

Visualization

by Perforce

RELEASE NOTES

June 2022

Visualization for C++®
Version 7.0.1

Introduction

These *Release Notes* highlight the changes for the following versions of Views:

- [Views version 7.0 changes](#)

Views version 7.0 changes

- [Important Announcements](#)
- [New Features](#)
- [New Ports](#)
- [API Changes](#)
- [Updated Features](#)
- [Bug Fixes](#)
- [Removed Features](#)
- [Known Limitations](#)

Important Announcements

Please read the following important announcements for Views version 7.0.

Patch process has been changed

From version 7.0 onward, patch releases use the same installers as the main release version and contain everything needed to use Views. It is possible to install a patch over the main release or previous patch. ABI and API compatibility will still be intact.

Upcoming retirements

Views 8.0 will retire the following list of platforms, compilers, and databases. Contact your Perforce account manager or Views support if you have any questions.

Windows:

- Windows 10, MSVS 2015, x86/ x86-64
- Server 2012, MSVS 2015, x86/ x86-64

Linux:

- Ubuntu 16.04, x86/ x86-64

UNIX:

- Solaris 11, Sun Studio 12.6, SPARC
- HP-UX 11iv3, Itanium

New Features

The following new features have been added to Views version 7.0.

CSS Look and Feel

Views 7.0 adds the ability to use Cascading Style Sheet (CSS) styling rules to customize the look-and-feel of gadgets used to build Views applications. Style sheets are simple text files that specify CSS directives to style Views gadgets including attributes to define foreground and background colors, background images, margins and padding, and many other visual aspects. The following is a simple example of a CSS file that changes the background and foreground colors of an `IlvButton`:

```
IlvButton {
    color: blue;
    background-color: white;
}
```

For complete documentation and examples on styling your application with Views CSS Look and Feel see the Views CSS Style Sheets documentation in the Gadgets Reference Guide.

JPEG 2000 Support

Views version 7.0 now supports JPEG 2000.

Maps UTM Projection, WGS84 and MGRS Coordinate Conversion Improvements

Improvements to UTM projection, WGS84 and MGRS coordinate conversion have been made in Views 7.0. These improvements provide more accurate conversions and performance improvements.

GCC 5.x Support

GNU GCC ABI differences require separate library builds for versions prior to GCC 5.x and GCC 5.x and later. Views 7.0 now provides separate builds for each version of the GCC, accommodating applications built with newer versions of the GCC compilers.

Border Position (`IlvBorderPosition`)

This is a new property for `IlvPalette`. `IlvBorderPosition` indicates where the border is drawn when creating a rectangle or a rounded rectangle.

New Ports

The following ports are new in this release.

Windows:

- Windows 10, MSVS 2019, x86/x86-64
- Server 2012, MSVS 2019, x86/ x86-64
- Server 2016, MSVS 2015, 2017, 2019, x86/x86-64

Linux:

- RHEL/CentOS 7, x86/x64 – GCC 4.8 and GCC 5.3
- RHEL/CentOS 8, x86/x64
- SuSE 15, x86/x86-64
- Ubuntu 16.04, 18.04, 20.04, x86/ x86-64

UNIX (available upon request):

- Solaris 11, Sun Studio 12.6, 32/64 SPARC

- HP-UX 11iv3, Itanium
- AIX 7.2, xLC 13.1, 32/64 Power PC

NOTE: UNIX ports are targeted for version 7.1. If you need it prior to that release, please contact techsupport@perforce.com.

API Changes

Views 7.0 includes a number of API and library changes. While most changes are minor and do not impact your use of the Views APIs, some of these changes do require you to update your API and change the way you link your Views application. Review the set of class member, removed classes, added classes, and hierarchy changes to understand the changes to the API.

To help Views developers port to Views 7.0 the following summary of key library updates and API changes are highlighted. Developers porting to Views 7.0 may be impacted by these changes.

- [Views 7.0 library updates](#)
- [Views 7.0 API Porting Suggestions](#)
- [Removed classes](#)
- [Added classes](#)
- [Hierarchy changes](#)
- [Class members changes](#)

Views 7.0 library updates

- **Geometry classes moved to `ilvgeometry` library** — Geometry class including `IlvLinearGradientGeometry`, `IlvRadialGradientGeometry`, and `IlvGradientGeometry` have been moved to new `ilvgeometry` library. If you use these classes you need to link with this new library.
- **Link EASTL library** — Views 7.0 relies on the open source EASTL library. Link as a shared library using `libEASTL.so` on Linux/UNIX or `EASTL.dll` on Windows. You can also link it statically using `libEASTL.a` on Linux/UNIX and `EASTL.lib` on Windows. This new library must be linked with your Views application.
- **Link Modest CSS engine shared library** — Views 7.0 CSS Look-and-Feel functionality relies on the Modest open source library. Link with `libmodest.so` on Linux/UNIX and `libmodest.dll` on Windows. This library must be linked as a shared dynamic library.
- **zlib library** — An embedded zlib library is no longer provided on Linux (`ilog.so`, `ilog.a`) or Windows (`ilog.dll`, `ilog.lib`). You can still access zlib functionality using a static library on Linux (`libz.a`) or Windows (`zlib.lib`). Views could no longer provide a shared zlib library due to possible conflicts with system installed zlib libraries. You can find zlib headers in the `include/zlib` directory and, for CMake based applications, the `zlibstatic` CMake target in the `ifc-config.cmake` file.

Views 7.0 API Porting Suggestions

- `IlvGraphic::isVisible()` **changed to a virtual method** — If you override `IlvGraphic` and implement the `isVisible` method you must now change it to a virtual method.
- `geometry.h` **header file change** — Any includes for the header file `ilvviews/base/geometry.h` need to change to `ilvviews/base/geometry/IlvBaseGeometry.h`.
- `IlvPopupMenu::isVisible()` **renamed to** `IlvPopupMenu::isMenuShown()` — If you implemented the virtual method `isVisible` on class `IlvPopupMenu` you will need to rename it to `isMenuShown`.
- `IlvViewRectangle::isVisible()` **renamed to** `IlvViewRectangle::isVisibleVisible()` — If you implemented the virtual method `isVisible` on class `IlvViewRectangle` you will need to rename it to `isVisibleVisible`.

- `void IlvViewRectangle::show()` **deprecated and replaced by** `showView()` — Method `IlvViewRectangle::show()` has been deprecated and is replaced by `showView()`.
- `void IlvViewRectangle::hide()` **deprecated and replaced by** `hideView()` — Method `IlvViewRectangle::hide()` has been deprecated and is replaced by `hideView()`.
- **Palette class refactored** — The Palette class has been heavily refactored and many of the getter functions now return `const IlvPalette *` instead of `IlvPalette`. When the Views team ported Views Studio 6.3 to 7.0 this was the only area of impact to the source code.
- `IlvDisplay` **methods refactored into** `IlvDisplay::fontManager()` — The following list of `IlvDisplay` members are deprecated and have been moved into `IlvDisplay::fontManager()`.

```

IlvBoolean makeFont(IlvFont*, const char* realname = 0);
IlvFont* createSystemFont(const char* realname);
IlvFont* createFont(const char* family, IlvFontSize size, IlvFontStyle style, const char*
    foundry);
IlvFont* createFont(const char* family, IlvFontSize size, const char* resolution,
    IlvFontStyle style, const char* foundry);
IlvFont* dupFont(IlvFont* srcFont, const char* dstAlias);
void freeFont(IlvFont*);
void removeFont(IlvFont*);
IlvFont* getFont(const char* fontName);
IlvFont* getSystemFont(const char*);
IlvFont* getFont(const char* fontFamily, IlvFontSize fontSize, IlvFontStyle fontStyle =
    IlvNormalFontStyle, const char* foundry = 0);
IlvFont* getFont(const char* fontFamily, IlvFontSize fontSize, const char* fontResolution,
    IlvFontStyle fontStyle = IlvNormalFontStyle, const char* foundry = 0);
IlvDim* getFontSizes(const char* fontFamily, IlvFontStyle fontStyle, int& count, const char*
    foundry = 0) const;
const char* const* getFamilyNames(IlvShort& count) const;
IlvFont* defaultFont() const;
IlvFont* defaultNormalFont() const;
IlvFont* defaultBoldFont() const;
IlvFont* defaultItalicFont() const;
IlvFont* defaultLargeFont() const;
IlvStringHashTable* getFonts() const;
IlvStringHashTable* getFontAliases() const;

```

Removed classes

The following classes have been removed:

```

IlvCssStyleSheet
IlvStyleQuery
IlvStyleSheet
IlvStylist::Push
IlvStylist::Style

```

Added classes

The following classes have been added:

```

CSSEngineFactory
CssCachedImage
CssEngine
CssImageCache
ErrorCssStyle
IBaseStyle
ICssEngine
IDomNode
IDomTree
IStyleProvider
IStylesheet
IlvAbstractViewCSSLFHandler
IlvAbstractViewLFFHandler
IlvAbstractViewMotifLFFHandler
IlvAbstractViewVXLFHandler

```

```

IlvAbstractViewWin95LFHandler
IlvAbstractViewWinLFHandler
IlvAbstractViewWinXPLFHandler
IlvAggregatedStyle
IlvContainerCSSLFHandler
IlvContainerLFHandler
IlvDefaultAbstractViewLFHandler
IlvDefaultContainerLFHandler
IlvDefaultSeparatorLineLFHandler
IlvDefaultSheetLFHandler
IlvDefaultViewFrameButtonsLFHandler
IlvDockableCSSLFHandler
IlvDynamicStyle
IlvDynamicStyleStatic
IlvFontManager
IlvFourCornerRadius< ilv::stated< IlvAxis > >
IlvFourSided< ilv::stated< CssBorderStyle > >
IlvFourSided< ilv::stated< IlvDim > >
IlvFourSided< ilv::stated< IlvInt > >
IlvFourSided< ilv::stated< ilv::resource_ptr< IlvColor > > >
IlvJPEG2KStreamer
IlvRoundRect
IlvRoundRectCorner
IlvRoundRectCorners
IlvSeparatorLine
IlvSeparatorLineCSSLFHandler
IlvSeparatorLineLFHandler
IlvSplitterGadgetCSSLFHandler
IlvStyleSheetProvider
IlvStyle
IlvStyleInterface
IlvViewFrameButtonsCSSLFHandler
IlvViewFrameButtonsLFHandler
ModestCssStyle
ModestDomNode
ModestDomStateAdjuster
ModestDomTree
ModestInstanceWrapper
ModestStylesheet
ModestToViewsValueConverter
PseudoComponent
checkable< IlString >
checkable< IlvAlignment >
checkable< IlvAxis >
checkable< IlvDim >
checkable< IlvDimensions >
checkable< IlvFontSize >
checkable< IlvFontStyle >
checkable< IlvIntensity >
checkable< IlvPoint >
checkable< ilv::resource_ptr< IlvColor > >
ilv::checkable
ilv::checkable< T, true >
ilv::resource_ptr
ilv::stated
stated< IlString >
stated< IlvAlignment >
stated< IlvAxis >
stated< IlvDim >
stated< IlvDimensions >
stated< IlvFontSize >
stated< IlvFontStyle >
stated< IlvIntensity >
stated< IlvPoint >
stated< ilv::resource_ptr< IlvColor > >

```

Hierarchy changes

The base classes of the following were changed:

- `IlvAbstractMatrixItem` — Changed from `IlvValueInterface` to `IlvStylable`, `IlvValueInterface`
- `IlvAbstractView` — Changed from `IlvBidiInterface`, `IlvStylable`, `IlvSystemPort` to `IlvBidiInterface`, `IlvStylable`, `IlvStylist`, `IlvSystemPort`
- `IlvGadget` — Changed from `IlvSimpleGraphic`, `IlvStylable` to `IlvSimpleGraphic`
- `IlvGadgetContainer` — Changed from `IlvContainer`, `IlvStylist` to `IlvContainer`
- `IlvGraphicSet` — Changed from `IlvGraphic` to `IlvGraphic`, `IlvStylable`
- `IlvNotebookPage` — Changed from `IlvValueInterface` to `IlvStylable`, `IlvValueInterface`
- `IlvSheetCSSLFHandler` — Changed from `IlvSheetLFHandler` to `IlvDefaultSheetLFHandler`
- `IlvSheetMLFHandler` — Changed from `IlvSheetLFHandler` to `IlvDefaultSheetLFHandler`
- `IlvSheetWLFHandler` — Changed from `IlvSheetLFHandler` to `IlvDefaultSheetLFHandler`
- `IlvSimpleGraphic` — Changed from `IlvGraphic` to `IlvGraphic`, `IlvStylable`

Class members changes

The following class members have been changed.

IlLocale	IlString	IliBindInfo
IliSQLCursor	IliTableGadget	IlvAbstractBar
IlvAbstractBarCSSLFHandler	IlvAbstractBarLFHandler	IlvAbstractMatrixItem
IlvAbstractMenu	IlvAbstractMenuCSSLFHandler	IlvAbstractMenuLFHandler
IlvAbstractMenuVXLHandler	IlvAbstractMenuW95LFHandler	IlvAbstractMenuWLFHandler
IlvAbstractView	IlvArrowButton	IlvAzimuthalEquidistantProjection
IlvBasicLFHandler	IlvBitmap	IlvBitmapAnimationHandler
IlvBitmapStreamer	IlvButton	IlvCADRGCoverage
IlvCADRGFrame	IlvColorSelector	IlvColorSelectorPage
IlvComboBox	IlvComboBox::PopupMenu	IlvComboBoxCSSLFHandler
IlvContainer	IlvCoordinate	IlvDefaultAbstractBarLFHandler
IlvDefaultComboBoxLFHandler	IlvDefaultDockableLFHandler	IlvDefaultHierarchicalSheetLFHandler
IlvDefaultMatrixLFHandler	IlvDefaultMessageLabelLFHandler	IlvDefaultPopupMenuLFHandler
IlvDefaultStringListLFHandler	IlvDefaultTreeGadgetLFHandler	IlvDefaultViewFrameLFHandler
IlvDeltaPoint	IlvDesktopManager	IlvDisplay
IlvDockableContainer	IlvDockableLFHandler	IlvDockableMainWindow
IlvDockableVXLHandler	IlvDockingHandleTitleBar	IlvDockingHandleToolBar
IlvDoublePoint	IlvDrawingView	IlvDvMakefileGenerator
IlvEditItemView	IlvEditionTextField	IlvElasticView
IlvFileChooser	IlvFilledDoubleMatrixItem	IlvFilledFloatMatrixItem
IlvFilledIntMatrixItem	IlvFilledLabelMatrixItem	IlvFloatPoint
IlvFontSelector	IlvFrame	IlvGHAbstractHandler
IlvGHGlue	IlvGHGraphic	IlvGHGuide
IlvGadget	IlvGadgetCSSLFHandler	IlvGadgetContainer
IlvGadgetItem	IlvGadgetItemHolder	IlvGadgetItemMatrixItem
IlvGadgetLFHandler	IlvGadgetManagerInputFile	IlvGeometryHandler

