isCOBOL™ Application Platform Suite

isCOBOL APS 2009 SP2 Release Overview

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isCOBOL APS 2009 SP2 Release Overview

Introduction

Veryant proudly announces the newest release of its isCOBOL™ Application Platform Suite (APS), isCOBOL APS 2009 SP2. 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 enhancements to its 100 percent Java-based indexed sequential access (ISAM) file system (isCOBOL™ JISAM) and thin client computing offering (isCOBOL™ Server). Additions to isCOBOL™ Web Direct 2.0, software that is used to deliver rich Internet applications (RIA) through a zero client, browser-based deployment model, as well as increased compatibility with alternative COBOL platforms and other functional advances are also key parts of this release.

Details on the significant new features in the isCOBOL APS 2009 SP2 release are included below.

isCOBOL™ JISAM

100% portable, compact ISAM file system

isCOBOL JISAM is a 100% Java-based ISAM file system established on x/Open standards that runs on a range of platforms, from mainframes to handheld devices. In isCOBOL APS 2009 SP2, isCOBOL JISAM has been enhanced to support larger file sizes and has demonstrated up to 50% faster performance on certain workloads.

Updates to isCOBOL JISAM in the 2009 SP2 release include:

- Maximum file size increased from 2 GB to over 9 exabytes (over 9 million terabytes).
- Maximum record size (record length) increased from 32 KB to 2 GB.
- Maximum number of segments per key increased from 8 to 16.

isCOBOL JISAM performance improvements were experienced by Veryant's engineering team on all operational tests with the 2009 SP2 release, particularly on programs with DELETE statements. Files opened with the EXCLUSIVE clause, especially on REWRITE and DELETE statements, experienced the largest performance improvements.

isCOBOL JISAM is included with the isCOBOL™ Runtime Environment at no extra fee, providing a cost-effective alternative to separately licensed products. isCOBOL JISAM runs on any platform that supports the Java Runtime Environment and customers can transition to isCOBOL JISAM by leveraging the ISMIGRATE utility provided with the isCOBOL Runtime Environment.

isCOBOL™ Server

Powerful thin client and distributed processing

isCOBOL Server enables high value, efficient thin client computing. With isCOBOL Server, valuable system and network resources are conserved -- nothing is needed on the client side, except a Java Runtime Environment (JRE) and the isCOBOL thin client Java library.

In the 2009 SP2 release of isCOBOL, thin client performance has been improved, especially for applications that utilize common DESTROY statements (to eliminate graphical elements such as windows, screens, fonts, layout managers, and menus that are no longer in use) and for applications accessing clients across the Internet or other bandwidth constrained TCP/IP connections. In internal Veryant tests, interface controls such as Entry Field, Check Box, and Radio Button saw the greatest improvements in this release. Table 1, *isCOBOL Server thin client performance test*, illustrates some of the performance gains experienced by Veryant's engineering team – actual performance gains experienced by customers will vary depending on application and network configuration details.

Table 1, isCOBOL Server thin client performance test

	isCOBOL Server (2009 SP1)	isCOBOL Server (2009 SP2)
100 DESTROY statements	48.36 seconds	24.6 seconds

isCOBOL Web Direct 2.0 enhancements

In the isCOBOL APS 2009 SP1 release, a new product known as isCOBOL™ Web Direct 2.0 was added to the isCOBOL suite. 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. In the 2009 SP2 release, additional enhancements were made to isCOBOL Web Direct 2.0.

isCOBOL Web Direct 2.0 assessment tool

The ideal zero-client, Web-based system performs consistently on any computer capable of accessing the Internet, regardless of individual browser or operating system. This means that programs need to be delivered as pure HTML and JavaScript, not ActiveX controls, Java Applets or VBScript. In order to assess how good of a fit your existing applications may be for a zero-client deployment model with isCOBOL Web Direct 2.0, a compile option is now available. This compile option, available in the isCOBOL™ Compiler, flags the incompatibilities of an existing application with the existing controls and properties of isCOBOL Web Direct 2.0, presenting a clear picture of what controls and screen programs may require modification for successful deployment.

JavaScript REDIRECT

isCOBOL Web Direct 2.0 has now been enhanced to offer the ability to embed JavaScript programming directly into COBOL source code. This gives developers finer control over Web page outputs. This capability is useful for incorporating functionality commonly found in JavaScript such as redirecting the browser to download a PDF file into COBOL programs.

To use this feature, a programmer first defines the relevant JavaScript programs in working storage, then uses the COBOL DISPLAY statement as appropriate. For example, to direct a Web browser to download a PDF File the following code can be used:

```
working-storage section.
01 MY-JAVASCRIPT PIC X ANY LENGTH
VALUE '<script type="text/javascript">
-        'form = document.createElement("form");
-        'form.method = "GET";
-        'form.action = "http://www.mycompany.com/pdfs/mydoc.pdf";
-        'form.target = "_blank";
-        'document.body.appendChild(form);
-        'form.submit();
-        '</script>'.
procedure division.
display my-javascript.
```

Additional properties and controls

Support for new controls in isCOBOL Web Direct 2.0 has been added in with the 2009 SP2 release. Features such as 3-D style ENTRY-FIELD, GRID DISPLAY-COLUMNS and ALIGNMENT, and FRAME TITLE-POSITION property are now available.

Improved compatibility with COBOL alternatives

isCOBOL APS is highly compatible with today's common COBOL dialects. Veryant has introduced several updates in the isCOBOL APS 2009 SP2 release to make moving to isCOBOL from alternative platforms even easier. Some of the primary 2009 SP2 compatibility additions have been included below.

ACUCOBOL-GT® keystrokes

In the isCOBOL APS 2009 SP2 release, the ACUCOBOL-GT SET ENVIRONMENT "KEYSTROKE" statement is now supported, enhancing compatibility and simplifying transitions from ACUCOBOL-GT. This update eliminates the need to make code changes for keystroke handling.

ACUCOBOL-GT end-user interfaces

Support for ACUCOBOL-GT end-user interfaces has been enhanced in the 2009 SP2 release. By setting the appropriate runtime properties, the same look and feel used on the previous ACUCOBOL-GT environment can be maintained if desired, in the new isCOBOL environment without changing program code.

IBM COBOL Report Writer

Users who rely on the COBOL report writer to define and produce lists, reports, and displayed summaries from COBOL data will now find COBOL REPORT SECTION syntax supported in the 2009 SP2 release.

Micro Focus EXTSM interface for 3rd party SORT packages

For users who prefer to leverage an external sort utility for isCOBOL files, support for external sort modules such as CoSort has been added in the isCOBOL APS 2009 SP2 release.

Additional release enhancements

The following new features and enhancements were also added in the isCOBOL APS 2009 SP2 release:

- *isCOBOL™ Debugger productivity enhancements*
    - New functionality has been added that allows developers to reload files in the debugger after a program finishes, facilitating debugging programs without having to restart the debugger application.

  - Programmers can now step through a specified number of statements in debugging mode with one command instead of going one statement or section at a time, useful for application code with a loop.
  - The ability to press a function key to show the value of a variable has been added in this release

- *Additional performance enhancements*
  - The isCOBOL Compiler has been enhanced to recognize when to use optimized integer types
  - The memory footprint of COBOL programs has been reduced to enhance performance