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HUNT ENGINEERING

Server/Loader Plug-in for Code Composer Studio

USER MANUAL

Software Version 4.07
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P.Warnes 22/11/02

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What does it do for me?

Code Composer Studio is a generic development tool for the C6000 DSP. As such it cannot have any knowledge of the individual hardware system that you are using.

The HUNT ENGINEERING Server/Loader is a tool that allows booting of your C6000 system using the HERON FIFOS, and configuration of your FPGA based modules and your HEART network. It also offers access to the STUDIO resources of your Host PC via the high performance HERON-FIFO interface.

It is intended for systems that require fast access to the Host STUDIO resources and/or projects that will, in the final deployed system, be booted without running Code Composer.

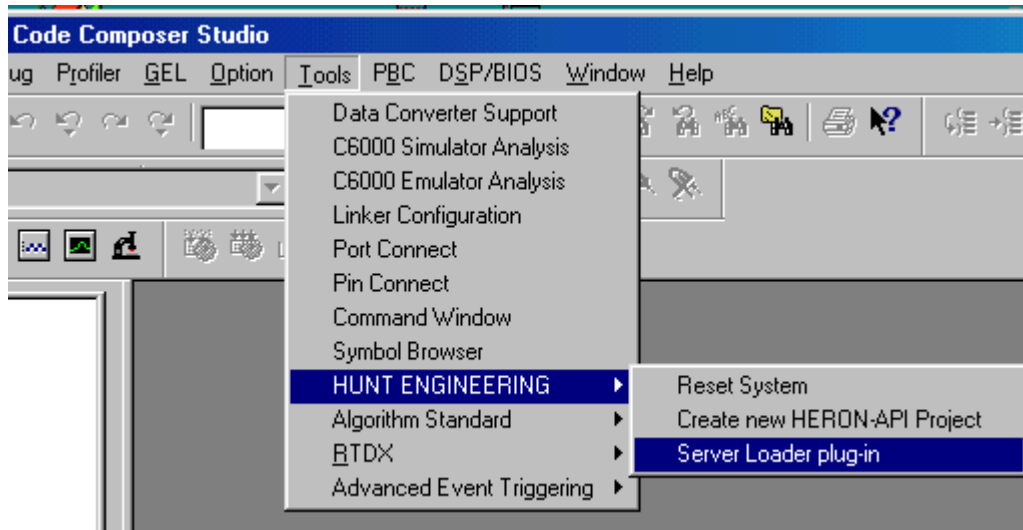
See the separate user manual for the Server/Loader for more details.

The Server/Loader plug in is a tool that makes it easy to develop Server/Loader applications from within the Code Composer environment. When development is complete, no changes need to be made to your project to be able to run the Server/Loader from outside Code Composer.

How is it shipped?

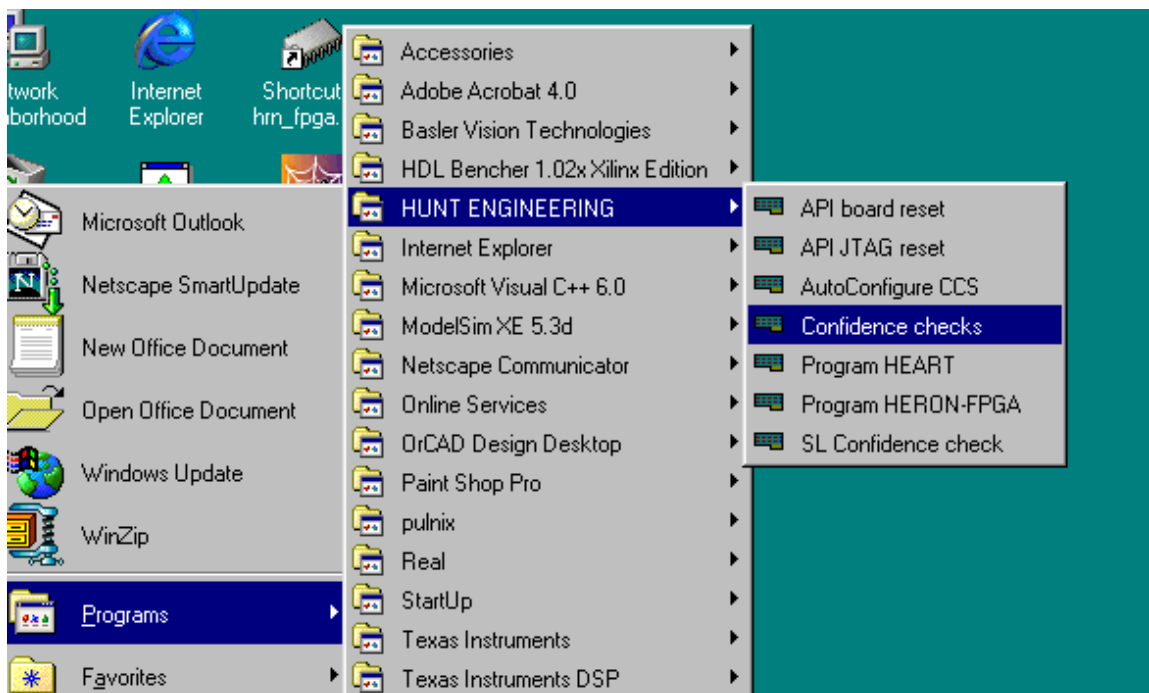
The Code Composer Studio plug ins are installed on a windows system by the HUNT ENGINEERING C6000 Software Developers Pack installation. Code Composer Studio is not supported under other operating systems so the plug ins cannot be supplied for them.

