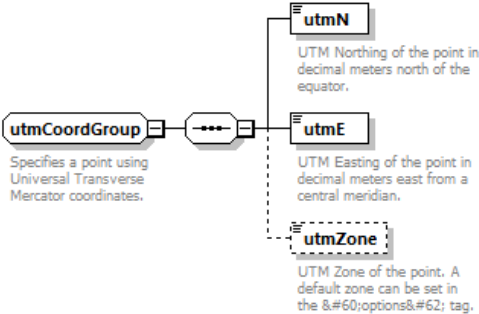
element **tocElGroup/TOC_EI**

diagram	 The diagram shows a box labeled TOC_EI with the text "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)".
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 **tocElGroup/pollutionControlFactorTOC**

diagram	 The diagram shows a box labeled pollutionControlFactorTOC with the text "Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100.(%)".
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.(%)

group **utmCoordGroup**

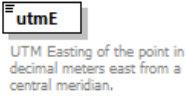
diagram	 The diagram shows a box labeled utmCoordGroup with the text "Specifies a point using Universal Transverse Mercator coordinates." This box is connected to a central box with four dots. To the right of this central box are three stacked boxes: utmN (UTM Northing of the point in decimal meters north of the equator.), utmE (UTM Easting of the point in decimal meters east from a central meridian.), and utmZone (UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.).
---------	---

children	utmN utmE utmZone
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a point using Universal Transverse Mercator coordinates.

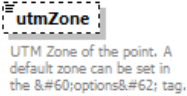
element **utmCoordGroup/utmN**

diagram	
type	xs:double
properties	content simple
annotation	documentation UTM Northing of the point in decimal meters north of the equator.

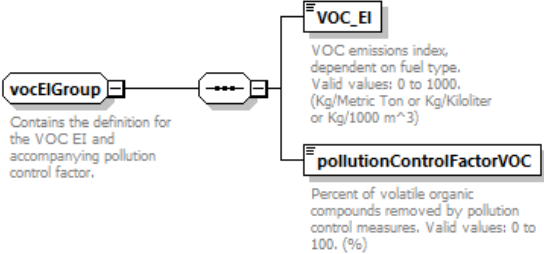
element **utmCoordGroup/utmE**

diagram	
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	
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 <options> tag.

group **vocElGroup**

diagram	
children	VOC_EI pollutionControlFactorVOC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the VOC EI and accompanying pollution control factor.

element **vocElGroup/VOC_EI**

diagram	VOC_EI VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	<u>doubleInclusive1000</u>
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 **vocEIGroup/pollutionControlFactorVOC**

diagram	pollutionControlFactorVOC Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)
type	<u>doubleInclusive100</u>
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 100. (%)

complexType **aircraft**

diagram	aircraft Main block for creating new user defined AEDT aircraft. description The description for this user defined aircraft. airframeModel The airframe model used for this user defined aircraft. engineCode The engine code used for this user defined aircraft. engineModCode The engine modification code used for this user defined aircraft. anpAirplaneId The ANP airplane linked to this user defined aircraft. bada3AirplaneId The BADA airplane linked to this user defined aircraft. anpHelicopterId The ANP helicopter linked to this user defined helicopter. bada4AirplaneModel Airplane's BADA 4 model. bada4Engine Airplane's BADA 4 engine. bada4Suffix User-defined BADA 4 model suffix. bada4FlapsMapSourceAnpld Source ANP airplane ID for mapping ANP flaps to BADA 4.
children	description airframeModel engineCode engineModCode anpAirplaneId bada3AirplaneId 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**

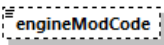
diagram	
type	airframeModel
properties	content simple

facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The airframe model used for this user defined aircraft.

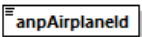
element **aircraft/engineCode**

diagram	 The engine code used for this user defined aircraft.
type	<u>engineCode</u>
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	 The engine modification code used for this user defined aircraft.
type	<u>engineModCode</u>
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	 The ANP airplane linked to this user defined aircraft.
type	<u>anpAirplaneId</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP airplane linked to this user defined aircraft.

element **aircraft/bada3AirplaneId**

diagram	 The BADA airplane linked to this user defined aircraft.
type	<u>bada3AirplaneId</u>
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	airpHelicopterId The ANP helicopter linked to this user defined helicopter.
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	bada4AirplaneModel Airplane's BADA 4 model.
type	bada4AirplaneModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 model.

element **aircraft/bada4Engine**

diagram	bada4Engine Airplane's BADA 4 engine.
type	bada4Engine
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 engine.

element **aircraft/bada4Suffix**

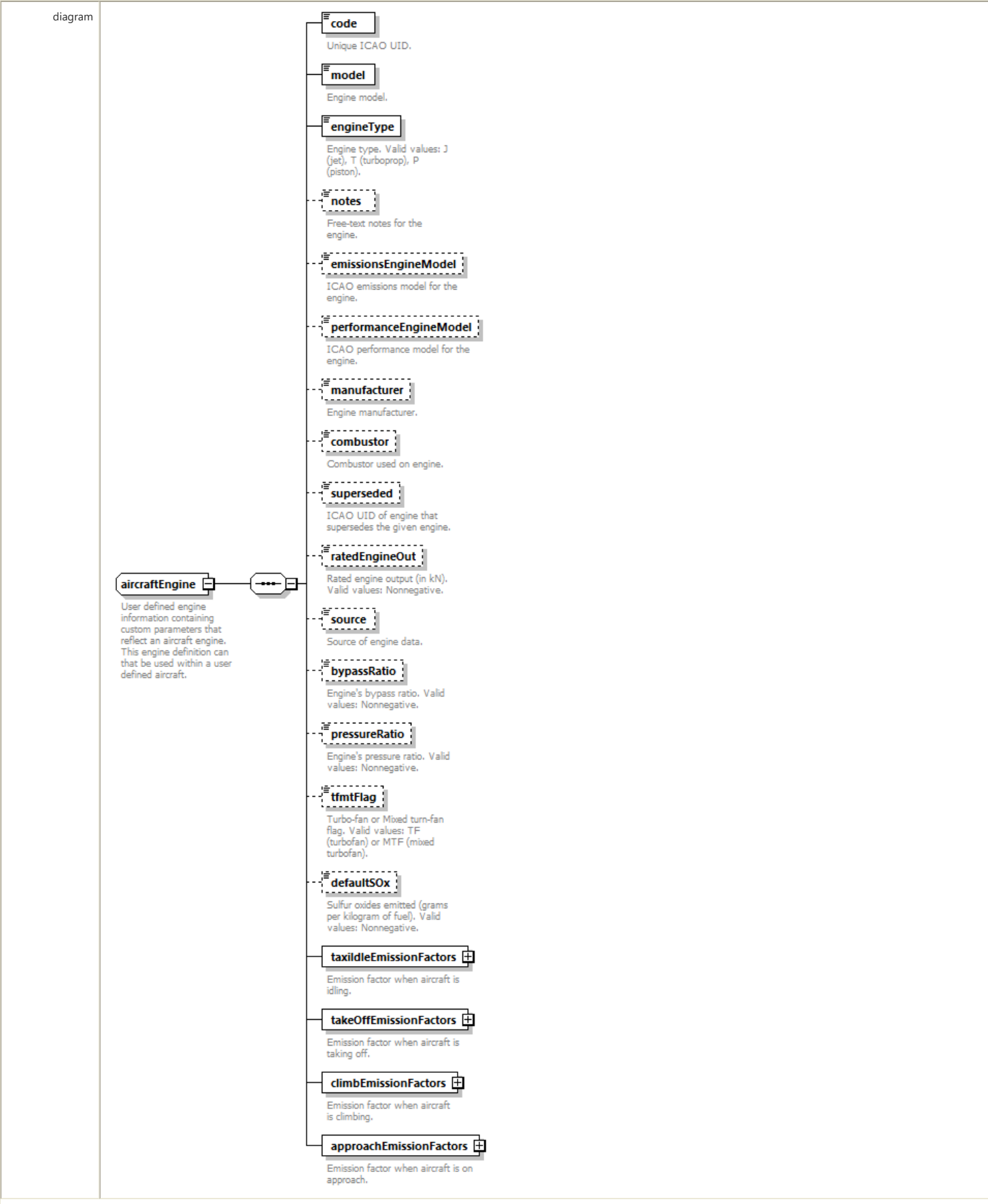
diagram	bada4Suffix User-defined BADA 4 model suffix.
type	bada4Suffix
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-defined BADA 4 model suffix.

element **aircraft/bada4FlapsMapSourceAnpId**

diagram	bada4FlapsMapSourceAnpId Source ANP airplane ID for mapping ANP flaps to BADA 4.
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



children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor superseded ratedEngineOut source bypassRatio pressureRatio fmtFlag 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.

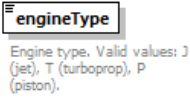
element **aircraftEngine/code**

diagram	
type	engineCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ICAO UID.

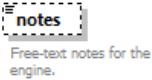
element **aircraftEngine/model**

diagram	
type	engineModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Engine model.

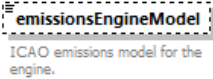
element **aircraftEngine/engineType**

diagram	
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 (turboprop), P (piston).

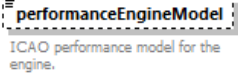
element **aircraftEngine/notes**

diagram	
type	string1024
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1024
annotation	documentation Free-text notes for the engine.

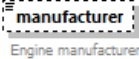
element **aircraftEngine/emissionsEngineModel**

diagram	
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.

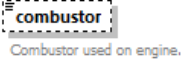
element **aircraftEngine/performanceEngineModel**

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.

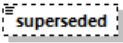
element **aircraftEngine/manufacturer**

diagram	
type	string100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Engine manufacturer.

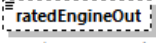
element **aircraftEngine/combustor**

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	 ICAO UID of engine that supersedes the given engine.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ICAO UID of engine that supersedes the given engine.

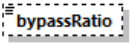
element **aircraftEngine/ratedEngineOut**

diagram	 Rated engine output (in kN). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Rated engine output (in kN). Valid values: Nonnegative.

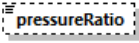
element **aircraftEngine/source**

diagram	 Source of engine data.
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	 Engine's bypass ratio. Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Engine's bypass ratio. Valid values: Nonnegative.

element **aircraftEngine/pressureRatio**

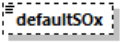
diagram	 Engine's pressure ratio. Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Engine's pressure ratio. Valid values: Nonnegative.
------------	--

element **aircraftEngine/tfmtFlag**

diagram	 Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).
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	 Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.
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	engineModeEmissions 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. approachEmissionFactors: Emission factor when aircraft is on approach.
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	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. 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	code: Unique ICAO UID.
type	engineModCode
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 50
annotation	documentation Unique ICAO UID.

element **aircraftEngineMod/description**

diagram	description Description of engine modifications.
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of engine modifications.

complexType **aircraftType**

diagram	<pre> xsd:element name="aircraftType" base="base" type="complexType"> Characterizes an aircraft. anpAircraftId airframeModel Air frame model. engineCode Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop). engineModCode Engine modification code. (AEDT database reference table FLEET.FLT_ENGINE_MOD S column ENGINE_MOD_CODE.) apuName Name of auxiliary power unit used by this type of aircraft. groundSupportEquipmentLTOOperationSet Supports GSE operational data stored in the GSE_LTO_OP table. This element supports the definition of user defined ground support equipment in operational usage. assignDefaultGse Whether the application should assign default GSE for this operation or not </pre>
---------	---

element **aircraftType/anpAircraftId**

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

element **aircraftType/airframeModel**

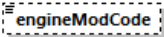
diagram	airframeModel Air frame model.
---------	---

type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Air frame model.

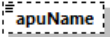
element **aircraftType/engineCode**

diagram	 Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

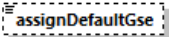
element **aircraftType/engineModCode**

diagram	 Engine modification code. (AEDT database reference table FLEET.FLT_ENGINE_MOD 5 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	 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	 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**

diagram	
children	model engineCount engineLocation designationCode maxSeats 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**

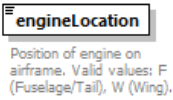
diagram	
---------	--

type	airframeModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique description of airframe.

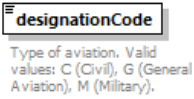
element **airframe/engineCount**

diagram	
type	xs:int
properties	content simple
annotation	documentation Number of engines on airframe.

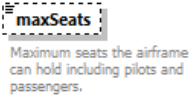
element **airframe/engineLocation**

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).

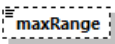
element **airframe/designationCode**

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).

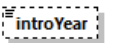
element **airframe/maxSeats**

diagram	
type	int1to9999
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 9999
annotation	documentation Maximum seats the airframe can hold including pilots and passengers.

element **airframe/maxRange**

diagram	 Number of miles airframe can fly fully fueled. Valid values: Nonnegative.
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	 Year airframe was introduced. Valid values: Nonnegative.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Year airframe was introduced. Valid values: Nonnegative.

element **airframe/euroGroupCode**

diagram	 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).
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).

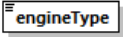
element **airframe/usageCode**

diagram	 Usage code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).
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).

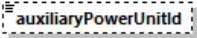
element **airframe/sizeCode**

diagram	 Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).
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**

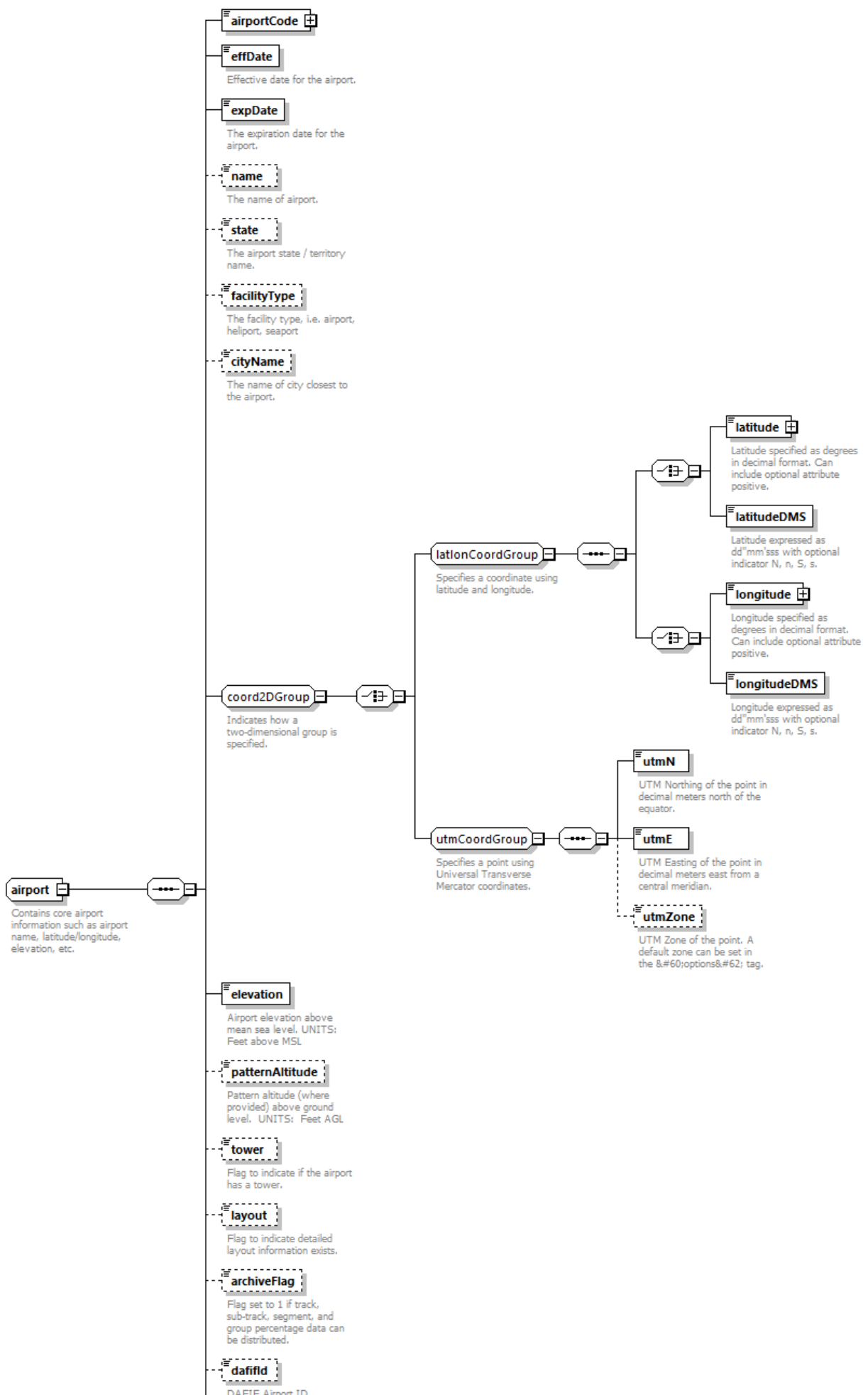
diagram	 Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

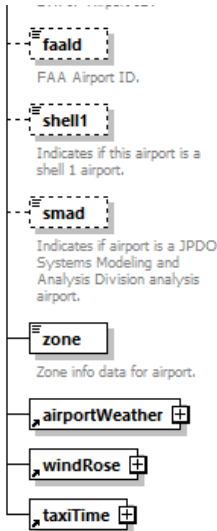
element **airframe/auxiliaryPowerUnitId**

diagram	 Identifier of an auxiliary power unit.
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.

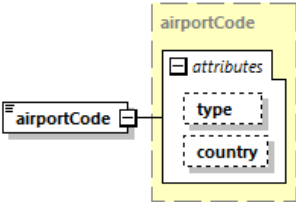
complexType **airport**

diagram



	
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.

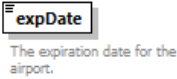
element **airport/airportCode**

diagram						
type	airportCode					
properties	content complex					
facets	Kind Value Annotation minLength 0 maxLength 4					
attributes	Name type country	Type airportCodeType string3	Use optional optional	Default ANY ANY	Fixed	Annotation

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.
------------	---

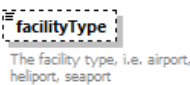
element **airport/name**

diagram	
type	<u>string100</u>
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	<u>string50</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The airport state / territory name.

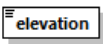
element **airport/facilityType**

diagram	
type	<u>string25</u>
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

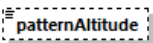
element **airport/cityName**

diagram	
type	<u>string50</u>
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	 Airport elevation above mean sea level. UNITS: Feet above MSL
type	xs:double
properties	content simple
annotation	documentation Airport elevation above mean sea level. UNITS: Feet above MSL

element **airport/patternAltitude**

diagram	 Pattern altitude (where provided) above ground level. UNITS: Feet AGL
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	 Flag to indicate if the airport has a tower.
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	 Flag to indicate detailed layout information exists.
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	 Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.
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	 The diagram shows a dashed box containing the text 'dafifld' in bold. Below the box, the text 'DAFIF Airport ID.' is written.
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	 The diagram shows a dashed box containing the text 'faald' in bold. Below the box, the text 'FAA Airport ID.' is written.
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	 The diagram shows a dashed box containing the text 'shell1' in bold. Below the box, the text 'Indicates if this airport is a shell 1 airport.' is written.
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if this airport is a shell 1 airport.

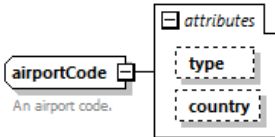
element **airport/smad**

diagram	 The diagram shows a dashed box containing the text 'smad' in bold. Below the box, the text 'Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.' is written.
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	 Zone info data for airport.
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Zone info data for airport.

complexType **airportCode**

diagram																			
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><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><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></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**

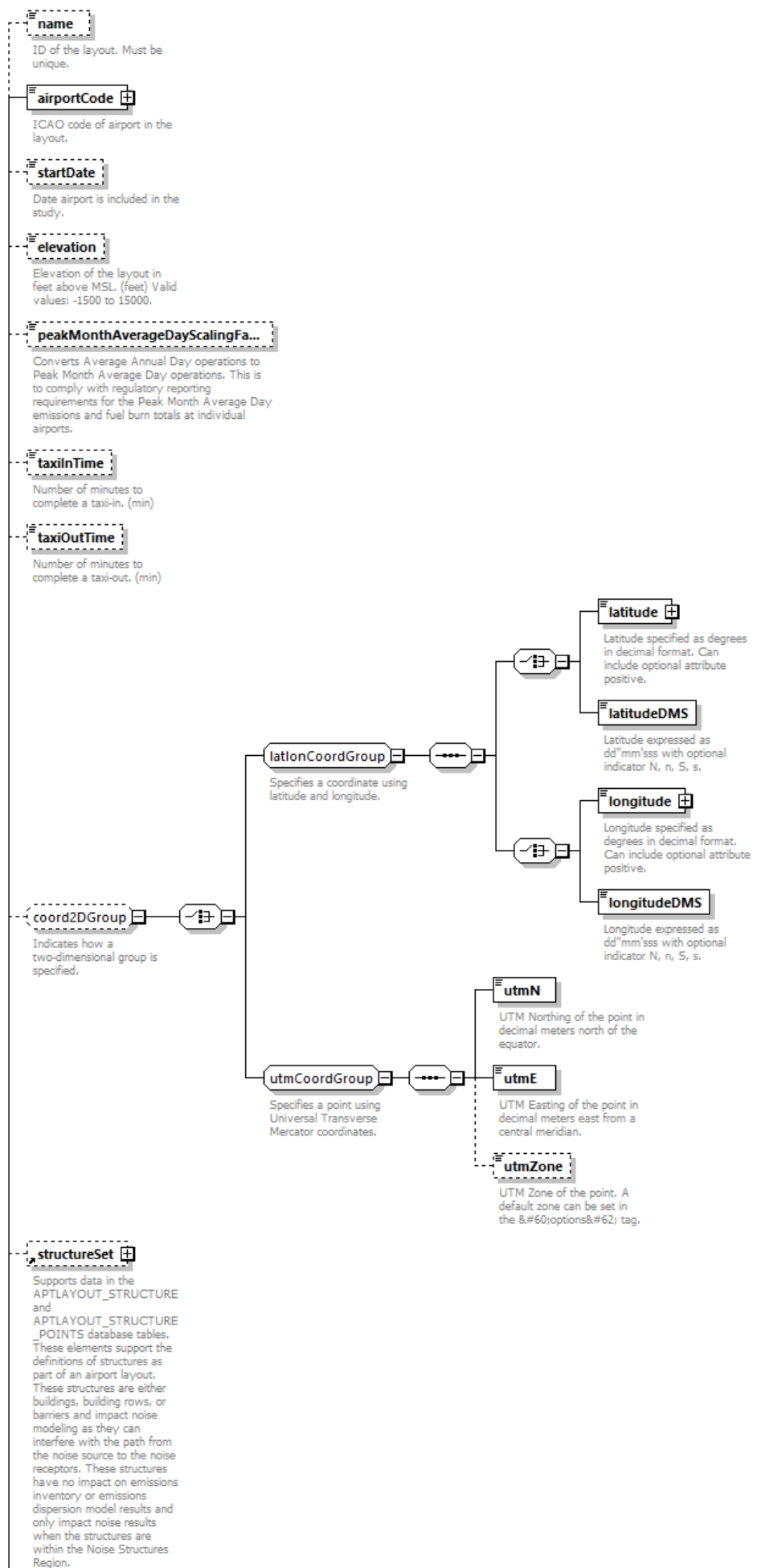
type	airportCodeType
properties	use optional default ANY
facets	Kind Value Annotation enumeration ICAO enumeration IATA enumeration FAA enumeration OTHER enumeration ANY

attribute **airportCode/@country**

type	string3
properties	use optional default ANY
facets	Kind Value Annotation minLength 0 maxLength 3

complexType **airportLayoutType**

diagram



airportLayoutType

Fields defining an airport and its layout.

parkingFacilitySet

NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.

stationarySourceSet

Container of stationary sources contributing emissions.

gateSet

Supports data contained in the APTLAYOUT_GATE 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

NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.

taxiwaySet

Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.

runwaySet

Container for runways.

taxipathSet

Supports data contained in the APTLAYOUT_TAXIPATH 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 content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.

quarterHourlyProfileSet

Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations.

dailyProfileSet

Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of operations.

children	name airportCode startDate elevation peakMonth averageDayScalingFactor taxiInTime taxiOutTime latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone structureSet 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.

