IMDEX ioGAS™

New Features v8.2

IMDEX™

IMDEX ioGAS™

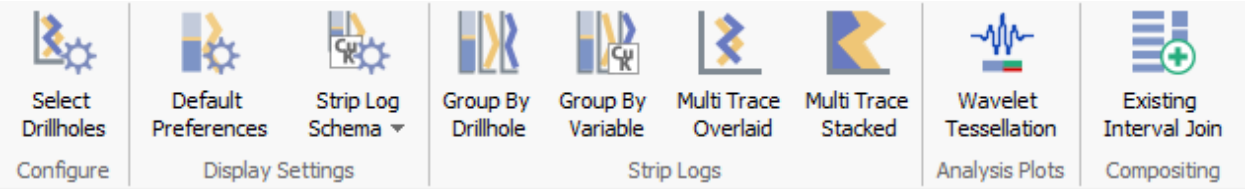
Table of Contents

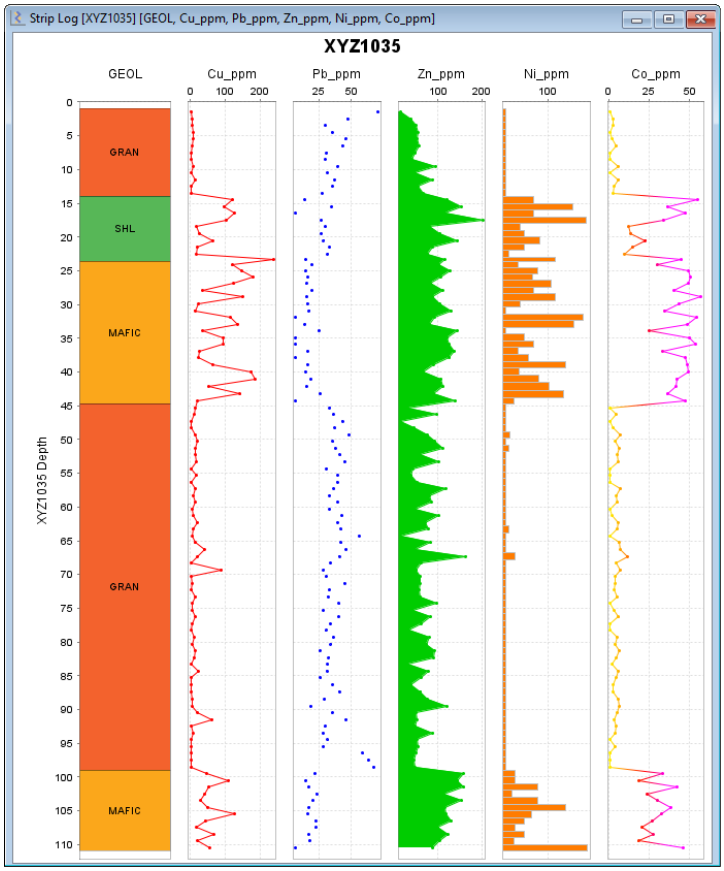
What's New in ioGAS 8.2

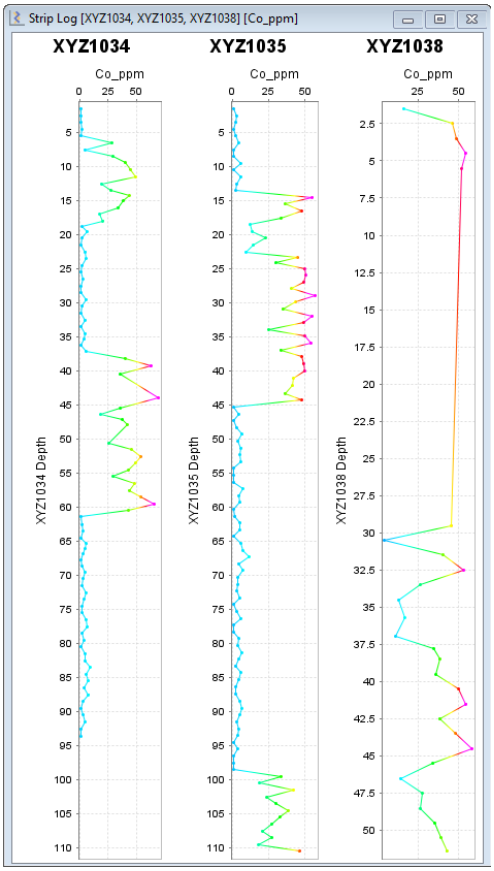
The following is a guide to the new features and improvements in this version of ioGAS.

Drillhole Ribbon

New drillhole ribbon containing expanded functionality for the configuration, creation and display of strip log plots. The ribbon also includes a new tool to composite incoming drillhole data to current data intervals and provides a new location for the existing Wavelet Tessellation tool.







- Display text and numeric drillhole data
- Multi trace stacked strip logs

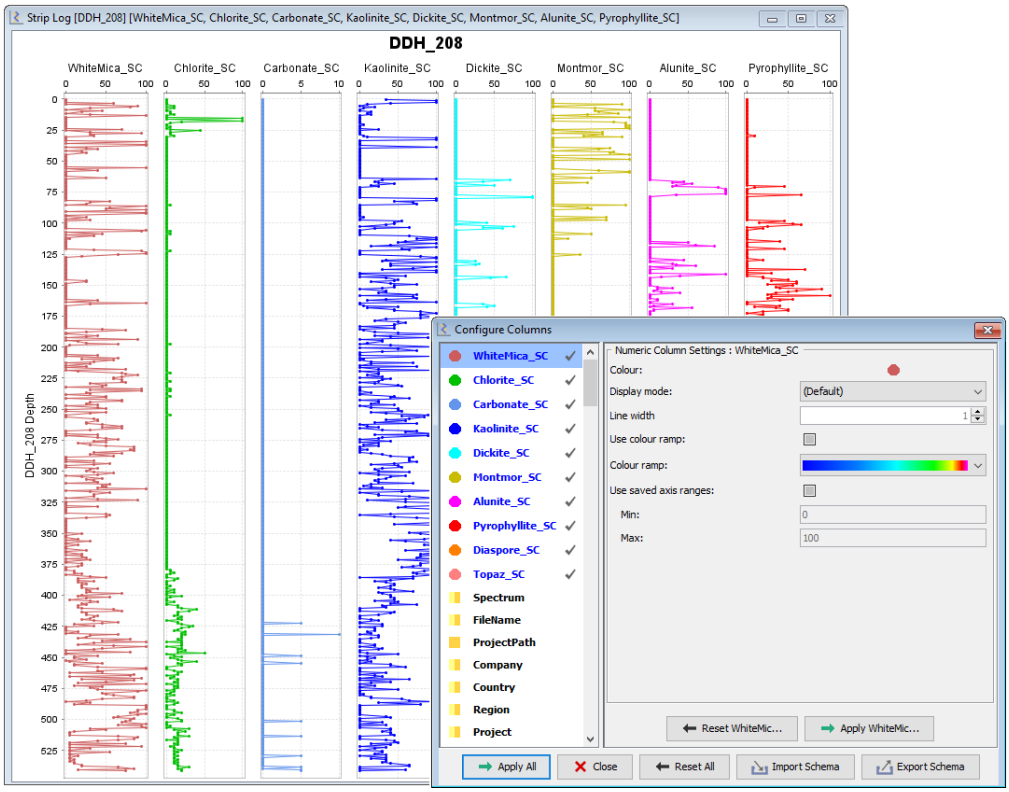
- Display multiple holes/variables in single window
- Create/save custom strip log schemas
- Set default strip log preferences
- Improved drillhole selection & configuration
- Drillhole data compositing

Display Text and Numeric Data

Many new options are now available when displaying numeric and text data in a strip log.

