Symphony™ Studio Development Tools

Overview

The new Symphony™ Studio software tools support the entire Symphony audio DSP family, along with all Freescale DSP56300-based DSPs. By using the extensible development platform Eclipse, which is an open source industry standard, Symphony Studio provides DSP users a fresh way to develop, debug and simulate through an Integrated Development Environment (IDE). The IDE allows code creation and editing as well as project management, debugging and code compilation all in one software suite.

The Symphony Studio includes a variety of enhancements designed to streamline and optimize the development process. The C/C++ Development Tooling (CDT) plug-in for Eclipse enables DSP software development in C and assembly. Debugging is achieved through the GDB (GNU project debugger) debugger interface within Eclipse, which has been customized specifically for the DSP56300 architecture. The GDB graphical interface provides single- and dual-core software simulation as well as actual target hardware debugging through the use of remote server applications. The two servers included in

The Symphony Studio package are the cycle-aware simulation server and the hardware server. The hardware server permits the use of legacy parallel port adapters and new USB-based JTAG adapters. Additionally, several third-party tool vendors offer remote servers that allow Symphony Studio hardware debugging with their JTAG adapters. For those who need more functionality, a third-party supported C compiler plug-in is planned as an alternative to the standard GNU C compiler. Future planned enhancements include plug-ins for an assembly optimization aid, a DSP code generation tool and a filter development tool.

Ease of Use and Platform Support

Symphony Studio is fully backward compatible with existing application code, as the Suite56 assembler and linker tools are reused in the platform. Since the toolset reuses many components from the Suite56 platform, the learning curve is minimized. The IDE and C code options allow quicker code generation and easy program management.

Supported platforms include Windows® 2000 and Windows XP operating environments. Windows Vista support is planned in a future release. Freescale customers can upgrade, at no cost, to the advanced Symphony Studio for use with all Symphony DSP563xx products including the Symphony DSP56720 and DSP56721 multi-core 24-bit audio processors.

Availability

Symphony Studio software is available now for download at no charge. Go to www.freescale.com/symphonystudio and click on the Download tab.

For Further Information

For additional information about Freescale's Symphony DSP portfolio visit www.freescale.com/symphony.

Technical Support:

www.freescale.com/support

Eclipse and CDT info:

www.eclipse.org
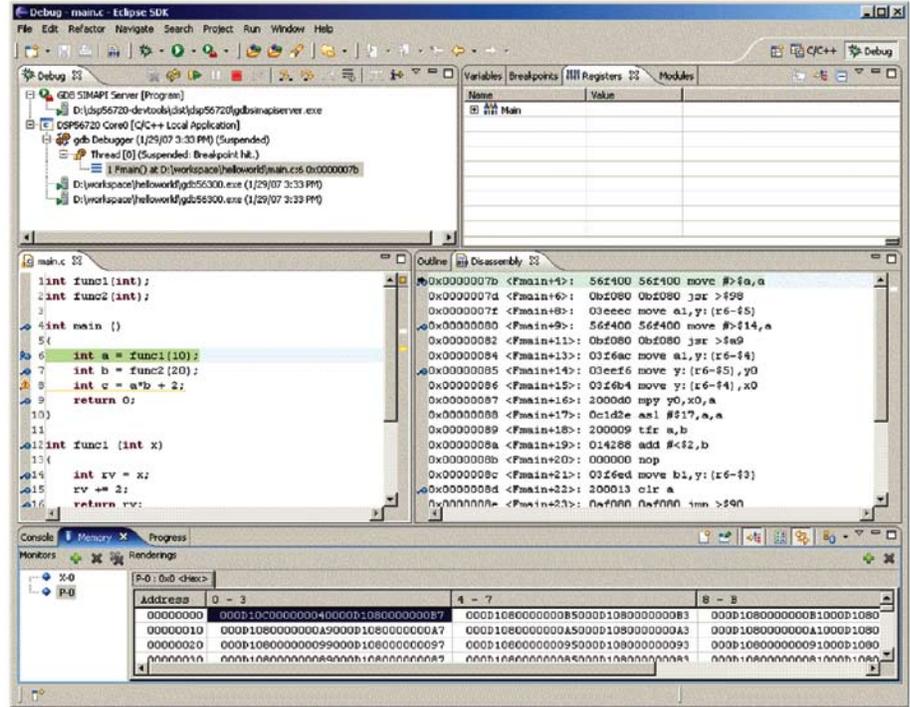
Eclipse Debugger Interface
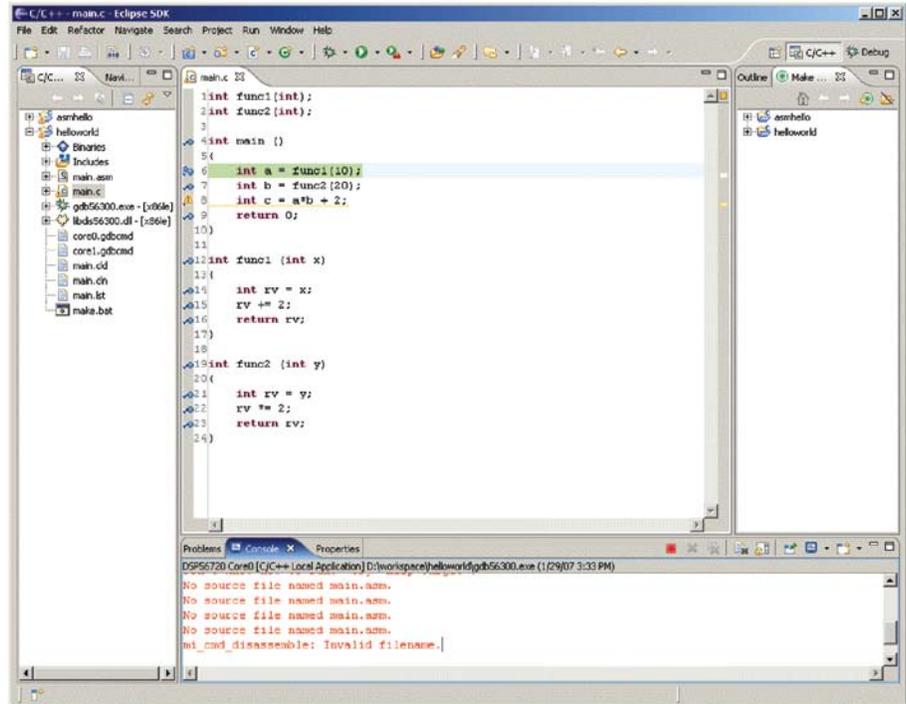
Eclipse Integrated Development Environment (IDE)

Developing and debugging audio products has just become easier and more efficient with the new Symphony Studio software tools!

Learn More: For current information about Freescale products and documentation, please visit **www.freescale.com**.