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# **MagicPlot Release Notes**

## MagicPlot 2.7.2, Bug fixing release, September 18, 2016

- Fixed: 0000210: [Plots] Regress in 2.7.1: Negative minor ticks are not displayed in some cases.
- Fixed: 0000206: [Other] Project Tree does not update after opening project that does not exist.

## MagicPlot 2.7.1, Bug fixing release, September 9, 2016

- Fixed: 0000203: [Plots] Minor ticks count in Log scale cannot be set correctly.
- Fixed: 0000198: [Other] 'Add & Arrange Axes' dialog box is opened under 'Figure Preferences' dialog in some cases.
- Fixed: 0000117: [Image Export] White rectangle is created over the canvas in EPS when opening in selected applications (TeX's epstopdf converter was affected).
- Fixed: 0000205: [Plots] Manual Increment entered is not multiplied by Multiplier.

## MagicPlot 2.7, Major update, June 29, 2016

Introducing MagicPlot 2.7

#### **Notes**

- MagicPlot 2.6 release was skipped.
- The development was slow in 2014 and resumed in 2015; Plotvisor 2.0 application was released in Oct 2015.
- Java 7 or later is now required on Windows and Linux/Unix, Java 8 or later on Mac OS.
- The MagicPlot Pro 2.5.x license is valid for v. 2.7.x (it is a free update for current users).

#### Changes

- Added: Color map plots (aka surface plot / heat map / 2D plots): non-uniform matrix support, interpolation support, Pro edition only [0000002]. See also: Manual topic on Color Map Plots.
- Improved: New dialog windows style (previously used only in Processing dialogs) [0000189].
- Improved: Special symbols/characters dialog moved to Tools menu [0000057].
- Improved: Replaced Java2D stroke normalization with explicit coordinates rounding [0000138].
- Improved: Removed unused parts of eps prologue [0000112].
- Improved: When template is applied, empty (in template) legends are kept as is [0000124].
- Improved: Legend titles are 'overloaded' with column name when plotting the same columns from multiple tables [0000131].
- Improved: Rounded ticks positions when using axis multiplier [0000104].
- Fixed: Nonlinear fitting: When Y error columns are set, weights must not be normalized to calculate the correct chi square in fit report [0000081].
- Fixed: Fit Plot: Saving 'Sum', 'Data-Baseline' checkbox values to project and add undo for them [0000070].

- Fixed: Inspector toolbar was not updated when selecting curves from Figure properties components table [0000188].
- Fixed: Bug with changing scale type when deleting axes box [0000099].
- Fixed: 'Custom grid lines' table behavior (focus) [0000160].
- Fixed: Smoothing of curve from Fit Plot on Figure: 'Replace curve' changes Fit Plot (should not) [0000113].
- Fixed: Log scale is not displayed in Processing preview in Smooth dialog [0000114].
- Fixed: Data Curve Properties dialog is not updated when data columns change [0000133].
- Fixed: Path2D points limit optimization must not be used for export rendering [0000110].
- Fixed: EPS/Postscript: Canvas size is not interpreted by all applications [0000111].
- Fixed: MagicPlot does not take into account current screen (multi monitors) [0000127].
- Fixed: Processing of curve with index X column does not work [0000132].
- Fixed: No error message is shown if inserted image is absent in project file [0000140].
- Other minor bug fixes.

Numbers in square brackets are the ticket ID's from our internal issue tracker.

## MagicPlot 2.5.1, Bug fixing release, June 25, 2013

- Fixed: Some bugs in saving batch processing summary table evaluator
- Improved: Peak guess dialog must not remember the number of previously guessed peaks
- · Other little fixes

