SIRIUS OS Target
Embedded Real-Time Target for MATLAB® Simulink®

SOKRATEL
Automotive | Automation
Green Energy

You are searching for an **easy way** to run your **Simulink® model** on your **MPSoC**?

SIRIUS OS Target closes the gap between Simulink® and the deployment of the model on the MPSoC with the following new features:

- **Inter-Core Communication** between APU, RPU & FPGA
- Real-Time **Task Scheduling**
- MATLAB®'s **external mode** for **FreeRTOS**
- Integrated build process with **Vitis™**
- Simulink® **library blocks** for external communication
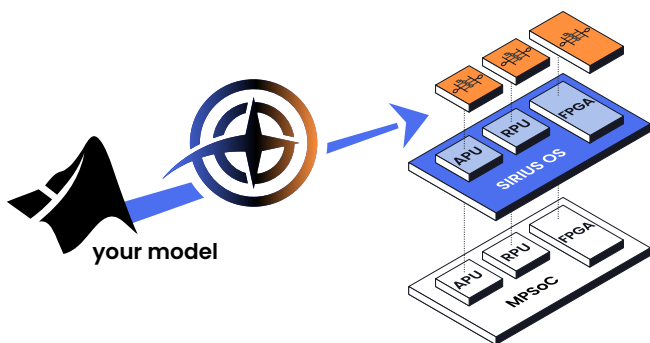- **Easy** model **upload and deployment**

If you know Simulink®, you can handle MPSoCs!

Simulink® with SIRIUS is the best choice

- easy application development **without embedded programming skills or hardware knowledge**
- **strong acceleration of the entire engineering process**
- clear presentation and quick interpretation of results
- ongoing development and updates
- **fast and personal support** in case of difficulties
- access to many years of experience of our developers

Technical features

- **more than one model** can run on each core
- **real-time communication** between models via an Inter-Core Communication manager
- time- or update-based model triggering
- simple parameter management
- **easy and automatic deployment** on hardware
- Simulink® library blocks for external bus protocols
- additional features can be supported on request

your model

Areas of application

- Sensor Processing
- Ultrasound
- Flight Navigation
- IIoT & Cloud Computing Security
- Networking & Industrial Communication
- Industrial Vision
- Medical Engineering
- Image & Video Processing
- Collaborative Robotics
- Motion & Motor Control
- Frequency Converter
- Automotive (ADAS)

Features of SIRIUS

- Embedded Real-Time Environment & RT-Communication
- Xilinx Vitis™ - Integrated Build Process
- External Mode
- Raw Ethernet
- FreeRTOS
- MATLAB® Simulink®
- Time- or Update-Based Triggering
- CAN
- UDP
- Real-Time Task-Scheduling
- Data & Event Logging
- ICC
- Profinet
- AXI Communication
- TSN
- Individual Features on Request
- OPC-UA

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