CA Plex r6.1

CA PLEX IS A MULTIPLATFORM, MODEL-BASED, ARCHITECTED RAPID APPLICATION DEVELOPMENT (ARAD) TOOL THAT HELPS YOUR IT ORGANIZATION DESIGN, DEVELOP, DEPLOY AND MAINTAIN BUSINESS SYSTEMS ACROSS MULTIPLE ENVIRONMENTS. USING A SINGLE SET OF SKILLS, CA PLEX SUPPORTS THE DEVELOPMENT OF SERVICE-ORIENTED, WEB-BASED, CLIENT/SERVER, BATCH, CHARACTER-BASED, AND MOBILE APPLICATIONS.

Overview

Today's business climate requires organizations to have business applications that help improve customer service, reduce costs, increase profits, get to market faster and respond more rapidly to competitive challenges. CA Plex provides a single, integrated environment that enables both traditional and SOA-based solutions for development. CA Plex uses building blocks known as patterns to help your development teams create and maintain large-scale business applications for multiple platforms — Windows/.NET, Java/J2EE or the IBM Power Systems/IBM i.

Benefits

Using your existing resources, CA Plex helps your IT organization move toward new technology by combining two powerful methodologies: information engineering and object-orientation. CA Plex uses an integrated modeling environment to define system requirements and design patterns that employ techniques such as reuse and inheritance. A single design can generate native code and deploy the resulting application to multiple platforms or provide newer, SOA-based architectures.

The CA Advantage

With CA Plex, your developers are able to take advantage of emerging technology, while still meeting the ongoing requirements of increased productivity, enhanced quality and reduced time. Also, your applications can be designed and delivered with business requirements in mind, rather than technical specifications. By providing an environment that can be understood by those in both business and technical arenas, CA Plex complements CA's Enterprise IT Management (EITM) strategy, which is to unify IT and simplify the management of complex computing environments.

Transforming
IT Management

CA Plex Helps Deliver SOA-based, Web-based and Traditional Multiplatform Applications Quickly

Core business applications in today's fast-moving world come with multiple challenges, both technical and non-technical. These business systems should not only reflect the organization's main business strategy, but should also be flexible enough to adapt to inevitable changes. Attaining this can be difficult, especially when mergers, acquisitions and partnerships require that key applications must integrate across multiple platforms and computing environments. Since there is not one universal platform, application integration remains a challenge.

Service-oriented Architectures help address these issues, but the ability of organizations to readily take advantage of emerging technology while meeting the ongoing requirements of increased productivity, enhanced quality and reduced costs is still a challenge. For many, it may involve implementing entirely new development projects, providing additional training for existing development teams or finding additional resources, which can be scarce and expensive. This could drain most IT budgets quickly. To compound the problem, many development projects are complete or partial failures, from both technical and budgetary standpoints. In light of these issues, adopting new technologies or SOA-based architectures while maintaining acceptable levels of productivity may seem impossible

With CA Plex, organizations are able to meet these ongoing challenges. As applications are designed and built in a Windows environment and deployed to a variety of target platforms, developers do not have to know low-level coding details of Java/J2EE, Windows/.NET or IBM Power Systems/IBM i, nor do they need to be expert web developers. CA Plex offers a complete, end-to-end solution in a single development environment, using a single set of developer skills.

Key Capabilities

CA Plex offers a Windows-based visual IDE, complete with GUI screen designers, a platform-neutral action language editor, a diagrammer, and impact analysis tools. Additionally, CA Plex has a multiple developer repository with built-in configuration management for storing design models across multiple versions, languages and platforms. CA Plex also features code generators that automatically create 100 percent of the native code required, together with HTML and GUI clients, 5250 host screens, server programs and database objects.

The integrated modeling environment contributes toward a development methodology that can be easily understood by both business and technical people. It is considered an Architected Rapid Application Develoment tool (ARAD) that is focused on three key elements: *Models, Patterns* and *Generators*, all of which contribute to developer productivity.

ACCELERATED DEVELOPMENT CA Plex business objects (or patterns) are incorporated into application designs simply by dragging and dropping, eliminating the need for recoding repeated elements of applications. This approach saves considerable time and cost.

TECHNOLOGY INSULATION Based on the design model, CA Plex generates 100 percent of the native code required for entire applications — client code, server code and database objects. Developers are not required to know technical details of specific programming languages such as C#, Java or RPG IV.

SIMPLIFIED APPLICATION MAINTENANCE With CA Plex, the time and costs of application maintenance are significantly reduced. The appropriate changes are simply made in the model; then the application is regenerated and redeployed within the CA Plex environment. The performance and availability of CA Plex applications can be managed in production with CA Wily Introscope®.

