

Model 5961-005 Overlay & Concatenation Utility

Version 1.2

Uncomplicated Reduction of Post-processed Data

Features

Choice of interactive or “unattended” batch operation for high-speed plotting

Contiguous Set strategy for specifying range of channels to plot, OR

Random/Manual strategy for selection of individual channels to plot

Individual channel selection provides complete flexibility in data source selection

Results plotted in user-configurable formats

“Channel-slaving” capability selects and compares the same channel from two different tests

Autoscale or Manual scale of X and Y plots

Linear or Logarithmic plot formatting

Produces automatic or user-specified hard copy of plots

Ordering Information

Model 5961-005



Acquiring, Processing and Managing the World's Data.

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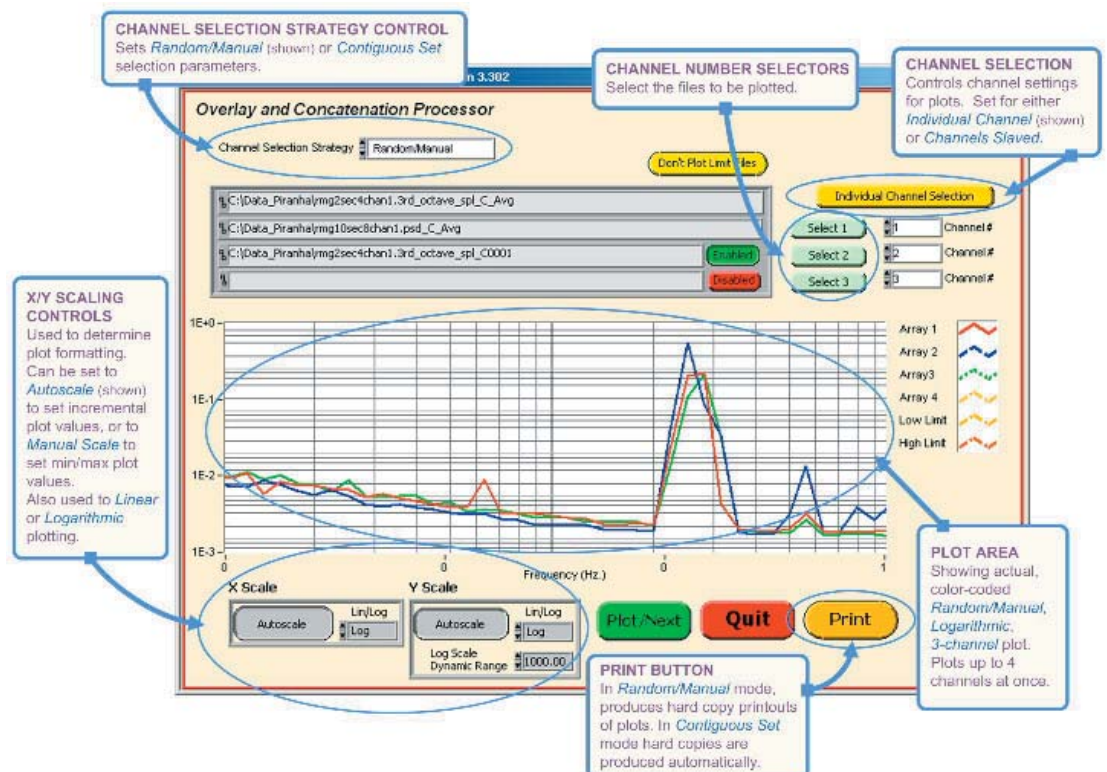
The Overlay and Concatenation utility is a component of the Piranha III, DataFlex-500 and DataFlex-1000 system suites. It is an analysis and display processor that further reduces data that has been analyzed by DSPCon system post-processors. For input, it uses the CATS or DATX files produced by the post-processors and overplots/superimposes data from several CATS or DATX output files. (See reverse for a brief discussion of CATS/DATX files.)

The utility offers both interactive data source selection/analysis and “unattended” batch operation for high-speed plotting.

Its Channel Selection Strategy feature can be used to choose either Random/Manual or Contiguous Set plotting. **Random/Manual** provides two settings—*Individual Channel Selection* and *Channels Slaved*. With the *Individual Channel Selection* control, you can set any channel to plot from each of the files you select—this provides complete flexibility in data source selection. *Channels Slaved* is used to select and compare the same channel from two different tests. **Contiguous Set** generates controls for setting the first and last channels to be plotted. Just enter the desired parameters and the system automatically retrieves and plots the data, and skips over channels that don't exist in the range specified.

The Overlay and Concatenation utility also formats the X and Y axes of the selected channel(s) for Linear or Logarithmic plotting. Either type of plot can be set to scale automatically or manually. *Autoscale* automatically sets the plot maximum to a value incremental to the data range. *Manual Scale* sets the scale to user-specified minimum and maximum values for the data range.

The Main Window Defined



A Note on CATS and DATX Open Standard Files

The CATS File Format

The intent of the CATS standard file is to provide a format for the storage of experimental data that is self-documenting and efficient from both a storage and an access standpoint. It has the following features:

Each file contains the data from one channel.

Each file is made up of two principal sections:

THE HEADER – is a keyword-based, ASCII table that contains the “pedigree” of the data set. Several hundred key words have been defined, but basic analysis requires a relatively small set.

THE DATA – is stored in a format described in the header. Normally, time histories are stored in 16-bit binary form (raw A/D counts). Analysis results are normally stored in ASCII form to allow ready access by a number of programs.

The CATS INDEX FILE links the individual files into a set.

Keywords, and their values, can be arranged in any order in the header. More than 150 keywords that describe test conditions, acquisition variables, and analysis parameters have been defined.

The DATX File Format

DSPCon Data Acquisition Systems write acquired data to files with a special format known as “DATX”. The DATX standard data file format extends the CATS standard format to support multiple data channels within a single data file in a manner optimized for dynamic data acquisition systems.

The DATX file format is designed to store recorded binary data and all additional information needed to interpret recorded data in a single file. This additional information is placed in the beginning of the file and designated as the file header. The file header is a list of keywords with their values.

The DATX file format is a multi-channel data storage file format. Data recorded from multiple sources is stored in a single file. The DATX file header is divided into multiple sections – one section per channel. Each of the file header sections contains the same set of keywords with values that correspond to the channel.

For detailed information on the CATS and DATX file formats, please visit the Technical Library section of our website, www.dspcon.com.



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