



# isCOBOL™ Evolve

## isCOBOL Evolve 2012 Release 2 (R2) Overview

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## isCOBOL Evolve 2012 Release 2 (R2) Overview

### Introduction

Veryant is pleased to announce the latest release of isCOBOL™ Evolve, isCOBOL Evolve 2012 R2. isCOBOL Evolve provides a complete environment for the development, deployment, maintenance, and modernization of COBOL applications. isCOBOL 2012 R2 includes several enhancements to the isCOBOL Integrated Development Environment (IDE), debugger improvements, and other new features.

Details on these enhancements and updates are included below.

### isCOBOL 2012 R2 Enhancements

#### Compatibility with other COBOLs

The isCOBOL Framework is now able to read Vision files natively without the need of additional software. This feature is particularly useful during the conversion from Acucobol-GT to easily convert data files to one of the file systems supported by isCOBOL. For users that prefer to maintain the data files in Vision format Veryant provides a File Connector solution (vfc) that allows to safely interface the Acucobol-GT runtime providing a complete support for the Vision file system. A similar solution is provided also for the Micro Focus file system. File Connectors libraries are provided along with isCOBOL, but it's your work to build the necessary executable. Acucobol-GT and Micro Focus are required in order to produce vfc and mfc executables. Contact Veryant for further details.

In terms of compatibility with Acucobol-GT, isCOBOL 2012 R2 includes three important features:

- The ability to manage line sequential files by skipping carriage-return, form-feed and line-feed characters. To activate this feature, set the following property in the configuration:  
`iscobol.file.linesequential=com.iscobol.io.DynamicLSeqACU`
- The ability to jump from a Declarative paragraph to a standard Procedure Paragraph using the GO TO statement. This action was not allowed by previous isCOBOL version, and users had to change GO TO to RESUME in order to obtain the desired effect.
- The new compiler option `-cko` that allows to control how keys are declared in EFD and ISS dictionaries. If `-cko` is not used, then keys are declared in the

order they appear in the FILE-CONTROL paragraph. If `-cko` is used along with `-efd` or `-efc`, then keys are defined in the order they appear in the record.

In terms of compatibility with Micro Focus, isCOBOL 2012 R2 provides

- a new library routine: `CBL_CHANGE_DIR`.
- The ability to manage binary sequential files with variable length records. To activate this feature, set the following property in the configuration:

```
iscobol.file.linesequential=com.iscobol.io.DynamicMFSequential
```

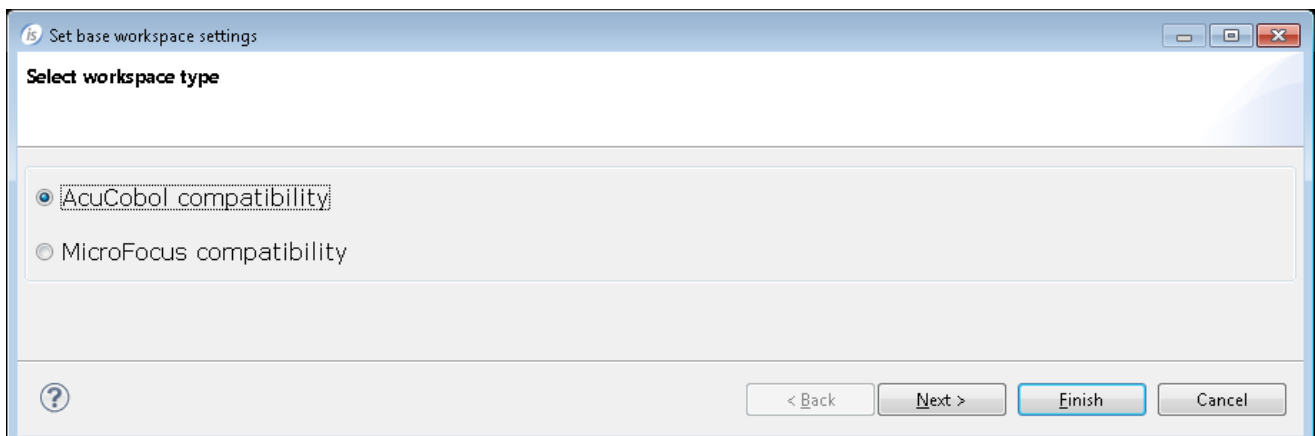
#### New isCOBOL distributions

- A new setup program named isCOBOL THIN that can be used to install the isCOBOL Client on Windows machines where neither Java nor isCOBOL are available.
- A new UNIX setup named isCOBOL MULTI that can be used to install and generate isCOBOL on UNIX platforms where a tar gz is not provided by Veryant

