DAS

Device Access Server

The DAS architecture was designed for multi-device multi-core systems with very demanding emulation requirements.

The goal of the DAS architecture is to provide one single interface for all types of tools, which fulfills all performance and reliability needs.

The tool interface is on software level (DAS API) and implemented in a generic DLL. It provides the abstraction of the physical device connection, which becomes just a parameter value in the connection setup phase. During operation the physical connection (e.g. JTAG for real device or directly for C-models) is fully transparent for the tool. On DAS API level the physical device connection is represented by address based accesses (DAS Transaction Lists) and prioritized, stream based data exchange (DAS Channels).

DAS Applications

- Debugging
- Tracing
- Calibration
- Measurement

These application modes are used by debug, emulation or calibration tools. From the DAS point of view the general term for these tools is DAS Client.

DAS Architecture

DAS has a TCP/IP based client server architecture. The DAS Client part is implemented in a DLL, which is generic for all device types and physical interfaces. Within a DAS Server there is as well a generic part, which handles the DAS Client connection and a lower layer which is specific for a physical interface. This layer can be even split between host computer and an external hardware interface (e.g. JTAG wiggler connected over USB).

DAS Features

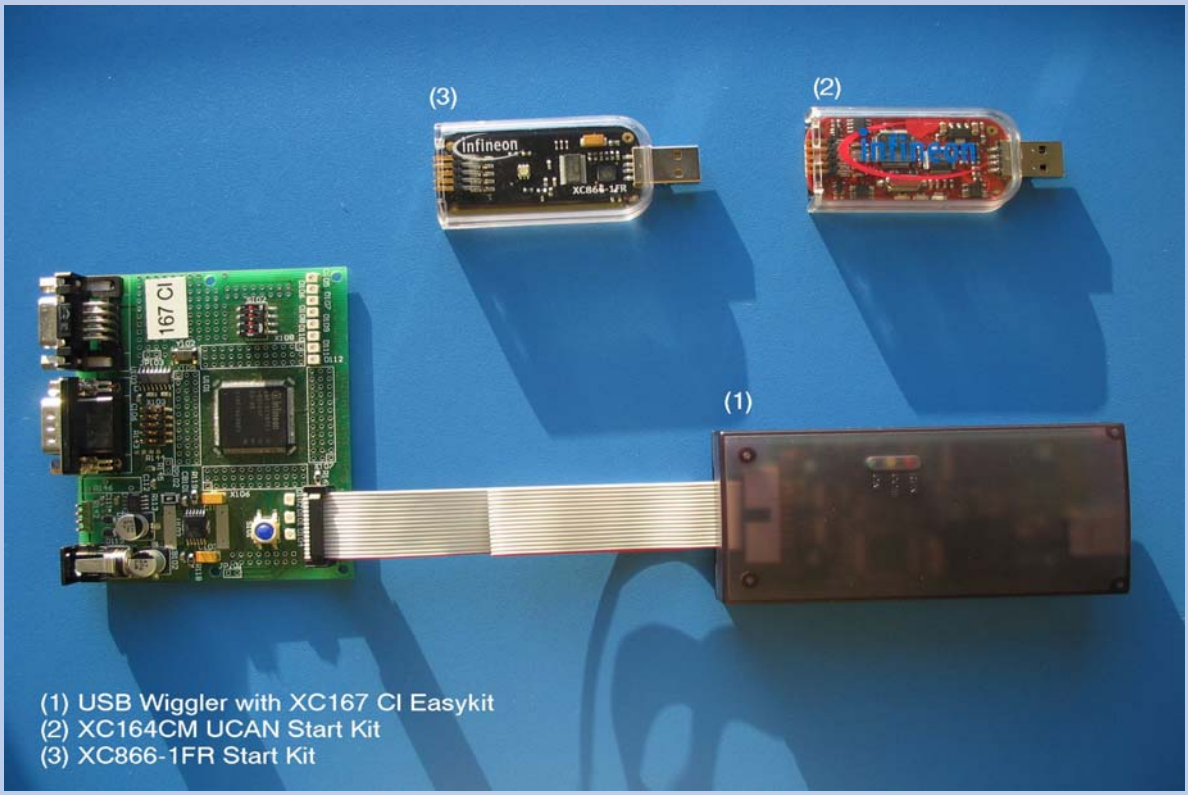
- Single physical (debugger) interface of chip can be shared by different tools
- Tools can run as independent processes on same or different computer as the DAS Server connected by a LAN or VPN
- High performance even on connections with significant latency (e.g. VPN with 10ms)
- Hot attach/detach of connected devices and DAS Clients
- Robust against DAS Clients terminating in any state
- Support of multi device and multi-core debugging
- Support of little or big endian devices
- DAS Channels allow a prioritized (bandwidth usage) exchange of messages between DAS Client tool and device software
- DAS Servers available for C-Models (Windows 2000/XP(TM), Solaris, Linux), USB (Windows 2000/XP(TM)) and JTAG (Windows NT/2000/XP(TM))
- Installer for DAS Edition which supports TriCore, XC2000, XC166E, XC166 and XC800 families
- Support for non Infineon devices from specific tool partners

www.infineon.com/DAS

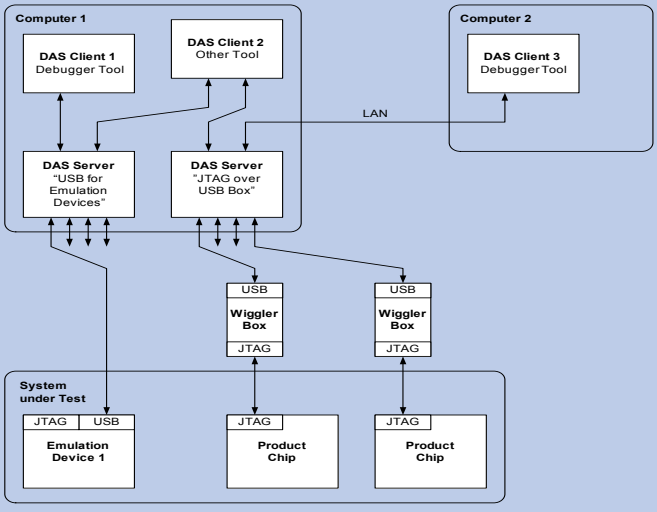
AIM Microcontrollers

Never stop thinking.

DAS Interface Examples



Application Example



How to reach us:

http://www.infineon.com

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