## MagicPlot 2.5, Major update, May 22, 2013

#### Introducing MagicPlot 2.5, 2.5.1

- Added: New processing features: smoothing, convolution, deconvolution, correlation
- Added: Processing of multiple curves/columns from table/figure in one processing dialog
- Added: Full fit function formula in Report tab
- Added: All processing dialogs show preview plot
- Added: 'Create Fit Plot' menu item on Figure curves
- Improved: Faster application launch
- Improved: Selected cells in unfocused tables are shown with gray background
- Improved: 'Delete emptied Figures' checkbox in confirm deletion dialog
- Improved: Faster progress dialogs updating
- Improved: Smart limitation for undo history to prevent unavoidable memory leak
- Improved: New algorithm for peaks guessing
- Improved: Automated unit tests for processing routines and nonlinear fitting (incl. NIST data sets)
- Fixed: Curve colors alternation when adding curves, including batch processing
- Fixed: Saving some deleted images to project file (mistakenly taken from undo history)
- Fixed: Negative sizes in dimensions toolbar did not work
- Fixed: Incorrect formula correction when multiple columns are deleted
- Fixed: Avalanche deletion of evaluators which use deleted components
- Fixed: Creating inset axes: copies unnecessary properties from current axes style
- Fixed: Import multiple text files: Columns with numbers greater than the number of columns in first row were treated as text
- Fixed: Project tree sometimes can stop reflecting the project structure

• Fixed: Calibry Light font crash on Windows with Oracle Java 1.6\_45 and 1.7\_21 fontmanager.dll (Update: Bug fixed in Java 1.7\_25)

## MagicPlot 2.3, Minor update, June 7, 2012

- Improved: EMF and vector image copy on Windows: coordinates tolerance increased
- Improved: EPS, PDF: writing real font postscript names without fonts embedding
- Improved: Show trailing zeros checkbox did not affect axes labels
- Improved: Hand tool does not select and move objects when image is zoomed in
- Improved: Batch Processing: Confusing legends on Figure when adding curves to existing Figure
- Fixed: EPS: Landscape orientation activated mistakenly
- Fixed: On Mac OS X: Helvetica plain font was mistakenly written in vector images as Helvetica-Light
- Trial period is 30 days, no need to request trial key!

## MagicPlot 2.2, Major update, May 21, 2012

Introducing MagicPlot 2.2, 2.3

#### Improvements in Vector Image Export

- EPS, PDF: Font embedding fixed, including non-Latin characters
- EPS, PDF: Writing correct Postscript font names for 14 standard fonts
- PDF: Transparency support fixed
- EPS: Transparency support added (with pdfmark tags)
- SVG: New export format added
- EMF: Objects misplacement fixed
- Unnecessary items removed from file format options dialogs

#### **Other Major Improvements**

- Added: Inserting raster images on Figures and Fit Plots
- Added: Setting column formulas from inspector toolbar
- Added: Automatic formulas correction when used columns positions are changed
- Improved: Standard fonts are replaced with analogs if not present when opening project on other OS (Times, Helvetica, Courier)
- Improved: Automatic installing for all users (no need to re-enter key for each user account)

#### **Minor Improvements**

- Fixed: Image export on OpenJDK failed
- Fixed: Importing multiple files when 'opening with' in Explorer/Finder: Only one Import dialog opens for all files
- Fixed: Limit of length of names of project entries introduced
- Fixed: Delta X field in 'Create Table from Curves' worked incorrectly
- Fixed: Table did not get focus by click on header

- Fixed: Fit Interval in batch processing was mistakenly updated if it was full interval in template
   Fit Plot
- Fixed: Double slant of italic fonts on Mac OS X
- Improved: Drawn objects can be moved to the back of the axes
- Improved: Checking loaded project version and ask for program update
- Added: '\$' variable which means current column number, i.e. col(\$) = col(\$-1)
- Added: Opening projects and file import by dragging files into MagicPlot window
- Other fixes

## MagicPlot 2.0.1, Minor update, Dec 1, 2011

· Some bugs fixed

## MagicPlot 2.0, Major update, Nov 8, 2011

#### Introducing MagicPlot 2.0

- Added: Batch Processing and Fitting Series tool (Pro edition only)
- Added: Text columns in tables
- Improved: Multi-core optimization in curve fitting
- Improved: Copying/pasting of column names with copying/pasting table data
- Improved: 'Auto detect' alternative in comment lines prefix on import dialog
- Improved: 'Maximum iterations number exceeding' shows message about fit error
- Improved: New shortcut for creating Table (Ctrl+T)
- Improved: OS X full-screen support (requires Mac OS X 10.7 with Java Update 1 installed)
- Many minor improvements and bugs fixed

