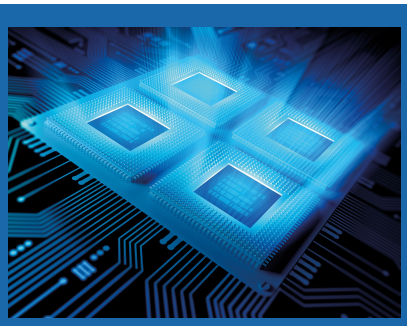
emmtrix Technologies

embedded world 2022 - at last live in Nuremberg

Webinar: Vectorization for Infineon AURIX™ TC4x



emmtrix Newsletter, May 2022

embedded world 2022 | Webinar: Vectorization for Infineon AURIX™ TC4x

{{ contact.ANREDE }},

From June 21-23 the embedded world 2022 will finally open its doors, in the real world, with real people. After more than 2 long years, do visit us in Nuremberg, in **hall 4 at stand 4-370**.

Our focus at the show is on **Performance Estimation**, **Dependency Analysis** and **Automated Vectorization** (Infineon AURIX™ TC4x and RISC-V). You can book live demos for each.

Book live demo here

Of course, parallelization and code generation will also be presented.

On the latest AURIX™ we also offer a *Chat-with-the-Expert Session* with Dr. Kajetan Nürnberger from Infineon Technologies AG and our Michael Rückauer.

Book your session here

The second focus of this newsletter is our latest live webinar **"Automated Vectorization in emmtrix Parallel Studio for Next-Generation Infineon 32-bit TriCore™ AURIX™ MCU"** in June. In this we will show you the benefits of vector processing and emmtrix's solution for efficient vectorization of applications for the Infineon AURIX™ TC4x.

Jump to webinar

embedded world 2022

June 21-23, 2022 | Hall 4, stand 4-370

Rainer Heim, Oliver Oey and Michael Rückauer are looking forward to welcoming you in June in Nuremberg in **hall 4 at our stand 4-370** to present our latest solutions:

Early Performance Estimation

Automated Analysis and Documentation of Timing Behaviour of Code

Static performance estimation of source code allows the analysis of source code regarding the expected duration on various embedded platforms. This can be done very early in the development flow and without the necessity of the actual platform or any simulator to detect potential timing issues before they even occur. Continue this monitoring of your timing budgets further along the project development and refine the accuracy of the estimation with additional information from compiler optimizations, simulators or hardware-in-the-loop.

In-tool-visualization and configurable reports help you spot high-runners and monitor the impact of changes in the code.

Dependency Analysis

Automatic Detection of Data Dependencies

Through static source code analysis, all dependencies between input and output signals of systems and individual modules can be analyzed. This allows verification of system specifications, provides additional checks (unwanted connections in the code) and facilitates certification and recertification via reports.

Apart from the basic data dependencies, our solution also considers indirect data dependencies where a control dependency (e.g. a condition) affects the value of a variable and delayed dependencies (the value depends on variables from previous iterations).

Automated Vectorization

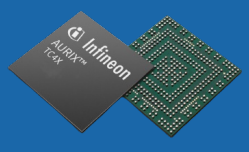
Code Generation and Optimization for Vector Processors

With upcoming embedded processors featuring vector accelerator units, data-intensive computations can be performed efficiently. Key to a successful adoption of this technology is the programming and optimization of the code for such vector accelerators. Our tools automate this process and provide vectorized C code either for a generic library-based implementation or for specific target architectures like Infineon AURIX™ TC4x or RISC-V vector extension.

Book a meeting or a demo

Get your free ticket

Code: **ew22466567**



Free Live Webinar

Vectorization for Infineon AURIX™ TC4x

June 02 & June 30, 2022 | 10 am (CEST)

The vector units included in the upcoming generation of microcontrollers promise to speed up the execution of data-parallel applications based on linear algebra by factors greater than 10. In our new webinar, we will show the benefits of vector processing and emmtrix's solution to efficiently vectorize applications for Infineon 32-bit TriCore™ AURIX™ TC4x MCUs.

What You will Learn

- Introduction to vector processing
- Challenges in programming vector processors
- emmtrix Vectorization Workflow
  - Vectorization-aware code generation from Simulink models
  - User guided, iterative vectorization of C, C++, MATLAB® and Simulink® models
  - Performance-guided optimisation of vectorized code

Available Dates

- Thursday, 02 June 2022, 10 am (CEST)
- Thursday, 30 June 2022, 10 am (CEST)

Your Host

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Register now

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