Light Lib Products for Windows

CA-Visual Objects

February 1995

Dear User,

Please see README.WRI found in \LIGHTLIB for important information not found in this file. This CAVO.WRI file contains information on how to use all Light Lib products with CA-Visual Objects.

We thank you for your support,
The DFL Team

Compatibility

Light Lib products for Windows are compatible with CA-Visual Objects 1.0a

Installation

Your CAVOWED.INI located in your CA-Visual Objects directory is automatically updated with a Light Lib section at installation time. We also supply you with a generic version of the CAVOWED.INI file for backup. The modifications to the CAVOWED.INI allow you to drag various Light Lib controls onto special LightLibDataWindows. This provides for very easy and fast integration of Light Lib features into your CA-Visual Objects applications.

If you do not follow the AEF importing sequence, you will receive many warning/errors when building each Light Lib product. Furthermore, you will need to modify the Application Properties of each demo AEF and manually add LLOBJECTS, along with the related Light Lib product, as an included DLL/LIB.

We would strongly suggest that you back up the repository by using the File/Export All before importing the Light Lib AEFs (or any other AEFs). Further, if you have used any other Light Lib products in the past we would suggest that you remove any of the old DLLs and demo modules from your repository before importing the new ones. This will ensure the cleanest possible installation of the new Light Lib products.

The following are step by step AEF import instructions. You will be able to import the following AEFs individually or in three groups by using the multi-file selection feature in the import dialog (To select multiple files in the dialog, simply press the CTRL key while clicking the right mouse button).

Step by Step AEF Import

1. Import LLOBJECTS.AEF	DLL management/support
2. Import LLBUSINE.AEF	DLL and LLO interface
3. Import LLIMAGES.AEF	DLL and LLO interface
4. Import LLMULTIM.AEF	DLL and LLO interface
4. Import LLBD.AEF.	Light Lib Business Demo
5. Import LLID.AEF.	Light Lib Images Demo
6. Import LLMD.AEF.	Light Lib MultiMedia Demo
7. Import LLAD.AEF.	Demo of ALL Light Lib Products

Light Lib Objects (LLO)

LLOBJECTS.AEF is not a product, it is a system file. Every Light Lib product for Windows relies on LLO to manage memory allocation and the proper creation and deletion of all objects within the DLLs themselves. LLOBJECTS.AEF is the same for all Light Lib products for Windows and should be the first AEF imported.

We will be publishing the API to LLO in the near future and will be enhancing this system for possible general availability as a seperate product.

Light Lib Images (LLI)

Files

The following is a list of files associated with Light Lib Images

LLIMAGES.AEF System support layer which interacts with LLOBJECTS and with the LLI DLL. Please do NOT directly modify any part of this AEF. Doing so may cause any application using LLI to not function properly.

LLID.AEF Demo application.

LLI.HLP Help file.

Using

Light Lib Images allows you to easily add images to your applications by dragging an image control onto your dialog window. *The following are the steps needed to add image controls to LightLibDataWindows...*

1. Create a new module
2. Select the Window Editor
3. Select *LightLibDataWindow* and name it (eg. TEST)
4. Select *AutoLayout* from the menu
5. Select PEOPLE as the DBServer
6. From the Menu, select *Edit*, then *Select from Palette* and select *Imagewindowcontrol*
   OR you can simply drag and drop the Light Lib control from the toolbar !
9. Drag the window onto the TEST data window
10. Click on this new *Imagewindowcontrol* control and edit the properties.
11. Modify the *Image FieldName* property to read IMAGE256
12. Save and run.

That's it! Light Lib Images will generate all the needed source code to take full advantage of the images.

Demo

The following explains what each button on the toolbar does in left to right button order.

1. Scan in a new image into this window by using your installed TWAIN driver.

2. Save the image as a new file format such as BMP, PCX, GIF, TIF and JPG as well as using various compression techniques.

