

UDE PXROS-HR Support

Debugging of Highly Reliable Safety Critical Applications

The **Universal Debug Engine® (UDE)** is a powerful development platform for debugging, testing and system analysis of microcontroller applications. With an additional add-on, UDE provides extended functions for software development of highly reliable and safety critical applications, which are under control of the PXROS-HR real-time operating system from HighTec EDV Systeme.

- PXROS-HR support is provided as UDE Add-On and extends a UDE basic debugger license
- PXROS-HR Add-On consists of the PXROS-HR Support Window that provides a comprehensive and detailed view to information about PXROS-HR operating system objects
- The shown information is directly collected from the target system
- No additional description file necessary
- The information that is shown is updated as soon as the target microcontroller enters the HALT state (e.g. at a breakpoint).

PXROS-HRSupport

OS

TASK

MEMORYCLASS

MESSAGE

MAILBOX

OBJECTPOOL

INTERRUPT

ID	Name	Priority	Events	Main Functi...	Stack Start	Stack End
0x0003	InitTask_C0	0x00000001	0x00000000	0x80011F56	0x70000000	0x7000992
0x0007	Namesrv	0x01000000	0x00000000	0x80004064	0x70009920	0x70009A1
0x0009	Task1	0x00008000	0x00000400	0x8001262C	0x7000A940	0x7000AA0
0x1003	InitTask_C1	0x00000001	0x00000000	0x80011F56	0x60000000	0x6000892
0x1006	LedServer	0x00002000	0x00000000	0x800124BE	0x60008940	0x6000898
0x2003	InitTask_C2	0x00000001	0x00000000	0x80011F56	0x50000000	0x5000892
0x2006	Task2	0x00008000	0x00000400	0x80012792	0x50008940	0x50008A0
0x2008	TtyTask	0x00001000	0x00000000	0x80012EF4	0x50008B00	0x50008C0
0x3003	InitTask_C3	0x00000001	0x00000000	0x80011F56	0x40000000	0x4000892
0x3006	Task3	0x00008000	0x00000400	0x800128FC	0x40008940	0x40008A0

Available Information of PXROS-HR Operating System Objects

OS

Used cores and current running task

Task

Name and ID, address of main function, priority, stack information, call back function, events, scheduling information, etc.

Memory Class

Information about memory regions

Message

Type, sender and recipient, responsible mailbox, transmitted data

Mailbox

ID, mode, message and call back information

Object Pool

Pool parameters, object ID, pool type, object count

Interrupt

Object ID, interrupt number, interrupt handler information

Timer

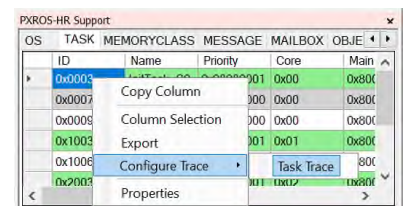
Type and subtype, timer specific information, triggered events

Inter-Core Communication

Information about communication between tasks and mailboxes

Tracing and Virtualization of Tasks and Sequences

For microcontrollers with trace capability the PXROS-HR support of UDE offers also visualization of task and function execution sequences. The context menu within the PXROS-HR support window offers to open the trace configuration dialog.



OS	TASK	MEMORYCLASS	MESSAGE	MAILBOX	OBJE
	ID	Name	Priority	Core	Main
	0x0003	InitTask_C0	0x00000001	0x000	0x800
	0x0007	Namesrv	0x01000000	0x000	0x800
	0x0009	Task1	0x00008000	0x000	0x800
	0x1003	InitTask_C1	0x00000001	0x001	0x800
	0x1006	LedServer	0x00002000	0x001	0x800
	0x2003	InitTask_C2	0x00000001	0x001	0x800

Context menu options: Copy Column, Column Selection, Export, Configure Trace, Task Trace, Properties

If you have any questions about our products, please feel free to contact us:

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