



# FTOOLS

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## Abstract

This package contains parameter files and layout files for some common FTOOLS, so that they can be run from the SAS Graphical User Interface (GUI).

## 1 Running FTOOLS

The SAS GUI provides limited support for running FTOOLS, in addition to native SAS tasks, although they are naturally not as well integrated.

This package contains SAS parameter files and layout files for some common FTOOLS. These customise the parameter dialogs to make best use of the SAS GUI.

When the FTOOL is started from the GUI, it is passed a command line containing a complete set of parameters as defined in the custom parameter file. The parameter type in the custom SAS parameter file can, for example, be an SAS 'file' or 'set', when the FTOOL parameter file specifies a 'string' parameter. The FTOOL interprets the parameters using its own parameter files.

There are some limitations on the use of FTOOLS (see below).

## 2 Configuration

The directory `$SAS_DIR/config/ftools` should be placed at the start of your `SAS_PATH`:

```
setenv SAS_PATH $SAS_DIR/config/ftools:$SAS_DIR
```

This causes the supported FTOOLS to appear on an 'ftools' sub-menu of the 'Task' menu.

The SAS GUI should not be placed in the background (with '&') when it is started. It is then possible to respond to prompts from tools, by typing in the terminal window from which the SAS GUI was started.

## 3 Limitations

Please note the following limitations:



- FTOOLS do not allow string parameters to be assigned an empty string on the command line. For example, the following is not allowed.

```
fxxx foo='' bar=42
```

is parsed as:

```
fxxx foo='bar=42'
```

Consequently empty string parameters should be avoided in the parameter dialogs. The customised parameter files in this package use a single space " " or a question mark "?" to avoid this problem. You should be aware that if this character is deleted, the FTOOL can incorrectly parse the resulting command line.

- The user can only respond to prompts from a task by typing in the terminal window from which the SAS GUI was started (provided that the GUI was not placed in the background). However, prompting should not normally occur, because the GUI provides *all* task parameters when it launches an FTOOL. A tool may sometimes prompt for input as a result of incorrectly parsing an empty string argument. Note also that the SAS GUI line-buffers output from a task; consequently prompts are not displayed until after the response has been typed!
- The GUI enforces the types of parameters. For example, it is not possible to enter a string for a numeric parameter. Similarly, 'INDEF' cannot be used to denote an undefined value. Numerical parameters requiring 'INDEF' should be treated as string parameters by the GUI.
- The GUI does not use the PFILES environment variable to locate FTOOLS parameter files. Some FTOOLS *set* parameters in the PFILES directory. When run from the GUI, an FTOOL uses its own parameter file to determine the type of each parameter, but ignores the default values in its parameter files, because the GUI specifies *all* parameters on the command line.

## References