

Highlights of Exhibiting Partners

TASKING

KEILTM
An ARM® Company

expresslogic

e m t a sTM

escrypt
Embedded Security by ETAS

hitex
DEVELOPMENT TOOLS

IAR
SYSTEMS

interniche
technologies, inc.

1 SYSTEM

HCC
embedded

LAUTERBACH
DEVELOPMENT TOOLS

Micrium[®]
Embedded Software

MICROCONSULT

pls
Development Tools

port PROFESSIONAL
INDUSTRIAL
COMMUNICATION

protos
protos software gmbh

SEGGER
www.segger.com

SiSy
Simple System

WIBU
SYSTEMS

XMC Developer Day 2015, Munich

infineon



Henk-Piet Glas

TASKING[™]
Embedded software development from **Altium**[™]

Support for Infineon XMC family

Product Overview of TASKING VX-toolset for ARM

- Support for all Infineon **XMC** derivatives and **boards**
- C/C++ compiler with integrated static code analyzers for:
 - **CERT C** Secure Coding standard
 - MISRA C guidelines
- Industry standard Eclipse IDE containing:
 - Intuitive toolchain menu
 - Instruction-set simulator
 - On-chip debugging over JTAG using:
 - ▶ miniWiggler from Infineon
 - ▶ J-Link family from SEGGER
- Available for Windows, Linux and **Mac OS X**
- Compiler Qualification Kit available for certifications according to ISO 26262 / IEC 61508 standards
- **Full-house** support for **C166/XC166/XE166**, **XMC** and **TriCore/AURIX** allowing straightforward migration between microcontrollers and TASKING toolchains



Keil® MDK Version 5 IDE and Middleware for ARM® Cortex®-M based MCUs

Christopher Seidl
Technical Marketing Manager

Keil® MDK Version 5 Development System

ARM® KEIL®
Microcontroller Tools

MDK Core

µVision® IDE with Editor

ARM® C/C++ Compiler

Pack Installer

µVision® Debugger with Trace



Software Packs

Device

System/Start up

Ethernet Driver

SPI Driver

...

USB Driver

CMSIS

CMSIS-CORE

CMSIS-DSP

CMSIS-RTOS

MDK-Professional Middleware

Network

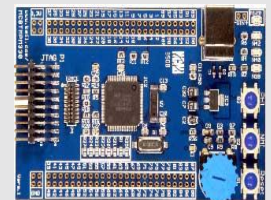
USB Host

File System

USB Device

Graphics

Evaluation Boards





Your embedded solution partner.

◀◀ Heinz-Juergen Oertel ◀◀



CANopen®

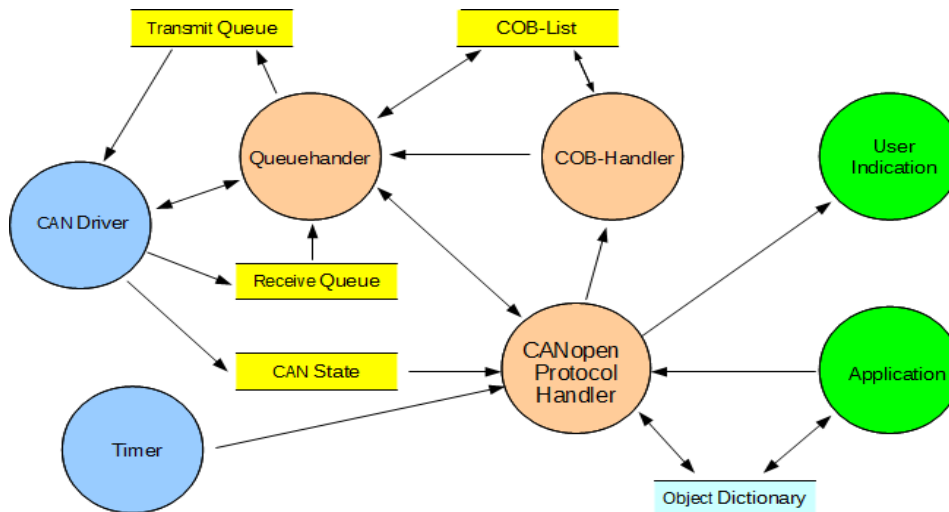
Ether**CAT**®

CAN

//

CANopen Stacks – Tools – Solutions – Training – www.emtas.de

« CANopen Master/Slave Stack



- All **CiA 301** and **CiA 302** Services and Features
- For CANopen **Conformance tested** Devices
- **MISRA-C** compliant
- **CANopen Bootloader** available
- **XMC Microcontroller** supported
- EnergyBus and other device profiles

//

ESCRYPT

escrypt
Embedded Security by ETAS

Solution Provider for Embedded Security

Thomas Stern

Security analysis / concepts / architectures / implementations and SW



ESCRYPT – Embedded Security

Automotive, Manufacturing, Energy, Home Automation, etc

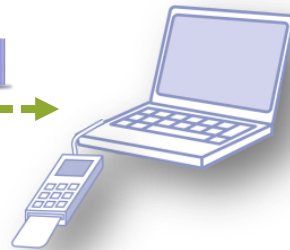


Use cases addressable:

- Secure communication / secure access
- Secure SW update / secure feature activation
- SW protection



