



isCOBOL™ Application Platform Suite

isCOBOL APS 2009 SP1 Release Overview

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isCOBOL APS 2009 SP1 Release Overview

Introduction

Veryant proudly announces the newest release of its isCOBOL™ Application Platform Suite (APS), isCOBOL APS 2009 SP1. isCOBOL APS provides a complete environment for the development, deployment, maintenance, and modernization of COBOL applications and data. The latest version of isCOBOL APS includes two new product offerings that further enhance the modernization of COBOL applications and data, as well as numerous advances to the isCOBOL™ Integrated Development Environment (IDE) and other functional areas.

Details on key features of the isCOBOL APS 2009 SP1 release are included below.

isCOBOL™ Web Direct 2.0

Zero-client, Web 2.0 COBOL application deployment

A new product known as isCOBOL™ Web Direct 2.0 has been added in the isCOBOL APS 2009 SP1 release. isCOBOL Web Direct 2.0 enables developers to deliver Rich Internet applications (RIA) through a zero client, browser-based deployment model using standard COBOL screen section management techniques, existing procedure division and flow. With isCOBOL Web Direct 2.0, organizations can deploy fully-interactive universal application environments, that are stateful, secure, and maintain a desktop system look and feel over a variety of Web clients. No knowledge of Object Oriented (OO) programming, JavaScript, HTML, or other Web languages is required to implement isCOBOL Web Direct 2.0 applications.

With isCOBOL Web Direct 2.0 there is no ActiveX or Java to be installed, nothing to be downloaded and no client-side deployment. It may be helpful to think of the technology as a JavaScript thin client that makes use of a standard Web browser as the only client software required. isCOBOL Web Direct 2.0 utilizes Java Servlet and AJAX technology to provide a browser-based user interface client generated entirely in HTML and JavaScript so COBOL program structure stays the same.

Unlike typical Web applications that reload an HTML page every time an end-user request is made, isCOBOL Web Direct 2.0 generates a fully interactive Web page in which every element of the user interface can communicate with the back end application. Because isCOBOL Web Direct 2.0 applications run completely in a Web browser and require no additional software to be installed on a client, organizations can leverage https transport to securely provide program access.

isCOBOL Web Direct 2.0 enables a rich client interface, similar to a desktop program, by making available to programmers graphical controls such as:

- Floating Window
- Label
- Entry Field
- Push Button
- Radio Button
- Check Box
- List Box
- Combo Box
- Bitmap
- Tab
- Tree View
- Menu
- Toolbar
- Frame
- Read-only grid

New applications and UI screens to be deployed with isCOBOL Web Direct 2.0 can be designed using the Eclipse-based isCOBOL IDE. Screens can be developed with the Screen Painter functionality available in the IDE and then tested for the Web leveraging a locally run Apache Tomcat server.

Getting started

isCOBOL Web Direct 2.0 is installed separately from the standard isCOBOL setup. In order to configure COBOL applications to use isCOBOL Web Direct 2.0 to handle screens, the following entry must be set in the configuration file:

```
iscobol.guifactory.class=com.iscobol.gui.client.zk.GuiFactoryImpl
```

isCOBOL Web Direct 2.0 also requires additional license code. The property name is:
iscobol.wd2.license.2009=...

Programs and screens can be deployed for testing and run under isCOBOL Web Direct 2.0 with the following steps:

1. Create a new web application (web app) in Tomcat. The easiest way to do this is to deploy the WD2 sample program following the instructions in the Web Direct 2.0 Quick Start Guide "Setting Up the Web Direct Technical Demo." Then make a copy of the wd2 folder that is in the tomcat/webapps folder and give the copy the name you want for your new Web application.
2. Add your class files to the WEB-INF/classes folder.
3. Add your properties to the WEB-INF/classes/iscobol.properties file.
4. Start Tomcat.
5. To launch the program use the following URL changing wd2 to the name you chose for your web application in step 2,
`http://127.0.0.1:8080/wd2/zk/IsMainZK?PROGRAM=PROG1`. Also change PROG1 at the end of the URL to the name of your main program. For example, if your Web application folder is named myapp and your program is named MYPROG then use the following URL `http://127.0.0.1:8080/myapp/zk/IsMainZK?PROGRAM=MYPROG`.

Also keep in mind that you must reload the web application using Tomcat Manager or restart Tomcat to apply changes made in the webapp folder.

isCOBOL Web Direct 2.0 is an add-on product offering in the isCOBOL APS 2009 SP1 release. Transition time to an isCOBOL Web Direct 2.0 deployment model will vary depending on program properties and the amount events utilized by your individual applications. Veryant representatives and distributors are available to discuss the isCOBOL Web Direct 2.0 offering in more detail.

