

Welcome to the



Developer Day

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XMC Developer Day - Munich

9:30 – 9:50	XMC Overview Exhibitors' showcase	
9:50 – 10:45	XMC technical presentation Introduction to DAVE	
10:45 – 11:15	Coffee break / Exhibition	
11:15 – 12:30	Live session with DAVE Hands-on: Get DAVE up and running	
12:30 – 14:00	Lunch / Exhibition	
14:00 – 16:00	IAR Hands-on Importing code from DAVE EWARM special features	Keil Hands-on Importing code from DAVE MDK special features
16:00 – 16:15	Coffee break / Exhibition	
16:15 – 17:00	Matlab Simulink Connecting DAVE code to embedded coder	
17:00 – 18:00	Standing buffet / Exhibition	

XMC Target Markets: Key Customer Needs



Factory Automation



- High throughput and up-time
- Remote monitoring
- Reliability and quality
- Lifetime
- Security and safety
- Interoperability

Building Automation



- Energy efficiency
- Comfort and ease of use
- Remote monitoring
- Appealing design and form factors
- Interoperability

Transportation



- Robustness for harsh environment
- Functional safety
- Reliability and quality
- Lifetime

Power & Energy



- Energy efficiency
- Robustness for harsh environment
- Up-time

Home & Professional



- Form factor, size and weight
- Platform concept
- Copy protection
- Fast ramp-up

XMC Family / DAVE™

XMC Key Differentiators at Feature Level



Factory Automation



- Fast execution
- Powerful sense and control
- Industrial connectivity
- Memory interfaces
- Flash with ECC
- -40 to 125°C

Building Automation



- Flicker-free LED dimming
- Robust sensorless motor control
- Flexible serial communication

Transportation



- Flash with ECC
- -40 to 125°C
- Fast execution
- Scalability
- Shipping till 2027

Power & Energy



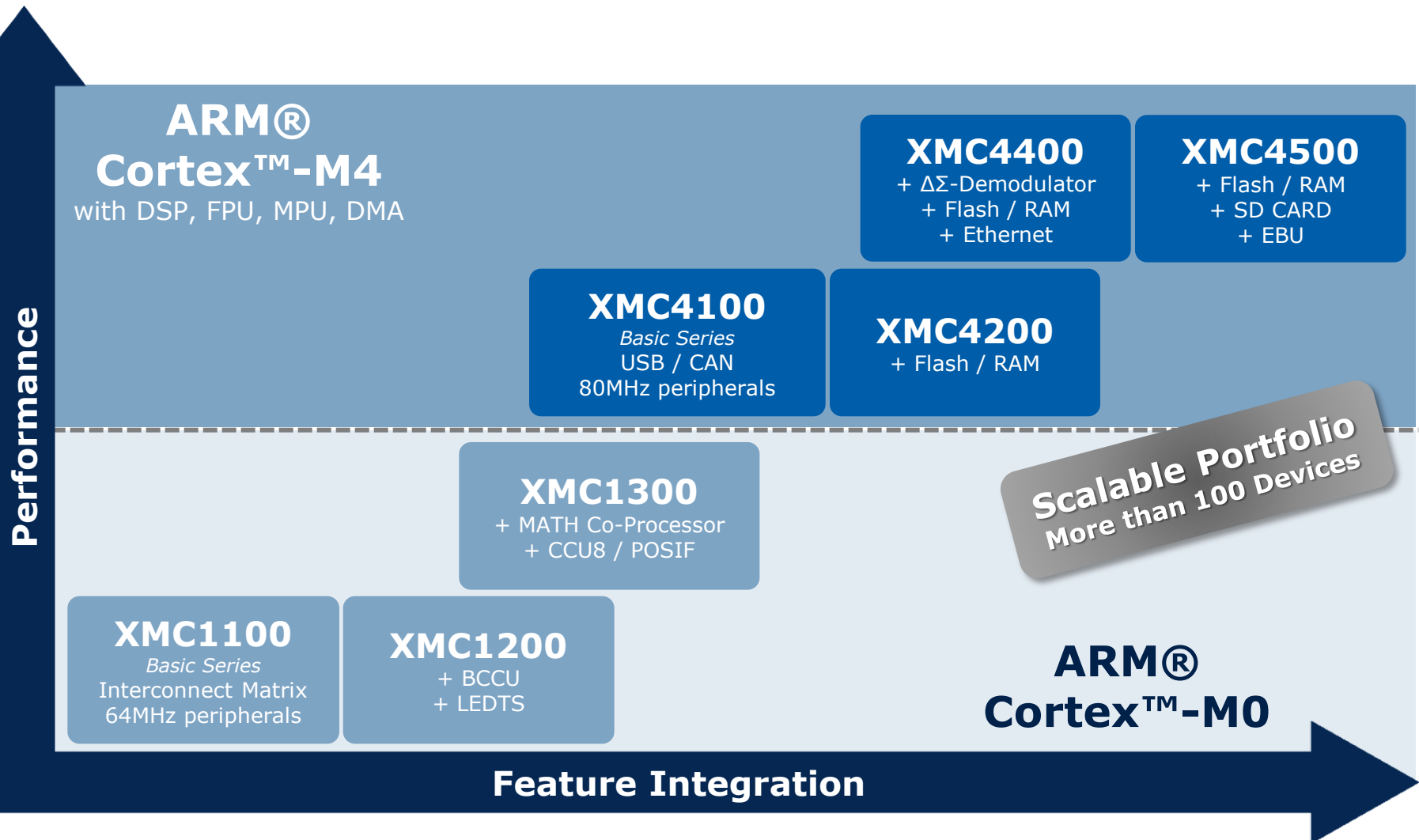
- High-Resolution PWM
- Powerful sense and control
- Industrial connectivity
- Flash with ECC
- -40 to 125°C

