Product Release Notice

RTX 2012 with Update 1

General Availability Release Date

December 2, 2013

Product Overview

IntervalZero announces an Update to RTX 2012 our 32-bit market-leading hard real-time software. Symmetric multiprocessing-enabled RTX transforms Windows into a real-time operating system (RTOS).

RTX 2012 is a key component of the IntervalZero RTOS Platform that comprises x86 and x64 multicore multiprocessors, the Windows operating system, and real-time Ethernet (e.g. EtherCAT or PROFINET) to outperform real-time hardware such as DSPs and radically reduce the development costs for systems that require determinism or hard real-time.

RTX 2012 with Update 1 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.

Leading OEMs worldwide use the IntervalZero RTOS Platform to achieve system development cost reductions of 25 to 50%, as well as breakthroughs in throughput and yields, in production quality, and in a more compact physical footprint.

Features and Issues Resolutions

RTX 2012 with Update 1 includes the following features and updates:

Activation and Configuration

- The RTX Activation and Configuration utility checks for a connection to the IntervalZero license server and includes support for proxy servers (RTX-1409, 1222)
- RTX Activation and Configuration utility contains additional diagnostic information to help with licensing issues (RTX-1335)
- Resolves issues regarding how the RTX Activation and Configuration utility provides license information (RTX-1606, 1473, 1348, 1333, 1299, 1260, 1175, 1114, 1005, 968, 621)
- Adds support for product licensing through USB dongles (RTX-1410)

- Allows for pre-configuration of the RTX subsystem without the subsystem being licensed (RTX-1633)

Subsystem

- Resolves an issue regarding lock-release violations occurring within the RTX subsystem under certain SMP conditions (RTX-1220)

- Improves our Intel® SpeedStep prevention logic for Vista and Windows 7 systems to allow Windows to properly load balance (RTX-615)

- Resolves an issue regarding RTSS processors not properly being put in the halt state, causing some systems to not fully power down during a system shutdown (RTX-1295)

- Resolves an issue where setting too large of a local memory size could cause the subsystem to hang when stopped (RTX-1486)

- Resolves an issue regarding RTX preventing a Windows Mini or Kernel dump from happening (RTX-1629)

- Resolves an issue regarding real-time kernel (RTK) API calls being called at IRQ_DISPATCH instead of IRQ_PASSIVE (RTX-1270)

- Resolves an issue regarding the real-time kernel (RTK) creation API calls not failing correctly when the real-time subsystem is not running (RTX-1381)

RT-TCP/IP Stack and Drivers

- Provides a real-time network driver RtIGB to support Intel i210 Ethernet Controllers (RTX-1390, 1279)

- Adds support for Intel 82575EB Gigabit Network controller within the Rt8257x driver (RTX-1239)

- Resolves an issue regarding the system hanging while sending and receiving IP packets to/from the RT-TCP/IP Stack (RTX-1475)

- Resolves an issue regarding threads created by the RT-TCP/IP stack and real-time device drivers not exiting gracefully (RTX-1129)

- Resolves an issue where the max socket descriptor causes socket calls to fail when more than 64 sockets are used (RTX-1360)

- Resolves an issue regarding the RT-TCP/IP stack not starting correctly when set to automatic start (RTX-228)

- Provides the Virtual Network as part of the RTX RT-TCP/IP features

Development Tools

- Resolves an issue regarding RTX Analyzer reporting an error "Unable to create an internal directory." (RTX-1389)

- Resolves an issue regarding RTX Server console not behaving correctly if a user is not logged into the system (RTX-1432)

- Resolves an issue regarding Platform Evaluator failing for Resume/Suspend Thread API tests when the test was configured to use more than one core (RTX-1429)

- Resolves an issue regarding RTSS Task Manager generating an exception or failing to start when an RTSS process was run on certain systems (RTX-1326)

- Resolves an issue regarding RtssKIll and RTSS Task Manager not displaying all currently running processes or boot time processes (RTX-1587, 1349)

SDK

- Provides Visual Studio 2012 build support with the addition of a Visual Studio 2012 RTX application wizard and support for the Visual Studio 2012 C Runtime

- Expands samples and includes projects for Visual Studio 2010 and 2012 (RTX-1417)

- Adds new wait object function calls, RtWaitForSingleObjectEx and RtWaitForMultipleObjectsEx, to allow for wait time values in the 100 ns range (RTX-1398)

- Resolves and issue regarding the function RtExpandLocalMemory returning Success when the call fails to expand the local memory pool (RTX-1485)

- Resolves issues regarding the functions RegCreateKeyEx, RegSetValueEx not properly writing data to the windows registry (RTX-1420)

- Resolves an issue regarding the function RegQueryValueEx returning extra data at the end (RTX-1364, 1388)

- Resolves an issue regarding the function RtCreateProcess not defaulting to the global local memory setting when no flags were provided (RTX-1438)

- Resolves an issue regarding the function RtAttachInterrupt failing when using shared line-based interrupts (RTX-1272)

- Resolves compiler and linker errors that occur when using RtInitializeProcThreadAttributeList, RtUpdateProcThreadAttribute, and RtDeleteProcThreadAttributeList (RTX-1169)

- Resolved an issue where RtQueryLocalMemory does not always return the correct size of memory available after repeatedly allocating and freeing memory from the pool

Debugging

- Resolves issues regarding multiple active Visual Studio debug sessions at one time (RTX-1279)

Installation

- Resolves an issue regarding the RTX installer creating extra directories in the Windows root directories (RTX-1178)

Activation & Licensing

The licensing system introduced in RTX 2012 allows for more flexibility in how features are activated and deployed.

For an overview of the RTX 2012 licensing please see the following videos at www.intervalzero.com/rtx-product-activation. For additional information on deployment refer to our RTX deployment guide www.intervalzero.com/support/useful-documentation.

It is important to reiterate that the existing product licensing system will remain in effect for all prior versions of RTX.

Availability

RTX 2012 with Update 1 is available beginning December 2, 2013 through Partners and by contacting Sales: sales@intervalzero.com or (781) 996-4481. Downloads can also be found here.

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