The HUNT ENGINEERING Plug ins can be found when you are in Code Composer under Tools--> HUNT ENGINEERING

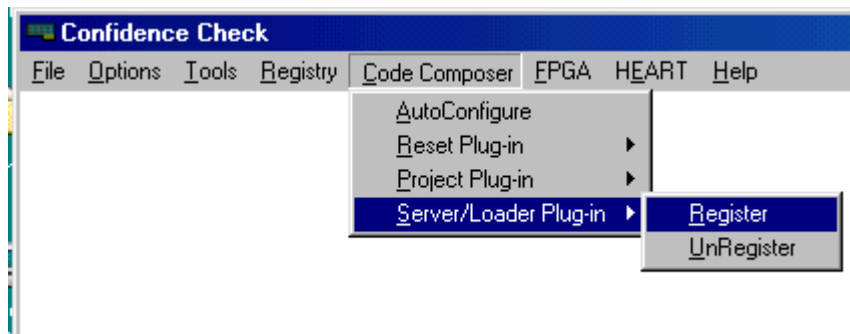


The installation process should register the plug ins with Code Composer Studio, but if it is missing from the Tools menu item the plug in can be registered using the HUNT ENGINEERING Confidence Check program.

This is found from the Start→programs→ HUNT ENGINEERING menu from windows

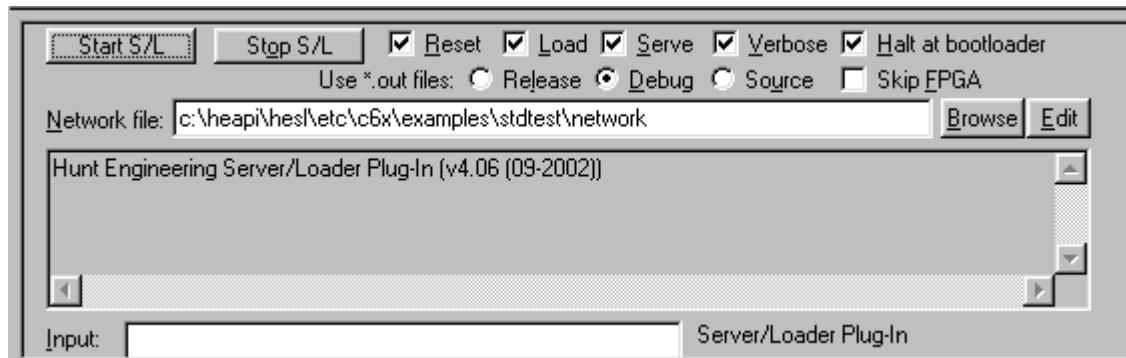


From there you can choose Code Composer → Reset Plug in → register, to register the plug in by hand.

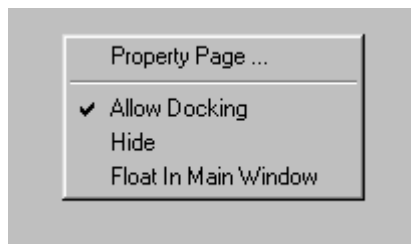


How do I use it?

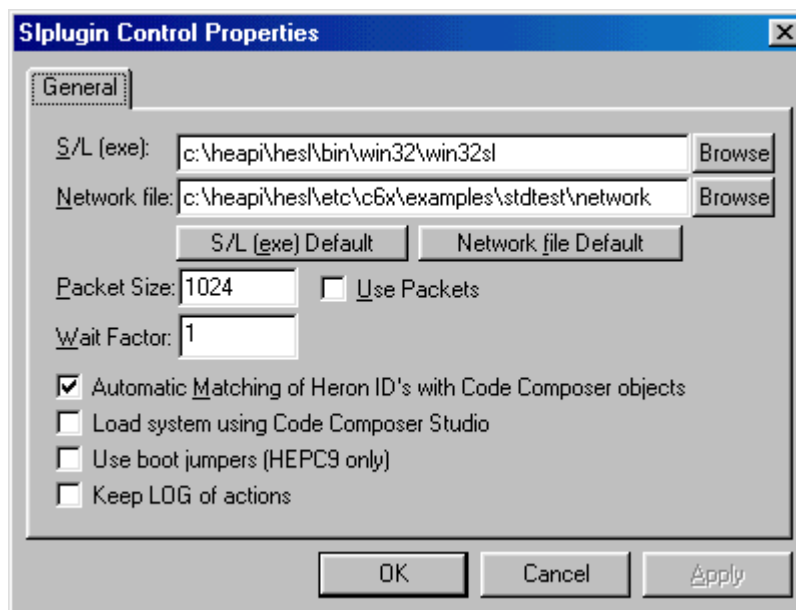
When you select the Server/Loader plug in from the Code Composer Tools → HUNT ENGINEERING menu the plug in will appear as a window at the bottom of your Code Composer window.



