Q: How do I transfer simulator data into ETS2k?

Vector Translation with CaeLink

Any column-oriented ASCII test vectors can be converted to HiLevel vectors using the **CaeLink** translator accessed from the **Translators** window (Main sidebar). These vectors may have come from a simulator or from another test platform. From whatever source, data must be in ASCII form and vectors delineated in a manner that will insure uniform columns representing either one or four tester channels (binary or hex). We refer to this as õcolumn-oriented vectorsö. Simply by composing a brief header at the top of this ASCII file we can process it for download into the HiLevel system.

This example shows a simple header above a partial vector file, illustrating the minimum commands required for translation. Many more commands are available for translating more complex vectors and the use of these advanced commands is covered fully in the ETS2k User Manual and online Help.

```
$Q
$O
31,27,28,29,30,25,10,11,12,13,14,26,16,15
;            C    C C
;          TQQQQPEPPPPPEML
;          C3210EP3210TRK
$F         OOOOOIIIIIIIII
$D
PC  ADDR PROM 1
0000 0000 0000011000010100 0614 003024
0001 0001 0000111000011100 0E1C 007034
0002 0002 0001011000011100 161C 013034
0003 0003 0001111000011100 1E1C 017034
0004 0004 0010011000011100 261C 023034
```

CaeLink example - Partial Vectors

The $Q command signifies õQuick Modeö, meaning one line per vector. The $O command defines the õOrderö of tester channels (left to right) into which the translated data will be downloaded. The columns in the source file associated with the Order statement are only those aligned with characters in the $F õFormatö command; no other columns are converted into vectors.

The $F õFormatö command establishes the direction and behavior of each õpinö of vector data. An õIö or õOö indicates an input or output pin, while a õBö signifies a bidirectional pin. There are several other Format characters available and described in the User Manual, Section 4. Finally, the $D command tells **CaeLink** that the header has ended and that everything appearing from this point on is to be translated.

Semi-colons are used to mark comments, such as the pin names in our example, but if any untranslatable characters appear as the first character on any given line in the body of the file, the entire line is skipped.
Translatable characters are:
Binary: 0,1,H,L,Z
Hex: 0,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F,Z

Other characters can be mapped to translatable characters using the $C command.

CaeLink can also generate a Pattern Generator program (for looping and jumping) using $L, and can also create a comment file that would appear in the Vector display of ETS2k. Use $N on a line by itself to automatically generate a comment file. See User Manual Section 4 for details.

After the header is completed simply save it as an unformatted ASCII file with the extension õ.vecö.   Invoke the **CaeLink** translator from the Translators window and enter the input filename.   You can use the troubleshooting guide in the ETS2k online Help if there are any translation errors reported.   The translated file will have the extension õ.trnö and must be downloaded into tester vector memory from the **Vector** pull-down drawer on the command bar of ETS2k, or by clicking the appropriate button on the toolbar.   If your pins have been defined in **Pin Setup** and the õ.setö file is loaded, the translated vectors will then appear in the **Vectors** window.

The **CaeLink** translator is easy to use and is only one way of creating vectors for your device.   See these User Manual sections for other Vector information:

Section 9: Vectors
Section 10: Vector Graph
Section 12: AutoLearn
Section 25: Miscellaneous
Appendix A

Also see
Q'nApps #E7: PatGen looping
Q'nApps #E8: Pattern matching
Q'nApps #E16: ETS2k files