RTI Connext Tools

Accelerate Development of Your Distributed Systems

We’ve Got You Covered. From Design to Production and Beyond.

Development and Troubleshooting
When your systems experience connectivity issues, the entire team slows down. Development tools are critical for identifying the cause of the issue and finding the right solution.

System Monitoring and Administration
Once your systems are up and running, you can’t just stop there. It is essential to keep monitoring the health and performance of your production systems.

Functional, Systems and Performance Testing
When it comes to bulletproofing your systems, having a variety of ways to simulate harsh conditions significantly improves code quality and reduces the effort for both R&D and QA teams.

Meet the RTI Connext Tools Family

Launcher is a graphical application that allows you to quickly install, configure, and run RTI Connext DDS components from one place.

Administration Console captures and visualizes runtime data and helps monitor, configure and debug Connext DDS infrastructure services.

Monitor gives developers, integrators and operators an intuitive view of the entire distributed system and provides deep insights on every aspect of the middleware operation.

Distributed Logger enables easy correlation of log messages from Connext DDS with the log data from your own applications.

Wireshark is a network protocol analyzer for viewing and examining packets flowing through the entire network.

Spreadsheet Add-in for Microsoft Excel provides turnkey bi-directional integration between Connext DDS software and Excel for real-time analytics and data visualization.

RTI Shapes Demo is a powerful learning tool for understanding the DDS concepts.

Looking to speed your time to market? Connext® Tools give you deep visibility into your running systems, help troubleshoot application connectivity and solve complex data integration problems. Whether you are just starting your DDS journey or have been building DDS applications for a while, Connext Tools support your team throughout the entire development life cycle - all the way from design to production.
RTI Connext Tools

RTI Tools included in Connext DDS Professional

**Launcher: Start Here**

Everything you need to build distributed applications is now at your fingertips. Launcher is a “single pane of glass” view for your entire Connext DDS environment. It keeps tabs on all your Connext Tools. An intuitive Launcher interface helps effortlessly add new components and target platforms to the current Connext DDS environment, see what is already installed, find documentation and web resources, create new source-code projects and run all the Connext tools and command-line utilities.

**Administration Console: Take Control**

Administration Console is an essential tool for troubleshooting, configuring and monitoring all Connext DDS infrastructure services as well as visualizing data directly from your system. The Administration Console minimizes troubleshooting time and effort in all stages of application development by proactively analyzing system settings and log messages. Problems get highlighted, making them easy to find and address.

There are multiple views into your system:

- Inspect and visualize instances and samples
- Show samples as graphs or tables
- Identify QoS mismatches (match graphs)
- Find data type mismatches
- Discover and inspect clients, topics and data types
- And much more

For a simpler test, try Spy, a useful command-line utility. It can subscribe to select DDS data types and topics and display to the console individual data samples it receives. Spy helps you immediately see the data your applications are publishing.
Monitor: Troubleshoot Like a Pro

Monitor helps to troubleshoot your DDS-enabled applications throughout the entire process of integration and testing. It also provides continuous visibility into deployed systems in production through real-time graphical views of the entire ecosystem of applications connected by Connext DDS. Monitor aids in diagnosing unusual behavior patterns and reduces risks associated with connectivity issues and network usage.

Monitor is your go-to tool when it comes to performance optimization. RTI provides an instrumentation package in addition to the Connext DDS libraries. The package can produce a wealth of real-time performance data from the running applications and publish this data to the Monitor. The instrumentation has minimal performance overhead for applications.

Distributed Logger: See Problems Before They See You

Get real-time notifications when error or warning conditions occur anywhere in your DDS environment. Distributed Logger enables applications to log messages using existing logging infrastructure and to publish them to Connext DDS. It also publishes Connext DDS log messages to the same topics. This way you can correlate warnings and errors from Connext DDS with log messages from your own applications, which greatly aids troubleshooting. All the log messages can be centrally collected and saved for later analysis and troubleshooting. You can use both Monitor and Admin Console to see and analyze them.

Wireshark: Know Your Packets

Wireshark is a purpose-built network protocol analyzer that looks at all the packets in your network and captures the ones in which you are interested. RTI provides special plugins for decoding DDS messages and examining their content. The display shows packets in real time as they arrive. Wireshark is invaluable for learning DDS as well as a go-to-tool for deep packet inspection and network connectivity troubleshooting. It is free and available for download from the RTI Community Portal (https://community.rti.com/downloads).

While the standard ping utility can confirm basic reachability between machines, it cannot check if the ports needed for DDS discovery are open. RTI Ping (rtiddsping) utility does exactly that! It can find out in seconds if firewall settings on your network are preventing DDS discovery traffic.
Add-in for MS Excel: Teach Your Spreadsheets New Tricks

Turn your spreadsheets into powerful analytic and visualization capability for your IIoT systems. RTI Add-in for Microsoft Excel provides turnkey, bi-directional integration between Connext DDS and Microsoft Excel. See your IIoT data in spreadsheets as cells, formulas and charts come to life with real-time data streams.

The integration of Connext DDS with Excel is simple to configure and use, with no need for external servers or gateways. The add-in automatically discovers available data streams and schemas. Spreadsheets simply participate in the DDS “conversation” with other applications as data publishers and data subscribers. Wizards help easily create ad-hoc publications and subscriptions using an intuitive point-and-click interface.

Shapes: Get in Shape Fast

Get your entire team up to speed with DDS fundamentals quickly! Shapes Demo is a powerful learning tool for understanding the DDS concepts, such as publish-subscribe messaging, data centricity and Quality of Service (QoS). Shapes is a visually appealing, game-like application that allows you to experiment by modeling the desired behavior without coding. It is suitable for users of any level and does not require programming skills or prior DDS knowledge. It is free and available for download from the RTI Community Portal (https://community.rti.com/downloads).

About RTI

RTI provides the connectivity platform for the Industrial Internet of Things.

Our RTI Connext® messaging software forms the core nervous system for smart, distributed applications. RTI Connext allows devices to intelligently share information and work together as one integrated system. RTI was named “The Most influential Industrial Internet of Things Company” in 2014 by Appinions and published in Forbes.

Our customers span the breadth of the Internet of Things, including medical, energy, mining, air traffic control, trading, automotive, unmanned systems, industrial SCADA, naval systems, and missile defense, ground stations, and science. The total value of system designs that trust RTI for their fundamental architecture exceeds $1 trillion.

RTI is committed to open standards, open community source and open architecture. RTI provides the leading implementation of the Object Management Group (OMG) Data Distribution Service (DDS) standard.

RTI is the world’s largest embedded middleware provider, privately held and headquartered in Sunnyvale, California.