IlvGlobalContext	IlvGradientGraphicBBoxManager	IlvGraphInputFile
IlvGraphic	IlvGraphicNode	IlvGraphicSet
IlvGuideHandler	IlvHashTablePalette	IlvHierarchicalSheet
IlvHierarchicalSheetCSSLHandler	IlvI8211TreeNode	IlvInputFile
IlvLookFeelHandler	IlvManager	IlvManagerInputFile
IlvManagerLayer	IlvManagerObjectProperty	IlvMatrix
IlvMatrixCSSLHandler	IlvMatrixLHandler	IlvMatrixMLHandler
IlvMatrixWLFHandler	IlvMaximizedStateHandler	IlvMenuBar
IlvMenuBarCSSLHandler	IlvMenuBarLHandler	IlvMenuBarMLHandler
IlvMenuBarWLFHandler	IlvMenuItem	IlvMenuItemPath
IlvMessageLabel	IlvMessageLabelCSSLHandler	IlvMessageLabelLHandler
IlvMotifLHandler	IlvNotebook	IlvNotebookPage
IlvOptionMenu	IlvOptionMenuLHandler	IlvOptionMenuWLFHandler
IlvPNGStreamer	IlvPSDevice	IlvPalette
IlvPanedContainer	IlvPoint	IlvPopupMenu
IlvPopupMenuCSSLHandler	IlvPopupMenuLHandler	IlvPopupMenuMLHandler
IlvPopupMenuVXLHandler	IlvPopupMenuW95LHandler	IlvPopupMenuWLFHandler
IlvPort	IlvProjection	IlvProtoGraphic
IlvRect	IlvScrollBar	IlvScrollView
IlvScrolledComboBox	IlvScrolledGadget	IlvScrolledGadgetCSSLHandler
IlvScrolledGadgetLHandler	IlvScrolledGadgetMLHandler	IlvScrolledGadgetVXLHandler
IlvScrolledGadgetW95LHandler	IlvScrolledGadgetWLFHandler	IlvSheetCSSLHandler
IlvSheetLHandler	IlvSimpleGraphic	IlvSlider
IlvSpinBox	IlvSpinBoxCSSLHandler	IlvSplitterGadget
IlvStAppCode	IlvStApplication	IlvStMainPanel
IlvStObject	IlvStOptions	IlvStringList
IlvStringListCSSLHandler	IlvStringListLHandler	IlvStylable
IlvStylist	IlvSystemPort	IlvText
IlvTextField	IlvTextFieldCSSLHandler	IlvTextFieldLHandler
IlvTextFieldMLHandler	IlvTextFieldWLFHandler	IlvTextLHandler
IlvTextMLHandler	IlvTextWLFHandler	IlvTitledDockingHandleToolBar
IlvToggle	IlvToolBar	IlvToolBarPath
IlvTransverseMercatorProjection	IlvTreeGadget	IlvTreeGadgetCSSLHandler
IlvTreeGadgetItem	IlvTreeGadgetLHandler	IlvTreeGadgetMLHandler
IlvTurbulenceFilter	IlvUndockedTopContainer	IlvVXLHandler
IlvValue	IlvView	IlvViewFrame
IlvViewFrameButtons	IlvViewFrameCSSLHandler	IlvViewFrameLHandler
IlvViewFrameVXLHandler	IlvViewHandler	IlvViewRectangle
IlvWindows95LHandler	IlvWindowsLHandler	IlvXDisplayConfig

ILocale

Added members:

```
const char ** encodingFallbacks (ILUInt &count) const
```


IString

Added members:

```
IlBoolean equals ( const char *str) const
size_t   getTextSize () const
IString & operator= ( const IlPathName &str)
IString & operator= ( const char *str)
```

IliBindInfo

Changed member (from/to):

```
IliBindInfo & operator= (const IliBindInfo &)
IliBindInfo & operator= (const IliBindInfo &) = default
```

Changed member (from/to):

```
IliBindInfo (const IliBindInfo &o)
IliBindInfo (const IliBindInfo &o) = default
```

IliSQLCursor

Changed member (from/to):

```
IliSQLCursor & operator= (const IliSQLCursor &)
IliSQLCursor & operator= (const IliSQLCursor &) = delete
```

Changed member (from/to):

```
IliSQLCursor (const IliSQLCursor &)
IliSQLCursor (const IliSQLCursor &) = delete
```

IliTableGadget

Changed member (from/to):

```
virtual IlvPalette * getHeaderTextPalette (IlInt colno) const
virtual const IlvPalette * getHeaderTextPalette (IlInt colno) const
```

IlvAbstractBar

Added members:

```
virtual IlString getCssElementClass () const override
void onChildStylableAdded (IlvStylable *child) override
```

IlvAbstractBarCSSLFHandler

Added members:

```
virtual void drawGadgetItem ( const IlvAbstractBar *, const IlvGadgetItem *, IlvPort *, const
    IlvRect &, const IlvTransformer *, const IlvRegion *clip) const override
virtual void itemSize ( const IlvAbstractBar *, IlUShort pos, IlvDim &width, IlvDim &height)
    const override
```

IlvAbstractBarLFHandler

Added members:

```
virtual void itemSize ( const IlvAbstractBar *, IlUShort pos, IlvDim &width, IlvDim &height)
    const =0
```

IlvAbstractMatrixItem

Added members:

```
static const IlvPalette * GetInsensitivePalette (const IlvMatrix *, const IlvAbstractMatrixItem
    *item)
static const IlvPalette * GetReliefPalette (const IlvMatrix *, const IlvAbstractMatrixItem
    *item)
virtual IlString getCssElementClass () const override
virtual IlString getCssElementName () const override
virtual const IlvPalette * getInsensitivePalette (const IlvMatrix *) const
virtual const IlvPalette * getReliefPalette (const IlvMatrix *) const
virtual IlvDisplay * getStylableDisplay () const override
ilv::stylable::State getStylableState () const override
virtual IlvStylist * getStylist () const override
void setupDefaultCssStyle () override
const IlvPalette * stylePalette (const IlvMatrix *cm, const IlvPalette *palette) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextSelectedPalette (const IlvMatrix *) const
virtual const IlvPalette * getTextSelectedPalette (const IlvMatrix *) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette (const IlvMatrix *) const
virtual const IlvPalette * getTextPalette (const IlvMatrix *) const
```

Changed member (from/to):

```
static IlvPalette * GetTextSelectedPalette (const IlvMatrix *)
static const IlvPalette * GetTextSelectedPalette (const IlvMatrix *, const
    IlvAbstractMatrixItem *item)
```

Changed member (from/to):

```
static IlvPalette * GetTextPalette (const IlvMatrix *)
static const IlvPalette * GetTextPalette (const IlvMatrix *, const IlvAbstractMatrixItem *item)
```

IlvAbstractMenu

Added members:

```
virtual void setPaletteDrawMode (IlvDrawMode) override
virtual void setPaletteOverwrite (bool) override
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const
virtual const IlvPalette * getSelectionTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const
virtual const IlvPalette * getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const
virtual const IlvPalette * getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette () const  
virtual const IlvPalette * getSelectionPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getOpaquePalette () const  
virtual const IlvPalette * getOpaquePalette () const
```

IlvAbstractMenuCSSLHandler

Added members:

```
virtual void getGadgetItemInvalidateArea (IlvAbstractMenu *menu, IlShort pos, IlvRect &bbox,  
const IlvTransformer *t) const override
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette (const IlvAbstractMenu *) const  
virtual const IlvPalette * getSelectionTextPalette (const IlvAbstractMenu *) const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette (const IlvMenuItem *) const  
virtual const IlvPalette * getInsensitivePalette (const IlvMenuItem *) const
```

IlvAbstractMenuLFHandler

Added members:

```
virtual void getGadgetItemInvalidateArea (IlvAbstractMenu *menu, IlShort pos, IlvRect &bbox,  
const IlvTransformer *t) const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette (const IlvAbstractMenu *) const = 0  
virtual const IlvPalette * getSelectionTextPalette (const IlvAbstractMenu *) const = 0
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette (const IlvMenuItem *) const = 0  
virtual const IlvPalette * getInsensitivePalette (const IlvMenuItem *) const = 0
```

IlvAbstractMenuMLFHandler

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette (const IlvAbstractMenu *) const  
virtual const IlvPalette * getSelectionTextPalette (const IlvAbstractMenu *) const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette (const IlvMenuItem *) const  
virtual const IlvPalette * getInsensitivePalette (const IlvMenuItem *) const
```

IlvAbstractMenuVXLFHandler

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette ( const IlvMenuItem *) const  
virtual const IlvPalette * getInsensitivePalette ( const IlvMenuItem *) const
```

IlvAbstractMenuW95LFHandler

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette ( const IlvMenuItem *) const  
virtual const IlvPalette * getInsensitivePalette ( const IlvMenuItem *) const
```

IlvAbstractMenuWLFHandler

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette (const IlvAbstractMenu *) const  
virtual const IlvPalette * getSelectionTextPalette (const IlvAbstractMenu *) const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette (const IlvMenuItem *) const  
virtual const IlvPalette * getInsensitivePalette (const IlvMenuItem *) const
```

IlvAbstractView

Removed members:

```
virtual const char * getStylableClassName () const
```

Added members:

```
virtual bool  changeViewLook ()  
virtual void  doPostResize (const IlvRect &rect)  
virtual void  doPreResize (const IlvRect &rect)  
virtual void  draw (const IlvRegion *clip = 0) = 0  
virtual void  drawBackground (const IlvRegion *clip = 0) = 0  
virtual void  erase (const IlvRegion &region, IlBoolean reDraw = IlFalse)  
IlString  getCssElementName () const override  
virtual IlvLookAndFeel * getLookAndFeel () const  
IlvObjectLFHandler * getObjectLFHandler (IlvClassInfo *c) const  
IlvStylist * getParentStylist () const override  
void  initializeStylableDom ()  
virtual bool  legacyDrawBackground (IlvPort *dst, const IlvRegion *clip = 0)  
virtual void  redraw (const IlvRegion *clip = 0)  
virtual void  setLookAndFeel (IlvLookAndFeel *lfh)  
void  setupDefaultCssStyle () override  
virtual bool  triggerChangeViewLook ()
```

Changed member (from/to):

```
virtual IlvStylist * getStylist () const  
IlvStylist * getStylist () const override
```

Changed member (from/to):

```
IlvAbstractView (IlvDisplay *display, IlvAbstractView *parent = 0)  
IlvAbstractView (IlvDisplay *display, IlvAbstractView *parent = 0, const char *cssElementName  
= "IlvAbstractView")
```

IlvArrowButton

Added members:

```
IlString  getCssElementClass () const override
void  setupDefaultCssStyle () override
```

IlvAzimuthalEquidistantProjection

Added members:

```
virtual IlvMapsError  forward (IlvCoordinate &coords) const
virtual IlvMapsError  forward ( const IlvCoordinate &llIn, IlvCoordinate &xyOut) const
virtual IlvMapsError  inverse (IlvCoordinate &coords) const
virtual IlvMapsError  inverse ( const IlvCoordinate &xyIn, IlvCoordinate &llOut) const
virtual IlBoolean  isForPolarZones () const
virtual bool  isUsingProj4 () const
~IlvAzimuthalEquidistantProjection ()
```

IlvBasicLFHandler

Changed member (from/to):

```
virtual void  drawLabel (IlvPort *, const char *, const IlvRect &, IlvPosition, IlvOrientation,
    IlBoolean, IlvPalette *, const IlvRegion *, const IlvBidiInterface *) const

virtual void  drawLabel (IlvPort *, const char *, const IlvRect &, IlvPosition, IlvOrientation,
    IlBoolean, const IlvPalette *, const IlvRegion *, const IlvBidiInterface *) const
```

Changed member (from/to):

```
virtual void  drawHighlight (IlvPort *, const IlvRect &, IlvPalette *, const IlvRegion *,
    IlBoolean) const

virtual void  drawHighlight (IlvPort *, const IlvRect &, const IlvPalette *, const IlvRegion *,
    IlBoolean) const
```

Changed member (from/to):

```
virtual void  drawSelection (IlvPort *, const IlvRect &, IlvPalette *, const IlvRegion *) const

virtual void  drawSelection (IlvPort *, const IlvRect &, const IlvPalette *, const IlvRegion *)
    const
```

IlvBitmap

Changed member (from/to):

```
void  drawFrame (IlvPort *dst, IlvPalette *palette, const IlvRect &rect, IlUInt frame, const
    IlvRegion *clip, IlvPosition alignment, IlBoolean transparent) const

void  drawFrame (IlvPort *dst, const IlvPalette *palette, const IlvRect &rect, IlUInt frame,
    const IlvRegion *clip, IlvPosition alignment, IlBoolean transparent) const
```

IlvBitmapAnimationHandler

Changed member (from/to):

```
virtual void  drawFrame (IlvPort *dst, IlvPalette *palette, const IlvRect &rect, IlUInt frame,
    const IlvRegion *clip, IlvPosition alignment, IlBoolean transparent) const =0

virtual void  drawFrame (IlvPort *dst, const IlvPalette *palette, const IlvRect &rect, IlUInt
    frame, const IlvRegion *clip, IlvPosition alignment, IlBoolean transparent) const =0
```

IlvBitmapStreamer

Removed members:

```
static IlListOf (IlvBitmapStreamers) *_Streamers
```

Added members:

```
static IlBoolean LoadModules ()  
IlString const & getSignature () const  
void setup ()
```

IlvButton

Added members:

```
void setupDefaultCssStyle () override
```

IlvCADRGCoverage

Added members:

```
IlBoolean getLowerLeftCorner (IlvCoordinate &l1) const  
IlBoolean getRectCoordinates (IlvCoordinate &c1, IlvCoordinate &c2) const  
IlBoolean getUpperRightCorner (IlvCoordinate &ur) const
```

IlvCADRGFrame

Added members:

```
IlBoolean getLowerLeftCorner (IlvCoordinate &l1) const  
IlBoolean getRectCoordinates (IlvCoordinate &c1, IlvCoordinate &c2) const  
IlBoolean getUpperRightCorner (IlvCoordinate &ur) const
```

IlvColorSelector

Added members:

```
void set (IlvColor *color, IlvShort pos)
```

IlvColorSelectorPage

Added members:

```
void propagateColor (IlvColor *color, IlvShort)
```

Changed member (from/to):

```
virtual void setColor (IlvColor *color)  
  
virtual void setColor (IlvColor *color, IlvShort pos=-1)
```

IlvComboBox

Added members:

```
IlString getCssElementClass () const override  
void onChildStylableAdded (IlvStylable *child) override  
virtual void setPaletteDrawMode (IlvDrawMode) override  
virtual void setPaletteOverwrite (bool) override  
void setupDefaultCssStyle () override
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const  
  
virtual const IlvPalette * getSelectionTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const  
  
virtual const IlvPalette * getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const
virtual const IlvPalette * getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette () const
virtual const IlvPalette * getSelectionPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getOpaquePalette () const
virtual const IlvPalette * getOpaquePalette () const
```

IlvComboBox::PopupMenu

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const
virtual const IlvPalette * getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const
virtual const IlvPalette * getNormalTextPalette () const
```

Changed member (from/to):

```
virtual const IlvStylable * getStylableParent () const
virtual IlvStylable * getStylableParent () const
```

Changed member (from/to):

```
virtual IlvPalette * getOpaquePalette () const
virtual const IlvPalette * getOpaquePalette () const
```

IlvComboBoxCSSLFHandler

Removed members:

```
virtual void drawArrow ( const IlvComboBox *, IlvPort *, const IlvRect &, const IlvRegion *)
const
```

IlvContainer

Added members:

```
virtual bool changeViewLook ()
void setBackgroundWithoutRedraw (IlvColor *c)
```

Changed member (from/to):

```
IlvContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect &dims,
              IlUInt properties, IlBoolean useacc = IlTrue, IlBoolean visible = IlTrue, IlvSystemView
              transientFor = 0)

IlvContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect &dims,
              IlUInt properties, IlBoolean useacc = IlTrue, IlBoolean visible = IlTrue, IlvSystemView
              transientFor = 0, const char *cssElementName = "IlvContainer")
```

Changed member (from/to):

```
IlvContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect &dims,
              IlvBoolean useacc = IlTrue, IlvBoolean visible = IlTrue)

IlvContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect &dims,
              IlvBoolean useacc = IlTrue, IlvBoolean visible = IlTrue, const char *cssElementName =
              "IlvContainer")
```

Changed member (from/to):

