

UDE AUTOSAR Support

AUTOSAR Classic Platform / OSEK Support and Trace Analysis with Universal Debug Engine®



The Universal Debug Engine® UDE is a powerful platform for debugging, testing and system analysis of multi-core microcontroller software applications. For electronic control applications based on OSEK like AUTOSAR Classic Platform (CP), UDE provides functions for analyzing and visualization of OS-specific information as well as task and (optionally) code trace.

Get Inside with ORTI – Visualize OS internals

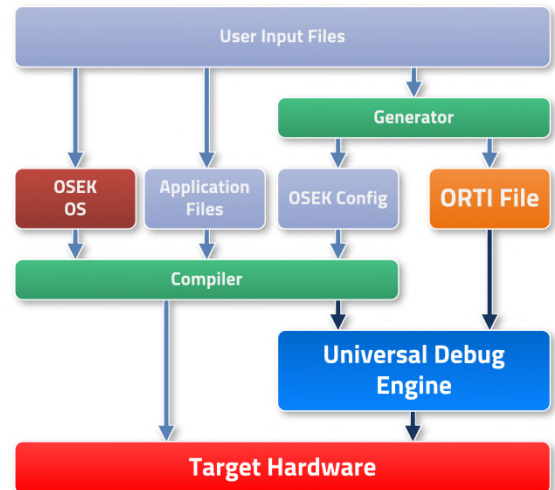
ORTI – OSEK Runtime Interface – is a standard interface and file format which provides information about OSEK/VDX compliant real-time operating systems and AUTOSAR Classic Platform. With this information the Universal Debug Engine® UDE gives the users an inside view of the operating system states.

UDE ORTI support provides:

- Evaluation of ORTI/ARTI* files for information about operating systems
- Presentation of operating system information

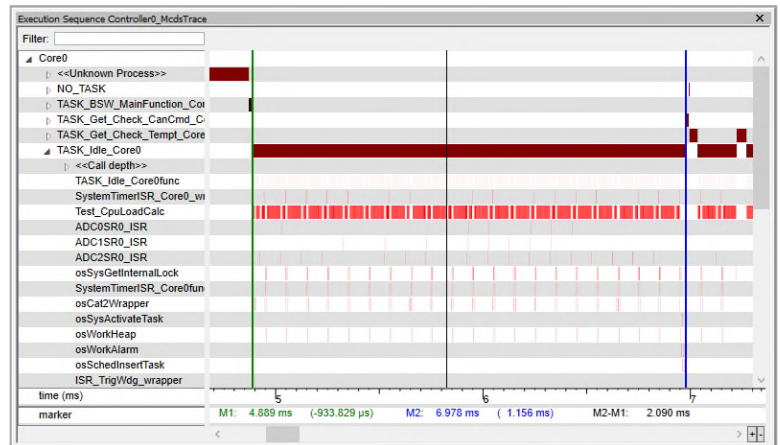
Task Trace of AUTOSAR CP / OSEK Operating Systems

The trace features of microcontrollers allow a non-intrusive observation of the execution sequence of operating system tasks. UDE uses the information provided by ORTI files for configuring data traces in order to determine task changes which are indicated by OS variables. That enables a maximum utilization of the available trace resources and trace memory. If required, code trace can be enabled too.



Name	Value
TnCore_27x	
vs_SMP_NUMCPU	0x00000003
RUNNINGTASK	
[0]	Refresh Values F11
[1]	Refresh ORTI File
[2]	Configure Trace...
RUNNINGISR2	
SERVICETRACE	
RUNNINGTASKPRIORITY	
CURRENTAPPMODE	OSDEFAULTAPPMODE
TASK_PWM_Core1	
TASK_1MS_Core1	
TASK_loHwAb_Core1	
TASK_Get_Check_Tempt_Core0	
TASK_BSW_MainFunction_Core0	
PRIORITY	"osTcbActualPrio[4]" not a valid expr
vs_HomePriority	2
STATE	WAITING
STACK	0x00003B8
vs_Schedule	FULL-Preempt
vs_TaskType	EXTENDED

The captured trace data is analyzed by UDE to ensure a proper visualization of the sequences of executed operating-system tasks including their precise timing. Beside this, the Execution Sequence Chart can also display the function sequence of each task.



UDE allows also to export preprocessed trace to BTF (Best Trace Format**) for additional analysis by third party tools.

* ARTI in preparation

** From Timing-Architects Embedded Systems GmbH

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