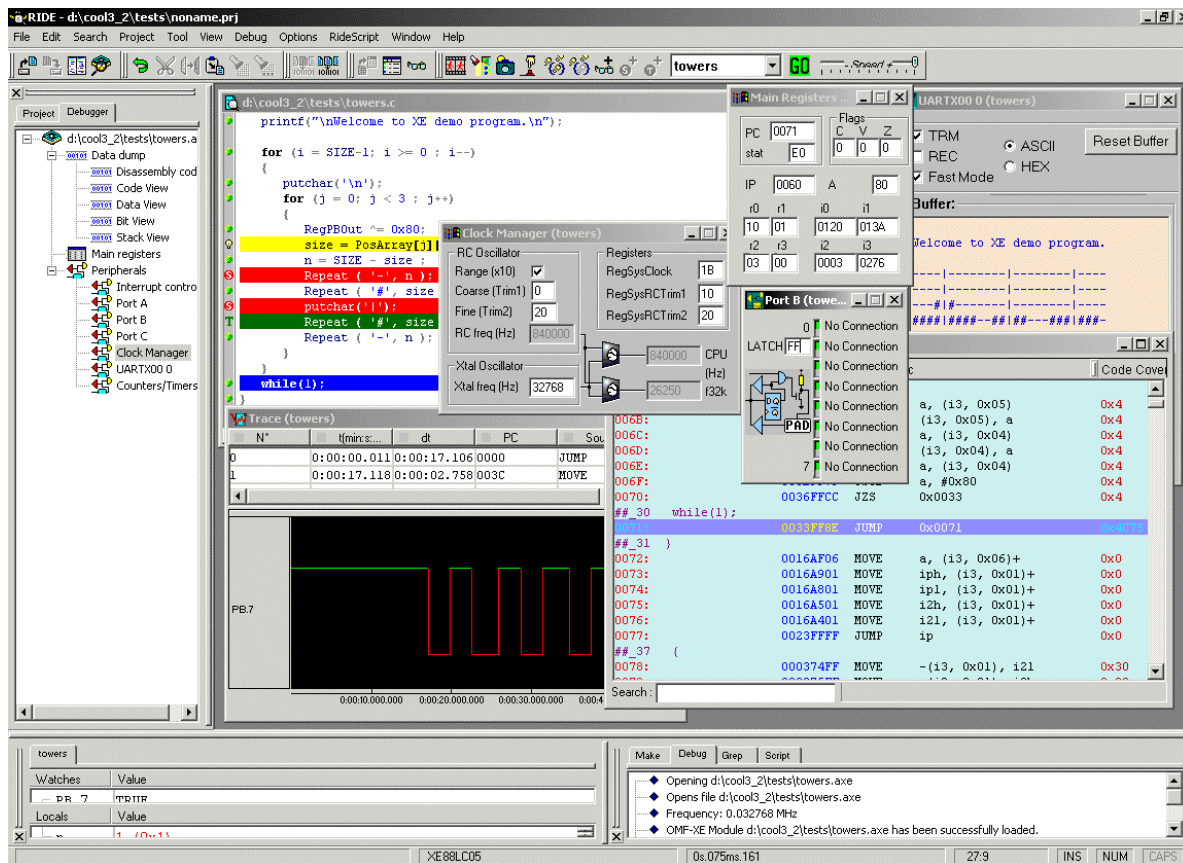


Rkit-XE

Rkit-XE is a complete and integrated toolchain for XEMICS XE8000 family of micros. It includes a GNU-based C Compiler and Assembler, Linker, ROM Monitor, Simulator and CodeCompressor post-linker optimization technology.



www.raisonance.com



Integrated into RIDE

RKitXE is delivered with Raisonance Integrated Development Environment (RIDE), a fully integrated IDE featuring color syntax highlighting editor, multifile search, project manager (with global and local options), on-line help and full control over all the tools of the toolchain. From editing to compiling, linking and debugging (with the simulator, ROM monitor or real time emulator), RIDE increases productivity by putting all the tools at your fingertips into a coherent and easy to use user interface.

When it comes to debugging, RIDE provides a rich variety of views into your application (Main registers, Peripherals, Symbols, Stack...) and a graphical trace view, as well as the possibility to define waveforms to be used as stimuli during the simulation. For the most complex projects RIDE allows scripting, multi processor simulation and user-defined peripherals / hardware.



RAISONANCE

GNU-based C Compiler

The C Compiler included with RKitXE is a port of the public-domain GNU compiler, which is tested, maintained and improved by Raisonance.

The Compiler is fully integrated into RIDE, so that there's no need for makefiles or complex command lines; compiling errors are also reported back to ride and are shown in a way that you just double click on the error to get in the right place in the source file.

According to GNU General Public License, the source files of the compiler are provided on request.

Improved Libraries

Libraries have been improved to account for the low level of resources available on the XE architecture. The printf function (whose output is, by default, redirected to the UART) and some mathematic functions have been modified to fit the stringent data requirements. Some libraries (or part of them) have been re-written in assembler for the best code efficiency.

Special functions have been developed to work around the XE limitations of not being able to read code memory to allow to manage, for example, initialized variables.

Data types

Standard C data types are implemented. From bit to char (8 bit), integer (16 bit), double (32 bit) and float (24 bit).

ROM Monitor

RKitXE is supplied with a ROM Monitor, directly driven by RIDE via the same user interface as the simulator. The ROM Monitor allows simple and inexpensive debugging with XEMICS and Third Party boards. The Application User Interface of the rom monitor and the source code of the monitor itself are provided on demand to allow for easy porting to other boards/hardware.

SIMICE-XE Simulator

RkitXE is delivered with the SIMICE-XE simulator that is tightly integrated into RIDE and shares the

same user interface as the emulator and the rom monitor. The instruction set and all the details of the core are simulated, and so are some peripherals (UART, Watchdog, Interrupts). Used with RIDE, SimiceXE is a powerful debugger and offers a variety of views into your application (Inspect, Watches, Graphical Trace, Memory spaces) and effective debugging tools, such as complex breakpoints (including read/write breakpoints on memory locations), trace with timestamp and Code Coverage.

SimiceXE can run multiprocessor simulations and offers the possibility to define stimuli to be associated to port pins or to SFRs directly.

CodeCompressor



CodeCompressor is a new, post-linker optimizing technology from Raisonance.

By applying known optimizing techniques such as inlining, factorization and peephole, *after the linker* (and therefore on the whole application, including libraries, assembler files and cross-module function calls), *CodeCompressor achieves a very significant code size reduction, especially in the case of the GNU compiler (which is not targeted specifically at the XE architecture), where the reduction is **between 20% and 40%** for a typical application.* CodeCompressor is a fully automatic tool, but it also provides a manual interface to see the action of each of its optimization passes and the possibility for a limited debugging after the compression. CodeCompressor allows specific control of the optimization steps and defining of sections that you do not want to be optimized.

Hardware Support

RkitXE supports the XE Real Time emulator provided by Phyton and is open to other emulators/ development boards through a public API that hardware manufacturers can implement to make sure RIDE can drive their boards.

RAISONANCE

17, av. Jean Kuntzmann
38330 MONTBONNOT
FRANCE

Tel : (+33) 4 76 61 02 30
Fax : (+33) 4 76 41 81 68

Email: info@raisonance.com

PO Box 1784
Addison, TX 75001-1784
USA

Tel : +1 877-315-0792
Fax : +1 972-818-0996

Email: info@amrai.com

Local distributor :