```
IlvContainer (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlvBoolean useacc
              = IlTrue, IlvBoolean visible = IlTrue)

IlvContainer (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlvBoolean useacc
              = IlTrue, IlvBoolean visible = IlTrue, const char *cssElementName = "IlvContainer")
```

Changed member (from/to):

```
IlvContainer (IlvAbstractView *parent, const IlvRect &size, IlvBoolean useacc = IlTrue,
              IlvBoolean visible = IlTrue)

IlvContainer (IlvAbstractView *parent, const IlvRect &size, IlvBoolean useacc = IlTrue,
              IlvBoolean visible = IlTrue, const char *cssElementName = "IlvContainer")
```

Changed member (from/to):

```
IlvContainer (IlvDisplay *display, IlvSystemView window, IlvBoolean useacc = IlTrue)

IlvContainer (IlvDisplay *display, IlvSystemView window, IlvBoolean useacc = IlTrue, const char
              *cssElementName = "IlvContainer")
```

IlvCoordinate

Changed member (from/to):

```
static IlvBoolean FromMGRS (IlvShort zoneNumber, char zoneDesignator, const IlvString &squareId,
                             IlvInt easting, IlvInt northing, IlvCoordinate &output, const IlvEllipsoid *ellipsoid =
                             0)

static IlvBoolean FromMGRS (IlvShort zoneNumber, char zoneDesignator, const IlvString &squareId,
                             IlvInt easting, IlvInt northing, IlvCoordinate &output, const int precision, const
                             IlvEllipsoid *ellipsoid = 0)
```

Changed member (from/to):

```
IlvCoordinate & operator= (const IlvCoordinate &c)

IlvCoordinate & operator= (const IlvCoordinate &c) = default
```

IlvDefaultAbstractBarLFHandler

Added members:

```
virtual void itemSize ( const IlvAbstractBar *, IlvShort pos, IlvDim &width, IlvDim &height)
                    const
```

IlvDefaultComboBoxLFHandler

Added members:

```
virtual void drawArrow ( const IlvComboBox *combo, IlvPort *dst, const IlvRect &rect, const
                        IlvRegion *clip) const
```

IlvDefaultDockableLFHandler

Changed member (from/to):

```
virtual IlvDim getHandleSize (IlvBoolean) const
```



```
virtual IlvDim getHandleSize ( const IlvPanedContainer *gadget, IlvDirection direction,
                               IlvBoolean smallSize) const override
```

IlvDefaultHierarchicalSheetLFHandler

Added members:

```
virtual IlvRect contentBBox ( const IlvGadgetItemMatrixItem *item, const IlvRect &bbox) const
    override
virtual IlvRect getButtonRect ( const IlvHierarchicalSheet *hsheet, const
    IlvGadgetItemMatrixItem *item, const IlvRect &bbox) const override
virtual IlvRect getGadgetItemBBox ( const IlvHierarchicalSheet *hsheet, const
    IlvGadgetItemMatrixItem *item, const IlvRect &bbox) const override
```

Changed member (from/to):

```
virtual void drawButton ( const IlvHierarchicalSheet *, IlvPort *, const IlvTreeGadgetItem *,
    const IlvRect &, const IlvRegion *) const
virtual void drawButton ( const IlvHierarchicalSheet *, IlvPort *, const IlvTreeGadgetItem *,
    const IlvRect &, const IlvRegion *) const override
```

IlvDefaultMatrixLFHandler

Added members:

```
virtual const IlvPalette * getInsensitivePalette ( const IlvMatrix *, const
    IlvAbstractMatrixItem *item) const
virtual const IlvPalette * getReliefPalette ( const IlvMatrix *, const IlvAbstractMatrixItem
    *item) const
virtual void itemBBox ( const IlvMatrix *matrix, IlvUShort col, IlvUShort row, IlvRect &r, const
    IlvTransformer *t) const override
virtual const IlvPalette * stylePalette ( const IlvPalette *base, const IlvMatrix *matrix,
    const IlvAbstractMatrixItem *item) const
```

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvMatrix *) const
virtual const IlvPalette * getWindowBackground ( const IlvMatrix *) const
```

IlvDefaultMessageLabelLFHandler

Added members:

```
virtual IlvAlignment getTextAlign ( const IlvMessageLabel *) const
```

IlvDefaultPopupMenuLFHandler

Added members:

```
virtual void computeFocusRegion ( const IlvPopupMenu *, IlvRegion &region, const IlvTransformer
    *t) const
virtual void drawFocus ( const IlvPopupMenu *menu, IlvPort *dst, const IlvPalette *palette,
    const IlvTransformer *t, const IlvRegion *clip) const
```

IlvDefaultStringListLFHandler

Added members:

```
virtual IlvDim getItemWidth ( const IlvStringList *slist, IlvUShort pos) const
virtual void itemInvalidationRect ( const IlvStringList *, IlvRect &rect) override
```

IlvDefaultTreeGadgetLFHandler

Added members:

```
virtual IlvDim getItemMargin ( const IlvTreeGadgetItem *, IlvPosition direction) const
virtual IlvDim getItemWidth ( const IlvTreeGadgetItem *item) const
virtual void invalidateItem (IlvTreeGadget *tree, IlvGadgetItem *item, const
    IlvGadgetItemGeometry &previousSize, const IlvGadgetItemGeometry &currentSize) const
```

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvTreeGadget *) const  
virtual const IlvPalette * getWindowBackground ( const IlvTreeGadget *) const
```

IlvDefaultViewFrameLFHandler

Changed member (from/to):

```
virtual IlvDim getTitleBarHeight (IlvBoolean) const  
virtual IlvDim getTitleBarHeight ( const IlvViewFrame *vframe, const IlvViewFrameButtons  
*vfButtons, IlvBoolean isMinimized) const override
```

IlvDeltaPoint

Removed members:

```
void operator+= (const IlvPoint &p)  
void operator-= (const IlvPoint &p)
```

IlvDesktopManager

Added members:

```
void updateLook ()
```

Changed member (from/to):

```
IlvMaximizedStateHandler * getMaximizedStateHandler () const  
IlvMaximizedStateHandler * getMaximizedStateHandler ()
```

IlvDisplay

Removed members:

```
void currentLookChanged (IlvLookFeelHandler *, IlvLookFeelHandler *)  
virtual std::list< IlvStyleSheet *> * getStyleSheetList (IlvBoolean) const
```

Added members:

```
void addViewChangeLookCallback (IlAny instance, const IlvViewChangeLookCallback &cb)  
IlvBitmap * cloneBitmap (IlvBitmap *) const  
IlvFontManager * const fontManager () const  
IlString getStylistName () const override  
void notifyStyleChanges ()  
void removeViewChangeLookCallback (IlAny instance)
```

Changed member (from/to):

```
IlvPalette * getPalette (IlvColor *background=0, IlvColor *foreground=0, IlvPattern *pattern=0,  
IlvColorPattern *colorPattern=0, IlvFont *font=0, IlvLineStyle *lineStyle=0, IlUShort  
lineWidth=0, IlvFillStyle fillStyle=IlvFillPattern, IlvArcMode arcMode=IlvArcPie,  
IlvFillRule fillRule=IlvEvenOddRule, IlvIntensity alpha=IlvFullIntensity,  
IlvAntialiasingMode antialias=IlvDefaultAntialiasingMode, IlvGradientPattern  
*gradientPattern=0)  
IlvPalette * getPalette (IlvColor *background=0, IlvColor *foreground=0, IlvPattern *pattern=0,  
IlvColorPattern *colorPattern=0, IlvFont *font=0, IlvLineStyle *lineStyle=0, IlUShort  
lineWidth=0, IlvFillStyle fillStyle=IlvFillPattern, IlvArcMode arcMode=IlvArcPie,  
IlvFillRule fillRule=IlvEvenOddRule, IlvIntensity alpha=IlvFullIntensity,  
IlvAntialiasingMode antialias=IlvDefaultAntialiasingMode, IlvGradientPattern  
*gradientPattern=0, IlvBorderPosition  
borderPosition=IlvBorderPosition::centeredOnBounds)
```

Changed member (from/to):

```
void putBitmapData (IlvSystemPort *bitmap, const IlvRect &rect, unsigned char *data, IlUInt
size) const

void putBitmapData (IlvSystemPort *bitmap, const IlvRect &rect, unsigned char *data, IlUInt
size, IlUInt bitmapPad=32) const
```

IlvDockableContainer

Added members:

```
void onChildStylableAdded (IlvStylable *child) override
```

Changed member (from/to):

```
IlvDockableContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect
&rect, IlvDirection direction, IlUInt properties = 0, IlBoolean visible = IlTrue,
IlvSystemView transientFor = 0)

IlvDockableContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect
&rect, IlvDirection direction, IlUInt properties = 0, IlBoolean visible = IlTrue,
IlvSystemView transientFor = 0, const char *className = "IlvDockableContainer")
```

Changed member (from/to):

```
IlvDockableContainer (IlvDisplay *display, IlvSystemView parent, const IlvRect &rect,
IlvDirection direction, IlBoolean visible = IlTrue)

IlvDockableContainer (IlvDisplay *display, IlvSystemView parent, const IlvRect &rect,
IlvDirection direction, IlBoolean visible = IlTrue, const char *className =
"IlvDockableContainer")
```

Changed member (from/to):

```
IlvDockableContainer (IlvAbstractView *parent, const IlvRect &rect, IlvDirection direction,
IlBoolean visible = IlTrue)

IlvDockableContainer (IlvAbstractView *parent, const IlvRect &rect, IlvDirection direction,
IlBoolean visible = IlTrue, const char *className = "IlvDockableContainer")
```

Changed member (from/to):

```
IlvDockableContainer (IlvDisplay *display, IlvSystemView window, IlvDirection direction)

IlvDockableContainer (IlvDisplay *display, IlvSystemView window, IlvDirection direction, const
char *className = "IlvDockableContainer")
```

IlvDockableLFHandler

Changed member (from/to):

```
virtual IlvDim getHandleSize (IlBoolean) const =0

virtual IlvDim getHandleSize ( const IlvPanedContainer *gadget, IlvDirection direction,
IlBoolean smallSize) const =0
```

IlvDockableMainWindow

Changed member (from/to):

```
IlvDockableMainWindow (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &rect, IlUInt properties = 0, IlBoolean visible = IlTrue, IlvSystemView transientFor =
    0)
```

```
IlvDockableMainWindow (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &rect, IlUInt properties = 0, IlBoolean visible = IlTrue, IlvSystemView transientFor =
    0, const char *className = "IlvDockableMainWindow")
```

Changed member (from/to):

```
IlvDockableMainWindow (IlvDisplay *display, IlvSystemView parent, const IlvRect &rect,
    IlBoolean visible = IlTrue)
```

```
IlvDockableMainWindow (IlvDisplay *display, IlvSystemView parent, const IlvRect &rect,
    IlBoolean visible = IlTrue, const char *className = "IlvDockableMainWindow")
```

Changed member (from/to):

```
IlvDockableMainWindow (IlvAbstractView *parent, const IlvRect &rect, IlBoolean visible =
    IlTrue)
```

```
IlvDockableMainWindow (IlvAbstractView *parent, const IlvRect &rect, IlBoolean visible =
    IlTrue, const char *className = "IlvDockableMainWindow")
```

Changed member (from/to):

```
IlvDockableMainWindow (IlvDisplay *display, IlvSystemView window)
```

```
IlvDockableMainWindow (IlvDisplay *display, IlvSystemView window, const char *className =
    "IlvDockableMainWindow")
```

IlvDockableVXLHandler

Changed member (from/to):

```
virtual IlvDim getHandleSize (IlBoolean smallSize) const
```

```
virtual IlvDim getHandleSize (const IlvPanedContainer *gadget, IlvDirection direction,
    IlBoolean smallSize) const override
```

IlvDockingHandleTitleBar

Added members:

```
virtual IlvDim getHandleSize ( const IlvLookFeelHandler *lfh, IlBoolean smallSize) const
```

IlvDockingHandleToolBar

Added members:

```
void onChildStylableAdded (IlvStylable *child) override
void setupDefaultCssStyle () override
```

IlvDoublePoint

Changed member (from/to):

```
IlvDoublePoint & operator= (const IlvDoublePoint &p)
```

```
IlvDoublePoint & operator= (const IlvDoublePoint &p) = default
```

IlvDrawingView

Removed members:

```
virtual void draw ( const IlvRegion *clip=0)
virtual void handleResize (IlvRect &)
IlvDim previousHeight () const
IlvDim previousHeight (IlvDim h)
IlvDim previousWidth () const
IlvDim previousWidth (IlvDim w)
virtual void reDraw ( const IlvRegion *clip=0)
```

Changed member (from/to):

```
IlvDrawingView (IlvAbstractView *parent, const IlvRect &size, IlBoolean visible=IlTrue)

IlvDrawingView (IlvAbstractView *parent, const IlvRect &size, IlBoolean visible=IlTrue, const
char *cssElementName="IlvDrawingView")
```

Changed member (from/to):

```
IlvDrawingView (IlvDisplay *display, IlvSystemView available)

IlvDrawingView (IlvDisplay *display, IlvSystemView available, const char
*cssElementName="IlvDrawingView")
```

Changed member (from/to):

```
IlvDrawingView (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlBoolean
visible=IlTrue)

IlvDrawingView (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlBoolean
visible=IlTrue, const char *cssElementName="IlvDrawingView")
```

Changed member (from/to):

```
IlvDrawingView (IlvDisplay *display, const char *name, const char *title, const IlvRect
&size, IlBoolean visible=IlTrue)

IlvDrawingView (IlvDisplay *display, const char *name, const char *title, const IlvRect
&size, IlBoolean visible=IlTrue, const char *cssElementName="IlvDrawingView")
```

Changed member (from/to):

```
IlvDrawingView (IlvDisplay *display, const char *name, const char *title, const IlvRect
&size, IlUInt properties, IlBoolean visible=IlTrue, IlvSystemView transientFor=0)

IlvDrawingView (IlvDisplay *display, const char *name, const char *title, const IlvRect
&size, IlUInt properties, IlBoolean visible=IlTrue, IlvSystemView transientFor=0, const
char *cssElementName="IlvDrawingView")
```

IlvDvMakefileGenerator

Changed member (from/to):

```
IlBoolean forEachLibrary (const char *filemask, IlvDvString &generatedText, IlBoolean
includeViewsLib, IlvDvGenerationContext &ctx)

IlBoolean forEachLibrary (const char *filemask, IlvDvString &generatedText,
IlvDvGenerationContext &ctx)
```

IlvEditItemView

Changed member (from/to):

```
IlvEditItemView (IlvView *, IlvGadgetItem *, const IlvRect &, const IlvRect &, IlvPalette
*palette, const char *label=0)
```

```
IlvEditItemView (IlvView *, IlvGadgetItem *, const IlvRect &, const IlvRect &, const
    IlvPalette *palette, const char *label=0, const char *cssElementName="IlvEditItemView")
```

IlvEditionTextField

Added members:

```
virtual IlString  getCssElementName () const override
```

Changed member (from/to):

```
virtual void  drawFrame (IlvPort *dst, const IlvTransformer *t=0, const IlvRegion *clip=0) const
virtual void  drawFrame (IlvPort *dst, const IlvTransformer *t=0, const IlvRegion *clip=0) const
    override
```

IlvElasticView

Changed member (from/to):

```
IlvElasticView (IlvAbstractView *parent, const IlvRect &size, IlBoolean visible=IlTrue)
IlvElasticView (IlvAbstractView *parent, const IlvRect &size, IlBoolean visible=IlTrue, const
    char *cssElementName="IlvElasticView")
```

Changed member (from/to):