3. Print the image.

4. Fit the image to the width of the window. Use the vertical scroll bar to pan the image.

5. Fit the image to the height of the window. Use the horizontal scroll bar to pan the image.

6. Fit the image completely in the window. Notice the image may appear deformed. This is because the image is being scaled both vertically and horizontally and the scale factor may be different for both.

7. Releases any previous Fit mode and displays the original image.

Notice that buttons 4,5,6 maintain the image settings even when the window is resized.

8. Rotates the entire image 90 degrees right.

9. Rotates the entire image 90 degrees left.

10. Rotates the entire image 180 degrees

Notice that buttons 8,9,10 maintain the image settings even when the window is resized and you are able to apply buttons 4,5,6 to the rotated image.

11. Crops a region of the image selected by the mouse. First use your mouse to select a portion of the image, then select this button to perform the crop. Be aware that cropping an image destroys the original image and uses the cropped region as the new image.

12. Zoom out. Make the image larger

13. Zoom in. Make the image smaller.

14. Toggle the color palette between exclusive and shared. If your video setting is using a 256 color display, you may notice that the image is "fuzzy" or not in focus. By selecting this button, the color palette becomes optimized for the current image and therefore produces a sharper image.

15. Provides information about the current image.

Notice the Main Menu options have changed. Under *File*, select the *Grab* option. This allows capturing various parts of the screen such as the DeskTop, Window and the ClientArea. This technique is very useful when dynamically printing a form from the screen.

Under *Edit*, select *Color Operations*. This you to perform gray-scaling and dithering on an image. The various color settings (1 bit, 4 bit, 8 bit and 24 bit) affect the dithering. Be aware that these color settings are dependent on your video settings.

Close this LLI window. The same buttons can be applied to the next LLI window.
You are also able to drag and drop image files onto this demo.

Light Lib Business (LLB)

Files

The following is a list of files associated with Light Lib Images

LLBUSINE.AEF	System support layer which interacts with LLOBJECTS and with the LLB DLL. Please do NOT directly modify any part of this AEF. Doing so may cause any application using LLB to not function properly.
LLBD.AEF	Demo application.
LLB.HLP	Help file.

Using

Light Lib Business allows you to browse through any data source in the form of a DBServer (Usually and Array or a DBF). LLB is modeled after TBROWSE() and is basically a dynamic browse system which represents the values being browsed in a graph format.

Demo

You are able to perform various operations to these graphs via the toolbar such as skipping through the data source. But before you even use the toolbar, try the following to gain a better understanding of LLB's power and flexibility.

Resize the window containing the graph and notice the automatic scaling and resizing capabilities. This is done automatically and requires no additional programming!

Notice that by clicking on any part of the graph, a default *dialog* window is activated These default dialogs allow for dynamically adjusting the properties (eg. color, font, moving, freezing etc.) of the selected object in the graph. Each graph object has its own default dialog window which can easily be substituted with your own. The dialogs available types of properties depend on the graph object selected. An LLB graph is comprised of 5 objects or parts.

1. Graph
2. Legend
3. Columns
4. X Axis
5. Y Axis (Left and Right)

Graph

Select the back of the graph and avoid selecting any columns in order to activate the default *Graph Dialog*. This dialog provides options to change the Type of graph (Bar, Line, Stacked, Stacked Percent and Pie), Style of graph (3D, Filled), font, legend's visibility and the way that the surfaces of the 3 axis get displayed (Transparent, 3D, Grid)

Legend

Select the back of the legend and avoid selecting any of the column titles to activate the default Legend *Dialog*. This dialog provides several positioning options for the legend. The "Best" option forces LLB to automatically calculate where the best position for the legend in the graph window would be. This calculation is based on several factors such as the graph's window size and the actual legend size etc.

Column

Select any column to activate the default *Column Dialog*. This dialog allows you to change the selected column’s following settings:

The *X and Y Offsets* allow you to position a typical bar or line graph inside its own grid. Each graph is divided up into a grid and each column is displayed in this grid. These *offset* values allow you to size the columns bars or lines and allows you to *offset* or position them in inside the column's graph grid.

The *Pen Width* adjusts the width of the lines used to draw the column. The values range from 1-5 where 5 is the thickest. This is useful in making a column stand out.

