BROADCOM
MAINFRAME SOFTWARE

Product Brief

Gen

Key Benefits

- Platform independent modeling enables developers to focus on the business rather than the technology.
- Application integrates with existing legacy applications, web services, and multiple client technologies.
- Simplified maintenance reduces time and cost as application changes are made in the model, not to the code.

Key Features

- **Multiple application types:** From one model, generate block-mode, fat client, batch, client-server, and web applications to a variety of target environments.
- **Multilevel repository:** The model is the source for generated applications and is maintained in an encyclopedia running on Windows, UNIX, or z/OS. Encyclopedias support large teams of developers working simultaneously.
- **Multiple platform environments:** Applications may be built locally or remotely using build tools provided for multiple target environments such as z/OS, Linux, UNIX, Java, .NET, and Windows.
- **Fourth generation programming language:** Application code is created using a fourth generation programming language that abstracts the application from the target and platform languages. Coding and debugging is done for all platforms using the same language, thus requiring only a single skill set to code for multiple target environments.

At a Glance

Gen is a proven model-driven development environment for designing, deploying, and maintaining high-performance, scalable enterprise applications. Integrated modeling and code generation enable you to deliver platform-independent applications to run your mission-critical processes. It also enables you to use agile development methods to design and implement reusable software components, web-enable applications, modernize legacy applications, and integrate systems. A single Gen application design can be used to generate native code, and deploy to multiple platforms and architectures using a single developer skill set.

Business Challenges

In an ever-changing business and technical climate, organizations must have cost effective and agile business applications that help improve customer service, reduce costs, increase profits, get to market faster, and respond more rapidly to competitive challenges. Business systems should reflect not only an organization's core business strategy, but also adapt to ongoing changes as they occur. Whether the change is driven by acquisition, regulatory mandates, or advancing technology, organizations face continued pressure to speed application delivery while reducing costs. Application data must integrate across multiple platforms and computing environments which remains a significant challenge.

For many organizations, integration involves implementing entirely new development projects, providing additional training for existing teams of developers, and the need to find additional resources that are scarce and expensive. The overwhelming majority of hand coded application development projects are complete or partial failures, from both technical and budget standpoints. As if that's not enough, adopting new technology while maintaining acceptable levels of profitability, productivity, and service may seem to be impossible.

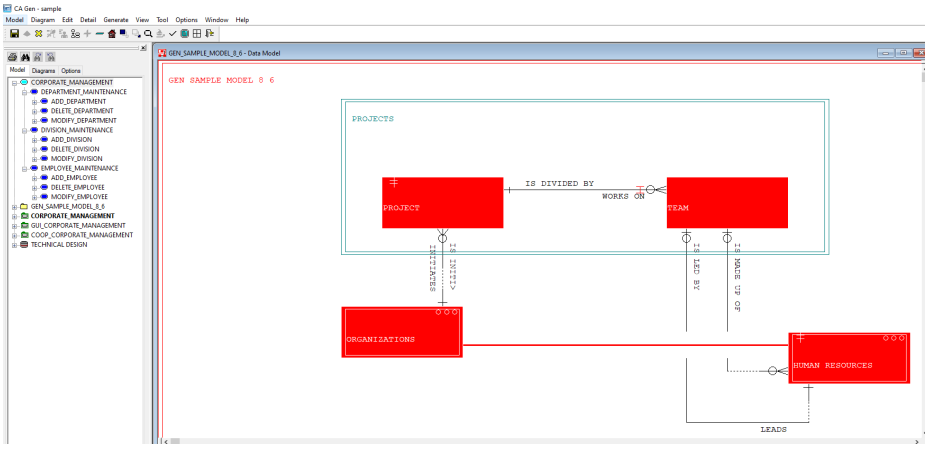
Solution Overview

Gen addresses all these challenges with a single, integrated development environment that allows development teams to create and maintain large-scale business applications for multiple platforms and multiple architectures. Using agile development methods, you can build new enterprise applications, design and implement reusable software components, web-enable applications, modernize legacy applications, and integrate systems from a single model using a single developer skill set. Be more reactive to change and lower your software costs, because with Gen, design changes are made in a model, not in the code.

Related Products

- **Access for Gen:** Accelerates and simplifies the process of analyzing, making, and deploying changes to Gen applications.
- **Access (TSO) for Gen:** Accelerates and simplifies the process of analyzing, making, and deploying changes to Gen applications using the familiar 3270 interface on the mainframe.
- **QA Console for Gen:** Automates coding standards and validation. Ensures that everyone on the team is delivering consistent application change quality.
- **Upgrade Console for Gen:** Before you begin a version upgrade, complete an impact analysis of your existing Gen application portfolio to identify necessary actions to take. Reduce issues and endless rounds of testing.
- **Web Services GENius for Gen:** Create APIs directly from existing mainframe Gen applications without application changes.
- **APM Connect (Unix) and (z/OS) for Gen:** Complete runtime application visibility to distributed and z/OS Gen applications. Integrate directly with DX APM to get powerful baselining, performance modeling, hotspot identification, and reporting.
- **DX Application Performance Management:** Real-time monitoring of Gen applications. It provides information to identify availability or performance issues.

The Gen Toolset consists of a number of different diagrams for doing analysis, design, and construction.



Critical Differentiators

- Gen provides a single, integrated development environment that allows development teams to create and maintain large-scale business applications for multiple platforms leveraging a single set of skills.
- Platform independent modeling enables developers to focus on business requirements rather than the technology, and alleviates the need for extensive training in target languages of operating systems. It uses a very powerful multilevel repository that coordinates sharing, so teams of developers can work simultaneously on the same model. The repository generates 100% error free code for a comprehensive solution.
- Application maintenance time and cost is greatly reduced as changes are made in the model and regenerated rather than making changes to source code. Gen allows users to create world-class applications in a minimum amount of time enabling increased developer productivity, reduced maintenance cycle times, and increased application quality.

Supported Environments

- **Mainframe:** Generated applications for IMS, CICS, and WebSphere using DB2, WebSphere MQ, and TCP/IP Direct Connect.
- **Distributed:** Supports Oracle Solaris, HP-UX, AIX, and Linux operating systems. Associated products include Oracle Database, DB2, WebSphere MQ, and Tuxedo.
- **Windows:** Supports the active Microsoft operating systems as well as the Oracle, DB2, and SQL Server databases. Tuxedo and WebSphere MQ are also utilized.
- **Middleware:** ECI, LU6.2, TCP/IP, SOAP, Java RMI, and .NET Remoting.

For more information, please visit broadcom.com/mainframe.

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