XMC-Demonstrator: Secure SW update (example: Manufacturing)



- Easy solution
- Online rights management
- Automated

in cooperation with



Wolfgang Erhart

Sales Manager
Express Logic GmbH



Express Logic Overview

- **ThreadX RTOS & Software Products for 32Bit CPUs**
- **Full Source Code**
- **Royalty-Free Pricing**
- **Integrated Real-Time Tracing**
- **Training Classes at customer site**
- **Certifications available**
 - IEC61508 (Industrial)
 - IEC62304 (Medical)
 - UL/IEC 60730 & UL/IEC 60335 (Home Appliances)
- **Free Demos for Infineon XMC available**
 - http://rtos.com/download_center



www.rtos.com

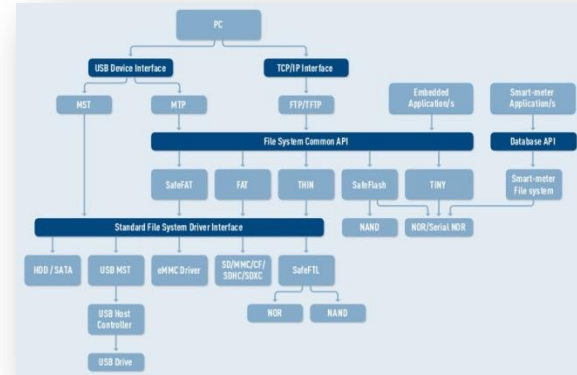
David Brook

Highlights

- Advanced Fail-safe Storage
- Verifiable Scheduling,
Communications & Security

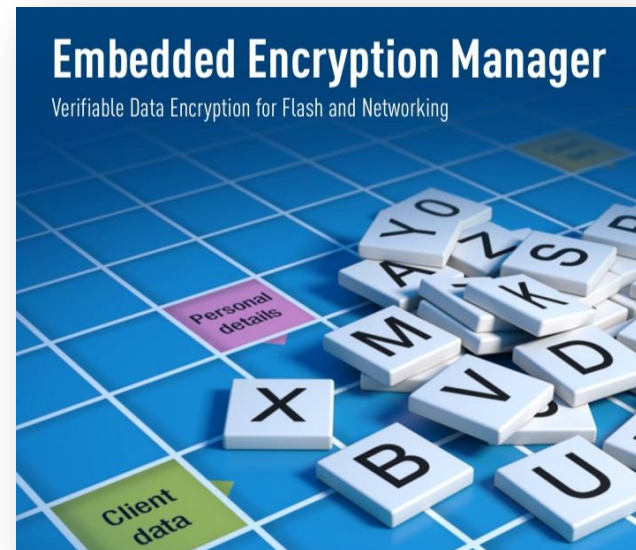
Advanced Fail-safe Storage. All Flash Media Types

- Support any Infineon XMC device, small footprint FS available
- Specified for system level fail safety (fail-safe operation)
- Guaranteed recovery from power & reset failures
- Integration with any RTOS or No RTOS
- All removable media, all major interfaces



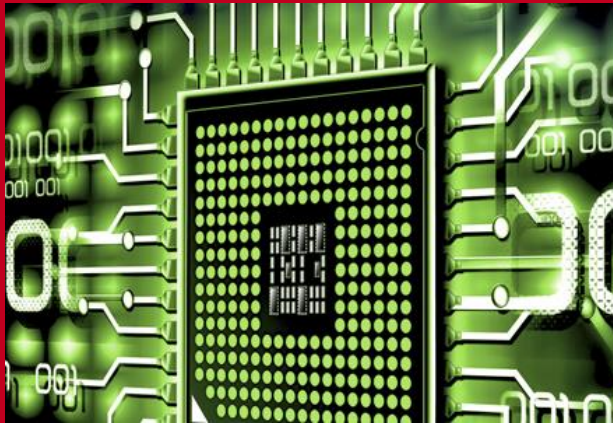
Verifiable Scheduling, Communications & Security

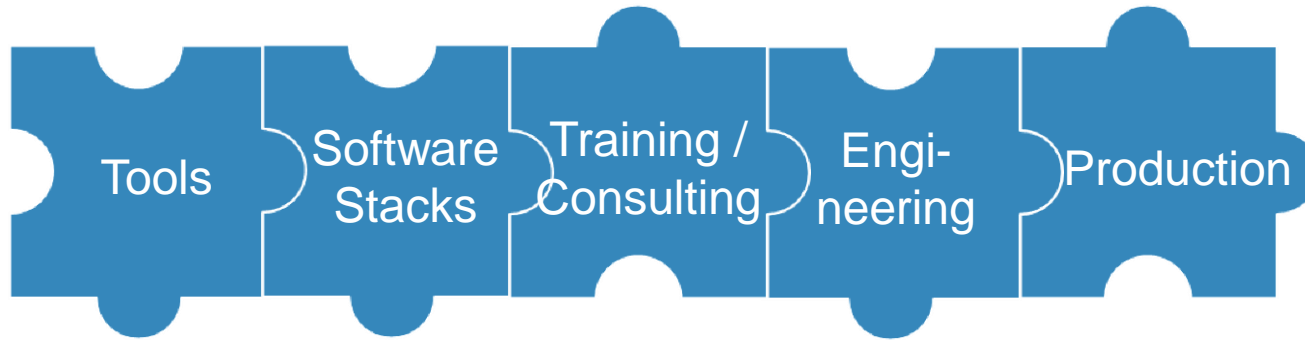
- **USB Device, Host & OTG** with extensive Class Driver support
- **IPv4 & IPv6** with MISRA, MC-DC, and target test suite
- Verifiable TLS/SSL SSL3.0, TLS1.0/1.1/1.2
- Verifiable Encryption AES, 3DES, DSS, EDH, MD5, RSA, SHA1, SHA256
- **eTaskSync** Small footprint scheduler, MISRA compliant, static and dynamic analysis, 100% MC-DC



