

HCLSoftware

**Stateful. Event-driven.
Real-time.** Developing
IoT and embedded
applications the
efficient way



HCL RTist

The Introduction

Industries are generating thousands, even millions, of new lines of code in their complex real-time systems via model-based designs.

Additionally, both new and legacy systems require enhancements to capture and react to the plethora of data being created by both people and devices, every second.

In order to gain a competitive advantage, companies need powerful tools to support and scale their embedded and IT applications with strategic uses of these model-based designs.

Companies that adopt new technologies and are able to react to this data to enhance the customer experience, gain a significant edge on their competitors.

Imagine a refrigerator telling you that you're out of milk. Or, a device that tells your doctor exactly where and when your heart has an irregular heartbeat.

How about a coffee maker that brews you a fresh cup even when you're sleeping in? So, how are developers creating these applications that need to be integrated with both real-time embedded systems, while multi-tasking with external devices?



Embedded systems developers are looking for a developer tool to deliver secure, high-quality production code with quick, agile methodologies allowing them to react to new business requirements while minimizing maintenance cost of long-lived applications running on many different device preferences of their users.

Also, companies strive to implement strict, continuous delivery processes to ensure code integrity and a stable, highly available production deployment of these real-time applications.

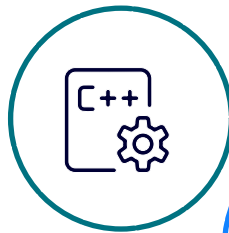
Meet HCL RTist

Introducing HCL RTist, a development environment for creating complex, event-driven, real-time applications in C++.

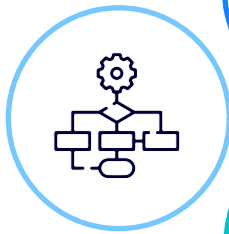
HCL RTist provides software engineers with feature-rich tools for designing, analyzing, building, debugging and deploying real-time applications. Supporting the Unified Modeling Language (UML) and its real-time profile (UML-RT), RTist allows developers to design their applications at a higher abstraction level than code.

With HCL RTist, you can:

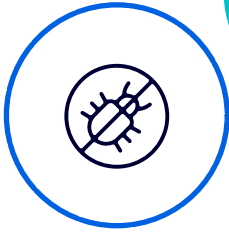
Freely mix graphical diagrams with C++ code when developing applications



Build high-performance libraries and executables from existing models



Detect and fix problems using high level model debugging



Design your real-time applications using state machines, capsules and other powerful UML-RT concepts



Support collaborative development in both large and small scale agile teams

NodePlus 2.0

NodePlus 2.0 now supports Eclipse 2021.06 and can be used with RTist 11.2

- It's now delivered as a separate update site to reduce the size of the RTist update site
- NodePlus now uses the Wild Web Developer (WWD) which provides a rich development environment for the typical languages used for web development (JavaScript, CSS, HTML, etc)
- The Node-RED server was updated



Capabilities and Benefits



Designs at a Higher Abstraction Level than Code

- Provides UML Real-time models, statecharts, composite structure and other diagrams
- Utilizes a powerful Code Editor built on an Eclipse CDT
- Realizes thread safety using state machines and message-based communication
- Supports industrial-scale applications



Builds Executables Your Way

- Builds applications interactively and from batch builds
- Allows for easy setup of build configurations
- Provides a highly-customizable run-time environment



Debugs at a High-level (Verifies Design and Detects Failures)

- Features interactive model debugging
- Allows for trace management and visualization
- Provides run-time structure monitoring and behavior animation
- Offers combined model and code debugging



Allows for Teamwide Collaboration

- Supports Git and other SCM systems
- Features an interactive and intuitive compare/merge of both model and code
- Provides a powerful command-line interface
- Allows models to be accessed via web browsers and linked to requirements



Analyzes the Application

- Features navigation and search with diagram highlighting
- Supports refactoring of models and code
- Synchronizes code changes back to the model

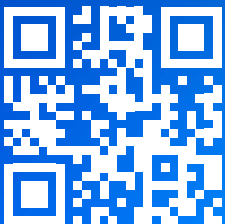
HCL RTist is the only tool needed to develop stateful, event-driven and real-time applications. HCL RTist belongs to the Secure DevOps product domain of HCL Software which is a division of HCL Technologies (HCL) that operates its primary software business. It develops, markets, sells and supports more than 20 product families in the areas of DevSecOps, Automation, Digital Solutions, Data Management, Marketing and Commerce, and Mainframes.

For more information, visit hcltechsw.com/RTist or email RTist@hcl.com.

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HCLSoftware

Fueling the Digital+ Economy



About HCLSoftware

HCLSoftware is a division of HCLTech (HCL) that operates its primary software business. It develops, markets, sells, and supports over 30 product families in the areas of Digital Transformation, Data Analytics & Insights, AI and Automation, and Enterprise Security. HCLSoftware has offices and labs around the world to serve thousands of customers. Its mission is to drive ultimate customer success with their IT investments through relentless innovation of its products.