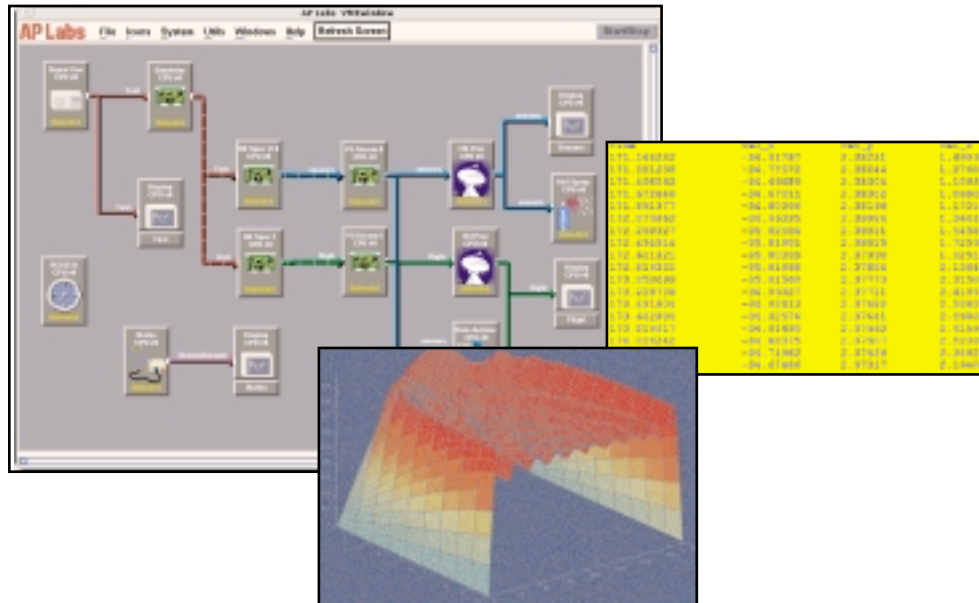


## Postgen



### Interface VMEwindow<sup>®</sup> data to third-party analysis packages

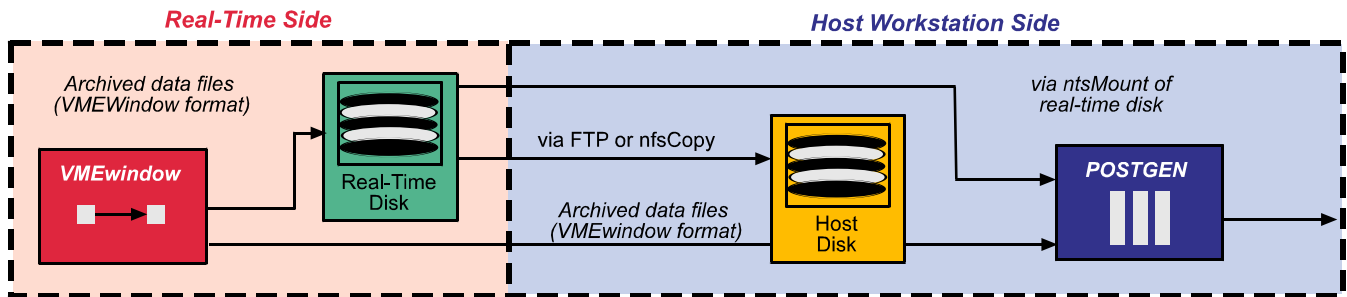
*Postgen* is a software utility designed to provide an easy transition between VMEwindow archived data files and many third party post-processing analysis packages including MATLAB, PV-WAVE, DaDisp, BBN/Probe, etc.

*Postgen* is a stand-alone program which takes as input a VMEwindow archive data file (set of files) which is visible to the host workstation and produces an ASCII file representing columns of user-selected parameters with the associated time tags. The ASCII output file is immediately suitable for importing by any commercial data analysis software that can read in columns of ASCII numbers.