FOCUS ON TEAM DEVELOPMENT Multiple developers can work on the same project simultaneously with metadata being stored in a central repository. The repository can be accessed via an API as well as an XML Import/Export capability. This open repository enables a variety of third-party add-ons, such as a UML bridge and metadata exchange with tools such as CA ERwin and CA 2E.

STREAMLINED APPLICATION INTEGRATION In building applications, CA Plex can utilize new or existing database schema. A variety of techniques are provided to enable integration with other CA products and third-party tools. This helps make use of existing development projects and provides additional functionality where applicable.

Technical Features

MODEL-BASED DEVELOPMENT Modeling enables you to design applications with business requirements in mind rather than technical specifications. Changes in business requirements can be easily incorporated by making a change in the design model and then regenerating the parts of the application that are affected by the change.

PATTERNS Patterns are business objects that provide solutions to many of the recurring problems that arise in software systems. The use of patterns is widely recognized as an important technique for improving the software development process. What makes CA Plex special is its ability to encode and reuse patterns via an object-oriented inheritance engine. The product includes hundreds of predesigned and pretested patterns that are grouped into libraries. By using these patterns, you eliminate the need to recode repeated elements of an application.

DYNAMIC INHERITANCE AND CUSTOMIZATION Patterns in CA Plex are not hard-coded; you can modify them, create your own and acquire additional ones from third parties. Any changes to a pattern are immediately applied to all instances throughout the design model.

NATIVE CODE GENERATORS The CA Plex base configuration includes code generators for Java, C#, C++, RPG III and RPG IV that can be deployed across multiple platforms. Each generator relies upon a runtime framework appropriate for the target platform. This approach reduces the amount of generated code required since common services are implemented within the runtime framework.

INDUSTRY STANDARD DATABASE SUPPORT Using standard APIs such as OLE DB, JDBC, ODBC and OCI, CA Plex supports a variety of databases including Microsoft SQL Server, Oracle and IBM DB2.

WEB CLIENT DEVELOPMENT AND SOA Additional technology patterns are available for the generation of AJAX-enabled Rich Internet Applications (RIA), SOAP/XML components for Service-oriented Applications, and the generation of HTML clients for browsers and mobile device clients.

ENTERPRISE JAVA BEAN (EJB) SUPPORT CA Plex enables the full generation and deployment of EJB components for the J2EE platform. Business logic can be accessed by third-party systems running any of numerous environments.

BUILT-IN CONFIGURATION MANAGEMENT Versioning facilities enable the repository to track changes to the application over time. Variations of application design information can be stored across various platforms.

APPLICATION INTEGRATION FACILITIES In building new applications, CA Plex can reverse-engineer existing database schema and integrate with other CA products and third-party tools using built-in features such as XML Import/Export, .NET or COM Connectors and COM Import. Additional code using a number of programming languages (such as Visual Basic, Java, C++ or RPG) can also be manually integrated into the CA Plex application design.

What's New in r6.1

INTEGRATED SOA SUPPORT CA Plex features the ability to model and generate .NET-based services, based on Microsoft's Windows Communication Foundation (WCF). As these services are represented as first-class objects in the CA Plex Object Browser, there are no additional configuration requirements and a number of standard host-types are supported. Services for additional environments can be created via plug-ins to the CA Plex Code Library Wizard.

GROUP MODEL UPDATE HISTORY It is now easy to view the history of updates to the group model and add comments when making new group model updates.

API ENHANCEMENTS The CA Plex API provides a means to interrogate and update CA Plex models programmatically and enables the development of custom features and programs. A number of customer-requested enhancements are included, such as the ability to execute a CA Plex API client against selected objects in the Object Browser.

C++ RUNTIME BACKWARDS COMPATIBILITY WITH CA PLEX r6 C++ applications generated at CA Plex r6 do not require recompiling and rebuilding when upgrading to CA Plex r6.1. This significantly reduces the development overhead required to upgrade.

IPv6 SUPPORT CA Plex-generated applications make extensive use of TCP-IP for communications between the various supported platforms. CA Plex r6.1 supports the current IPv6 communication standards.

