

## RELEASE NOTES – P:IGI 3.2

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This is a descriptive list of the changes that have been incorporated into the 2009 mid-year release of p:IGI 3 (i.e. changes from version 3.1001 to 3.2010).

It covers the following topics:


- p:IGI 3.2 Feature Enhancements
- p:IGI 3.2 Bug Fixes
- Distribution File Changes
- p:IGI PCA Changes
- p:IGI WellManager Changes
- List of Changed Files and Installation Paths

### P:IGI 3.2 FEATURE ENHANCEMENTS

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#### POLYGON VISUAL QUERY MODE

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A new mode called Polygon Visual Query (PVQ) mode has been introduced to XY Graphs at the request of users. This is activated from the new PVQ mode button  on the lower toolbar. This PVQ mode is in addition to the existing Visual Query mode.

*NOTE: The saving of PVQ data points to file is currently 'blocked' and the user always saves the polygon visual query samples as a handpicked sample set. This will keep backward compatibility with the file format loading into older versions of p:IGI. The ability to save the PVQ data points as a query set will be addressed at a later date.*

The PVQ mode is relatively simple to operate.

Once the PVQ mode button  is selected then the right click context sensitive menu is used to select the 'Start Polygon Visual Query selection' option. For menu instigation, polygon point selection will not start immediately but will commence when the user next left clicks the graph.

Alternatively it is possible to start drawing the visual query polygon at the current point by holding down the shift button when left clicking the mouse to set the first polygon point at the current cursor location.

A point is added for each left click and a line indicator is drawn dynamically as the user moves the mouse to aid positioning of the next point.

Polygon lines can be drawn in a regular pattern but also with crossovers, e.g. a figure of eight, if this helps to capture the samples you require.

When the required number of points has been added to create the polygon capture area, finalise the drawing of the visual query polygon by double left-clicking at the final polygon point. Alternatively right click for the menu and select 'Finalise Polygon Visual Query selection' option to draw the visual query area and display the captured samples in the Visual Query dialog.

The PVQ area is drawn with a hatched infill to aid visibility of the samples that have been captured from the graph.

A saved sample set initiated from PVQ selection can be used in the normal way.

Node control functionality is also included with PVQ. This does not require a mode change but is toggled on and off while in PVQ mode by double left-clicking an existing visual query polygon. The functionality is based on the existing overlay polygon object, with menu options to:

- Add a node – this needs a current node selected so that a new node is added at that point
- Delete a node – removes the selected node.
- Toggle the node edit control on and off

The nodes can be dragged around to modify the capture area and the Visual Query dialog is dynamically updated to show samples as they fall in or out of the capture area.

Node deletion will effect an adjustment so that the current VQ dialog is updated to reflect any change in the number of captured samples.

The functionality for PVQ mode is also active on maps.

There are some known issues still to be addressed as indicated in the notes below.



#### PVQ Notes:

- The draw facility when creating the polygon is not currently working dynamically on maps.
- A temporary synchronisation issue can occasionally occur on the context-sensitive menu when reflecting the correct status of a finalising polygon. Synchronisation is regained from the subsequent normal use of PVQ.
- Need to fully synchronise polygons of maps and XY plots so that when a second is drawn, any existing polygon is removed if it is on the other drawing type, i.e. drawing an XY polygon removes a previous map polygon.
- The redraw of the partially drawn polygon when zooming is still an issue and is work in progress but this is inherent behaviour and so will also affect the drawing of polygon overlay objects.

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## 'COLOUR VALUES...' TOOLBAR BUTTONS

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Two buttons have been added on the top toolbar for quick access to the equivalent Page drop-down menu items 'Colour values outside typical range (entire sheet)'  and 'Colour values outside absolute range (entire sheet)' .

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## DEFAULT COLOUR PALETTE SYMBOL FOR UNNAMED ITEMS

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The default symbol for unnamed items when creating a new colour palette has been changed to a square. This used to be a cross, which remains the default for unnamed items when creating a new symbol palette.

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## OVERLAY MODES COLOURATION

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A colour distinction is now shown between the 2 modes for overlay objects, i.e. **red** for **data** objects and **dark green** for **window** objects. This affects the toolbar icons and the selection box drawn around the currently selected item.

Changes were only required for the XY, Histogram and Tri-Plot graphs.

The use of data objects on the other graph types (not listed above) appeared to be incomplete so further investigation is being undertaken to determine the applicability of overlays and expected behaviour of the modes on each of the graph types.

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## AUTO DP DETECTION (LIMITED APPLICATION)

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This is a feature for automatically detecting the decimal precision (DP) from user input of either the min or max values. It is implemented for the X axis min/max on the XY axes settings page of the graph settings dialog.