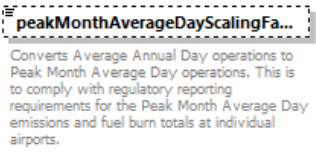
diagram						
type	airportCode					
properties	content complex					
facets	Kind Value Annotation minLength 0 maxLength 4					
attributes	Name	Type	Use	Default	Fixed	Annotation
	type	airportCodeType	optional	ANY		
	country	string3	optional	ANY		
annotation	documentation ICAO code of airport in the layout.					

diagram	
type	xs:date
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Date airport is included in the study.

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

type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of the layout in feet above MSL. (feet) Valid values: -1500 to 15000.

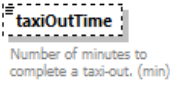
element **airportLayoutType/peakMonthAverageDayScalingFactor**

diagram	 peakMonthAverageDayScalingFa... 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.
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	 taxiInTime Number of minutes to complete a taxi-in. (min)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete a taxi-in. (min)

element **airportLayoutType/taxiOutTime**

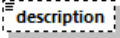
diagram	 taxiOutTime Number of minutes to complete a taxi-out. (min)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete a taxi-out. (min)

complexType **anpAirplane**

diagram	
children	anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseId noiseCategory minBurn noiseSourceHeight
used by	element fleet/anpAirplane
annotation	documentation Creates a new ANP airplane.

diagram	 ID of ANP airplane. Must be a new, unique value.
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	 Description of ANP airplane.
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	 Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).
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**

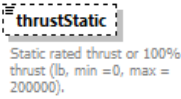
diagram	 The owner category: commercial, general aviation, military.
type	anpOwnerType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Commercial C Military M General G
annotation	documentation The owner category: commercial, general aviation, military.

element **anpAirplane/engineTypeCode**

diagram	 The engine type code: prop, jet, turbo.
type	engineType

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.

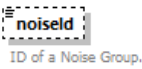
element **anpAirplane/thrustStatic**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Static rated thrust or 100% thrust (lb, min =0, max = 200000).

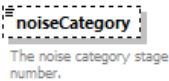
element **anpAirplane/thrustRestore**

diagram	
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.

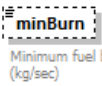
element **anpAirplane/noiseld**

diagram	
type	anpNoiseld
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a Noise Group.

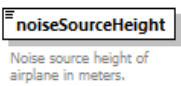
element **anpAirplane/noiseCategory**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The noise category stage number.

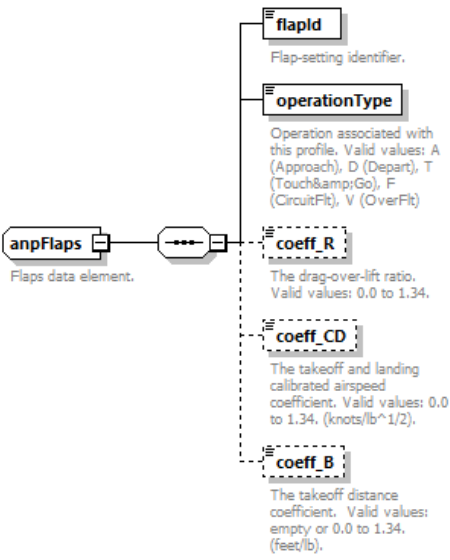
element **anpAirplane/minBurn**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum fuel burn rate. (kg/sec)

element **anpAirplane/noiseSourceHeight**

diagram	
type	xs:float
properties	content simple
annotation	documentation Noise source height of airplane in meters.

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	operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)
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	coeff_R 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	coeff_CD 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	coeff_B 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	anpFlapsSet Flap settings set for an ANP aircraft type. anpAirplaneId Airplane's ANP ID. flaps 1..∞
children	anpAirplaneId flaps

used by	element fleet/anpFlapsSet
annotation	documentation Flap settings set for an ANP aircraft type.

element **anpFlapsSet/anpAirplaneId**

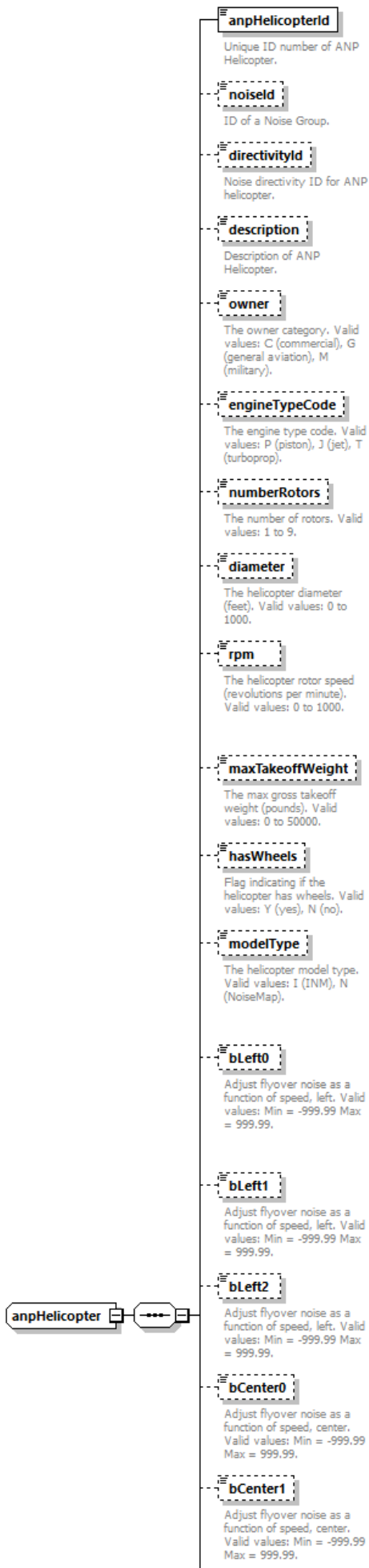
diagram	
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **anpFlapsSet/flaps**

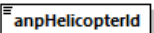
diagram	
type	anpFlaps
properties	minOcc 1 maxOcc unbounded content complex
children	flapId operationType coeff_R coeff_CD coeff_B

complexType **anpHelicopter**

diagram



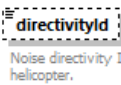
	bCenter2 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99. bRight0 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99. bRight1 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99. 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. dbHorizontalAcceleration Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50. dbClimbAcceleration Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50. dbHorizontalDeceleration Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50. dbDescendDeceleration Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50. noiseSourceHeight Noise source height of helicopter in meters.
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 noiseSourceHeight
used by	element fleet/anpHelicopter

diagram	 Unique ID number of ANP Helicopter.
type	<u>anpHeloid</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ID number of ANP Helicopter.

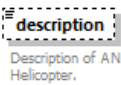
element **anpHelicopter/noiseld**

diagram	 ID of a Noise Group.
type	anpHeloNoiseld
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a Noise Group.

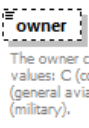
element **anpHelicopter/directivityld**

diagram	 Noise directivity ID for ANP helicopter.
type	anpHeloDirectivityld
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise directivity ID for ANP helicopter.

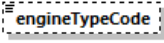
element **anpHelicopter/description**

diagram	 Description of ANP Helicopter.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of ANP Helicopter.

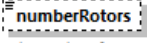
element **anpHelicopter/owner**

diagram	 The owner category. Valid values: C (commercial), G (general aviation), M (military).
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	 The engine type code. Valid values: P (piston), J (jet), T (turboprop).
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	 The number of rotors. Valid values: 1 to 9.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The number of rotors. Valid values: 1 to 9.

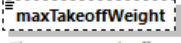
element **anpHelicopter/diameter**

diagram	 The helicopter diameter (feet). Valid values: 0 to 1000.
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	 The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.
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**

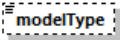
diagram	 The max gross takeoff weight (pounds). Valid values: 0 to 50000.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation The max gross takeoff weight (pounds). Valid values: 0 to 50000.
------------	---

element **anpHelicopter/hasWheels**

diagram	 Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).
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	 The helicopter model type. Valid values: I (INM), N (NoiseMap).
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	 Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
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	 Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
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	 Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
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	 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
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**

diagram	 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
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	 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
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	 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
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.

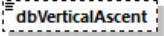
element **anpHelicopter/bRight1**

diagram	 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
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.

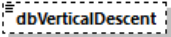
element **anpHelicopter/bRight2**

diagram	 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
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.

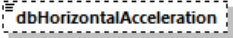
element **anpHelicopter/dbVerticalAscent**

diagram	 Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.
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**

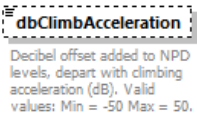
diagram	 Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.

element **anpHelicopter/dbHorizontalAcceleration**

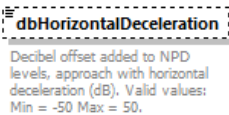
diagram	 Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.
---------	---

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.

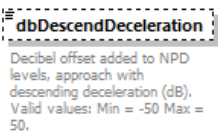
element **anpHelicopter/dbClimbAcceleration**

diagram	 <pre> <dbClimbAcceleration> Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50. </pre>
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.

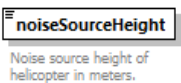
element **anpHelicopter/dbHorizontalDeceleration**

diagram	 <pre> <dbHorizontalDeceleration> Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50. </pre>
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**

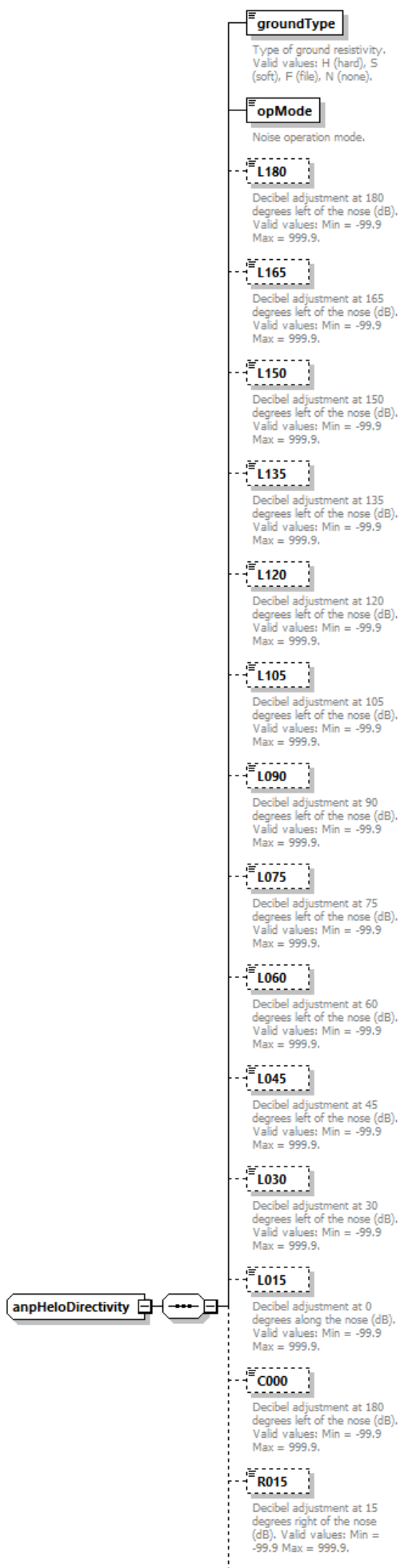
diagram	 <pre> <dbDescendDeceleration> Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50. </pre>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.

element **anpHelicopter/noiseSourceHeight**

diagram	 <pre> <noiseSourceHeight> Noise source height of helicopter in meters. </pre>
type	xs:float
properties	content simple
annotation	documentation Noise source height of helicopter in meters.

complexType **anpHeloDirectivity**

diagram



	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 Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	groundType Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).						
type	anpHeloGroundType						
properties	content simple						
facets	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>pattern</td><td>Hard H Software S File F None N</td><td></td></tr></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	 Noise operation mode.
type	<u>anpHeloNpdOpMode</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise operation mode.

element **anpHeloDirectivity/L180**

diagram	 Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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**

diagram	 Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

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	 Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	 Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
---------	---

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	R165 Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	R180 Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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	anpHeloDirectivitySet A set of helicopter directivities. anpHeloDirectivity 1..∞ ANP Helicopter directivity. anpHelicopterId Unique ID for ANP helicopters.
children	anpHelicopterId anpHeloDirectivity
used by	element fleet/anpHeloDirectivitySet
annotation	documentation A set of helicopter directivities.

element **anpHeloDirectivitySet/anpHelicopterId**

diagram	anpHelicopterId Unique ID for ANP helicopters.
type	anpHeloDirectId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ID for ANP helicopters.

element **anpHeloDirectivitySet/anpHeloDirectivity**

diagram

anpHeloDirectivity
1..∞
ANP Helicopter directivity.

anpHeloDirectivity

groundType

Type of ground resistivity.
Valid values: H (hard), S (soft), F (file), N (none).

opMode

Noise operation mode.

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

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.

complexType **anpHeloNoiseGroup**

diagram	This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type. The noise group id. 1..∞ Helicopter noise group spectral class by op mode records
children	noiseld opMode
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	The noise group id.
type	anpHeloNoiseId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The noise group id.

element [anpHeloNoiseGroup/opMode](#)

diagram	1..∞ Helicopter noise group spectral class by op mode records anpHeloNoiseOpMode opModelId Noise operation mode opModeDescription Noise operation mode description spectralClassId Spectral class id. referenceSpeed Reference speed (knots). isStatic Is static. npdCurves The set of noise curves for this group.
type	anpHeloNoiseOpMode
properties	minOcc 1 maxOcc unbounded content complex
children	opModelId opModeDescription spectralClassId referenceSpeed isStatic npdCurves
annotation	documentation Helicopter noise group spectral class by op mode records

complexType [anpHeloNoiseOpMode](#)

diagram	<pre> classDiagram class anpHeloNoiseOpMode { opModelId : Noise operation mode opModeDescription : Noise operation mode description spectralClassId : Spectral class id. referenceSpeed : Reference speed (knots). isStatic : Is static. npdCurves : The set of noise curves for this group. } </pre>
children	opModelId opModeDescription spectralClassId referenceSpeed isStatic npdCurves
used by	element anpHeloNoiseGroup/opMode
annotation	documentation A helicopter noise spectral class by op mode

element **anpHeloNoiseOpMode/opModelId**

diagram	<pre> classDiagram class opModelId { Noise operation mode } </pre>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise operation mode

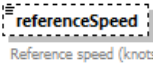
element **anpHeloNoiseOpMode/opModeDescription**

diagram	<pre> classDiagram class opModeDescription { Noise operation mode description } </pre>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise operation mode description

element **anpHeloNoiseOpMode/spectralClassId**

diagram	<pre> classDiagram class spectralClassId { Spectral class id. } </pre>
type	xs:short
properties	content simple
annotation	documentation Spectral class id.

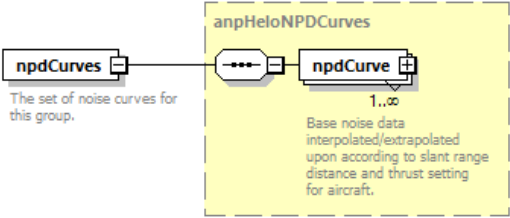
element **anpHeloNoiseOpMode/referenceSpeed**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Reference speed (knots).

element **anpHeloNoiseOpMode/isStatic**

diagram	
type	xs:boolean
properties	content simple
annotation	documentation Is static.

element **anpHeloNoiseOpMode/npdCurves**

diagram	
type	<u>anpHeloNPDCurves</u>
properties	content complex
children	<u>npdCurve</u>
annotation	documentation The set of noise curves for this group.

complexType **anpHeloNPDCurve**

annotation	documentation Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).
------------	--

element **anpHeloNPDCurve/opMode**

diagram	 Noise operation mode.
type	anpHeloNpdOpMode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise 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	 Decibel level at 2000 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 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_4000**

diagram	 Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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	 Decibel level at 6300 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 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_10000**

diagram	 Decibel level at 10000 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 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

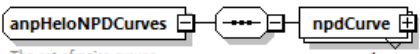
element **anpHeloNPDcurve/L_16000**

diagram	 Decibel level at 16000 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 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDcurve/L_25000**

diagram	 Decibel level at 25000 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 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType **anpHeloNPDcurves**

diagram	 The set of noise curves. 1..∞ Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.
children	npdCurve
used by	element anpHeloNoiseOpMode/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**

properties	content simple
annotation	documentation Step number of the procedure. Must be unique in a sequence.

element **anpHeloProcedureStep/operationType**

diagram	operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)
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 **anpHeloProcedureStep/profileGroupId**

diagram	profileGroupId 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 **anpHeloProcedureStep/profileStageLength**

diagram	profileStageLength 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).
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	stepType 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
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	duration Procedure's duration (seconds).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Procedure's duration (seconds).

element **anpHeloProcedureStep/distance**

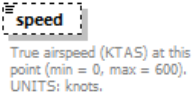
diagram	distance Length of a particular segment (min = -9999999.9, max = 9999999.9, feet).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Length of a particular segment (min = -9999999.9, max = 9999999.9, feet).

element **anpHeloProcedureStep/altitude**

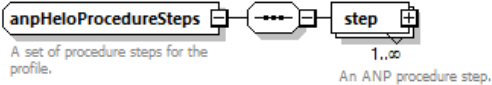
diagram	altitude Altitude above runway elevation (ARE) of aircraft (min = -9999, max = 60000). UNITS: feet.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Altitude above runway elevation (ARE) of aircraft (min = -9999, max = 60000). UNITS: feet.
------------	---

element **anpHeloProcedureStep/speed**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation True airspeed (KTAS) at this point (min = 0, max = 600). UNITS: knots.

complexType **anpHeloProcedureSteps**

diagram	
children	step
used by	element anpHeloProfile/procedureSteps
annotation	documentation A set of procedure steps for the profile.

element **anpHeloProcedureSteps/step**

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 **anpHeloProfile/profileGroupId**

diagram	profileGroupId 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).

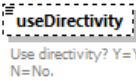
element **anpHeloProfile/profileStageLength**

diagram	profileStageLength 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).
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).

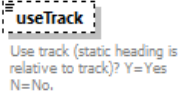
element **anpHeloProfile/weight**

diagram	weight Aircraft weight during this operation type. Valid values: 0 through 999999. (lb)
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.

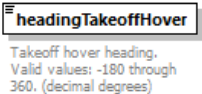
element **anpHeloProfile/useTrack**

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. (decimal degrees)

element **anpHeloProfile/headingTakeoffHover**

diagram	
type	xs:double
properties	content simple
annotation	documentation Takeoff hover heading. Valid values: -180 through 360. (decimal degrees)

element **anpHeloProfile/headingLandGround**

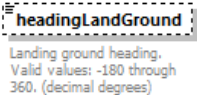
diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

diagram	
children	pointNum distance altitude speed duration opMode fuelFlowMode stretch
used by	element anpHeloProfilePoints/point
annotation	documentation A single profile point data element.

element **anpHeloProfilePoint/pointNum**

diagram	
type	xs:short
properties	content simple
annotation	documentation Point index number. Must be sequential and unique, starting at 1.

element **anpHeloProfilePoint/distance**

diagram	
type	xs:double
properties	content simple
annotation	documentation Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet).

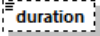
element **anpHeloProfilePoint/altitude**

diagram	 Altitude AFE of aircraft (min = -9999, max = 60000, feet).
type	xs:double
properties	content simple
annotation	documentation Altitude AFE of aircraft (min = -9999, max = 60000, feet).

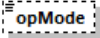
element **anpHeloProfilePoint/speed**

diagram	 True air speed (TAS) at this point (min = 0, max = 600, knots).
type	xs:double
properties	content simple
annotation	documentation True air speed (TAS) at this point (min = 0, max = 600, knots).

element **anpHeloProfilePoint/duration**

diagram	 Duration for static operation mode segments (NULL for dynamic operation mode segments). UNITS: Seconds
type	xs:double
properties	minOcc 0 maxOcc 1 content simple nillable true
annotation	documentation Duration for static operation mode segments (NULL for dynamic operation mode segments). UNITS: Seconds

element **anpHeloProfilePoint/opMode**

diagram	 Noise operation mode (NULL for last point in profile)
type	string255
properties	minOcc 0 maxOcc 1 content simple nillable true
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise operation mode (NULL for last point in profile)

element **anpHeloProfilePoint/fuelFlowMode**

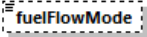
diagram	 Segment fuel mode. Valid values TO (Takeoff), CO (Climbout), AP (Approach), ID (Idle)
type	fuelFlowMode
properties	minOcc 0 maxOcc 1 content simple nillable true

diagram	anpHeloProfilePoint pointNum: Point index number. Must be sequential and unique, starting at 1. distance: Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet). altitude: Altitude AFE of aircraft (min = -9999, max = 60000, feet). speed: True air speed (TAS) at this point (min = 0, max = 600, knots). duration: Duration for static operation mode segments (NULL for dynamic operation mode segments). UNITS: Seconds opMode: Noise operation mode (NULL for last point in profile) fuelFlowMode: Segment fuel mode. Valid values TO (Takeoff), CO (Climbout), AP (Approach), ID (Idle) stretch: Stretch segment indicator for helipad to helipad and taxi (level only) profiles. (C) Climb, (L) Level, (D) Descend, (NULL) all other segments
type	anpHeloProfilePoint
properties	minOcc 1 maxOcc unbounded content complex
children	pointNum distance altitude speed duration opMode fuelFlowMode stretch

complexType **anpHeloProfileSet**

diagram	anpHeloProfileSet A profile set for an ANP helicopter. anpHeloProfileSet The anp helicopter id. profile One or more ANP profiles.
children	anpHeloProfileSet profile
used by	element fleet/anpHeloProfileSet
annotation	documentation A profile set for an ANP helicopter.

element **anpHeloProfileSet/anpHeloProfileId**

diagram	anpHeloProfileId The anp helicopter id.
type	anpHeloId
properties	content simple
facets	Kind Value Annotation minLength 0

children	operationType profileGroupId profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover procedureSteps profilePoints
annotation	documentation One or more ANP profiles.

complexType **anpNoiseGroup**

diagram	
children	noiseld 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/noiseld**

diagram	
type	anpNoiseld
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise group's ID.

element **anpNoiseGroup/spectralClassApproach**

diagram	 spectralClassApproach Spectral class number for approach (min = 0, max = 30000).
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for approach (min = 0, max = 30000).

element **anpNoiseGroup/spectralClassDeparture**

diagram	 spectralClassDeparture Spectral class number for departure (min = 0, max = 30000).
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for departure (min = 0, max = 30000).

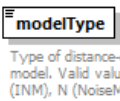
element **anpNoiseGroup/spectralClassAfterburner**

diagram	 spectralClassAfterburner Spectral class number for afterburner (min = 0, max = 30000).
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for afterburner (min = 0, max = 30000).

