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TASKINGTM

DSP56xxx Third Party Product Guide

- Emulators and Debug Solutions
 - RTOS Solutions
- Software Design and Test Tools

Important note:

Partner products included in this guide work together with the TASKING tools. Except for CMX products, Altium does NOT resell these products.

DSP56xxx Third Party Product Guide

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TASKINGTM

DSP56xxx Third Party Product Guide

- **Emulators and Debug Solutions**



Domain Technologies, Inc.

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Product: SB-USB and SB-56K emulators, BoxView C source-level debugger and FLASH-56K

TASKING Product: DSP56xxx

Domain Technologies specializes in the development, manufacturing, and marketing of multi-user, multi-target JTAG and OnCE-based emulators and source-level, C language debuggers for Motorola DSP560xx, DSP561xx, DSP563xx, DSP566xx and DSP568xx family digital signal processors.



The main advantages of the Domain Technologies SB-USB JTAG emulator include USB connectivity, versatility as both a JTAG and OnCE port emulator, small size and the ability to optionally debug multiple target DSPs via the SB-USB's JTAG or OnCE interface and do it remotely via a TCP/IP connection. Other emulators include the SB-56K which connects the host RS-232 port, and PP-JTAG which uses a host parallel printer port connection.

Both the SB-USB and SB-56K emulators support event counting and benchmarking with at least 100ns resolution.

BoxView is Domain Technologies Windows-based, C source-level debugger which features robust scripting and data-logging capability for automated production and boundary scan testing and monitoring using target device JTAG sample-preload function.

FLASH-56K is a stand-alone desktop utility application that can be used in combination with either the SB-USB, SB-56K or PP-JTAG emulators for production programming of the internal/external Flash memory of Motorola DSP56xxx family DSPs. Both BoxView C source-level debugger and FLASH-56K, as well as Domain Technologies AUDIO4-USB 4-channel digital signal processing system directly accept TASKING IEEE-695 (ABS extension) output formats.



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Product: TRACE32-ICD

TASKING Products: 8051, 196/296, XA, C166/ST10, TriCore, 68K/ColdFire, PowerPC, DSP56xxx, StarCore

Lauterbach is a leading manufacturer of complete, modular micro-processor development tools worldwide with over 25 years experience in the field of embedded designs. Lauterbach is an internationally well-established company with blue chip customers from every corner of the globe and close relationships with all semiconductor manufacturers.

It is represented in all countries at the forefront of embedded design market and international sales. Besides the headquarters in Hofolding, Germany the company has its own branch offices in Italy,

All products from Lauterbach are supplied with the same IDE called TRACE32-PowerView. It offers intuitive and fast access to the debugger and trace information.

The TRACE32-ICD is a debugger for C, C++ and Java. It supports all current on-chip debugging standards such as JTAG, BDM, OCDS, etc. An optional trace module can be added to monitor program flow and data accesses. The TRACE32 HLL debugger can load the symbol formats of the TASKING 8051, 196/296, XA, C166/ST10, TriCore, 68K/ColdFire, PowerPC and DSP56xxx compilers.



UK, USA, Japan and China. Highly qualified sales and support engineers are also available in many other countries. The company attaches great importance to a very high technical level and only the latest development methods are used.

Lauterbach's high performance development tools for system on-chip designs is the TRACE32-PowerTools product family. It includes PowerDebug, our class leading debugger, PowerTrace an all in one unit combining the debugger with extensive real-time trace. In addition there are add on logic analysers available which support timing and state analysis up to 500 MHz for up to 204 channels.

Macraigor Systems LCC

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Product: Wiggler

TASKING Products:
68K/ColdFire, PowerPC,
DSP56xxx, StarCore

Macraigor Systems is an OEM supplier of BDM and JTAG connection devices. Their reputation in the embedded industry has been built on their Wiggler product which provides a very low-cost, yet full-featured connection to the on-chip debug facilities of 32-bit embedded processors. The Wiggler is a parallel port interface for either JTAG or BDM debugging. In addition to the Wiggler, Macraigor offers several other devices, such as the 'Raven',

that are faster and/or provide alternative methods of connecting to the target.

The Macraigor Wiggler works with the TASKING 68K, PowerPC, DSP56xxx and StarCore tools.

