

RapidPro: Stand-Alone Prototyping ECU

- Flexible prototyping platform
- Based on the new MPC5554
- RapidPro concept of sensor/actuator adaptation

RapidPro will soon be available as a stand-alone electronic control unit (ECU) for prototyping. The RapidPro Control Unit will form the basis of a modular hardware platform, using the new microcontroller MPC5554 (Copperhead). This will mean you can develop and test new concepts for control functions on production-close hardware and software. Open software interfaces will enable you to integrate C code from different sources and to integrate a calibration tool.

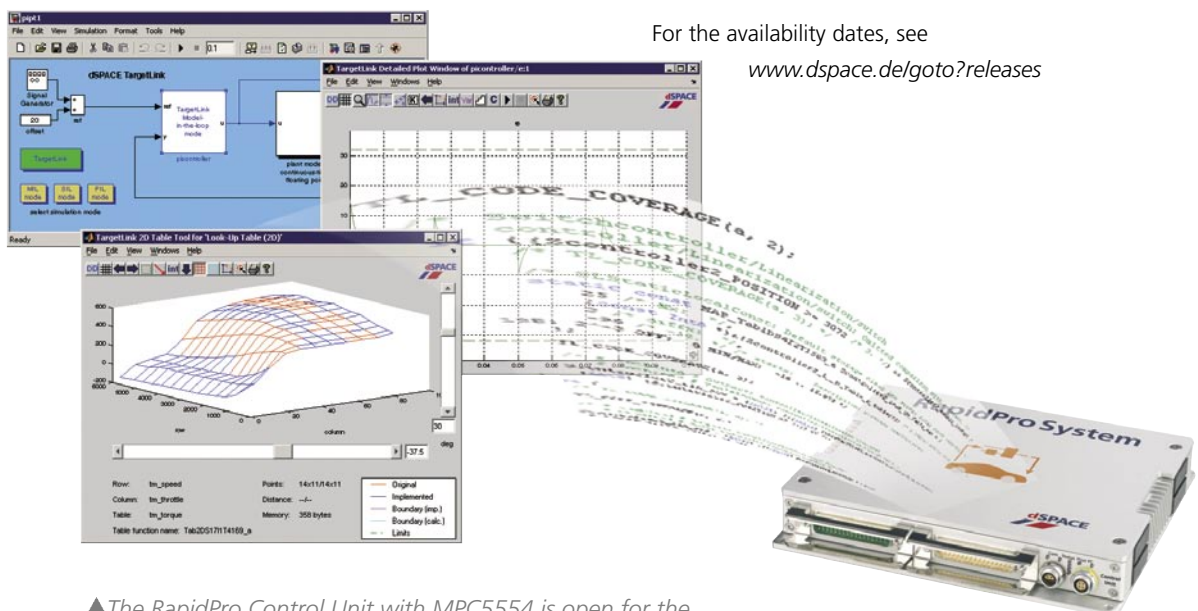
Prototyping Building Blocks

The RapidPro Control Unit is the central component of the highly adaptable prototyping ECU. It has a new microcontroller module with the powerful MPC5554 especially for this purpose, plus a new USB communication module for fast connection to CalDesk, dSPACE's experiment and calibration software. For flexible sensor adaptation, there are slots for several signal conditioning modules on the Control Unit. If you need power stages for actuators or additional signal conditioning, you can add further RapidPro units (Power and SC Units) to build a stack. RapidPro's modularity and scalability enable you to build individualized systems quickly and cost-efficiently. As with

all RapidPro units, the hardware is put into operation and configured by means of ConfigurationDesk, the software that was tailor-made for RapidPro.

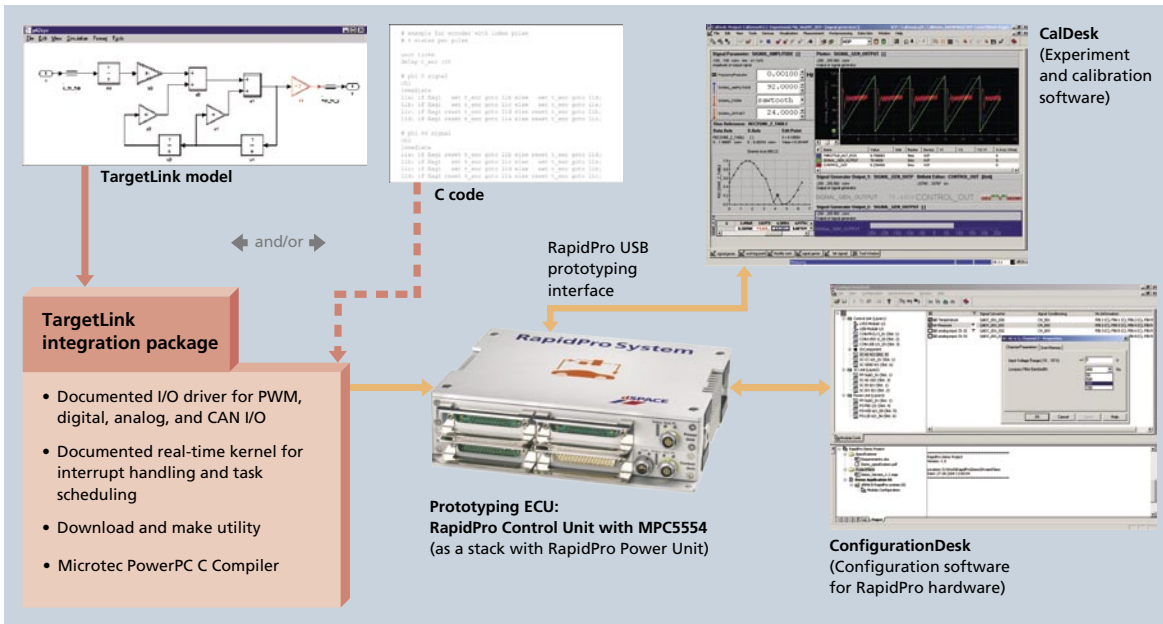
C Code from Different Sources

If you already have existing C code, you can integrate it on the RapidPro Control Unit manually. To support you, there are I/O drivers for PWM, digital, analog, and CAN I/O, plus a real-time kernel for interrupt handling and task scheduling. For model-based code generation from TargetLink, dSPACE offers an additional integration package that simplifies the integration of I/O, provides a TargetLink example model, and performs the build and download process at a click. The system is currently running in the customer pilot phase.



For the availability dates, see www.dspace.de/goto?releases

▲ The RapidPro Control Unit with MPC5554 is open for the implementation of C code and TargetLink models.



◀ *RapidPro Control Unit with MPC5554: an independent prototyping ECU, expandable flexibly for sensor and actuator adaptation.*