BX PRO 6.2
Release Notes

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BX System Requirements

BX 6.2 requires the following system configuration:

- At least 32MB of RAM
- The approximate amount of disk space, listed in the following table according to your platform:

Platform	Operating System	Disk Space	
		BX 6.2	**BX PRO 6.2**
HPPA	HP-UX 11 (and later)	49 MB	93 MB
IA32	Linux 2.6 (and later)	54 MB	92 MB
IA64	HP-UX 11i (and later)	62 MB	116 MB
	Linux 2.6 (and later)	54 MB	92 MB
MIPS	Irix 6.5	30 MB	60 MB
RS6000	IBM AIX 4.3 (and later)	36 MB	73 MB
SPARC	Solaris 2.8 (and later)	40 MB	81 MB
x86_64 (AMD64)	Linux 2.6 (and later)	61 MB	89 MB

- X11R6 or later
- High resolution graphics display: 1024 x 768 is required

Installing/Uninstalling Builder Xcessory

The Builder Xcessory 6.2 installer uses a single file with a self-contained native executable and no external dependencies. A text installation mode is also supported by the BX installer. BX will automatically be installed in text mode if the graphical mode is unavailable. You can also force a text-based installation on all platforms by using the "--mode text" option from the command line.

If you have an updated or previous version of BX and want to uninstall it, enter the following command:
```
%> rm -fr {BX PRO}
```
If you have Builder Xcessory 6.2 or earlier, use the "uninstall" program located in the "BX PRO" install folder.

When installing BX 6.1.x updates, make sure the "bx61" script points to the correct updated version of BX.

New Features in Builder Xcessory

Builder Xcessory 6.x focuses on two new areas of improvement. First a "modernization" of the user interface and, second, the builder has been expanded to take advantage of all the new features found in Motif 2.x.

Design Changes and Improvements Made in Version 6.1

•C++ namespaces are now supported by BX. All base classes provide a name tag. Sub-classes indicate the namespace tag to which they belong. The code generator will generate classes with a namespace. A flag to turn off namespace usage is under the "Code Generation Preference Dialog".

•Object names of both instances and classes now support long names.

•The GUI status is displayed during long file operations. The status bar in the Browser window displays the current status of the Open, Save, and Close operations of a uil file. Code generation messages come from the code generator.

•Scrollbars for the browser window and a scrolled window were added instead of the port hole for the widget tree. A flag to switch between the scrolled window and the port hole is available under BX preferences.

•BX now includes a directory selection path dialog for code generation.

•An override shell is included in the shell panel of the "User Preferences Dialog".BX

•BX no longer supports Java language and it is been completely removed.

•Builder Xcessory Object Packager is deprecated and will be removed in the future release

Bug Fixes

•0000953: Incorrect set of values listed for the scrolled window child type constraint resource.

•0000954: Multiple unnecessary calls to XtSetTypeConverter with redundant parameters.

•0000955: BX utility code leaks memory calling XtConvert routines.

•0000956: BX utility code is not thread safe.

•0000968: BX palette shows up empty after modifying and saving the widget groupings.

•0000969: Code generation preference directory path needs file browser.

•0001013: Opening one of the tutorial files and then selecting "Close" from the browser window crashes BX.

•0001045: Scrolled window child type of XmList widget has no value by default.

- 0026596: Incorrect dimensions are set on the OptionMenu widget while creating and modifying its resources.

- 0030311: Adding push buttons into pull down menus of the option menu widget crashes BX.

- 0035616: Page number resource value is set incorrectly for the NoteBook widget.

- 0069693: BX overwrites the contents of a user code block specified in the constant header file.

- 0074576: Position mode resource is incorrectly set for a combo box widget.

- 0075356: Incorrect code generated by BX calling XtVaGetValues().

- 0075487: Interacting with the class name list crashes BX.

- 0076197: Incorrect derived class names created when "Generate Derived Files" is selected in the "C++ Generation Preferences" dialog.

- 0076595: Unable to edit the derived class names in the resource editor.

- BZ01192: Added modal dialog to BX for asking to exit BX if it needs to be restarted. It is needed for the "Start with EPak widgets" and "Start with Scrolled Window Browser" options.

- BZ01193: Added support of the "Center Browser Tree" feature to the scrolled window.

