

## Product Release Notice

### RTX 8.1 Service Pack 2

- Product Released to Channel Partners on August 11, 2009.
- Product Released for General Availability on August 18, 2009.

#### Product Overview:

IntervalZero, Inc. announces the release of RTX 8.1 Service Pack 2 for its market-leading RTX software.

RTX provides hard real-time and deterministic control capabilities to the Microsoft Windows operating system. In a multiprocessor environment, under a dedicated configuration one processor can be dedicated to the RTX Real-Time Subsystem (RTSS), allowing Windows to run its processes on all other processors. In a shared configuration, RTSS shares a processor with Windows, but ensures that real-time threads are scheduled ahead of lower-priority Windows threads.

RTX 8.1 Service Pack 2 (RTX 8.1.2) supports Windows Vista; Windows XP (up through SP3), Windows XP Embedded and Windows Embedded Standard 2009. Support has been added for Microsoft Visual Studio 2008 and enhanced for both Plug-and-Play (PnP) and Message Signaled Interrupt (MSI and MSI-X) devices.

#### RTX 8.1 Service Pack 2 Product and Pricing Information:

Updated pricing information is available through Channel Partners or by contacting IntervalZero Sales – [sales@IntervalZero.com](mailto:sales@IntervalZero.com).

#### RTX 8.1.2 SDK provides:

- A set of Win32 based APIs that can be used to write real-time applications
- An API to allow for the programmatic configuration of a real-time subsystem
- Development and debugging support that integrates into Visual Studio 6.0, .NET 2002, .NET 2003, 2005, and 2008, along with an extension for Microsoft WinDbg
- Monitoring and profiling tools to help develop real-time applications
- Sample applications to illustrate basic programming concepts
- A rich documentation set to explain how to develop and debug real-time applications

## RTX 8.1.2 Runtime provides:

- A real-time extension to the Windows operating system, that can share one processor with Windows or can take over one processor for dedicated use
- A control panel to configure the subsystem based on system requirements
- Utilities to run and monitor real-time applications that are running
- A documentation set to explain RTSS behavior and how to configure features

## New Features and Updates:

RTX 8.1.2 includes the following new features and updates:

- Visual Studio 2008 support, including wizards and debugger add-ins
- Intel Compiler support
- Ability to start RTSS at PNP Automatic Boot time Startup (during PNP Manager device startup)
- Improvements to RTK support to allow for notification of an RTSS shutdown
- Improved MSI-X support through RtAttachInterrupt function
- Modifications to the PnP driver that allow configuration of devices so that they:
  - Do not request line-based resources (even if the device is not MSI capable)
  - Can change the default behavior of devices that support both MSI and MSI-X
  - Do not request IO Port Resources
- Added support to the RtE1000 driver for the Intel 82574 network adapter

## Bug Fixes, Patches:

RTX 8.1.2 provides a number of updates and bug fixes identified since the release of RTX 8.1. They include:

- Improved ability by the RtDeleteTime function to terminate handler threads that are waiting on an SRI
- Improved ability to defeat the Intel Speed Step feature when in RTX Shared mode
- Optimizations to local memory and heap access, and C Runtime updates for Visual Studio 6.0 and 2005 that allow private heap handles to cross DLL boundaries
- An update to the handling of guard pages
- Improved handling of masking and unmasking of ISTs so that no ISRs can interrupt between the two write operations that are required during the operation
- Additional protection for internal RTX structures when Win32 applications stress those resources by repeatedly creating and destroying threads
- Fixes for RT-TCP/IP RAW Socket support
- Ability to ping the second port on a NIC
- Ability to create a permanent entry in the ARP table when RT-TCP/IP is active
- Ability to create a permanent entry in an ARP table without specifying the interface number

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- Resolution of incorrect IP addresses for the network interfaces on the system returned from the Rtsslpcfg command line utility

### **Incorporated updates since the release of RTX 8.1:**

- **RTX 8.1.1 Stability Update** – This release contains stability improvements to the loading and unloading of the RTSS on XP systems. This update also contains additional functionality to set default behavior when devices are both MSI and MSI-X capable.
- **RTX 8.1 Service Pack 1 (8.1.1)** – This cumulative release contains all the features of previous updates, along with support for XP Service Pack 3.

### **Availability**

RTX 8.1.2 is available through Partners and by contacting Sales: [sales@intervalzero.com](mailto:sales@intervalzero.com) or 781.996.4481.

We look forward to comments and feedback. If you have any other recommendations or wish to suggest any enhancements to IntervalZero, please contact Sales at [sales@intervalzero.com](mailto:sales@intervalzero.com) or Product Management at: [ProductManagement@intervalzero.com](mailto:ProductManagement@intervalzero.com).

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