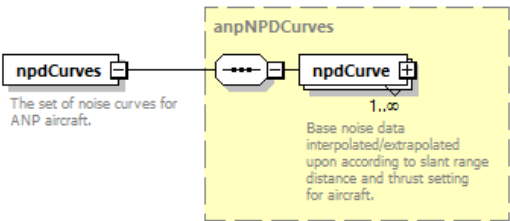
element **anpNoiseGroup/thrustSetType**

diagram	 thrustSetType Type of thrust setting. Valid values: L (pounds), P (percent), X (other). The following are typically used for military airplane: A (Power Lever Angle), B (Pounds Thrust), C (Turbine Inlet Temperature (Deg C)), E (Engine Pressure Ratio), F (Fan Speed), H (Equivalent Shaft Power), I (Manifold Pressure (Inches Mercury)), M (Propeller or Compressor RPM), N (Percent Corrected Rotor Speed), O (Percent Low Pressure Compressor Speed), R (Percent Propeller or Compressor RPM), S (Pounds per Hour of Fuel Flow), V (Percent Fan Speed).
type	<u>string1</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust setting. Valid values: L (pounds), P (percent), X (other). The following are typically used for military airplane: A (Power Lever Angle), B (Pounds Thrust), C (Turbine Inlet Temperature (Deg C)), E (Engine Pressure Ratio), F (Fan Speed), H (Equivalent Shaft Power), I (Manifold Pressure (Inches Mercury)), M (Propeller or Compressor RPM), N (Percent Corrected Rotor Speed), O (Percent Low Pressure Compressor Speed), R (Percent Propeller or Compressor RPM), S (Pounds per Hour of Fuel Flow), V (Percent Fan Speed).

element **anpNoiseGroup/modelType**

diagram	 The diagram shows a box labeled modelType with a small icon of a document with lines. Below the box, the text reads: "Type of distance-duration model. Valid values: I (INM), N (NoiseMap)."
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of distance-duration model. Valid values: I (INM), N (NoiseMap).

element **anpNoiseGroup/npdCurves**

diagram	 The diagram shows a box labeled npdCurves with a small icon of a document with lines. Below the box, the text reads: "The set of noise curves for ANP aircraft." To the right of this box is a dashed yellow box labeled anpNPDCurves. Inside this dashed box, there is a box labeled npdCurve with a small icon of a document with lines. Below this box, the text reads: "Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft." A line connects the npdCurves box to the npdCurve box, with a small icon of a document with lines and the text "1..∞" below it.
type	anpNPDCurves
properties	content complex
children	npdCurve
annotation	documentation The set of noise curves for ANP aircraft.

complexType **anpNPDCurve**

diagram	The diagram illustrates the structure of the anpNPDCurve element. It is a container for a table of noise power distance curves. The table is organized into columns for various parameters: noiseType, opMode, netThrustPerEngine, and a series of decibel level columns labeled L_200 through L_25000. Each column contains a description of the parameter and its valid values. The noiseType column lists S (SEL), M (LAMAX), E (EPNL), and P (PNLTM). The opMode column lists A (Approach), D (Depart), and X (Afterburner). The netThrustPerEngine column lists the net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value). The decibel level columns list the decibel level at the specified distance (AGL) and valid values (Min = -50.0, Max = 999.9). noiseType Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM). opMode Engine operation mode. Valid values: A (Approach), D (Depart), X (Afterburner) netThrustPerEngine Net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value). L_200 Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_400 Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_630 Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_1000 Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_2000 Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_4000 Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_6300 Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_10000 Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_16000 Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_25000 Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9. anpNPDCurve The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.
children	noiseType opMode netThrustPerEngine L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
used by	element anpNPDCurves/npdCurve
annotation	documentation The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.

element **anpNPDCurve/noiseType**

diagram	The diagram illustrates the structure of the anpNpdNoiseType element. It is a container for a table of noise power distance curves. The table is organized into columns for various parameters: noiseType, opMode, netThrustPerEngine, and a series of decibel level columns labeled L_200 through L_25000. Each column contains a description of the parameter and its valid values. The noiseType column lists S (SEL), M (LAMAX), E (EPNL), and P (PNLTM). The opMode column lists A (Approach), D (Depart), and X (Afterburner). The netThrustPerEngine column lists the net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value). The decibel level columns list the decibel level at the specified distance (AGL) and valid values (Min = -50.0, Max = 999.9). noiseType Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).
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).

element **anpNPDCurve/opMode**

diagram	 Engine operation mode. Valid values: A (Approach), D (Depart), X (Afterburner)
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. Valid values: A (Approach), D (Depart), X (Afterburner)

element **anpNPDCurve/netThrustPerEngine**

diagram	 Net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value).
type	xs:double
properties	content simple
annotation	documentation Net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value).

element **anpNPDCurve/L_200**

diagram	 Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_400**

diagram	 Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_630**

diagram	 Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation

	Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.
--	---

element **anpNPDCurve/L_1000**

diagram	 Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_2000**

diagram	 Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_4000**

diagram	 Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_6300**

diagram	 Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_10000**

diagram	 Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_16000**

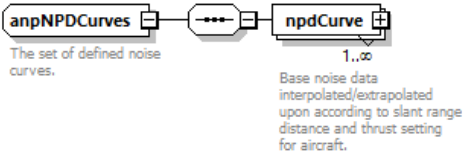
diagram	 Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
---------	--

type	xs:double
properties	content simple
annotation	documentation Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_25000**

diagram	 Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType **anpNPDCurves**

diagram	 The set of defined noise curves. Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.
children	npdCurve
used by	element anpNoiseGroup/npdCurves
annotation	documentation The set of defined noise curves.

element **anpNPDCurves/npdCurve**

diagram The diagram shows the anpProcedureStep element as a container for a sequence of steps. It includes a list of attributes on the right: stepNum, flapId, stepType, thrustType, altitudeAFE, calibratedAirspeed, climbRate, distance, thrust, angle, and percentAcceleration. Each attribute has a detailed description of its purpose and valid values.	
children	stepNum flapId stepType thrustType altitudeAFE calibratedAirspeed climbRate distance thrust angle percentAcceleration
used by	element anpProcedureSteps/step
annotation	documentation A single procedure step datum for the profile.

element **anpProcedureStep/stepNum**

diagram The diagram shows the stepNum element as a simple integer value representing the step number of the procedure.	
type	xs:int
properties	content simple

annotation	documentation Step number of the procedure. Must be unique in a sequence.
------------	--

element **anpProcedureStep/flapId**

diagram	 Flap-setting identifier.
type	anpFlapId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Flap-setting identifier.

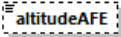
element **anpProcedureStep/stepType**

diagram	 Type of step, (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend- Decel, (F) Decend-Idle, (L) Land, (B) Decelerate
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of step, (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend- Decel, (F) Decend-Idle, (L) Land, (B) Decelerate

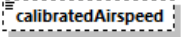
element **anpProcedureStep/thrustType**

diagram	 Type of thrust. (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHiTemp, (B) MaxClimbHiTemp, (M) MaxContinuousHiTemp, (G) ReduceClimbHiTemp, (P) ReduceClimbHiTemp, (I) IdleApproach, (J) IdleApproachHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust. (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHiTemp, (B) MaxClimbHiTemp, (M) MaxContinuousHiTemp, (G) ReduceClimbHiTemp, (P) ReduceClimbHiTemp, (I) IdleApproach, (J) IdleApproachHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue

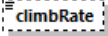
element **anpProcedureStep/altitudeAFE**

diagram	 The altitude above field elevation in feet (min = 0, max = 60000.0).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The altitude above field elevation in feet (min = 0, max = 60000.0).

element **anpProcedureStep/calibratedAirspeed**

diagram	 The calibrated airspeed in knots (min = 0, max = 1000.0).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The calibrated airspeed in knots (min = 0, max = 1000.0).

element **anpProcedureStep/climbRate**

diagram	 The climb rate in feet for minute (min = 0.0, max = 9999999.9).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The climb rate in feet for minute (min = 0.0, max = 9999999.9).

element **anpProcedureStep/distance**

diagram	 The step length in feet (min = 0.0, max = 9999999.9).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The step length in feet (min = 0.0, max = 9999999.9).

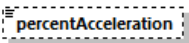
element **anpProcedureStep/thrust**

diagram	 The thrust in percentage (%) or pounds (lbs) (min = 0.0, max = 9999999.9).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The thrust in percentage (%) or pounds (lbs) (min = 0.0, max = 9999999.9).

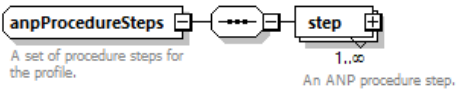
element **anpProcedureStep/angle**

diagram	 The climb or descent angle in degrees for procedure step. Min=0.00 Max=180.00.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The climb or descent angle in degrees for procedure step. Min=0.00 Max=180.00.

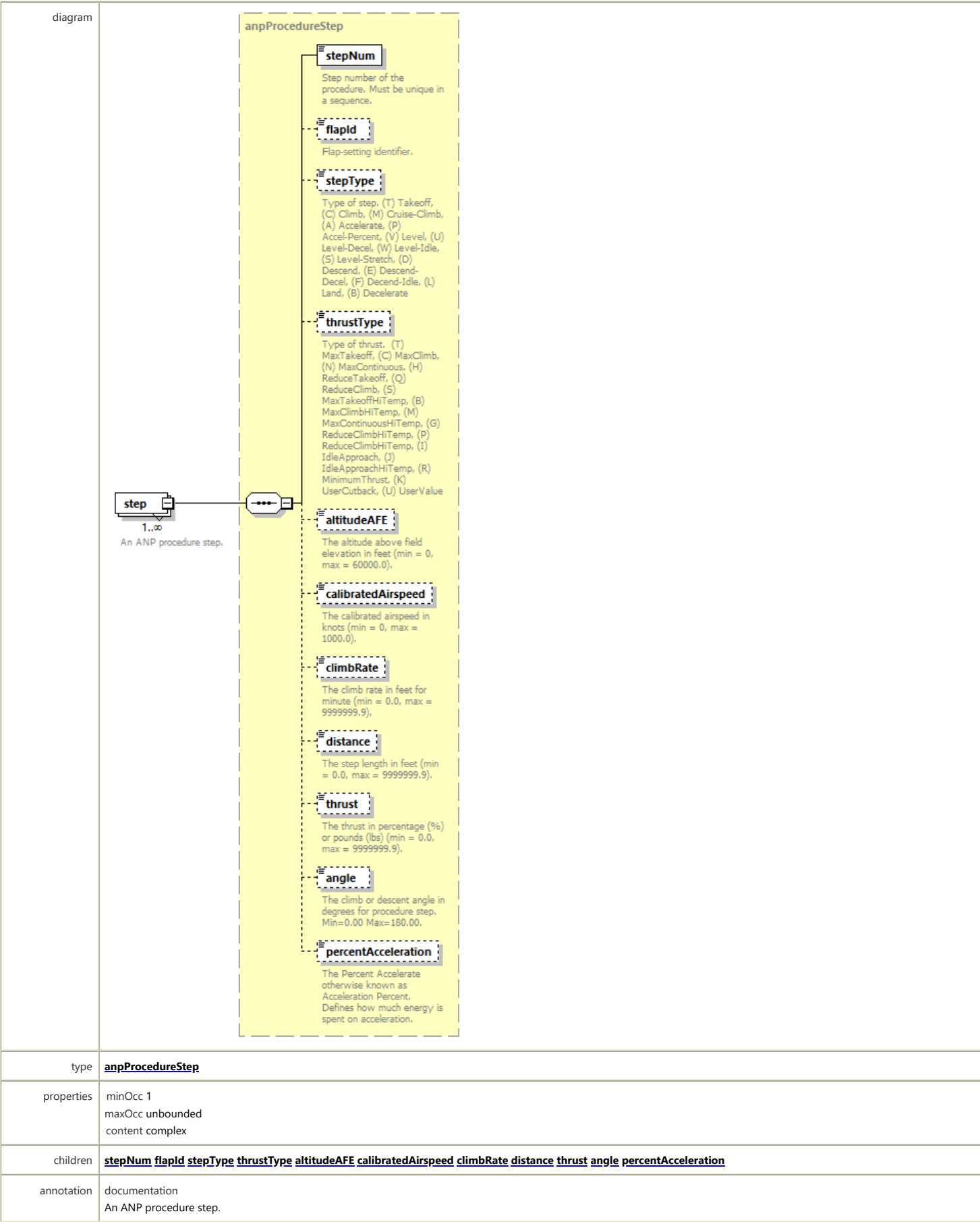
element **anpProcedureStep/percentAcceleration**

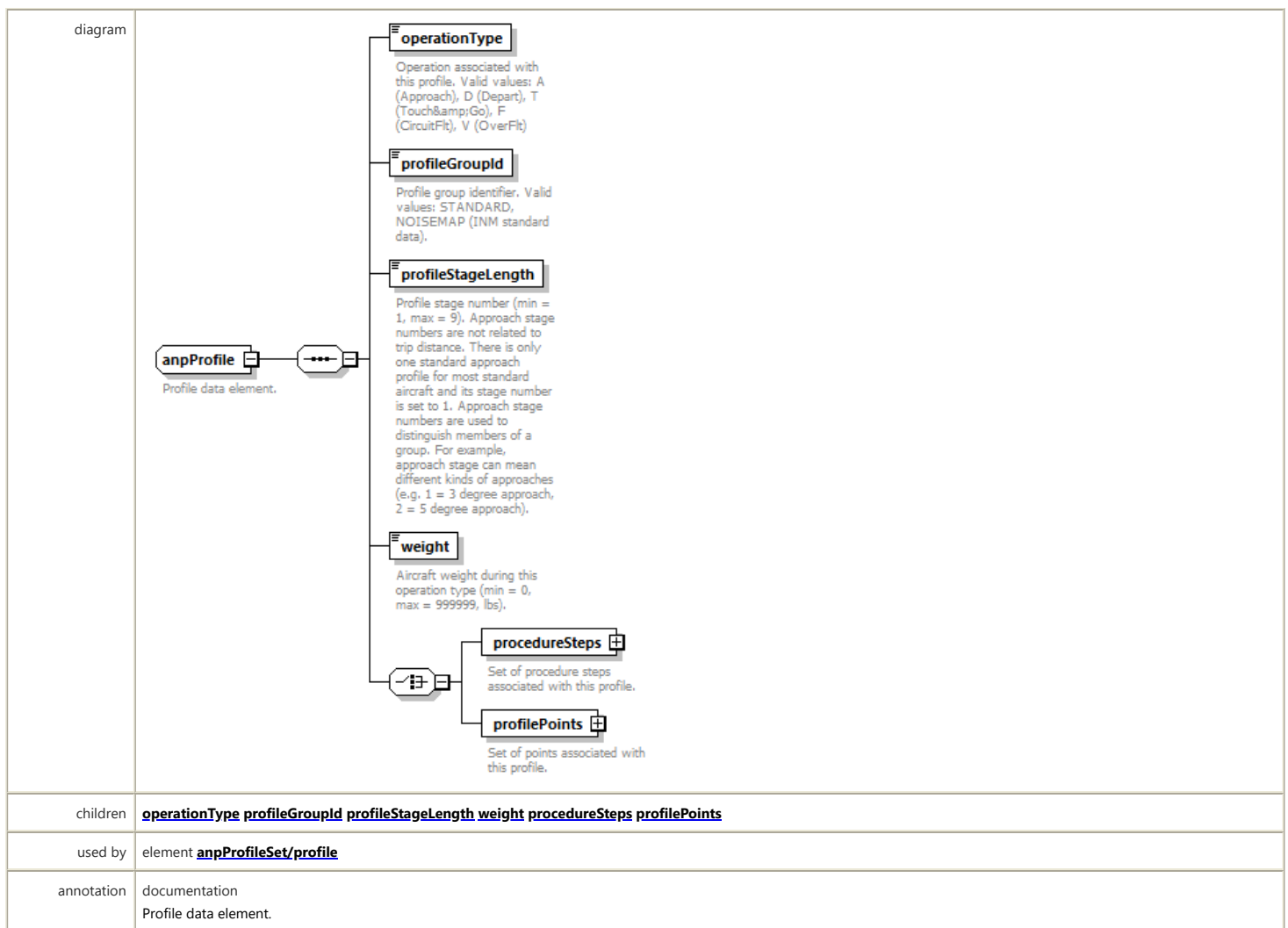
diagram	 The Percent Accelerate otherwise known as Acceleration Percent. Defines how much energy is spent on acceleration.
type	floatInclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation The Percent Accelerate otherwise known as Acceleration Percent. Defines how much energy is spent on acceleration.

complexType **anpProcedureSteps**

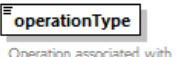
diagram	 A set of procedure steps for the profile. An ANP procedure step. 1..∞
children	step
used by	element anpProfile/procedureSteps
annotation	documentation A set of procedure steps for the profile.

element **anpProcedureSteps/step**





element **anpProfile/operationType**

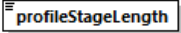
diagram	
type	<u>string1</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)

element **anpProfile/profileGroupId**

diagram	profileGroupId Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	<u>string255</u>
properties	content simple
facets	KindValue Annotation minLength 0 maxLength 255
annotation	documentation

Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

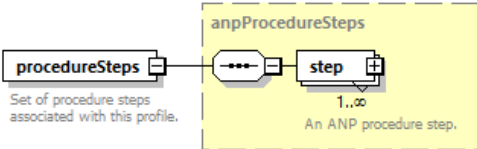
element **anpProfile/profileStageLength**

diagram	 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).
type	<u>string1</u>
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).

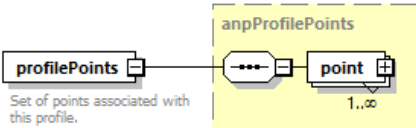
element **anpProfile/weight**

diagram	 Aircraft weight during this operation type (min = 0, max = 999999, lbs).
type	xs:int
properties	content simple
annotation	documentation Aircraft weight during this operation type (min = 0, max = 999999, lbs).

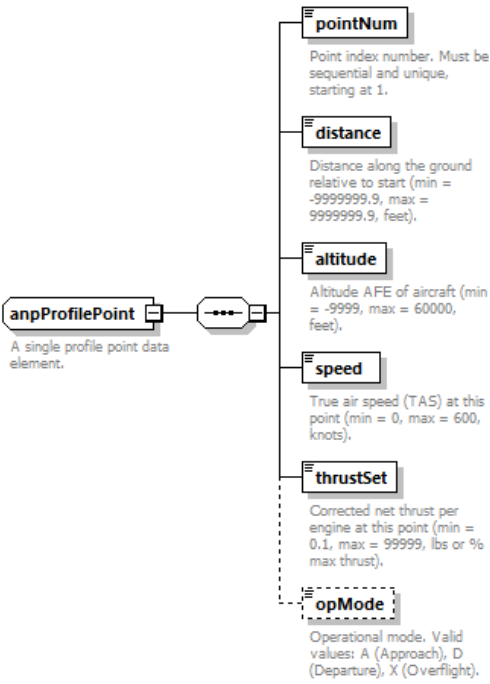
element **anpProfile/procedureSteps**

diagram	 Set of procedure steps associated with this profile. anpProcedureSteps 1..∞ An ANP procedure step.
type	<u>anpProcedureSteps</u>
properties	content complex
children	<u>step</u>
annotation	documentation Set of procedure steps associated with this profile.

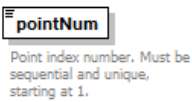
element **anpProfile/profilePoints**

diagram	 Set of points associated with this profile. anpProfilePoints 1..∞
type	<u>anpProfilePoints</u>
properties	content complex
children	<u>point</u>
annotation	documentation Set of points associated with this profile.

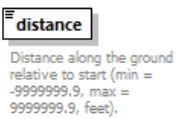
complexType **anpProfilePoint**

diagram	 anpProfilePoint A single profile point data element. pointNum Point index number. Must be sequential and unique, starting at 1. distance Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet). altitude Altitude AFE of aircraft (min = -9999, max = 60000, feet). speed True air speed (TAS) at this point (min = 0, max = 600, knots). thrustSet Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust). opMode Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).
children	pointNum distance altitude speed thrustSet opMode
used by	element anpProfilePoints/point
annotation	documentation A single profile point data element.

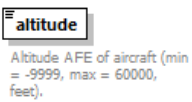
element **anpProfilePoint/pointNum**

diagram	 pointNum Point index number. Must be sequential and unique, starting at 1.
type	xs:short
properties	content simple
annotation	documentation Point index number. Must be sequential and unique, starting at 1.

element **anpProfilePoint/distance**

diagram	 distance Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet).
type	xs:double
properties	content simple
annotation	documentation Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet).

element **anpProfilePoint/altitude**

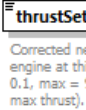
diagram	 altitude Altitude AFE of aircraft (min = -9999, max = 60000, feet).
type	xs:double
properties	content simple
annotation	documentation

	Altitude AFE of aircraft (min = -9999, max = 60000, feet).
--	--

element **anpProfilePoint/speed**

diagram	
type	xs:double
properties	content simple
annotation	documentation True air speed (TAS) at this point (min = 0, max = 600, knots).