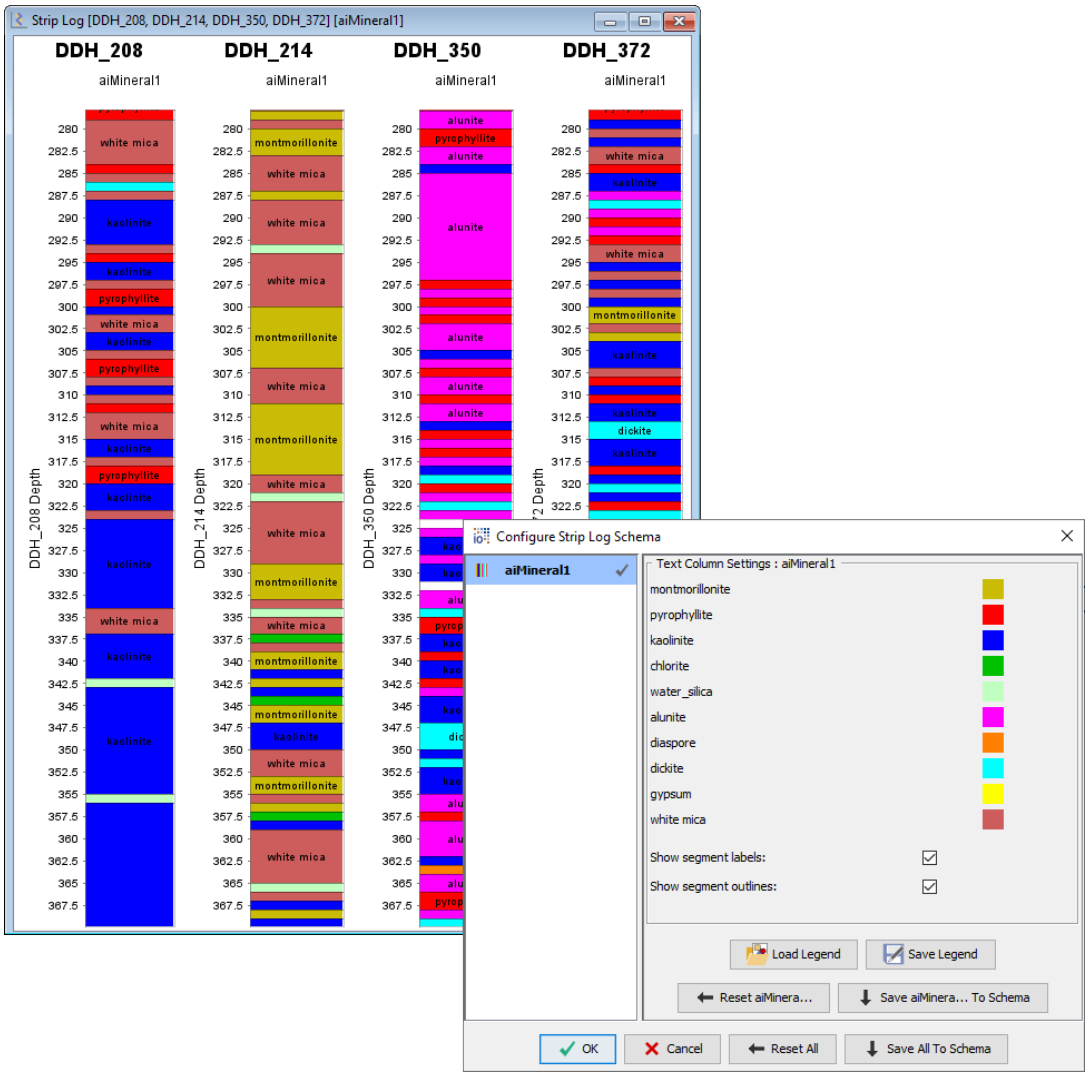
Numeric column display options

- line
- area (filled line)
- mid-point
- filled bar
- open bar
- Modify line colour and thickness
- Use colour ramp
- Use numeric colour legends
- Scale range axis by drillhole or column min/max values



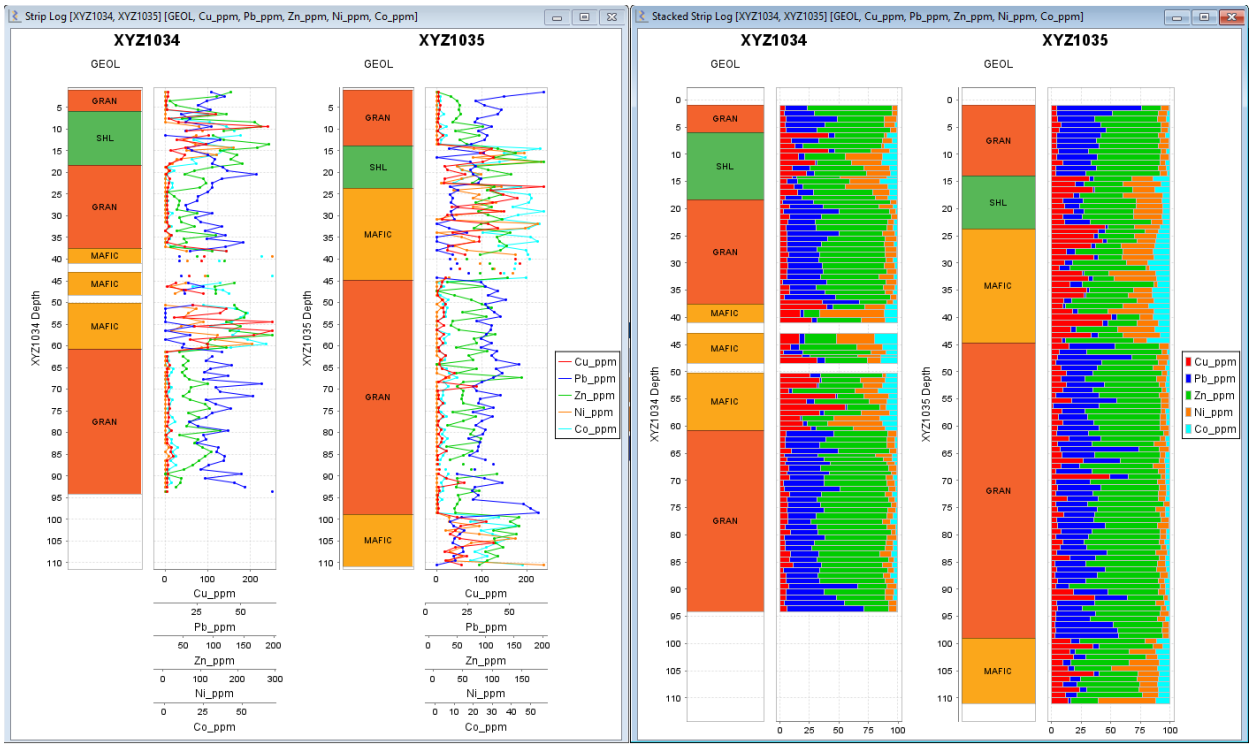
Text column display options

- Colour text by segment
- Display segment outlines and labels
- Save colour groups as legend files
- Create/load legend files in Attribute Manager
- Create legend files from RGB values



