

X-PLANE

FIX (INTERSECTION) FILE SPECIFICATION

VERSION 600

REVISION HISTORY

12 July 2009 Spec converted to this new format to support new web site (<http://data.x-plane.com>).

APPLICABILITY

This specification (XP FIX600) is supported in X-Plane 6.00 and later (currently, X-Plane 9.30). It is identified in the data files as “600 Version” on the second row of the file. Note that although the file specification has remained unchanged for many years, earlier versions of X-Plane had a constraint on the maximum number of fixes that could be contained in this data file. That constraint is removed in X-Plane version 8.50 and later.

OVERVIEW & SCOPE

This specification defines all fixes (also known as intersections) X-Plane. The effect of this data is to:

- Allow these fixes to be selected in X-Plane’s GPS and FMC systems.
- Display the fixes on X-Plane’s charts.

BASIC CONCEPTS

- Latitudes and longitudes are described in a decimal notation (eg. 20.12345678).
 - A latitude of 50 degrees 30 minutes south would be defined as -50.50000000
- North latitudes and east longitudes are positive. South latitudes and west longitudes are negative.

FILE CHARACTERISTICS

The earth_fix.dat files are plain text files:

- Fields in the data can be separated by one or more white space (space, tab) characters.
- By default, the files are generated so that columns of data are consistently aligned, but this is not required.

FILE STRUCTURE

In common with most other X-Plane data file specification, header rows of data define the origin ("I" = PC or "A" = Mac) of a particular copy of a file, and define the file specification version. The file specification may be followed by a reference to a sequential release data cycle and build number for the data, and a copyright message:

```
I
600 Version - data cycle 2009.01, build 20081054, metadata FixXP700. Copyright © 2009, Robin A. Peel (robin@xsquawkbox.net)...
```

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Subsequent rows of data define each nav-aid. Sequence is not important, but by default this file is sorted by row code, then by nav-aid name.

The file is terminated by a '99':

```
99
```

ROW CODES

Unlike other data files, no 'row codes' are used for fix data, since the file contains just one type of data.

EXAMPLE DATA

Here is example data for a fixes:

37.428522 -097.419194 ACESI

DEFINITION OF DATA FIELDS

Each column in each row is defined below, using the example data from shown above. Note that:

Row	Meaning <i>Example value</i>	Comment <i>Explanation</i>	<i>Valid values</i>
[none]	Fix	Fix or IFR intersection	No row codes are used, since all data refers to fixes
	37.428522	Latitude of NDB in decimal degrees	Eight decimal places supported
	-097.419194	Longitude of NDB in decimal degrees	Eight decimal places supported
	ACESI	Name of fix	Usually five characters. Unique within an ICAO region.

FURTHER INFORMATION

Resources are available for airport designers on my web site at <http://data.x-plane.com>