```
IlvElasticView (IlvDisplay *display, IlvSystemView available)
IlvElasticView (IlvDisplay *display, IlvSystemView available, const char
    *cssElementName="IlvElasticView")
```

Changed member (from/to):

```
IlvElasticView (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlBoolean
    visible=IlTrue)
IlvElasticView (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlBoolean
    visible=IlTrue, const char *cssElementName="IlvElasticView")
```

Changed member (from/to):

```
IlvElasticView (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &dims, IlUInt properties, IlBoolean visible=IlTrue, IlvSystemView transientFor=0)
IlvElasticView (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &dims, IlUInt properties, IlBoolean visible=IlTrue, IlvSystemView transientFor=0, const
    char *cssElementName="IlvElasticView")
```

Changed member (from/to):

```
IlvElasticView (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &size, IlBoolean visible=IlTrue)
IlvElasticView (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &size, IlBoolean visible=IlTrue, const char *cssElementName="IlvElasticView")
```

IlvFileChooser

Added members:

```
IlvButton *  getApplyButton () const
virtual void  updateApplyButton ( const IlPathName &path)
```

IlvFilledDoubleMatrixItem

Changed member (from/to):

```
virtual IlvPalette * getTextPalette ( const IlvMatrix *) const  
virtual const IlvPalette * getTextPalette ( const IlvMatrix *) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextSelectedPalette ( const IlvMatrix *) const  
virtual const IlvPalette * getTextSelectedPalette ( const IlvMatrix *) const
```

IlvFilledFloatMatrixItem

Changed member (from/to):

```
IlvPalette * getInvertedPalette () const  
const IlvPalette * getInvertedPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette ( const IlvMatrix *) const  
virtual const IlvPalette * getTextPalette ( const IlvMatrix *) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextSelectedPalette ( const IlvMatrix *) const  
virtual const IlvPalette * getTextSelectedPalette ( const IlvMatrix *) const
```

IlvFilledIntMatrixItem

Changed member (from/to):

```
IlvPalette * getInvertedPalette () const  
const IlvPalette * getInvertedPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette ( const IlvMatrix *) const  
virtual const IlvPalette * getTextPalette ( const IlvMatrix *) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextSelectedPalette ( const IlvMatrix *) const  
virtual const IlvPalette * getTextSelectedPalette ( const IlvMatrix *) const
```

IlvFilledLabelMatrixItem

Changed member (from/to):

```
virtual IlvPalette * getTextPalette ( const IlvMatrix *m) const  
virtual const IlvPalette * getTextPalette ( const IlvMatrix *m) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextSelectedPalette ( const IlvMatrix *m) const  
virtual const IlvPalette * getTextSelectedPalette ( const IlvMatrix *m) const
```

IlvFloatPoint

Changed member (from/to):

```
IlvFloatPoint & operator= (const IlvFloatPoint &p)
IlvFloatPoint & operator= (const IlvFloatPoint &p) = default
```

IlvFontSelector

Removed members:

```
char * getOldLabel ()
```

Added members:

```
virtual void updateSampleLabel ()
virtual void updateScrollBarProperties ()
```

IlvFrame

Added members:

```
void setupDefaultCssStyle () override
```

IlvGHAbstractHandler

Removed members:

```
void applyVariation (IlInt begin, IlInt variation, IlvGraphicHolder *)
```

Added members:

```
IlvBoolean applyVariationToCurrentSizesUpToLimits (IlInt fromPosition, IlInt
&remainingVariation, IlInt &weightSum, IlvBoolean *limitReachedArray,
float(*variationRound)(float), IlvBoolean(*enoughAvailable)(IlInt, IlInt))
void applyVariationToInitialSizes (IlInt begin, IlInt variation)
```

IlvGHGlue

Added members:

```
virtual IlInt getCurrentSize () const
virtual void setCurrentSize (IlInt size)
```

IlvGHGraphic

Removed members:

```
IlInt getCurrentSize () const
void setCurrentSize (IlInt size)
```

IlvGHGuide

Removed members:

```
IlInt getCurrentSize () const
void setCurrentSize (IlInt size)
```

IlvGadget

Removed members:

```
virtual const char * getStylableClassName () const
virtual IlvDisplay * getStylableDisplay () const
virtual const char * getStylableName () const
virtual const IlSymbol *const * getStylableTags (IlUInt &) const
virtual IlvStylist * getStylist () const
```


Added members:

```
const IlvPalette * getDefaultBgPalette () const
const IlvPalette * getDefaultBottomShadowPalette () const
virtual const IlvPalette * getDefaultInsensitivePalette () const
const IlvPalette * getDefaultInvertedPalette () const
virtual const IlvPalette * getDefaultNormalTextPalette () const
virtual const IlvPalette * getDefaultSelectionPalette () const
virtual const IlvPalette * getDefaultSelectionTextPalette () const
const IlvPalette * getDefaultSensitivePalette () const
const IlvPalette * getDefaultTopShadowPalette () const
void setResizeOnLookUpdate (IlvBoolean value)
void stylePropertyChanged () const override
void updateStylableStateIfStylableFlag (IlUShort flag)
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const
virtual const IlvPalette * getSelectionTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const
virtual const IlvPalette * getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const
virtual const IlvPalette * getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette () const
virtual const IlvPalette * getSelectionPalette () const
```

Changed member (from/to):

```
IlvPalette * getBottomShadowPalette () const
const IlvPalette * getBottomShadowPalette () const
```

Changed member (from/to):

```
IlvPalette * getSensitivePalette () const
const IlvPalette * getSensitivePalette () const
```

Changed member (from/to):

```
IlvPalette * getTopShadowPalette () const
const IlvPalette * getTopShadowPalette () const
```

Changed member (from/to):

```
IlvPalette * getInvertedPalette () const
const IlvPalette * getInvertedPalette () const
```

Changed member (from/to):

```
IlvPalette * getBgPalette () const
const IlvPalette * getBgPalette () const
```

Changed member (from/to):

```
virtual void getOuterStylableSize (IlvDim &, IlvDim &) const
void getOuterStylableSize (IlvDim &, IlvDim &) const override
```

Changed member (from/to):

```
virtual void getStylableSize (IlvDim &, IlvDim &) const
void getStylableSize (IlvDim &, IlvDim &) const override
```

Changed member (from/to):

```
virtual IlvStylable::State getStylableState () const
ilv::stylable::State getStylableState () const override
```

IlvGadgetCSSLFHandler

Added members:

```
const IlvPalette * getBgPalette ( const IlvGadget *) const override
const IlvPalette * getBottomShadowPalette ( const IlvGadget *) const override
const IlvPalette * getInvertedPalette ( const IlvGadget *) const override
const IlvPalette * getNormalTextPalette ( const IlvGadget *) const override
const IlvPalette * getSelectionPalette ( const IlvGadget *) const override
const IlvPalette * getSelectionTextPalette ( const IlvGadget *) const override
const IlvPalette * getSensitivePalette ( const IlvGadget *) const override
const IlvPalette * getTopShadowPalette ( const IlvGadget *) const override
virtual IlBoolean isTransparent ( const IlvGadget *) const override
const IlvPalette * stylePalette ( const IlvStylable *stylable, const IlvPalette *base,
    IlvAggregatedStyle::ColorHints hint=IlvAggregatedStyle::NoHint) const override
```

IlvGadgetContainer

Removed members:

```
virtual IlvStylist * getParentStylist () const
virtual std::list< IlvStyleSheet * > * getStyleSheetList (IlBoolean) const
virtual IlvStylist * getStylist () const
```

Added members:

```
IlString getStylistName () const override
```

Changed member (from/to):

```
void setLookFeelHandler (IlvLookFeelHandler *lfh)
virtual void setLookFeelHandler (IlvLookFeelHandler *lfh)
```

Changed member (from/to):

```
IlvLookFeelHandler * getLookFeelHandler () const
virtual IlvLookFeelHandler * getLookFeelHandler () const
```

Changed member (from/to):

```
IlvGadgetContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &rect, IlUInt properties, IlBoolean useacc = IlFalse, IlBoolean visible = IlTrue,
    IlvSystemView transientFor = 0)

IlvGadgetContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &rect, IlUInt properties, IlBoolean useacc = IlFalse, IlBoolean visible = IlTrue,
    IlvSystemView transientFor = 0, const char *cssElementName = "IlvGadgetContainer")
```

Changed member (from/to):

```
IlvGadgetContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &rect, IlBoolean useacc = IlFalse, IlBoolean visible = IlTrue)

IlvGadgetContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect
    &rect, IlBoolean useacc = IlFalse, IlBoolean visible = IlTrue, const char
    *cssElementName = "IlvGadgetContainer")
```

Changed member (from/to):

```
IlvGadgetContainer (IlvDisplay *display, IlvSystemView parent, const IlvRect &rect, IlBoolean
    useacc = IlFalse, IlBoolean visible = IlTrue)

IlvGadgetContainer (IlvDisplay *display, IlvSystemView parent, const IlvRect &rect, IlBoolean
    useacc = IlFalse, IlBoolean visible = IlTrue, const char *cssElementName =
    "IlvGadgetContainer")
```

Changed member (from/to):

```
IlvGadgetContainer (IlvAbstractView *parent, const IlvRect &rect, IlBoolean useacc = IlFalse,
    IlBoolean visible = IlTrue)

IlvGadgetContainer (IlvAbstractView *parent, const IlvRect &rect, IlBoolean useacc = IlFalse,
    IlBoolean visible = IlTrue, const char *cssElementName = "IlvGadgetContainer")
```

Changed member (from/to):

```
IlvGadgetContainer (IlvDisplay *display, IlvSystemView window, IlBoolean useacc = IlFalse)

IlvGadgetContainer (IlvDisplay *display, IlvSystemView window, IlBoolean useacc = IlFalse,
    const char *cssElementName = "IlvGadgetContainer")
```

IlvGadgetItem

Removed members:

```
virtual const char * getStylableClassName () const
```

Added members:

```
virtual void drawPicture (IlvPort *dst, const IlvRect &rect, const IlvPalette *palette, const
    IlvTransformer *t = 0, const IlvRegion *clip = 0) const
virtual IlString getCssElementName () const
void setupDefaultCssStyle () override
```

Changed member (from/to):

```
virtual void drawLabel (IlvPort *dst, IlvPalette *palette, const IlvRect &rect, const
    IlvTransformer *t = 0, const IlvRegion *clip = 0) const

virtual void drawLabel (IlvPort *dst, const IlvPalette *palette, const IlvRect &rect, const
    IlvTransformer *t = 0, const IlvRegion *clip = 0) const
```

Changed member (from/to):

```
virtual IlvPalette * getHighlightTextPalette () const  
virtual const IlvPalette * getHighlightTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const  
virtual const IlvPalette * getSelectionTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const  
virtual const IlvPalette * getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const  
virtual const IlvPalette * getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvStylable::State getStylableState () const  
virtual ilv::stylable::State getStylableState () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette () const  
virtual const IlvPalette * getSelectionPalette () const
```

Changed member (from/to):

```
virtual const IlvStylable * getStylableParent () const  
virtual IlvStylable * getStylableParent () const
```

Changed member (from/to):

```
virtual IlvPalette * getOpaquePalette () const  
virtual const IlvPalette * getOpaquePalette () const
```

Changed member (from/to):

```
void setLabelAlignment (IlvAlignment alignment)  
virtual void setLabelAlignment (IlvAlignment alignment)
```

Changed member (from/to):

```
IlvAlignment getLabelAlignment () const  
virtual IlvAlignment getLabelAlignment () const
```

Changed member (from/to):

```
virtual const char * getStylableName () const  
virtual IlString getStylableName () const
```

IlvGadgetItemHolder

Added members:

```
virtual void setPaletteDrawMode (IlvDrawMode) = 0  
virtual void setPaletteOverwrite (bool) = 0
```

Changed member (from/to):

```
virtual IlvView * createEditItemView (IlvView *, IlvGadgetItem *, const IlvRect &, const  
    IlvRect &, IlvPalette *, const char *) const
```

```
virtual IlvView * createEditItemView (IlvView *, IlvGadgetItem *, const IlvRect &, const  
    IlvRect &, const IlvPalette *, const char *) const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const = 0
```

```
virtual const IlvPalette * getSelectionTextPalette () const = 0
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const = 0
```

```
virtual const IlvPalette * getInsensitivePalette () const = 0
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const = 0
```

```
virtual const IlvPalette * getNormalTextPalette () const = 0
```

Changed member (from/to):

```
virtual IlvPalette * getHighlightTextPalette () const
```

```
virtual const IlvPalette * getHighlightTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette () const = 0
```

```
virtual const IlvPalette * getSelectionPalette () const = 0
```

Changed member (from/to):

```
virtual IlvPalette * getOpaquePalette () const
```

```
virtual const IlvPalette * getOpaquePalette () const
```

IlvGadgetItemMatrixItem

Changed member (from/to):

```
virtual IlvPalette * getTextPalette ( const IlvMatrix *) const
```

```
virtual const IlvPalette * getTextPalette ( const IlvMatrix *) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextSelectedPalette ( const IlvMatrix *) const
```

```
virtual const IlvPalette * getTextSelectedPalette ( const IlvMatrix *) const
```

IlvGadgetLFHandler

Added members:

```
virtual const IlvPalette * getBgPalette ( const IlvGadget *) const
virtual const IlvPalette * getBottomShadowPalette ( const IlvGadget *) const
virtual const IlvPalette * getInvertedPalette ( const IlvGadget *) const
virtual const IlvPalette * getNormalTextPalette ( const IlvGadget *) const
virtual const IlvPalette * getSelectionPalette ( const IlvGadget *) const
virtual const IlvPalette * getSelectionTextPalette ( const IlvGadget *) const
virtual const IlvPalette * getSensitivePalette ( const IlvGadget *) const
virtual const IlvPalette * getTopShadowPalette ( const IlvGadget *) const
virtual IlvBoolean isTransparent ( const IlvGadget *) const
virtual const IlvPalette * stylePalette ( const IlvStylable *stylable, const IlvPalette *base,
    IlvAggregatedStyle::ColorHints hint=IlvAggregatedStyle::NoHint) const
```

IlvGadgetManagerInputFile

Added members:

```
virtual IlvBoolean isCreatorCompatible () const override
```

IlvGeometryHandler

Changed member (from/to):

```
virtual void resize (IlvDim newsize, IlvGraphicHolder *)
virtual void resize (IlvDim newsize, IlvGraphicHolder *~=nullptr)
```

IlvGlobalContext

Added members:

```
static IlString GetExecutablePath ()
```

IlvGradientGraphicBBoxManager

Changed member (from/to):

```
IlvGradientGraphicBBoxManager (IlvPalette *palette, IlvGraphic *graphic, const IlvTransformer
    *t = 0)
IlvGradientGraphicBBoxManager (const IlvPalette *palette, IlvGraphic *graphic, const
    IlvTransformer *t = 0)
```

Changed member (from/to):

```
IlvGradientGraphicBBoxManager (IlvPalette *palette, IlvRect bbox)
IlvGradientGraphicBBoxManager (const IlvPalette *palette, IlvRect bbox)
```

IlvGraphInputFile

Added members:

```
virtual IlvBoolean isCreatorCompatible () const override
```

IlvGraphic

Added members:

```
virtual void stylePropertyChanged () const
```

Changed member (from/to):

```
IlvBoolean isVisible () const
virtual IlvBoolean isVisible () const
```

IlvGraphicNode

Added members:

```
IlBoolean  isDisplayed () const
```

IlvGraphicSet

Added members:

```
IlString  getCssElementName () const override  
IlvDisplay *  getStylableDisplay () const override  
IlString  getStylableName () const override  
IlvStylist *  getStylist () const override
```

IlvGuideHandler

Changed member (from/to):