Home & Professional

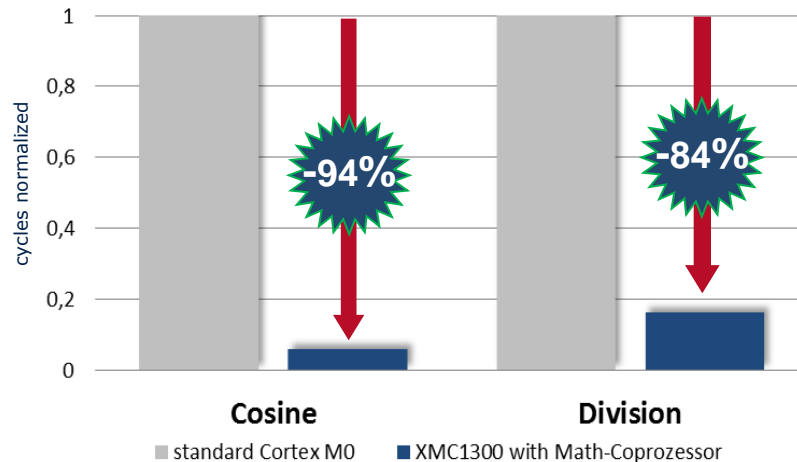


- Low pin count packages
- Software IP protection
- Software compatibility
- DAVE™ Apps shorten development time

XMC Family / DAVE™



Tune Up your system



- Unload your main CPU and **save up to 94% cycles**
- **64MHz** computing power
- Arithmetic acceleration (trigonometric, multiply, divide and hyperbolic functions)
- Significant **Code space reduction**

Try it...

Supported *products*

- **XMC1300**

Development Kits

Example: FOC motor control - XMC1300 outperforms even a Cortex®M3.

- Try it within minutes...
- Motor Control Kit hardware
- Use Dave™ FOC App to spin your motor...



Software

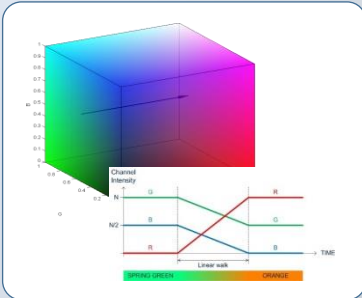


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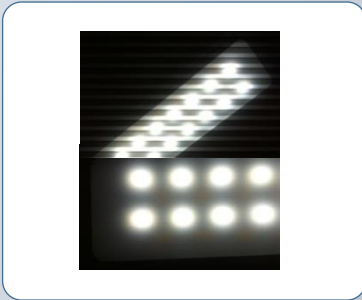
XMC1200 Brightness Color Control Unit

dedicated hardware for intelligent lighting



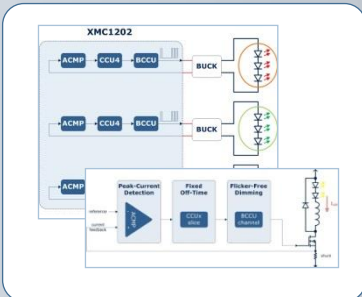
Automated RGB control mixing

- **linear walk principle**
- Very little use code and development effort – **CPU offload**



Smooth and automated dimming

- **flicker free**
- human eye friendly
- even at low dimming level



True System Approach

- Support **different topologies**
- Self-adaptive
- Expandability
e.g. DALI/DMX, Radar

Try it...