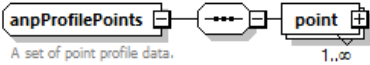
element **anpProfilePoint/thrustSet**

diagram	
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust).

element **anpProfilePoint/opMode**

diagram	
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).

complexType **anpProfilePoints**

diagram	
children	point
used by	element anpProfile/profilePoints
annotation	documentation A set of point profile data.

element **anpProfilePoints/point**

diagram	anpProfilePoint point (1..∞): A container element for the other elements. pointNum: Point index number. Must be sequential and unique, starting at 1. distance: Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet). altitude: Altitude AFE of aircraft (min = -9999, max = 60000, feet). speed: True air speed (TAS) at this point (min = 0, max = 600, knots). thrustSet: Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust). opMode: Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).
type	anpProfilePoint
properties	minOcc 1 maxOcc unbounded content complex
children	pointNum distance altitude speed thrustSet opMode

complexType **anpProfileSet**

diagram	anpProfileSet: A profile set for an ANP airplane. anpAirplaneId: Airplane's ANP ID. profile (1..∞): One or more ANP profiles.
children	anpAirplaneId profile
used by	element fleet/anpProfileSet
annotation	documentation A profile set for an ANP airplane.

element **anpProfileSet/anpAirplaneId**

diagram	anpAirplaneId: Airplane's ANP ID.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **anpProfileSet/profile**

diagram	
type	<u>anpProfile</u>
properties	minOcc 1 maxOcc unbounded content complex
children	<u>operationType</u> <u>profileGroupId</u> <u>profileStageLength</u> <u>weight</u> <u>procedureSteps</u> <u>profilePoints</u>
annotation	documentation One or more ANP profiles.

complexType **anpThrustGeneral**

diagram	
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H coeff_K1 coeff_K2
used by	element anpThrustSet/thrustGeneral
annotation	documentation General thrust data for an ANP aircraft.

element **anpThrustGeneral/thrustType**

diagram	
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation The type of generalized thrust-setting.

element **anpThrustGeneral/coeff_E**

diagram	
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).

element **anpThrustGeneral/coeff_F**

diagram	 Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element **anpThrustGeneral/coeff_GA**

diagram	 Altitude adjustment coefficient at MSL. (lb/ft)
type	xs:double
properties	content simple
annotation	documentation Altitude adjustment coefficient at MSL. (lb/ft)

element **anpThrustGeneral/coeff_GB**

diagram	 Altitude-squared adjustment coefficient at MSL. (lb/ft^2)
type	xs:double
properties	content simple
annotation	documentation Altitude-squared adjustment coefficient at MSL. (lb/ft^2)

element **anpThrustGeneral/coeff_H**

diagram	 Temperature adjustment coefficient. (lb/°C)
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/°C)

element **anpThrustGeneral/coeff_K1**

diagram	 EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)
type	xs:double
properties	content simple
annotation	documentation EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)

element **anpThrustGeneral/coeff_K2**

diagram	 EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)
type	xs:double
properties	content simple

annotation	documentation EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)
------------	---

complexType **anpThrustJet**

diagram	thrustType Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous coeff_E Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb) coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F) coeff_GA Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2) coeff_H Temperature adjustment coefficient. (lb/°C)
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H
used by	element anpThrustSet/thrustJet
annotation	documentation Jet thrust data for an ANP aircraft.

element **anpThrustJet/thrustType**

diagram	thrustType Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous

element **anpThrustJet/coeff_E**

diagram	coeff_E Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)

element **anpThrustJet/coeff_F**

diagram	coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element **anpThrustJet/coeff_GA**

diagram	coeff_GA Altitude adjustment coefficient at MSL. (lb/ft)
type	xs:double
properties	content simple
annotation	documentation Altitude adjustment coefficient at MSL. (lb/ft)

element **anpThrustJet/coeff_GB**

diagram	coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2)
type	xs:double
properties	content simple
annotation	documentation Altitude-squared adjustment coefficient at MSL. (lb/ft^2)

element **anpThrustJet/coeff_H**

diagram	coeff_H Temperature adjustment coefficient. (lb/°C)
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/°C)

complexType **anpThrustProp**

diagram	anpThrustProp Prop thrust data for an ANP aircraft. thrustType Type of thrust. efficiency The propeller efficiency ratio. Valid values: 0.50 to 1.00. power Net propulsive power per engine (HP). Valid values: 0 to 9999.9.
children	thrustType efficiency power
used by	element anpThrustSet/thrustProp
annotation	documentation Prop thrust data for an ANP aircraft.

element **anpThrustProp/thrustType**

diagram	thrustType Type of thrust.
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust.

element **anpThrustProp/efficiency**

diagram	efficiency The propeller efficiency ratio. Valid values: 0.50 to 1.00.
type	xs:double
properties	content simple
annotation	documentation The propeller efficiency ratio. Valid values: 0.50 to 1.00.

element **anpThrustProp/power**

diagram	power Net propulsive power per engine (HP). Valid values: 0 to 9999.9.
type	xs:double
properties	content simple
annotation	documentation Net propulsive power per engine (HP). Valid values: 0 to 9999.9.

complexType **anpThrustSet**

diagram	
children	anpAirplaneId thrustGeneral thrustJet thrustProp tsfcCoefficients
used by	element fleet/anpThrustSet
annotation	documentation Specifies a set of thrust records for an ANP airplane.

element **anpThrustSet/anpAirplaneId**

diagram	anpAirplaneId Airplane's ANP ID.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 255
annotation	documentation Airplane's ANP ID.

element **anpThrustSet/thrustGeneral**

diagram <pre> graph LR thrustGeneral["thrustGeneral 0..∞"] --- seq((...)) seq --- anpThrustGeneral["anpThrustGeneral"] anpThrustGeneral --- thrustType["thrustType The type of generalized thrust-setting."] anpThrustGeneral --- coeffE["coeff_E Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb)."] anpThrustGeneral --- coeffF["coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)"] anpThrustGeneral --- coeffGA["coeff_GA Altitude adjustment coefficient at MSL. (lb/ft)"] anpThrustGeneral --- coeffGB["coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2)"] anpThrustGeneral --- coeffH["coeff_H Temperature adjustment coefficient. (lb/^C)"] anpThrustGeneral --- coeffK1["coeff_K1 EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)"] anpThrustGeneral --- coeffK2["coeff_K2 EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)"] </pre>	
type <u>anpThrustGeneral</u>	
properties minOcc 0 maxOcc unbounded content complex	
children <u>thrustType</u> <u>coeff_E</u> <u>coeff_F</u> <u>coeff_GA</u> <u>coeff_GB</u> <u>coeff_H</u> <u>coeff_K1</u> <u>coeff_K2</u>	

element **anpThrustSet/thrustJet**

diagram	thrustJet 1..∞ anpThrustJet thrustType Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous coeff_E Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb) coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F) coeff_GA Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft²) coeff_H Temperature adjustment coefficient. (lb/°C)
type	anpThrustJet
properties	minOcc 1 maxOcc unbounded content complex
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H

element **anpThrustSet/thrustProp**

diagram	thrustProp 1..∞ anpThrustProp thrustType Type of thrust. efficiency The propeller efficiency ratio. Valid values: 0.50 to 1.00. power Net propulsive power per engine (HP). Valid values: 0 to 9999.9.
type	anpThrustProp
properties	minOcc 1 maxOcc unbounded content complex
children	thrustType efficiency power

element **anpThrustSet/tsfcCoefficients**

diagram	
type <u>anpTsfcCoefficients</u>	
properties minOcc 0 maxOcc unbounded content complex	
children <u>mode</u> <u>k1</u> <u>k2</u> <u>k3</u> <u>k4</u> <u>beta1</u> <u>beta2</u> <u>beta3</u> <u>alpha</u>	

complexType **anpTsfcCoefficients**

diagram	
children	mode k1 k2 k3 k4 beta1 beta2 beta3 alpha
used by	element anpThrustSet/tsfcCoefficients
annotation	documentation TSFC coefficient data for an ANP aircraft.

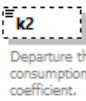
element **anpTsfcCoefficients/mode**

diagram	
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Arrival or departure mode.

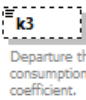
element **anpTsfcCoefficients/k1**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption constant coefficient.

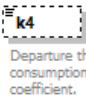
element **anpTsfcCoefficients/k2**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption Mach number coefficient.

element **anpTsfcCoefficients/k3**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption altitude coefficient.

element **anpTsfcCoefficients/k4**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption thrust coefficient.

element **anpTsfcCoefficients/beta1**

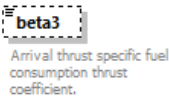
diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption Mach number coefficient.

element **anpTsfcCoefficients/beta2**

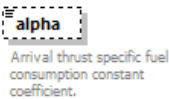
diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

	Arrival thrust specific fuel consumption altitude coefficient.
--	--

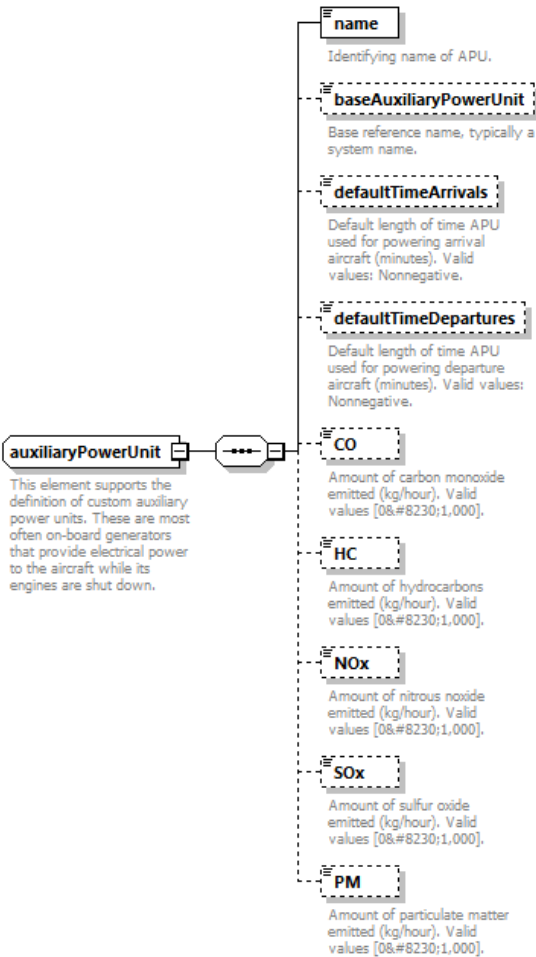
element **anpTsfcCoefficients/beta3**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption thrust coefficient.

element **anpTsfcCoefficients/alpha**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption constant coefficient.

complexType **auxiliaryPowerUnit**

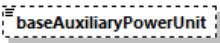
diagram	
children	name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM
used by	element fleet/auxiliaryPowerUnit

annotation	documentation This element supports the definition of custom auxiliary power units. These are most often on-board generators that provide electrical power to the aircraft while its engines are shut down.
------------	--

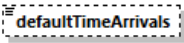
element **auxiliaryPowerUnit/name**

diagram	 Identifying name of APU.
type	apuName
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Identifying name of APU.

element **auxiliaryPowerUnit/baseAuxiliaryPowerUnit**

diagram	 Base reference name, typically a system name.
type	apuName
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Base reference name, typically a system name.

element **auxiliaryPowerUnit/defaultTimeArrivals**

diagram	 Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.

element **auxiliaryPowerUnit/defaultTimeDepartures**

diagram	 Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.

element **auxiliaryPowerUnit/CO**

diagram	 Amount of carbon monoxide emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of carbon monoxide emitted (kg/hour). Valid values [0…1,000].

element **auxiliaryPowerUnit/HC**

diagram	 Amount of hydrocarbons emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of hydrocarbons emitted (kg/hour). Valid values [0…1,000].

element **auxiliaryPowerUnit/NOx**

diagram	 Amount of nitrous oxide emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of nitrous oxide emitted (kg/hour). Valid values [0…1,000].

element **auxiliaryPowerUnit/SOx**

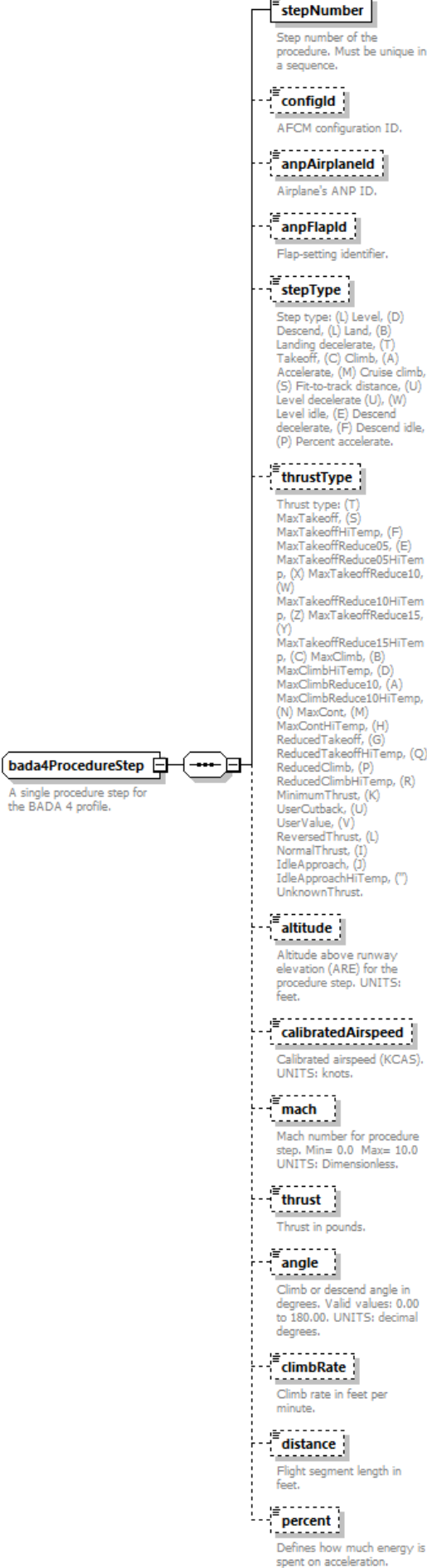
diagram	 Amount of sulfur oxide emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of sulfur oxide emitted (kg/hour). Valid values [0…1,000].

element **auxiliaryPowerUnit/PM**

diagram	 Amount of particulate matter emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of particulate matter emitted (kg/hour). Valid values [0…1,000].

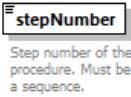
complexType **bada4ProcedureStep**

diagram



children	stepNumber configId anpAirplaneId anpFlapId stepType thrustType altitude calibratedAirspeed mach thrust angle climbRate distance percent
used by	element bada4ProcedureSteps/step
annotation	documentation A single procedure step for the BADA 4 profile.

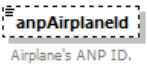
element **bada4ProcedureStep/stepNumber**

diagram	
type	xs:int
properties	content simple
annotation	documentation Step number of the procedure. Must be unique in a sequence.

element **bada4ProcedureStep/configId**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation AFCM configuration ID.

element **bada4ProcedureStep/anpAirplaneId**

diagram	
type	anpAirplaneId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **bada4ProcedureStep/anpFlapId**

diagram	
type	anpFlapId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Flap-setting identifier.

element **bada4ProcedureStep/stepType**

diagram	stepType Step types: (L) Level, (D) Descend, (L) Land, (B) Landing decelerate, (T) Takeoff, (C) Climb, (A) Accelerate, (M) Cruise climb, (S) Fit-to-track distance, (U) Level decelerate (U), (W) Level idle, (E) Descend decelerate, (F) Descend idle, (P) Percent accelerate.
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Step type: (L) Level, (D) Descend, (L) Land, (B) Landing decelerate, (T) Takeoff, (C) Climb, (A) Accelerate, (M) Cruise climb, (S) Fit-to-track distance, (U) Level decelerate (U), (W) Level idle, (E) Descend decelerate, (F) Descend idle, (P) Percent accelerate.

element bada4ProcedureStep/thrustType

diagram	thrustType Thrust type: (T) MaxTakeoff, (S) MaxTakeoffHiTemp, (F) MaxTakeoffReduce05, (E) MaxTakeoffReduce05HiTemp, (X) MaxTakeoffReduce10, (W) MaxTakeoffReduce10HiTemp, (Z) MaxTakeoffReduce15, (Y) MaxTakeoffReduce15HiTemp, (C) MaxClimb, (B) MaxClimbHiTemp, (D) MaxClimbReduce10, (A) MaxClimbReduce10HiTemp, (N) MaxCont, (M) MaxContHiTemp, (H) ReducedTakeoff, (G) ReducedTakeoffHiTemp, (Q) ReducedClimb, (P) ReducedClimbHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue, (V) ReversedThrust, (L) NormalThrust, (I) IdleApproach, (J) IdleApproachHiTemp, (") UnknownThrust.
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Thrust type: (T) MaxTakeoff, (S) MaxTakeoffHiTemp, (F) MaxTakeoffReduce05, (E) MaxTakeoffReduce05HiTemp, (X) MaxTakeoffReduce10, (W) MaxTakeoffReduce10HiTemp, (Z) MaxTakeoffReduce15, (Y) MaxTakeoffReduce15HiTemp, (C) MaxClimb, (B) MaxClimbHiTemp, (D) MaxClimbReduce10, (A) MaxClimbReduce10HiTemp, (N) MaxCont, (M) MaxContHiTemp, (H) ReducedTakeoff, (G) ReducedTakeoffHiTemp, (Q) ReducedClimb, (P) ReducedClimbHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue, (V) ReversedThrust, (L) NormalThrust, (I) IdleApproach, (J) IdleApproachHiTemp, (") UnknownThrust.

element bada4ProcedureStep/altitude

diagram	altitude Altitude above runway elevation (ARE) for the procedure step. UNITS: feet.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Altitude above runway elevation (ARE) for the procedure step. UNITS: feet.
------------	---

element **bada4ProcedureStep/calibratedAirspeed**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Calibrated airspeed (KCAS). UNITS: knots.

element **bada4ProcedureStep/mach**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Mach number for procedure step. Min= 0.0 Max= 10.0 UNITS: Dimensionless.

element **bada4ProcedureStep/thrust**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust in pounds.

element **bada4ProcedureStep/angle**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Climb or descend angle in degrees. Valid values: 0.00 to 180.00. UNITS: decimal degrees.

element **bada4ProcedureStep/climbRate**

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

annotation	documentation Climb rate in feet per minute.
------------	---

element bada4ProcedureStep/distance

diagram	distance Flight segment length in feet.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flight segment length in feet.

element bada4ProcedureStep/percent

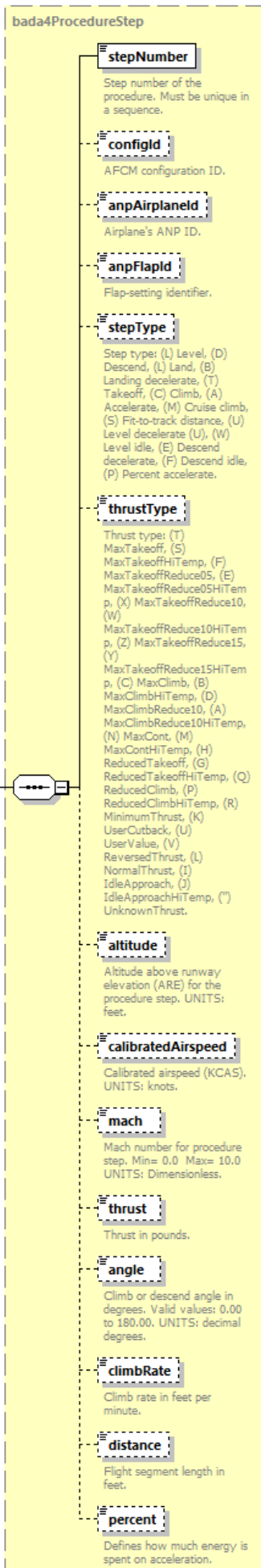
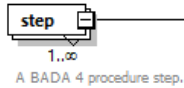
diagram	percent Defines how much energy is spent on acceleration.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Defines how much energy is spent on acceleration.

complexType bada4ProcedureSteps

diagram	bada4ProcedureSteps Set of procedure steps associated with this BADA 4 profile. 1..∞ A BADA 4 procedure step.
children	step
used by	element bada4Profile/bada4ProcedureSteps
annotation	documentation Set of procedure steps associated with this BADA 4 profile.

element bada4ProcedureSteps/step

diagram



type	bada4ProcedureStep
properties	minOcc 1 maxOcc unbounded content complex
children	stepNumber configId anpAirplaneId anpFlapId stepType thrustType altitude calibratedAirspeed mach thrust angle climbRate distance percent
annotation	documentation A BADA 4 procedure step.

complexType **bada4Profile**

diagram	
children	operationType flightProcedure weightClass weight bada4ProcedureSteps
used by	element bada4ProfileSet/bada4profile
annotation	documentation BADA 4 profile data element.

element **bada4Profile/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 (CircuitFt), V (OverFt)

element **bada4Profile/flightProcedure**

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

annotation	documentation Flight procedure identifier. Typically STANDARD, ICAO A, ICAO B or user defined.
------------	---

element
 bada4Profile/weightClass

diagram	weightClass Formerly known as STAGE LENGTH.
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Formerly known as STAGE LENGTH.

element
 bada4Profile/weight

diagram	weight Weight in pounds.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Weight in pounds.

element
 bada4Profile/bada4ProcedureSteps

diagram	bada4ProcedureSteps Set of procedure steps associated with this BADA 4 profile. bada4ProcedureSteps step 1..∞ A BADA 4 procedure step.
type	bada4ProcedureSteps
properties	content complex
children	step
annotation	documentation Set of procedure steps associated with this BADA 4 profile.

complexType
 bada4ProfileSet

diagram	bada4ProfileSet A profile set for an BADA4 airplane. anpAirplaneId Airplane's ANP ID. bada4AirplaneModel Airplane's BADA 4 model. bada4Engine Airplane's BADA 4 engine. bada4Suffix User-defined BADA 4 model suffix. bada4profile 1..∞ One or more BADA 4 profiles.
children	anpAirplaneId bada4AirplaneModel bada4Engine bada4Suffix bada4profile
used by	element fleet/bada4ProfileSet
annotation	documentation

A profile set for an BADA4 airplane.

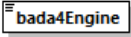
element **bada4ProfileSet/anpAirplaneId**

diagram	 Airplane's ANP ID.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

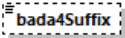
element **bada4ProfileSet/bada4AirplaneModel**

diagram	 Airplane's BADA 4 model.
type	bada4AirplaneModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 model.

element **bada4ProfileSet/bada4Engine**

diagram	 Airplane's BADA 4 engine.
type	bada4Engine
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 engine.

element **bada4ProfileSet/bada4Suffix**

diagram	 User-defined BADA 4 model suffix.
type	bada4Suffix
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-defined BADA 4 model suffix.

element **bada4ProfileSet/bada4profile**

diagram	
type	bada4Profile
properties	minOcc 1 maxOcc unbounded content complex
children	operationType flightProcedure weightClass weight bada4ProcedureSteps
annotation	documentation One or more BADA 4 profiles.

complexType [coord2DType](#)

diagram	
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
used by	elements stationarySourceOperation/pointCoord pointStationarySource/pointCoord volumeStationarySource/pointCoord oneOrThreeCoords2DGroupSet/pointCoord structure/coordinates/vertex polygon2DType/vertex complexType coord3DElevationType
annotation	documentation

A 2D point coordinate.

complexType **coord3DElevationType**

diagram	coord3DElevationType Type of coordinates used to specify a point in three-dimensional space. The type is actually the type of the point in two-dimensional space along with an elevation. 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 &#60;options&#62; tag. elevation Elevation or Z value for a coordinate.
type	extension of coord2DType
properties	base coord2DType
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation
used by	elements roadway/coordinates/vertex polygon3DElevationType/vertex
annotation	documentation Type of coordinates used to specify a point in three-dimensional space. The type is actually the type of the point in two-dimensional space along with an elevation.

element **coord3DElevationType/elevation**

diagram	elevation Elevation or Z value for a coordinate.
type	xs:float
properties	content simple
annotation	documentation Elevation or Z value for a coordinate.

complexType **dispersionWeight1Type**

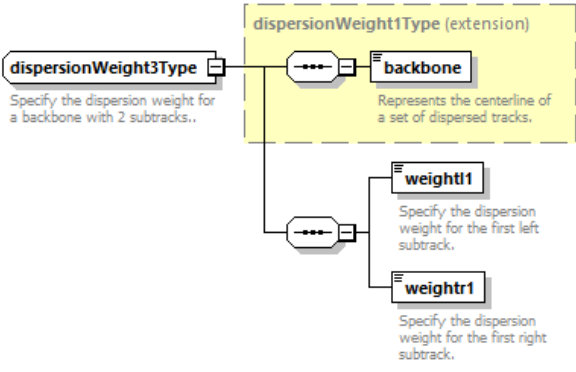
diagram	dispersionWeight1Type Abstract type used to specify the dispersion weight for the backbone subtrack. This type is intended only to be a base class and will not be used in ASIF files directly. backbone Represents the centerline of a set of dispersed tracks.
children	backbone

used by	element dispersionWeight/dispersionWeight1 complexType dispersionWeight3Type
annotation	documentation Abstract type used to specify the dispersion weight for the backbone subtrack. This type is intended only to be a base class and will not be used in ASIF files directly.

element **dispersionWeight1Type/backbone**

diagram	 Represents the centerline of a set of dispersed tracks.
type	xs:double
properties	content simple
used by	element track
annotation	documentation Represents the centerline of a set of dispersed tracks.

complexType **dispersionWeight3Type**

diagram	 The diagram shows the structure of the dispersionWeight3Type complex type. It consists of a dispersionWeight3Type container (labeled 'Specify the dispersion weight for a backbone with 2 subtracks..') which contains two subtrack elements. The first subtrack is a dispersionWeight1Type (extension) container (labeled 'Represents the centerline of a set of dispersed tracks.') which contains a backbone element (labeled 'Represents the centerline of a set of dispersed tracks.'). The second subtrack is a weight1 element (labeled 'Specify the dispersion weight for the first left subtrack.'). The third subtrack is a weight1 element (labeled 'Specify the dispersion weight for the first right subtrack.').
type	extension of dispersionWeight1Type
properties	base dispersionWeight1Type
children	backbone weight1 weight1
used by	element dispersionWeight/dispersionWeight3 complexType dispersionWeight5Type
annotation	documentation Specify the dispersion weight for a backbone with 2 subtracks..

