TAKE ADVANTAGE OF INNOVATIONS IN THE LATEST TOOLS

INTRODUCTION

Having the right development tools means you can take advantage of technology innovations in next-generation applications. Red Hat® Developer Toolset delivers development agility and production stability by providing the latest stable versions of essential development tools on a separate life cycle and a more frequent release cadence. Using Red Hat Developer Toolset, developers can take advantage of new functionality in the GNU Compiler Collection (GCC), Eclipse, and more as they build, test, and deploy applications.

Red Hat Developer Toolset is for developers on the Red Hat Enterprise Linux® platform. It is a set of development and performance analysis tools that can be installed and used on multiple versions of Red Hat Enterprise Linux. Executables built with the Red Hat Developer Toolset toolchain can be deployed and run on multiple versions of Red Hat Enterprise Linux.

Available through the Red Hat Enterprise Linux Developer Program and related subscriptions, Red Hat Developer Toolset allows C and C++ 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 to help developers more quickly create, diagnose, and debug applications in development.

Figure 1: Eclipse 4.3 combines a full set of tools into an integrated development environment to increase developer productivity.

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.
- Gain flexibility and deploy to multiple versions of Red Hat Enterprise Linux with confidence.
- Choose the best tools for your project with access to a parallel set of the latest stable tools including GCC, Eclipse, and more.
- Experience peace-of-mind with support from Red Hat.

REQUIREMENTS

Red Hat Developer Toolset is available for Red Hat Enterprise Linux 5 and 6, both for 32-bit and 64-bit Intel and AMD architectures.
Red Hat Developer Toolset does not replace the default system tools included with Red Hat Enterprise Linux 5 or 6 when installed on those platforms. Instead, an alternative, parallel set of newer tools is provided for optional use by developers. The default compiler and debugger, for example, remain those provided by the base Red Hat Enterprise Linux system.

**SPEED DEVELOPER PRODUCTIVITY**

Red Hat Developer Toolset improves developer productivity by letting C and C++ developers compile once and deploy to multiple versions of Red Hat Enterprise Linux. Red Hat Developer Toolset also includes tooling to help developers more quickly create, diagnose, and debug applications in development and can help analyze application performance to isolate memory errors and management issues.

**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. This means developers can confidently preserve application compatibility while deploying to newer supported versions of Red Hat Enterprise Linux. Resulting applications can be natively deployed on Red Hat Enterprise Linux or on OpenShift. The Red Hat Enterprise Linux Developer Program and related subscriptions offer developer support for Red Hat Developer Toolset, and the applications generated by it are intended for production use.

**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, developers can employ innovations from newer versions of GCC, Eclipse, Dyninst, and more—without dedicating cycles to installing and troubleshooting unsupported community versions.

**FEATURES AND CAPABILITIES**

<table>
<thead>
<tr>
<th>NAME</th>
<th>VERSION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eclipse</td>
<td>4.3.1</td>
<td>An integrated development environment for application development.</td>
</tr>
<tr>
<td>GCC</td>
<td>4.8.2</td>
<td>A portable compiler suite with support for C, C++, and Fortran.</td>
</tr>
<tr>
<td>Git</td>
<td>1.8.4</td>
<td>A distributed version control system designed to handle everything from small to very large projects with speed and efficiency.</td>
</tr>
<tr>
<td>binutils</td>
<td>2.23.52</td>
<td>A collection of binary tools and other utilities to inspect and manipulate object files and binaries.</td>
</tr>
<tr>
<td>elfutils</td>
<td>0.157</td>
<td>A collection of binary tools and other utilities to inspect and manipulate ELF files.</td>
</tr>
</tbody>
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ABOUT RED HAT

Red Hat is the world’s leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 70 offices spanning the globe, empowering its customers’ businesses.

NAME | VERSION | DESCRIPTION
--- | --- | ---
dwz | 0.11 | A tool to optimize DWARF debugging information contained in ELF shared libraries and ELF executables for size.
GDB | 7.6.1 | A command-line debugger for programs written in C, C++, and Fortran.
strace | 4.7 | A debugging tool to monitor system calls that a program uses and signals it receives.
memstomp | 0.1.4 | A debugging tool to identify calls to library functions with overlapping memory regions that result in undefined behavior according to various standards.
SystemTap | 2.1 | A tracing and probing tool to monitor the activities of the entire system without the need to instrument, recompile, install, and reboot.
Valgrind | 3.8.1 | 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 | 0.9.8 | 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 | 8.0 | A library for instrumenting and working with user-space executables during their execution.

EXPERIENCE PEACE-OF-MIND WITH SUPPORT FROM RED HAT

Red Hat Developer Toolset is functionally complete, and the applications generated by it are intended for production use. Red Hat Developer Toolset is available to customers and partners with select active Red Hat Enterprise Linux subscriptions including:

- Red Hat Enterprise Linux Developer Suite
- Red Hat Enterprise Linux Developer Workstation
- Red Hat Enterprise Linux Developer Support subscription
- Red Hat Enterprise Linux Not-for-Resale subscriptions for qualifying partners
- Red Hat Enterprise Linux Academic site subscription

NEXT STEPS

Contact a Red Hat sales representative to get started with Red Hat Developer Toolset.