winIDEA

User Interface

µC/OS II Kernel Awareness

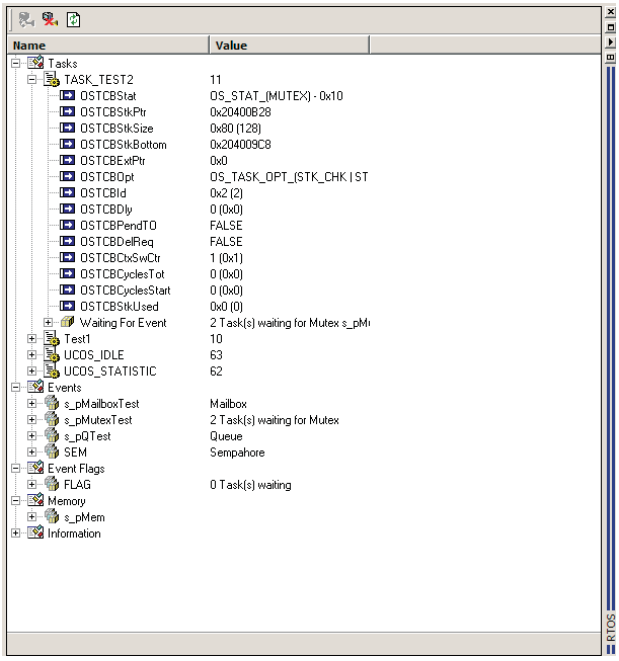
winIDEA with its µC/OS II kernel awareness empowers the user to see all the available internal kernel structures:

- application tasks
- events
- event flags
- memory partitions
- additional information

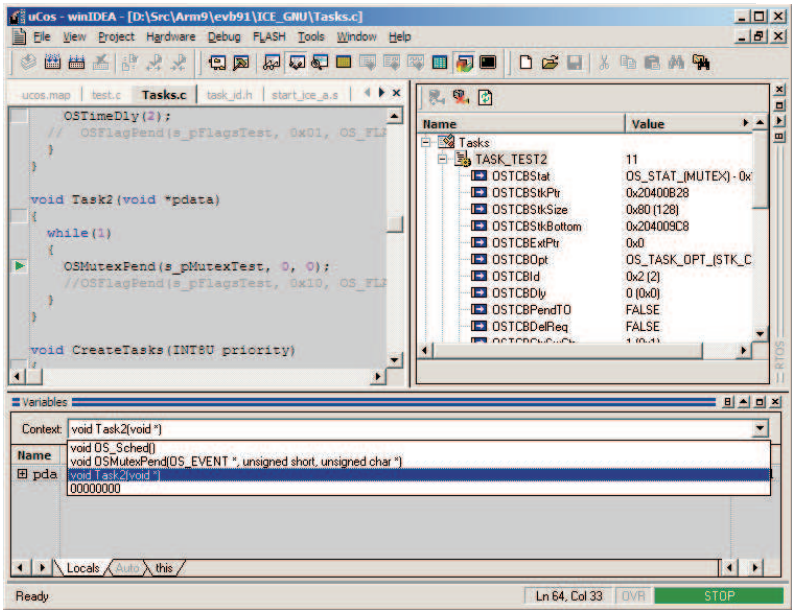
On top of that, the user can preset the context to any task in the list and see the caller tree for each task.

Depending on the development system and the target CPU used, winIDEA can display kernel objects in real time without any impact on the target application. Kernel awareness is CPU independent.

List of application tasks provides the information about current task state. This includes priority, status (running, waiting on event, ready,...), stack information, statistical data, list of events that this task is waiting for, etc. List of event flags list reveals which task is waiting for a specific flag. List of memory partitions offers information about address, size and number of free blocks for each partition. Information like idle counter, number of context switches, CPU usage, interrupt nesting counter, current task, etc. are displayed as additional information.



µC/OS-II
The Real-Time Kernel



When the user presets the context to any task in the list, belonging program counter and CPU register values are displayed. Current context is also used in the variables and watch window.

Whenever possible winIDEA replaces addresses or data in the OS window with symbolic information. The requirement is that µC/OS-II is built with the debug symbols switched on.

When the OS is compiled without task name members the only way to see the task is by its priority or task id. To be able to identify the task by name, the user can define a special header file that is used for finding the task name according to the task identifier used when the task was created. The same philosophy is used for events.

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