Enhancement of AIFP for UTLive Compatibility

AIFP has been enhanced to read and write UTLive .xml ("UTX") flight plans so that they be analysed using AIFP as if they were TTools-based. These flightplans are loaded and saved in exactly the same way as .txt filesets - but with the .xml file extension, of course. There are, however, a few issues that must be considered:

- UTX flight plans are point-to-point. TTools flightplans are "circular"; that is, the destination airport of the final leg becomes the originating airport for the initial leg. Therefore, AIFP "closes" UTX flightplans (when necessary) by adding an additional leg with the flight number set to -1. This additional leg is necessary for any editing/analysis of UTX flightplans, but is ignored when written back into .xml format.

  However, if UTX flightplans are intended to be compiled or saved as TTools filesets, unless the associated UTLive aircraft is installed, you will need to edit that closing leg to at least set a reasonable arrival time.

- UTX flightplans do not use:
  - Aircraft Reference Numbers
  - Repeat Period (week is assumed, with Sunday being "day 0")
  - A/C Registration (set to "n/a")
  - Activity Level (set to "n/a")
  - Leg Altitude (set to "n/a")
  - ATC Callsign (assumed to be flight number)
  - IFR/VFR

  The affects of the absence of these fields has not been fully analysed and, so, may affect editing/analysis of flightplans in unexpected ways.

- UTX flightplans do not refer to aircraft using a numerical reference. Instead, the flightplan contains an aircraft type mnemonic and IATA airline and operator codes. Individual aircraft titles are formed as follows:

  aircraft code **.** *airline* **.** *operator*

  AIFP searches for installed UTLive aircraft using this technique and assigns an aircraft reference number in the flightplan based on the position of the aircraft (whether or not found) in the Aircraft List.

  As well, UTLive appears to make non-standard use of the aircraft.cfg [fltsim.x] "sim" field. Consequently, for the time being at least, UTLive aircraft will have to be installed manually and caution should be exercised when editing an UTLive aircraft.

- UTX flightplans include both UTC and local times and a country code for each airport. While AIFP could save these values, they may be of little use if flight plans

are edited. Consequently, AIFP discards this data when UTX flightplans are loaded. When saved back to .xml format, local times are computed in the usual manner and country codes are derived from a new database entitled "country.txt" which identifies the standard 3-letter code for each country. Limited testing indicates these are the country codes UTLive uses. There is an entry in that database for every country included in FSX/P3D stock airport data. However, if UTX flightplans include any other countries, it will be necessary for you to make additional entries in country.txt for them. (AIFP reports missing country codes and UTC offsets).

- Finally, UTX flightplans include a "group number" as the final field. This number appears to be arbitrary and not used in the operation of the flight plans other than for associating related plans. AIFP also ignores that entry when loading UTX flightplans, but collects associated UTX flightplans as legs of an AIFP flightplan. When later saved back to .xml format, all UTX flightplans that are created from legs of given AIFP flight plan are assigned a common group number. By default, that group number is the AIFP flightplan number. However, users are given the opportunity to enter an offset which is incremented for each AIFP flightplan.

This enhancement has been developed with limited information of UTLive operation and formats and has received limited testing. The loading and save function seem "solid". But issues in flightplan editing and analysis and aircraft editing are more "user-dependent", so I look to you to exercise the new release and report back to me any issues encountered, no matter how seemingly minor – either directly via e-mail or by posting in the fsDeveloper or AIG forums. When doing so, please provide sufficient information (flight plans and detailed instructions) to allow me to replicate the issue. Incidentally, the matter is time sensitive. I expect to be away from my development system for an extended period beginning in late October.

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