The *Moves* positions the column within the graph. It also allows a column to be attached to either the Left Y Axis or the Right Y Axis. The *freeze* option allows a column to remain frozen while panning across all columns in a graph. You are able to freeze any number of columns and in any order.

The *Type* option on the bottom right of the dialog allows a column to be a different type of graph which is independent of the overall graph type. In other words, you can make a column be a line graph while the rest of the graph is a column graph!

X Axis
Select the *X Axis* by clicking on any value along the X Axis. The default *X Axis Dialog* allows you to change the font, attributes and color for the *Title*, *Header* and *Label.*

Y Axis
Select the *Y Axis* by clicking on any value along the Y Axis. The default *Y Axis Dialog* allows you to change *Title, Header, Scale, Major* and *Minor* values and color. The *Major* and *Minor* properties display the ticks on the Y Axis and are independent of one another.

The following explains what each button on the toolbar does in left to right button order.

1. Go Top

2. Skip Back

3. Skip Next

4. Go Bottom

5. Pan the graph to the beginning

6. Pan left

7. Pan right

8. Pan the graph to the end

9. Zoom out. Put more values into view.

10. Zoom in. Put less values into view.

11. Change the graph to a Bar Graph

12. Change the graph to a Stock Graph

13. Change the graph to a Line Graph

14. Change the graph to a Stacked Graph

15. Change the graph to a Stacked Percent Graph

16. Change the graph to a Pie Graph

17. Set the graph style to 3D

18. Set the graph style to Filled

19. Switch the direction of how the values are graphed. This feature essentially takes a cross section of the data in all the columns. This provides complete control over how a data is to be displayed.

Close this LLB window. The same buttons can be applied to the next LLB windows.

Light Lib MultiMedia (LLM)

Please note that LLM is still in Alpha testing at this time.

Files

The following is a list of files associated with Light Lib Images

LLMULTIM.AEF	System support layer which interacts with LLOBJECTS and with the LLM DLL. Please do NOT directly modify any part of this AEF. Doing so may cause any application using LLM to not function properly.
LLMD.AEF	Demo application.
LLM.HLP	Help file.

Using

Before attempting to run the LLM demo (LLMD), you will need to ensure that your computer is multimedia capable. A simple test would be to run the Media Player program which comes with Windows and is found in the Accessories Group. Try playing one of the supplied .WAV files and .AVI files. If you are not getting sound or are not seeing the video, you will need to reference your multimedia hardware documentation for further help in configuration. If your computer is not properly configured for multimedia, you will experience error messages when running the LLM demo.

Light Lib Multimedia allows you to easily add multimedia features to your applications by dragging a multimedia control onto your dialog window. The following are the steps needed to add multi media controls to LightLibDataWindows...

1. Create a new module
2. Select the Window Editor
3. Select *LightLibDataWindow* and name it (eg. TEST)
4. Select *AutoLayout* from the menu
5. Select PEOPLE as the DBServer
6. From the Menu, select *Edit*, then *Select from Palette* and select *Soundwindowcontrol*
   OR you can simply drag and drop the Light Lib control from the toolbar !
9. Drag the window onto the TEST data window
10. Click on this new *Soundwindowcontrol* control and edit the properties.
11. Modify the *Sound FieldName* property to read PEOPLEPEOPLE_SOUND
12. Save and run.

That's it! Light Lib Multimedia will generate all the needed source code to take full advantage of the sound.

Demo

This demonstrate LLM's Video and Audio capabilities. The single LLM window on the left will play an AVI (Video) file. The other 2 LLM windows will play a WAV (Audio) file The following explains what each button on the toolbar does in left to right button order.

1. Plays an AVI (Video) file

2. Opens an AVI file

3. Closes this window.

The following explains what each button on the toolbar does in left to right button order.

1. Plays a WAV (Audio) file

2. Opens an WAV file

3. Closes this window.

4. Saves a WAV file. (For future recording capabilities)

Close these 3 LLM windows.

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