



# Veryant 2011 Release 2 Overview

## isCOBOL Evolve and vCOBOL Enterprise

Copyright © 2011 Veryant LLC.  
9930 Derby Lane, Suite 202, Westchester, IL 60154, U.S.A.

All rights reserved.

This product or document is protected by copyright and distributed under licenses restricting its use, copying, distribution and recompilation. No part of this product or document may be reproduced in any form by any means without prior written authorization of Veryant and its licensors, if any.

Veryant, isCOBOL, and vCOBOL are trademarks or registered trademarks of Veryant LLC in the U.S. and other countries. All other marks are property of their respective owners.

## Table of Contents

<b>Introduction</b> .....	<b>4</b>
<b>isCOBOL 2011 R2 Enhancements</b> .....	<b>4</b>
Support for complex expressions using the XFD WHEN directive .....	4
Support for the configuration of a decimal point character during runtime .....	5
New GRID control properties .....	6
New thin client network data compression and "chattiness" reduction feature.....	6
Updated WEB-BROWSER control capabilities .....	6
New green screen modernization capabilities .....	7
<b>vCOBOL 2011 R2 Enhancements</b> .....	<b>7</b>
XML Parse and Generate support .....	7
The ability to make recursive calls .....	8
Debugging improvements .....	8
New library routines .....	8

## Veryant Release Overview

### Introduction

Veryant is pleased to announce the latest releases of isCOBOL™ Evolve and vCOBOL™ Enterprise. isCOBOL Evolve is a complete application environment for developing and deploying COBOL applications across Linux®, UNIX® and Microsoft® Windows® systems. vCOBOL Enterprise is a powerful and cost-effective COBOL alternative for mainframe rehosting and modernization.

In the newest isCOBOL release, isCOBOL 2011 Release 2 (R2), Veryant has introduced several important enhancements, including:

- Support for complex expressions using the XFD WHEN directive
- new GRID and WEB-BROWSER control properties
- improved thin client performance, up to 40%, on slow Internet connections

In the newest vCOBOL release, vCOBOL 2011 R2, Veryant has enhanced compatibility with legacy COBOL dialects and improved debugging capabilities.

Details on these enhancements and other new features are included below.

### isCOBOL 2011 R2 Enhancements

#### Support for complex expressions using the XFD WHEN directive

isCOBOL supports complex expressions such as those containing AND and OR, including the optional use of parentheses to group expressions.

The WHEN directive is used to build tables and columns in a relational database that would not normally be built by default. By specifying a WHEN directive in source code, the field (and subordinate fields in the case of a group item) immediately following this directive will appear as an explicit column, or columns, in the specified database table.

Note: for compatibility with ACUCOBOL-GT, EFD and XFD are synonymous.

Included below is the syntax for this directive:

```
$EFD WHEN Condition [ {AND} Condition ] ... [ TABLENAME = TableName ]
                        {OR }
```

or

```
*(( EFD WHEN Condition [ {AND} Condition ] ... [ TABLENAME = TableName ] ))
                        {OR }
```

or

```
*>(( EFD WHEN Condition [ {AND} Condition ] ... [ TABLENAME = TableName ] ))
                        {OR }
```

Condition is

```
{ Field { = } Value }
      { <= }
      { < }
      { >= }
      { > }
      { != }
{ Field = OTHER }
```

*Field* is a previously defined COBOL field.

*Value* is an explicit data value enclosed in quotes.

More details on this feature can be found in the isCOBOL Language Reference Manual: EFD Directives: WHEN Directive.

#### Support for the configuration of a decimal point character during runtime

This feature facilitates the deployment of applications to multiple countries without a recompile, where different characters, either a period or comma, are used to represent a decimal point.

To access this feature, use the `-sddp` compiler option.

This allows code to revert the DECIMAL-POINT clause at runtime. It works in conjunction with the `iscobol.runtime.decimal_point_is_comma` (boolean) \* configuration property.

`iscobol.runtime.decimal_point_is_comma` (boolean) \*

- True
 

Every program compiled with the `-sddp` option shows the comma as the decimal separator and the dot as the thousand separator, regardless of the DECIMAL-POINT clause in the Special Names.

- False  
Every program compiled with the `-sddp` option shows the dot as the decimal separator and the comma as the thousand separator, regardless of the DECIMAL-POINT clause in the Special Names.

#### New GRID control properties

New GRID control properties -- Row-Cursor-Color, Row-Cursor-Background-Color and Row-Cursor-Foreground-Color -- designed to reduce network traffic in thin client and isCOBOL™ Web Direct 2.0 deployments are now available.

These properties reduce traffic by presetting the colors to use, rather than having to change the colors dynamically as a result of events. For example, before this feature was added, programs needed to change the colors in response to user events, which involved multiple round trip network messages.

#### New thin client network data compression and "chattiness" reduction feature

This feature improves display speed and performance up to 40% on high latency networks (i.e. slow Internet connections) for various operations, including DISPLAY SCREEN, DISPLAY SCREEN UPON TOOLBAR, DISPLAY STANDARD WINDOW, the display of bitmap images and copying files between the client and server. It may also lower costs by eliminating need for Microsoft Remote Desktop Services.