Engineering, Tools & Production

Kurt Boehringer
May, 2015



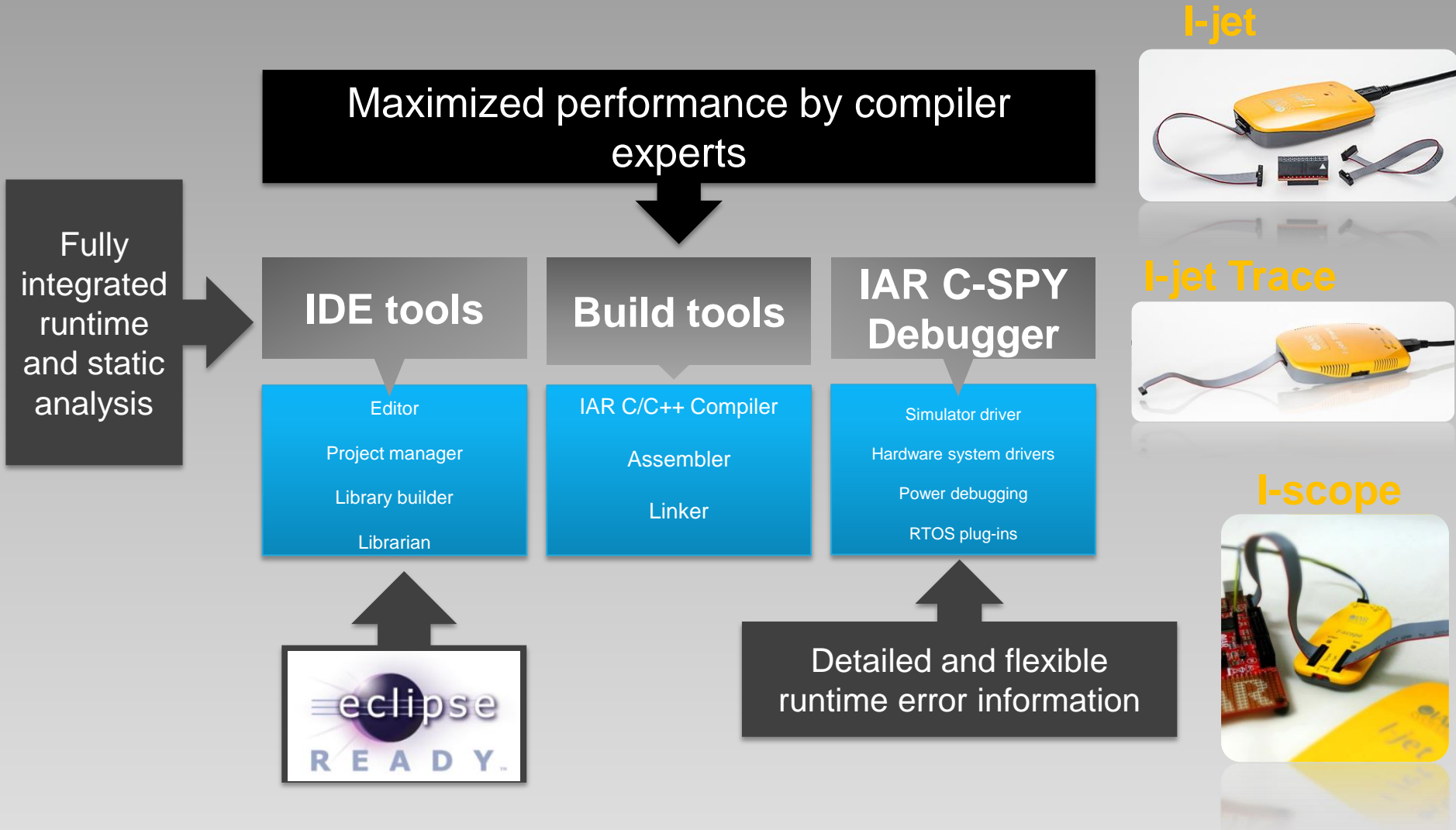


Supporting key industries with deep
XMC microcontroller know-how



Martin Gisbert
Field Application Engineer

IAR EMBEDDED WORKBENCH WITH INTEGRATED ANALYSIS TOOLS



HMS Industrial Networks Thomas Waggershauser

- Expert on Industrial Communication



- HMS: Your distributor for InterNiche solutions in Europe



- Interniche offers complete TCP/IP networking software for embedded devices for use in industrial and commercial applications!

*cellphones – industrial automation – medical appliances
telecommunication – WiFi access points – entertainment*



Select from libraries and flexible source-code!

