SYSGO
EMBEDDING INNOVATIONS

CODEO 7.4

Eclipse-based Integrated Development Environment

Works with
- **PikeOS**
- **PikeOS for MPU**
- **ELinOS**

C

The CODEO IDE provides the components that software engineers need to develop embedded applications. The feature list includes comprehensive helpers to finish embedded projects in a time-saving and cost-efficient way. CODEO is based on the Eclipse framework and supports PikeOS, PikeOS for MPU and ELinOS. Different project types can be used in the same workspace at the same, allowing the architecture of heterogeneous systems.
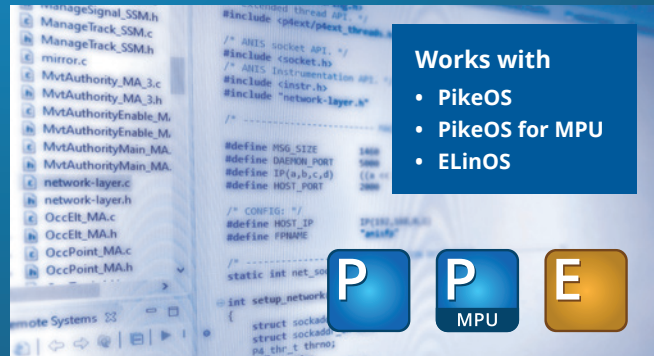
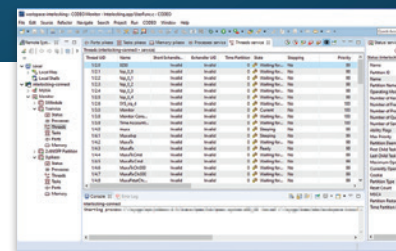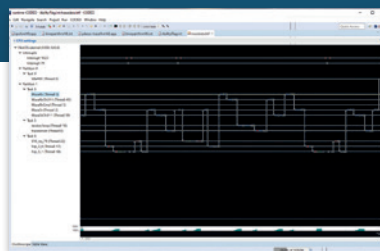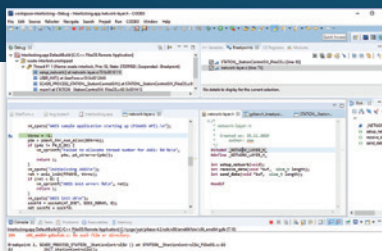**3rd Party Tool Integration**

Graphical Tools

System Analysis

Multi-Core Configuration

Shared Projects

Standard Components

- Eclipse-based Integrated Development Environment (IDE)
- Project setup wizard
- Graphical configuration tools
- Graphical remote debugging, down to hardware level
- Remote application deployment

Dynamic System Analysis

- Application and kernel tracing
- Optional lightweight tracing for less impact on performance
- User-defined trace events
- Triggers and event filters
- Event search

Static System Analysis & Control

- Static system analysis & more
- Remote system explorer
- PikeOS/PikeOS for MPU monitor
- Partition control

Additional Features
- Health monitor
- Hardware emulation

Working with CODEO

CODEO offers a comprehensive C/C++ integrated development environment based on Eclipse. The CODEO IDE includes project management, code browser, configuration management, interface components and can be further extended by other Eclipse plug-ins. The configuration manager contains a graphical configuration editor and powerful integrity checker making it almost impossible to create invalid configurations.

A graphical feature assembler helps to add and remove partitions, applications and services like drivers, stacks and I/O servers. Any application running on PikeOS can be debugged independently of all other concurrent applications. Several applications can be debugged at the same time. Applications developed with CODEO can be deployed directly on the target hardware or the QEMU emulation.

Video
CODEO Demonstration

www.sysgo.com/codeo-demo1
www.sysgo.com/codeo-demo2

www.sysgo.com

DEVELOPMENT AND CONFIGURATION TOOLS

CODEO provides well designed and easy to use configuration tools, remote debugging with OS awareness (thread states, virtual address mappings, etc.), target monitoring, remote application deployment, and timing analyses tools. And there is even more: A complete environment for embedded systems covering the whole development cycle from early simulation/ emulation tools to software update mechanisms for deployed systems.
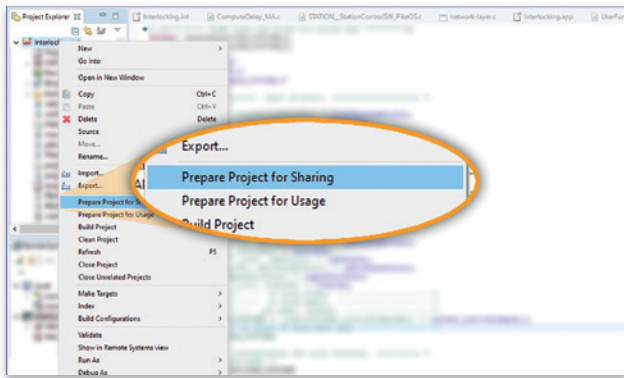