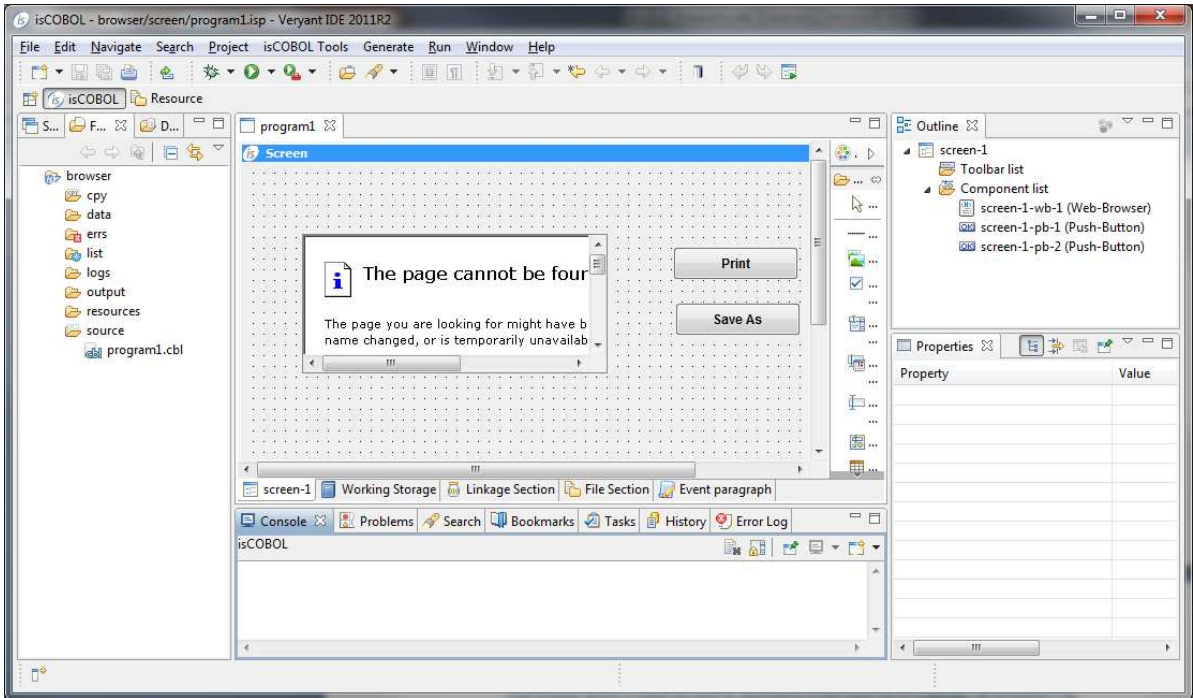
#### Updated WEB-BROWSER control capabilities

Updated WEB-BROWSER control capabilities are now available which enable cross-platform (UNIX, Linux, Windows and Mac) portability and greater compatibility with the latest HTML standards. In addition, the ability to print and 'save as' has been added to the WEB-BROWSER control, and the browser now more closely resembles Internet Explorer.

Code example:

```
screen-1-pb-1-link-to.  
    modify SCREEN-1-WB-1 PRINT = 1  
.  
screen-1-pb-2-link-to.  
    modify SCREEN-1-WB-1 SAVE-AS = 1  
.
```

**Figure 1.** Example screen in the isCOBOL™ Integrated Development Environment (IDE)



### New green screen modernization capabilities

With the new isCOBOL isjcterm feature, users can build updated, graphical, and secure thin client applications that continue to interact with terminals for terminal input, output and calling out to external UNIX/Linux programs. This allows users to modernize green screen applications and add graphical controls in the COBOL language without having to reengineer an application. Because isjcterm uses SSH (a secure transport similar to HTTPS), all the communications are secure.

Contact [info@veryant.com](mailto:info@veryant.com) for more details on this feature.

### **vCOBOL 2011 R2 Enhancements**

#### XML Parse and Generate support

XML PARSE and XML GENERATE support for mainframe COBOL compatibility has been added in vCOBOL 2011 R2. The XML PARSE statement parses an XML document into its individual pieces and passes each piece, one at a time, to a user-written processing procedure. The XML GENERATE statement converts data to XML format.

#### General format:

```
XML GENERATE Xml-Stream FROM Xml-Data
      [ COUNT IN Counter ]
      [ ON EXCEPTION Imperative-Statement-1 ]
      [ NOT ON EXCEPTION Imperative-Statement-2 ]
[ END-XML ]
```

#### Date, time, and delay callable services support

With date, time, and delay callable services, developers can get the current local time and date in several formats, and convert dates and times. The specific callable services added in 2011 R2 were CEEDAYS, CEEGMTO, CEELOCT, CEEDATE, CEEDYWK, CEEGMT, CEEISEC, and CEE3DLY.

#### The ability to make recursive calls

A vCOBOL called program can now directly or indirectly execute itself. For example, program X calls program Y, program Y calls program Z, and program Z then calls program X.

#### Debugging improvements

Users now have the ability to trace paragraphs and programs as they execute.

#### New library routines

Micro Focus COBOL compatible library routines for scanning directories and files on disk, checking the existence of a file, copying, deleting and replacing files were added in vCOBOL 2011 R2.

- CBL\_DIR\_SCAN\_START
- CBL\_DIR\_SCAN\_END
- CBL\_DIR\_SCAN\_READ
- CBL\_CHECK\_FILE\_EXIST
- CBL\_COPY\_FILE
- CBL\_DELETE\_FILE
- CBL\_REPLACE\_FILE

The SYSTEM library routine was also added. This allows a program to run an operating system command line as if it was executed from a command prompt, shell, script, batch file, or shortcut.