#### MagicPlot 1.5, Major update, May 24, 2011

#### Introducing MagicPlot 1.5

- Added: Pro: Sorting tables
- Added: Pro: Table Transposing
- Added: Pro: Statistics toolbar
- Added: Table columns statistics functions in column formula
- Added: Pro: Histograms calculation
- Added: Vertical bars drawing
- Added: Pro: Quick Plot tool
- Added: Fullscreen mode (F11)
- Added: Opening multiple projects in one instance of app, importing with '-silent' key
- Added: Remainder Operator % in parser (all formulas, calculator, etc.)
- Added: Exporting multiple images and tables from project tree context menu, expand/collapse all menu item in Project context menu
- Improved: 'Use alternative text output method for export/printing' checkbox in preferences
- Improved: Fit Plot: Sum fit interval is updated when x data range is changed if interval was 'full' before changing
- Improved: Plot data points under mouse cursor are denoted on mini-plots also (import dialog, histogram dialog, etc.)

- Improved: Axes scale and titles can be applied from Figure template
- Improved: Excel-like shortcuts Ctrl+Arrows for table navigation
- Improved: Highlighting text labels and invisible components on mouse over
- Fixed: Drawing of Fit Curves with breaks (when y = NaN or infinite)
- Fixed: Exporting tables in text files: decimal separator from MagicPlot Preferences was used instead of system default decimal separator
- Fixed: Create Tables from Curves: index x column was not exported
- Fixed: Mac OS X: Selecting table columns with Cmd
- Fixed: Incorrect rounding of values on axes with manual increment setting in some cases
- Fixed: Incorrect line and parabola curves anchor points moving if some parameters are locked
- Fixed: Creating a copy of a table with FFT evaluator which uses columns from not cloning table
- Fixed: PDF export and copying without margins
- Fixed: Illegal size of EMF images and copied vector images on Windows
- Some little bugs fixed

## MagicPlot 1.4.1, Minor update, Mar 04, 2011

#### Introducing MagicPlot 1.4

- Added: Move Table(s) to another Folder
- Fixed: Custom curve equation editing: error if new equation contains a syntax error and the number of found parameters is less than before this edit
- Fixed: Error if plot contains only 1 point with big coordinates (~ >1e15), autoscale did not work
  in this case
- Fixed: Inverse order of curves in Guess Peaks
- Fixed: Ctrl+A shortcut did not select all axes on Figure
- Fixed: 'Import Table here' on first Folder does not select this folder in Import dialog
- Some little bugs fixed

#### MagicPlot 1.4, Major update, Feb 22, 2011

- Added: Joint parameters can be proportional, not only equal
- Added: Reading and renaming table column names when importing tables from text files
- · Added: Import tables from clipboard with import wizard
- Added: Setting the scale of selected axes in inspector toolbar
- Added: Creating a copy of Tables, Fit Plots and Figures
- Added: Curve selection, editing cure style in inspector panel without dialog opening
- Added: Cut, Copy and Paste curves between Fit Plots and Figures
- Added: Tab/Shift+Tab and arrow keys select next/previous curve on plot or figure
- Added: Changing Fit Curves order by dragging in curves table
- Added: Adjusting parameters with mouse wheel (with Ctrl pressed)
- Added: Help about inserting Greek letters and math symbols in shortcuts window
- Added: 'Colorize Selected' item in color button menu when multiple curves are selected
- Added: Parameters covariance matrix in Fit Report
- Improved: Correct processing of missing values and repeated column delimiter in imported text file with table
- Improved: Highlighting of suspicious curve (peak) if fit has not converged
- Improved: Text redrawing on Figures and Fit Plots was optimized: much faster redrawing of big texts

