NAME
Xgremlin – FTS spectrum analysis program.

SYNOPSIS
xgremlin [-mono]

DESCRIPTION
Xgremlin is used for the analysis of interferograms and spectra measured with Fourier transform spectrometers. Recent additions allow the analysis of spectra obtained with grating spectrographs. **Xgremlin** is a port to the UNIX / X window environment of the FTS decomposition program **Gremlin** for PCs running MS–DOG written by Jim Brault (NOAA). A comprehensive manual is distributed together with the source code of **Xgremlin.**

OPTIONS
The **mono** option may be useful if **Xgremlin** is run on a monochrome display. With this option dashed lines are used for imaginary data and the phase confidence interval to make them distinguishable from other plotted data. It is usually most convenient to start xgremlin as a background process as follows:

xgremlin &

FILES
Xgremlin requires a number of data and configuration files which must be installed before the program can be used. When **Xgremlin** is started the program first reads and executes a system wide initialization file and then a user specific startup file. The system wide configuration file is:

/usr/local/xgremlin/xgremlin.conf

This file contains default settings that apply to all users on a particular system. Each user can configure **Xgremlin** individually by putting **Xgremlin** commands in a local startup file

.xgremlinrc

which lives in the users' home directories. The data files for the help system are all in HTML format and live in the directory

/usr/local/xgremlin/html

Xgremlin is capable of rendering the content of its plotting window as a color Postscript file. The Postscript file is written to the home directory and is given the name

xgremlin–<number>.ps

where **<number>** is the process id of the **Xgremlin** program that creates the file (e.g. **xgremelin-356.ps**).Once the Postscript file is written, **lpr** is started as a a background process and carries out the task of actually printing the 'screen dump'. **xgremlin_print** is a shell script that can be adapted easily to the local printer setup. If a Postscript printer is available it will simply copy the screen dump to the printer, otherwise it might e.g. call the Postscript interpreter **Ghostscript** to print the screen dump on (almost) any printer. Every session of **Xgremlin** creates a log file in the user'ss home directory. Session logs have file names such as

xgremlin-12Jun95-22:30.log

where the time is the startup time of the program. Finally, **Xgremlin** creates a directory (by default

xgremlin-scratch

in the home directory) to keep scratch files for temporary data storage.

X RESOURCES

Like most programs written for the X Window system **Xgremlin** requires a database with application resources. All program specific resource definitions are contained the application resource database **Xgremlin** (like the program itself but with uppercase X). This file must be installed in the directory

/usr/lib/X11/app-defaults.

ENVIRONMENT VARIABLES

The location of some files may be changed from the default directory **/usr/local/xgremlin** by setting the following environment variables:

XGREMLIN_CONF_PATH : directory where the system wide configuration file is located

XGREMLIN_LOG_PATH : location of the session log files

XGREMLIN_SCRATCH_PATH : where the scratch file is created

XGREMLIN_PRINT_COMMAND : by default **Xgremlin** uses the 'lpr -P' command for printing the screen dump Postscript files. The name of the printer following the -P option is filled in by **Xgremlin** (may be set with 'printer' command). If the machine **Xgremlin** is running on has a different print command (as is e.g. the case with AIX) it can be set in this environment variable.

KUDOS

Xgremlin is based on the FTS analysis program **Gremlin** by Jim Brault and much of the code is taken verbatim from **Gremlin.** The manual for **Gremlin** and **Xgremlin** was contributed by G. Nave, NIST and A. Thorne, Imperial College, London.

BUGS

Xgremlin is probably rather similar to its predecessor **Gremlin** in that respect. Bug reports should be sent to:

Ulf Griesmann, NIST (ulf.griesmann@nist.gov)