Airport

Each .aip file reflects the current openAIP database for a specific content type and is standard XML, UTF-8 encoded. Hereafter all possible elements that are used in the .aip format for the airport content type are described.

Example of a valid .aip airport file that contains one airport that has multiple frequencies and runways:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<OPENAIP VERSION="369694" DATAFORMAT="1.1">
<WAYPOINTS>
<AIRPORT TYPE="AF_CIVIL">
  <COUNTRY>DE</COUNTRY>
  <NAME>HAHNWEIDE</NAME>
  <ICAO>EDST</ICAO>
  <GEOLOCATION>
    <LAT>48.6317</LAT>
    <LON>9.4294</LON>
    <ELEV UNIT="M">355.7016</ELEV>
  </GEOLOCATION>
  <RADIO CATEGORY="COMMUNICATION">
    <FREQUENCY>128.950</FREQUENCY>
    <TYPE>OTHER</TYPE>
    <TYPESPEC>MySpecialType</TYPESPEC>
    <DESCRIPTION>This is a frequency description</DESCRIPTION>
  </RADIO>
  <RADIO CATEGORY="NAVIGATION">
    <FREQUENCY>111.11</FREQUENCY>
    <TYPE>ILS</TYPE>
  </RADIO>
  <RWY OPERATIONS="ACTIVE">
    <NAME>18L / 36R</NAME>
    <SFC>ASPH</SFC>
    <LENGTH UNIT="M">500</LENGTH>
    <WIDTH UNIT="M">50</WIDTH>
    <STRENGTH UNIT="PCN">PCN 65/F/A/W/T</STRENGTH>
    <DIRECTION TC="176">
      <RUNS>
        <TORA UNIT="M">520</TORA>
        <LDA UNIT="M">450</LDA>
      </RUNS>
      <LANDINGAIDS>
        <ILS>111.11</ILS>
        <PAPI>TRUE</PAPI>
      </LANDINGAIDS>
    </DIRECTION>
    <DIRECTION TC="357">
      <RUNS>
        <TORA UNIT="M">520</TORA>
        <LDA UNIT="M">450</LDA>
      </RUNS>
      <LANDINGAIDS>
        <ILS>111.11</ILS>
        <PAPI>FALSE</PAPI>
      </LANDINGAIDS>
    </DIRECTION>
  </RWY>
  <RWY OPERATIONS="ACTIVE">
    <NAME>27</NAME>
    <SFC>GRAS</SFC>
    <LENGTH UNIT="M">555</LENGTH>
    <WIDTH UNIT="M">30</WIDTH>
    <DIRECTION TC="275">
      <RUNS>
        <TORA UNIT="M">400</TORA>
        <LDA UNIT="M">550</LDA>
      </RUNS>
    </DIRECTION>
  </RWY>
</AIRPORT>
</WAYPOINTS>
</OPENAIP>
```

Declaration statement

Every .aip file starts with a standard XML declaration statement like the one below, followed by the root element <OPENAIP> that contains all other child elements.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes">
```

<OPENAIP> ... </OPENAIP>

```
<OPENAIP VERSION="369694" DATAFORMAT="1.1">
...
</OPENAIP>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
OPENAIP	child elements	The .aip XML root element.	-	yes	yes	1	yes	undefined

Attributes:

attribute name	type	description	required	possible values
VERSION	integer	Current openAIP database version.	yes	undefined
DATAFORMAT	numeric	Currently used data format version.	yes	undefined

<WAYPOINTS>...</WAYPOINTS>

```
<WAYPOINTS>
...
</WAYPOINTS>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
WAYPOINTS	child elements	This indicates the content type that is described in this .aip file. Use WAYPOINTS for airports.	OPENAIP	yes	yes	1	no	undefined