- Improved: New table is created in selected dataset in project tree if any
- Improved: Adding Figure components in Figure properties dialog: project tree view improved, double click support
- Improved: Using row number as X when adding table data to Figure, adding multiple data without closing dialog
- Improved: Setting Y error column just in import wizard
- Improved: Image zoom "smoothed"
- Improved: Scale (linear/log10) type is now saved in Figure templates
- Improved: Adding data to Figure from multiple Tables (in Figure properties dialog): Column selection dialog is showed once for all Tables
- Improved: Continuous interval selection of legend labels (and curves) with Shift
- Improved: Fit stops after the consecutive iterations (not one) which changes Chi square smaller than the minimum deviation decrement
- Improved: Coping and pasting tables: No more 'NaNs' in copied tables, empty rows are preserved when pasting
- Improved: Message about ignoring weightings by incorrect Y error while fitting
- Fixed: Table from Curves failed to add table to new folder, some tooltips were added
- Fixed: Inverted scale: log scale labels, scrolling, splitting fit intervals
- Fixed: Custom grid lines at 0 position
- Fixed: Scale scrollbars bounds did not account for Fit Curves after opening of Fit Plot
- Fixed: Multiple selected objects bringing to front and sending to back
- Fixed: Ctrl+Ins, Shift+Ins, Shift+Del shortcuts did not work with drawn objects and in text label editing
- Fixed: Marker types setting when adding multiple data to Figure
- Fixed: Issue on deleting table with Fit Plot data which is used on Figure
- Fixed: Incorrect numbers rounding when axes labels multiplier is not equal to 1
- Fixed: Fitting with joined parameters when not all joint curves are summed
- Fixed: Drawing error bars when showing fit residual
- Fixed: Columns rearranging on Linux with Win (Meta) key pressed
- Fixed: Critical issue with saving project files with " (quotes) in some Figure legends
- Fixed: Legends format is some cases was not saved in project file
- Fixed: Joining parameters of one curve
- Fixed: Absence of error for formula a^-b in some cases. Now braces are always required: a^(-b)
- Fixed: Measuring distance with scale zoom tool: current axes selection was ignored
- Fixed: Undo of changing image size in some cases
- Fixed: Filling under spline-connected data curves
- Fixed: Critical issue: incorrect accounting for y errors from columns in fitting
- Fixed: Deleting table with deleted columns with evaluators
- Fixed: Undoing custom fit equation editing with illegal expression
- Many other little improvements and fixes

## MagicPlot 1.3.2, Bug fixing and minor update release, Dec 10, 2010

- Added: Log10 scale
- Added: 'Restore Auto Positioning' context menu item for manually positioned axes labels and legends
- Added: Changing canvas size option: scale image or resize canvas only
- Added: '% of Canvas Size' units in Dimensions toolbar
- Improved: Positions of pasted drawings are more useful
- Improved: Arrow keys move objects by 1 mm, and by 0.1 mm with Shift key pressed

- Improved: Pasting drawing objects with preserving x and y coordinates of original objects (when canvas size is enough)
- Improved: Drawed objects scaling when applying Figure template with changing Canvas size
- Improved: Editable fields for line widths, etc.
- Fixed: Error bars are not shown after project opening before updating error data
- Fixed: Unclear error bars and drop lines rendering
- Fixed: Mouse cursor coordinates are calculated incorrectly if canvas is zoomed
- Fixed: Opening image export dialog error if 'Desktop' API is not supported by JVM (e.g. on Kububtu)
- Fixed: Error on setting zero scale interval
- Multiple little improvements

# MagicPlot 1.3.1, Bug fixing and minor update release (strongly recommended), Nov 26, 2010

- Added: Residual button on Fit Plot which shows fit residual while pressed
- Added: Additional types of data markers and arrows
- Added: Connecting data points with Bezier spline
- Added: Distance measurement with zoom rectangle
- Fixed: Error on saving projects with 'computed' NaN values ('invalid entry crc-32' error message)
- Fixed: The old project file will not be rewritten if project saving fails on disk error or internal bug
- Fixed: Smoothing in Guess Peaks dialog does not work
- Fixed: Memory leakage on project closing in some cases
- Fixed: Fuzzy rendering of arrows and markers on screen
- Fixed: Index column values if used on plots and figures begin now from 1, not from 0
- Fixed: Added clipping for line-connected curves (more efficient redrawing, vector files size was reduced)
- Fixed: Applying Figure templates: axes titles text format was mistakenly applied
- Fixed: Slow dragging of multiple objects
- Multiple little improvements and fixes

## MagicPlot 1.3, Major update, Oct 25, 2010

#### **New Major features**

- Added: Automatic peaks finding by 2nd derivative (Pro)
- Added: Splines for baseline subtraction with fitting capability (Pro)
- Added: Spectrum numeric integration, calculating mean, variance of peaks in 'Intervals' tab of Fit Plot
- Added: Gauss and Lorentz area-normalized curves
- Added: Copy and paste Fit Curves between Fit Plots (Ctrl+C / Ctrl+V in curves table)