```
virtual void  resize (IlvDim newsize, IlvGraphicHolder *)  
  
virtual void  resize (IlvDim newsize, IlvGraphicHolder * = nullptr)
```

IlvHashTablePalette

Changed member (from/to):

```
IlUInt  hashPal (IlvColor *, IlvColor *, IlvPattern *, IlvColorPattern *, IlvFont *,  
                IlvLineStyle *, IlUShort width, IlvFillStyle, IlvArcMode, IlvFillRule, IlvIntensity  
                alpha, IlvAntialiasingMode, IlvGradientPattern *) const  
  
IlUInt  hashPal (IlvColor *, IlvColor *, IlvPattern *, IlvColorPattern *, IlvFont *,  
                IlvLineStyle *, IlUShort width, IlvFillStyle, IlvArcMode, IlvFillRule, IlvIntensity  
                alpha, IlvAntialiasingMode, IlvGradientPattern *, IlvBorderPosition) const
```

Changed member (from/to):

```
static IlBoolean  matchPal (IlvColor *bg, IlvColor *fg, IlvPattern *pat, IlvColorPattern  
                            *pixpat, IlvFont *fnt, IlvLineStyle *sty, IlUShort width, IlvFillStyle fs, IlvArcMode  
                            am, IlvFillRule fr, IlvIntensity alpha, IlvAntialiasingMode antialias,  
                            IlvGradientPattern *grad, IlvPalette *palette)  
  
static IlBoolean  matchPal (IlvColor *bg, IlvColor *fg, IlvPattern *pat, IlvColorPattern  
                            *pixpat, IlvFont *fnt, IlvLineStyle *sty, IlUShort width, IlvFillStyle fs, IlvArcMode  
                            am, IlvFillRule fr, IlvIntensity alpha, IlvAntialiasingMode antialias,  
                            IlvGradientPattern *grad, IlvBorderPosition borderPos, IlvPalette *palette)
```

Changed member (from/to):

```
IlvPalette *  findPalette (IlvColor *bg, IlvColor *fg, IlvPattern *pat, IlvColorPattern *pixpat,  
                           IlvFont *fnt, IlvLineStyle *sty, IlUShort width, IlvFillStyle fs, IlvArcMode am,  
                           IlvFillRule fr, IlvIntensity alpha, IlvAntialiasingMode antialias, IlvGradientPattern  
                           *grad) const  
  
IlvPalette *  findPalette (IlvColor *bg, IlvColor *fg, IlvPattern *pat, IlvColorPattern *pixpat,  
                           IlvFont *fnt, IlvLineStyle *sty, IlUShort width, IlvFillStyle fs, IlvArcMode am,  
                           IlvFillRule fr, IlvIntensity alpha, IlvAntialiasingMode antialias, IlvGradientPattern  
                           *grad, IlvBorderPosition borderPosition) const
```

IlvHierarchicalSheet

Added members:

```
void  onChildStylableAdded (IlvStylable *child) override
```

IlvHierarchicalSheetCSSLFHandler

Added members:

```
virtual IlvRect contentBBox ( const IlvGadgetItemMatrixItem *item, const IlvRect &bbox) const
    override
virtual void drawButton ( const IlvHierarchicalSheet *, IlvPort *, const IlvTreeGadgetItem *,
    const IlvRect &, const IlvRegion *) const override
virtual IlvRect getButtonRect ( const IlvHierarchicalSheet *hsheet, const
    IlvGadgetItemMatrixItem *item, const IlvRect &bbox) const override
virtual IlvRect getGadgetItemBBox ( const IlvHierarchicalSheet *hsheet, const
    IlvGadgetItemMatrixItem *item, const IlvRect &bbox) const override
```

IlvHierarchicalSheetLFHandler

Added members:

```
virtual IlvRect contentBBox ( const IlvGadgetItemMatrixItem *item, const IlvRect &bbox) const
    =0
virtual IlvRect getButtonRect ( const IlvHierarchicalSheet *hsheet, const
    IlvGadgetItemMatrixItem *item, const IlvRect &bbox) const =0
virtual IlvRect getGadgetItemBBox ( const IlvHierarchicalSheet *hsheet, const
    IlvGadgetItemMatrixItem *item, const IlvRect &bbox) const =0
```

IlvI8211TreeNode

Added members:

```
~IlvI8211TreeNode ()
```

IlvInputFile

Added members:

```
virtual IlvBoolean isCreatorCompatible () const
```

IlvLookFeelHandler

Changed member (from/to):

```
void drawCarvedLabel (IlvPort *, const char *, IlvColor *, IlvColor *, const IlvRect &,
    IlvPosition, IlvOrientation, IlBoolean, IlvPalette *, const IlvRegion *, const
    IlvBidiInterface *) const

void drawCarvedLabel (IlvPort *, const char *, IlvColor *, IlvColor *, const IlvRect &,
    IlvPosition, IlvOrientation, IlBoolean, const IlvPalette *, const IlvRegion *, const
    IlvBidiInterface *) const
```

Changed member (from/to):

```
virtual void drawHighlight (IlvPort *, const IlvRect &, IlvPalette *, const IlvRegion *,
    IlBoolean) const =0

virtual void drawHighlight (IlvPort *, const IlvRect &, const IlvPalette *, const IlvRegion *,
    IlBoolean) const =0
```

Changed member (from/to):

```
virtual void drawInsensitiveLabel ( const IlvGadget *, IlvPort *, const char *, const IlvRect
    &, IlvPosition, IlvOrientation, IlBoolean, IlvPalette *, IlvPalette *, const IlvRegion
    *, const IlvBidiInterface *) const =0

virtual void drawInsensitiveLabel ( const IlvGadget *, IlvPort *, const char *, const IlvRect
    &, IlvPosition, IlvOrientation, IlBoolean, const IlvPalette *, const IlvPalette *,
    const IlvRegion *, const IlvBidiInterface *) const =0
```


Changed member (from/to):

```
virtual void drawLabel (IlvPort *, const char *, const IlvRect &, IlvPosition, IlvOrientation,
    IlvBoolean, IlvPalette *, const IlvRegion *, const IlvBidiInterface *) const =0

virtual void drawLabel (IlvPort *, const char *, const IlvRect &, IlvPosition, IlvOrientation,
    IlvBoolean, const IlvPalette *, const IlvRegion *, const IlvBidiInterface *) const =0
```

Changed member (from/to):

```
virtual void drawSelection (IlvPort *, const IlvRect &, IlvPalette *, const IlvRegion *) const
    =0

virtual void drawSelection (IlvPort *, const IlvRect &, const IlvPalette *, const IlvRegion *)
    const =0
```

Changed member (from/to):

```
virtual IlvColor * getGadgetContainerBackground () const

virtual IlvColor * getGadgetContainerBackground ( const IlvStylable *stylableGadgetContainer)
    const
```

IlvManager

Changed member (from/to):

```
IlvBoolean removeView (IlvMgrView *) const

IlvBoolean removeView (IlvMgrView *v)
```

IlvManagerInputFile

Added members:

```
virtual IlvBoolean isCreatorCompatible () const override
```

IlvManagerLayer

Changed member (from/to):

```
IlvUShort getIndex () const

IlvInt getIndex () const
```

IlvManagerObjectProperty

Changed member (from/to):

```
IlvUShort getLayer () const

IlvInt getLayer () const
```

IlvMatrix

Added members:

```
void onChildStylableAdded (IlvStylable *child) override
virtual void setPaletteDrawMode (IlvDrawMode) override
virtual void setPaletteOverwrite ( bool) override
void setupDefaultCssStyle () override
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const

virtual const IlvPalette * getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const  
virtual const IlvPalette * getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getOpaquePalette () const  
virtual const IlvPalette * getOpaquePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette () const  
virtual const IlvPalette * getSelectionPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const  
virtual const IlvPalette * getSelectionTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground () const  
virtual const IlvPalette * getWindowBackground () const
```

IlvMatrixCSSLFHandler

Added members:

```
virtual void drawItem ( const IlvMatrix *matrix, IlvPort *dst, IlUShort col, IlUShort row,  
    const IlvRect &itemrect, const IlvRect &clip) const override  
virtual const IlvPalette * getInsensitivePalette ( const IlvMatrix *, const  
    IlvAbstractMatrixItem *item) const override  
virtual const IlvPalette * getReliefPalette ( const IlvMatrix *, const IlvAbstractMatrixItem  
    *item) const override  
virtual void itemBBox ( const IlvMatrix *matrix, IlUShort col, IlUShort row, IlvRect &r, const  
    IlvTransformer *t) const override  
virtual const IlvPalette * stylePalette ( const IlvPalette *base, const IlvMatrix *matrix,  
    const IlvAbstractMatrixItem *item) const override
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette ( const IlvMatrix *m) const  
virtual const IlvPalette * getSelectionPalette ( const IlvMatrix *m, const  
    IlvAbstractMatrixItem *item) const override
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette ( const IlvMatrix *m) const  
virtual const IlvPalette * getTextPalette ( const IlvMatrix *m, const IlvAbstractMatrixItem  
    *item) const override
```

IlvMatrixLFHandler

Added members:

```
virtual const IlvPalette * getInsensitivePalette ( const IlvMatrix *, const  
    IlvAbstractMatrixItem *item) const =0  
virtual const IlvPalette * getReliefPalette ( const IlvMatrix *, const IlvAbstractMatrixItem  
    *item) const =0
```

```
virtual void itemBBox ( const IlvMatrix *matrix, IlUShort col, IlUShort row, IlvRect &r, const
    IlvTransformer *t) const =0
virtual const IlvPalette * stylePalette ( const IlvPalette *base, const IlvMatrix *matrix,
    const IlvAbstractMatrixItem *item) const =0
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette ( const IlvMatrix *matrix) const =0

virtual const IlvPalette * getSelectionPalette ( const IlvMatrix *matrix, const
    IlvAbstractMatrixItem *item) const =0
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette ( const IlvMatrix *) const =0

virtual const IlvPalette * getTextPalette ( const IlvMatrix *, const IlvAbstractMatrixItem
    *item) const =0
```

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvMatrix *matrix) const =0

virtual const IlvPalette * getWindowBackground ( const IlvMatrix *matrix) const =0
```

IlvMatrixMLFHandler

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette ( const IlvMatrix *m) const

virtual const IlvPalette * getSelectionPalette ( const IlvMatrix *m, const
    IlvAbstractMatrixItem *item) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette ( const IlvMatrix *m) const

virtual const IlvPalette * getTextPalette ( const IlvMatrix *m, const IlvAbstractMatrixItem
    *item) const
```

IlvMatrixWLFHandler

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette ( const IlvMatrix *m) const

virtual const IlvPalette * getSelectionPalette ( const IlvMatrix *m, const
    IlvAbstractMatrixItem *item) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette ( const IlvMatrix *m) const

virtual const IlvPalette * getTextPalette ( const IlvMatrix *m, const IlvAbstractMatrixItem
    *item) const
```

IlvMaximizedStateHandler

Added members:

```
virtual IlvDim getButtonsHeight () const

virtual void updateButtons ()
```

IlvMenuBar

Added members:

```
void setupDefaultCssStyle () override
```

IlvMenuBarCSSLHandler

Removed members:

```
virtual void getInternalBBox ( const IlvMenuBar *, IlvRect &) const
```

IlvMenuBarLFHandler

Removed members:

```
virtual void getInternalBBox ( const IlvMenuBar *, IlvRect &) const =0
```

IlvMenuBarMLFHandler

Removed members:

```
virtual void getInternalBBox ( const IlvMenuBar *, IlvRect &) const
```

IlvMenuBarWLFHandler

Removed members:

```
virtual void getInternalBBox ( const IlvMenuBar *, IlvRect &) const
```

IlvMenuItem

Removed members:

```
virtual const char * getStylableClassName () const
```

Added members:

```
IlString getCssElementName () const override  
virtual ilv::stylable::State getStylableState () const override  
void onChildStylableAdded (IlvStylable *child) override  
void setupDefaultCssStyle () override
```

Changed member (from/to):

```
virtual void drawLabel (IlvPort *dst, IlvPalette *palette, const IlvRect &rect, const  
    IlvTransformer *t=0, const IlvRegion *clip=0) const
```

```
virtual void drawLabel (IlvPort *dst, const IlvPalette *palette, const IlvRect &rect, const  
    IlvTransformer *t=0, const IlvRegion *clip=0) const
```

Changed member (from/to):

```
IlvDim getAcceleratorSize (IlvPalette *) const
```

```
IlvDim getAcceleratorSize ( const IlvPalette *) const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const
```

```
virtual const IlvPalette * getInsensitivePalette () const
```

IlvMenuItemPath

Added members:

```
IlString  getCssElementName () const override
```

IlvMessageLabel

Added members:

```
virtual void  setPaletteDrawMode (IlvDrawMode) override  
virtual void  setPaletteOverwrite (bool) override
```

Changed member (from/to):

```
virtual IlvPalette *  getSelectionTextPalette () const  
virtual const IlvPalette *  getSelectionTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette *  getInsensitivePalette () const  
virtual const IlvPalette *  getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette *  getNormalTextPalette () const  
virtual const IlvPalette *  getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette *  getSelectionPalette () const  
virtual const IlvPalette *  getSelectionPalette () const
```

Changed member (from/to):

```
virtual IlvPalette *  getOpaquePalette () const  
virtual const IlvPalette *  getOpaquePalette () const
```

Changed member (from/to):

```
void  setAlignment (IlvAlignment alignment)  
virtual void  setAlignment (IlvAlignment alignment)
```

Changed member (from/to):

```
IlvAlignment  getAlignment () const  
virtual IlvAlignment  getAlignment () const
```

IlvMessageLabelCSSLFHandler

Added members:

```
virtual IlvAlignment  getTextAlign ( const IlvMessageLabel *) const override
```

IlvMessageLabelLFHandler

Added members:

```
virtual IlvAlignment  getTextAlign ( const IlvMessageLabel *) const =0
```

IlvMotifLFHandler

Changed member (from/to):

```
virtual void drawInsensitiveLabel ( const IlvGadget *, IlvPort *, const char *, const IlvRect
    &, IlvPosition, IlvOrientation, IlBoolean, IlvPalette *, IlvPalette *, const IlvRegion
    *, const IlvBidiInterface *) const
```

```
virtual void drawInsensitiveLabel ( const IlvGadget *, IlvPort *, const char *, const IlvRect
    &, IlvPosition, IlvOrientation, IlBoolean, const IlvPalette *, const IlvPalette *,
    const IlvRegion *, const IlvBidiInterface *) const
```

IlvNotebook

Removed members:

```
IlBoolean isVisible () const
```

Added members:

```
IlString getCssElementClass () const override
void hidePageView ()
IlBoolean isPageViewVisible () const
void onChildStylableAdded (IlvStylable *child) override
virtual void setPaletteDrawMode (IlvDrawMode) override
virtual void setPaletteOverwrite (bool) override
void setupDefaultCssStyle () override
void setupDefaultCssStyleForPages ()
void showPageView ()
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const
```

```
virtual const IlvPalette * getSelectionTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const
```

```
virtual const IlvPalette * getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const
```

```
virtual const IlvPalette * getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette () const
```

```
virtual const IlvPalette * getSelectionPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getOpaquePalette () const
```

```
virtual const IlvPalette * getOpaquePalette () const
```

Changed member (from/to):

```
virtual void setVisible (IlBoolean)
```

```
virtual void setVisible (IlBoolean) override
```

IlvNotebookPage

Added members:

```
IlString  getCssElementClass () const override
IlString  getCssElementName () const override
IlvDisplay *  getStylableDisplay () const override
ilv::stylable::State  getStylableState () const override
IlvStylist *  getStylist () const override
virtual IlvContainer *  getViewAsContainer ()
```

Changed member (from/to):

```
IlvPalette *  getBackground () const
const IlvPalette *  getBackground () const
```

