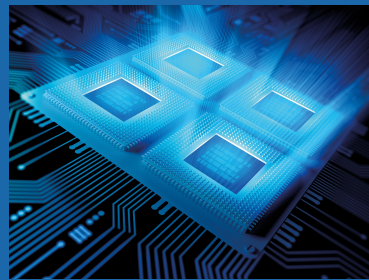




embedded world 2023 |  
Timing Analysis |  
Performance  
Optimization|  
C++ to C Compiler |  
Webinar on Performance  
Estimation



emmtrix Newsletter, February 2023

{{ contact.ANREDE }},

embedded world Exhibition & Conference (ew23) at the Nuremberg Exhibition Center is getting closer and closer and we are looking forward to meeting you in person in **hall 4-430 from March 14-16, 2023**. Our focus this year is on timing analysis (performance estimation), performance optimization (parallelization and vectorization) and our new C++ to C compiler. For all those who want to dive deeper into the topic of "Performance Estimation", we are offering a **free webinar on March 23, 2023**.

If you are in Nuremberg do drop by, if not please use any of the other means to get in touch.



March 14-16, 2023 | Nuremberg, Germany  
**embedded world 2023**  
Hall 4 | 4-430

Here are some reasons for you to come to our booth:

- \*Find out more about our innovative software tools
- \*Discover our services to support your projects
- \*Have a short demo on timing analysis, parallelization, vectorization (for the Infineon AURIX™ and RISC-V)
- \*Pick up a voucher for free web consulting
- \*Play our game to test your code run-time knowledge
- \*Get an invitation to our latest webinar
- \*Chat with our technical experts and managing directors

[Read more](#)

**Our booth staff:**



Rainer Heim



Dr.- Ing.  
Timo Stripf



M.Sc.  
Srdjan

Managing Director  
Business  
**at ew:**  
**Tue 14 - Thur 16**



Dipl.-Ing.  
**Oliver Oey**  
Technical Product  
Manager  
**at ew:**  
**Tue 14 & Wed 15**

Managing Director  
Technology  
**at ew:**  
**Wed 15**

[Make an appointment](#)

**Krivokapic**  
Software  
Developer  
**at ew:**  
**Tue 14**

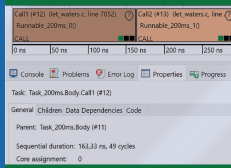


Dipl. Inform.  
**Michael Rückauer**  
Principal Software  
Architect  
**at ew:**  
**Wed 15 & Thur 16**

Don't have your ticket yet? Get your **FREE TICKET** for embedded world today by entering the voucher code **ew23492744** when registering.

[Get your ticket now](#)

## Product Innovations / Expansions 2023



## Timing Analysis

Automatic analysis and documentation of timing behaviour of code

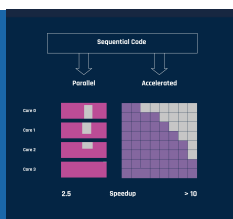
Our static performance estimation allows analysis of source code regarding its expected runtime on various embedded platforms. This can be done very early in the development flow and without the need to have the chosen platform or any simulator at hand. The aim is to detect potential timing issues before they develop into a problem.

Your benefits:

- \*Easily find the performance bottlenecks
- \*Identify time-critical tasks
- \*No last-minute design changes
- \*Continuous performance monitoring (CI)

Sounds interesting?

[Request a demo](#)



## Performance Optimization

Automated parallelization and vectorization of code

Optimize the performance of your embedded applications on multicore, GPU and DSP architectures and any combination of these processing

units automatically and easily.

With upcoming embedded processors that are assisted by vector accelerators, our tools help you to optimize your applications to make the best use of these accelerators by generating vectorized C code. The supported target platforms currently range from AURIX TC4x (PPU) to RISC-V (Vector) and ARM (Neon/SVE).

Your benefits:

- \*Identify optimization potential
- \*Automated parallelization (Multicore, DSP, GPU)
- \*Automated vectorization (ARM NEON/SVE, RISC-V vector, TC4x, PPU)
- \*Direct feedback on speedup

Ready for functional safety requirements:



Does your application need to be optimized?

[Request a demo](#)



## C++ to C Compiler

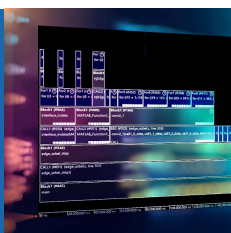
Lowering the abstraction level: from classes in C++ to function calls in C

emmtrix C++ to C Compiler can be used to convert C++ programs to plain C code while maintaining the same performance and functionality of the original code. Many C++ features are directly supported, such as classes, multiple inheritance, (variadic) templates, C++ casts, reference or static asserts. Using the latest LLVM/Clang compiler technology, we currently support C++11 and C++14. This lower level of abstraction can be useful to better understand the actual functionality of the program and has several use cases:

- \*Use your C++ programs on embedded systems where only C compilers are available
- \*Use certified C compilers
- \*Use static source analysis tools that only support C
- \*Build libraries that can be more easily linked from other programming languages

Do you want to learn more?

[Request a demo](#)



March 23, 2023 | 14:00 - 15:00 (UTC+1)

## Free webinar on Performance Estimation

In this webinar, we will introduce the concept of static performance estimation of source code and how it can be used very early in the development flow to improve the timing awareness throughout the life of the project.

We will show different methods to increase the accuracy of the results and will discuss the advantages of not having to run the code or the hardware, but will also look at the limitations of this approach. Finally, we will give a live demonstration of how the results can be used to steer the development in a direction that avoids costly refactoring to meet timing budgets.

**60 minutes well worth your while.**

Why you should attend this webinar:

- \*Your projects run into timing issues at the end of the project
- \*During development you don't have enough information about the timing of your programs on the target platform
- \*You don't have the hardware (yet), so timing measurements are not an option
- \*You want to know more about how emmtrix does the performance estimation

**Look forward to our expert:**



**Oliver Oey**

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+49 721 1803 2883



Register now

**Are you interested but can't make the time?**

No problem! Just register for the live webinar anyway and indicate that you can only watch our recorded webinar. You will then receive the link to the recording by e-mail after the webinar.

We look forward to your participation!

Your emmtrix team

Follow Us!



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