element **dispersionWeight3Type/weight1**

diagram	 Specify the dispersion weight for the first left subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the first left subtrack.

element **dispersionWeight3Type/weight1**

diagram	 Specify the dispersion weight for the first right subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the first right subtrack.

complexType **dispersionWeight5Type**

diagram	The diagram illustrates the structure of the dispersionWeight5Type complex type, which is an extension of dispersionWeight3Type. It features a central backbone element (represented by a dashed line) and four subtrack elements: weightl1, weightr1, weightl2, and weightr2. The backbone element is described as representing the centerline of a set of dispersed tracks. The weightl1 and weightr1 elements specify the dispersion weight for the first left and right subtracks, respectively. The weightl2 and weightr2 elements specify the dispersion weight for the second left and right subtracks, respectively. The entire structure is enclosed in a dashed box labeled dispersionWeight3Type (extension).
type	extension of dispersionWeight3Type
properties	base dispersionWeight3Type
children	backbone weightl1 weightr1 weightl2 weightr2
used by	element dispersionWeight/dispersionWeight5 complexType dispersionWeight7Type
annotation	documentation Specify the dispersion weight for a backbone with 4 subtracks.

element **dispersionWeight5Type/weightl2**

diagram	The diagram shows the weightl2 element, which is a simple content type. It is represented by a box labeled weightl2 with the description: Specify the dispersion weight for the second left subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the second left subtrack.

element **dispersionWeight5Type/weightr2**

diagram	The diagram shows the weightr2 element, which is a simple content type. It is represented by a box labeled weightr2 with the description: Specify the dispersion weight for the second right subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the second right subtrack.

complexType **dispersionWeight7Type**

diagram The diagram shows a tree structure for the dispersionWeight7Type (extension). The root node is dispersionWeight7Type (Specify the dispersion weight for a backbone with 6 subtracks). It branches into three nodes, each represented by a dashed box: backbone (Represents the centerline of a set of dispersed tracks), weight1 (Specify the dispersion weight for the first left subtrack), and weight2 (Specify the dispersion weight for the second left subtrack). The weight1 node branches into weightr1 (Specify the dispersion weight for the first right subtrack) and weightl1 (Specify the dispersion weight for the first left subtrack). The weight2 node branches into weightr2 (Specify the dispersion weight for the second right subtrack) and weightl2 (Specify the dispersion weight for the second left subtrack). The weight3 node branches into weightr3 (Specify the dispersion weight for the third right subtrack) and weightl3 (Specify the dispersion weight for the third left subtrack).	
type	extension of dispersionWeight5Type
properties	base dispersionWeight5Type
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3
used by	element dispersionWeight/dispersionWeight7 complexType dispersionWeight9Type
annotation	documentation Specify the dispersion weight for a backbone with 6 subtracks.

element **dispersionWeight7Type/weightl3**

diagram The diagram shows the weightl3 element (Specify the dispersion weight for the third left subtrack).	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the third left subtrack.

element **dispersionWeight7Type/weightr3**

diagram The diagram shows the weightr3 element (Specify the dispersion weight for the third right subtrack).	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the third right subtrack.

complexType **dispersionWeight9Type**

diagram	dispersionWeight9Type Specify the dispersion weight for a backbone with 8 subtracks. dispersionWeight7Type (extension) backbone Represents the centerline of a set of dispersed tracks. weight1 Specify the dispersion weight for the first left subtrack. weightr1 Specify the dispersion weight for the first right subtrack. weight2 Specify the dispersion weight for the second left subtrack. weightr2 Specify the dispersion weight for the second right subtrack. weight3 Specify the dispersion weight for the third left subtrack. weightr3 Specify the dispersion weight for the third right subtrack. weight4 Specify the dispersion weight for the fourth left subtrack. weightr4 Specify the dispersion weight for the fourth right subtrack.
type	extension of dispersionWeight7Type
properties	base dispersionWeight7Type
children	backbone weight1 weightr1 weight2 weightr2 weight3 weightr3 weight4 weightr4
used by	element dispersionWeight/dispersionWeight9
annotation	documentation Specify the dispersion weight for a backbone with 8 subtracks.

element **dispersionWeight9Type/weightl4**

diagram	weightl4 Specify the dispersion weight for the fourth left subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the fourth left subtrack.

element **dispersionWeight9Type/weightr4**

diagram	weightr4 Specify the dispersion weight for the fourth right subtrack.
type	xs:double
properties	content simple

annotation	documentation Specify the dispersion weight for the fourth right subtrack.
------------	---

complexType **emissionFactorSet**

diagram	emissionFactorSet Supports the definition of user-defined emission factor. This element supports the definition of various emission factors defined under GSE and training fires. 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) CO2 CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr). Note: Not Used in AEDT CH4 Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr). Note: Not Used in AEDT PM25 PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
children	CO HC NOx SOx PM10 CO2 CH4 PM25
used by	elements userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG
annotation	documentation Supports the definition of user-defined emission factor. This element supports the definition of various émission factors defined under GSE and training fires.

element **emissionFactorSet/CO**

diagram	CO Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit)
type	xs:double
properties	content simple
annotation	documentation Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit)

element **emissionFactorSet/HC**

diagram	HC Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit)
type	xs:double
properties	content simple
annotation	documentation

	Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit)
--	---

element **emissionFactorSet/NOx**

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

element **emissionFactorSet/SOx**

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

element **emissionFactorSet/PM10**

diagram	PM10 Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit)
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit)

element **emissionFactorSet/CO2**

diagram	CO2 CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr). Note: Not Used in AEDT
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr). Note: Not Used in AEDT

element **emissionFactorSet/CH4**

diagram	CH4 Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr). Note: Not Used in AEDT
type	<u>doubleInclusive1000</u>
properties	minOcc 0 maxOcc 1 content simple

	default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr). Note: Not Used in AEDT

element **emissionFactorSet/PM25**

diagram	PM25 PM 2.5 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 PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

complexType **energyShare**

diagram	energyShare A custom BADA energy share. anpAirplaneId The ANP airplane ID. bada3AirplaneId The BADA airplane ID. transEnergyShare The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.
children	anpAirplaneId bada3AirplaneId transEnergyShare
used by	element fleet/energyShare
annotation	documentation A custom BADA energy share.

element **energyShare/anpAirplaneId**

diagram	anpAirplaneId The ANP airplane ID.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP airplane ID.

element **energyShare/bada3AirplaneId**

diagram	bada3AirplaneId The BADA airplane ID.
type	bada3AirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 255
annotation	documentation The BADA airplane ID.

element
 energyShare/transEnergyShare

diagram	transEnergyShare The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.
type	xs:double
properties	content simple
annotation	documentation The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.

complexType
 engineModeEmissions

diagram	engineModeEmissions Describes custom emission factors user-defined aircraft engines. 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.
children	time fuel CO HC NOx SOx SN PM
used by	elements aircraftEngine/approachEmissionFactors aircraftEngine/climbEmissionFactors aircraftEngine/takeOffEmissionFactors aircraftEngine/taxiIdleEmissionFactors
annotation	documentation Describes custom emission factors user-defined aircraft engines.

element
 engineModeEmissions/time

diagram	time Time engine operates in a given mode (minutes). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0

annotation	documentation Time engine operates in a given mode (minutes). Valid values: Nonnegative.
------------	---

element **engineModeEmissions/fuel**

diagram	fuel Fuel emission factor (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Fuel emission factor (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/CO**

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

element **engineModeEmissions/HC**

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

element **engineModeEmissions/NOx**

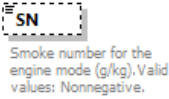
diagram	NOx Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/SOx**

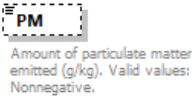
diagram	SOx Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.
---------	---

type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/SN**

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

element **engineModeEmissions/PM**

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

complexType **fleet**

diagram

fleet

Main block for creating user defined fleet/aircraft data.

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 be used within a user defined aircraft.

spectralClass

0..∞

This element contains user-defined spectral class data.

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..∞

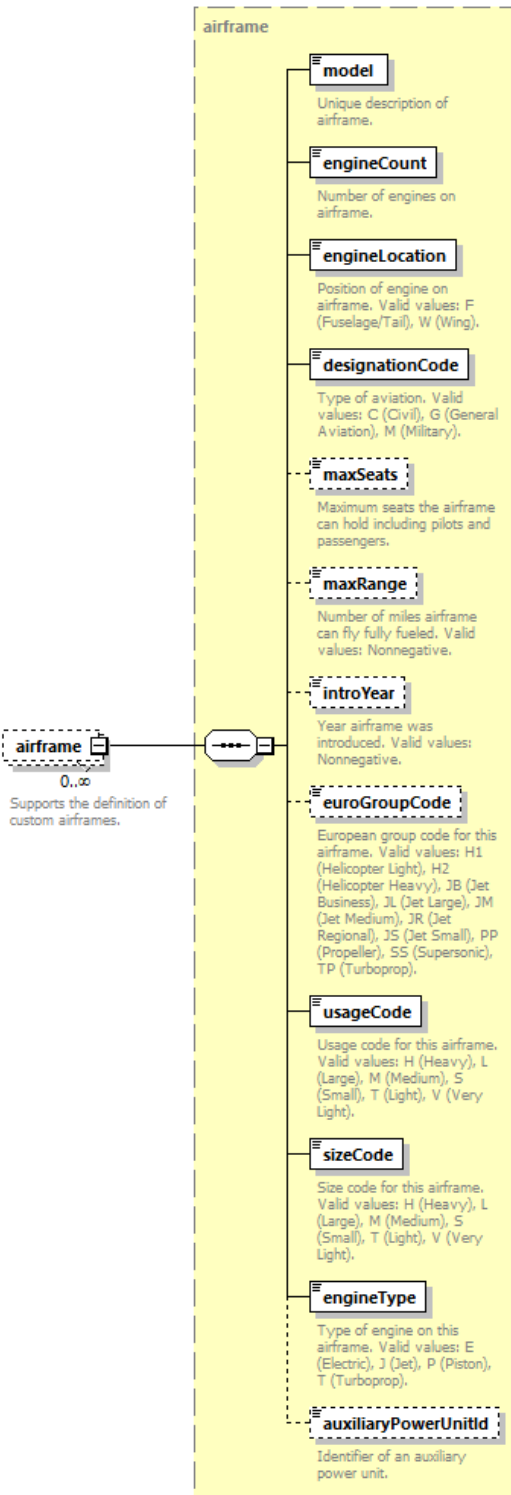
A profile set for an ANP

	helicopter. bada4ProfileSet 0..∞ A profile set for an BADA4 airplane. aircraft 0..∞ A block used to create new user defined AEDT aircraft. energyShare 0..∞ A custom BADA aircraft energy share set.
children	auxiliaryPowerUnit airframe engine engineMod spectralClass anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet bada4ProfileSet aircraft energyShare
used by	elements AsifXml/fleet study/fleet
annotation	documentation Main block for creating user defined fleet/aircraft data.

element **fleet/auxiliaryPowerUnit**

diagram	auxiliaryPowerUnit name Identifying name of APU. baseAuxiliaryPowerUnit Base reference name, typically a system name. defaultTimeArrivals Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative. defaultTimeDepartures Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative. CO Amount of carbon monoxide emitted (kg/hour). Valid values [08.#8230;1,000]. HC Amount of hydrocarbons emitted (kg/hour). Valid values [08.#8230;1,000]. NOx Amount of nitrous oxide emitted (kg/hour). Valid values [08.#8230;1,000]. SOx Amount of sulfur oxide emitted (kg/hour). Valid values [08.#8230;1,000]. PM Amount of particulate matter emitted (kg/hour). Valid values [08.#8230;1,000]. auxiliaryPowerUnit 0..∞ Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.
---------	--

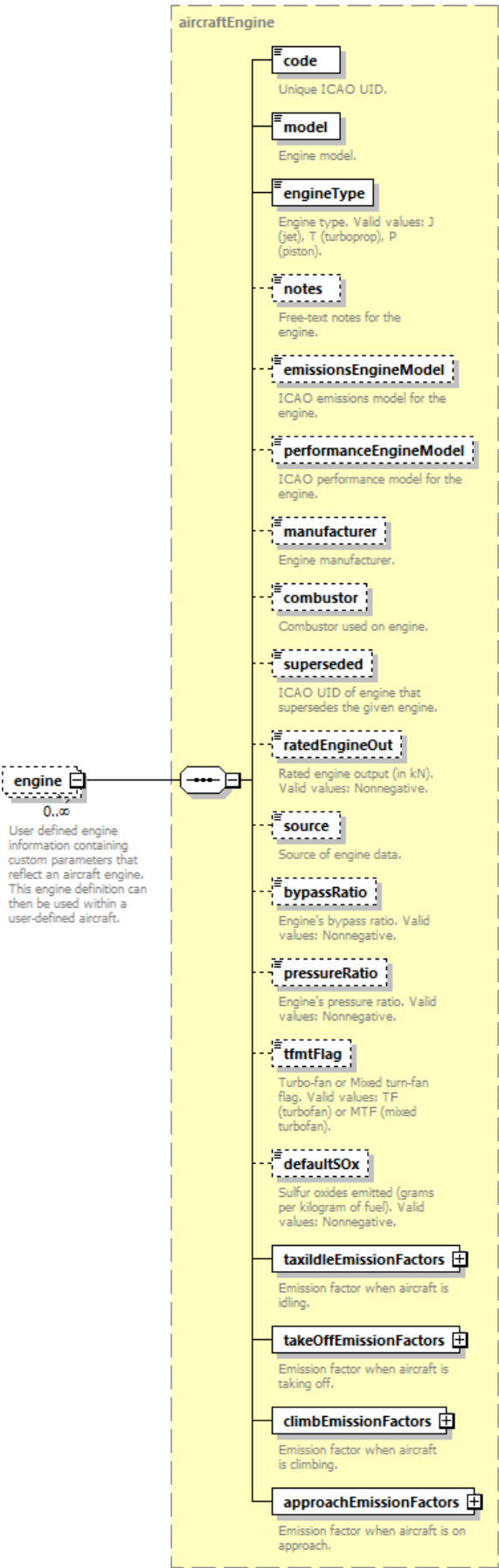
element **fleet/airframe**



type	<u>airframe</u>
properties	minOcc 0 maxOcc unbounded content complex
children	<u>model engineCount engineLocation designationCode maxSeats maxRange introYear euroGroupCode usageCode sizeCode engineType auxiliaryPowerUnitId</u>
annotation	documentation Supports the definition of custom airframes.

element **fleet/engine**

diagram



type [aircraftEngine](#)

properties	minOcc 0 maxOcc unbounded content complex
children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor superseded ratedEngineOut source bypassRatio pressureRatio tfmtFlag defaultSOx taxiIdleEmissionFactors takeOffEmissionFactors climbEmissionFactors approachEmissionFactors
annotation	documentation User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.

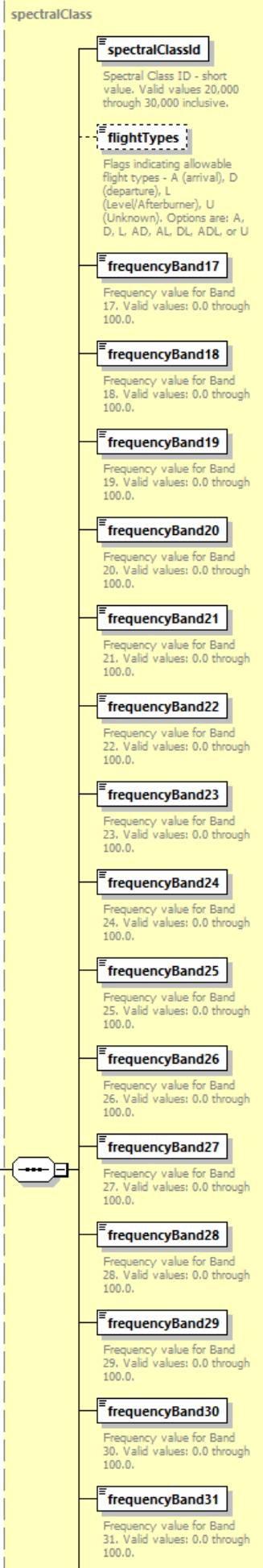
element **fleet/engineMod**

diagram	The diagram illustrates the relationship between engineMod and aircraftEngineMod. engineMod is a class with a multiplicity of 0..∞. It is associated with aircraftEngineMod, which is a class containing two attributes: code (Unique ICAO UID) and description (Description of engine modifications).
type	aircraftEngineMod
properties	minOcc 0 maxOcc unbounded content complex
children	code description
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 **fleet/spectralClass**

diagram

spectralClass
0..∞
This element contains user-defined spectral class data.

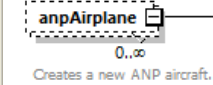


	frequencyBand32 Frequency value for Band 32. Valid values: 0.0 through 100.0. frequencyBand33 Frequency value for Band 33. Valid values: 0.0 through 100.0. frequencyBand34 Frequency value for Band 34. Valid values: 0.0 through 100.0. frequencyBand35 Frequency value for Band 35. Valid values: 0.0 through 100.0. frequencyBand36 Frequency value for Band 36. Valid values: 0.0 through 100.0. frequencyBand37 Frequency value for Band 37. Valid values: 0.0 through 100.0. frequencyBand38 Frequency value for Band 38. Valid values: 0.0 through 100.0. frequencyBand39 Frequency value for Band 39. Valid values: 0.0 through 100.0. frequencyBand40 Frequency value for Band 40. Valid values: 0.0 through 100.0.
type	spectralClass
properties	minOcc 0 maxOcc unbounded content complex
children	spectralClassId flightTypes frequencyBand17 frequencyBand18 frequencyBand19 frequencyBand20 frequencyBand21 frequencyBand22 frequencyBand23 frequencyBand24 frequencyBand25 frequencyBand26 frequencyBand27 frequencyBand28 frequencyBand29 frequencyBand30 frequencyBand31 frequencyBand32 frequencyBand33 frequencyBand34 frequencyBand35 frequencyBand36 frequencyBand37 frequencyBand38 frequencyBand39 frequencyBand40
annotation	documentation This element contains user-defined spectral class data.

element **fleet/anpNoiseGroup**

diagram	
type <u>anpNoiseGroup</u>	
properties minOcc 0 maxOcc unbounded content complex	
children <u>noiseld</u> <u>spectralClassApproach</u> <u>spectralClassDeparture</u> <u>spectralClassAfterburner</u> <u>thrustSetType</u> <u>modelType</u> <u>npdCurves</u>	
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.	

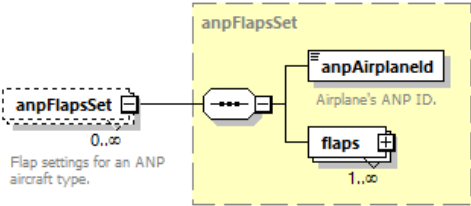
element **fleet/anpAirplane**



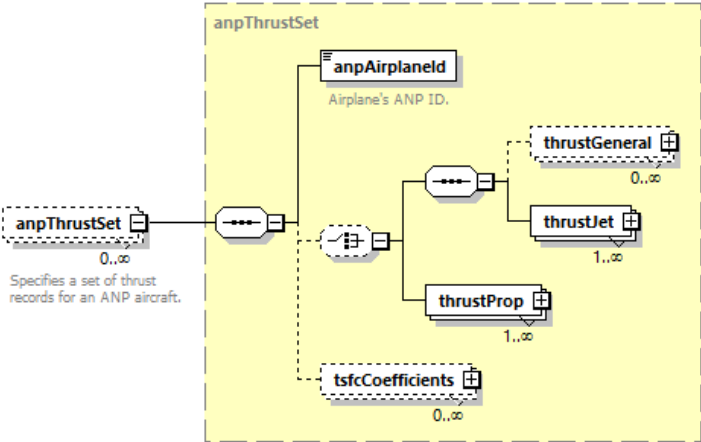
type	anpAirplane
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplane id description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseId noiseCategory minBurn noiseSourceHeight

annotation	documentation Creates a new ANP aircraft.
------------	--

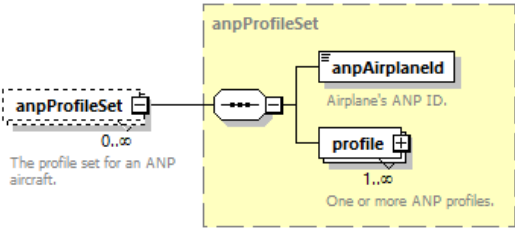
element **fleet/anpFlapsSet**

diagram	 The diagram shows the anpFlapsSet element (dashed box) with a cardinality of 0..∞. It is connected to a container element (dashed box) which contains two child elements: anpAirplaneId (Airplane's ANP ID.) and flaps (1..∞).
type	anpFlapsSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId flaps
annotation	documentation Flap settings for an ANP aircraft type.

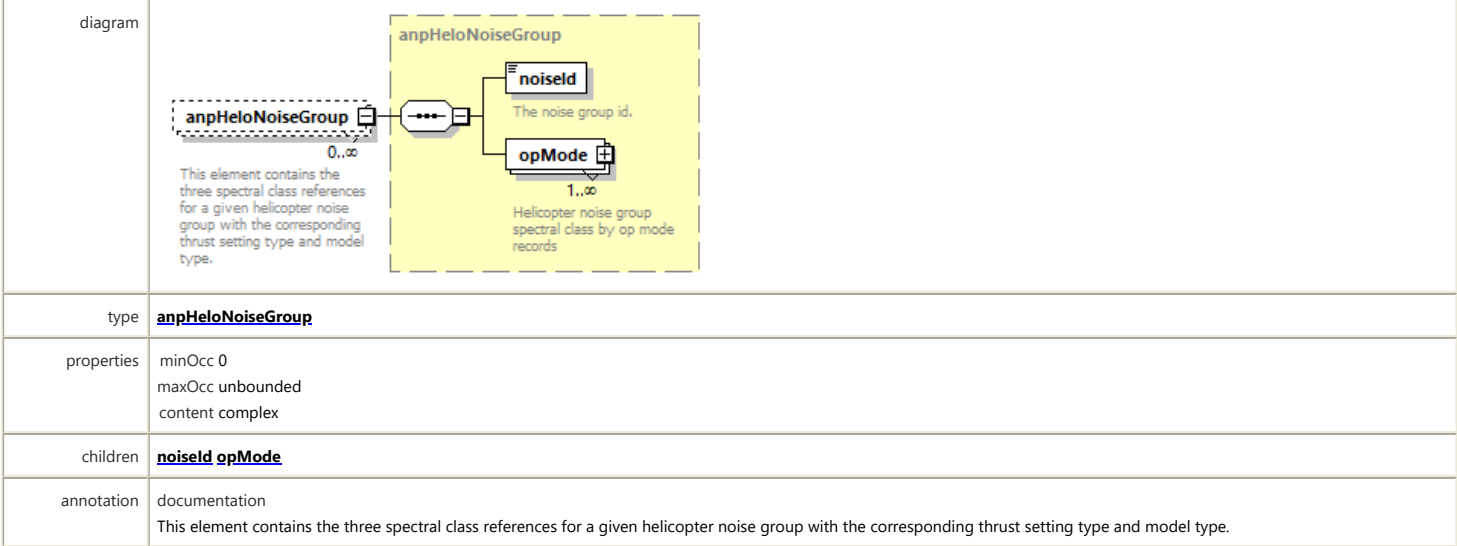
element **fleet/anpThrustSet**

diagram	 The diagram shows the anpThrustSet element (dashed box) with a cardinality of 0..∞. It is connected to a container element (dashed box) which contains four child elements: anpAirplaneId (Airplane's ANP ID.), tsfcCoefficients (0..∞), thrustProp (1..∞), and thrustGeneral (0..∞). The thrustGeneral element is further connected to a thrustJet element (1..∞).
type	anpThrustSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId thrustGeneral thrustJet thrustProp tsfcCoefficients
annotation	documentation Specifies a set of thrust records for an ANP aircraft.

element **fleet/anpProfileSet**

diagram	 The diagram shows the anpProfileSet element (dashed box) with a cardinality of 0..∞. It is connected to a container element (dashed box) which contains two child elements: anpAirplaneId (Airplane's ANP ID.) and profile (1..∞). The profile element is further connected to a profile element (One or more ANP profiles).
type	anpProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId profile
annotation	documentation

The profile set for an ANP aircraft.



element **fleet/anpHelicopter**

diagram

anpHelicopter

anpHelicopterId

Unique ID number of ANP Helicopter.

noiseId

ID of a Noise Group.

directivityId

Noise directivity ID for ANP helicopter.

description

Description of ANP Helicopter.

owner

The owner category. Valid values: C (commercial), G (general aviation), M (military).

engineTypeCode

The engine type code. Valid values: P (piston), J (jet), T (turboprop).

numberRotors

The number of rotors. Valid values: 1 to 9.

diameter

The helicopter diameter (feet). Valid values: 0 to 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.

anpHelicopter

0..∞
Creates a new ANP helicopter.