Changed member (from/to):

```
IlvPalette *  getBottomShadowPalette () const
const IlvPalette *  getBottomShadowPalette () const
```

Changed member (from/to):

```
IlvPalette *  getForeground () const
const IlvPalette *  getForeground () const
```

Changed member (from/to):

```
IlvPalette *  getTopShadowPalette () const
const IlvPalette *  getTopShadowPalette () const
```

IlvOptionsMenu

Added members:

```
void  onChildStylableAdded (IlvStylable *child) override
virtual void  setPaletteDrawMode (IlvDrawMode) override
virtual void  setPaletteOverwrite ( bool) override
void  setupDefaultCssStyle () override
```

Changed member (from/to):

```
virtual IlvPalette *  getInsensitivePalette () const
virtual const IlvPalette *  getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette *  getNormalTextPalette () const
virtual const IlvPalette *  getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette *  getOpaquePalette () const
virtual const IlvPalette *  getOpaquePalette () const
```

Changed member (from/to):

```
virtual IlvPalette *  getSelectionPalette () const
virtual const IlvPalette *  getSelectionPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const
virtual const IlvPalette * getSelectionTextPalette () const
```

IlvOptionsMenuLFHandler

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette ( const IlvOptionsMenu *) const =0
virtual const IlvPalette * getSelectionTextPalette ( const IlvOptionsMenu *) const =0
```

IlvOptionsMenuWLFHandler

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette ( const IlvOptionsMenu *) const
virtual const IlvPalette * getSelectionTextPalette ( const IlvOptionsMenu *) const
```

IlvPNGStreamer

Added members:

```
IlvBoolean write (IlvBitmapData *data, std::ostream &stream, IlvPngWriteMethod method)
```

Changed member (from/to):

```
IlvBoolean write (IlvBitmapData *data, std::ostream &stream)
IlvBoolean write (IlvBitmapData *data, std::ostream &stream) override
```

IlvPSDevice

Changed member (from/to):

```
virtual void drawTransformedString (const IlvPalette *pal, const IlvBidiString *label, int
    length, const IlvTransformer &t, const IlvRegion *clip = 0) const
virtual void drawTransformedString (const IlvPalette *pal, const IlvBidiString *label, int
    length, const IlvTransformer &t, const IlvRegion *clip = 0, IlvValueInterface
    *drawingObj = NULL)
```

Changed member (from/to):

```
virtual void drawTransformedString (const IlvPalette *, const char *, int, const IlvTransformer
    &, const IlvRegion * = 0) const
virtual void drawTransformedString (const IlvPalette *, const char *, int, const IlvTransformer
    &, const IlvRegion * = 0, IlvValueInterface *drawingObj = NULL)
```

IlvPalette

Added members:

```
IlvBorderPosition getBorderPosition () const
void setBorderPosition (IlvBorderPosition borderPosition)
```

Changed member (from/to):

```
void setMode (IlvDrawMode drawMode) const
void setMode (IlvDrawMode drawMode)
```


Changed member (from/to):

```
void setOverwrite (IlBoolean over) const  
void setOverwrite (IlBoolean over)
```

IlvPanedContainer

Changed member (from/to):

```
IlvPanedContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect  
    &rect, IlvDirection direction, IlUInt properties = 0, IlBoolean visible = IlTrue,  
    IlvSystemView transientFor = 0)  
  
IlvPanedContainer (IlvDisplay *display, const char *name, const char *title, const IlvRect  
    &rect, IlvDirection direction, IlUInt properties = 0, IlBoolean visible = IlTrue,  
    IlvSystemView transientFor = 0, const char *cssElementName = nullptr)
```

Changed member (from/to):

```
IlvPanedContainer (IlvDisplay *display, IlvSystemView parent, const IlvRect &rect, IlvDirection  
    direction, IlBoolean visible = IlTrue)  
  
IlvPanedContainer (IlvDisplay *display, IlvSystemView parent, const IlvRect &rect, IlvDirection  
    direction, IlBoolean visible = IlTrue, const char *cssElementName =  
    "IlvPanedContainer")
```

Changed member (from/to):

```
IlvPanedContainer (IlvAbstractView *parent, const IlvRect &rect, IlvDirection direction,  
    IlBoolean visible = IlTrue)  
  
IlvPanedContainer (IlvAbstractView *parent, const IlvRect &rect, IlvDirection direction,  
    IlBoolean visible = IlTrue, const char *cssElementName = "IlvPanedContainer")
```

Changed member (from/to):

```
IlvPanedContainer (IlvDisplay *display, IlvSystemView window, IlvDirection direction)  
  
IlvPanedContainer (IlvDisplay *display, IlvSystemView window, IlvDirection direction, const char  
    *cssElementName = "IlvPanedContainer")
```

IlvPoint

Changed member (from/to):

```
IlvPoint & operator= (const IlvPoint &p)  
  
IlvPoint & operator= (const IlvPoint &p) = default
```

IlvPopupMenu

Removed members:

```
IlBoolean isVisible () const
```

Added members:

```
virtual void computeFocusRegion (IlvRegion &region, const IlvTransformer *t) const override  
virtual void drawFocus (IlvPort *dst, const IlvPalette *palette, const IlvTransformer *t = 0,  
    const IlvRegion *clip = 0) const override  
  
IlBoolean isMenuShown () const  
void onChildStylableAdded (IlvStylable *child) override  
void setIsTearOff (IlvBoolean value)  
void setupDefaultCssStyle () override
```

Changed member (from/to):

```
virtual IlvPalette * getHighlightTextPalette () const  
virtual const IlvPalette * getHighlightTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const  
virtual const IlvPalette * getSelectionTextPalette () const
```

IlvPopupMenuCSSLFHandler

Added members:

```
virtual void computeFocusRegion (const IlvPopupMenu *, IlvRegion &region, const IlvTransformer  
*t) const override  
virtual void drawFocus (const IlvPopupMenu *menu, IlvPort *dst, const IlvPalette *palette,  
const IlvTransformer *t, const IlvRegion *clip) const override
```

Changed member (from/to):

```
virtual void getInternalBBox (const IlvPopupMenu *, IlvRect &) const  
virtual void getInternalBBox (const IlvPopupMenu *, IlvRect &, const IlvTransformer * = 0)  
const
```

IlvPopupMenuLFHandler

Added members:

```
virtual void computeFocusRegion (const IlvPopupMenu *, IlvRegion &region, const IlvTransformer  
*t) const = 0  
virtual void drawFocus (const IlvPopupMenu *menu, IlvPort *dst, const IlvPalette *palette,  
const IlvTransformer *t, const IlvRegion *clip) const = 0
```

Changed member (from/to):

```
virtual void getInternalBBox (const IlvPopupMenu *, IlvRect &) const = 0  
virtual void getInternalBBox (const IlvPopupMenu *, IlvRect &, const IlvTransformer * = 0)  
const = 0 =0
```

IlvPopupMenuMLFHandler

Changed member (from/to):

```
virtual void getInternalBBox ( const IlvPopupMenu *, IlvRect &) const  
virtual void getInternalBBox ( const IlvPopupMenu *, IlvRect &, const IlvTransformer *=0) const
```

IlvPopupMenuVXLFHandler

Changed member (from/to):

```
virtual void getInternalBBox ( const IlvPopupMenu *, IlvRect &) const  
virtual void getInternalBBox ( const IlvPopupMenu *, IlvRect &, const IlvTransformer *=0) const
```

IlvPopupMenuW95LFHandler

Changed member (from/to):

```
virtual void getInternalBBox ( const IlvPopupMenu *, IlvRect &) const  
virtual void getInternalBBox ( const IlvPopupMenu *, IlvRect &, const IlvTransformer *=0) const
```

IlvPopupMenuWLFHandler

Changed member (from/to):

```
virtual void getInternalBBox ( const IlvPopupMenu *, IlvRect &) const  
virtual void getInternalBBox ( const IlvPopupMenu *, IlvRect &, const IlvTransformer *=0) const
```

IlvPort

Added members:

```
IlvBoolean borderFitRect (const IlvPalette *palette, const IlvRect &rect, IlvRect  
    &rectToFillInstead) const  
IlvBoolean drawFillInsteadOfPolyLine (const IlvPalette *palette, IlUInt count, const IlvPoint  
    *ilvp) const  
IlvBoolean drawFillInsteadOfPolyLine (const IlvPalette *palette, const IlvPoint &first, IlUInt  
    count, const IlvDeltaPoint *rest) const  
IlvBoolean drawInsteadOfArc (const IlvPalette *palette, const IlvRect &rect, IlFloat start,  
    IlFloat range) const  
IlvBoolean drawInsteadOfRect (const IlvPalette *palette, const IlvRect &roundRect) const  
IlvBoolean drawInsteadOfRoundRect (const IlvPalette *palette, const IlvRoundRect &roundRect)  
    const  
virtual void drawPolyLine (const IlvPalette *palette, const IlvPoint &firstPoint, const  
    views::vector< IlvDeltaPoint > &relativePositions) const  
virtual void drawRoundRectangleDifferentRadiuses (const IlvPalette *palette, const IlvRoundRect  
    &roundRect) const  
IlvBoolean fillInsteadOfRoundRect (const IlvPalette *palette, const IlvRoundRect &roundRect)  
    const  
virtual void fillPolyLine (const IlvPalette *palette, const IlvPoint &firstPoint, const  
    views::vector< IlvDeltaPoint > &relativePositions) const  
virtual void fillRoundRectangleDifferentRadiuses (const IlvPalette *palette, const IlvRoundRect  
    &roundRect) const  
IlvBoolean scaleRectAccordingBorderPosition (const IlvPalette *palette, IlvRect &rect, float  
    &positionShift) const  
void scaleRoundRectAccordingBorderPosition (const IlvPalette *palette, IlvRoundRect &rect,  
    float &positionShift) const
```

Changed member (from/to):

```
virtual void drawTransformedString (const IlvPalette *pal, const IlvBidiString *label, int  
    length, const IlvTransformer &t, const IlvRegion *clip = 0) const = 0  
virtual void drawTransformedString (const IlvPalette *pal, const IlvBidiString *label, int  
    length, const IlvTransformer &t, const IlvRegion *clip = 0, IlvValueInterface  
    *drawingObj = NULL) = 0
```

Changed member (from/to):

```
virtual void drawTransformedString (const IlvPalette *palette, const char *string, int length,  
    const IlvTransformer &t, const IlvRegion *clip = 0) const = 0  
virtual void drawTransformedString (const IlvPalette *palette, const char *string, int length,  
    const IlvTransformer &t, const IlvRegion *clip = 0, IlvValueInterface *drawingObj =  
    NULL) = 0
```

IlvProjection

Added members:

```
static void PrintPROJ4Error (void *appdata, int level, const char *message)  
virtual IlvBoolean isForPolarZones () const  
virtual bool isUsingProj4 () const
```

Changed member (from/to):

```
IlvMapsError forward (const IlvCoordinate &llIn, IlvCoordinate &xyOut) const  
virtual IlvMapsError forward (const IlvCoordinate &llIn, IlvCoordinate &xyOut) const
```

Changed member (from/to):

```
IlvMapsError inverse (const IlvCoordinate &xyIn, IlvCoordinate &llOut) const  
virtual IlvMapsError inverse (const IlvCoordinate &xyIn, IlvCoordinate &llOut) const
```

Changed member (from/to):

```
IlvMapsError forward (IlvCoordinate &coords) const  
virtual IlvMapsError forward (IlvCoordinate &coords) const
```

Changed member (from/to):

```
IlvMapsError inverse (IlvCoordinate &coords) const  
virtual IlvMapsError inverse (IlvCoordinate &coords) const
```

Changed member (from/to):

```
void setXYOffset (IlDouble x0, IlDouble y0)  
virtual void setXYOffset (IlDouble x0, IlDouble y0)
```

IlvProtoGraphic

Added members:

```
virtual IlBoolean isVisible () const
```

Changed member (from/to):

```
IlvProtoInstance * getProtoGraphic ()  
IlvProtoInstance * getProtoGraphic () const
```

IlvRect

Added members:

```
IlBoolean extends (const IlvRect &rect) const
```

Changed member (from/to):

```
IlvRect & operator= (const IlvRect &r)  
IlvRect & operator= (const IlvRect &r) = default
```

IlvScrollBar

Added members:

```
IlString getCssElementClass () const override  
void onChildStylableAdded (IlvStylable *child) override  
void setupDefaultCssStyle () override
```

IlvScrollView

Added members:

```
virtual void draw (const IlvRegion *clip = 0) override  
virtual void drawBackground (const IlvRegion *clip = 0) override
```

Changed member (from/to):

```
IlvScrollView (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlBoolean visible  
= IlTrue)
```

```
IlvScrollView (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlBoolean visible
= IlTrue, const char *cssElementName = "IlvScrollView")
```

Changed member (from/to):

```
IlvScrollView (IlvAbstractView *parent, const IlvRect &size, IlBoolean visible = IlTrue)
```

```
IlvScrollView (IlvAbstractView *parent, const IlvRect &size, IlBoolean visible = IlTrue, const
char *cssElementName = "IlvScrollView")
```

IlvScrolledComboBox

Added members:

```
virtual void updateLook ()
```

IlvScrolledGadget

Added members:

```
void onChildStylableAdded (IlvStylable *child) override
void setupDefaultCssStyle () override
```

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground () const
```

```
virtual const IlvPalette * getWindowBackground () const
```

IlvScrolledGadgetCSSLFHandler

Added members:

```
virtual void visibleBBox ( const IlvScrolledGadget *gadget, IlvRect &rect, const IlvTransformer
*t) const
```

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const
```

```
virtual const IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const
```

IlvScrolledGadgetLFHandler

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvScrolledGadget *gadget) const =0
```

```
virtual const IlvPalette * getWindowBackground ( const IlvScrolledGadget *gadget) const =0
```

IlvScrolledGadgetMLFHandler

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const
```

```
virtual const IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const
```

IlvScrolledGadgetVXLFHandler

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const
```

```
virtual const IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const
```

IlvScrolledGadgetW95LFHandler

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const  
virtual const IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const
```

IlvScrolledGadgetWLFHandler

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const  
virtual const IlvPalette * getWindowBackground ( const IlvScrolledGadget *) const
```

IlvSheetCSSLFHandler

Added members:

```
virtual void drawReliefBorder ( const IlvSheet *, IlvPort *dst, const IlvTransformer *t, const  
    IlvRegion *clip) const
```

IlvSheetLFHandler

Added members:

```
virtual void drawReliefBorder ( const IlvSheet *, IlvPort *dst, const IlvTransformer *t, const  
    IlvRegion *clip) const =0
```

IlvSimpleGraphic

Added members:

```
IlString getCssElementName () const override  
IlvDisplay * getStylableDisplay () const override  
IlString getStylableName () const override  
IlvStylist * getStylist () const override
```

IlvSlider

Added members:

```
IlString getCssElementClass () const override  
void onChildStylableAdded (IlvStylable *child) override  
void setupDefaultCssStyle () override
```

IlvSpinBox

Added members:

```
IlString getCssElementClass () const override  
void onChildStylableAdded (IlvStylable *child) override
```

IlvSpinBoxCSSLFHandler

Added members:

```
virtual void drawBackground ( const IlvSpinBox *, IlvPort *, const IlvTransformer *, const  
    IlvRegion *) const
```

IlvSplitterGadget

Added members:

```
void onChildStylableAdded (IlvStylable *child) override  
void setupDefaultCssStyle () override
```

IlvStAppCode

Changed member (from/to):

```
virtual void generateMakeFile (ILVSTDPREF ostream &)  
virtual IlBoolean generateMakeFile (ILVSTDPREF ostream &)
```

IlvStApplication

Changed member (from/to):