<AIRPORT>...</AIRPORT>

```
<AIRPORT TYPE="AF_CIVIL">
...
</AIRPORT>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
AIRPORT	child elements	Element that holds all information for one airport.	WAYPOINTS	yes	yes	1-n	yes	undefined

Attributes:

attribute name	type	description	required	possible values
TYPE	string	The airport type.	yes	value / description

value	description
AD_CLOSED	Aerodrome Closed
AD_MIL	Military Aerodrome
AF_CIVIL	Airfield Civil
AF_MIL_CIVIL	Airfield (civil/military)
AF_WATER	Water Airfield
APT	Airport resp. Airfield IFR
GLIDING	Glider Site
HELI_CIVIL	Heliport Civil
HELI_MIL	Heliport Military
INTL_APT	International Airport
LIGHT_AIRCRAFT	Ultra Light Flying Site

<COUNTRY>...</COUNTRY>

```
<COUNTRY>DE</COUNTRY>
```

XML element	data	description	XML parent	has	required	count	attributes	possible values

name	string		name	childs				
COUNTRY	string	The airport's ISO 3166-1 alpha-2 country code.	AIRPORT	no	yes	1	no	See ISO 3166-1 specs

<NAME>...</NAME>

```
<NAME>HAHNWEIDE</NAME>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
NAME	string	The airport name.	AIRPORT	no	yes	1	no	undefined

<ICAO>...</ICAO>

```
<ICAO>EDST</ICAO>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
ICAO	string	The airport's ICAO code.	AIRPORT	no	no	0-1	no	undefined

<GEOLOCATION>...</GEOLOCATION>

```
<GEOLOCATION>
...
</GEOLOCATION>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
GEOLOCATION	child elements	Element that holds geographical informations of an airport.	AIRPORT	yes	yes	1	no	undefined

<LAT>...</LAT>

```
<LAT>48.6317</LAT>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
LAT	numeric	Latitude value in decimals.	GEOLOCATION	no	yes	1	no	undefined

<LON>...</LON>

```
<LON>9.4294</LON>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
LON	numeric	Longitude value in decimals.	GEOLOCATION	no	yes	1	no	undefined

<ELEV>...</ELEV>

```
<ELEV UNIT="M">355.7016</ELEV>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
ELEV	numeric	The airport elevation.	GEOLOCATION	no	yes	1	yes	undefined

Attributes:

attribute name	type	description	required	possible values
UNIT	string	The unit.	yes	value: M — description: meters MSL

<RADIO>...</RADIO>

```
<RADIO CATEGORY="COMMUNICATION">
```

```
...
</RADIO>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
RADIO	child elements	Holds information about one frequency.	AIRPORT	yes	no	0-n	yes	undefined

Attributes:

attribute name	type	description	required	possible values
CATEGORY	string	The frequency category.	yes	value: description COMMUNICATION: Frequency used for communication INFORMATION: Frequency to automated information service NAVIGATION: Frequency used for navigation OHER: Other frequency purpose

<FREQUENCY>...</FREQUENCY>

```
<FREQUENCY>128.950</FREQUENCY>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
FREQUENCY	string	The frequency value.	RADIO	no	yes	1	no	undefined

<TYPE>...</TYPE>

```
<TYPE>FIS</TYPE>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
TYPE	string	The frequency type.	RADIO	no	yes	1	no	value: description AIRMET: APPROACH: APRON: ARRIVAL: ATIS: AWOS: CENTER: CTAF: DELIVERY: DEPARTURE: FIS: GLIDING: GROUND: ILS: INFO: LIGHTS: MILITARY: MULTICOM: OTHER: Used for uncommon frequency types RADAR: TOWER: UNICOM: VOLMET:

<TYPESPEC>...</TYPESPEC >

```
<TYPESPEC>MySpecialType</TYPESPEC>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
TYPESPEC	string	Special frequency type name. Used if frequency type is 'OTHER'.	RADIO	no	no	0-1	no	undefined

<DESCRIPTION>...</DESCRIPTION>

```
<DESCRIPTION>Langen Information</DESCRIPTION>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
DESCRIPTION	string	The frequency description.	RADIO	no	no	0-1	no	undefined