To configure how the tool will work you can right click your mouse on the background of the plug in to get the menus



Then select Property Page to see



From there you can choose the various settings as required. These settings are further explained in more detail in the Server/Loader manual.

Returning to the plug-in, you need to select the network file that is associated with your project. You can use the browse button to navigate and select one.

See the following section and the separate Network file manual for more details about network files.

After setting the options using the tick boxes on the plug in, you can run the server/loader by pressing the Start S/L button.

This will perform a hardware reset of the system (so there is no need to use the reset plug in at the same time as the Server/Loader plug in), will boot the DSPs and or FPGA's as selected, and will configure HEART. It will then load the symbols associated with the DSP code, so that it can be debugged properly using Code Composer.

The DSP applications have a bootloader function that will wait for a message from the Server/Loader to indicate that the DSPs can start to run. If you chose Halt at bootloader then the plug in will stop each DSP at the bootloader function where you can run them as and when you wish. Otherwise the system will start to run as soon as the loading is complete.

If you want to re-compile and re-run as is often the case, you must stop the Server/Loader using the Stop S/L button before re-running the Server/Loader with the Start S/L button.

Any Printf's will be sent via the HERON FIFOs to the Server/Loader and they will be printed in the output window of the plug in.

Any Scanfs will use the Server/Loader via the HERON FIFOs but will expect you to enter your input in the input window of the plug in.

The network file

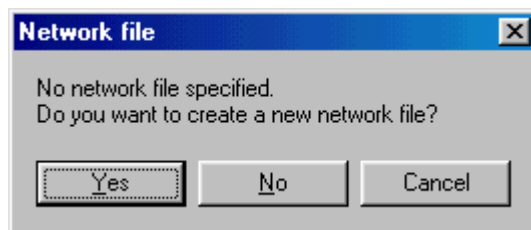
The network file is a standard file that is an editable text file. It is also used by utilities like the HUNT ENGINEERING Heartconf.

Because it is a standard the syntax is defined in a separate Network File Syntax document that can be found on the HUNT ENGINEERING CD and web site under user manuals.

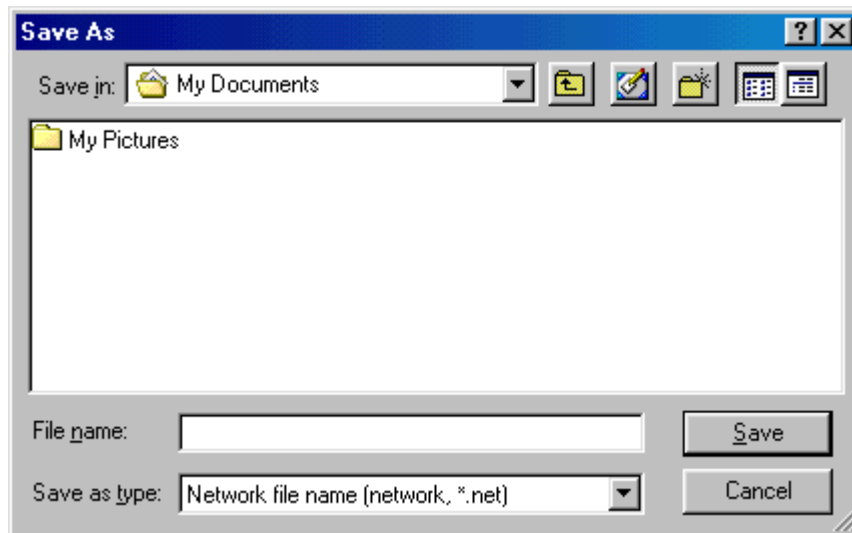
If you created your project for the Server/Loader using the Create new HERON-API project plug in, then a network file will have been created for you according to the detected features of your system. This is the best starting point for your network file.

A useful feature of the Server/Loader plug in is the edit button

If you want to edit an existing network file that is listed in the tool, you can use the edit button to open that file for editing. If the file description is left empty and that button pressed you will be asked :-



If you answer yes, then you are asked for a filename :-



Select your preferred name and a template network file will be created for you. In the template almost everything is commented out, so you must edit this file to be your correct description and remember to save it.

The filename you have chosen is also filled in for you in the tool.

The filename that you fill in here are remembered for you so that they are still filled in the next time you use the tool.

When do I need to use it?

Whenever you develop a project for a C6000 HERON system you will be using Code Composer Studio.

If you need the high speed STDIO access to the host machine that the Server/Loader offers, then you must develop a Server/loader application. The only sensible way to do that is to use the Plug in.

If you develop an application without using the Server/Loader , but finally want to be able to run that application outside of Code Composer Studio then you need to port your projects to be Server/Loader projects. In that case you would first use the Create New HERON API project plug into make the correct project type, then you would compile and test that project using the Server/Loader plug in.

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