```
const char * makeInstanceName (const char *) const  
IlString makeInstanceName (const IlString &panelName, IlString *retInstanceSuffix = NULL) const
```

IlvStMainPanel

Added members:

```
void updateCssMenuItems ()
```

IlvStObject

Changed member (from/to):

```
virtual const IlAny downCast (const IlvClassInfo *classInfo) const  
virtual IlAny downCast (const IlvClassInfo *classInfo) const
```

IlvStOptions

Added members:

```
IlvStStyleProvider * getStyleProviderApp () const  
IlvStStyleProvider * getStyleProviderStudio () const  
void initializeCssLook ()  
IlBoolean isLookFeelAvailable (IlSymbol *lookname)
```

IlvStringList

Added members:

```
void addChildStylables ()  
virtual void setPaletteDrawMode (IlvDrawMode) override  
virtual void setPaletteOverwrite (bool) override  
void setupDefaultCssStyle () override
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionTextPalette () const  
virtual const IlvPalette * getSelectionTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getInsensitivePalette () const  
virtual const IlvPalette * getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const  
virtual const IlvPalette * getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette () const
virtual const IlvPalette * getSelectionPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getOpaquePalette () const
virtual const IlvPalette * getOpaquePalette () const
```

IlvStringListCSSLFHandler

Added members:

```
virtual void drawSelection (const IlvStringList *slist, IlvPort *dst, const IlvRect &rect,
    const IlvGadgetItem *item, const IlvTransformer *t, const IlvRegion *clip) const
    override
virtual IlvDim getItemWidth (const IlvStringList *, IlUShort pos) const override
virtual void itemInvalidationRect (const IlvStringList *, IlvRect &rect) override
```

Changed member (from/to):

```
virtual void drawGadgetItem (const IlvStringList *, const IlvGadgetItem *, IlvPort *port, const
    IlvRect &rect, const IlvTransformer *t, const IlvRegion *clip) const
virtual void drawGadgetItem (const IlvStringList *, const IlvGadgetItem *, IlvPort *dst, const
    IlvRect &rect, const IlvTransformer *t, const IlvRegion *clip) const
```

IlvStringListLFHandler

Added members:

```
virtual IlvDim getItemWidth ( const IlvStringList *slist, IlUShort pos) const =0
virtual void itemInvalidationRect ( const IlvStringList *, IlvRect &rect)=0
```

IlvStylable

Removed members:

```
virtual const char * getStylableClassName () const
virtual const IlSymbol *const * getStylableTags (IlUInt &nTags) const
const IlvColor * getStyleColor (const IlvColor *source, IlvStylist::Hint hint = 0) const
const IlvPalette * getStylePalette (const IlvPalette *s, int e, IlvStylist::Hint h = 0) const
const IlvPalette * getStylePalette (const IlvPalette *source, IlvStylist::PaletteElements
    elements, IlvStylist::Hint hint = 0) const
```

Added members:

```
static void DisableCssDom ()
    IlvDeclareClassInfo ()
    IlvStylable (const IlvStylable &) = delete
void addChildStylable (IlvStylable *child)
void addDomNode (IDomNode *node)
void addToDom ()
void addToDom (views::shared_ptr< ICssEngine > engine)
PseudoComponent * createPseudoStylableChild (const IlString &name, const IlString &cssClass)
ICssEngine & cssEngine () const
IlvStylable * getChildStylable (const IlString &cssElementName) const
virtual IlString getCssElementClass () const
IlString getCssElementId () const
virtual IlString getCssElementName () const
virtual IDomNode * getDomNode () const
PseudoComponent * getPseudoComponent (const IlString &name) const
PseudoComponent * getPseudoComponent (const IlString &name, const IlString &cssClass) const
IlvStylable * getPseudoStylable (const IlString &name) const
IlvStylable * getPseudoStylable (const IlString &name, const IlString &cssClass) const
static bool isCssDomDisabled ()
```



```

bool isInDom () const
virtual void onChildStylableAdded (IlvStylable *child)
IlvStylable & operator= (const IlvStylable &) = delete
void removeChildStylable (IlvStylable *child)
void removeDomNode ()
void removeFromDom ()
void removeFromDom (views::shared_ptr< ICssEngine > engine)
void setCssId (const IlString &id)
void setDefaultCssStyle (IlvDynamicStyle *style)
virtual void setupDefaultCssStyle ()
IlvAggregatedStyle & style ()
const IlvAggregatedStyle & style () const
void updateStylableState () const

```

Changed member (from/to):

```

virtual const IlvStylable * getStylableParent () const

virtual IlvStylable * getStylableParent () const

```

Changed member (from/to):

```

virtual State getStylableState () const

virtual ilv::stylable::State getStylableState () const

```

Changed member (from/to):

```

virtual const char * getStylableName () const

virtual IlString getStylableName () const

```

IlvStylist

Removed members:

```

void addHierarchy (std::list< IlvStyleSheet * > &) const
IlBoolean addStyleSheet (IlvStyleSheet *styleSheet)
virtual IlvColor * getBorderColor (const IlvStylable *, IlvPosition) const
virtual IlUChar getBorderStyle (const IlvStylable *, IlvPosition) const
virtual IlUShort getBorderWidth (const IlvStylable *, IlvPosition) const
virtual IlvDim getHeight (const IlvStylable *) const
virtual IlString getImage (const IlvStylable *) const
virtual void getImagePosition (const IlvStylable *, IlvPosition, IlvPos &, IlvPos &) const
virtual IlvDim getMargin (const IlvStylable *, IlvPosition) const
virtual IlvIntensity getOpacity (const IlvStylable *) const
virtual IlvDim getPadding (const IlvStylable *, IlvPosition) const
const IlvColor * getStyleColor (const IlvStylable *, const IlvColor *source, Hint) const
const IlvPalette * getStylePalette (const IlvStylable *, const IlvPalette *source,
    PaletteElements, Hint) const
virtual std::list< IlvStyleSheet * > * getStyleSheetList (IlBoolean) const = 0
virtual IlvDim getWidth (const IlvStylable *) const
Style * queryStyle (const IlvStylable *stylable) const
static void release (std::list< IlvStyleSheet * > *)
void removeFromStyleCache (IlBoolean) const
void removeFromStyleCache (IlvStylable *) const
virtual void removeStylable (IlvStylable *) const
IlBoolean removeStyleSheet (IlvStyleSheet *styleSheet)

```

Added members:

```

IlvStylist ()
views::shared_ptr< ICssEngine > getCssEngine ()
CssImageCache & getCssImageCache ()
virtual IlString getStylistName () const
bool hasStylingApplied () const
void removeStyling ()
IlBoolean setStyleSheet (const char *text, size_t length)

```

```
IlBoolean setStyleSheet (std::istream &file)
```

IlvSystemPort

Added members:

```
virtual void drawPolyLine (const IlvPalette *palette, const IlvPoint &firstPoint, const
    views::vector< IlvDeltaPoint > &relativePositions) const override
virtual void drawRoundRectangleDifferentRadiuses (const IlvPalette *palette, const IlvRoundRect
    &rect) const
virtual void fillPolyLine (const IlvPalette *palette, const IlvPoint &firstPoint, const
    views::vector< IlvDeltaPoint > &relativePositions) const
virtual void fillRoundRectangleDifferentRadiuses (const IlvPalette *palette, const IlvRoundRect
    &rect) const
```

Changed member (from/to):

```
virtual void drawTransformedString (const IlvPalette *pal, const IlvBidiString *label, int
    length, const IlvTransformer &t, const IlvRegion *clip = 0) const

virtual void drawTransformedString (const IlvPalette *pal, const IlvBidiString *label, int
    length, const IlvTransformer &t, const IlvRegion *clip = 0, IlvValueInterface
    *drawingObj = NULL)
```

Changed member (from/to):

```
virtual void drawTransformedString (const IlvPalette *, const char *, int, const IlvTransformer
    &, const IlvRegion * = 0) const

virtual void drawTransformedString (const IlvPalette *, const char *, int, const IlvTransformer
    &, const IlvRegion * = 0, IlvValueInterface *drawingObj = NULL)
```

IlvText

Removed members:

```
virtual void drawFocus (IlvPort *, const IlvPalette *, const IlvTransformer *=0, const
    IlvRegion *=0) const
```

Added members:

```
void onChildStylableAdded (IlvStylable *child) override
```

IlvTextField

Added members:

```
void onChildStylableAdded (IlvStylable *child) override
void setupDefaultCssStyle () override
```

IlvTextFieldCSSLFHandler

Added members:

```
virtual void drawContents (const IlvTextField *, IlvPort *, const IlvTransformer *, const
    IlvRegion *) const
const IlvPalette * getSelectionTextPalette (const IlvTextField *) const override
virtual void getTextArea (const IlvTextField *, IlvRect &, const IlvTransformer *) const
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette (const IlvTextField *) const

const IlvPalette * getTextPalette (const IlvTextField *) const override
```

IlvTextFieldLFHandler

Added members:

```
virtual const IlvPalette * getSelectionTextPalette (const IlvTextField *) const = 0
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette (const IlvTextField *) const = 0  
virtual const IlvPalette * getTextPalette (const IlvTextField *) const = 0
```

IlvTextFieldMLFHandler

Added members:

```
const IlvPalette * getSelectionTextPalette (const IlvTextField *) const override
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette (const IlvTextField *) const  
const IlvPalette * getTextPalette (const IlvTextField *) const override
```

IlvTextFieldWLFHandler

Added members:

```
const IlvPalette * getSelectionTextPalette (const IlvTextField *) const override
```

Changed member (from/to):

```
virtual IlvPalette * getTextPalette (const IlvTextField *) const  
const IlvPalette * getTextPalette (const IlvTextField *) const override
```

IlvTextLFHandler

Removed members:

```
virtual void drawFocus ( const IlvText *, IlvPort *, const IlvPalette *, const IlvTransformer  
*=0, const IlvRegion *=0) const =0
```

IlvTextMLFHandler

Removed members:

```
virtual void drawFocus ( const IlvText *, IlvPort *, const IlvPalette *, const IlvTransformer  
*=0, const IlvRegion *=0) const
```

IlvTextWLFHandler

Removed members:

```
virtual void drawFocus ( const IlvText *, IlvPort *, const IlvPalette *, const IlvTransformer  
*=0, const IlvRegion *=0) const
```

IlvTitledDockingHandleToolBar

Added members:

```
void onChildStylableAdded (IlvStylable *child) override  
void setupDefaultCssStyle () override
```

IlvToggle

Removed members:

```
virtual const char * getStylableClassName () const
```

Added members:

```
virtual void changeLook (const IlvLookFeelHandler *)  
IlString getCssElementName () const override  
void onChildStylableAdded (IlvStylable *child) override
```

Changed member (from/to):

```
virtual IlvStylable::State  getStylableState () const
virtual ilv::stylable::State  getStylableState () const override
```

IlvToolBar

Added members:

```
void  setupDefaultCssStyle () override
```

IlvToolBarPath

Added members:

```
IlString  getCssElementName () const override
```

IlvTransverseMercatorProjection

Added members:

```
virtual IlvMapsError  forward (IlvCoordinate &coords) const
virtual IlvMapsError  forward (const IlvCoordinate &llIn, IlvCoordinate &xyOut) const
virtual IlvMapsError  inverse (IlvCoordinate &coords) const
virtual IlvMapsError  inverse (const IlvCoordinate &xyIn, IlvCoordinate &llOut) const
virtual bool  isUsingProj4 () const
virtual void  setLLCenter (IlDouble, IlDouble)
virtual void  setXYOffset (IlDouble x0, IlDouble y0)
~IlvTransverseMercatorProjection ()
```

IlvTreeGadget

Added members:

```
IlvDim  getItemMargin (IlvTreeGadgetItem *item, IlvPosition direction) const
void  invalidateItemInternal (IlvGadgetItem *, const IlvGadgetItemGeometry &, const
    IlvGadgetItemGeometry &)
void  onChildStylableAdded (IlvStylable *child) override
virtual void  setPaletteDrawMode (IlvDrawMode) override
virtual void  setPaletteOverwrite (bool) override
void  setupDefaultCssStyle () override
virtual void  updateLook () override
```

Changed member (from/to):

```
virtual IlvPalette *  getSelectionTextPalette () const
virtual const IlvPalette *  getSelectionTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette *  getInsensitivePalette () const
virtual const IlvPalette *  getInsensitivePalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getNormalTextPalette () const  
virtual const IlvPalette * getNormalTextPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getSelectionPalette () const  
virtual const IlvPalette * getSelectionPalette () const
```

Changed member (from/to):

```
virtual IlvPalette * getOpaquePalette () const  
virtual const IlvPalette * getOpaquePalette () const
```

Changed member (from/to):

```
IlvPalette * getWindowBackground () const  
const IlvPalette * getWindowBackground () const
```

Changed member (from/to):

```
IlvPalette * getButtonPalette () const  
const IlvPalette * getButtonPalette () const
```

Changed member (from/to):

```
IlvPalette * getTextPalette () const  
const IlvPalette * getTextPalette () const
```

IlvTreeGadgetCSSLFHandler

Added members:

```
virtual void drawButton (const IlvTreeGadget *tree, IlvPort *dst, const IlvTreeGadgetItem  
    *item, const IlvRect &bbox, const IlvRegion *clip) const override  
virtual void drawGadgetItem (const IlvTreeGadget *, const IlvTreeGadgetItem *, IlvPort *port,  
    const IlvRect &rect, const IlvTransformer *t, const IlvRegion *clip) const override  
virtual void drawHighlight (const IlvTreeGadget *, IlvPort *dst, const IlvRect &rect, const  
    IlvTreeGadgetItem *item, const IlvTransformer *t, const IlvRegion *clip) const override  
virtual void drawSelection (const IlvTreeGadget *, IlvPort *dst, const IlvRect &rect, const  
    IlvTreeGadgetItem *item, const IlvTransformer *t, const IlvRegion *clip) const override  
virtual void getButtonSize (const IlvTreeGadget *, const IlvTreeGadgetItem *, IlvDim &width,  
    IlvDim &height) const override  
virtual IlvDim getItemHeight (const IlvTreeGadget *, const IlvTreeGadgetItem *item) const  
    override  
virtual IlvDim getItemMargin (const IlvTreeGadgetItem *, IlvPosition direction) const override  
virtual void getItemSize (const IlvTreeGadget *, const IlvTreeGadgetItem *item, IlvDim &width,  
    IlvDim &height) const override  
virtual IlvDim getItemWidth (const IlvTreeGadgetItem *item) const override  
virtual void invalidateItem (IlvTreeGadget *tree, IlvGadgetItem *item, const  
    IlvGadgetItemGeometry &previousSize, const IlvGadgetItemGeometry &currentSize) const  
    override
```

Changed member (from/to):

```
IlvPalette * getButtonPalette (const IlvTreeGadget *obj) const  
const IlvPalette * getButtonPalette (const IlvTreeGadget *obj) const
```

IlvTreeGadgetItem

Added members:

```
void setupDefaultCssStyle () override
```

IlvTreeGadgetLFHandler

Added members:

```
virtual IlvDim getItemMargin ( const IlvTreeGadgetItem *, IlvPosition direction) const =0  
virtual IlvDim getItemWidth ( const IlvTreeGadgetItem *item) const =0  
virtual void invalidateItem (IlvTreeGadget *tree, IlvGadgetItem *item, const  
    IlvGadgetItemGeometry &previousSize, const IlvGadgetItemGeometry &currentSize) const =0
```

Changed member (from/to):

```
virtual IlvPalette * getButtonPalette ( const IlvTreeGadget *tree) const =0  
virtual const IlvPalette * getButtonPalette ( const IlvTreeGadget *tree) const =0
```

Changed member (from/to):