	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. dbHorizontalAcceleration Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50. dbClimbAcceleration Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50. dbHorizontalDeceleration Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50. dbDescendDeceleration Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50. noiseSourceHeight Noise source height of helicopter in meters.
--	--

type	anpHelicopter
properties	minOcc 0 maxOcc unbounded content complex
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 noiseSourceHeight
annotation	documentation Creates a new ANP helicopter.

element **fleet/anpHeloDirectivitySet**

diagram	anpHeloDirectivitySet A set of helicopter directivities. anpHeloDirectivityId Unique ID for ANP helicopters. anpHeloDirectivity ANP Helicopter directivity.
type	anpHeloDirectivitySet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHeloDirectivityId anpHeloDirectivity
annotation	documentation A set of helicopter directivities.

element **fleet/anpHeloProfileSet**

diagram	anpHeloProfileSet A profile set for an ANP helicopter. anpHeloProfileId The anp helicopter id. profile One or more ANP profiles.
type	anpHeloProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHeloProfileId profile
annotation	documentation A profile set for an ANP helicopter.

element **fleet/bada4ProfileSet**

diagram	bada4ProfileSet A profile set for an BADA4 airplane. anpAirplaneId Airplane's ANP ID. bada4AirplaneModel Airplane's BADA 4 model. bada4Engine Airplane's BADA 4 engine. bada4Suffix User-defined BADA 4 model suffix. bada4profile One or more BADA 4 profiles.
type	bada4ProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId bada4AirplaneModel bada4Engine bada4Suffix bada4profile
annotation	documentation A profile set for an BADA4 airplane.

element **fleet/aircraft**

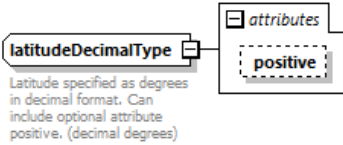
diagram	
type	aircraft
properties	minOcc 0 maxOcc unbounded content complex
children	description airframeModel engineCode engineModCode anpAirplaneId bada3AirplaneId anpHelicopterId bada4AirplaneModel bada4Engine bada4Suffix bada4FlapsMapSourceAnpId
annotation	documentation A block used to create new user defined AEDT aircraft.

element **fleet/energyShare**

diagram	
type	energyShare
properties	minOcc 0

	maxOcc unbounded content complex
children	anpAirplaneId bada3AirplaneId transEnergyShare
annotation	documentation A custom BADA aircraft energy share set.

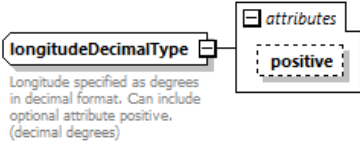
complexType **latitudeDecimalType**

diagram						
type	extension of xs:double					
properties	base xs:double					
used by	element latlonCoordGroup/latitude					
attributes	Name positive	Type derived by: xs:string	Use optional	Default N	Fixed	Annotation
annotation	documentation Latitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)					

attribute **latitudeDecimalType/@positive**

type	restriction of xs:string
properties	use optional default N
facets	Kind Value Annotation pattern N n S s

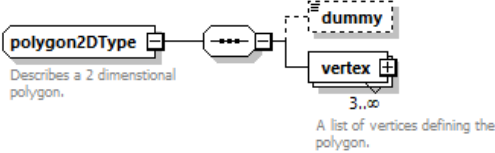
complexType **longitudeDecimalType**

diagram						
type	extension of xs:double					
properties	base xs:double					
used by	element latlonCoordGroup/longitude					
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. (decimal degrees)					

attribute **longitudeDecimalType/@positive**

type	restriction of xs:string
properties	use optional default E
facets	Kind Value Annotation pattern E e W w

complexType **polygon2DType**

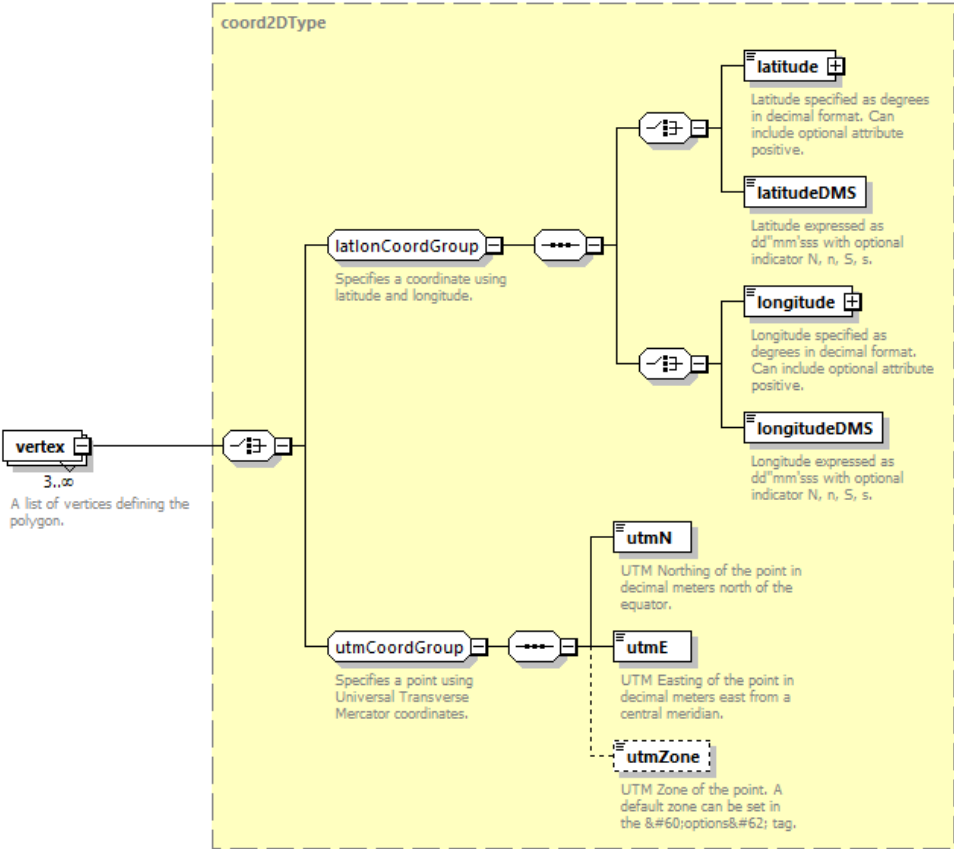
diagram						
children	dummy , vertex					

used by	elements boundary/polygon oneOrThreeCoords2DGroupSet/polygonCoords
annotation	documentation Describes a 2 dimensional polygon.

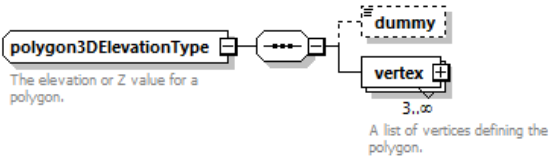
element **polygon2DType/dummy**

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

element **polygon2DType/vertex**

diagram	
type	coord2DType
properties	minOcc 3 maxOcc unbounded content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation A list of vertices defining the polygon.

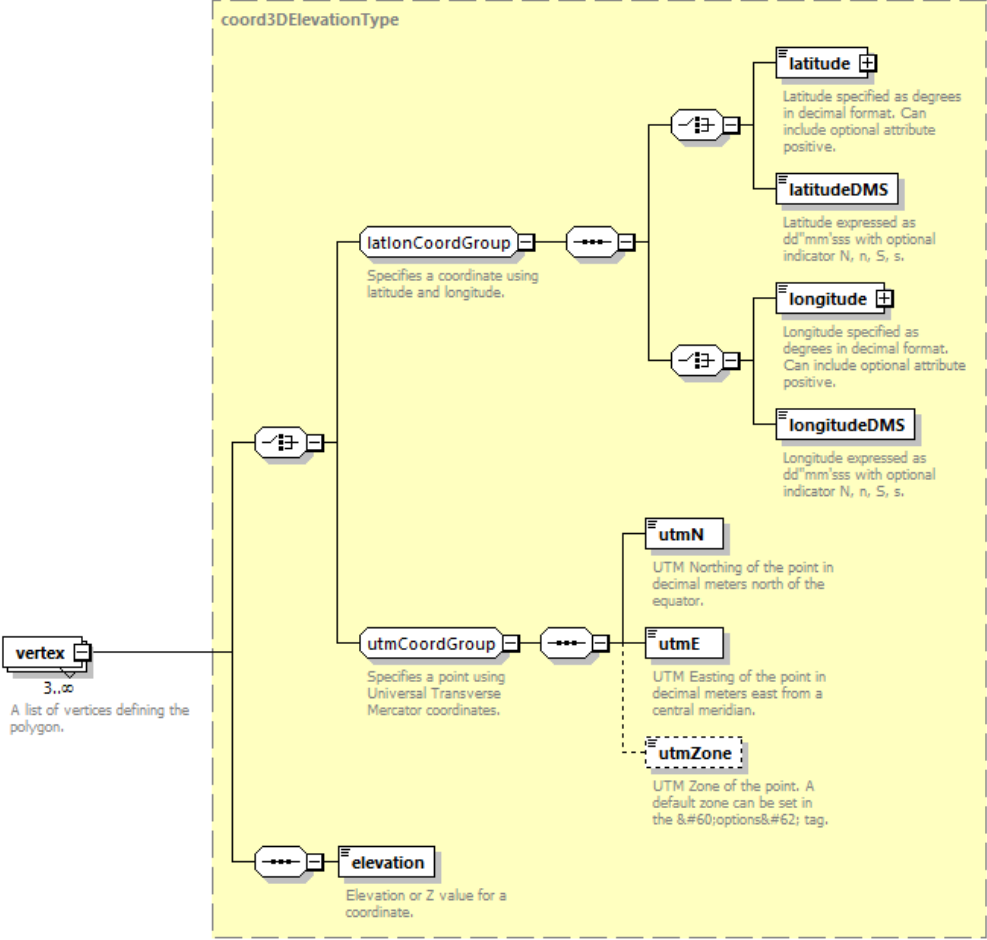
complexType **polygon3DElevationType**

diagram	
children	dummy vertex
annotation	documentation The elevation or Z value for a polygon.

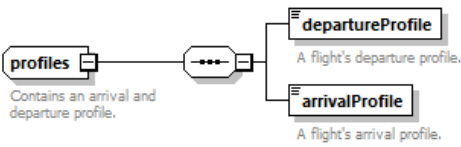
element **polygon3DElevationType/dummy**

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

element **polygon3DElevationType/vertex**

diagram	
type	coord3DElevationType
properties	minOcc 3 maxOcc unbounded content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation
annotation	documentation A list of vertices defining the polygon.

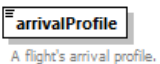
complexType **profiles**

diagram	
children	departureProfile arrivalProfile
used by	elements operation/badaProfiles operation/saeProfiles
annotation	documentation Contains an arrival and departure profile.

element **profiles/departureProfile**

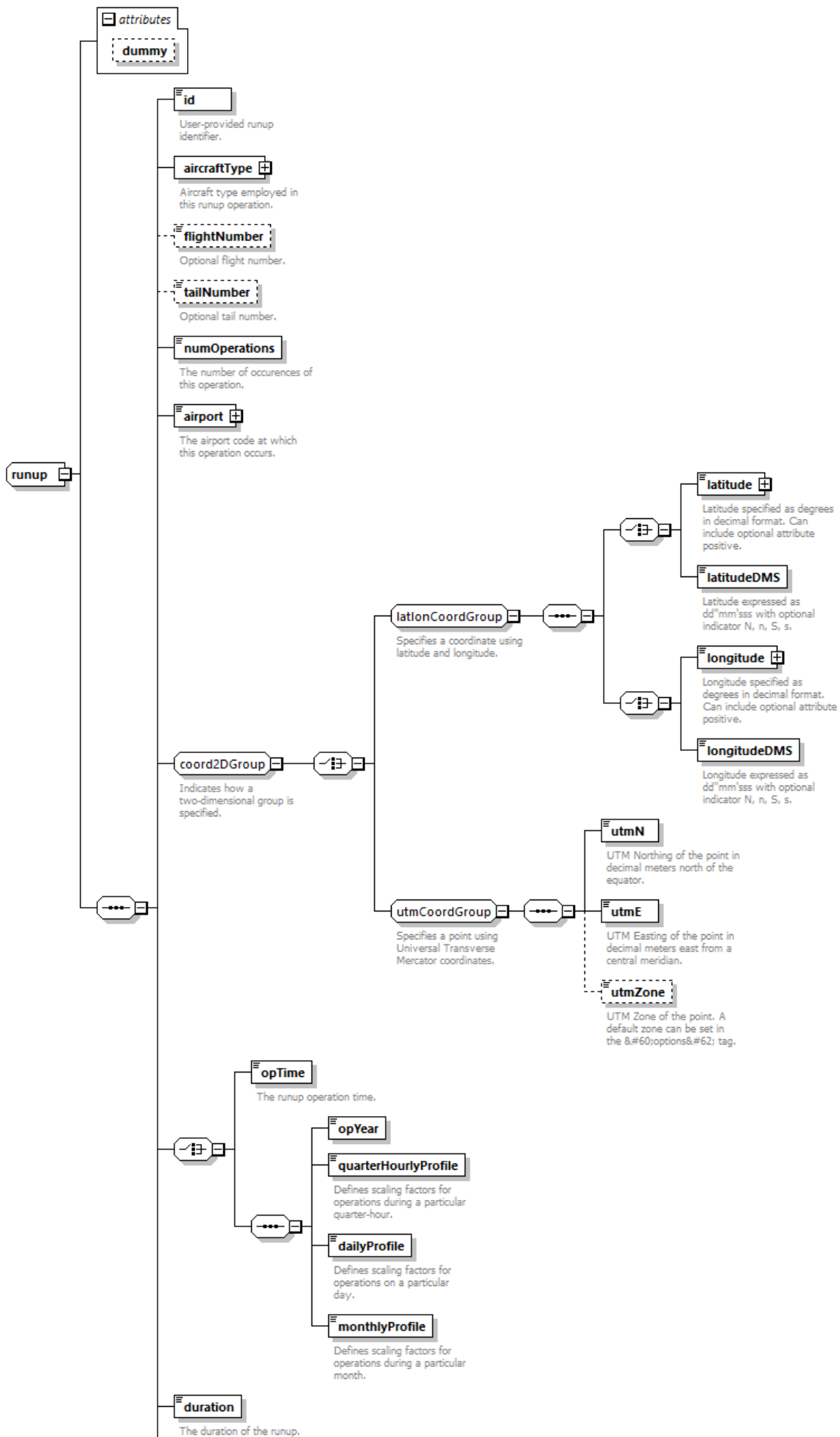
diagram	The diagram shows a box labeled 'departureProfile' with a small icon to its left. Below the box is the text 'A flight's departure profile.'
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A flight's departure profile.

element **profiles/arrivalProfile**

diagram	The diagram shows a box labeled 'arrivalProfile' with a small icon to its left. Below the box is the text 'A flight's arrival profile.'
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A flight's arrival profile.

complexType **runup**

diagram



	heading The orientation of the aircraft. numEnginesUsed Number of engines used for this runup operation. isPreFlight Flag indicating whether this operation is for Preflight check (True) or Engine maintenance (False); used for emissions dispersion output group association thrustPerEngine The thrust per engine employed for this runup operation.					
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime opYear quarterHourlyProfile dailyProfile monthlyProfile duration heading numEnginesUsed isPreFlight thrustPerEngine					
used by	elements AsifXml/runup case/runup					
attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy	xs:int	optional			

attribute **runup/@dummy**

type	xs:int
properties	use optional

element **runup/id**

diagram	id User-provided runup identifier.
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-provided runup identifier.

element **runup/aircraftType**

diagram	
type	aircraftType
properties	content complex
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLT0OperationSet assignDefaultGse
annotation	documentation Aircraft type employed in this runup operation.

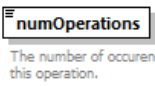
element
 runup/flightNumber

diagram	
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation Optional flight number.

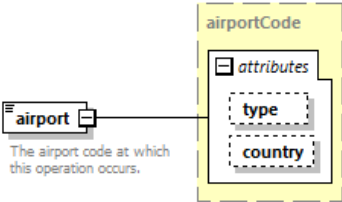
element
 runup/tailNumber

diagram	
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Optional tail number.

element **runup/numOperations**

diagram	 The number of occurrences of this operation.
type	xs:double
properties	content simple
annotation	documentation The number of occurrences of this operation.

element **runup/airport**

diagram	 The airport code at which this operation occurs.					
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		
annotation	documentation The airport code at which this operation occurs.					

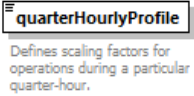
element **runup/opTime**

diagram	 The runup operation time.
type	xs:dateTime
properties	content simple
annotation	documentation The runup operation time.

element **runup/opYear**

diagram	
type	xs:int
properties	content simple

element **runup/quarterHourlyProfile**

diagram	 Defines scaling factors for operations during a particular quarter-hour.
type	string100
properties	content simple
used by	element quarterHourlyProfileSet
facets	Kind Value Annotation minLength 0 maxLength 100

annotation	documentation Defines scaling factors for operations during a particular quarter-hour.
------------	---

element **runup/dailyProfile**

diagram	 Defines scaling factors for operations on a particular day.
type	string100
properties	content simple
used by	element dailyProfileSet
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations on a particular day.

element **runup/monthlyProfile**

diagram	 Defines scaling factors for operations during a particular month.
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.

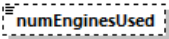
element **runup/duration**

diagram	 The duration of the runup.
type	xs:double
properties	content simple
annotation	documentation The duration of the runup.

element **runup/heating**

diagram	 The orientation of the aircraft.
type	xs:double
properties	content simple
annotation	documentation The orientation of the aircraft.

element **runup/numEnginesUsed**

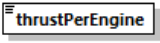
diagram	 Number of engines used for this runup operation.
type	int1to9999
properties	minOcc 0 maxOcc 1

	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 9999
annotation	documentation Number of engines used for this runup operation.

element **runup/isPreFlight**

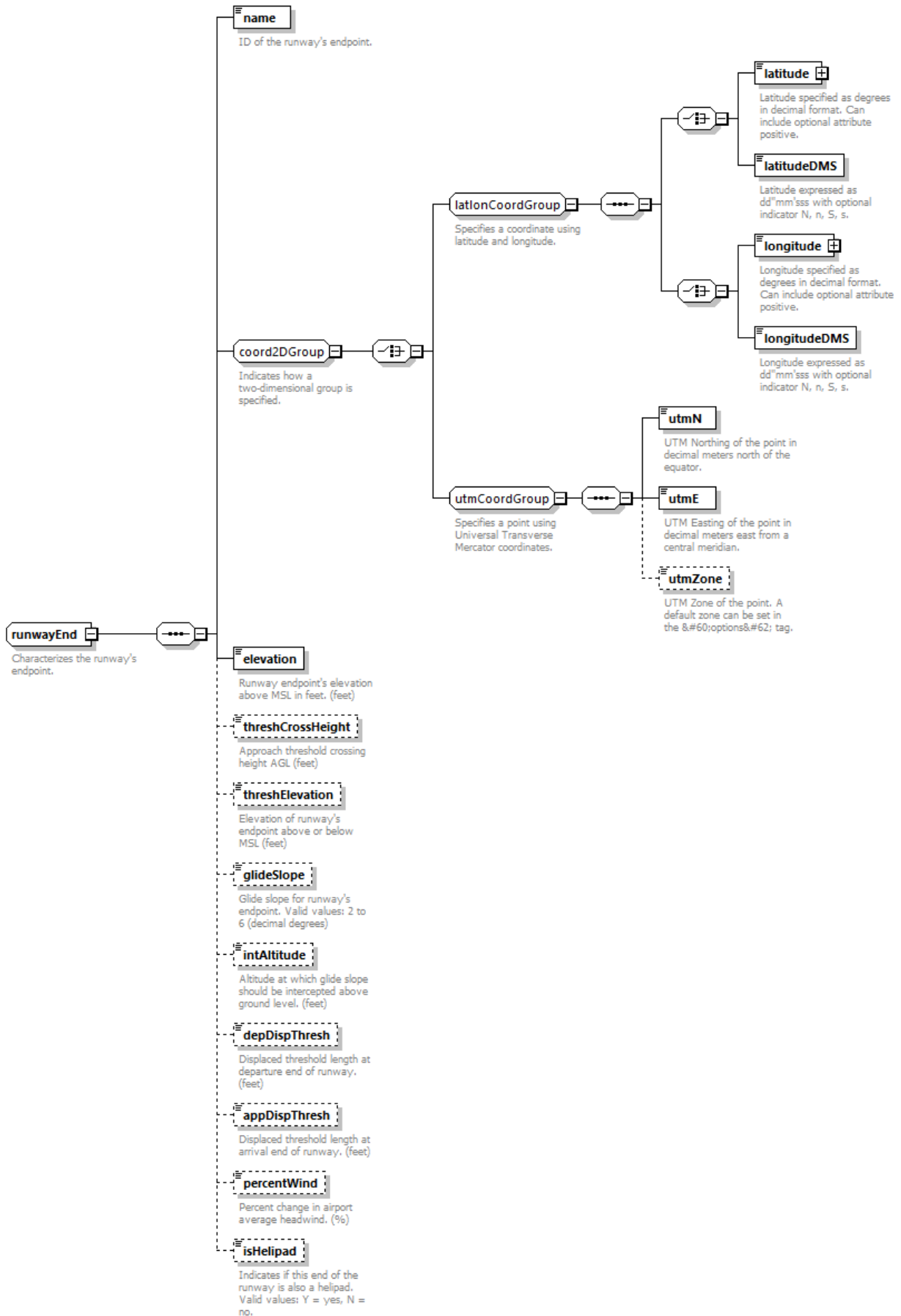
diagram	 Flag indicating whether this operation is for Preflight check (True) or Engine maintenance (False); used for emissions dispersion output group association
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Flag indicating whether this operation is for Preflight check (True) or Engine maintenance (False); used for emissions dispersion output group association

element **runup/thrustPerEngine**

diagram	 The thrust per engine employed for this runup operation.
type	xs:double
properties	content simple
annotation	documentation The thrust per engine employed for this runup operation.

complexType **runwayEnd**

diagram



children

[name](#) [latitude](#) [latitudeDMS](#) [longitude](#) [longitudeDMS](#) [utmN](#) [utmE](#) [utmZone](#) [elevation](#) [threshCrossHeight](#) [threshElevation](#) [glideSlope](#) [intAltitude](#) [depDispThresh](#) [appDispThresh](#) [percentWind](#) [isHelipad](#)

used by

element **[runway/runwayEnd](#)**

annotation	documentation Characterizes the runway's endpoint.
------------	---

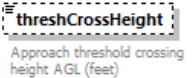
element **runwayEnd/name**

diagram	
type	string25
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation ID of the runway's endpoint.