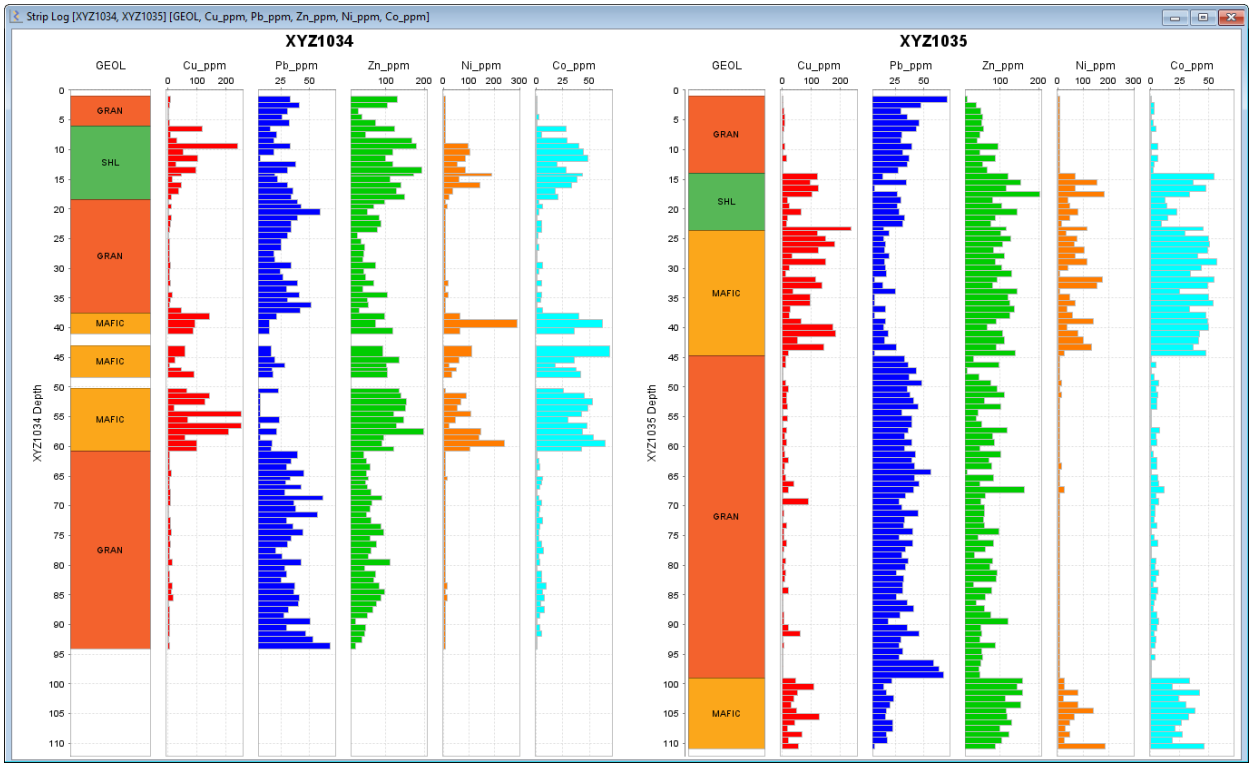
Multi trace stacked strip logs

Display multiple downhole traces in the one plot "stacked" next to each other to show the contribution of each variable to the cumulated total. The trace contributions can be displayed as raw values or as a percentage of the total.



Display multiple holes/variables in single window

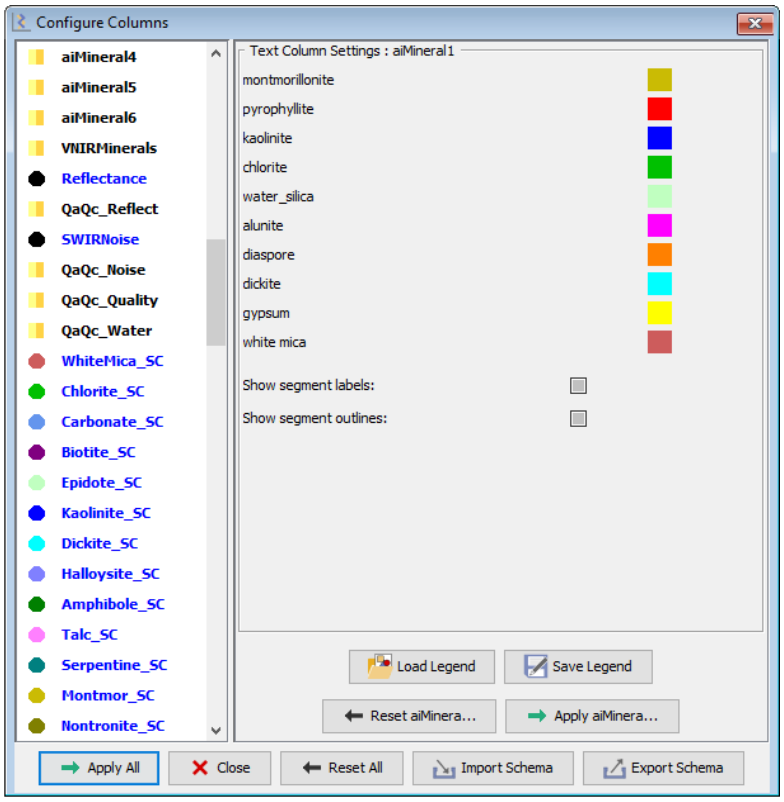
In addition to the existing Group by Drillhole and Group by Variable plots where each a single plot window is created for each drillhole or variable it is now possible to display multiple holes or multiple variables in the same plot window. To switch from single to multi display use the settings in Default Preferences.



Create/Save Custom Strip Log Schemas

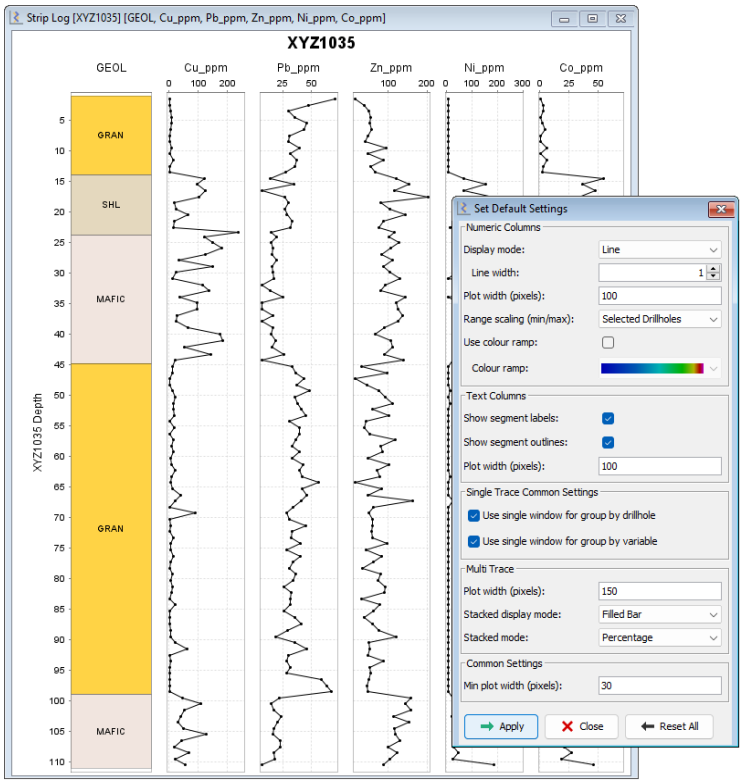
Create and save custom numeric and text column display settings in a strip log schema:

- Text and numeric data saved to strip log schema
- Export schema to xml file
- Import schema files and apply to other datasets
- Share schema files with other users



Set Default Strip Log Preferences

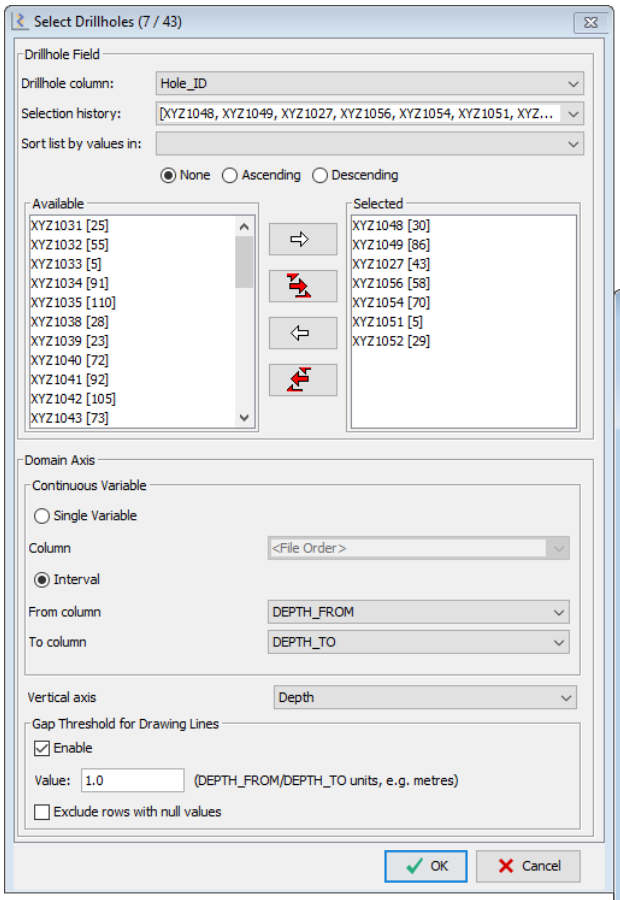
Set default display settings for numeric and text columns in single and multi trace plots.