```
virtual IlvPalette * getWindowBackground ( const IlvTreeGadget *tree) const =0  
virtual const IlvPalette * getWindowBackground ( const IlvTreeGadget *tree) const =0
```

IlvTreeGadgetMLFHandler

Changed member (from/to):

```
IlvPalette * getButtonPalette ( const IlvTreeGadget *obj) const  
const IlvPalette * getButtonPalette ( const IlvTreeGadget *obj) const
```

IlvTurbulenceFilter

Changed member (from/to):

```
IlvTurbulenceFilter (IlFloat baseFrequencyX = 0.05, IlFloat baseFrequencyY = 0.05, IlUInt  
    numOctaves = 1, IlFloat seed = 0.0, NoiseMode = Turbulence, IlBoolean stitch = IlFalse)  
IlvTurbulenceFilter (IlFloat baseFrequencyX = 0.05f, IlFloat baseFrequencyY = 0.05f, IlUInt  
    numOctaves = 1, IlFloat seed = 0.0, NoiseMode = Turbulence, IlBoolean stitch = IlFalse)
```

IlvUndockedTopContainer

Added members:

```
void onChildStylableAdded (IlvStylable *child) override
```

IlvVXLHandler

Changed member (from/to):

```
virtual void drawArrow (IlvPort *dst, const IlvRect &bbox, IlvDirection dir, IlvPalette  
    *palette, const IlvRegion *clip)  
virtual void drawArrow (IlvPort *dst, const IlvRect &bbox, IlvDirection dir, const IlvPalette  
    *palette, const IlvRegion *clip)
```

Changed member (from/to):

```
virtual void drawGradientButton (IlvPort *, const IlvRect &, const IlvRegion *, IlBoolean =  
    IlFalse, IlvPalette * = 0) const  
virtual void drawGradientButton (IlvPort *, const IlvRect &, const IlvRegion *, IlBoolean =  
    IlFalse) const
```

Changed member (from/to):

```
virtual void drawInsensitiveLabel (const IlvGadget *gadget, IlvPort *dst, const char *label,
    const IlvRect &rect, IlvPosition alignment, IlvOrientation orientation, IlBoolean flip,
    IlvPalette *spalette, IlvPalette *palette, const IlvRegion *clip, const
    IlvBidiInterface *) const

virtual void drawInsensitiveLabel (const IlvGadget *gadget, IlvPort *dst, const char *label,
    const IlvRect &rect, IlvPosition alignment, IlvOrientation orientation, IlBoolean flip,
    const IlvPalette *spalette, const IlvPalette *palette, const IlvRegion *clip, const
    IlvBidiInterface *) const
```

Changed member (from/to):

```
virtual IlvColor * getGadgetContainerBackground () const

virtual IlvColor * getGadgetContainerBackground (const IlvStylable *stylableGadgetContainer)
    const
```

IlvValue

Added members:

```
operator long long int () const
```

IlvView

Removed members:

```
DeclareValueAccessors ()
```

Added members:

```
DeclareViewAccessors ()
virtual void doPostResize (const IlvRect &rect) override
virtual void doPreResize (const IlvRect &rect) override
virtual void draw (const IlvRegion *clip = 0)
virtual void drawBackground (const IlvRegion *clip = 0) override
virtual IlBoolean getAutoBackgroundRedrawingMode ()
virtual void handleResize (IlvRect &)
void init ()
virtual bool legacyDrawBackground (IlvPort *dst, const IlvRegion *clip = 0) override
IlvDim previousHeight () const
IlvDim previousHeight (IlvDim h)
IlvDim previousWidth () const
IlvDim previousWidth (IlvDim w)
virtual void removePostResizeCallback (IlvResizeCallback resize, IlAny userArg = 0)
virtual IlBoolean resizingInvalidatesBackground () const
void runResizeCallbacks (const IlAList &callbacks, IlvRect &rect)
virtual IlBoolean setAutoBackgroundRedrawingMode (IlBoolean)
virtual void setPostResizeCallback (IlvResizeCallback resize, IlAny userArg = 0)
```

Changed member (from/to):

```
IlvView (IlvDisplay *display, const char *name, const char *title, const IlvRect &size, IlUInt
    properties, IlBoolean visible = IlTrue, IlvSystemView transientFor = 0)

IlvView (IlvDisplay *display, const char *name, const char *title, const IlvRect &size, IlUInt
    properties, IlBoolean visible = IlTrue, IlvSystemView transientFor = 0, const char
    *cssElementName = "IlvView")
```

Changed member (from/to):

```
IlvView (IlvDisplay *display, const char *name, const char *title, const IlvRect &size,
    IlBoolean visible = IlTrue)

IlvView (IlvDisplay *display, const char *name, const char *title, const IlvRect &size,
    IlBoolean visible = IlTrue, const char *cssElementName = "IlvView")
```

Changed member (from/to):

```
IlvView (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlBoolean visible = IlTrue)
```

```
IlvView (IlvDisplay *display, IlvSystemView parent, const IlvRect &size, IlBoolean visible = IlTrue, const char *cssElementName = "IlvView")
```

Changed member (from/to):

```
IlvView (IlvAbstractView *parent, const IlvRect &size, IlBoolean visible = IlTrue)
```

```
IlvView (IlvAbstractView *parent, const IlvRect &size, IlBoolean visible = IlTrue, const char *cssElementName = "IlvView")
```

Changed member (from/to):

```
IlvView (IlvDisplay *display, IlvSystemView available)
```

```
IlvView (IlvDisplay *display, IlvSystemView available, const char *cssElementName = "IlvView")
```

Changed member (from/to):

```
virtual const char * getStylableName () const
```

```
IlString getStylableName () const override
```

IlvViewFrame

Added members:

```
virtual bool changeViewLook () override  
virtual void doPostResize (const IlvRect &rect) override  
virtual void doPreResize (const IlvRect &rect) override  
ilv::stylable::State getStylableState () const override
```

Changed member (from/to):

```
static void SetDefaultTitleBarHeight (IlUShort)
```

```
static void SetDefaultTitleBarHeight (IlUShort height)
```

Changed member (from/to):

```
virtual IlvPopupMenu * createMenu () const
```

```
virtual IlvPopupMenu * createMenu ()
```

Changed member (from/to):

```
IlvViewFrame (IlvView *parent, const char *title, const IlvRect &size, IlUInt properties, IlBoolean visible = IlTrue)
```

```
IlvViewFrame (IlvView *parent, const char *title, const IlvRect &size, IlUInt properties, IlBoolean visible = IlTrue, const char *cssElementName = "IlvViewFrame")
```

Changed member (from/to):

```
IlvViewFrame (IlvView *parent, const char *title, const IlvRect &size, IlBoolean visible = IlTrue)
```

```
IlvViewFrame (IlvView *parent, const char *title, const IlvRect &size, IlBoolean visible = IlTrue, const char *cssElementName = "IlvViewFrame")
```


IlvViewFrameButtons

Added members:

```
    IlvDeclareLazyClassInfo ()
virtual IlString  getCssElementName () const override
virtual ilv::stylable::State  getStylableState () const override
void  onChildStylableAdded (IlvStylable *child) override
void  setupDefaultCssStyle () override
virtual  ~IlvViewFrameButtons ()
```

IlvViewFrameCSSLFHandler

Added members:

```
virtual IlvDim  getTitleBarHeight ( const IlvViewFrame *vframe, const IlvViewFrameButtons
    *vfButtons, IlBoolean minimized) const override
```

IlvViewFrameLFHandler

Changed member (from/to):

```
virtual IlvDim  getTitleBarHeight (IlBoolean minimized) const =0
virtual IlvDim  getTitleBarHeight ( const IlvViewFrame *vframe, const IlvViewFrameButtons
    *vfButtons, IlBoolean minimized) const =0
```

IlvViewFrameVXLFHandler

Changed member (from/to):

```
virtual IlvDim  getTitleBarHeight (IlBoolean minimized) const
virtual IlvDim  getTitleBarHeight ( const IlvViewFrame *vframe, const IlvViewFrameButtons
    *vfButtons, IlBoolean minimized) const override
```

IlvViewHandler

Added members:

```
static IlvViewHandler *  Get ( const IlvView *view)
static IlvSymbol *  GetSymbol ()
static IlvViewHandler *  Set (IlvView *view, IlvViewHandler *handler)
```

IlvViewRectangle

Removed members:

```
IlBoolean  isVisible () const
```

Added members:

```
void  hideView ()
virtual IlBoolean  isVisible () const
void  showView ()
```

IlvWindows95LFHandler

Changed member (from/to):

```
virtual void  drawInsensitiveLabel ( const IlvGadget *, IlvPort *, const char *, const IlvRect
    &, IlvPosition, IlvOrientation, IlBoolean, IlvPalette *, IlvPalette *, const IlvRegion
    *, const IlvBidiInterface *) const
virtual void  drawInsensitiveLabel ( const IlvGadget *, IlvPort *, const char *, const IlvRect
    &, IlvPosition, IlvOrientation, IlBoolean, const IlvPalette *, const IlvPalette *,
    const IlvRegion *, const IlvBidiInterface *) const
```

IlvWindowsLFHandler

Changed member (from/to):

```
virtual void drawHighlight (IlvPort *, const IlvRect &, IlvPalette *, const IlvRegion *,  
    IlvBoolean) const
```

```
virtual void drawHighlight (IlvPort *, const IlvRect &, const IlvPalette *, const IlvRegion *,  
    IlvBoolean) const
```

Changed member (from/to):

```
virtual void drawArrow (IlvPort *, const IlvRect &, IlvDirection, IlvPalette *, const IlvRegion  
    *)
```

```
virtual void drawArrow (IlvPort *, const IlvRect &, IlvDirection, const IlvPalette *, const  
    IlvRegion *)
```

Changed member (from/to):

```
virtual void drawInsensitiveLabel (const IlvGadget *gadget, IlvPort *dst, const char *label,  
    const IlvRect &rect, IlvPosition alignment, IlvOrientation orientation, IlvBoolean flip,  
    IlvPalette *spalette, IlvPalette *palette, const IlvRegion *clip, const  
    IlvBidiInterface *) const
```

```
virtual void drawInsensitiveLabel (const IlvGadget *gadget, IlvPort *dst, const char *label,  
    const IlvRect &rect, IlvPosition alignment, IlvOrientation orientation, IlvBoolean flip,  
    const IlvPalette *spalette, const IlvPalette *palette, const IlvRegion *clip, const  
    IlvBidiInterface *) const
```

IlvXDisplayConfig

Added members:

```
int getRenderMop () const
```

Updated Features

- [Port Updates](#)
- [Other Updates](#)

Port Updates

The following ports have been retired in Views 7.0.

Windows

- Windows 7
- Windows 10, MSVS 2013, x86/x86-64

Linux

- RHEL 5 and 6
- SuSE 11 and 12

UNIX

- Solaris x86/x86-64
- Solaris 10 SPARC
- HP-UX PA RISC
- AIX 6.1 32/64 Power PC

Other Updates

No other updates were performed for this release.

Bug Fixes

The following bug fixes have been made:

- VIEWS-13807: [Xft] Wrong string size computed with EUC-JP encoding.
- VIEWS-13953: Unsorted dataset causes `IlvPolylineChartDisplayer` not to draw some data.
- VIEWS-14185: `IlvColorSelector` is missing `IlvFrame` include.
- VIEWS-14209: [Xft] Memory leak when destroying an `IlvView`.
- VIEWS-14379: [Xft] Layer transparency (alpha) is not propagated to text.
- VIEWS-14421: `IlvFileChooser` and `IlvFileBrowser` crash when some directories are not readable.
- VIEWS-14455: MGRS conversion error at some coordinates in Views Maps.
- VIEWS-14492: `IlvPNGStreamer` writes incorrect bitmaps.
- VIEWS-14556: Problem with the projection Azimuthal Equidistant with WGS84 Ellipsoid.
- VIEWS-14598: [Prototype] Take into account the top-level transform of `IlvTransformedGraphic`.
- VIEWS-14599: [Prototype] Applying transform loses rotation information. Removing transform toggle automatically applies it.
- VIEWS-14614: Regression when reading a shapefile (`Number_format_error`).
- VIEWS-14658: `IlvFilledArc` drawing is slightly larger than its bounding box.
- VIEWS-14671: `IlvProtoGraphic::isVisible` does not take in account the visibility status of `IlvProtoInstance`.
- VIEWS-14779: Incorrect conversion from the MGRS string to `IlvCoordinate`.
- VIEWS-14797: No map is projected when the Azimuthal Equidistant projection is selected.
- VIEWS-14806: For Azimuthal projection, projection center does not change.
- VIEWS-14989: [XFT] CPU consumption increases when XFT is activated.
- VIEWS-15009: `IlvDisplay::putBitmapData` behaves differently on RHEL 7 than on RHEL 5.
- VIEWS-15095: Top-level window does not raise after it has been iconified.
- VIEWS-15107: The `IlvNoTitleBar` property in the `IlvViewFrame` constructor causes a crash.
- VIEWS-15156: Memory leak on RHEL when redrawing a button.
- VIEWS-15167: `IlvDisplay::putBitmapData` behave differently on RHEL 7 than on RHEL 5 (7.0).
- VIEWS-15212: Round rectangles are not properly drawn on Unix when Cairo is activated.
- VIEWS-15280: The shadow thickness property of a *label with shadow* element can accept negative integers, causing the text to disappear.
- VIEWS-15315: Inconsistency in the layer management code.
- VIEWS-15346: When the mouse leaves a view too quickly no `IlvLeaveWindow` event is picked up by an event hook.
- VIEWS-15423: `IlvViewFrame` does not raise properly on Linux.

- VIEWS-15468: Using too many guides for attachments introduces a small space at the bottom of the view when resized vertically.
- VIEWS-15549: List of named colors in the color picker is badly refreshed.
- VIEWS-15579: The default anti-aliasing mode cannot be set on Linux.
- VIEWS-15594: Studio crashes when running on a Japanese locale.
- VIEWS-15608: The `IlvPort::drawLabel` length parameter use was not consistent with the documentation for UTF-8 strings. Its use now matches the behavior described in the documentation.
- VIEWS-15630: `IlvViewFrame` subview not resized when `IlvViewFrame::resize` is called.
- VIEWS-15817: Graphic objects are not redrawn when their gradient pattern is modified.
- VIEWS-15886: `IlvViewFrame` resize callback called before `IlvViewFrame` client size is updated.
- VIEWS-15945: Only the first tooltip is displayed in an `IlvGrapher`.
- VIEWS-16127: STUDIO: Save as `.ilv` doesn't write layers.
- VIEWS-16129: Calling `IlvViewFrame::maximizeFrame()` freezes the application.
- VIEWS-16299: `IlvTreeGadget::shrinkItem` triggers a redraw when `redraw=IlvFalse`.
- VIEWS-16465: Extend Japanese encodings to JIS X 0213 code points on Linux.
- VIEWS-16467: `IlvToggle::setSensitive(IlvFalse)`, text color is invisible on a dark background.
- VIEWS-16784: Corruption of module loader causes crash on exit.
- VIEWS-16982: `IlvGanttChart::swapLines` performs badly on Linux.
- VIEWS-17038: [Regression] `readBitmap` cannot read first bitmap with static libraries.
- VIEWS-17440: [Regression] `IlvMessageLabel` is not printed at the proper size.
- VIEWS-17772: After calling `IlvManagerMagViewInteractor::adjustView()` the view shifts by (2,2) pixels.
- VIEWS-17794: Background color for `IlvButton` object changed.
- VIEWS-17807: View rectangle causes issues with Japanese IME input.

Removed Features

The following features have been removed for Views version 7.0:

- `InForm30` is no longer supported and has been removed.

Known Limitations

We are aware of the following limitations for Views 7.0:

- Label clipping may happen when printing a PDF.