Working in a Team

CODEO provides dedicated tools to clean up your project before sharing via version control tools. That does not only contain the removal of temporary build artefacts, but also handles user-specific configuration settings without touching the global project relevant settings.
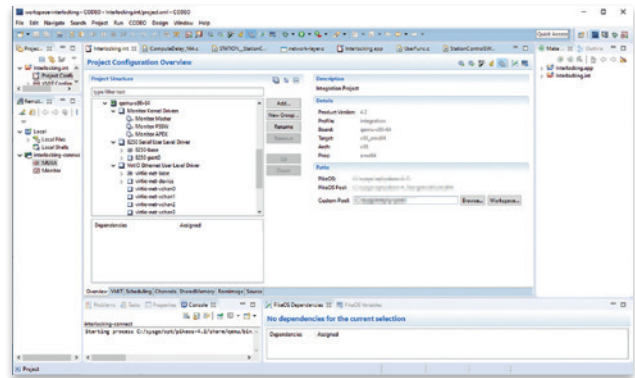

Transparent Driver Handling

The flexibility of PikeOS allows drivers and services to be executed in different contexts, such as user or kernel space. With CODEO, the system integrator may change the entity of system services without having an impact on the application development, as there are abstraction layers based on stable interfaces.
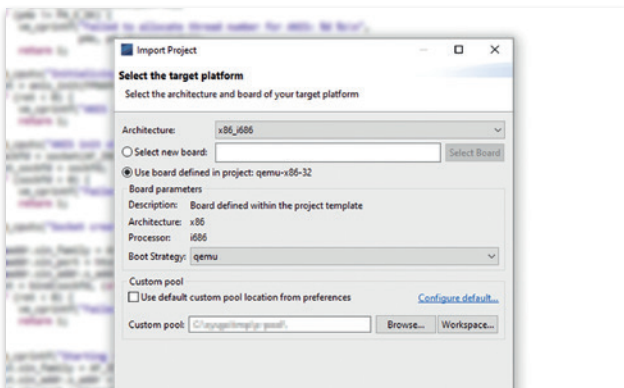
Importing existing Projects

CODEO provides import wizards to adopt existing projects. During the import process, the user has the choice to keep the previous architecture and board settings or configure the project to run in a completely different environment.
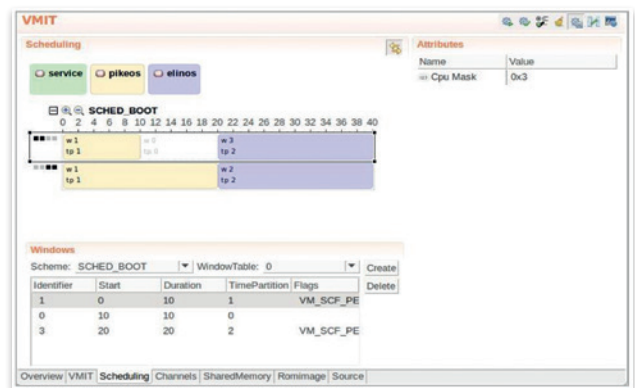
Multi-Core Support

The PikeOS real-time scheduler is capable to process complex cyclic execution patterns of guest operating systems, called time partition schemes. CODEO allows the graphical configuration of time partition schemes and gives the user any freedom to define the execution parameters of a guest OS, such as one or multiple processor core assignments as well as start and stopping times.

Founded in 1991, SYSGO became a trusted advisor for Embedded Operating Systems and is the European leader in hypervisor-based OS technology offering worldwide product life cycle support. We are well positioned to meet customer needs in all industries and offer tailor-made solutions with highest expectations in Safety & Security. More information at www.sysgo.com/codeo

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