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■ RTOS Solutions

DSP56xxx



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 Phone: +1-904-880-1840
 Fax: +1-904-880-1632
 www.cmx.com

Product: CMX-RTX, CMX-RTXS and CMX-Tiny+
TASKING Products: 8051, XA, 196/296, M16C, C166/ST10, TriCore, 68K, PowerPC, DSP56xxx, ARM

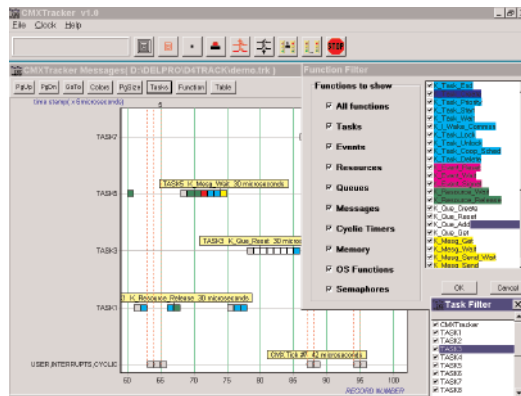
Product: CMX TCP/IP
TASKING Products: XA, C166/ST10, M16C, 68K, PowerPC, ARM

Product: CMX-MicroNet
TASKING Products: 8051, XA, C166/ST10, M16C, ARM

Since 1990, **CMX Systems** has offered very small and blazingly fast Real Time Operating Systems (RTOS) and TCP/IP stacks that support most 8-bit, 16-bit, and 32-bit processors and DSPs for virtually any embedded application. With over 4,000 users worldwide, CMX is renowned for robust software and meticulous service and support.

The company's CMX-RTX, CMX-RTXS, and CMX-Tiny+ real-time multi-tasking operating systems support more than 40 processor families. CMX also develops and supports products that enhance the user's ability to create, test and debug application code, including CMXKAware™, CMXBug™, and CMXTracker™.

All CMX software is economically priced, requires no royalties, and features free source code and fast, expert technical support.



RTOS Solutions



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Product: RTX 3.2
TASKING Products: 8051, 196/296, XA, M16C, C166/ST10, PowerPC, DSP56xxx

Product: RTX Quadros
TASKING Products: DSP56xxx, StarCore

Quadros Systems, Inc. is a software company specializing in the embedded real-time operating system market. The company's technology is used at many of the world's leading companies involved in telecommunications, networking, consumer electronics, medical, transportation and other embedded systems applications.

The RTX 3.2 kernel is a flexible, field-proven, multitasking real-time kernel for use in a broad range of embedded applications on a variety of 8-, 16- and 32-bit microcontrollers, and DSP processors

QSI's RTX™ Quadros real-time operating system is a second-generation RTOS composed of two major architectural modules: a Single Stack kernel and a Multi-Stack kernel.

RTX 3.2 has been made available for the TASKING 8051, 196/296, XA, M16C, C166/ST10, PowerPC and DSP56xxx tools.

RTX Quadros has been made available for the TASKING DSP56xxx and StarCore tools.

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- **Software Design and Test Tools**



The MathWorks, Inc.

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www.mathworks.com

Product: Link for TASKING
TASKING Product: TriCore, C166/ST10, ARM, M16C, DSP56xxx, 8051

The MathWorks is a world leading developer of Model-Based Design software. With an extensive product set based on MATLAB®, Simulink and Real-Time Workshop, The MathWorks provides software and services to solve challenging problems and accelerate innovation in automotive, aerospace, communications, financial services, biotechnology, electronics, instrumentation, process, and other industries. Their customers include some of the world's most innovative technology companies, government research labs, financial institutions, and universities.

Model-Based Design with automatic C code generation is a mature technology used in some of the world's most demanding real-time embedded environments such as those in production aircraft, automobiles and mass produced consumer handheld devices. Mathworks products enable it's customers to dramatically reduce time to market by devel-

oping a fully functional model which can be simulated, tested and then deployed automatically on an embedded target. This process not only speeds development time but reduces the number of defects and improves collaboration across the development organisation. Further information on Model Based Design for embedded software development can be found on the MathWorks website.

Using Link for TASKING, engineers and designers can deploy automatically generated C code on a broad range of supported processors. Model development can be verified through Processor-In-the-Loop cosimulation, with software execution on the embedded processor target or instruction set simulator.

Link for TASKING is compatible with the TASKING TriCore, C166/ST10, ARM, M16C, DSP56xxx and 8051 tools.



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Product: Development Assistant for C (DAC)

TASKING Products: 8051, 196/296, XA, C166/ST10, M16C, TriCore, DSP56xxx, 68K/ColdFire, PowerPC

Founded in 1994, **RistanCASE GmbH** develops and markets software development tools for programming embedded applications.

Development Assistant for C (DAC) offers new possibilities for the development and maintenance of C applications. This program is completely project-oriented and allows easy handling of both small and large projects. Through its functions: Editor, Browser, Flow Chart, Call-Hierarchy and Data Flow Graph, Documentation Generator, Software Metrics and Static Code Analyzer DAC not only facilitates

editing and source quality control, but also allows detailed reviewing and documenting.

DAC saves plenty of time for software development and maintenance. You can be completely devoted to your basic task with no fear of missing or forgetting something in the project dependencies.

DAC directly supports the TASKING embedded software development tools, among which the DSP56xxx.