The feature is 'switched' on and off using the check box 'Auto detect from min max' next to the dp setting of the X axis. By default, the check box is unselected when the dialog is opened and user input is all as previous. Check the box and then as the user types in numbers with different decimal precision (either min or max), then the dp setting should adjust automatically and the other values displayed accordingly.

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## 'AUTO-SCALING' TOOLBAR BUTTONS

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There are 2 new toolbar buttons for auto-scaling graph axes independently, positioned next to the existing auto-scale button. This allows the user to apply auto-scaling on the X (horizontal)  and Y (vertical)  graph axes separately. Both buttons become enabled for XY plots and the Y (vertical) only is enabled for the Histogram plot, i.e. frequency.

Currently no equivalent menu options have been provided for these features.

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## HISTOGRAM Y AXIS AUTO-SCALING

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Modifications have been made to the auto-scaling feature on the Histogram; the Y axis intervals are now determined on more suitable values, e.g. 1, 2, 5, 10 multipliers.

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## XY PLOTS AUTO-SCALING

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Modifications were also made to improve the auto-scaling on XY plots, based on the improvements made to Histograms.

The improvements currently only apply to linear plots. Log plots will auto-scale as before.

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## TRI-PLOT LABELLING

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Tri-Plot axes labelling can now be positioned as side labels at an angle parallel to the relevant axis.

The total provision is now for 3 options of label placement for Tri-Plots, initially 2 mid placed options with Apex labelling to be implemented at a later date. It should be noted that currently the selection of the Tri-Plot axis labelling is transient and will not be saved with the pIGI project. The default setting on reload is mid-angled.

The drawing of frames around the Tri-Plot axis labels is overridden on mid-angled label positioning, so it will not be drawn for this label option.

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## TRI-PLOT ZOOM CONTROL

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The zoom control for Tri-Plots has been enhanced to prevent capture of negative values in the graph area.

The drag-box zooming around axes ends now keeps the zoom values positive, i.e. 0-100. The existing zoom facilities, e.g. '+' or '-' buttons, still allow the user to zoom out of the normal 0-100 range.

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## STAR PLOT LABELLING

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Star Plot labelling has been updated to position the text at end of axes, to minimise the possibility of the label text obscuring data on the plot.

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## UPDATED SPREADSHEET COMPONENT

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Incorporated the latest version of the third-party spreadsheet component, FarPoint Spread control version 8.0

- **IMPORTANT NOTE: The file SPR32D80.DLL is required for running p:IGI 3.2.**

This '.dll' is supplied with the update.

Now when scrolling spreadsheets in p:IGI to highlight cells, there are 3 speed levels of movement across the page.

Once highlighting mode is entered, by clicking and holding down the left mouse button to select the starting cell to highlight, then moving the mouse cursor

- just off the data grid starts scrolling at a slow speed,
- to the edge of the page window gives a moderate scrolling speed and
- off the page window gives faster scrolling.

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## P:IGI 3.2 BUG FIXES

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### TRI-PLOT MINI-GRAPHS

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The code now guards against a crash problem when trying to display the 'Axes - Triplot' page on the map settings dialog. This was a side-effect from the new axes label positioning feature added for normal triplot graphs, which is not applicable for mini-graphs when displayed on maps as tri-plots.

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### CUSTOM PAGE COLUMNS LIMITATION ISSUE

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Resolved a crash problem that was caused by exceeding an internal buffer when creating a custom page with a large number of columns, e .g. when typically using more than approximately 141 user-defined columns.

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### HISTOGRAM MIN MAX DERIVATION

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Added a fix to address the unusual/inconsistent auto derivation of intervals on the Histogram X axis when using the 'Derive from Min & max' button on the Histogram Axes dialog page for the X axis.

The fix has been applied to the X axis min/max text boxes to keep the min/max values that are displayed in synchronisation with the stored values within pIGI so that when a user inputs either the min or max values, they are dynamically updated and made available for any subsequent use of the 'Derive...' button(s). This aims to give more consistent values for the auto setting of the intervals.

Although this fix is to improve consistency, there is now a secondary task to look at the actual algorithm used to automatically determine intervals on the Histogram X axis, and indeed all other axes, to see if they can be improved.

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### OVERLAY OBJECT DE-SELECTION

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Added a function to deselect an object that was previously selected in the overlay select/move mode. Visually removes the 'red box' from the current data and/or window object selection when changing out of the select/move mode.

Rectified the functional control to deselect an object, and visually remove the 'selected' red box, when changing from the select/move mode to any other mode. It should deselect objects for all open graphs and graph types. This will also deselect a data object 'selected' in data object mode when changing to window object mode and vice versa.

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### GRAPH SETTINGS DIALOG - LOAD ISSUE

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Applied a fix for a Graph Settings dialog crash when using Load button and subsequently cancelling the File Open dialog.