- Low-cost, pre-compiled **Networking Object Libraries**
 - Save development time and costs
 - Easy to use, based on proven Interniche Protocol Stacks
 - Available for **Infineon XMC4400 and XMC4500 series**
- Pre-ported **Interniche Protocol Stacks**
 - Developed for best performance on embedded industrial devices
 - Includes clear **documentation** and one year of technical **support**
 - **Modular concept** for small and fully-featured devices



*TCP/IP v4/v6 – PPP/PPPoE – SSL – SSH – IPSec
SNMPv1 – SNMPv2c – SNMPv3 – DHCP – DNS
HTTP – ESMTTP – SNTTP – and much more!*



EMBEDDED TOOLS FOR SINGLE AND MULTI-CORE

Software Development, Analysis, Test Automation and Certification

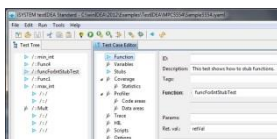
Wolfgang Höld



iSYSTEM XMC Product Overview

iSYSTEM Software

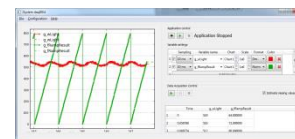
testIDEA



winIDEA & winIDEA Open

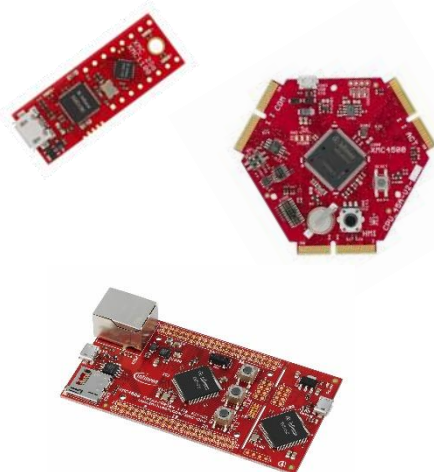


daqIDEA



3rd Party Target Access HW

- Segger J-Link (OB)

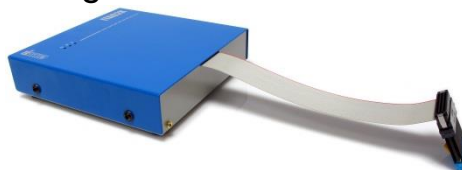


iTag – Cortex-M Series

- iTag.Fifty



- iTag2K



- iOne-BT (Bluetooth)



iC5000 Universal On-chip Analyzer



Lauterbach debug & trace solutions Infineon XMC series

Andreas Grimm

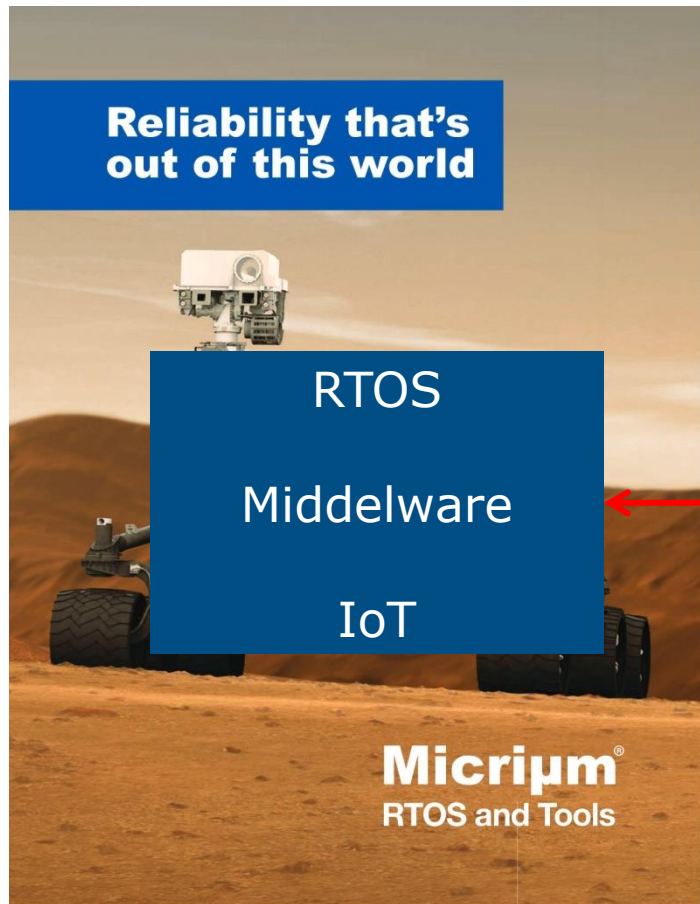


μTrace® Cortex-M

- *ALL-IN-ONE* low-cost system for Cortex-M
- JTAG & SWD advanced debug features
- ITM & ETM trace with 4-bit parallel port or SWV
- 256MB trace memory, extended by streaming