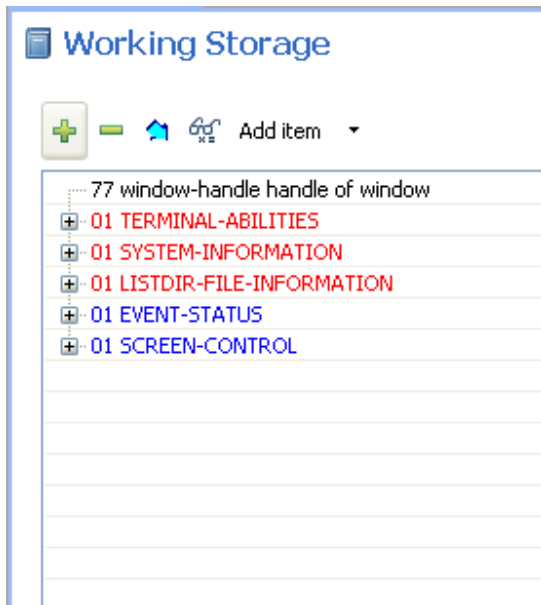
#### isCOBOL IDE Enhancements

Numerous enhancements were made to the isCOBOL IDE in the 2012 R2 release, including:

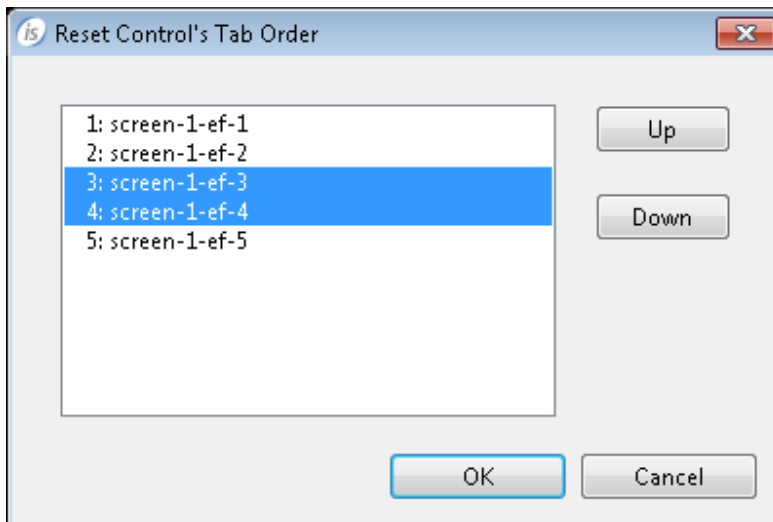
- A wizard procedure that guides you in creating a new workspace with peculiar settings for compatibility with other COBOLs:



