

Universal Debug Engine

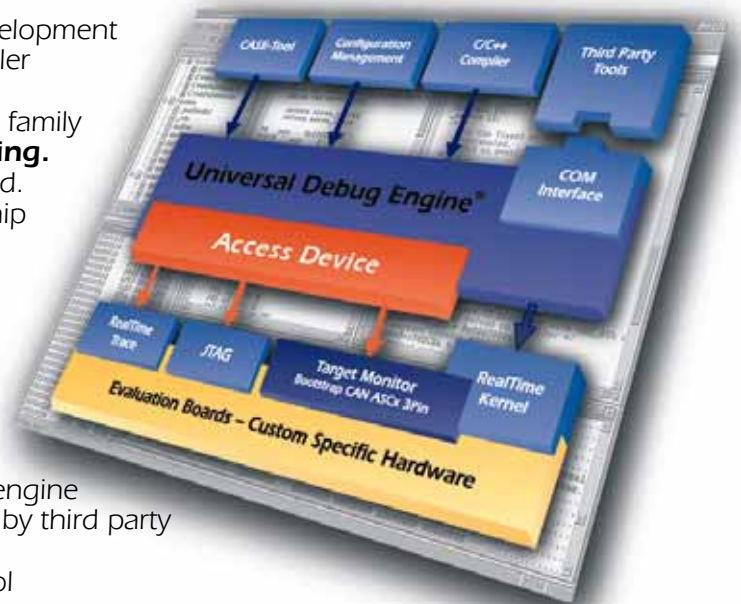
On Top Solutions for System Development of ARM7 and ARM9 Microcontroller

Universal Debug Engine (UDE) is a powerful development platform to develop, test and maintain microcontroller software applications.

UDE supports together with the UDE Access Device family various MCU cores and built-in **Multicore Debugging**. State of the art standard debug features are included. UDE provides deep-in support for all available on-chip debug resources and peripherals. UDE represents a completely new and unique debugger architecture concept, based on a customizable set of standard components and core specific add-ons.

Universal Debug Engine is **designed for expandability**. The UDE automation interface is based on Microsoft Windows Component Object Model (COM) and allows the control of the debug engine from inside and outside and the use of its functions by third party tools:

- Provide fully customized visualization and control by Java- and VB-Scripts embedded in HTML pages.
- Run scripts inside and outside from the debugger e.g. for test automation of hard- and software.
- Control the debugger via C/C++, Visual Basic or VBA from other applications e.g. MATLAB (MathWorks), Rational (IBM), Excel (Microsoft), Tessa (Razorcat) and others.
- Substitute the UDE desktop client by a customized desktop to fit the requirements of custom specific service tools.



UAD2^{compact} - High-end Solution at a Starter Price

Universal Access Device 2^{compact} is a new member of the UDE Access Device family. With a powerful 32bit Communication Unit, pls presents a rapid communication tool to access ARM7 and ARM9 microcontrollers. The UAD2^{compact} offers a fast JTAG path to the target system with the high-speed USB 2.0 (480 Mbit/sec) interface to the host PC.

By the preference on the JTAG communication channel to the target the UAD2^{compact} device is an excellent value for money.

UAD2^{compact} Basic Features

- Host connection via USB 2.0
- Hardware accelerated JTAG bus with up to 700 kByte/sec download speed
- Covers all features of the EmbeddedICE unit
- Standalone Communication device 12 x 7 x 3cm³.



Universal Debug Engine

All in one Solutions for System Development of ARM Derivatives

The access to the whole choice of ARM7 and ARM9 derivatives is supported by the **Universal Access Device 2⁺**, the new all in one add on interface hardware for Universal Debug Engine. **UAD2⁺** offers the state of the art hardware support for debugging via JTAG and via a wide variety of target system access channels.

UAD2⁺ Basic Features

- Host connection via USB 2.0 and IEEE1394
- Galvanically isolated target interfaces
- Hardware accelerated JTAG bus with up to 1 MByte/sec download speed
- Build-in JTAG extender technology
- ETM Trace Support up to 150 MHz
- High-speed CAN bus with up to 1 Mbit/sec
- Support of the Serial and CAN monitor of UDE
- Complete tool suite for ARM7/ARM9 including ETM support.



FLASH Programming - UDE/MemTool

The UDE/Memory Programming Tool is a customizable and stand-alone component of UDE and it is used in automatic/volume production, test systems or for simple evaluation purposes.

UDE integrates high speed FLASH/OTP programming support for internal FLASH/OTP memories, external FLASH EPROM's from AMD, Intel, ATMEL and any other JEDEC-compatible FLASH.

UDE/MemTool offers the following functions (depending on the type of memory):

- Erasing the entire memory module and selected sectors of the memory module
- Loading Intel Hex and Motorola S-Record files
- Programming all or selected parts of the file into the memory module
- Comparing all or selected parts of the file to the current contents of the memory module
- Read back and save-to-disk of the current memory content
- Setting and Resetting the Chip/Sector Protection (on-chip only).

UDE/MemTool can handle more than one memory module on the target system and is only using internal RAM for execution.

Supported Microcontrollers

UDE offers comprehensive debug support for the ARM7TDMI families STM STR7 (e.g. STR731), STM ST30 (e.g. ST30F774), TI TMS470, Atmel AT91 (e.g. AT91SAM7S256), Philips LPC2000 (e.g. LPC2294) and the ARM9 family (e.g. Atmel AT91RM9200) and further 16/32 Bit MCU's. The Philips LPC3000 series support is in preparation.



C/C++ Compiler and RTOS Support

For your convenience, UDE supports the available C/C++ Compilers (e.g. ARM, GNU and Keil) and provides the awareness of various RTOS like CMX.

Just contact us if you have any questions about your ARM7/ARM9 application development tools:

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