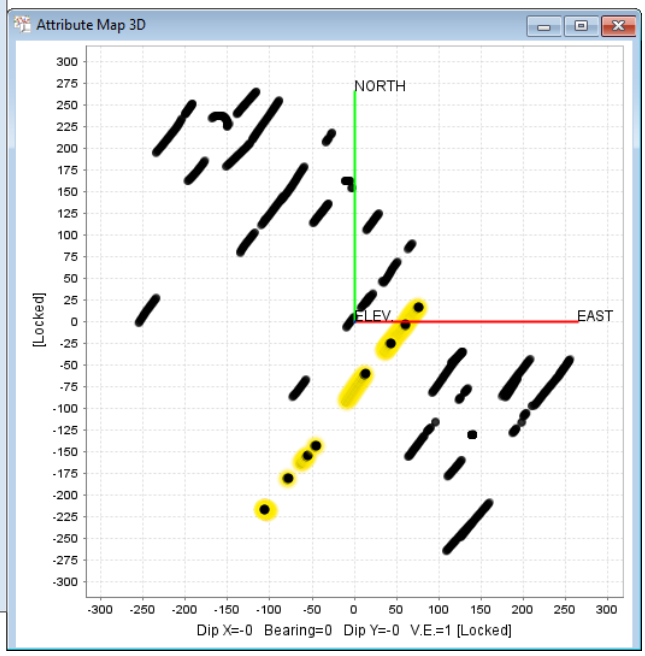


Improved Drillhole Selection & Configuration

Updated drillhole configuration dialog:

- Re-order drillholes
- Sort in ascending/descending order or by another column in the dataset, e.g. section line, easting, etc.
- Save drillhole selection history
- Exclude intervals with null entries
- Select drillholes via Attribute Map 3D window





Drillhole Data Compositing

Use the **Existing Interval Join** tool to composite data from an external file to existing drillhole intervals in open ioGAS dataset.

Methods available:

- maximum overlap
- weighted average

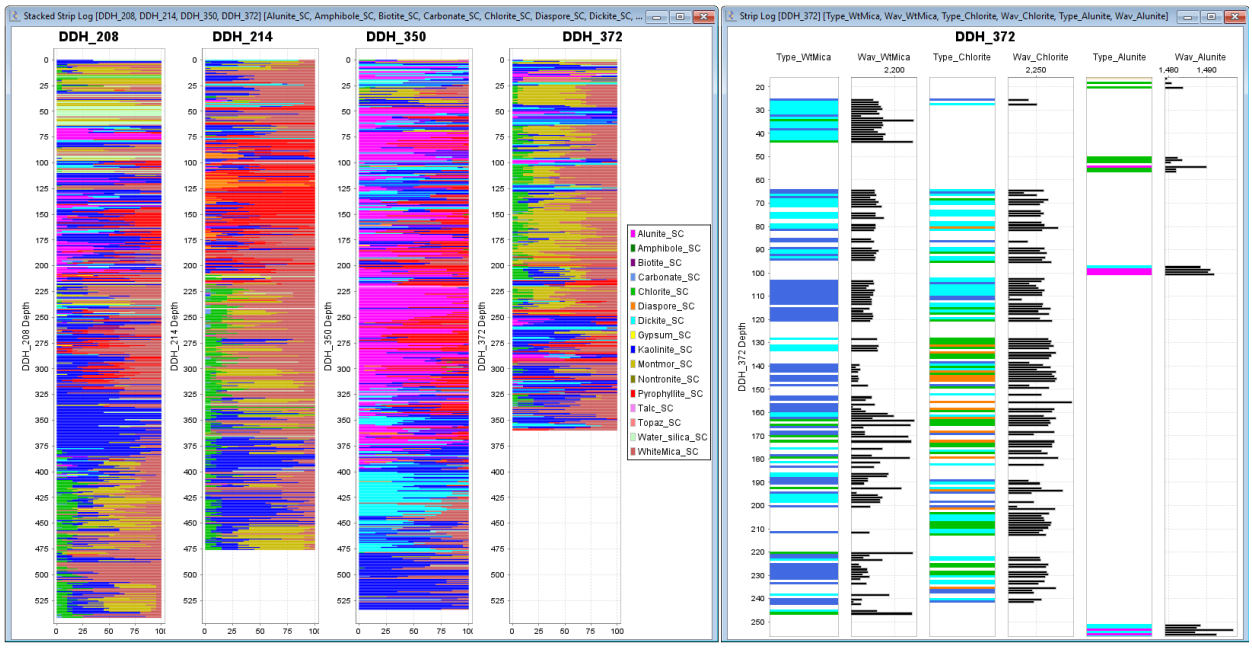
Data (All)

[Colour]	[Shape]	[Size]	[Visible]	[Order]	DDH_ID	From	To	Au_ppm	Lithology	Overlap Fraction
●	●	6	Y	0	ABC-01	0	2	4.5	Basalt	1
●	●	6	Y	1	ABC-01	2	4	2	Basalt	1
●	●	6	Y	2	ABC-01	4	6	3.5	Basalt	1
●	●	6	Y	3	ABC-01	6	8	1.8	Basalt	1
●	●	6	Y	4	ABC-01	8	10	0.1	Basalt	0.625
●	●	6	Y	5	ABC-01	10	12	0.05	Granite	1
●	●	6	Y	6	ABC-01	12	14	0.05	Granite	1

Copy All | Copy Selected | 7 of 7 rows

aiSIRIS Strip Log Examples

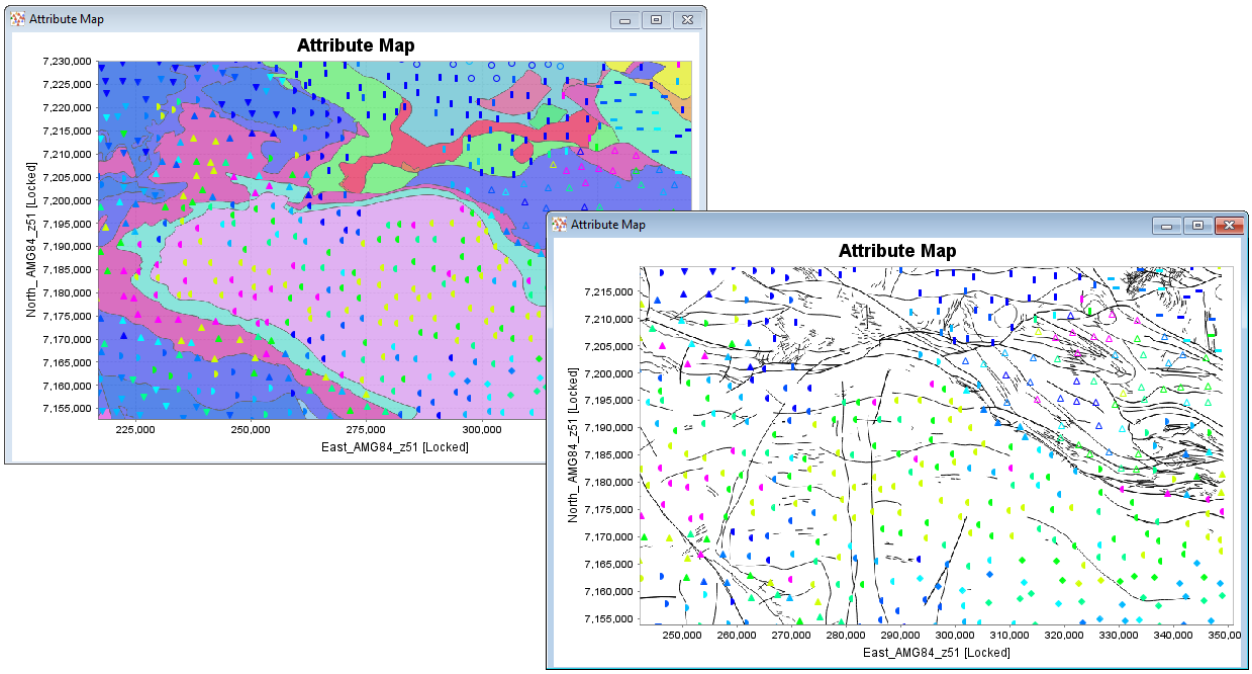
Single and multi trace strip logs using aiSIRIS spectral data.