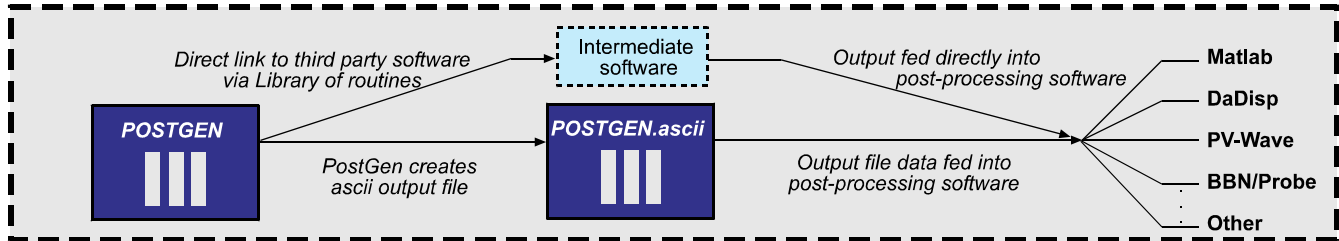
*Postgen* comes complete with all source code and a set of user-callable library routines. The library provides the user with the capability of creating a custom application program that allows third party analysis software direct access to the VMEwindow archived data files, thus eliminating the intermediate step of running *Postgen*.

Upon execution, the user chooses the desired options (e.g. which streams, which parameters, what output format, etc) and *Postgen* creates an output file containing the chosen streams and parameters as well as the associated time line. All output files contain complete columns of parameter values and time points and are immediately loadable by most post-processing software.

- Support for Raw, Processed and Generic Data streams
- Support for both synchronous and asynchronous streams
- Outputs only user-selected streams and parameters
- Supports multiple parameters, multiple streams on the same time-line; multiple streams can be written to separate files
- Wide variety of output formats including: floating point, decimal, hex and octal
- IRIG or floating point output format for time display. Floating point display specified in seconds, milliseconds or microseconds
- Source code and object library provided to facilitate creating a direct connection to third party software
- All software ANSI compliant



**Figure 1. Importing data into PostGen**



**Figure 2. Importing data to third party software**

Figure 1 above shows how Postgen can be incorporated into a VMEwindow system. From the real-time side, VMEwindow is used to archive the data files. If the files are archived to the host-side disk, then Postgen is ready to run. If the files are archived to a real time disk, they must be copied over to the host-side disk via FTP or nfsCopy. An alternative to this is to nfsMount the real-time disk from the host, thus allowing Postgen direct access to the real-time disk.

Either way, once Postgen has access to the VMEwindow archived data files, it will create an ascii file that can be directly read in by most post-processing software (Figure 2). The post-processing software now has direct access to the VMEwindow archived stream data. The only requirement on the post-processing software is that it be able to read in columns of ascii numbers.

**Input Requirements:**

- VMEwindow set of archived data files. Files must reside on host-side disk (or be on real-time disk, nfsMounted from host)
- User Selected Inputs:
  - Desired Streams
  - Desired Parameters
  - Output Time Format: Floating Point (Seconds, Milliseconds, Microseconds)
  - Output Data Format: Floating Point, Decimal, Hex, Octal, Raw
- Data Display
  - Output File Name
  - Beginning/End Time of Output

**Output:**

- Columns of ascii data (including a time column), each column representing a chosen parameter
- A log file specifying the inputs used in creating the ascii file as well as the return status

**Executables:**

- *Postgen* - Program designed to create ascii output files from VMEwindow archived data file
- PgDefs - Program designed to display the streams and parameters contained within a VMEwindow archived data file.
- PgVerifySizes - Simple utility to verify that *Postgen's* data structures are the same as the ones used in creating the archived files

**Source Code:**

- All source code to *Postgen* is provided to enable tailoring by the user
- Set of user-callable library routines

**Compiling Options:**

- Optional flag for exponential notation provides 15 decimal places of accuracy
- Optional flag allows for processing of asynchronous streams
- ANSI (gcc) or non-ANSI (native cc) compiler may be used