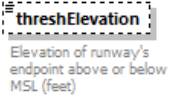
element **runwayEnd/elevation**

diagram	
type	xs:double
properties	content simple
annotation	documentation Runway endpoint's elevation above MSL in feet. (feet)

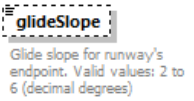
element **runwayEnd/threshCrossHeight**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Approach threshold crossing height AGL (feet)

element **runwayEnd/threshElevation**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of runway's endpoint above or below MSL (feet)

element **runwayEnd/glideSlope**

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

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

element **runwayEnd/intAltitude**

diagram	intAltitude Altitude at which glide slope should be intercepted above ground level. (feet)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude at which glide slope should be intercepted above ground level. (feet)

element **runwayEnd/depDispThresh**

diagram	depDispThresh Displaced threshold length at departure end of runway. (feet)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Displaced threshold length at departure end of runway. (feet)

element **runwayEnd/appDispThresh**

diagram	appDispThresh Displaced threshold length at arrival end of runway. (feet)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Displaced threshold length at arrival end of runway. (feet)

element **runwayEnd/percentWind**

diagram	percentWind Percent change in airport average headwind. (%)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Percent change in airport average headwind. (%)

element **runwayEnd/isHelipad**

diagram	isHelipad Indicates if this end of the runway is also a helipad. Valid values: Y = yes, N = no.
type	xs:string
properties	minOcc 0 maxOcc 1 content simple

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

complexType **scenarioAirportLayoutType**

diagram	
children	airportLayoutName mixingHeight airportConfigSet airportCapacity
used by	element scenarioAirportLayoutSet/scenarioAirportLayout
annotation	documentation Describes weather conditions.

element **scenarioAirportLayoutType/airportLayoutName**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airport layout name.

element **scenarioAirportLayoutType/mixingHeight**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases takes place for the airport in a given month. Varies diurnally and seasonally. (feet AFE)

complexType **spectralClass**

diagram

spectralClass

This element contains the definition for a single user-defined spectral class with 24 bands.

spectralClassId

Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.

flightTypes

Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown). Options are: A, D, L, AD, AL, DL, ADL, or U

frequencyBand17

Frequency value for Band 17. Valid values: 0.0 through 100.0.

frequencyBand18

Frequency value for Band 18. Valid values: 0.0 through 100.0.

frequencyBand19

Frequency value for Band 19. Valid values: 0.0 through 100.0.

frequencyBand20

Frequency value for Band 20. Valid values: 0.0 through 100.0.

frequencyBand21

Frequency value for Band 21. Valid values: 0.0 through 100.0.

frequencyBand22

Frequency value for Band 22. Valid values: 0.0 through 100.0.

frequencyBand23

Frequency value for Band 23. Valid values: 0.0 through 100.0.

frequencyBand24

Frequency value for Band 24. Valid values: 0.0 through 100.0.

frequencyBand25

Frequency value for Band 25. Valid values: 0.0 through 100.0.

frequencyBand26

Frequency value for Band 26. Valid values: 0.0 through 100.0.

frequencyBand27

Frequency value for Band 27. Valid values: 0.0 through 100.0.

frequencyBand28

Frequency value for Band 28. Valid values: 0.0 through 100.0.

frequencyBand29

Frequency value for Band 29. Valid values: 0.0 through 100.0.

frequencyBand30

Frequency value for Band 30. Valid values: 0.0 through 100.0.

frequencyBand31

Frequency value for Band 31. Valid values: 0.0 through 100.0.

frequencyBand32

	Frequency value for Band 32. Valid values: 0.0 through 100.0. frequencyBand33 Frequency value for Band 33. Valid values: 0.0 through 100.0. frequencyBand34 Frequency value for Band 34. Valid values: 0.0 through 100.0. frequencyBand35 Frequency value for Band 35. Valid values: 0.0 through 100.0. frequencyBand36 Frequency value for Band 36. Valid values: 0.0 through 100.0. frequencyBand37 Frequency value for Band 37. Valid values: 0.0 through 100.0. frequencyBand38 Frequency value for Band 38. Valid values: 0.0 through 100.0. frequencyBand39 Frequency value for Band 39. Valid values: 0.0 through 100.0. frequencyBand40 Frequency value for Band 40. Valid values: 0.0 through 100.0. <tr><td>children</td><td>spectralClassId flightTypes frequencyBand17 frequencyBand18 frequencyBand19 frequencyBand20 frequencyBand21 frequencyBand22 frequencyBand23 frequencyBand24 frequencyBand25 frequencyBand26 frequencyBand27 frequencyBand28 frequencyBand29 frequencyBand30 frequencyBand31 frequencyBand32 frequencyBand33 frequencyBand34 frequencyBand35 frequencyBand36 frequencyBand37 frequencyBand38 frequencyBand39 frequencyBand40</td></tr> <tr><td>used by</td><td>element fleet/spectralClass</td></tr> <tr><td>annotation</td><td>documentation This element contains the definition for a single user-defined spectral class with 24 bands.</td></tr>	children	spectralClassId flightTypes frequencyBand17 frequencyBand18 frequencyBand19 frequencyBand20 frequencyBand21 frequencyBand22 frequencyBand23 frequencyBand24 frequencyBand25 frequencyBand26 frequencyBand27 frequencyBand28 frequencyBand29 frequencyBand30 frequencyBand31 frequencyBand32 frequencyBand33 frequencyBand34 frequencyBand35 frequencyBand36 frequencyBand37 frequencyBand38 frequencyBand39 frequencyBand40	used by	element fleet/spectralClass	annotation	documentation This element contains the definition for a single user-defined spectral class with 24 bands.
children	spectralClassId flightTypes frequencyBand17 frequencyBand18 frequencyBand19 frequencyBand20 frequencyBand21 frequencyBand22 frequencyBand23 frequencyBand24 frequencyBand25 frequencyBand26 frequencyBand27 frequencyBand28 frequencyBand29 frequencyBand30 frequencyBand31 frequencyBand32 frequencyBand33 frequencyBand34 frequencyBand35 frequencyBand36 frequencyBand37 frequencyBand38 frequencyBand39 frequencyBand40						
used by	element fleet/spectralClass						
annotation	documentation This element contains the definition for a single user-defined spectral class with 24 bands.						

element **spectralClass/spectralClassId**

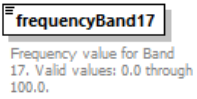
diagram	spectralClassId Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.
type	spectralClassId
properties	content simple
facets	Kind Value Annotation minInclusive 20000 maxInclusive 30000
annotation	documentation Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.

element **spectralClass/flightTypes**

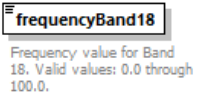
diagram	flightTypes Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown). Options are: A, D, L, AD, AL, DL, ADL, or U
type	spectralFlightType

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern A D L AD AL DL ADL U
annotation	documentation Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown). Options are: A, D, L, AD, AL, DL, ADL, or U

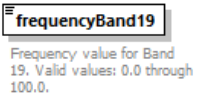
element **spectralClass/frequencyBand17**

diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 17. Valid values: 0.0 through 100.0.

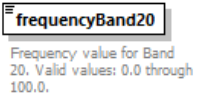
element **spectralClass/frequencyBand18**

diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 18. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand19**

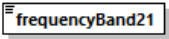
diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 19. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand20**

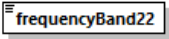
diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100

annotation	documentation Frequency value for Band 20. Valid values: 0.0 through 100.0.
------------	--

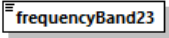
element **spectralClass/frequencyBand21**

diagram	 Frequency value for Band 21. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 21. Valid values: 0.0 through 100.0.

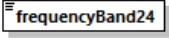
element **spectralClass/frequencyBand22**

diagram	 Frequency value for Band 22. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 22. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand23**

diagram	 Frequency value for Band 23. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 23. Valid values: 0.0 through 100.0.

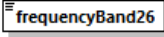
element **spectralClass/frequencyBand24**

diagram	 Frequency value for Band 24. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 24. Valid values: 0.0 through 100.0.

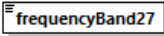
element **spectralClass/frequencyBand25**

diagram	 Frequency value for Band 25. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 25. Valid values: 0.0 through 100.0.

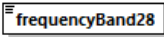
element **spectralClass/frequencyBand26**

diagram	 Frequency value for Band 26. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 26. Valid values: 0.0 through 100.0.

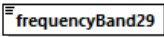
element **spectralClass/frequencyBand27**

diagram	 Frequency value for Band 27. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 27. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand28**

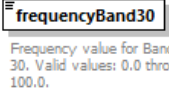
diagram	 Frequency value for Band 28. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 28. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand29**

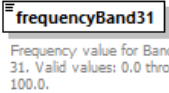
diagram	 Frequency value for Band 29. Valid values: 0.0 through 100.0.
type	floatInclusive100

properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 29. Valid values: 0.0 through 100.0.

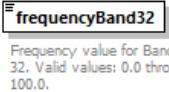
element **spectralClass/frequencyBand30**

diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 30. Valid values: 0.0 through 100.0.

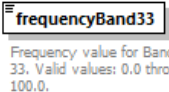
element **spectralClass/frequencyBand31**

diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 31. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand32**

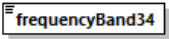
diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 32. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand33**

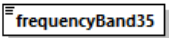
diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100

annotation	documentation Frequency value for Band 33. Valid values: 0.0 through 100.0.
------------	--

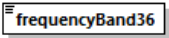
element **spectralClass/frequencyBand34**

diagram	 Frequency value for Band 34. Valid values: 0.0 through 100.0.
type	<u>floatInclusive100</u>
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 34. Valid values: 0.0 through 100.0.

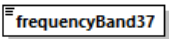
element **spectralClass/frequencyBand35**

diagram	 Frequency value for Band 35. Valid values: 0.0 through 100.0.
type	<u>floatInclusive100</u>
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 35. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand36**

diagram	 Frequency value for Band 36. Valid values: 0.0 through 100.0.
type	<u>floatInclusive100</u>
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 36. Valid values: 0.0 through 100.0.

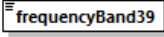
element **spectralClass/frequencyBand37**

diagram	 Frequency value for Band 37. Valid values: 0.0 through 100.0.
type	<u>floatInclusive100</u>
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 37. Valid values: 0.0 through 100.0.

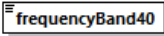
element **spectralClass/frequencyBand38**

diagram	 Frequency value for Band 38. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 38. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand39**

diagram	 Frequency value for Band 39. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 39. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand40**

diagram	 Frequency value for Band 40. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 40. Valid values: 0.0 through 100.0.

simpleType **aircraftPerformanceModelType**

type	restriction of xs:string
properties	base xs:string
used by	element scenario/acftPerfModel
facets	Kind Value Annotation enumeration ICAO enumeration SAE1845
annotation	documentation Type of aircraft performance model. Valid values: ICAO, SAE1845.

simpleType **AircraftSizeType**

type	restriction of xs:string
properties	base xs:string
used by	element runwayAssignment/aircraftSize
facets	Kind Value Annotation enumeration S enumeration L enumeration H

annotation	documentation Aircraft size.
------------	---------------------------------

simpleType **airframeModel**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/airframeModel airframe/model
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Refers to an existing airframe model.

simpleType **airportCodeType**

type	restriction of xs:string
properties	base xs:string
used by	attribute airportCode/@type
facets	Kind Value Annotation enumeration ICAO enumeration IATA enumeration FAA enumeration OTHER enumeration ANY
annotation	documentation The type of an airport code.

simpleType **anpAirplaneId**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftType/anpAircraftId aircraft/anpAirplaneId anpAirplane/anpAirplaneId anpThrustSet/anpAirplaneId anpFlapsSet/anpAirplaneId anpProfileSet/anpAirplaneId energyShare/anpAirplaneId bada4ProfileSet/anpAirplaneId bada4ProcedureStep/anpAirplaneId aircraft/bada4FlapsMapSourceAnpId
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of ANP airplane. Must be a new, unique value.

simpleType **anpCoeffType**

type	restriction of xs:string
properties	base xs:string
used by	element anpAirplane/depThrustCoeffType
facets	Kind Value Annotation pattern Jet J Prop P

simpleType **anpFlapId**

type	restriction of xs:string
properties	base xs:string
used by	elements bada4ProcedureStep/anpFlapId anpFlaps/flapId anpProcedureStep/flapId
facets	Kind Value Annotation minLength 0 maxLength 6

simpleType **anpHeloDirectId**

type	restriction of xs:string
properties	base xs:string

used by	element anpHeloDirectivitySet/anpHelicopterId
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpHeloDirectivityId**

type	restriction of xs:string
properties	base xs:string
used by	element anpHelicopter/directivityId
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpHeloGroundType**

type	restriction of xs:string
properties	base xs:string
used by	element anpHeloDirectivity/groundType
facets	Kind Value Annotation pattern Hard H Software S File F None N

simpleType **anpHeloid**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/anpHelicopterId anpHelicopter/anpHelicopterId anpHeloProfileSet/anpHelicopterId
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of the helicopter.

simpleType **anpHeloNoiseld**

type	restriction of xs:string
properties	base xs:string
used by	elements anpHelicopter/noiseld anpHeloNoiseGroup/noiseld
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpHeloNpdOpMode**

type	restriction of xs:string
properties	base xs:string
used by	elements anpHeloDirectivity/opMode anpHeloNPDCurve/opMode
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpHeloSideType**

type	restriction of xs:string
properties	base xs:string
used by	element anpHeloNPDCurve/sideType
facets	Kind Value Annotation pattern Left L Center C Right R Static S

simpleType **anpNoiseld**

type	restriction of xs:string
properties	base xs:string
used by	elements anpNoiseGroup/noiseld anpAirplane/noiseld
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpNpdNoiseType**

type	restriction of xs:string
properties	base xs:string
used by	elements anpNPDCurve/noiseType anpHeloNPDCurve/noiseType
facets	Kind Value Annotation pattern S M E P

simpleType **anpNpdOpMode**

type	restriction of xs:string
properties	base xs:string
used by	element anpNPDCurve/opMode
facets	Kind Value Annotation pattern A D L G H I J V W Y Z B C E F X S

simpleType **anpOwnerType**

type	restriction of xs:string
properties	base xs:string
used by	elements anpHelicopter/owner anpAirplane/owner
facets	Kind Value Annotation pattern Commercial C Military M General G

simpleType **anpSizeCode**

type	restriction of xs:string
properties	base xs:string
used by	element anpAirplane/sizeCode
facets	Kind Value Annotation pattern Heavy H Large L Small S

simpleType **apuName**

type	restriction of xs:string
properties	base xs:string
used by	elements airframe/auxiliaryPowerUnitId auxiliaryPowerUnit/baseAuxiliaryPowerUnit auxiliaryPowerUnit/name
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Name of the auxiliary power unit.

simpleType **bada3AirplaneId**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/bada3AirplaneId energyShare/bada3AirplaneId
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation

	ID of a BADA 3 airplane model. Must be unique.
--	--

simpleType **bada4AirplaneModel**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/bada4AirplaneModel bada4ProfileSet/bada4AirplaneModel
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Model of BADA 4 airplane.

simpleType **bada4Engine**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/bada4Engine bada4ProfileSet/bada4Engine
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane BADA 4 engine.

simpleType **bada4Suffix**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/bada4Suffix bada4ProfileSet/bada4Suffix
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-defined BADA 4 model suffix.

simpleType **badaPhaseType**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation pattern InitialClimb IC Takeoff TO Approach AP Landing LD Cruise CR

simpleType **badaWakeType**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation pattern Heavy H Light L Medium M SuperHeavy J

simpleType **directionType**

type	restriction of xs:string
properties	base xs:string
used by	element taxipath/direction
facets	Kind Value Annotation pattern A Arrival D Departure I Inbound O Outbound
annotation	documentation Supports the direction type of a taxi path. Direction type can be either arrival, departure, inbound, or outbound.

simpleType **doubleExclusive0Inclusive10**

type	restriction of xs:double
properties	base xs:double
used by	element pointStationarySource/stackDiameter
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation A double value in the range (0,10).

simpleType **doubleExclusive10**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxExclusive 10
annotation	documentation A double value in the range [0,10).

simpleType **doubleExclusive100**

type	restriction of xs:double
properties	base xs:double
used by	elements taxiway/dispersionWidth categorySandSaltPile/fastestMileOfWind categorySandSaltPile/frictionVelocity categoryBoilerHeater/fuelAshContent categoryBoilerHeater/fuelAshContent categoryBoilerHeater/fuelSulfurContent categoryGenerator/fuelSulfurContent airportConfig/maxWindSpeed categoryFuelTank/verticalOrFloatingTank/meanWindSpeed categorySandSaltPile/meanWindSpeed airportConfig/minWindSpeed categoryDeicingArea/solutionConcentrationPercent
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation A double value in the range [0,100).

simpleType **doubleExclusive1000**

type	restriction of xs:double
properties	base xs:double
used by	elements categoryFuelTank/verticalOrFloatingTank/averageSolutionLevel categorySandSaltPile/massDisturbedPerDisturbance categoryFuelTank/verticalOrFloatingTank/maximumSolutionLevel categoryFuelTank/tankDiameter categoryFuelTank/verticalOrFloatingTank/tankHeight categoryFuelTank/horizontalFixedRoofTank/tankLength categoryAircraftEngine/timePercentPower100 categoryAircraftEngine/timePercentPower30 categoryAircraftEngine/timePercentPower7 categoryAircraftEngine/timePercentPower85
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation A double value in the range [0,1000).

simpleType **doubleExclusive10000**

type	restriction of xs:double
properties	base xs:double
used by	element categorySandSaltPile/erodedSurfaceArea
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A double value in the range [0,10000).

simpleType **doubleExclusive2000**

type	restriction of xs:double
------	---------------------------------

properties	base xs:double
used by	elements categoryDeicingArea/ethyleneGlycolDensity categoryDeicingArea/propyleneGlycolDensity categorySolventDegreaser/solutionDensity
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation A double value in the range [0,2000).

simpleType **doubleExclusiveRange100**

type	restriction of xs:double
properties	base xs:double
used by	elements categorySandSaltPile/moistureContent categorySandSaltPile/surfaceRoughness
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation A double value in the range (0,100).

simpleType **doubleInclusive1**

type	restriction of xs:double
properties	base xs:double
used by	elements userGroundSupportEquipment/defaultLoadFactor groundSupportEquipmentGateAssignment/fractionAssigned categoryBoilerHeater/pm25ToPm10Ratio categoryGenerator/pm25ToPm10Ratio categoryIncinerator/pm25ToPm10Ratio categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/coneRoof/roofSlope categorySandSaltPile/surfaceWindSpeedFraction
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation A double value in the range [0,1].

simpleType **doubleInclusive100**

type	restriction of xs:double
properties	base xs:double
used by	elements runwayAssignment/arrivalPercentage runwayAssignment/departurePercentage categorySolventDegreaser/pollutionControlFactor categoryBoilerHeater/pollutionControlFactorCH4 categoryIncinerator/pollutionControlFactorCH4 categoryGenerator/pollutionControlFactorCH4 categoryOther/pollutionControlFactorCH4 categoryBoilerHeater/pollutionControlFactorCO categoryGenerator/pollutionControlFactorCO categoryIncinerator/pollutionControlFactorCO categoryOther/pollutionControlFactorCO categoryBoilerHeater/pollutionControlFactorCO2 categoryIncinerator/pollutionControlFactorCO2 categoryGenerator/pollutionControlFactorCO2 categoryOther/pollutionControlFactorCO2 categoryBoilerHeater/pollutionControlFactorNOx categoryGenerator/pollutionControlFactorNOx categoryIncinerator/pollutionControlFactorNOx categoryOther/pollutionControlFactorNOx categoryIncinerator/pollutionControlFactorPM10 categoryBoilerHeater/pollutionControlFactorPM10 categoryGenerator/pollutionControlFactorPM10 categoryOther/pollutionControlFactorPM10 categoryOther/pollutionControlFactorPM25 categoryIncinerator/pollutionControlFactorSOx categoryBoilerHeater/pollutionControlFactorSOx categoryGenerator/pollutionControlFactorSOx categoryOther/pollutionControlFactorSOx categoryOther/pollutionControlFactorTHC thcElGroup/pollutionControlFactorTHC tnmocElGroup/pollutionControlFactorTNMOC categoryGenerator/pollutionControlFactorTOC categoryIncinerator/pollutionControlFactorTOC tocElGroup/pollutionControlFactorTOC categoryGenerator/pollutionControlFactorVOC categorySurfaceCoatingPainting/pollutionControlFactorVOC vocElGroup/pollutionControlFactorVOC pointStationarySource/releaseHeight areaStationarySource/releaseHeight volumeStationarySource/releaseHeight runwayAssignment/tgoPercentage
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation A double value in the range [0,100].

simpleType **doubleInclusive1000**

type	restriction of xs:double
properties	base xs:double
used by	elements emissionFactorSet/CH4 categoryGenerator/CH4 EF categoryBoilerHeater/CH4 EI categoryTrainingFire/CH4 EI categoryGenerator/CH4 EI categoryIncinerator/CH4 EI categoryOther/CH4 EI emissionFactorSet/CO2 categoryGenerator/CO2 EF categoryOther/CO2 EI categoryGenerator/CO2 EI categoryBoilerHeater/CO2 EI categoryIncinerator/CO2 EI categoryTrainingFire/CO2 EI categoryGenerator/CO EF categoryIncinerator/CO EI

	categoryBoilerHeater/CO El categoryOther/CO El categoryGenerator/CO El pm10TermGroup/constantTermPm10 categoryGenerator/NOx EF categoryBoilerHeater/NOx El categoryIncinerator/NOx El categoryOther/NOx El categoryGenerator/NOx El categoryGenerator/PM10 EF categoryBoilerHeater/PM10 El categoryIncinerator/PM10 El categoryOther/PM10 El categoryGenerator/PM10 El emissionFactorSet/PM25 categoryTrainingFire/PM25 El categoryOther/PM25 El categoryGenerator/SOx EF categoryIncinerator/SOx El categoryOther/SOx El categoryGenerator/SOx El pm10TermGroup/sulfurTermPm10 categoryBoilerHeater/sulfurTermSOx categoryOther/THC El thcElGroup/THC El tnmocElGroup/TNMOC El categoryGenerator/TOC EF categoryIncinerator/TOC El tocElGroup/TOC El categorySurfaceCoatingPainting/VOC El categoryDeicingArea/VOC El categoryGenerator/VOC El vocElGroup/VOC El
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation A double value in the range [0,1000].

