

CODEO 7.1

Eclipse-based Integrated Development Environment

Works with
PikeOS 5 and ElinOS 7



The CODEO IDE provides the components that software engineers need to develop embedded applications. The feature list includes comprehensive helpers, like easy-to-use configuration tools, target monitoring, remote debugging with OS awareness, and timing analyses tools. In addition, remote application deployment helps to realize embedded projects in a time-saving and cost-efficient way.



3rd Party Tool Integration



Graphical Tools



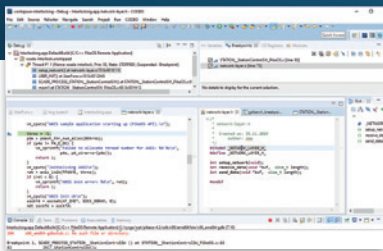
System Analysis



Multi-Core Configuration

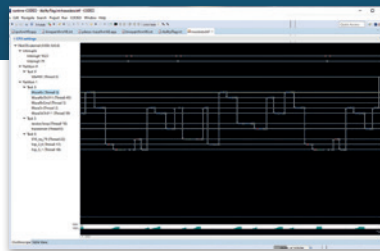


Shared Projects



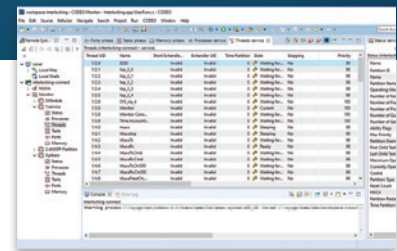
Standard Components

- 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 monitor
- Partition control

Additional Features

- Health monitor
- Hardware emulation

Working with CODEO

CODEO offers a comprehensive C/C++ integrated development environment based on the Eclipse framework. The IDE CODEO 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 automatically validating the consistency of the configuration.

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 a running PikeOS target hardware or QEMU emulation. Maintenance updates and upgrades can be deployed remotely on PikeOS targets without system reboots or physically accessing the hardware.

Video

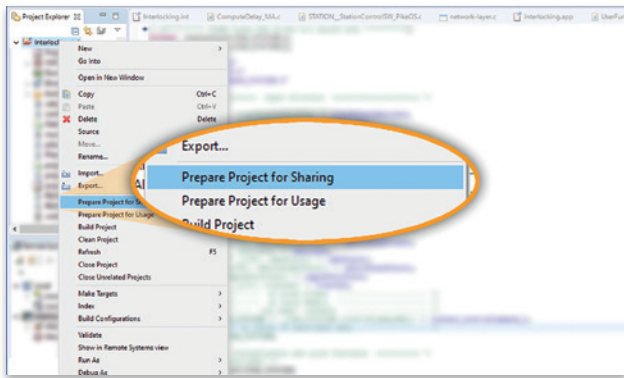
CODEO Demonstration



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

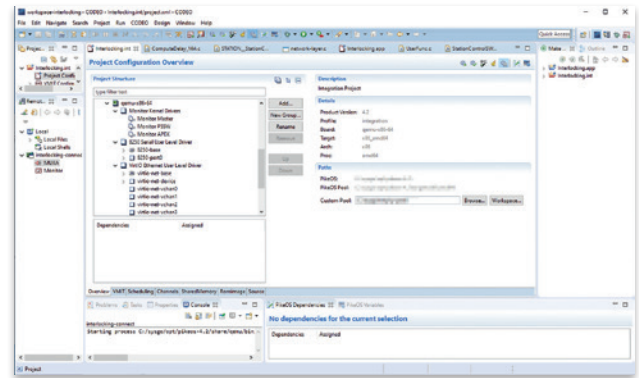
DEVELOPMENT AND CONFIGURATION TOOLS

CODEO provides easy to use configuration tools, remote debugging with OS awareness (thread states, virtual address mappings, etc.), target monitoring, timing analyses tools, and remote application deployment. Furthermore, a complete environment for embedded systems covers the whole development cycle from early simulation/emulation tools to software update mechanisms for deployed systems.



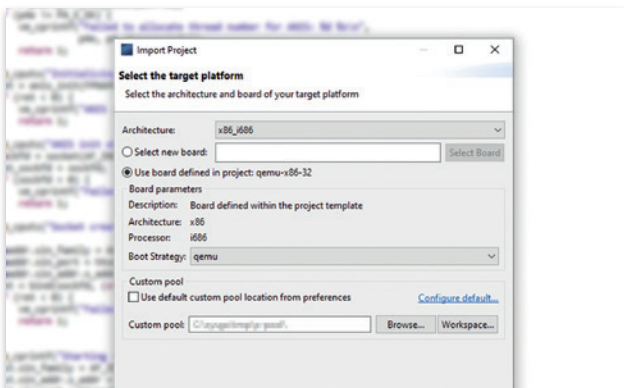
Working in a Team

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 artifacts, but also handles user specific configuration settings without touching the global project relevant settings.



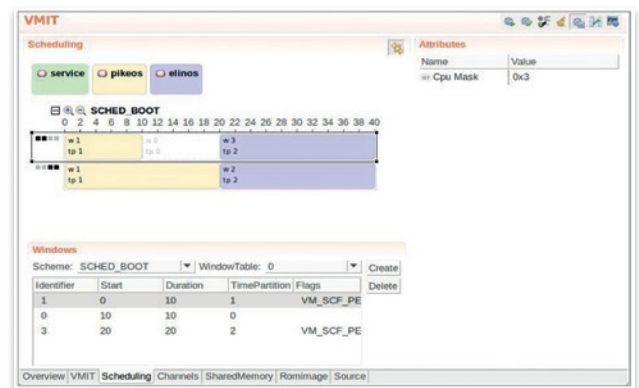
Transparent Driver Handling

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.

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