Renesas Ready Ecosystem Partner Solution
Port GOAL Real-Time Communication
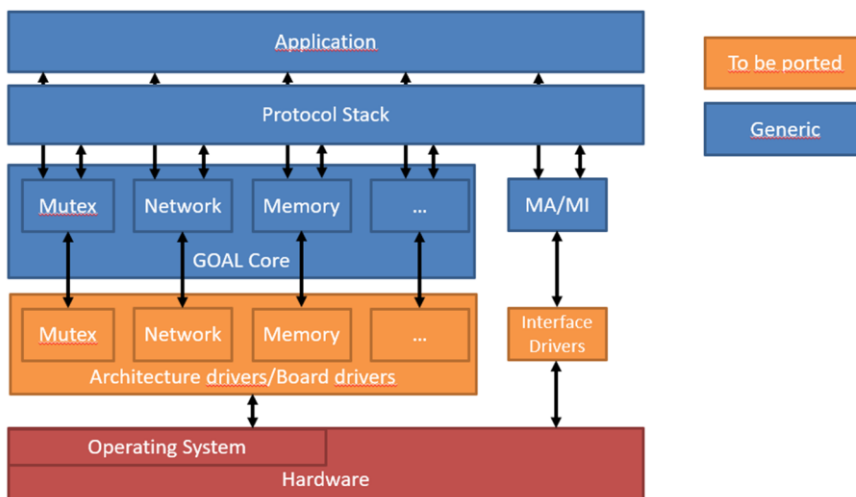
RENESAS PARTNER NETWORK READY

Solution Summary

Port's GOAL (Generic Open Abstraction Layer) technology delivers the perfect way to successfully integrate real-time communication – one hardware, one middleware, enables to implement communication standard into customer's product and unify access to a variety of systems and reduce porting effort for all applications. GOAL scales perfectly with the available resources ranging from bare metal systems over RTOS like FreeRTOS up to Linux. Support is available for MCUs/MPUs with EtherMAC and/or EtherCAT slave controller such as RX72M MCU, RZ/N1, RZ/N2L, RZ/T1 and RZ/T2M MPUs.

Features/Benefits

- Building block middleware for industrial communication
- Powerful socket for protocols like PROFINET, EtherNet/IP, EtherCAT, Modbus/TCP, CC-Link IE Field Basic, OPC UA, POWERLINK, CC-Link IE TSN
- TSN supported - connector to IoT / Industry 4.0
- Powerful services around networking: timer, memory management, flash handling
- Network management such as IP-Address management and others
- Engineering tools for code generation and master emulation.

Diagrams/Graphics

Target Markets and Applications

- Industrial automation
- Conveyer belt
- Renewable energy
- Building automation

www.port.de/en/products/goal-middleware.html

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Port offers stacks, engineering tools, middleware including OEM hardware and software development, pre-certifications tests and integration services.
See the following table for available industrial ethernet protocol stack for Renesas' products.
For specific protocol stacks which are not listed here at the following table, please contact service@port.de.

	PROFINET CC-A/B	PROFINET CC-D	EtherNet/IP	EtherCAT	Powerlink	Modbus/TCP	CANopen	CC-Lin IETSN Class A and B	CC-Link IE Field Basic	OPC UA (micro+nano)
RZ/T2M	x	x *1	X	x*2	x	x	x*4	x *1	x	x
RZ/N2L	x	x *1	x	x*2	x	x	x*4	x *1	x	x
RZ/T1	x		x	x		x	x*4		x	x
RZ/N1	x		x	x		x	x*4		x	x
RX72M	x*3		x*3				x*4			
RA							x			
R-IN32M3	x		x	x		x	x		X	x

*1 Under development, as of Feb. 2025
*2 Under Planning, as of Feb. 2025
*3 Only single port, dual port project specific
*4 Can be made available on short notice

Port industrial automation
Founded in 1990 – Port is active ever since in the field of industrial communication. Port is providing turn-key solutions for Industrial Communication – protocol stacks and GOAL implemented accessories provide a powerful Device Kit with multi-protocol support. The Device Kit approach delivers not only one building block, but also a complete system, including examples of a compliant device while accelerating your Time To Market.

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