

PRODUCT Focus

Nohau gives RTOS Users easy access to the Seehau User Interface:

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The Issues

Providing RTOS support has always been a problem for emulator makers. We are all putting more RTOSs into projects, increasing the urgency to resolve these issues. The information most sought by users is the name of the current task and the biggest problem is getting the RTOS information into the emulator GUI.

The emulator maker historically intended to provide the RTOS interface. Sometimes the job never seemed to get done. There are so many RTOSs available with no clear marketing information indicating which one to support in what order: It was difficult for the emulator designers to

master all the various RTOSs without getting overwhelmed. Home grown RTOSs presented additional problems and there were no suitable solutions for their users. Users had to view memory areas to determine the status of their RTOS which was cumbersome.

With Seehau, Nohau's new user interface being developed, we knew there was a better way.

The Solution

Nohau has decided to open access to their interface and pass control and responsibility to the RTOS developer. The developer now has the ability to write an application that creates a window in Seehau. You can support the RTOS you wrote yourself too.

The appropriate information is given freely on the web at www.nohau.com under RTOS Support.

How it is done

Seehau resides on a PC and communicates with the emulator through an executable called ncore.exe.

The developer writes an ActiveX object that presents all the information on the screen as shown in this example. This can be called the RTOS Module. An existing RTOS debugger or presentation screen can easily be wrapped in an ActiveX control screen.

This application usually carries the extension ".ocx". The interface to this

OCX is specified by methods and events. Methods are functions that are called by Seehau to provide information to the RTOS module such as that a breakpoint or trigger has occurred. Events are functions called by the RTOS module and include actions to read data from the emulator or target system that contains the RTOS status or to start the emulator.

These Methods and Events functions are specified in the document on the web.

A GUID number will be provided by Nohau that will identify your RTOS module in the Windows registry file.

Embedded System Products

The Task Snapshot shown is Embedded System Product's solution for their RTXC. Note that *EXAMPLE8* is the current active task. Also available are Semaphore, Queue, Mail, Partition and Resource snapshots. Other RTOS developers have decided to provide such support soon.

Conclusion

Nohau has provided a quick and easy way to support any RTOS. Transferring control to the RTOS developer increases the likelihood support will be implemented. Since the developer has much better knowledge of the RTOS, this support will be more versatile, complete and timely.

#	Name	Pri	Entry	Arg Addr	State \ Information
1	RTXCBUG	1	0000add	00000000	Semaphore CBUGSEMA
2	S10ODRU	2	00002180	00000000	Queue Empty S100Q
3	S10IDRU	3	00002151	00000000	Semaphore S10ISEMA
4	EXAMPLE1	4	0000e3e2	00000000	Delay <0 ms>
5	EXAMPLE2	5	0000e4c1	00000000	Semaphore SSEMA7
6	EXAMPLE3	6	0000e504	00000000	Inactive Semaphore SSEMA2
7	EXAMPLE4	7	0000e556	00000000	Message SMBOX2
8	EXAMPLE5	8	0000e571	00000000	Suspended Semaphore SSEMA6
9	EXAMPLE6	9	0000e582	00000000	Blocked Partition SPART2
10	EXAMPLE7	99	0000e59b	00000000	Ready <26/26 ticks>
11	EXAMPLE8	99	0000e5a7	00000000	<Running> <4/52 ticks>
12	EXAMPLE9	12	0000e5d1	00000000	Semaphore SSEMA3 SSEMA4 SSEMA5
13	EXAMPL10	13	0000e5ed	00000000	Inactive
14	EXAMPL11	14	0000e61a	00000000	Queue Full SQUEUE2
15	EXAMPL12	15	0000e63d	00000000	Inactive
16	EXAMPL13	16	0000e659	00000000	Resource SRES1
17	EXAMPL14	16	0000e665	00000000	Queue Empty SQUEUE3