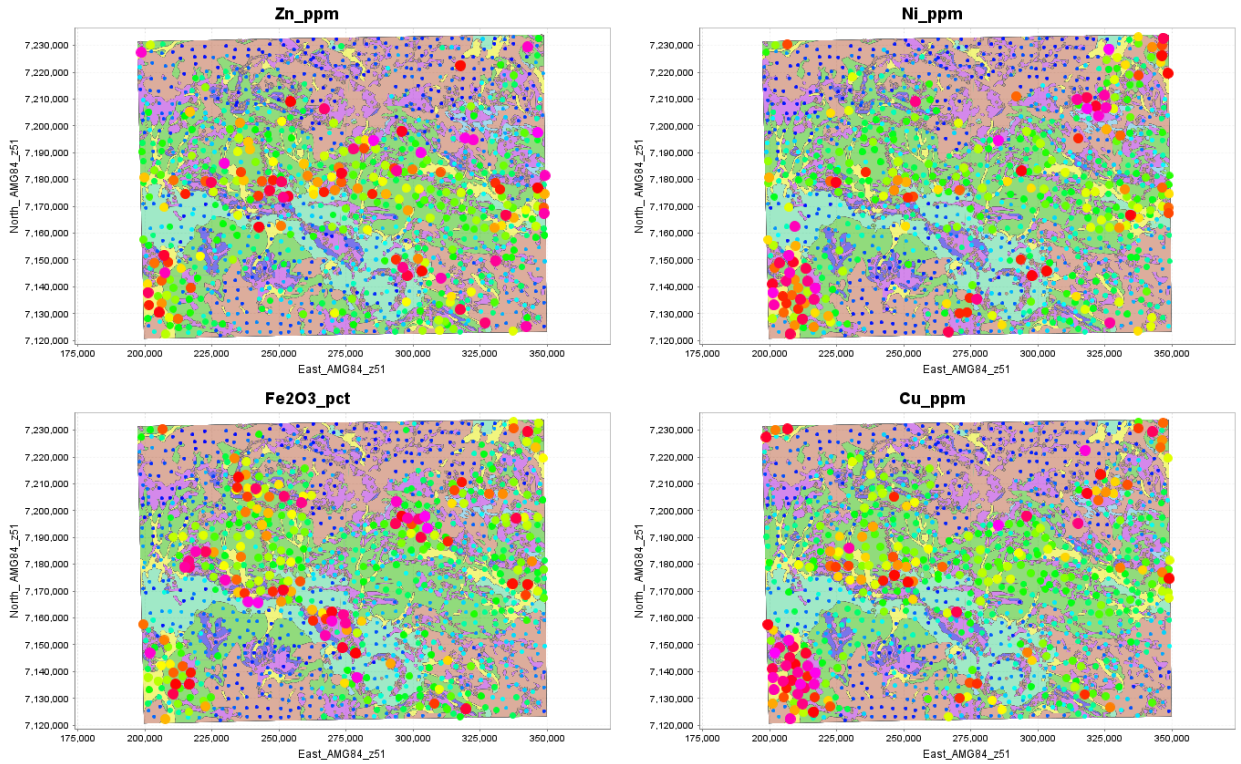
Display GeoTiff Image in Map Window

Display data points on top of a GeoTiff raster image of geological boundaries, aerial photography, geophysical survey anomalies, etc in an Attribute or Variable Map window.

Images must be in GeoTiff format (*.tif, *.tiff) and contain embedded georeference data **in the same projection** as set in the Column Properties dialog within ioGAS.



Use the **Load GeoTiff image** button on the map window toolbar to load the raster image. An attribute or variable map window can only load and display one GeoTiff image at a time. Multiple map windows can be open with each containing a different GeoTiff image. The visibility and opacity of the image can be modified using the **GeoTiff image opacity** button.



Raster images can be saved within checkpoints and .gas files however it is recommended to keep GeoTiff files as small as possible so as not to impact performance.

Improved Publication Capabilities

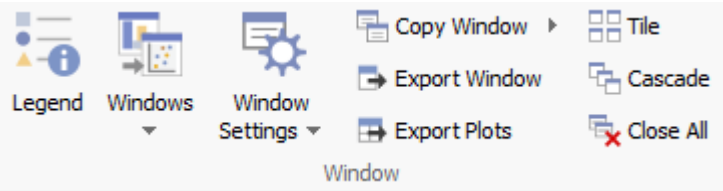
Copy or export the contents of entire plot windows or individual plots within a window to be used in reports and presentations. The following copy and export formats are now supported in ioGAS:

- Bitmap (*.bmp) - copy only
- Portable Network Graphic (*.png)
- Scalable Vector Graphic (*.svg)
- Encapsulated PostScript File (*.eps)
- Portable Document Format (*.pdf) - export only

Some window and plot types may not support all copy/export formats.

Copy/Export Window

New copy and export window options are located in the Window band on the Home, Graph, Map, Drillhole and Structure ribbons. Export Window and Export Plots options are also available from the **Save** menu in the **Common** band in all other ribbons.

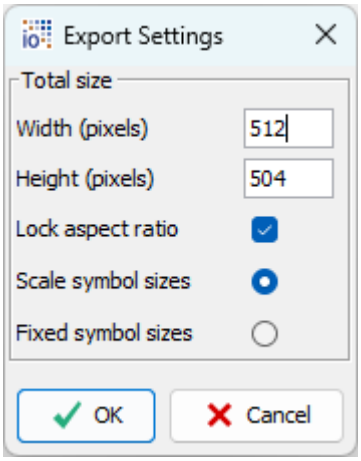


- **Copy Window** - copy plot window contents to clipboard. Use Copy Window View to copy the active window as viewed on screen as BMP image. For scrollable plot windows use the BMP, PNG, SVG and EPS options to copy the entire window contents to clipboard.

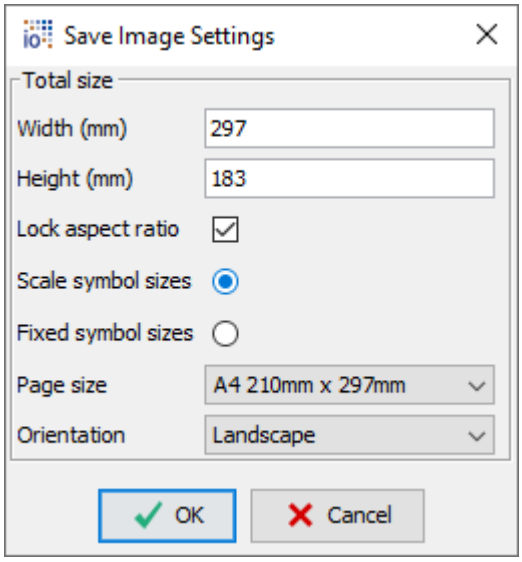
- **Export Window** - export window contents to file (one file, multiple plots). Where plots are created in a scrollable window the entire window contents are saved to file.

- **Export Plots** - batch export individual plots in current window as separate files (multiple files, one plot per file)

When exporting to PNG, SVG or EPS file formats the output width and height dimensions can be set in pixels. Plot titles and axis labels can be scaled (resized) according to output size or remain fixed.