Function Nesting Chart





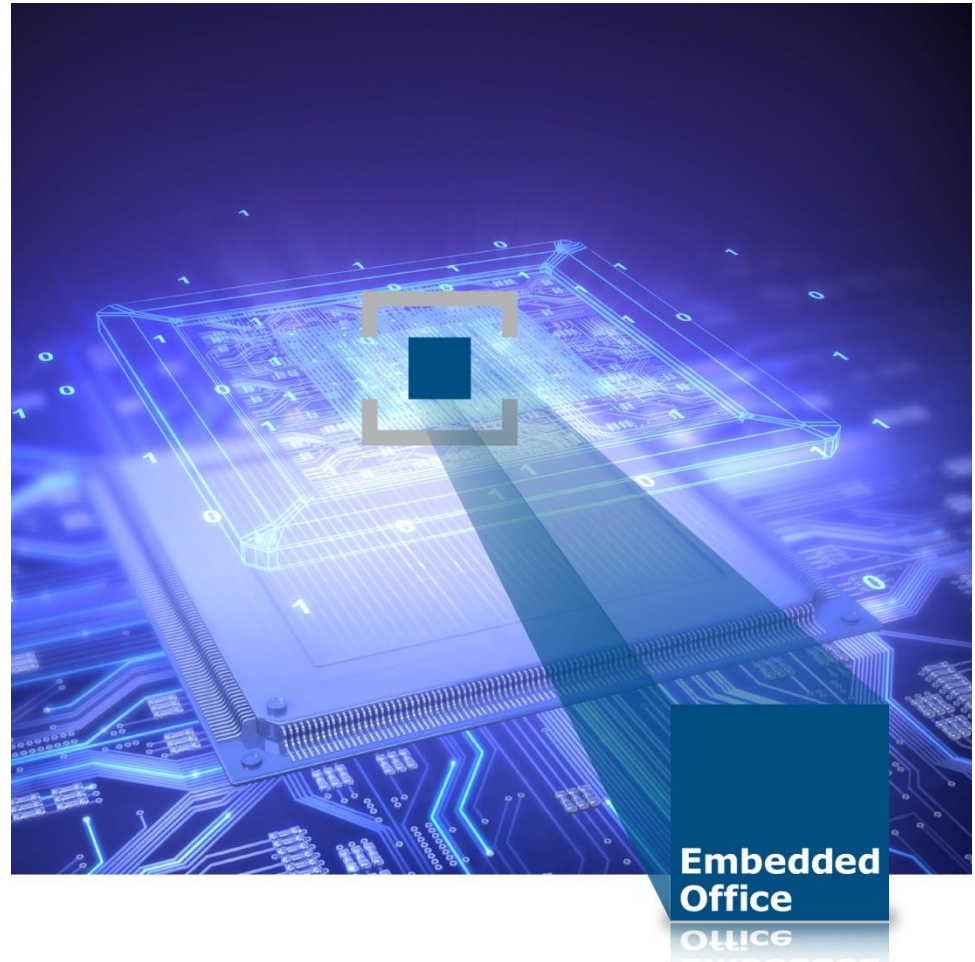
Distribution

Solution Provider
SW Development
Certification

Andrea Dorn,
Sales and Marketing Director



- RTOS & Middleware
- Space Protection/
Partitioning System
- Certification
- Software Development
- Training



MicroConsult - Experience Embedded

Your Partner for Embedded Systems Engineering:
Professional Consulting, Project Support and Training

Ingo Phole

www.microconsult.com

MicroConsult Microelectronics Consulting & Training GmbH
Charles-de-Gaulle-Str. 6 * D-81737 Munich/Germany * Phone +49 89 450617-71 * Contact: Ingo Pohle

Benefit from the **experience** of **embedded experts!**

MicroConsult offers training & project support in form of:

- training, consulting or coaching
- in person, by phone or web-based
- tailored to your requirements or based on proven standard
- in our training center or at your location

Identify most suitable XMC device:

- Coaching for XMC Device Selection

Improve your Hardware knowhow:

- **XMC4000/XMC1000 Workshop**
- **ARM Cortex Training:** Insight into ARM® Cortex™
- **Coaching:** Management of DAVE™ 4 APPs

Identify your Requirements:

- **Training: Requirements Engineering and Management for Industrial Development**

Improve your Software knowhow:

- **Embedded C:** Efficient Use of Programming Methods + Tools for Embedded Applications
- **SW Test:** Structured + Efficient Embedded System Test