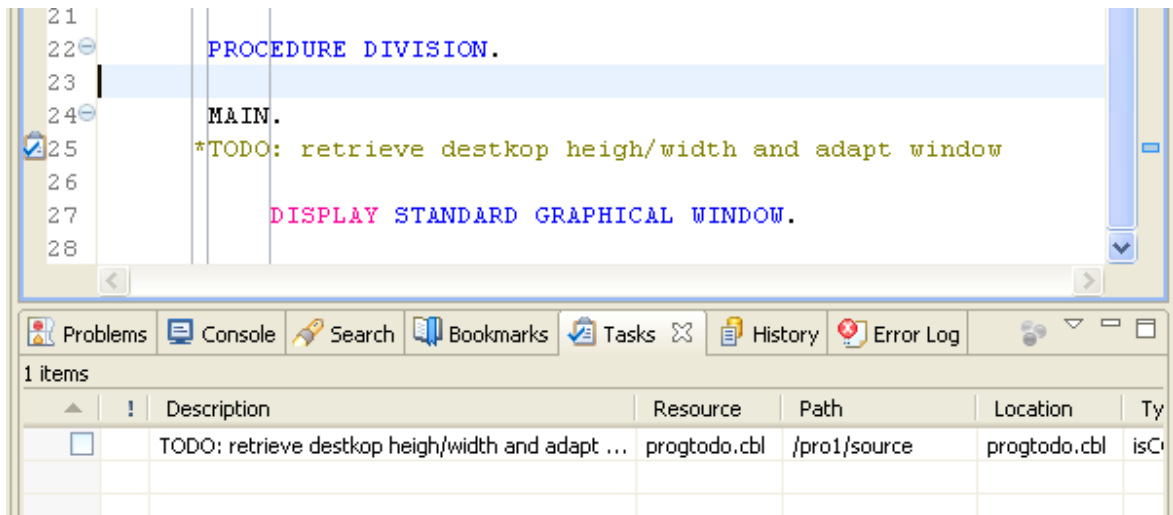
- A more readable data designer with color pattern that allows to distinguish items coming from different linked copy files



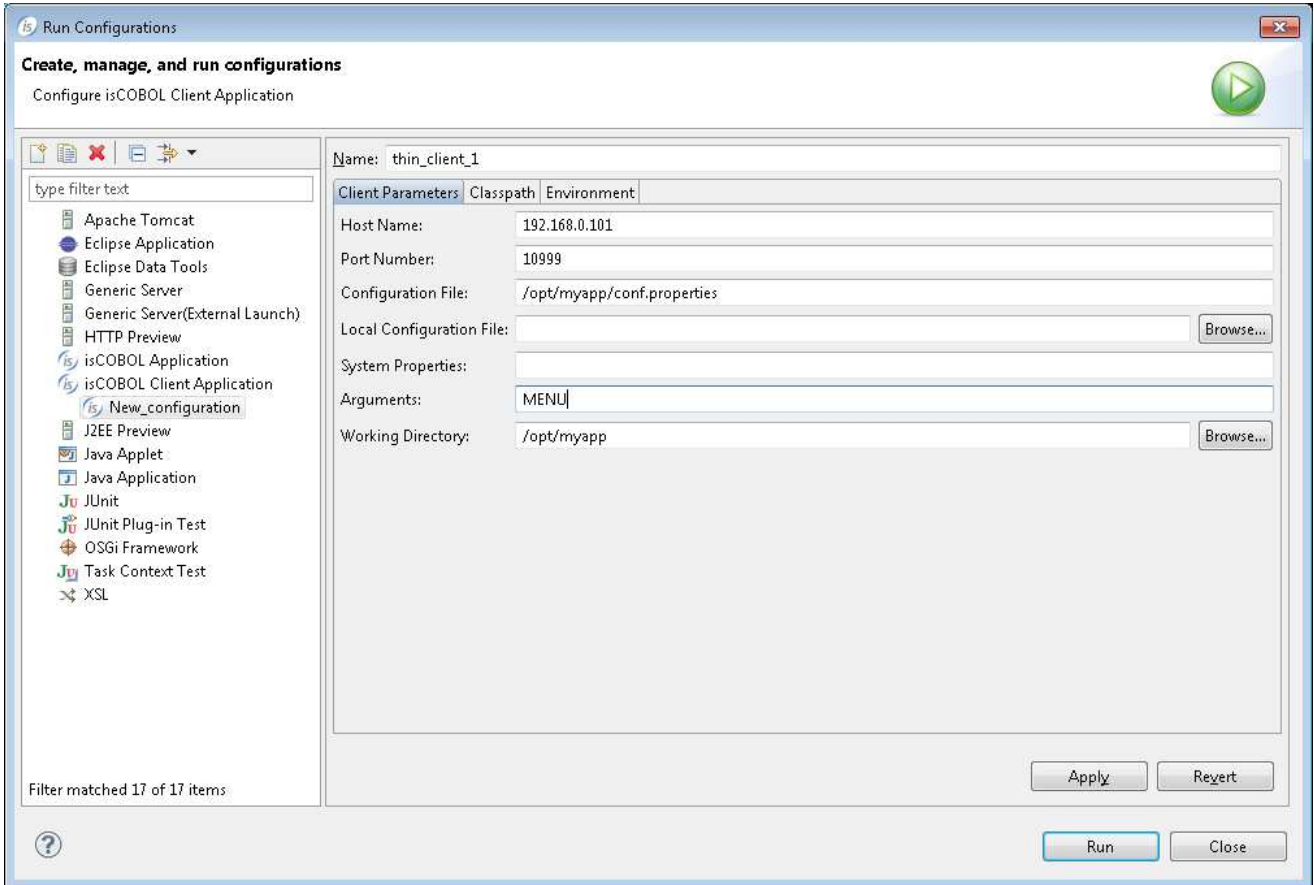
- A better Tab-Order dialog where items are numbered and it's possible to select more of them at once



