

# IBM® Rational® Enterprise Generation Language

# Highlights

- Provides an alternative path to
  Java™ and COBOL adoption for
  procedural business developers
  allowing them to write fullfunction applications quickly
  while not having to focus on
  underlying Java or COBOL
  technology, infrastructure or
  platform plumbing
- Adapts and extends your development environment to the Java J2EE platform. Costeffectively re-train procedural business programmers to be highly productive in Java world
- Contains a first-class services construct for the creation and consumption of Web Services for Service Oriented Architecture
- Leverages visual programming techniques for Web development and code automation capabilities for rapid development of application business logic
- Future proofs development from technology changes, allowing you to stay on top of the technology curve

IBM Rational Enterprise Generation Language (EGL) is a modern programming language that allows business-oriented developers to apply a procedural style of programming while exploiting the power of underlying object-oriented technology. As a business programming language, EGL lets you write full-function applications quickly, freeing you to focus on business problems rather than complex software technologies. For example, it hides the Java and J2EE details, so you can deliver enterprise data to browsers with minimal Web technology experience.

### **Empower Development**

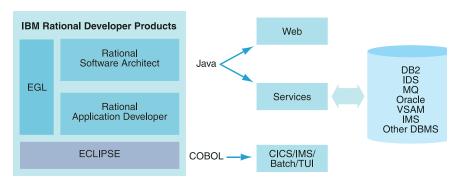
EGL, part of the IBM Rational
Software Development Platform,
allows developers direct access to
a broad range of modeling, design,
construction, test, and development
tools, helping to enable IT organizations
to create Web, Web service, batch,
character-based and text-based
applications quickly and easily. You
then have the flexibility to choose the
most appropriate runtime environment
for the application—either Java or
COBOL—thereby, optimizing user
needs and application performance.

With a broad range of visual development and easy-to-learn (and use) testing and deployment tools, EGL is a perfect fit for software developers who are new to Java, but have procedural programming skills and valuable business domain expertise. EGL empowers this broader class of developers with several key values:

- Ability to build Java/J2EE based applications without a deep knowledge of the underlying technology
- Deliver applications based on industry standards that interoperate with existing systems
- Develop service-oriented applications without extensive knowledge of SOA
- Reduced training costs while leveraging existing business developers skill sets
- Achieve the highest level of productivity leveraging the latest platforms and technologies
- Reduced application errors through automation
- · Automated deployment to all IBM platforms

Although EGL applications are optimized for IBM WebSphere, they support multi-vendor runtime environments and are powered by the Eclipse open source platform. This allows you to adapt and extend your development environment to match your needs.





EGL is a highly productive development environment, tightly integrated into IBM Rational solutions. EGL increases productivity with language abstraction and simplicity.

#### **Reduce Complexity and Cost**

EGL helps enable higher productivity through the ability to automate the generation of technology-neutral specifications and logic into optimized code for the target runtime platform. This results in less code written by business-oriented developers and, in turn, can reduce bugs in the application. In addition, the language abstraction allows you the potential to respond to new, emerging technologies and technology releases faster than other development environments.

Developers who will benefit most from EGL programming are those who need to solve business problems, not technology issues. If you have programmed in Informix 4GL, COBOL, RPG, PL/I, the IBM VisualAge Generator® language, or other fourthgeneration languages (e.g. Natural, CA TELON®, CA Cool:Gen, CA IDEAL®), you will find implementing and learning EGL easy—even at the demanding level of programming complex, production-quality business logic.

EGL provides the following benefits:

- Leverage existing skills Ability
  to leverage your business-oriented
  developer's wealth of business domain
  expertise for Java/J2EE development,
  which up until now, has been
  "trapped" in legacy environments
- Application flexibility First class support for Web Services and SOA, J2EE Web applications, characterbased and text-based "green-screen" applications and batch/reporting applications
- Data source independence Access a broad range of data sources including SQL DBMS via open database connectivity/JDBCTM technology, message queuing data (MQSeries<sup>TM</sup>), sequential and VSAM files, and hierarchical data structures (IMS/DLI)
- Governance control Code
   Generation enforcement of standards
   and best practices for the most
   appropriate targeted runtime
   platform—either Java or COBOL
- Platform neutrality Cross-platform application
   deployment/implementatio),
   including IBM eServer® zSeries®
   and iSeries<sup>TM</sup>
- Fully integrated with IBM Rational's Eclipse-based Software Development Platform (SDP)