MICROCONSULT

www.microconsult.com

Heiko Riessland

■ Contact

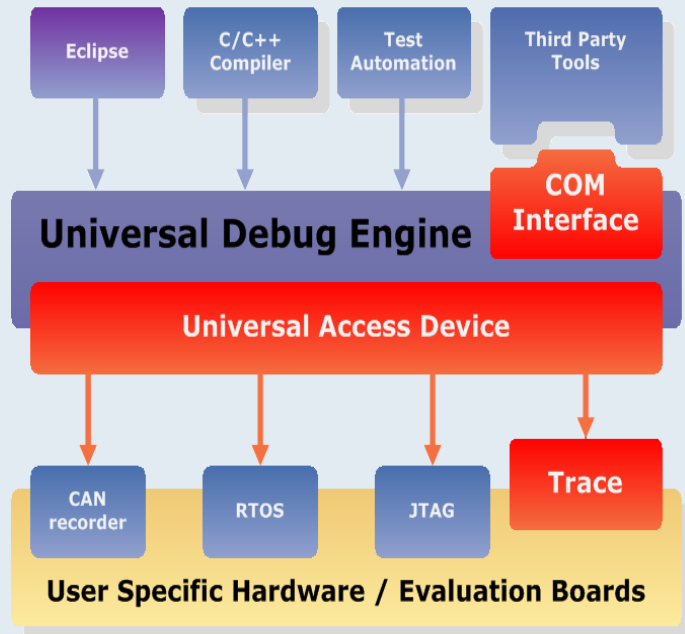
PLS Development Tools

Technologiepark / Germany - 02991 Lauta

Phone: +49 - 35722 - 384 – 0 / E-mail: info@pls-mc.com

Website: **www.pls-mc.com**

Universal Debug Engine / Universal Access Devices



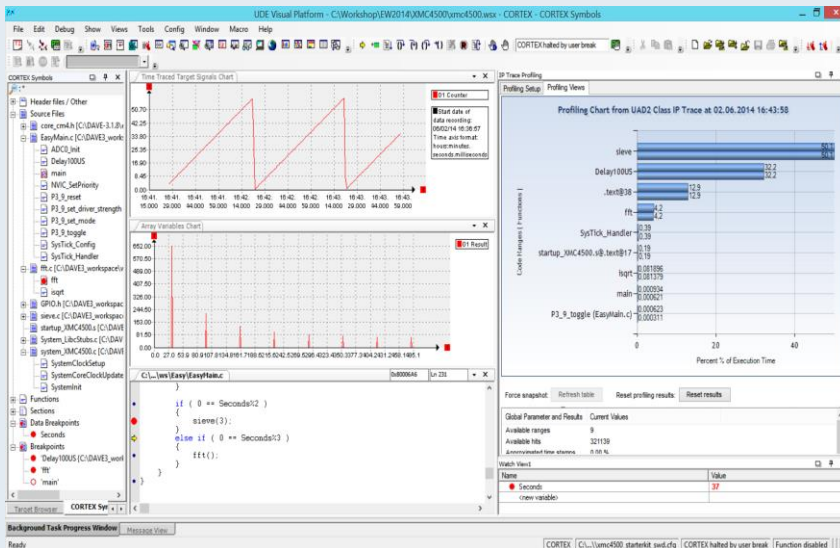
■ UAD2 pro

- ❑ Host: USB 2.0
- ❑ Target: JTAG, SWD, CAN recorder
- ❑ Optionally digital isolated



■ UAD3+

- ❑ Host: Gigabit Ethernet, IEEE1394, USB 2.0
- ❑ Target: 4 Debug I/O ports (JTAG, SWD), 1 Trace port
- ❑ Up to 4 GigaByte trace memory for external ETM trace





for



CANopen, EtherCAT and PROFINET with XMC

Christian Bornschein

www.port.de

Protocol Stack = Library+ Driver+ DesignTool

Protocol Stacks



- Single Line / Multi-Line
- Full featured
- Flexible CANopen Middleware
- DesignTool support
- Long term proven
- Complete XMC4000 family

Driver Package



- Only on-chip resources needed
- External ESC or internal ESC possible
- Embedded optimized
- CoE, EoE, FoE, ...
- Proven in the field
- XMC4500/4800 supported

DesignTool



- Only on-chip resources needed
- Fits in 96kByte RAM (incl. TCP/IP)
- Embedded optimized
- CC-A/B, RT-1
- Proven in the field
- XMC4500/4800 supported

PROTOS Software GmbH

Toolchains, DSLs and Modeling Tools

Thomas Schütz

Infineon, XMC Developer Day
07.05.2015

Durchgängige Modellierung von Applikation bis Treiber

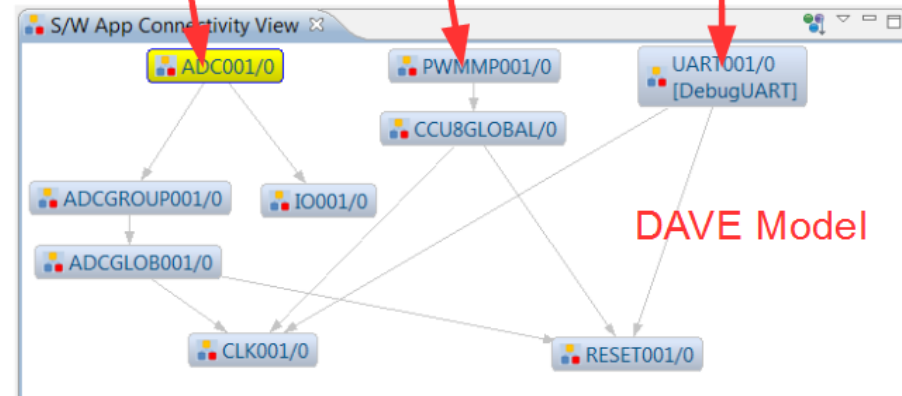
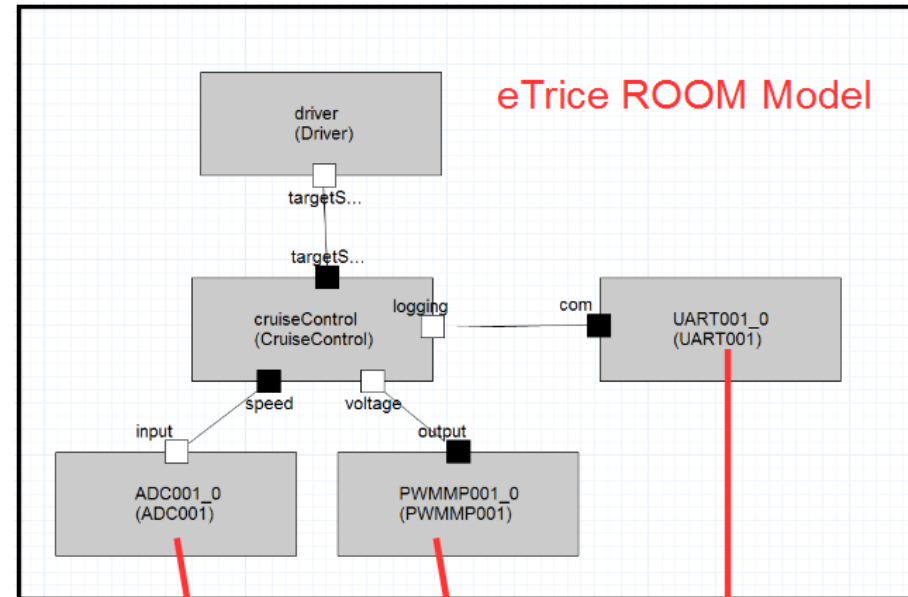
Eclipse eTrice