- Items automatically added to the Tasks view if you type "TODO" or "FIXME" in a commented line



- Ability to set up and launch a thin client session



### Debugger Improvements

Improvements to the isCOBOL Debugger in 2012 R2 include:

- Different coloring for easier reading of nested copybooks (colors are configurable)

```
3      working-storage section.
4      copy "level1.def".
1      77 var pic x(10).
2      copy "level2.def".
1      77 var2 pic 9(3).
2      copy "level3.def".
1      77 var3 usage handle.
5
6      procedure division.
```

- The ability display the content of constant data items (level 78)

```
3 working-storage section.
4 78 my-const value 1.
5
6 procedure division.
7 main.
8 display my-const.
```

MY-CONST = 1

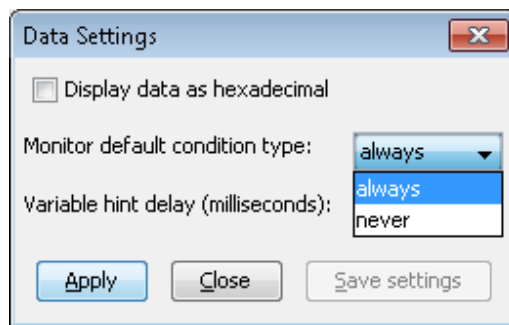
- The ability to display the content of EXCEPTION-OBJECT

```
12      try
13          set w-arr to arr::"new"(1)
14          set w-arr(1) to "a"
15      catch exception
16          display message exception-object
17      end-try.
```

EXCEPTION-OBJECT = java.lang.ArrayIndexOutOfBoundsException: 1



- The ability to change monitors default notify condition



New graphical user interface features

Enhancements to user interface features include:

- The ability to show graphical controls in GRID cells in a permanent way. Previous releases allowed controls in GRID cells only during cell editing, controls had to be shown in the MSG-BEGIN-ENTRY event and destroyed in the MSG-FINISH-ENTRY event. Now it's possible to have controls in GRID cells permanently.

The check-boxes on the last column of this grid

	Description	QT	Price	%	Date	Y/n
01	WACOM graphic tablet INTUOS3 Classic A5	16	223,58	60	01/01/2012	<input type="checkbox"/>
02	WACOM graphic tablet GRAPHIRE3 <b>NEW</b>	05	238,80	100	01/02/2012	<input checked="" type="checkbox"/>
03	WACOM graphic tablet GRAPHIRE3 Studio	52	123,96	90	01/03/2012	<input type="checkbox"/>
04	WACOM graphic tablet GRAPHIRE3 Classic	23	99,00	40	01/04/2012	<input checked="" type="checkbox"/>
05	WACOM graphic tablet VOLITO 2 A6 USB	50	50,00	60	01/05/2012	<input type="checkbox"/>
06	WACOM graphic tablet INTUOS3 A5 USB	45	342,36	100	01/06/2012	<input checked="" type="checkbox"/>
07	WACOM graphic tablet INTUOS3 A6 <b>NEW</b>	65	237,96	70	01/07/2012	<input checked="" type="checkbox"/>
08	WACOM graphic tablet INTUOS3 A4 USB	03	490,68	100	01/08/2012	<input type="checkbox"/>
09	WACOM CintiQ graphic tablet 17 TFT	15	2632,56	100	01/09/2012	<input checked="" type="checkbox"/>
10	NGS graphic tablet Draw Master <b>NEW</b>	63	59,00	80	01/10/2012	<input checked="" type="checkbox"/>
11	NGS graphic tablet Cadboy 14x10cm USB	14	38,00	10	01/11/2012	<input type="checkbox"/>
12	WACOM CintiQ graphic tablet 18 TFT	00	3373,44	100	01/12/2012	<input checked="" type="checkbox"/>

have been obtained through the following statement:

```
display check-box upon grid-handle(-1, 7)
```

- The ability to have multiline column headings in GRID by setting the new property ROW-HEADING-LINE-HEIGHT to a value greater than 1.