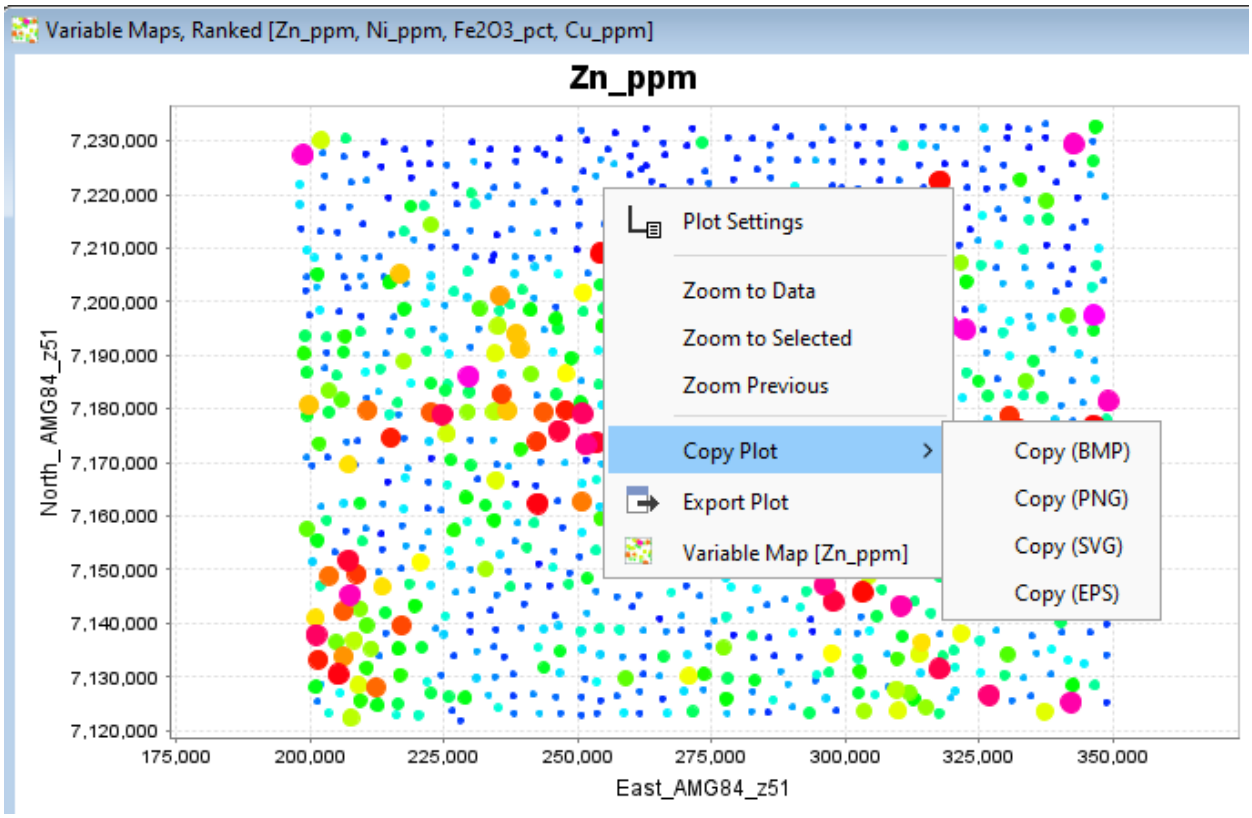


When saving to PDF format the output width and height dimensions can be set in millimetres along with page size and orientation.



Copy/Export Plot

To copy or export an individual plot use the updated copy and export plot options available from the right-click menu:

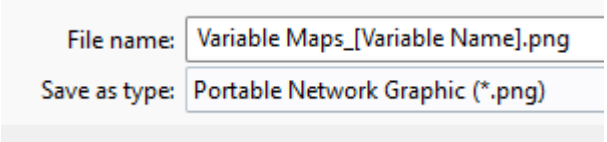


Copy/Export Legends

Where variable map, grid or point density legends are present in a plot window they are included with all copy or export options. Variable map and grid legends can also be batch exported separately using the button on their respective toolbars.

Auto Export File Naming

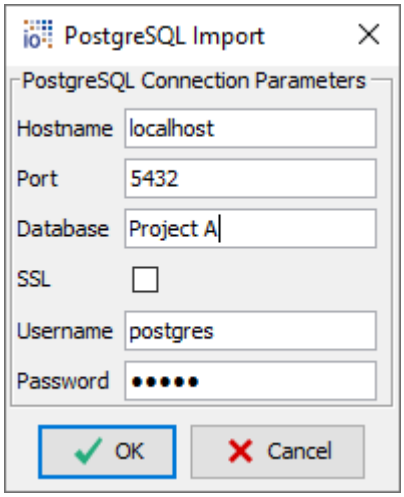
When exporting windows and plots ioGAS automatically enters a file name or a file name prefix when multiple files are to be created. Depending on the type of export the suggested file name may use the window title, plot type or plot title or a combination of these. The file names can be manually customised as well.



Database Support

PostgreSQL Import

Import data from a PostgreSQL database.



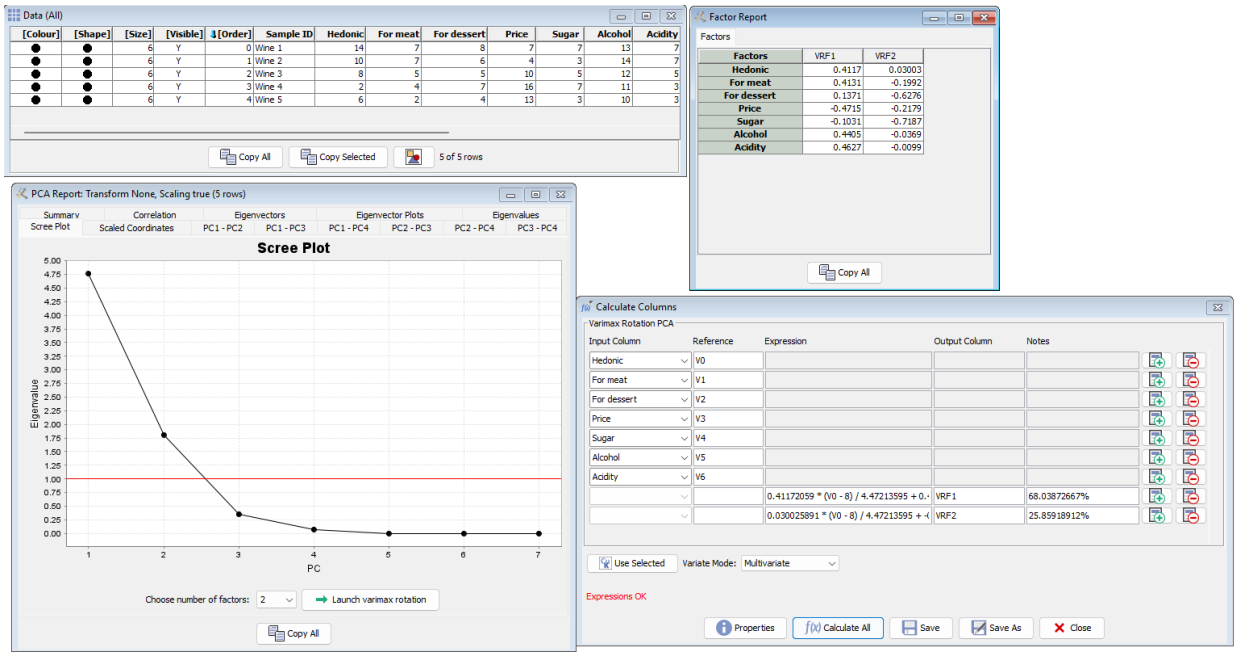
Enhanced Analysis Tools

Compositional data transforms ALR & ILR

Isometric Log Ratio (ILR) and Additive Log Ratio (ALR) compositional transformations added to the Analysis ribbon tools.

Factor Analysis (PCA Varimax Rotation)

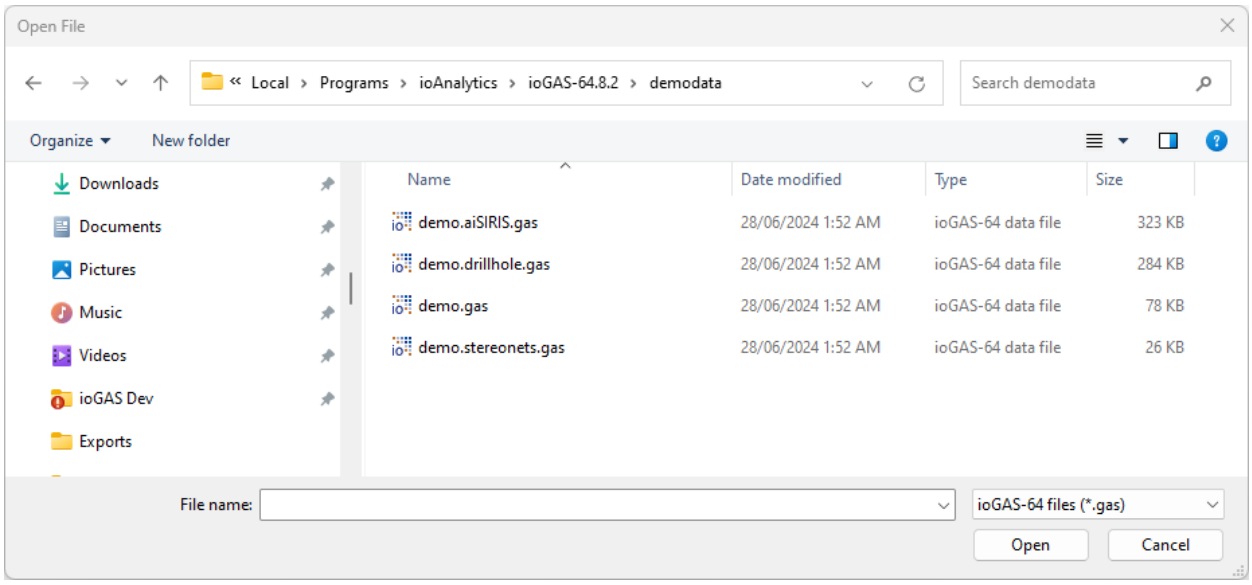
Varimax rotation of eigenvalues calculated from Principal Components Analysis (PCA). Launch the varimax rotation from the Scree Plot tab of the PCA Report window.



