

Product Release Notice

RTX 2011 with Service Pack 1 Update 5

Release Date

RTX 2011 with Service Pack 1 Update 5 will be released for General Availability on April 15, 2013.

Product Overview

RTX 2011 with Service Pack 1 Update 5 is supported on Windows 7, up through SP1, including Windows Embedded Standard 7, up through SP1; Windows Vista, up through SP2; Windows XP SP3; and Windows Embedded Standard 2009.

Features and Updates

RTX 2011 with Service Pack 1 Update 5 includes the following updates:

- Resolved an issue where the Real-time Kernel (RTK) creation API calls would not fail correctly when the Real-time Subsystem was not running. (RTX-1372)
- Resolved an issue where Real-time Kernel (RTK) API calls were being called at `IRQ_DISPATCH` instead of `IRQ_PASSIVE`. (RTX-1270)
- Resolved an issue where Task Manager would generate an exception when an RTSS process was run on certain systems. (RTX-1124)
- Added new Wait object API calls, `RtWaitForSingleObjectEx` and `RtWaitForMultipleObjectEx` which allow for wait times values in the 100 ns range. (RTX-1370)
- Corrected Network driver default settings for RTE1000, Rt8257x and Rt82580 that did not match our documented defaults. (RTX-859)

Fixes from Previous Updates

Issues Resolved in Update 4

- Resolved an issue where a memory leak occurred in `RTAPI_w32.dll`. (RTX-1267)
- Resolved an issue where the system would hang while sending and receiving IP packets to/from the RT-TCP/IP Stack. (RTX-1177)
- Resolved an issue where a lock-release violation could occur with the RTX Subsystem under certain SMP conditions. (RTX-1220)

- Resolved an issue where the RT-TCP/IP Stack displayed messages even when Verbose Mode was disabled. (RTX-1281)
- Resolved an issue where threads created by the RT-TCP/IP stack and device drivers did not exit gracefully. (RTX-1129)
- Resolved an issue where the RTX Task Manager failed to start when a RTSS application was running on a system with 22 RTX cores and 2 Windows cores. (RTX-1180)
- Resolved an issue where the function RtAttachInterrupt() failed when used with shared line-based interrupts. (RTX-1272)
- Resolved an issue where stopping the RTX subsystem when the subsystem was set for *Automatic Start* would cause the RT-TCP/IP stack to be the wrong type. (RTX-1319)

Issues Resolved in Update 3

- Resolved a race condition that existed during cleanup of internal objects when a Windows application linked to RTX was terminated abnormally. This issue could cause a system crash when pressing Ctrl+C while running a Windows process (linked with `rtapi_w32.lib`). (RTX-748, RTX-722)
- Resolved an issue where intermittent system crashes occurred when Windows applications linked to RTX that used shared memory to communicate with RTSS processes did not exit cleanly (e.g., forgot to close the handle to the shared memory object). (RTX-98)
- Resolved an issue where Windows applications linked to RTX were slow to exit and clean up resources, taking approximately 10 seconds to close upon exit. (RTX-952)
- Resolved a networking issue where communication problems occurred between Windows and RTX Network stacks when a permanent ARP entry was created in the RTX stack. (RTX-623)
- Resolved multiple issues with TimeView:
 - TimeView only reported data for the processor on which it was running. (RTX-451)
 - TimeView did not report all objects currently active on the system. (RTX-171)

Issues Resolved in Update 2

- Resolved an issue where RtWaitForSingleObject returned STATUS_PENDING (RTX-49)
- Resolved an issue where upgrading RTX 2011 caused incorrect license information to be displayed (RTX-85)
- Resolved an issue where shutdown of a Windows 7 system was delayed when more than three network cards were under RTX control and the RTX subsystem wasn't stopped first (RTX-86)
- Resolved an issue where calling `select()` after `send()` would time out and result in an exception (RTX-44)
- Fixed a typographical error in the API calls `RtnIsStackOnline` (was `RtnIfStackOnline`) and `RtnIsDeviceOnline` (was `RtnIfDeviceOnline`) (RTX-81)

Issues Resolved in Update 1

- Resolved an issue where, on machines with multiple network device interfaces, a network device interface experienced latency in sending and receiving data using Broadcast while the other network device interface was disconnected (RTX-1, 4, 5, 7)
- Resolved an issue where the RtcpIAddDeviceToPNPINFFile function failed and returned a 0 (RTX-10)
- Resolved an issue where an exception is thrown due to timeout on select call (RTX-44)
- Resolved an issue where RtssRun and RtssKill did not handle instances where non-RTDLL files existed in the internal registered RTDLL directory (RTX-16)
- Resolved an issue where RtxRegEnumKeyEx and RtxRegEnumKey caused a crash in ANSI-enabled RTSS applications (RTX-14)
- Resolved an issue where RegQueryValueEx returned wide strings when Unicode was disabled in project settings (RTX-9)
- Resolved an issue where ReadFile did not return the correct error information under certain conditions (RTX-20)
- Resolved an issue where the RTX.Threading.RTWaitHandle.WaitOne() method in the Managed Code library incorrectly computed whether or not it successfully obtained the lock (RTX-35)
- Resolved an issue where an exception resulted when a Windows application using the Managed Code library uses a mutex to communicate with an RTSS application (RTX-21)
- Resolved an issue where the Managed Code library uses method SafeHandle.DangerousGetHandle in an unsafe way that could cause unexpected exceptions (RTX-33)
- Resolved an issue where attempts to debug into a multithreaded section of a sample application in Visual Studio and selecting the Break All option resulted in a system crash (RTX-22)
- Resolved an issue where RTX Demo fails on machines where not all processors are used (RTX-27, 50)
- Resolved an issue where changes to the file RtTcipip.ini were not retained after system restart (RTX-36)

Availability

RTX 2011 with Service Pack 1 Update 5 is available beginning April 15, 2013 through the IntervalZero web site <http://www.intervalzero.com/rtx-2011-downloads>, Partners, and by contacting Sales: sales@intervalzero.com or (781) 996-4481.

We look forward to comments and feedback. If you have any recommendations or wish to suggest any product enhancements, please contact Sales at sales@intervalzero.com or Product Management at: productmanagement@intervalzero.com.