1 first column	2 second column

### Object Oriented Programming

isCOBOL 2012 R2 contains some improvements for the object oriented programming, like:

- The ability to define public constants in OO programs through unnamed methods.

The following code:

```
IDENTIFICATION DIVISION.
METHOD-ID.  ".

WORKING-STORAGE SECTION.
LINKAGE SECTION.

PROCEDURE DIVISION.
MAIN.
    set const1 = 13.
END METHOD.
END FACTORY .
```

Produces the following constant in the class:

```
public static int CONST1;
```

- The ability to invoke methods with a variable number of arguments, for example, given the following Java method:

```
public class test {
    public static final void fun (String... a)
```

the following COBOL code is allowed:

```
t:>fun ("a").
t:>fun ("a", "b").
t:>fun ("a", "b", "c").
```

- Improvements to the compiler error messages when methods are not found.

The ability to manage every kind of file remotely with the isCOBOL File Server

The File Server provided along with isCOBOL 2012R2 is able to manage sequential and relative files as well as indexed files. To manage sequential files remotely with the File Server, set:

```
iscobol.file.sequential=com.iscobol.io.DynamicRemote  
iscobol.file.linesequential=com.iscobol.io.DynamicRemote
```

To manage relative files remotely with the File Server, set:

```
iscobol.file.relative=com.iscobol.io.DynamicRemote
```

The ability to monitor active locks in addition to connected clients through the isCOBOL Server Administration Panel

Start the isCOBOL Server having one of the following two settings in the configuration

```
iscobol.file.lock_manager=com.iscobol.as.locking.BaseLockManager
```

or

```
iscobol.file.lock_manager=com.iscobol.as.locking.InternalLockManager
```

When the administration panel is launched with the command `isclient -panel`, the following lists are available:

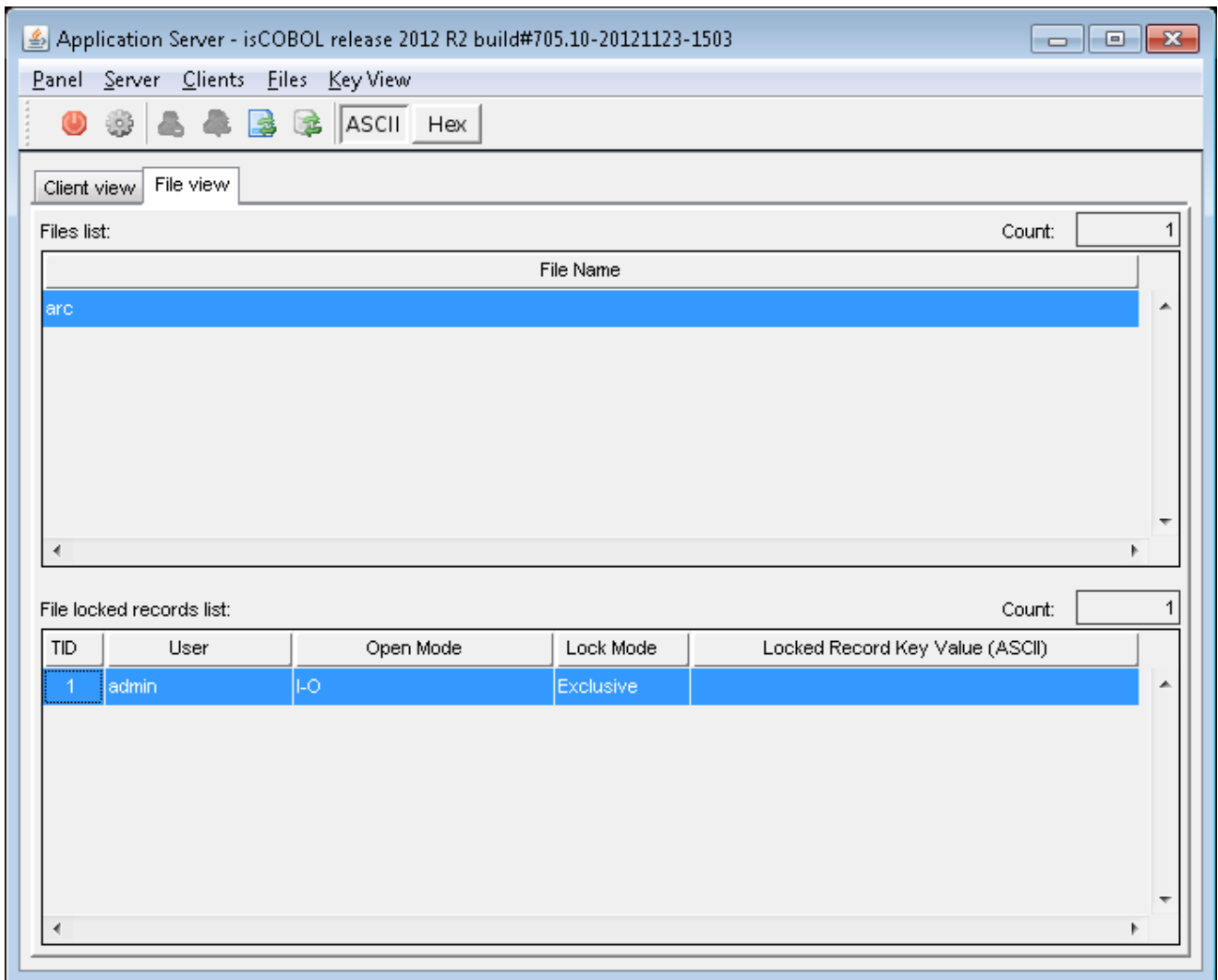
The screenshot shows the 'Application Server - isCOBOL release 2012 R2 build#705.10-20121123-1503' window. The interface includes a menu bar (Panel, Server, Clients, Files, Key View) and a toolbar with icons for power, settings, users, and file operations, along with 'ASCII' and 'Hex' buttons. The main area is divided into two sections: 'Client view' and 'Client locked records list'. The 'Client view' section has a 'File view' tab and a 'Clients list' table with 3 entries. The 'Client locked records list' section has a 'Client locked records list' table with 1 entry.

**Clients list:** Count: 3

TID	User	Host address	Host name	Launched program	User information
4	[-1] root	192.168.0.131	Linux32bit	TESTER	
2	[0] admin	127.0.0.1	127.0.0.1	ASA\$GPANEL	
1	[-1] admin	127.0.0.1	127.0.0.1	LOCKER	

**Client locked records list:** Count: 1

File Name	Open Mode	Lock Mode	Locked Record Key Value (ASCII)
arc	I-O	Exclusive	

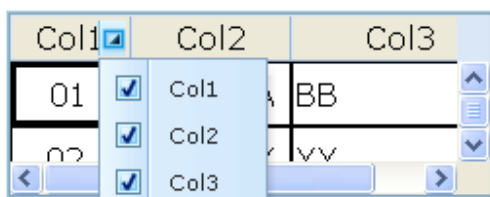


### Improvements to Web Direct 2.0

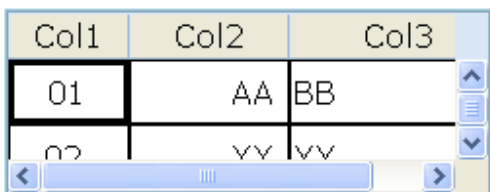
Web Direct 2.0 has been improved and now it offers:

- The ability to show or hide the pop-up menu in grid headings by setting the HEADING-MENU-POPUP property in the Grid definition.

`heading-menu-popup = 1` produces



`heading-menu-popup = 0` produces



- The support for TRANSPARENT Labels and DROP-LIST Combo-Box.

