RED HAT DEVELOPER TOOLSET AND ECLIPSE IDE

TECHNOLOGY BRIEF

BENEFITS

Compile once and deploy to multiple versions of Red Hat Enterprise Linux with GCC.

Speed developer productivity with key development and performance analysis tools.

Access a parallel set of the latest stable tools, including GCC, Eclipse IDE, and more—all updated semi-annually.

Experience peace of mind with Red Hat Support.

INTRODUCTION

The right development tools let you take advantage of innovative technology in modern applications. Gain development agility and production stability using the latest stable versions of essential development tools, delivered on a separate life cycle with frequent semi-annual releases. With Red Hat® Developer Toolset and Eclipse integrated development environment (IDE), developers can take advantage of new functionality in the GNU compiler collection (GCC) with the Eclipse IDE, GNU debugger (GDB), and more as they build, test, and deploy applications.

Available through the Red Hat Developer Program (developers.redhat.com) and related Red Hat Enterprise Linux® subscriptions, Red Hat Developer Toolset allows C, C++, and Fortran developers to compile once and deploy to multiple versions of Red Hat Enterprise Linux. Red Hat Developer Toolset also delivers the latest stable tools faster so developers can quickly take advantage of the latest technology features.

When installed, Red Hat Developer Toolset does not replace the default system tools (also known as the base toolchain) included with Red Hat Enterprise Linux 6 or 7. Instead, a parallel set of newer tools is provided for optional use by developers. The default compiler and debugger, for example, remain in the base Red Hat Enterprise Linux system.

The Eclipse IDE software collection is available on Red Hat Enterprise Linux 7, tightly integrated with Red Hat Developer Toolset, and updated semi-annually to stay current with upstream versions and features. It is a simple installation that is separate from Red Hat Developer Toolset.
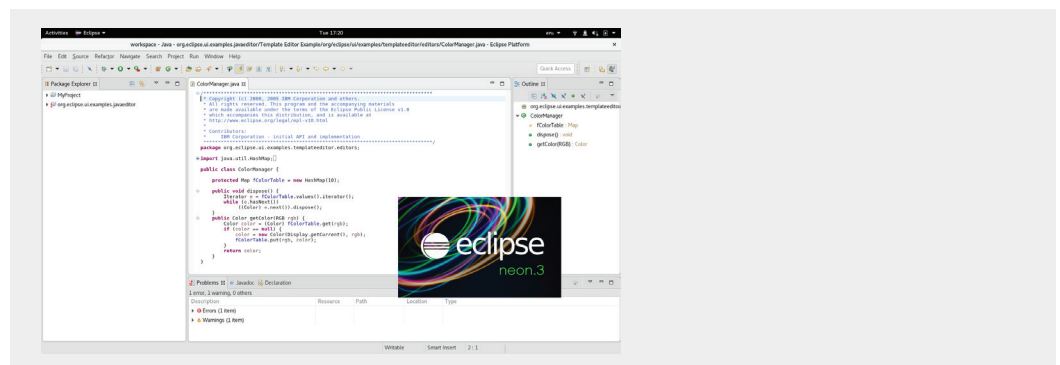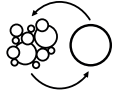

Figure 1. Eclipse IDE is an integrated development environment that increases developer productivity.

GAIN FLEXIBILITY TO DEPLOY WITH CONFIDENCE

Developers can create applications that run on multiple supported versions of Red Hat Enterprise Linux without needing to be rebuilt, allowing them to confidently preserve application compatibility while deploying to newer versions of Red Hat Enterprise Linux. Resulting applications can be natively deployed on Red Hat Enterprise Linux or on Red Hat OpenShift. Red Hat Enterprise Linux subscriptions (including those with optional developer support) include Red Hat Developer Toolset and Eclipse IDE, and the applications generated by them can be deployed for production use. The Red Hat Developer Toolset is also available as a Linux container.
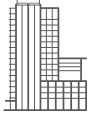
CHOOSE THE TOOLS BEST SUITED FOR YOUR PROJECT

Red Hat Developer Toolset delivers a parallel set of the latest stable tools that complements the default toolchain provided with Red Hat Enterprise Linux. By building their workflow on Red Hat Developer Toolset and Eclipse IDE, developers can use the latest stable versions of GCC, Eclipse IDE, Dyninst, and more—without dedicating cycles to installing and troubleshooting unsupported community versions.

FEATURES AND CAPABILITIES

NAME	DESCRIPTION
Eclipse IDE	An integrated development environment for application development
GCC	A portable compiler suite with support for C, C++, and Fortran
binutils	A collection of binary tools and other utilities to inspect and manipulate object files and binaries
elfutils	A collection of binary tools and other utilities to inspect and manipulate executable and linkable format (ELF) files
dwz	A tool to optimize DWARF debugging information contained in ELF shared libraries and ELF executables for size
GDB	A command-line debugger for programs written in C, C++, and Fortran
strace	A debugging tool to monitor system calls that a program uses and signals it receives
memstomp	A debugging tool to identify calls to library functions with overlapping memory regions that result in undefined behavior according to various standards
SystemTap	A tracing and probing tool to monitor the activities of the entire system without the need to instrument, recompile, install, and reboot
Valgrind	An instrumentation framework and a number of tools to profile applications in order to detect memory errors, identify memory management problems, and report any use of improper arguments in system calls
OProfile	A system-wide profiler that uses the performance monitoring hardware on the processor to retrieve information about the kernel and executables on the system
Dyninst	A library for instrumenting and working with user-space executables during their execution
ltrace	A developer tool that can intercept and record both dynamic library calls and system calls

See the latest versions of the above components at https://developers.redhat.com/products/developertoolset/updates/

EXPERIENCE PEACE OF MIND WITH SUPPORT FROM RED HAT

Red Hat Developer Toolset is functionally complete and used by industry-recognized companies for creating critical applications. A Red Hat Developer Toolset subscription or installation is not required on deployment systems for applications written in GCC. Red Hat Developer Toolset is included for Red Hat Enterprise Linux 6 or Red Hat Enterprise Linux 7 customers and partners; Eclipse IDE software collection is available on Red Hat Enterprise Linux 7. Both are included in the no-cost Red Hat Enterprise Linux Developer Program subscription, all Red Hat Enterprise Linux developer subscriptions, and most other Red Hat Enterprise Linux subscriptions. Red Hat developer support is also available on certain Red Hat Enterprise Linux developer subscriptions.

Red Hat Developer Toolset is supported on Red Hat Enterprise Linux 7 on Intel x86_64, 64-bit ARM architecture (AArch64), IBM POWER (big endian and little endian) and IBM z Systems, and Red Hat Enterprise Linux 6 on Intel. Eclipse IDE software collection is supported on Red Hat Enterprise Linux 7 on Intel x86_64.

NEXT STEPS

Download the no-cost Red Hat Enterprise Linux developer subscription from https://developers.redhat.com/products/rhel/download/

Subscriptions with developer support can be found at https://www.redhat.com/en/store/linux-platforms