Other Improvements

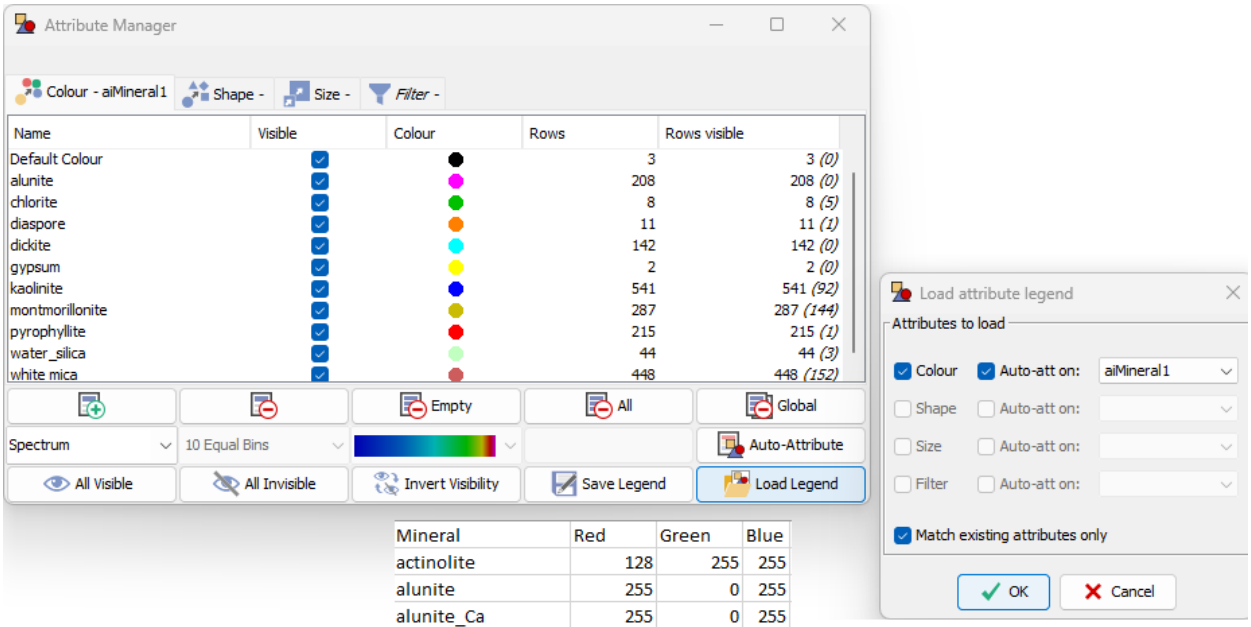
GUI

- Windows native file browser



Attribute Manager

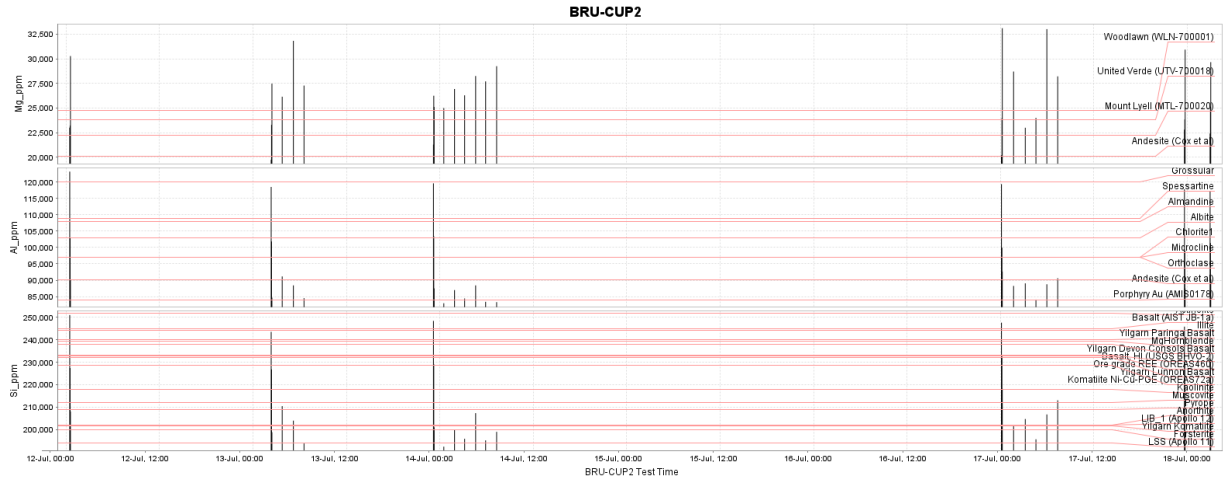
- create numeric percentile and value legends
- save/load individual colour, shape or size legends
- create colour legend from RGB values
- create reverse colour ramps



Mineral	Red	Green	Blue
actinolite	128	255	255
alunite	255	0	255
alunite_Ca	255	0	255
amphibole	0	128	0
ankerite	255	128	0
antlerite	128	255	255
apophyllite	119	55	159
azurite	128	255	128
beryl	0	0	128
biotite	128	0	128
boehmite	128	255	125
brochantite	29	134	165
brucite	64	64	0
caalunite	255	192	128

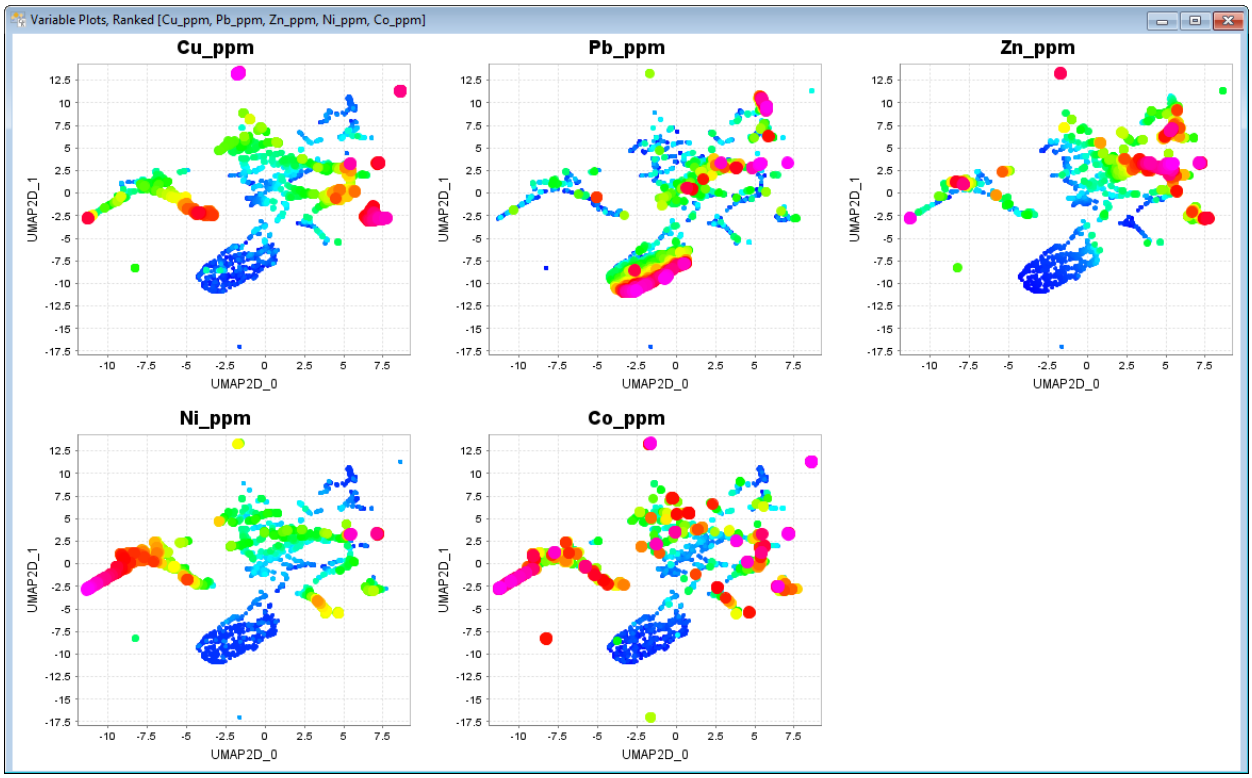
Line plots

- support for single trace line plots
- support for multi trace stacked line plots
- display text column data
- display mineral and rock node lines



