

Patch 1 for English Origin 6.1

In the following list, the ID numbers refer to OriginLab's internal bug tracking database IDs.

Bugs Fixed

- 1) If you paste missing values into a numeric column, the missing values display as zero values. ID = 8648
- 2) Vectors with zero magnitude display vector heads in the graph. ID = 8662
- 3) Identical data points (X,Y pairs) that are separated by missing values are not drawn correctly in the graph. ID = 8633
- 4) The 'Max. Number of Ticks' text boxes on the Axis tab of the Options dialog box do not correctly handle entries greater than 127. ID = 8657
- 5) Pressing CANCEL in the Export Options dialog box results in a Script window error message with some raster formats, and fails to stop the export with some vector formats. ID = 8620
- 6) An example does not display when Expression is selected for a user defined fitting function. ID = 3296
- 7) When certain HP printer drivers are set as the default on Windows 95/98 computers, Origin crashes when performing some math operations. ID = 8623, 8673
- 8) Simultaneously fitting a large number of datasets to a user defined fitting function causes a crash. ID = 8652
- 9) Opening, selecting, adding, editing, or deleting a long fitting function (>250 characters) causes a crash. ID = 8653
- 10) Some nonlinear curve fitting categories are not displaying all functions. ID = 8679
- 11) The **diff()** function treats missing values as zero. ID = 8680
- 12) You cannot assign a string to an Excel workbook cell using the **WorkbookName_ColName[rowNum]\$ = "string"** notation. (See LabTalk item 2 below for related information.) ID = 8606
- 13) In certain cases a crash occurs when you remove and add back data into a layer, and then change the plot type from line to column. ID = 8630
- 14) If a column's numeric display is set to Set Decimal Places and you select a cell in the column that contains an exponent ending in zero (such as E-10), when you activate another cell the value in the first cell changes. (Set Decimal Places is not the default setting, so this bug is rare.) ID = 8631
- 15) If you select an object that is "attached to the page", the layer that the object was created in becomes active. ID = 1364
- 16) If you magnify a graph that includes grouped data by pressing the CTRL key as you drag with the Enlarger tool, the Enlarged graph window does not display the grouped data with the correct display attributes. ID = 8670
- 17) If you assign an Excel workbook cell a missing value through script, the cell displays Origin's internal missing value. ID = 8712
- 18) Worksheet cell values exceeding 10^{290} display as missing values and those below 10^{-290} display as zeros. (The new upper and lower numeric display range is 10^{307} and 10^{-307} .) ID = 8706
- 19) If you install a Dialog Builder OPK that contains a DLL onto a network client computer, the DLL is not found when you run the Origin client and the Dialog Builder application. ID = 8676



20) If you save a notes window with spaces in the file name, you cannot open the file using the **open -n fileName [winName]** command. (Note: Enclose *fileName* in quotation marks ".") ID = 8608

21) If the *winName* notes window currently exists, the **open -n fileName winName** command will not open *fileName* into *winName*. ID = 8608

22) When simultaneously fitting multiple datasets, simulation does not always produce a theoretical curve. ID = 7585

23) If you click on the Data Selector tool from the Tools toolbar when a ternary diagram is active, Origin crashes after you click Yes in the Reminder Message. ID = 8733

24) User defined DLL fitting functions do not work on a network client installation. ID = 8703

Origin and OriginPro Additions

1) The nonlinear curve fitter now supports external DLL fitting functions where expressions for the partial derivatives are supplied in the implementation of the function. ID = 8665, 8639

2) The nonlinear curve fitter now supports external DLL fitting functions with more than one independent variable. ID = 8639, 7018

LabTalk Additions and Changes

1) The **cell(colNum,rowNum)** function has been changed to **cell(rowNum,colNum)**. ID = 8606

2) Instead of referencing a cell using the **wksName!col(colNum)[rowNum]** notation, use the **wksName!cell(rowNum,colNum)** notation. ID = 8606

3) A new option has been added to the **layer** command to copy all data plots from one layer to another:

layer -ic plotName layerNumber;

where *layerNumber* can be a variable that represents the layer number (1, 2, 3...). ID = 8670

4) The **exist()** function has been expanded to check the version number and date of a DLL.
version=exist(fileName,1); // 1, 2, 3, or 4 to get the four bytes from the version resource
date=exist(fileName,5); // get the date in double, same unit as @D or internal Julian date system. ID = 8591

5) Wizards developed with Dialog Builder can now be modeless. To open a modeless wizard, use the **dialog.start(DIName, DialogName[,ProcedureName][,OriginWindowState])** method. ID = 8671

6) When displaying a graph in a Dialog Builder resource, use the following property to get the name of the source graph: **DialogName!GraphPlaceholderName.graph\$**. ID = 8739

7) New methods have been added to the Dialog Builder edit box object

EditBox.save(path\fileName) Write the contents of the edit box to an ASCII file.

EditBox.read(path\file.ext) Read text from the specified file and display it in the edit box.

Handles up to 64 KB in size.

EditBox.set(strVar) Write the contents of the edit box to the specified string variable. The %A through %Y string variables have a buffer length of 267 bytes. For %Z it is 8192 bytes.

EditBox.get(strVar) Read the contents of the specified string variable and display it in the edit box. ID = 8667

8) A method has been added to the **type** object to clear the Results Log

type.clearResults() Clear all the results from the Results Log. ID = 8719

9) A property has been added to the **mat** object

mat.profile.interpolate Control whether or not interpolation is used with the **mat.profile()** method. 0 = no interpolation, 1 = interpolation. ID = 8700

Documentation Updates

1) The **image** object was incompletely documented in the version 6.1 LabTalk Help file. The complete information follows:

Properties:

FileName\$ Read/write, string. Use to specify the source and destination file name.