► Supported *products*

- **XMC1200**

► Development Kits



LED Lighting Application Kit

► Software

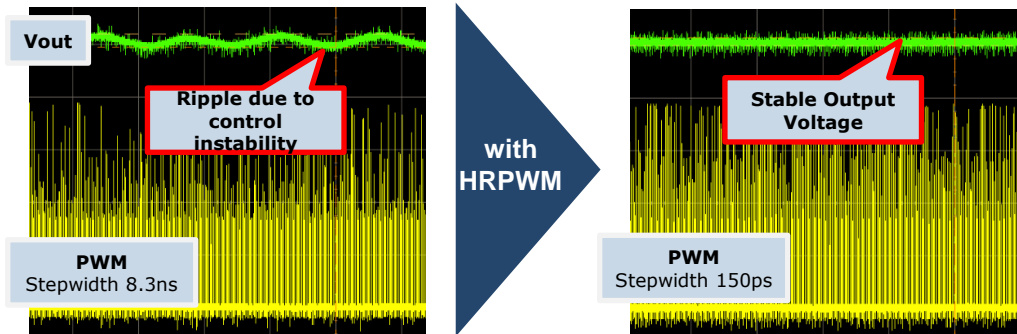


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XMC4000 High Resolution PWM (HRPWM)

switch to digital power



* Measured on 280 KHz buck converter w/o HRPWM

HRPWM offers

- **High resolution PWM** w/o an increase of CPU frequency (equals 6,67 GHz)
- **Precise and stable output voltage** in digital power applications even at high switching frequencies
- **Cost reduction** potential due to less & cheaper external components

Try it...

Supported *products*

- **XMC4000**

Development Kits

XMC4000 Application Kit



XMC4500 Relax Kit

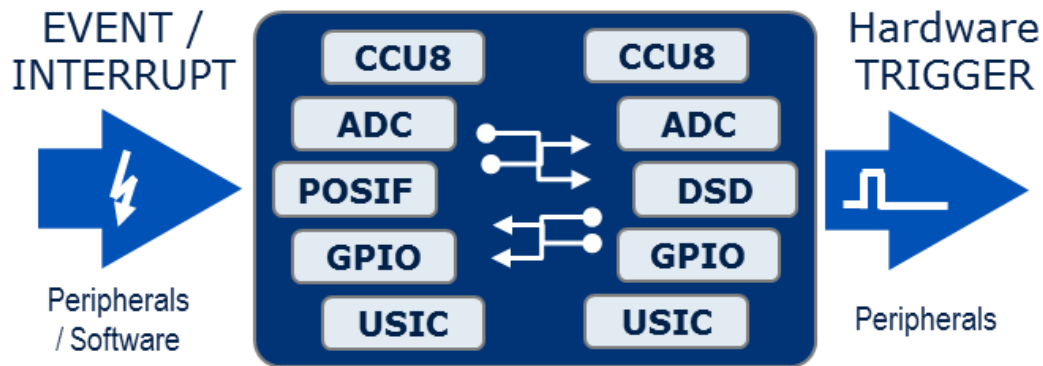
Software



DAVE™

XMC Intelligent Interconnect Matrix

Interconnect your peripherals



- Input-/Output trigger signals between hardware peripherals can be **connected by software**
- **React on events w/o CPU**
- Process simultaneous, fast & **deterministic**
- **Save cycles/code/energy**

Try it...