- BZ01202: BX crashes trying to interact with the user interface faster than normal.

- BZ01203: Font warnings during BX startup.

- BZ01229: Corrected the code generation. Added generation of the derived class declaration instead of the base class if it is needed.

- BZ01233: Checked incorrect geometry issue in the resource editor "Generate Derived Files" option.

- BZ01257: Corrected the code generation. Added check of whether there is a C++ compiler for unused function parameters.

- BZ01275: Added dialog window which asks the user to save new classes in a local folder if the user does not have permissions to write into system folders.

- BZ01276: Added saving of new BX palette classes to UIL files. Added ability to read these classes.

- BZ01305: BX crashes on drag'n'drop operations in the palette.

- BZ01307: Incorrect geometry of BX main window if there are saved classes in system or user folders ("Private Classes" or "Public Classes" group in the palette).

- BZ01319: Incorrect saving of classes that contains an identifier as the value of the 'userData' field of RscEditor.

- BZ01335: BX crashes when adding a new constant for the 'userData' widget resource.

- BZ01278: Incorrect loading of "Generate Derived Files" option saved value for the resource editor.

- BZ01323: Incorrect code generation using flex v2.5.33 under Fedora 7.

- BZ01355: Removed redundant "Cancel" button from the "Save on Exit" dialog.

- BZ01356: Incorrect code generation in the SetImagePixels function.

- BZ01357: Incorrect code generation of "include" directives for ViewKit.
- BZ01358: Generated Imakefile doesn't contain EPak libraries for LIBS variable.
- BZ01375: Incorrect ViewKit code generation for the class name attribute.
- BZ01382: Generated BX code for 'test/motifburger.uil' causes a warning.
- BZ01386: BX Code generation creates a backup file when there are no changes to the GUI.
- BZ01388: Unable to set the TearOffModel resource for the "XmPulldownMenu" widget.
- BZ01392: BX code generation failed on both C++ and ViewKit code generating.
- BZ01393: "Code Generation Preferences" window's entry field control buttons are positioned incorrectly.
- BZ01394: Code generator syntax correction using the newer version of TCL.
- BZ01399: VkWindow code generation fails to declare and define undo attribute.
- BZ01426: Incorrect WML lexical analyzer code generation using the latest version of flex 2.5.31.
- BZ01433: Radio Box behaves incorrectly with XmNPacking resource set to XmPACK_NONE.
- BZ01435: Using XmNisHomogeneous resource generates incorrect code for the Radio Box widget.

Design Changes and Improvements Made in Version 6.x

- Overlays are a new concept in Builder Xcessory. They provide a mechanism for BX to support different widget sets that have fundamental conflicts in resource types. (Like Motif 2.1 and 1.2) In the future, overlays will be provided and no updates of BX will be needed to support a new toolkit. For the 6.2 release of Builder Xcessory, one overlay is provided, Motif 1.2. If you wish to build applications using Motif 1.2, then you must install this overlay. If you wish to continue developing in Motif 2.1, simply do not choose the overlay when you install BX. If you want to develop in both Motif 2.1 and 1.2, then you must install BX in two places, one place with the overlay and one without. The installer will help you do this without any conflicts.
- See the Change Log for details on bug fixes.

Design Changes and Improvements Made in Version 5.x

- The browser has been integrated with the palette to provide a main window. This unclutters the screen.
- The palette was placed on the right side of the Main Window. Tests show most users place the Main Window on the left side of their screen. With the palette on the right, the amount of mouse movement is minimized to prevent wrist damage.
- To modernize the look of BX, and to allow for users with smaller screens, the footprint of BX has been reduced. For users who are visually impaired, larger icons can be seen by starting BX with the "bx -largeIcons" flag.

- BX is now started with the command "bx" as opposed to "bx50", which many users found confusing.

- New widgets have been added.

- Tool Tip help was added to the tool bar. It was previously available only on the palette.

- Intuitive icons are now more consistent with other software.

- New widgets: ComboBox, Container, IconGadget, SpinBox, NoteBook.

- New resources for Motif widgets.

- New callbacks for UTM support.

- Improved resource grouping for easy access. (Visual/Behavior/Callback)

- Major re-write of ViewKit. (See ViewKit Changes for more information)

- Cleaner widget instance and class hierarchy.

- New support for CVS.

- Simplified install procedures.