LibError Read only, numeric. Equals the last error that occurred in a third-party library. The **image** object is handled by the OIMG60 DLL. This DLL makes calls to third-party libraries. If an error occurs in a third party library then **LibError** will be set to the error number returned by the third-party library.

ShowOptions Read/write, numeric. Used to specify if the Options dialog box should be displayed when the Image Export methods are called.

Methods:

GetExtList(*strVar*, *list*) Get a list of supported file extensions and put it into *strVar*.

The extensions depend on the value of *list*. *list* can be one of the following:

"EP" = Export Page
"EM" = Export Matrix
"IM" = Import Matrix
"R" = Raster
"V" = Vector

Returns the number of extensions copied into *strVar* or -1 for error.

IsVector(*extension*) Test if the specified extension is a vector format.

Returns 1 if format is vector, else 0.

Export SubObject:

Properties:

TempRaster Read/write, numeric. When exporting to a raster format Origin creates a temporary image that will be converted to the destination image by the third-party library. Origin can pass an EMF or a BMP to the third-party library. Each format has its advantages and disadvantages. This property specifies which format to use.

0 = EMF
1 = BMP
2 = BMP first, if BMP not successful then EMF

Option two exists because high resolution BMPs can quickly consume lots of memory and Windows 95 and 98 are limited to 16MB BMPs in memory. If the BMP is fails to be created then Origin will try an EMF.

VectorKeepSize Read/write, numeric. When exporting vector formats Origin will pass an EMF to the third-party library. EMFs and WMFs are created using the Copy/Export Page Settings on the Page tab of the Options dialog box. If **VectorKeepSize** is 0 then the metafile is created using the settings in the dialog box. If **VectorKeepSize** is 1 then the metafile is created using the following settings:

Ratio = 100	System.CopyPage.Ratio = 100
Margin Control = Page	System.CopyPage.Closeness = 2
Advanced On (Simple off)	System.CopyPage.Advanced = 1
Keep Size On (Set Resolution off)	System.CopyPage.AdvKeepSize = 1

Methods:

Matrix(*matrix_name*, *image_type*) Export a matrix window to a raster gray scale image. *matrix_name* is the name of the matrix window to export.

image_type is the destination image type.

The destination file name is specified in **Image.FileName\$**.

Example:

```
Image.FileName$="myimage.bmp";  
Image.Export.Matrix(Matrix1, BMP);
```

PageDPI(*image_type, dots_per_inch, bits_per_pixel, compression*) Export the active graph or layout window to an image using a dots per inch resolution.

bits_per_pixel is the color depth. Not all image types support all color depths. If the color depth specified is not supported by the specified image type then Origin will use the best matching color depth supported by the specified image type.

compression is the type of compression to use. Not all formats support compression.

JPG can be from 2 to 255.

TIF can be 0=none, 1=packbits, 2=LZW (if enabled)

The destination file name is specified in **Image.FileName\$**.

Example:

```
Image.FileName$="myimage.bmp";  
Image.Export.PageDPI( BMP, 96, 24, 0 );
```

PagePixel(*image_type, width_in_pixels, height_in_pixels, bits_per_pixel, compression*)

Export the active graph or layout window to an image using a width and height in pixel resolution.

bits_per_pixel is the color depth. Not all image types support all color depths. If the color depth specified is not supported by the specified image type then Origin will use the best matching color depth supported by the specified image type.

compression is the type of compression to use. Not all formats support compression.

JPG can be from 2 to 255. 2 is high quality, low compression. 255 is low quality, high compression.

TIF can be 0=none, 1=packbits, 2=LZW (if enabled)

The destination file name is specified in **Image.FileName\$**.

Example:

```
Image.FileName$="myimage.bmp";  
Image.Export.PagePixel( BMP, 640, 480, 24, 0 );
```

Import SubObject:

Methods:

Matrix(*matrix_name*) Import an image into a matrix.

matrix_name is the name of the destination matrix window.

The source image file is specified in **Image.FileName\$**.

Example:

```
Image.FileName$="myimage.bmp";  
Image.Export.Matrix(Matrix1, BMP);
```

FileDialog SubObject:

Properties:

Title\$ Read/write, string. Dialog box's title/caption. If set to "" then Windows default captions are used.

Path\$ Read/write, string. Default and ending path.

FileName\$ Read/write, string. Default and ending file name.

FileTypes\$ Read/write, string. Image types to display in the dialog box's "Files of type" list. This should be set to a list of image types returned by the **Image.GetExtList** method.

FileType Read/write, numeric. The index of the default and ending image type in the dialog box's "Files of type" list.

Preview Read/write, numeric. Set to 1 to enable or 0 to disable the dialog box's preview window.

Methods:

Open([strVar]) Show the Open dialog box. If the optional *strVar* is specified then the string variable will contain the full file name if the dialog box closes on OK or Open.

Example:

```
Image.FileDlg.Open( );
```

2) The **system.product** and **system.resolution** properties were incompletely documented in the 6.1 LabTalk Help file. Updated information follows:

Only the first bit of the **system.product** property tells you if the version is OriginPro or not. To make a true determination, you must do a bitwise AND of **system.product** and the value 1 using the bitwise AND operator (&). For example:

```
if (system.product&1==1) {type -b "OriginPro";} else {type -b "Origin";};
```

The **system.resolution** property is the X resolution of the page and is dependent on the resolution of the printer driver in dots per inch (dpi). For related information, see the **page.resX** and the **page.resY** properties.