# **Features and benefits**

Feature	Benefit
Wizard-based creation and consumption of Web Services	Wizards-based development allow business-oriented developers to create SOA-based applications without extensive training
Visual Development with EGL; automatic code generation	By utilizing a visual IDE with drag-n-drop capabilities, EGL speeds development tasks
Familiar Programming Model using EGL development and generation capabilities	EGL is easily adopted by business-oriented developers reducing learning curves and training expenses
One development platform - EGL and generation capabilities	Allows developers to work within the same IDE, leveraging development skills across platform boundaries
Quality of code generation; Provide snippets of tested code for embedding in apps	EGL code generation reduces errors as site standards, industry standards and best practices are incorporated into the generated code improving quality and application governance
JSF page development; dynamic modification of JSF control properties	EGL provides state-of-the-art Web development tools that support all levels of UI interactions and user requirements.
Simplified language with polymorphic verbs	By using a simplified yet powerful verb set and generating most of the 'plumbing' code, EGL increases developer productivity.
Use of EGL verb abstraction and no application infrastructure coding	EGL hides the arcane implementation details of the infrastructure so developers can concentrate on solving business problems and business logic.
Familiar Programming Model	EGL is not a dramatic mind shift for business-oriented developers - they learn it easily and become prolific in a short period of time.
Business logic, data access, and debugging all performed in EGL	Business-oriented programmers working with EGL deal with one language and one IDE providing end-to-end development. This allows for a high degree of development skill reuse across applications and increased productivity.
Supports Web, Web services, Text User Interface (TUI), Reporting and Batch	EGL supports a dynamic set of presentation styles and programming capabilities to meet any application requirement.
Wizard-based generation of CRUDs, wizard-based specification for database connectivity, optimization of SQL as required	Data access programming and database connectivity are time consuming tasks, EGL simplifies these tasks giving greater flexibility to the programmer
Auto-deployment of application artifacts to either J2EE or COBOL	EGL handles the deployment specifications for the application, a major time saving task; EGL supports deployment to all IBM platforms.
EGL abstraction hides Java & J2EE release levels	EGL maintains JAVA and J2EE standards so programmers do not need to be concerned with release levels and compatibility issues.
Ease access to legacy data, ability to call programs in legacy environments and the ability to migrate 4GL environment to EGL	A leave and leverage approach can be taken when addressing legacy code since EGL can coexist and easily call out to these applications. If required, older 4GL code can be migrated to EGL, which then allows you to deploy the application to the most appropriate environment - Java/J2EE or COBOL.



# **Specifications**

#### Hardware requirements

- Processor: Minimum:
   Pentium<sup>TM</sup> 3,800 Mhz;
   Recommended: Pentium<sup>TM</sup>
   4, 1.4 GHz or higher
- Minimum memory: 768 MB;
   1 GB RAM recommended;
   more memory generally
   improves responsiveness
- Video: XGA 1024 x 768 x 256color video resolution, XGA 1280 x 1024 recommended; high color or true color recommended
- Microsoft mouse or compatible pointing device
- Required disk space: 3 GB;
   6 GB is required when installing from a download

# Software requirements

- Microsoft<sup>TM</sup> Windows XP
   Professional, Service Pack 1, 2
- Microsoft Windows 2000
   Professional, Service Pack 3, 4
- Microsoft Windows 2000
   Server, Service Pack 3, 4
- Microsoft Windows 2000
   Advanced Server, Service
   Pack 3. 4
- Microsoft Windows 2003
   Standard Edition

- Microsoft Windows 2003
   Enterprise Edition
- Linux: Red Hat Enterprise Linux WS 3.0
- Linux: SuSE Linux
   Enterprise Server 9.0

#### **Software Integrations**

- IBM Rational RequisitePro® v2003 SR3 or later
- IBM Rational ClearCase LT®
   (actual product is included);
   on Windows: v2002, v2003
   SR3 or later; on Linux: v2003
   SR3 or later
- IBM Rational ClearQuest<sup>®</sup>
   v2003 SR3 or later
- Concurrent Versions System (CVS) v1.11.1p1
- IBM Rational Unified Process<sup>®</sup> (RUP) v2003 SR3 or later

#### For more information

For more information, businessoriented application developers can familiarize themselves with EGL learning and resources and participate in the EGL Forum at: http://www-128. ibm.com/developerworks/rational/ products/egl/

To download evaluation copies of the above certain products described above, application developers can visit: http://www.ibm.com/support/us

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