<RWY OPERATIONS="ACTIVE">...</RWY>

```
<RWY>
...
</RWY>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
RWY	child elements	Holds information about one runway.	AIRPORT	yes	no	0-n	no	undefined

Attributes:

attribute name	type	description	required	possible values
OPERATIONS	string	Current runway operations.	yes	value: description ACTIVE: Runway is active and can be used. TEMPORARILY_CLOSED: Runway is temporary closed and can not be used. CLOSED: Runway is closed.

<NAME>...</NAME>

```
<NAME>07/25</NAME>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
NAME	string	The runway name.	RWY	no	yes	1	no	undefined

<SFC>...</SFC>

```
<SFC>GRAS</SFC>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
SFC	string	The runway surface code.	RWY	no	yes	1	no	value: description ASPH: Asphalt CONC: Concrete GRAS: Grass GRVL: Gravel ICE: ICE SAND: Sand SNOW: Snow SOIL: Soil UNKN: Unknown WATE: Water

<LENGTH>...</LENGTH>

```
<LENGTH UNIT="M">519.9888</LENGTH>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
LENGTH	numeric	The runway length.	RWY	no	yes	1	yes	undefined

Attributes:

attribute name	type	description	required	possible values
UNIT	string	The unit.	yes	value: M — description: meters

<WIDTH>...</WIDTH>

```
<WIDTH UNIT="M">29.8704</WIDTH>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
WIDTH	numeric	The runway width.	RWY	no	yes	1	yes	undefined

Attributes:

attribute name	type	description	required	possible values
UNIT	string	The unit.	yes	value: M — description: meters

<STRENGTH>...</STRENGTH >

```
<STRENGTH UNIT="M">29.8704</STRENGTH>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
STRENGTH	string	The runway strength.	RWY	no	no	0-1	yes	undefined

Attributes:

attribute name	type	description	required	possible values
UNIT	string	The unit runway strength unit/notation.	yes	PCN: ACN-PCN-Notation; MPW: Maximum permitted weight in tons (t)

<DIRECTION>...</DIRECTION>

```
<DIRECTION TC="176">
...
</DIR>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
DIRECTION	child elements	Holds information about one runway direction.	RWY	yes	yes	1-n	yes	undefined

Attributes:

attribute name	type	description	required	possible values
TC	integer	The runway heading as true course.	yes	TC: True course of runway in degrees.

<RUNS>...</RUNS>

```
<RUNS>
...
</RUNS>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
RUNS	child elements	Holds information about one runway direction runs.	DIRECTION	yes	no	0-1	no	undefined

<TORA>...</TORA>

```
<TORA UNIT="M">520</TORA>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
TORA	integer	Take-off run available for this runway direction.	RUNS	no	no	1	yes	undefined

Attributes:

attribute name	type	description	required	possible values
UNIT	string	The unit.	yes	value: M — description: meters

<LDA>...</LDA>

```
<LDA UNIT="M">450</LDA>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
LDA	integer	Landing distance available for this runway direction.	RUNS	no	no	1	yes	undefined

Attributes:

attribute name	type	description	required	possible values
UNIT	string	The unit.	yes	value: M — description: meters

<LANDINGAIDS>...</LANDINGAIDS >

```
<LANDINGAIDS>
...
</LANDINGAIDS>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
LANDINGAIDS	child elements	Holds information about one runway direction landing aids available.	DIRECTION	yes	no	0-1	no	undefined

<ILS>...</ILS>

```
<ILS>111.11</ILS>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
ILS	string	ILS frequency for runway direction.	LANDINGAIDS	no	no	0-1	no	undefined

<PAPI>...</PAPI>

```
<PAPI>TRUE</PAPI>
```

XML element name	data string	description	XML parent name	has childs	required	count	attributes	possible values
PAPI	string	Precision approach path indicater available for this runway direction.	LANDINGAIDS	no	no	0-1	no	TRUE