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**PRESS RELEASE**

## RENESAS RZ/T2M and port's GOAL middleware enables next-generation factory automation

*Today's factory automation requires faster and more precise motor control, timely and seamless communication over Industrial Ethernet (PROFINET-RT, EtherNet/IP, EtherCAT, POWERLINK, OPC UA and TSN Time-Sensitive Networking for PROFINET CC-D / CC-LINKIE TSN) of next generation.*

The combination of the GOAL middleware from port and the new generation RENESAS RZ/T2M TSN-enabled family offers a future-proof option to use all previously used real-time protocols and at the same time to retrofit TSN-based protocols such as PROFINET CC-D or CC-LinkIE TSN.

Port's GOAL middleware offers a uniform platform for the quick and easy integration of Industrial Ethernet protocols such as PROFINET RT with MRP, EtherNet/IP inc. DLR, EtherCAT (and more) and in the future PROFINET CC-D TSN and CC-linkIETSN. GOAL also offers an OPC UA extension that standardizes access to machines, devices and other systems in the industrial environment.

Port's GOAL middleware is supported by a powerful tool (ICC - industrial communication creator). Here, too, port offers a uniform tool for parameterization and administration of all GOAL-supported real-time extensions.

Port offers some examples for download, which can be tested on the EVAL platform "Renesas RZ/T2M RSK".

The RZ/T2M microprocessor (MPU) provides high-speed processing and high-precision control, improving real-time performance in factory automation. Equipped with a 3-port Gigabit Ethernet switch, the RZ/T2M can connect to the main industrial Ethernet multi-protocols and TSN in one chip. A functional safety system can be built using only one RZ/T2M MPU and one other MCU to monitor each other instead of the conventional one MPU and two other MCUs to monitor each other.

Main features:

* Dual/Single Arm® Cortex®-R52 CPU core (max operating frequency at 800MHz)
* Large tightly coupled memory (576 KB) eliminates execution time variability and realizes real-time deterministic responses
* Improves the speed and precision control of AC servos by placing motor control peripherals on a low-latency peripheral connector accessible from the CPU
* Supports EtherCAT®, PROFINET RT/IRT, EtherNet/IP™ and the next generation Ethernet standard TSN
* User-friendly development environment, including Renesas Starter Kit for RZ/T2M
* Extensive software package with RTOS, drivers, middleware and many other application examples

**about port** **GmbH**
port is a leading supplier of industrial real time communication technologies like CANopen and Industrial Ethernet including the PROFINET, EtherNetIP, EtherCAT POWERLINK, CC-LinkIE TSN, and TSN protocols. port GmbH has been located in Halle/Saale since 1990.  For more than five years port has successfully provided Industrial Ethernet Technology such as PROFINET, EtherCAT, POWERLINK, EtherNetIP and CC-LinkIE TSN. port offers stacks, tools, workshops and integration support as well as custom hardware and software development, including manufacturing of electronic devices and systems.

#### Keywords:

RENESAS RZ/T2M, PROFINET TSN, PROFINET RT, PROFINET IRT, EthernetIP, EtherCAT, POWERLINK, OPCUA, CANopen, GOAL Middleware,

#### Links

<https://www.port.de/de/products/applications/rzt2m-group.html>

[https://portgmbh.atlassian.net/wiki/spaces/GOALR/pages/553123843/GOAL+-+Renesas+RZ+T2M+RSK](https://portgmbh.atlassian.net/wiki/spaces/GOALR/pages/553123843/GOAL%2B-%2BRenesas%2BRZ%2BT2M%2BRSK)

<https://www.renesas.com/eu/en/products/microcontrollers-microprocessors/rz-mpus/rzt2m-high-performance-multi-function-mpu-realizing-high-speed-processing-and-high-precision-control>

#### Pictures

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