simpleType **doubleInclusive10000**

type	restriction of xs:double
properties	base xs:double
used by	element categoryGenerator/powerRatingHorsepower
facets	Kind Value Annotation minInclusive 0 maxInclusive 10000
annotation	documentation A double value in the range [0,10000].

simpleType **doubleInclusive2000**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxInclusive 2000
annotation	documentation A double value in the range [0,2000].

simpleType **doubleInclusive24**

type	restriction of xs:double
properties	base xs:double
used by	elements airportConfig/endHour airportConfig/startHour
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation A double value in the range [0,24].

simpleType **doubleInclusive4000**

type	restriction of xs:double
properties	base xs:double
used by	element roadwayOperation/roundTripDistance
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation A double value in the range [0,4000].

simpleType **doubleInclusive500**

type	restriction of xs:double
properties	base xs:double
used by	element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof/domeRadius

facets	Kind Value Annotation minInclusive 0 maxInclusive 500
annotation	documentation A double value in the range [0,500].

simpleType **doubleInclusiveRange0to600**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxInclusive 600
annotation	documentation A double value in the range [0,600].

simpleType **doubleInclusiveRange1to30**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation A double value in the range [1,30].

simpleType **doubleLeadContentRange**

type	restriction of xs:double
properties	base xs:double
used by	element scenario/fuelLeadContent
facets	Kind Value Annotation minInclusive 0 maxInclusive 0.56
annotation	documentation A double value for fuel lead content in the range [0,0.56].

simpleType **doubleMin0**

type	restriction of xs:double
properties	base xs:double
used by	elements categoryFuelTank/horizontalFixedRoofTank/annualIncreaseInLiquidLevel categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/annualIncreaseInLiquidLevel quarterHourlyProfile/temporalFactor monthlyProfile/temporalFactorApril monthlyProfile/temporalFactorAugust monthlyProfile/temporalFactorDecember monthlyProfile/temporalFactorFebruary dailyProfile/temporalFactorFriday monthlyProfile/temporalFactorJanuary monthlyProfile/temporalFactorJuly monthlyProfile/temporalFactorJune monthlyProfile/temporalFactorMarch monthlyProfile/temporalFactorMay dailyProfile/temporalFactorMonday monthlyProfile/temporalFactorNovember monthlyProfile/temporalFactorOctober dailyProfile/temporalFactorSaturday monthlyProfile/temporalFactorSeptember dailyProfile/temporalFactorSunday dailyProfile/temporalFactorThursday dailyProfile/temporalFactorTuesday dailyProfile/temporalFactorWednesday
facets	Kind Value Annotation minInclusive 0
annotation	documentation A double value with a lower inclusive bound of 0.

simpleType **emissionsSourceType**

type	restriction of xs:string
properties	base xs:string
used by	element case/source
facets	Kind Value Annotation enumeration Container enumeration Aircraft enumeration GSE Population enumeration Parking Facilities

	enumeration Roadways enumeration Stationary Sources
annotation	documentation Source of emissions.

simpleType **emissionsUnitsType**

type	restriction of xs:string
properties	base xs:string
used by	element study/emissionsUnits
facets	Kind Value Annotation enumeration MetricTonnes enumeration Kilograms enumeration Grams enumeration ImperialTons enumeration Pounds
annotation	documentation Unit of measure for a given emission.

simpleType **empty-string**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation enumeration

simpleType **engineCode**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngine/code aircraft/engineCode
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Code for an airframe's engine.

simpleType **engineModCode**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngineMod/code aircraft/engineModCode aircraftType/engineModCode
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Airplane's engine modification code.

simpleType **engineModel**

type	restriction of xs:string
properties	base xs:string
used by	element aircraftEngine/model
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **engineType**

type	restriction of xs:string
properties	base xs:string

used by	elements aircraftEngine/engineType anpHelicopter/engineTypeCode anpAirplane/engineTypeCode
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

simpleType **floatExclusive0Inclusive10**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation A real number in the range (0,10].

simpleType **floatExclusive10**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 10
annotation	documentation A real number in the range [0,10).

simpleType **floatExclusive100**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation A real number in the range [0,100).

simpleType **floatExclusive1000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation A real number in the range [0,1,000).

simpleType **floatExclusive10000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A real number in the range [0,10,000).

simpleType **floatExclusive2000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0

	maxExclusive 2000
annotation	documentation A real number in the range [0,2,000).

simpleType **floatExclusiveRange100**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation A real number in the range (0,100).

simpleType **floatInclusive1**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation A real number in the range [0,1].

simpleType **floatInclusive100**

type	restriction of xs:float
properties	base xs:float
used by	elements spectralClass/frequencyBand17 spectralClass/frequencyBand18 spectralClass/frequencyBand19 spectralClass/frequencyBand20 spectralClass/frequencyBand21 spectralClass/frequencyBand22 spectralClass/frequencyBand23 spectralClass/frequencyBand24 spectralClass/frequencyBand25 spectralClass/frequencyBand26 spectralClass/frequencyBand27 spectralClass/frequencyBand28 spectralClass/frequencyBand29 spectralClass/frequencyBand30 spectralClass/frequencyBand31 spectralClass/frequencyBand32 spectralClass/frequencyBand33 spectralClass/frequencyBand34 spectralClass/frequencyBand35 spectralClass/frequencyBand36 spectralClass/frequencyBand37 spectralClass/frequencyBand38 spectralClass/frequencyBand39 spectralClass/frequencyBand40 anpProcedureStep/percentAcceleration
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation A real number in the range [0,100].

simpleType **floatInclusive1000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation A real number in the range [0,1,000].

simpleType **floatInclusive10000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 10000
annotation	documentation A real number in the range [0,10,000].

simpleType **floatInclusive180**

type	restriction of xs:float

properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 180
annotation	documentation A real number in the range [0,180].

simpleType **floatInclusive2000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 2000
annotation	documentation A real number in the range [0,2,000].

simpleType **floatInclusive24**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation A real number in the range [0,24].

simpleType **floatInclusive4000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation A real number in the range [0,4,000].

simpleType **floatInclusiveRange1to30**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation A real number in the range [1,30].

simpleType **floatInclusiveRange32to600**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 32 maxInclusive 600
annotation	documentation A real number in the range [32,600].

simpleType **fuelFlowMode**

type	restriction of xs:string
properties	base xs:string
used by	element anpHeloProfilePoint/fuelFlowMode

facets	Kind	Value	Annotation
	pattern	Takeoff TO Climbout CO Approach AP Idle ID	

simpleType **fuelType**

type	restriction of xs:string		
properties	base xs:string		
used by	elements parkingFacilityOperation/fuelType roadwayOperation/fuelType groundSupportEquipmentPopulationOperation/fuelType groundSupportEquipmentLTOOperation/fuelType		
facets	Kind	Value	Annotation
	pattern	G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric	
annotation	documentation Supports data relating to different types of fuel use. Fuel types can be based on either gasoline, diesel, compressed natural gas, liquid propane gas, or electric based.		

simpleType **gapFraction**

type	restriction of xs:float		
properties	base xs:float		
used by	element structure/gapFraction		
facets	Kind	Value	Annotation
	minInclusive	0.2	
	maxInclusive	0.8	
annotation	documentation Optional parameter for building row type. (float) with range 0.2-0.8		

simpleType **groundVehicleType**

type	restriction of xs:string		
properties	base xs:string		
used by	elements <u>parkingFacilityOperation/vehicleType</u> <u>roadwayOperation/vehicleType</u>		
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 Busses 15 Transit and Urban Busses 16 Motorcycle	
annotation	documentation Supports data relating to the use of ground vehicles - NOT currently used in AEDT. Ground vehicle types can range from fleet mixes, passenger cars, and various light or heavy trucks.		

simpleType **int0to23**

type	restriction of xs:int		
properties	base xs:int		
used by	attribute quarterHourlyProfile/temporalFactor/@startHour		
facets	Kind	Value	Annotation
	minInclusive	0	
	maxInclusive	23	
annotation	documentation An integer in the range [0,23].		

simpleType **int0to360**

type	restriction of xs:int		
properties	base xs:int		
used by	elements airportConfig/endWindAngle airportConfig/startWindAngle		
facets	Kind	Value	Annotation
	minInclusive	0	
	maxExclusive	360	
annotation	documentation An integer in the range [0,360].		

simpleType **int0to5**

type	restriction of xs:int
properties	base xs:int
used by	element categoryOther/fuelUnits
facets	Kind Value Annotation minInclusive 0 maxInclusive 5
annotation	documentation An integer in the range [0,5].

simpleType **int0to87**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 0 maxInclusive 87
annotation	documentation An integer in the range [0,87].

simpleType **int1to13**

type	restriction of xs:int
properties	base xs:int
used by	element categorySolventDegreaser/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 13
annotation	documentation An integer in the range [1,13].

simpleType **int1to15**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 1 maxInclusive 15
annotation	documentation An integer in the range [1,15].

simpleType **int1to2**

type	restriction of xs:int
properties	base xs:int
used by	element categoryIncinerator/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 2
annotation	documentation An integer in the range [1,2].

simpleType **int1to25**

type	restriction of xs:int
properties	base xs:int
used by	element categoryFuelTank/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 25
annotation	documentation

	An integer in the range [1,25].
--	---------------------------------

simpleType **int1to4**

type	restriction of xs:int
properties	base xs:int
used by	element categoryDeicingArea/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation An integer in the range [1,4].

simpleType **int1to5**

type	restriction of xs:int
properties	base xs:int
used by	elements categorySandSaltPile/typeCode categoryTrainingFire/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation An integer in the range [1,5].

simpleType **int1to8**

type	restriction of xs:int
properties	base xs:int
used by	elements categoryGenerator/typeCode categorySurfaceCoatingPainting/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation An integer in the range [1,8].

simpleType **int1to93**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 1 maxInclusive 93
annotation	documentation An integer in the range [1,93].

simpleType **int1to9999**

type	restriction of xs:int
properties	base xs:int
used by	elements airframe/maxSeats runup/numEnginesUsed
facets	Kind Value Annotation minInclusive 1 maxInclusive 9999
annotation	documentation An integer in the range [1,9999].

simpleType **int5to15**

type	restriction of xs:int
properties	base xs:int
used by	element categoryFuelTank/reidVaporPressure

facets	Kind Value Annotation minInclusive 5 maxInclusive 15
annotation	documentation An integer in the range [5,15].

simpleType **int5to65**

type	restriction of xs:int
properties	base xs:int
used by	element roadwayOperation/speed
facets	Kind Value Annotation minInclusive 5 maxInclusive 65
annotation	documentation An integer in the range [5,65].

simpleType **int6to13**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 6 maxInclusive 13
annotation	documentation An integer in the range [6,13].

simpleType **int89to148**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 89 maxInclusive 148
annotation	documentation An integer in the range [89,148].

simpleType **latitudeDMSType**

type	restriction of xs:string
properties	base xs:string
used by	element latlonCoordGroup/latitudeDMS
facets	Kind Value Annotation pattern [0-9]{2}[\- \. "][0-9]{2}[\- \. '][0-9]{2}([0-9]{3})?[Nn Ss]
annotation	documentation Latitude expressed as dd"mm'sss with optional indicator N, n, S, s. (degrees)

simpleType **longitudeDMSType**

type	restriction of xs:string
properties	base xs:string
used by	element latlonCoordGroup/longitudeDMS
facets	Kind Value Annotation pattern [0-9]?[0-9]{2}[\- \. "][0-9]{2}[\- \. '][0-9]{2}([0-9]{3})?[Ee Ww]
annotation	documentation Longitude expressed as dd"mm'sss with optional indicator N, n, S, s. (degrees)

simpleType **nodeControlType**

type	restriction of xs:string
properties	base xs:string

used by	attributes trackNode/altitude/@control trackNode/speed/@control
facets	Kind Value Annotation pattern 0 None 1 AtOrBelow 2 Match 3 AtOrAbove
annotation	documentation Type of altitude clearance at this point.

simpleType **noiseReductionCoefficient**

type	restriction of xs:float
properties	base xs:float
used by	element structure/noiseReductionCoefficient
facets	Kind Value Annotation minInclusive 0.0 maxInclusive 1.0
annotation	documentation Noise reduction coefficient for buildings (float) range 0.0-1.0

simpleType **opType**

type	restriction of xs:string
properties	base xs:string
used by	element operation/opType
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight F Circuit T TouchAndGo R Runup W RunwayToRunway L LTO LandingTakoff X Taxi
annotation	documentation Type of operation.

simpleType **originSourceType**

type	restriction of xs:string
properties	base xs:string
used by	elements polarGrid/originSource polarReceptor/originSource
facets	Kind Value Annotation pattern Gate Parking Facility Roadway Runway Stionary Source Taxiway Training Fire
annotation	documentation Supports the polarReceptor source type. Original source type can be either gate, parking facility, roadway, runway, stationary source, taxiway, and training fire.

simpleType **profileType**

type	string255
properties	base string255
used by	elements profiles/arrivalProfile operation/badaProfile profiles/departureProfile operation/saeProfile
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation An aircraft's flight profile.

simpleType **quarterHourMinutes**

type	restriction of xs:int
properties	base xs:int
used by	attribute quarterHourlyProfile/temporalFactor/@startMinutes
facets	Kind Value Annotation enumeration 0 enumeration 15 enumeration 30 enumeration 45
annotation	documentation Either 0, 15, 30, or 45.

simpleType **spectralClassId**

type	restriction of xs:short
properties	base xs:short
used by	element spectralClass/spectralClassId
facets	Kind Value Annotation minInclusive 20000 maxInclusive 30000
annotation	documentation User-defined Spectral Class ID in the range 20,000 to 30,000 - inclusive.

simpleType **spectralFlightType**

type	restriction of xs:string
properties	base xs:string
used by	element spectralClass/flightTypes
facets	Kind Value Annotation pattern A D L AD AL DL ADL U
annotation	documentation Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown).

simpleType **string1**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/arrivalStageLength operation/departureStageLength airframe/designationCode airframe/engineLocation airframe/engineType anpTsfcCoefficients/mode anpNoiseGroup/modelType anpHelicopter/modelType anpHeloProfile/operationType anpHeloProcedureStep/operationType anpFlaps/operationType anpProfile/operationType bada4Profile/operationType anpProfilePoint/opMode anpHeloProfile/profileStageLength anpHeloProcedureStep/profileStageLength anpProfile/profileStageLength airframe/sizeCode operation/stageLength anpHeloProcedureStep/stepType anpProcedureStep/stepType bada4ProcedureStep/stepType anpNoiseGroup/thrustSetType anpThrustGeneral/thrustType anpThrustJet/thrustType anpThrustProp/thrustType anpProcedureStep/thrustType bada4ProcedureStep/thrustType airframe/usageCode bada4Profile/weightClass
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation A string up to one character long.

simpleType **string10**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation minLength 0 maxLength 10
annotation	documentation A string up to 10 characters long.

simpleType **string100**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/activityProfile airportConfig/configurationName activityProfile/dailyProfile runup/dailyProfile aircraftEngine/manufacturer activityProfile/monthlyProfile runup/monthlyProfile airport/name quarterHourlyProfile/profileName dailyProfile/profileName monthlyProfile/profileName activityProfile/quarterHourlyProfile runup/quarterHourlyProfile aircraftEngine/source airport/zone attribute activityProfile/@name
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation A string up to 100 characters long.

simpleType **string1024**

type	restriction of xs:string
properties	base xs:string
used by	element aircraftEngine/notes
facets	Kind Value Annotation minLength 0 maxLength 1024
annotation	documentation A string up to 1024 characters long.

simpleType **string11**

type	restriction of xs:string
properties	base xs:string
used by	elements windRoseStation/calmCriteria windRoseStation/endDayMonth windRoseStation/userString
facets	Kind Value Annotation minLength 0 maxLength 11

simpleType **string12**

type	restriction of xs:string
properties	base xs:string
used by	elements windRoseStation/beginDayMonth operation/userType
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation A string up to 12 characters long.

simpleType **string14**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseData/directionRange
facets	Kind Value Annotation minLength 0 maxLength 14

simpleType **string15**

type	restriction of xs:string
properties	base xs:string
used by	element airport/faald
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation A string up to 15 characters long.

simpleType **string16**

type	restriction of xs:string
properties	base xs:string
used by	elements nodeIdGroup/description operation/flightNumber runup/flightNumber case/hourlyWxMD5 operation/id nodeIdGroup/id operation/userParam attribute AsifXml/@version
facets	Kind Value Annotation minLength 0 maxLength 16

annotation	documentation A string up to 16 characters long.
------------	---

simpleType **string2**

type	restriction of xs:string
properties	base xs:string
used by	element airframe/euroGroupCode
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation A string up to two characters long.

simpleType **string20**

type	restriction of xs:string
properties	base xs:string
used by	elements groundSupportEquipmentGateAssignment/gate taxiway/name taxipath/taxiwayName
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation A string up to 20 characters long.

simpleType **string200**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation minLength 0 maxLength 200
annotation	documentation A string up to 200 characters long.

simpleType **string25**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngine/emissionsEngineModel airport/facilityType runwayEnd/name aircraftEngine/performanceEngineModel airportWeatherStation/weatherStationName
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation A string up to 25 characters long.

simpleType **string255**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftType/airframeModel trackref/airportLayoutName scenarioAirportLayoutType/airportLayoutName study/description scenario/description aircraftEngineMod/description case/description anpAirplane/description anpHelicopter/description aircraft/description categoryAircraftEngine/engineCode aircraftType/engineCode bada4Profile/flightProcedure case/hourlyWxFile runup/id annualizationCase/name structure/name receptorSet/name pointReceptor/name study/name scenario/name case/name annualization/name airportLayoutType/name anpHeloProfilePoint/opMode anpHeloNoiseOpMode/opModeDescription anpHeloNoiseOpMode/opModeld anpHeloProfile/profileGroupId anpHeloProcedureStep/profileGroupId anpProfile/profileGroupId case/reference/refCase case/reference/refScenario sensorNode/source aircraftEngine/superseded study/terrainFiles trackref/trackName simpleType profileType
facets	Kind Value Annotation minLength 0 maxLength 255

annotation	documentation A string up to 255 characters long.
------------	--

simpleType **string3**

type	restriction of xs:string
properties	base xs:string
used by	attribute airportCode/@country
facets	Kind Value Annotation minLength 0 maxLength 3
annotation	documentation A string up to three characters long.

simpleType **string30**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation A string up to 30 characters long.

simpleType **string32**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/windRoseDataSource
facets	Kind Value Annotation minLength 0 maxLength 32

simpleType **string4**

type	restriction of xs:string
properties	base xs:string
used by	element operation/carrier complexType airportCode
facets	Kind Value Annotation minLength 0 maxLength 4
annotation	documentation A string up to four characters long.

simpleType **string40**

type	restriction of xs:string
properties	base xs:string
used by	elements groundSupportEquipmentPopulationOperation/activityProfile emissionsUsage/activityProfile operation/arrivalGate operation/departureGate taxipath/gateName userGroundSupportEquipment/gseName gate/name stationarySource/name parkingFacility/name roadway/name polarGrid/originName polarReceptor/originName stationarySourceOperation/refName parkingFacilityOperation/refName roadwayOperation/refName
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation A string up to 40 characters long.

simpleType **string42**

type	restriction of xs:string
properties	base xs:string

used by	element windRoseStation/windRoseStationDescription
facets	Kind Value Annotation minLength 0 maxLength 42

simpleType **string5**

type	restriction of xs:string
properties	base xs:string
used by	elements airportWeatherStation/wbanId airportWeatherStation/weatherStationCode windRose/windRoseStationId windRoseStation/windRoseStationId
facets	Kind Value Annotation minLength 0 maxLength 5

simpleType **string50**

type	restriction of xs:string
properties	base xs:string
used by	elements airport/cityName aircraftEngine/combustor airport/state aircraftEngine/tfmtFlag
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation A string up to 50 characters long.

simpleType **string6**

type	restriction of xs:string
properties	base xs:string
used by	elements centroid/bnald airportWeatherStation/cooperativeld taxiTime/source
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation A string up to six characters long.

simpleType **string64**

type	restriction of xs:string
properties	base xs:string
used by	element track/name
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation A string up to 64 characters long.

simpleType **string66**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/windRoseDataSet
facets	Kind Value Annotation minLength 0 maxLength 66

simpleType **string7**

type	restriction of xs:string
properties	base xs:string

used by	element airport/dafifld
facets	Kind Value Annotation minLength 0 maxLength 7

simpleType **string8**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/arrivalRunway case/climateId operation/departureRunway climate/identifier trackref/runway track/runway runwayAssignment/runway taxipath/runwayName operation/tailNumber runup/tailNumber
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation A string up to eight characters long.

simpleType **string9**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/directionUnit
facets	Kind Value Annotation minLength 0 maxLength 9

simpleType **structureType**

type	restriction of xs:int
properties	base xs:int
used by	element structure/structureType
facets	Kind Value Annotation enumeration 0 enumeration 1 enumeration 2
annotation	documentation Structure type. (int) with values [building, building row, barrier] = [0, 1, 2]

simpleType **studyType**

type	restriction of xs:string
properties	base xs:string
used by	element study/studyType
facets	Kind Value Annotation enumeration Emissions enumeration Dispersion enumeration Noise and Emissions enumeration Noise and Dispersion
annotation	documentation Type of study. NOTE: AEDT only supports the Noise and Emissions value.

simpleType **taxiModelType**

type	restriction of xs:string
properties	base xs:string
used by	element scenario/taxiModel
facets	Kind Value Annotation enumeration UserSpecified enumeration Delayed enumeration Sequencing
annotation	documentation

	Type of taxi modeling.
--	------------------------

simpleType **timelnModeBasisType**

type	restriction of xs:string
properties	base xs:string
used by	element scenario/timelnModeBasis
facets	Kind Value Annotation enumeration Performance enumeration ICAO
annotation	documentation Time in mode can either be based on ICAO or performance.

simpleType **trackType**

type	restriction of xs:string
properties	base xs:string
used by	elements trackref/optype track/optype
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi
annotation	documentation Type of track.

simpleType **trainingFireFuelType**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation pattern JP-4 JP-5 JP-8 Propane Tekflame
annotation	documentation Supports data relating to training fire content. Training fire fuel types can be either JP-4, JP-5, JP-8, propane, or tekflame.

simpleType **vectorTrackType**

type	restriction of xs:string
properties	base xs:string
used by	element trackVector/type
facets	Kind Value Annotation pattern S Straight L LeftTurn R RightTurn
annotation	documentation Type of vector.

simpleType **weatherDataYear**

type	union of (restriction of xs:int , restriction of xs:string)
used by	element weatherData/year
annotation	documentation There are expected to be 11 records for weather data - one each for the preceding 10 years and one AVG record for the Average of the ten years.

simpleType **wingType**

type	restriction of xs:string
properties	base xs:string
used by	element track/wingtype
facets	Kind Value Annotation pattern F FixedWing R RotaryWing
annotation	documentation Type of wing. If not specified, AEDT attempts to determine the wing type based on the optype.

simpleType **yesNoType**

type	restriction of xs:string						
properties	base xs:string						
used by	elements anpHelicopter/hasWheels anpAirplane/thrustRestore anpHeloProfile/useDirectivity anpHeloProfile/useTrack						
facets	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>pattern</td><td>Yes Y No N</td><td></td></tr></table>	Kind	Value	Annotation	pattern	Yes Y No N	
Kind	Value	Annotation					
pattern	Yes Y No N						
annotation	documentation Simple element allowing for either a choice of "yes" or "no".						