AURIX/TriCore C/C++ Safety Development Suite

COMPILER
BUILD TOOL

Safety Multicore Real-Time Operating System

PXROS-HR
REAL-TIME OS

ISO 26262, IEC 61508 Tool Qualification

QKIT
TOOL QUALIFICATION

Basic Support & Premium Consultancy Services

CONSULTING
DESIGN & SUPPORT

One-Stop-Shop for AURIX Tools and Development Services

HIGHTEC
HighTec Basic Support Services - Free of Charge

Basic Support Services, provided free of charge, aim to offer a generic technical help-desk to the customers for AURIX related topics. This does not include design services or topics requiring substantial design or R&D effort – these are part of HighTec Premium Services.

Technical interface and support to the customers

24-hrs response time to the customer by email and/or phone to AURIX related inquiries.

- Architecture/MCU selection advice
- Project requirements and feasibility analysis
- Documentation, SW and Tools guidance

HighTec & Infineon product synergy

Technical help and advises on synergy of Infineon AURIX products and HighTec Tools and SW solutions to achieve optimal and effective result.

- Safety Multicore Development Suite for TriCore/AURIX
- PXROS-HR Safety Multicore Real-Time operating system for AURIX
- Build tool qualification to comply with ISO26262 and IEC61508 requirements

Online trainings

Introductory online trainings on various topics. Typical duration is 0.5 – 2 hours.

- Infineon SafeTLib Introduction
- Functional Safety Basics
- Autosar MCAL Introduction (MC-ISAR)
- Build Tools (HighTec Toolchain)
- PXROS-HR RTOS Overview
- ISO26262, IEC61508 Toolchain Qualification Kit (QKIT)
- AURIX Architecture Introduction
- GTM/MCS Introduction
- Infineon iLLD/SW Framework Basics
HighTec Premium Consultancy Services

Premium consultancy model is based on a specific agreement between a customer and HighTec PDH and aims to support customer-specific design activities. HighTec EDV-Systeme offers consultancy services primarily in the following areas:

**Infineon Autosar MCAL**
- MCAL configuration, review and integration in customer application framework
- Autosar Complex Driver development

**Infineon SafeTLib**
- SafeTLib integration in a customer application framework
- Test framework setup and configuration

**Driver development**
- Custom driver development for AURIX devices
- Custom integration of iLLD/MCAL based drivers
- Integration of advanced SW layers, such as Bootstrap, TCP/IP stacks, files system, etc.
- PXROS-HR RTOS driver development

**HighTec Solutions**
- Application and build frameworks based on HighTec Toolchain
- Build Toolchain migration into HighTec Toolchain
- Safety multicore real-time operating system design with PXROS-HR RTOS
- ISO26262, IEC61508 Build Tool Qualification

**Advanced technical trainings**
- HighTec Build Tools
- Infineon SafeTLib Integration
- MCAL (MC-ISAR) Integration
- PXROS-HR RTOS Technical Trainings
- Using Advanced AURIX Peripherals: GTM/MCS and HSM

**System architecture and design**
- Single to multicore migration
- Multicore-based application architecture and partitioning design
- Porting of non-OS based applications to OS-based system
- PowerPC to AURIX migration
“HighTec Mission is to ensure independence for the future and the most reliable and secure tools for embedded software development.
Service, customer-oriented philosophy and reliable partnership are deeply engraved in our DNA.”

A multi-platform embedded tools and software vendor
HighTec EDV Systeme is the Multi-Platform Embedded Tools and Software Vendor and the world largest commercial Open Source Compiler provider for embedded systems.
HighTec is a privately owned company since establishment in 1982, strongly focused on Automotive and Industrial markets. The headquarters are based in Germany with large development teams around Europe.

Product foundation
Multi-Platform Development Suite for ARM, AURIX/TriCore, Power Architecture and RH850, is at the core of company’s product foundation. More than 25 years of HighTec in-house compiler technology development experience and close cooperation with silicon and tool vendors, yields architecture’s best-optimized results. HighTec compiler is always available for the latest chip revisions and ahead of general release.
Tier-1s, OEMs and industrial customers around the Globe rely on the HighTec’s most reliable and secure tools for embedded software development.

PXROS-HR is a SIL-2 certified micro-kernel real time operating system, providing the highest level of data protection, functional safety, and robustness.
It is inherently designed for the multi-core environment and distributed systems to fit demanding requirements of industrial and automotive applications.
Consulting and Development services in the areas of performance optimization, functional safety, real-time OS, porting from single-core to multicore systems and to the Autosar environment.

Open source and longevity
Long-term support, maintenance, and availability are a fundamental need for automotive and industrial applications with long life cycles.
HighTec commitment to support all major silicon platforms, long-term maintenance service for customer specific frozen versions and open source nature of our toolchain products, guarantee tools availability even after several decades since production start.
**Infineon Partnership**

HighTec in-depth experience with now Infineon platforms is dating back to 1991 by introducing compiler for C16x architecture.

The successful cooperation had strengthened by releasing the first ever GNU compiler for TriCore architecture in 1999 and continues ever since, making HighTec the primary partner for GNU based AURIX/TriCore toolchain solutions.

Architecture-optimized compiler development and early access to latest silicon revisions give HighTec engineers an edge to profound understanding to Infineon products and software packages.