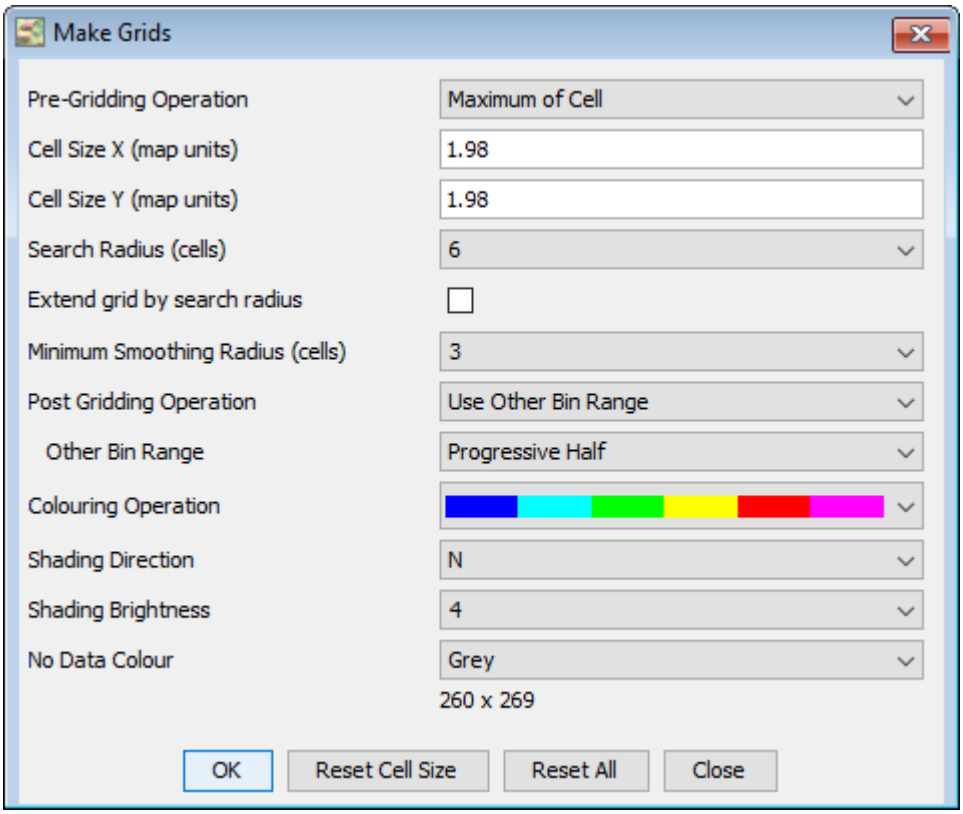
Variable plots

- create non-spatial variable plots, e.g. use UMAP or t-SNE dimensions as the plot axes to explain how a data is clustered:



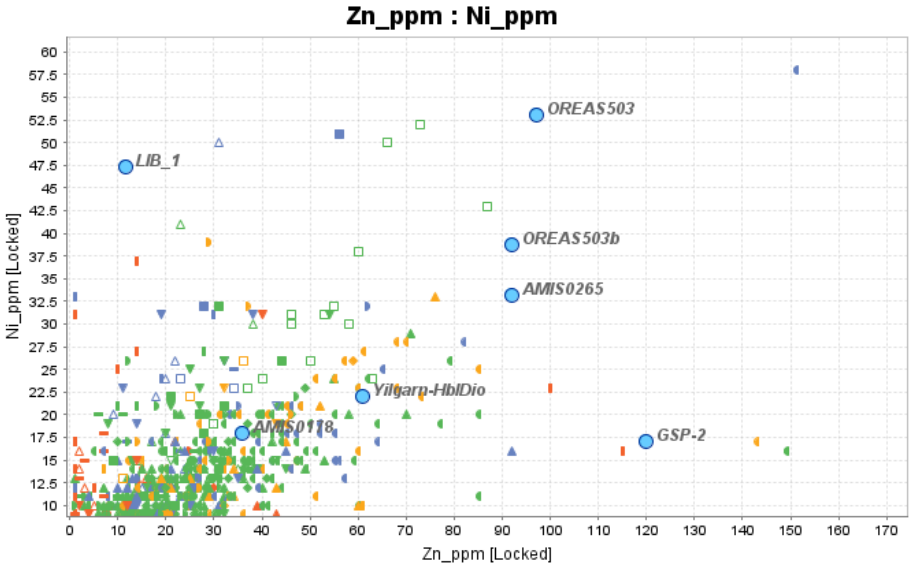
Gridding

- export grids in custom projections to ER Mapper file format
- select from other Attribute Manager bin ranges or set custom bin ranges



Mineral and rock nodes

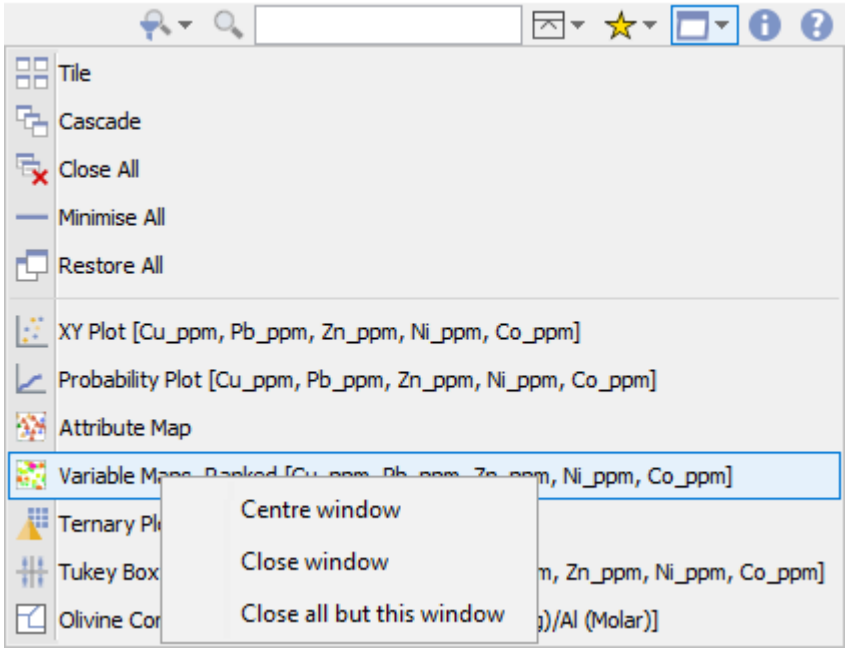
- modify node colour, outline, size and label parameters in Plot Window Style Settings



- zoom to nodes option on plot right-click menu

Windows

- **Close window** and **Close all but this window** options added to right-click menu in windows list



Select Variables

- save text and non-aliased numeric variables in user groups

Column Properties

- SIRGAS 2000 UTM projection
- add EPSG code to projection name

Provided Resources

- Niggli diagrams
- Niggli calculations
- aiSIRIS demo workflow

Quick access toolbar

- shortcut to application settings

Export

- export summary stats, frequency table, crossTab and correlation results to csv/txt file

XRF Import

- Vanta Max (V2MR) (50) & (40) detection limit parameters

Performance

- disable processing in high-CPU load plots while minimised

Installation

- upgrade to Java 17