- Updated code generation to support Motif 2.1 and X11R6.

- Updated tutorials and examples.

- Class C++ template type support.

- New media key for quicker access to support. Now you do not need to remember your support number- the media serial number is available from within BX.

- Web update information.

- New documentation in the Adobe PDF format makes it easy to access and print the documentation.

- Information on fixed bugs can be found in the "Change Log" on the help menu.

Known Problems in Builder Xcessory

The following sections describe known problems in Builder Xcessory 6.2.

Unmake Class on VkWindow

Builder Xcessory incorrectly allows you to "unmake class" on a VkWindow, causing indeterminate results during code generation.

Naming Classes

Builder Xcessory does not prevent you from assigning your class the same name as a ViewKit or Java class.

Color Limitations

Builder Xcessory will not read pixmaps or icons containing more than ninety colors. If an icon or pixmap has more than ninety colors, Builder Xcessory displays an error message. Use other utilities, such as "xv", to perform color reduction on images that exceed the limit.

XmNdecimalPoints Resource

The resource XmNdecimalPoints is poorly defined in Motif 2.1. It is used as a constraint resource in XmSpinBox and as a regular resource in XmScale. UIL cannot handle this conflict. The use of the resource is wrong and affects Motif 2.1. Therefore, you cannot use this resource if you are generating uil code. Unfortunately, this bug also affects BX users who are using the SpinBox. As of BX 6.2, we still have not found a suitable workaround to allow the resource to work well in both widgets. It was decided to maintain XmScale functionality at the expense of XmSpinBox. If you wish to use the SpinBox but not the Scale, and need to set this resource, you must edit the file motif.wml found in ${BXHOME}/xcessory/wml. Change the line that reads:

```
XmNdecimalPoints: Argument{
```

to read:

```
XmNdecimalPoints: Constraint{
```

Porting Issues in Builder Xcessory

File Load Warnings

When loading a UIL file created by BX 6.x, you may see many warnings in the message window complaining about resource type changes. Motif 2.1 has changed the types of many resources. When you save your UIL file the correct resource types will be saved.

Widget Integration

Widget integration methods have changed. Minor changes in the catalog and wml files will cause conflicts and need to be changed by hand. Catalog items need a large pixmap file:

```
LargePixmapFile = "XiColorSelector";
```

Please see {BX}/xcessory/motif.wml for examples.

If you have installed an integration product from ICS, such as XRT widget integration or INT widget integration, ask your ICS sales representative to send you a new BX 6.2 integration kit.

BX License Changes on Intel Hardware Architecture

The license scheme has been redesigned. You can still get the key from keys@ics.com. When you get the key, place it in a file called "icslicense.dat" in your home directory. If you do not put the "icslicense.dat" file in your home directory, you must set the BX environment variable "ICS_LICENSE_FILE".

For example, if the license file is placed in /tmp/icslicense.dat and you use the /bin/csh shell, you would type:

```
sentenv ICS_LICENSE_FILE/tmp/icslicense.dat
```

at the command prompt.

Generating UIL Classes

Within a class, child widgets of a Form should not reference other child widgets for attachments. The UIL compiler does not make proper alignments for multiple instances of the class. This is a limitation of the UIL compiler. Other code generation languages are not affected.

Instance Name Length for UIL

Instances cannot have a length greater than 32 characters if you are using the UIL compiler. This is a limitation of UIL and not BX. BX will alert you when a name exceeds the UIL limit.

XmToggleButton Resource Conversions

With Motif 2.1 came several major changes to the XmToggleButton widget resources that might cause problems when BX reads in UIL files generated from BX 6.x. The resource XmNindicatorOn has changed from a Boolean value to an enumerated type. Possible values are:

```
XmINDICATOR_NONE
XmINDICATOR_BOX
XmINDICATOR_FILL
XmINDICATOR_CHECK
XmINDICATOR_CHECK_BOX
XmINDICATOR_CROSS_BOX
XmINDICATOR_CROSS
```

For the resource XmNset possible values now include:

```
XmUNSET
XmSET
XmINDETERMINATE
FALSE
TRUE
```

For both of these resources, BX may not always choose the best match when converting your UIL file. We recommend that if you use toggle buttons you quickly verify that the resources are those which you desire. For more information on the different values, please consult your Motif 2.1 documentation.