

## IGC Shell program for management of IGC flight data files

The IGC Shell program is free and provides Validation and other functions for IGC flight data files. The program is compatible with MS Windows and its first version was produced in 2001 by GFA Committee member Marc Ramsey.

The IGC electronic Validation program. This checks that the IGC file has originated correctly from a properly sealed IGC Flight Recorder, and that the flight data in the file is identical to that which was originally downloaded. If only one character in the flight data is different to that which was downloaded immediately after flight, the file will fail the IGC Validation check. It will also fail if the recorder has been tampered with, or is unserviceable.

Download function. With some types of FRs the IGC Shell program is also used for downloading IGC flight data files from the FR. If the type of FR uses a binary format for the downloaded file, the IGC Shell program is used to convert from binary to the ASCII-based IGC file format.

Details of IGC Shell - are in Appendix C of the Technical Specification for IGC Flight Recorders.

Availability. The IGC Shell program is available as a download in this section, together with individual FR manufacturers' Dynamic Link Library (DLL) files. The DLL files provide the Validation and other functions for a particular type of Flight Recorder when they are in the same directory as IGC Shell.



Method - Stage 1: Make sure that the manufacturer's DLL file for your type of FR is in the same directory as the IGC Shell program. On executing the IGCshell.exe file you should see the screen shown in the picture. Select the appropriate FR manufacturer and FR name by scrolling through the list in the top box of the screen. Then select the function required (Validate, Download etc).

Download function. Where downloading uses the IGC Shell program (some FRs download directly to an SD card or memory stick), click on the "Set Directories" button and set the Download Directory in which you want the IGC file to be stored. Also set the COM port on your PC that will be used to connect to the Flight Recorder. Then press the "Download" button on the screen under "Flight Logs".

Validate function. This can be used at any time to check an individual IGC file that is on your computer or memory stick. Select "Validate" on the right-hand side of the IGC Shell screen and use the menu that appears to find the IGC file that you wish to Validate. Click on it to display the result. Only IGC files that pass this Validate test may be used for validation of the overall flight performance to IGC standards. If this Validate test fails, repeat the download process from the FR and try again. Electronic Validation is only the first stage of the overall flight validation process, it must be shown that other IGC rules and procedures are followed such as proof of presence of the FR in the glider for the claimed flight, procedures for pre-flight Declaration (where required), valid GPS fixes in Observation Zones for Start, Turn Points, Finish etc.

Manufacturer's Files other than DLLs. For some recorder designs of the 1990s, a number of FR manufacturers have not produced a DLL file to work with the IGC Shell program. Therefore, the earlier generation of DATA, VALI and CONV files are also provided on this web site for these types of FR.

These older DOS programs provided by manufacturers are 16-bit programs, which will not run on modern 64-bit PC Operating Systems which are now becoming the norm. This problem does not affect 32-bit Operating Systems.

For a solution to this restriction, visit:

[https://www.fai.org/sites/default/files/frs\\_without\\_dll\\_2.pdf](https://www.fai.org/sites/default/files/frs_without_dll_2.pdf).

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