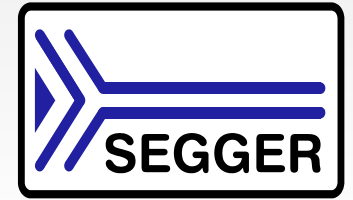
- Open Source Modeling Tool für Embedded Applikationen
- Abstraktion und Automatisierung für schnelle Entwicklung

Modellierte Applikation und Treiber erlauben durchgängige Entwicklung

DAVE

- Modeling Tool zur Treiber Konfiguration
- Code Generator für schnelle Entwicklung





www.segger.com



- Registered in 1997
- 40 employees
- ISO 9001 certified

Infineon - SEGGER

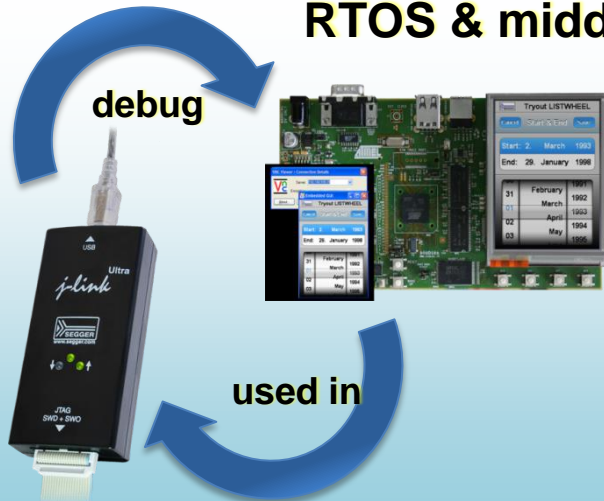
Reliable Partnership

Harald Schober – Director Sales&Marketing,
harald.schober@segger.com

The Embedded Experts

Closed-Loop Development

RTOS & middleware



SEGGER debugging tools

Showcase:

Digital Signature (emSecure)



- Stop cloning, prevent hacking
- Secure authentication
- Highest performance

Graphics Library (emWin)

- Most efficient graphics library
- Sophisticated debug capabilities
- High quality rendering