#### Other new features and improvements

- Added: Processing-Transform X/Y data menu items (set column formula) for Fit Plot
- Added: Dialog for 2D Waterfall on Figure (x, y shifts)

- Added: Auto fit column by clicking on right table header separator
- Added: 'Select all' by click in upper left table corner
- Added: 'Remove' item in Curve context menu on Figure and Fit Plot, Delete and Backspace keys work for Fit Curves
- Added: 'Delete Cell in Column' menu item
- Improved: Column evaluators are indicated by blue column header and appropriate tool tip
- Improved: Setting +/- factor in FFT
- Improved: Style on Unix-like systems: no bold fonts
- Improved: History dialog shows saved state with bold font
- Improved: Selecting fit curves by mouse improved
- Improved: Y-scale buttons preserve y=0 position if it is visible
- Improved: Now you can enter expression in every numeric field
- Improved: 'Show' checkbox is automatically set when 'sum' is selected
- Improved: MagicPlot Calculator 1.1 integrated
- Improved: MagicPlot can be minimized to task bar while Calculator window is still on top
- Changed: Calculator tool is now available in Student edition also (not only in Pro)
- Fixed: Saving files with dot in name issue (name was truncated after dot)
- Fixed: Some table editing user interface issues
- Fixed: Experience on Mac OS X: MagicPlot application menu, opening projects from Finder, 'modified' symbol on window close button
- Fixed: Entering special chars on Mac using Option key now works
- Fixed: Legend text alignment was not saved
- Fixed: High-resolution icon in Windows version added
- Fixed: Set column formula: issue with setting row numbers outside the actual table size
- Many minor improvements and fixes

## MagicPlot 1.2.2, Bug fixing release, Sept 22, 2010

- Fixed: Table editing user interface issues, on Mac OS X especially
- Fixed: 'if' operator in calculator
- Fixed: Some other little bugs

## MagicPlot 1.2.1, Minor update and bug fixing release, Sept 18, 2010

#### **New Major features**

- Added: Calculator tool added
- Added: Inserting Greek letters and math symbols with keyboard shortcuts
- Added: Table column widths will never reset and are now saved in Project file
- Added: Saving and loading preferences in current working directory for portable usage (ex. on USB drive)

#### Other new features and improvements

- Added: Delete item in fit curve context menu on fit plot
- Improved: Files sorting on import
- Improved: Fit Plot naming
- Changed: Linux GTK+ look-and-feel will not more be used because of many bugs in it (icons in

- table error, no separators in menu, error on opening windows with some GTK styles, etc.)
- Changed: Improved inserting table columns and rows (now user can specifying number and before/after)
- Changed: Folders state (extended/collapsed) is saved in Project file
- Fixed: Fit Plot Data and Fit Sum show/hide state is stored in Project file
- Fixed: Import text files with dot (.) in name: the end of the name after last dot will not be trancated if it is not standard extension
- Fixed: 'Cannot create virtual machine' error on start in some circumstances (heap size problem)
- Some little bugs were fixed and some improvements were made

## MagicPlot 1.2, Major update, 18.06.2010

- Added: Setting column formula
- Added: Integration, differentiation, FFT
- Added: Multiple axes on Figures
- Added: Text label, line, arrow, rectangle, ellipse drawing
- · Many other features added
- · Many bugs fixed

## MagicPlot 1.03, Major update, 26.06.2009

Major update of plots/figures rendering, changeable axes and curves style

MagicPlot 1.02, Bug fixing release, 10.12.2008

MagicPlot 1.01, Minor update, 08.12.2008

## MagicPlot 1.0, First public release, 18.11.2008

Development started in March 2007.

# **MagicPlot Calculator Release Notes**

## MagicPlot Calculator 1.1, 16.10.2010

- Integrated in MagicPlot 1.3.
- Improved: Calculator application menu on Mac OS X implemented (About and Quit items)
- Changed: Variables field moved from the left to the right
- Fixed: Syntax highlighting update

## MagicPlot Calculator 1.0, 18.09.2010

• First release, integrated in MagicPlot 1.2.1.

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