PLATFORM COMPATIBILITY UPDATES CA Plex r6.1 provides support for the following platforms and data sources:

- Windows Vista for development
- Java SE 6.0 and ANT 1.7.0
- .NET Framework 3.5
- IBM i 6.1 (i5/OS V6R1)
- 64-bit Windows Support
- Microsoft Windows Server 2008
- Microsoft SQL Server 2008
- Oracle 11g

FIGURE A

Through a WYSIWYG panel designer, you can customize the screen layouts of the application. Typically, a default layout is automatically inherited from a pattern so CA Plex developers rarely have to design a screen from scratch.
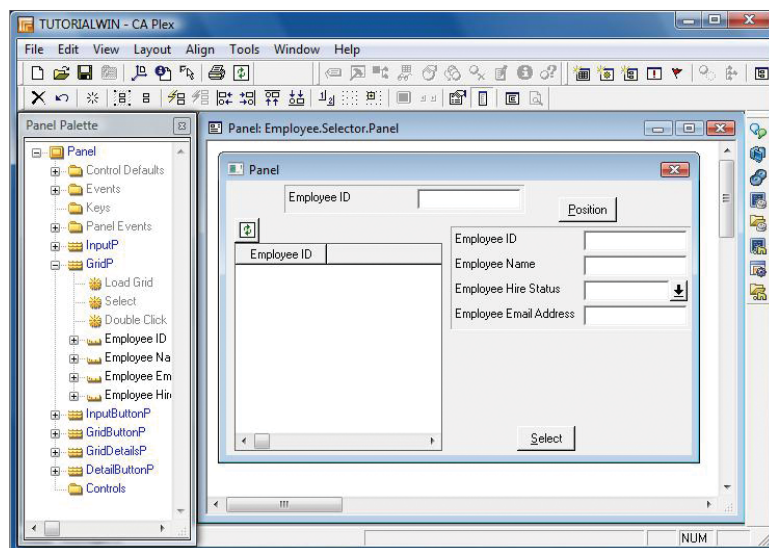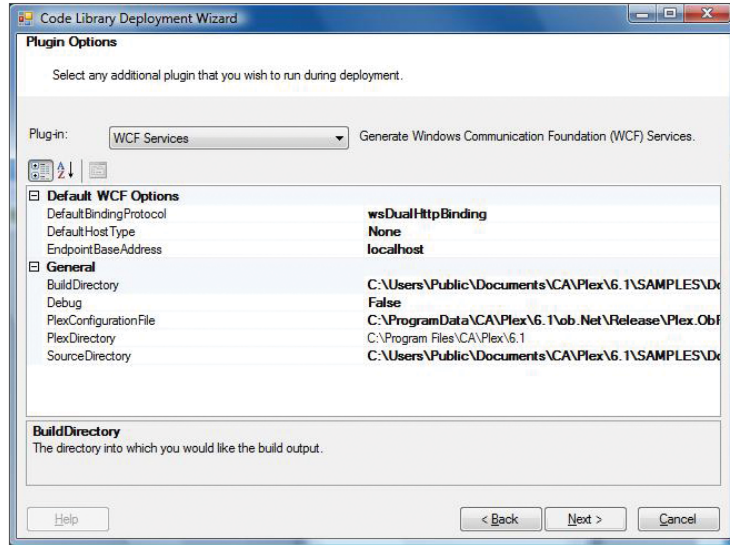
PANEL DESIGNER

The CA Plex code library wizard enables the generation of .NET 3.5 WCF Services.

CA Plex Helps You Develop Business Applications in Multiple IT Environments — On Time and Within Budget

CA Plex provides key benefits to assist you in bridging the gap between business operations and IT. By speeding development time, simplifying system maintenance and insulating your developers from low-level technology specifications, CA Plex can enable your organization to meet its ultimate business goals of increasing profits while improving customer service.

The CA Advantage

As an application development solution, CA Plex is an integral part of CA's vision to provide a higher level of management control. Known as Enterprise IT Management (EITM), our vision is to help customers unify IT and simplify the management of today's complex computing environments for greater business results. EITM is a dynamic, secure approach that integrates and automates the management of information technology applications, databases, networks, security, storage and systems across departments and disciplines to maximize the full potential of each. With CA Plex, you can evolve your IT operation from being reactive and focused only on technology to being flexible, adaptable and focused on serving the business. This helps enable you to better manage risk, costs and service, and helps ensure that IT meets the business needs of your enterprise.

Next Steps

CA Plex is a multiplatform, model-based rapid application development tool that helps you more effectively manage your IT information assets by enabling you to design, develop, deploy and maintain your business systems and web service components across multiple environments.

To learn more, and see how CA software solutions enable organizations to unify IT and simplify the management of complex computing environments for better business results, visit **ca.com/products**.

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Learn more about how CA can help you transform your business at **ca.com**

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Transforming
IT Management