Easy Licensing

- No royalties
- Flexible license models
- Full source code



SiSy[®] XMC

Laser & Co. Solutions GmbH

our mission: full cycle software engineering

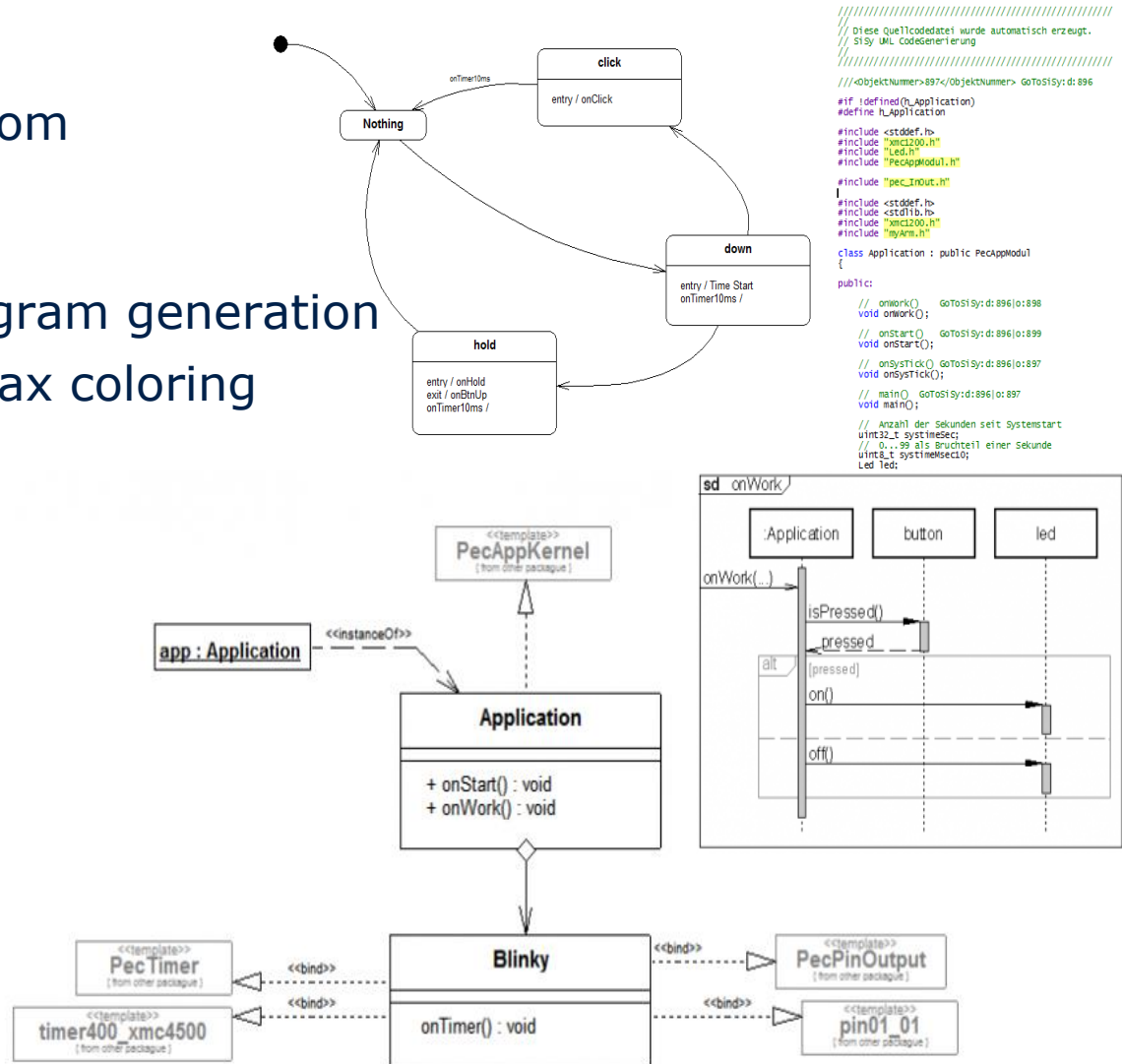
- established in 1991, saxony
- products: modeling and UML tools, evaluation boards, ...
- partners: infineon, Willert Software Tools, CONRAD, ELV, Christiani, ...
- contact:
 - Alexander Huwaldt, a.huwaldt@sisy.de
 - Toralf Riedel, t.riedel@sisy.de

Alexander Huwaldt

XMC Developer Day 2015, Munich



- full cycle UML tool
- source code generation from
 - class diagram
 - state machine
- just in time sequence diagram generation
- code completion and syntax coloring
- model level debugging
- class librarys for
 - low level driver,
 - portable middleware,
 - online libstore
- and much more



μCodeMeter

Cooperation between
Infineon and WIBU-
SYSTEMS

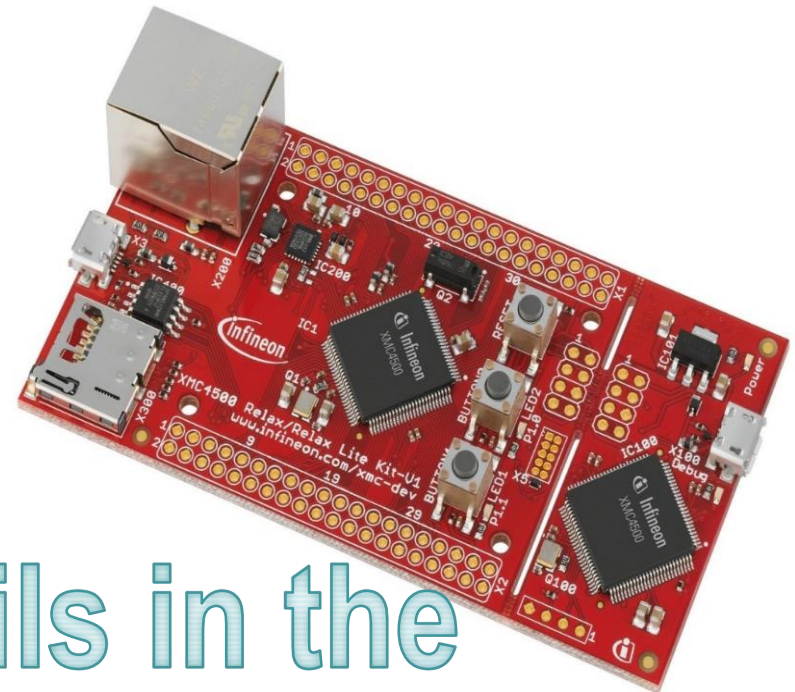


Marco Blume | Product Manager
Embedded
marco.blume@wibu.com

Established CodeMeter Security

- Embedded Security System
- Cryptography easy to use
- New scopes in the aftermarket

Powerful XMC Microcontroller



More details in the
afternoon session

Visit them during the breaks

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