Additional documentation on the isCOBOL Web Direct 2.0 product can be found in the isCOBOL Web Direct 2.0 Quick Start Guide available with the product download.

isCOBOL™ SQL Server

Add a powerful RDBMS engine to ISAM files

isCOBOL™ SQL Server is a new product available in isCOBOL ASP 2009 SP1 that acts as a powerful relational database for high volume production environments and a comprehensive, flexible SQL interface into the core of isCOBOL™ ISAM Server. With isCOBOL SQL Server, developers can perform common RDBMS tasks on existing isCOBOL ISAM Server files such as writing complex queries and generating stored procedures with no change to program code or impact to ongoing daily operations.

Going beyond traditional ODBC or JDBC access, isCOBOL SQL Server allows developers to perform the following actions with isCOBOL ISAM Server files without the expense and disruption of converting existing ISAM data:

- Access from ADO.NET, JDBC and/or ODBC clients
- Execute custom SQL statements
- Load, edit, and run SQL scripts interactively
- View query execution plans to profile and examine complex queries for optimization analysis
- Create and manage users
- Create and manage databases
- Create, alter and drop tables and indices
- Create and drop views
- Create and drop stored procedures and triggers
- Export schemas

isCOBOL SQL Server supports APIs such as ADO.NET, JDBC, ODBC and includes a comprehensive GUI interface to view and manage data, as well as an interactive SQL utility that lets developers issue SQL statements directly from a terminal or command prompt and see results displayed instantly.

Only three basic steps are required to provide SQL access to existing ISAM files with isCOBOL SQL Server:

1. Create an isCOBOL SQL Server data dictionary file (.iss) by compiling the program containing the file description with the `-efc` option
2. Store the data dictionary information in the ISAM file by running `ctutil -sqlinfo`
3. Register the ISAM file with the database by running `ctutil -sqllink`

After these steps are complete, isCOBOL SQL Server presents the ISAM files as database tables.

By enabling developers to take full advantage of functions such as executing custom SQL statements and complex queries against existing COBOL ISAM data, isCOBOL SQL Server eliminates the need to choose between maintaining ISAM files or move to a mainstream relational database to meet evolving application requirements.

isCOBOL SQL Server is an add-on product offering in the isCOBOL APS 2009 SP1 release. Additional documentation on this product can be found in the isCOBOL SQL Server Getting Started Guide.

isCOBOL IDE enhancements

In the 2009 base release of isCOBOL APS, several new productivity enhancements were added to the isCOBOL IDE including a GUI-based Screen Designer, an integrated Event Editor, and an Import Facility. With isCOBOL APS 2009 SP1, several enhancements have been added to the IDE including improvements to the Import Wizard and File Designer. Now, for instance, the File Designer allows developers to graphically create select statements, as well as new FD and SL copyfiles. A new wizard that allows developers to import a Screen Program from another project has also been added to the product.

Hardware dumb terminals and terminal emulator support

More complete support for dumb terminals and terminal emulators has been added in the isCOBOL APS 2009 SP1 release to facilitate the modernization of character-based legacy applications that rely on the use of dumb terminals or terminal emulators.

isCOBOL APS now supports any terminal that has a "terminfo" capability-description file; in other words, all popular terminals such as VT100, VT220, Wyse and ANSI terminals and the "xterm" and "PuTTY" terminal emulators are supported. Support for UTF-8 character sets is

also included (e.g. for Hungarian, Czech, Cyrillic, Korean etc). This feature is implemented using the CHARVA Toolkit from <http://www.pitman.co.za/projects/charva>.

Additional isCOBOL APS 2009 SP1 release enhancements

The following new features or enhancements were also added in the isCOBOL APS 2009 SP1 release:

- *Full support for POINTERS*
The `-CP` compiler option enables the use of USAGE POINTER, SET ADDRESS and pointer arithmetic in all programs including those with screen-based ACCEPT/DISPLAY.
- *isCOBOL ISAM Server Java client connector*
The addition of this Java-based file system connector makes it possible to use isCOBOL ISAM Server files in environments where there is a requirement for a 100% pure Java application. The Java connector is designed for isCOBOL Server and J2EE Server deployments such as thin client, isCOBOL Web Direct 2.0, Servlets. and Web Services.
- Configurable defaults for the DATE-ENTRY control DISPLAY-FORMAT property and format styles.
- `-EM` compiler option to make one reserved word synonymous with another (like Micro Focus MAKESYN)
- isCOBOL ISAM Server for Mac OS X Intel (i386)