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### WELLMANAGER IMPORT DIALOG

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The 'Other' controls on the Import WellManager dialog have been disabled, as these are currently incompatible with the latest WellManager file format and may cause a crash if selected.

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### DISTRIBUTION FILE CHANGES

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#### UPDATED AUTOGRAPHS LIST AND DEFAULT FONT

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The complete list of Autographs has been updated to use a new font, which is Calibri Bold, to improve the visual aesthetics of the graph plots.

The default graph templates have been modified to use the Calibri Bold font. This font will be the default for all newly created graphs.

The Autograph list has some modifications as follows:

<b>File Name</b>	<b>Update Status</b>
13d2 LogRock-Eval S2 vs TOC, Dembicki 2009.xyt	Added
13a3 Pseudo-van Krevelen HI-OI plot.xyt	Removed
13a Pseudo-van Krevelen HI-OI plot.xyt	Removed
13b3 Tmax vs HI with kinetic overlay.xyt	Removed
13b HI vs Tmax with kinetic overlay.xyt	Removed
13c Rock-Eval S2 vs TOC.xyt	Removed
13d LogRock-Eval S2 vs LogTOC.xyt	Removed
29a3 Gas maturity DELdel13C-1-2-3.xyt	Removed
31a Production Index vs depth.xyt	Removed
31b Production Index vs Tmax.xyt	Removed

In addition, many of the Autograph overlay objects have had the 'lock' option applied to minimise their accidental movement and also common origin points have been utilised for applicable multiple overlay objects, e.g. lines emanating from [0,0], to aid visibility particularly when zooming around that point of origin.

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### UPDATED 'DEFAULT - COLUMNS.TXT'

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Added a missing '<' bracket to the formulae for columns 503 to 506 – now works.

Change to the descriptive text for column 25, changed (C1-C4) to read (C1-C5).

For entry 557, MNR, the unit group was changed from group 30 (Peaks) to group 15 (Norm Ratio).

For entry 578, 3/2MeBiph, the formula was corrected from <576>/<575> to be <573>/<572>.

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### UPDATED 'DEFAULT - HEADERSETTINGS.TXT'

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Update entry 557, MNR, to use unit group 15 (Norm Ratio) instead of unit group 30 (Peaks), in line with the 'Default - Columns.txt' change.

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### UPDATED 'DEFAULT - UNITGROUPS.TXT'

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Modified the 'parts per million' Unit Group, Id 2, by creating a new unit entry for g/kg at position 5 (copied from group position 0) and then replacing the unit label at position 0 with a ‰ symbol.

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### UPDATED '65E AVERAGE NC12 TO NC32 PROFILES BY STRAT.BCT'

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Autograph no. 65e (Average nC12 to nC32 profiles by Strat) was missing a compound (nC16, Column [102] in the Gas Chromatography page).

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### P:IGI PCA CHANGES

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The latest p:IGI PCA version is 1.0.4.0. Contains minor changes:

1. Provided compatibility for running the PCA Utility on 64-bit platforms.
2. Added a warning message and automatic substitution with minimal value of any cells that are empty or have zero value when the 'Run PCA' button has been pressed.

Note: Major additions to the multivariate statistics module will be demonstrated at the User Group meeting in Devon (Monday 14<sup>th</sup> – Tuesday 15<sup>th</sup> September 2009), with planned release in January 2010.

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### P:IGI WELLMANAGER CHANGES

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The latest version is 1.15. Contains a minor change:

1. Fixed importing of Water Depth data into the appropriate WellManager project field.

## LIST OF CHANGED FILES AND INSTALLATION PATHS

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The updated installation files for the latest version of p:IGI are listed below. These are automatically available if the re-installation process is used to update p:IGI or the relevant files can be replaced manually using the installation path information.

Note: <InstallDir> refers to the root folder that was selected for installation. The pIGI installation folder is typically:

"C:\Program Files\IGI Ltd\pIGI\_3 (32-bit platform)" or

"C:\Program Files (x86)\IGI Ltd\pIGI\_3" (64-bit platform).

<InstallDir>\SPR32D80.DLL

The updated executable files are:

<InstallDir>\pIGI\_3.exe (version 3.2)

<InstallDir>\pIGI\_PCA.exe (version 3.0.4)

<InstallDir>\pIGI\_WellManager.exe (version 1.15)

The updated distribution files are:

<InstallDir>\Resource\Default - Columns.txt

<InstallDir>\Resource\Default - HeaderSettings.txt

<InstallDir>\Resource\Default - UnitGroups.txt

<InstallDir>\Resource\Defaults\_Original\ <Modified ALL FILES>

<InstallDir>\Resource\Defaults\_User\ < Modified ALL FILES>

<InstallDir>\Resource\Autographs\ <Modified FILES in each SUB-FOLDER>