

Topic Embedded Products

The innovative solutions, offered by Topic Embedded Systems, cover all designs disciplines and collaboration models to make your embedded application a success. The services are delivered in three different ways: consultancy, project execution and standard embedded products.

With more than 175 consultancy specialists, we can be present on your premises, strengthening your development team with the expertise you need: C/C++/C#, Java, Pearl, VHDL, Linux, etc. at the level you need: designers, architects, project management. Our colleagues are highly trained (Bachelor, Master, PDEng, PhD) and available for short and long term development projects. They have a broad project experience which enables them to add significant value to a project.

By subcontracting your whole or partial application to Topic Embedded Projects, our internal projects organization, your development is in good hands. The projects are carried out at our Best office. The content of these projects may be mono-disciplinary, which benefit from our software, FPGA or board design capabilities. They can also be multi-disciplinary, incorporating all these disciplines. In that case complete designs, including enclosures, mechanical design aspects as well as motion control can be incorporated in the design effort. Project execution is based on our Agile/Scrum way-of-working which is ISO 13485 certified. This hazard analyses centric development approach allows us to design medical application where the design dossier is a certified part of your medical design history file. Our development processes are setup in such a way that they are easily adaptable for different quality systems, for instance to comply to CENELEC rules for functional safe application design.

We are particularly proud that Xilinx, a well-known FPGA and SOC silicon vendor, has qualified us as one of their Premier Alliance Partners. Our products portfolio is based on Xilinx technology. This is an eco-system of combinable and compatible high-quality system-on-modules (SOMs), carrier/evaluation/development boards and software infrastructure. By applying these hardware and software building blocks, Topic reduces your board, software and development effort by efficiently re-using design, production and functional experiences. This reduces development time, improves your time-to-market, leads to cost reductions and increases your chances on a first-time-right design. The products portfolio consists of:

- Miami System on modules, carrying Xilinx Zynq 7000 SoC (ARM dual core Cortex A9 CPU), Zynq Ultrascale+ (ARM quad core Cortex A53) or Kintex7 FPGA
- Florida carrier boards with versatile interface capabilities (Ethernet, Wifi, USB, HDMI in/out, LCD/ TFT touch display, battery charging, etc.)
- Dyplo®, our Dynamic Process Loader, which is an “operating system” on FPGA fabric that makes the FPGA behave as part of the software infrastructure like a thread pool. Exploring the capabilities of FPGA based partial reconfiguration, the FPGA gets software-like capabilities. Functional safety infrastructure, allowing for rapid implementation and certification of “smart” SIL2, SIL3 and SIL4 safe processing platforms.

One of the key-differentiating capabilities of Topic is the ability to combine the use of Topics standard products with Topic Projects based customization services for rapid application development. This leaves more time to focus on the true added value of the application where the infrastructural part is already proven technology. One good example is the development of the Rasnik customized carrier board, which is now deployed at CERN in the optical alignment solution for the Hydron Collider, replacing a 100W standard PC-frame grabber card solution by a Linux based Miami SOM – customized carrier board solution with less than 5W power consumption.

Eric van der Laak

Director Projects

Materiaalweg 4

5681 RJ Best

T: +31 (0) 499 33 69 79

E: Eric.van.der.laak@topic.nl

www.TopicProducts.com

TOPIC
EMBEDDED PRODUCTS

Embedded
in your future