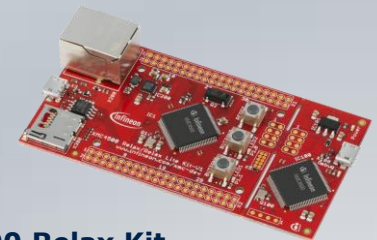
Supported *products*

- **XMC1000**
- **XMC4000**

Development Kits



XMC 2Go



XMC4500 Relax Kit

Software



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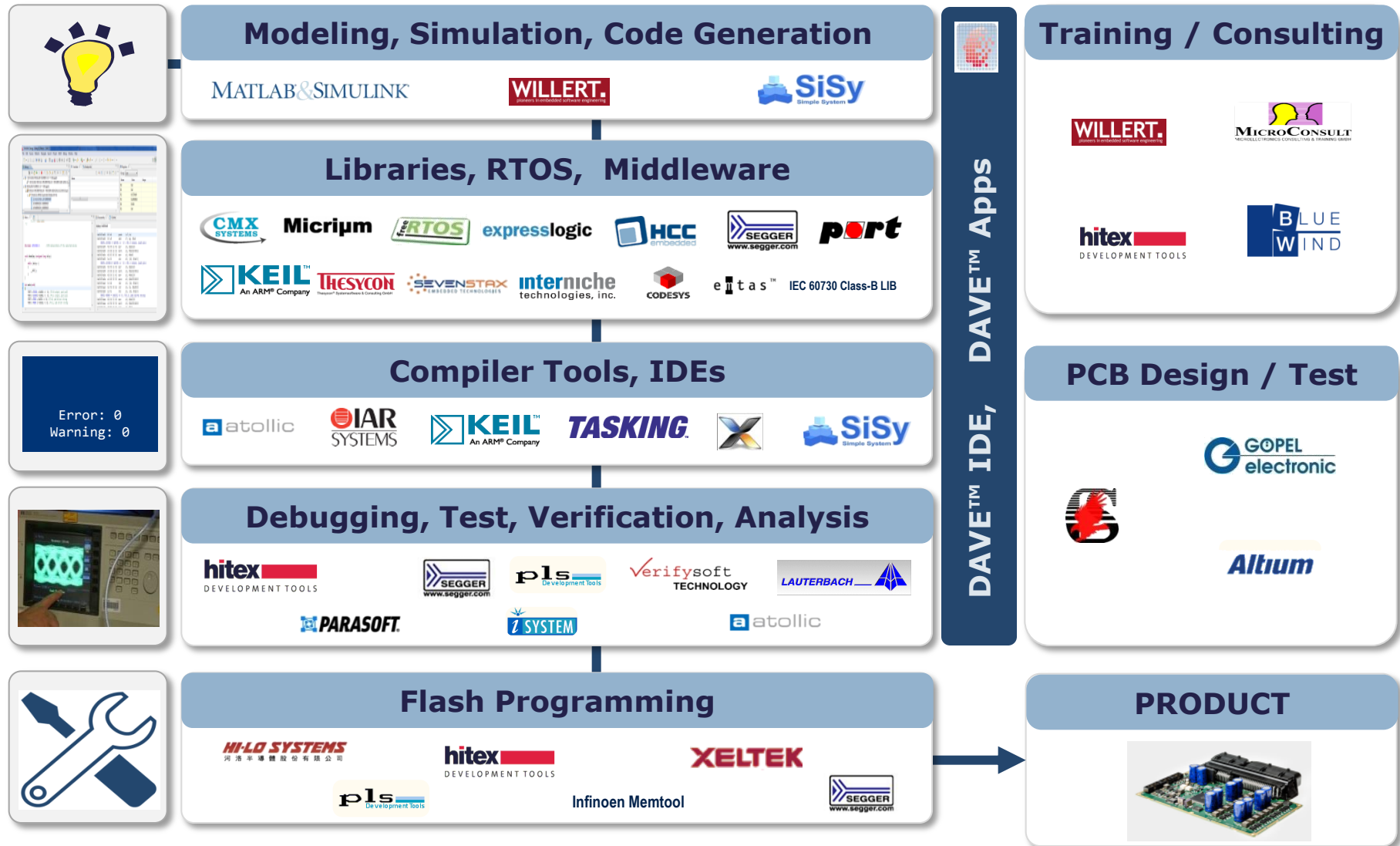
Embedded SW developer's challenges

- Stiffer competition on time to market
- Profitability through higher R&D efficiency
- End-customer expectations require usage of flexible peripherals
- Higher real-time demands drive all-to-all interconnectivity options

DAVE™ can manage those challenges because

- DAVE™ generates the code tailored to the application
- DAVE™ is easy to use and free
- DAVE™ Apps make it easy to fully utilize flexible peripherals and interconnectivity
- The resource solver ensures conflict free mapping of chip resources

The World around XMC



Exhibitors' Showcase: Compiler IDEs and RTOS plus Stacks



Embedded Work Bench for ARM



Microcontroller Development Kit



TASKING VX Tool Set by Altium



RTOS ThreadX and Communication Stacks

Exhibitors' Showcase: Debuggers and Training/ Consulting Services



WinIDEA Debug and Test Tools



Trace 32/ μ Trace Debug Tools



Consulting and Training services



Test Tools, Safety Consulting
and Training



ENERGY EFFICIENCY MOBILITY SECURITY

Innovative semiconductor solutions for energy efficiency, mobility and security.

