TRANSPUTER TOOLSET UPDATE

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The theme for this release is **I/O, I/O its off to work we go!** The following are the highlights:

* A command line driver program (TCC), has been added to automate the compilation, assembly and linkage of programs. See the "TCC Command Line Driver User Guide" documentation for information about using this program.
* "Software Virtual Channel" support has been added. This "strict" emulation of the new T9000 facility allows application programs to use virtual channels in a manner which will work with both the T9000 and earlier Transputers which lack the direct hardware support. See the library documentation for explanations and an example program. See the LD-NET and CIO documentation for more information.
* Application program host I/O may now be performed from any process, on any node. See the CIO documentation for additional information. Due to the changes required to permit multithreaded support, existing Transputer programs should be re-compiled, and linked with the new libraries, for proper operation with the new CIO.
* LD-NET has been enhanced to support completely general load and reset topologies.
* LD-NET has been enhanced to allow automatic generation of "boot-from-rom" code. Each node may have an individual ROM, or one node with a ROM may boot connected nodes using the standard "boot-from-link" approach, or any mixture of the two. External memory configuration programming is also supported.
* LD-NET has been enhanced to allow the creation of host system independent "binary" files for loading Transputer networks. Given the availability of a host system "C" compiler, and a "link.c" compatible device driver, the same code may be used on ANY host system to bootstrap and load a preconfigured application program.
* TCX has had a number of small improvements made and has a new "-fr" flag to optionally allow "round-to-nearest" behavior for floating point to integral conversions. This option is not ANSI compliant, but generates faster Transputer code, and is helpful in some types of numerical coding.
* The low level "handle" I/O routines now have predefined "mode" macro definitions which conform to the POSIX specifications. See the library documentation for "open" and "creat" for further information. The actual macro definitions are in the new "fcntl.h" include file.
* Channel I/O functions now use "void *" pointers for input and output buffers. Functions to be spawned as parallel processes now have prototype return types of "void".
* LD-ONE and LD-NET now support "-v" command line switches.
* Borland C++ V2.0 and Microsoft V6.00a are now supported by all makefiles for building PC versions of the sources.