

GSi3D 2011 QUICK REFERENCE GUIDE

GSi3D 2011 is the direct replacement for the previous release of GSi3D which was v2.6.3. This guide describes how to migrate from v2.6.3 to 2011 and also describes some of the new functionality that has been added in this release. If you are having a problem installing, migrating to or using 2011 which is not covered in this document please consult the full user manual which can be downloaded via the support area of the GSi3D Research Consortium website – www.gsi3d.org.uk – or contact the Research Consortium Helpdesk by email. If you do not have the Helpdesk details, please contact the BGS Enquiries service by email – enquiries@bgs.ac.uk - with the subject line “GSi3D Enquiry”.

BACKGROUND

The GSi3D Research Consortium was launched on 1st April 2010 using GSi3D v2.6.3. This version of GSi3D was provided and packaged under agreement by a third party company (INSIGHT GmbH) on behalf of the BGS and the Consortium. In the first year of the Consortium, the BGS has been using the original v2.6.3 platform software codes to develop new capabilities within GSi3D, resulting in version 2011. 2011, released on 1st April 2011, is the first major version of the GSi3D software whose development is under the direct control of the BGS. This means that the BGS can now provide more frequent software updates as new functionality becomes available.

PROJECT MIGRATION

GSi3D 2011 uses the same basic file formats as v2.6.3 so your existing v2.6.3 files will usually load directly into 2011 without requiring any modifications. As a standard precaution you are strongly advised to take backups of all project data files before attempting to load them into 2011.

Most 2011 data files can also be loaded back into v2.6.3, but it is very important to note that 2011 will normally place additional information into project files, especially the main GSIPR file, that v2.6.3 will not be able to handle. Hence, it is not recommended to open and then save 2011 files in v2.6.3 unless you have backup procedures in place. Whilst it is safe to simply load a 2011 file into v2.6.3 for visual comparison, saving the file will overwrite any 2011 specific information and could have unpredictable consequences.

If you are working as part of a modelling team it is strongly recommended that all team members carry out modelling using the same version of the software. Do not use both v2.6.3 and 2011 within a single team.

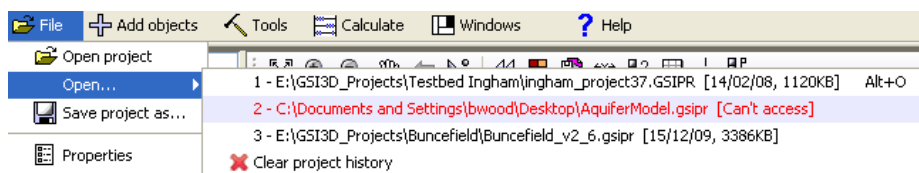
If you need more detailed advice regarding migrating projects between software versions contact the Helpdesk in the usual way.

2011 FEATURES

Many of the new features in 2011 are designed to make modelling work easier, faster and more accurate. Below is a list of some of the new features to be found in 2011, in no particular order. Many of these features are more fully described in the User Manual which can be downloaded from the website.

RECENT FILES MENU

File > Open... shows a list of the recently opened GSIPR project files. Select an entry to load the project. Entries give an indication of file size and date. Red entries are file locations that are inaccessible or no longer exist. To clear the list choose **Clear project history**.

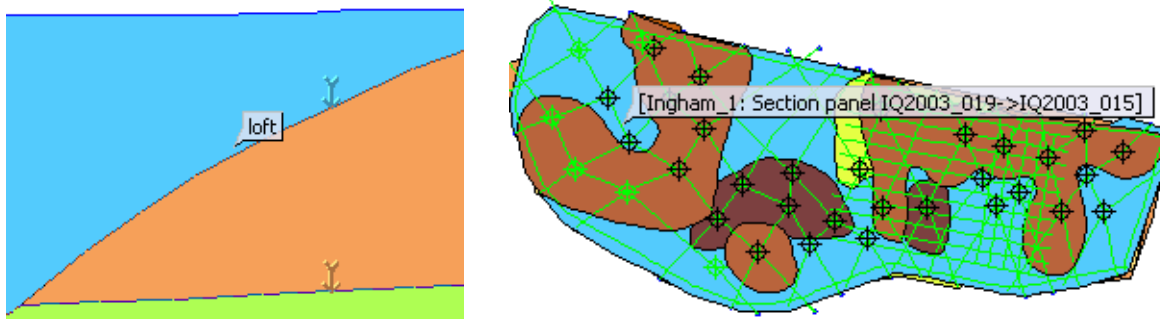


OPEN LAST PROJECT

The most recently opened project file can be opened using the keyboard shortcut **Alt + O**.

FLOATING TOOLTIPS

Tooltips are available on many of the objects in the map and section windows to enable rapid identification. To activate tooltips, hold down the Shift key and hover over the object.

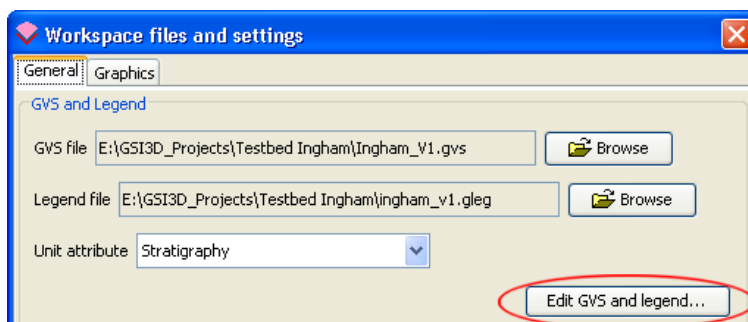


BOREHOLE WINDOW INTEGRATION

The borehole window is now incorporated into the main user interface on the far left.

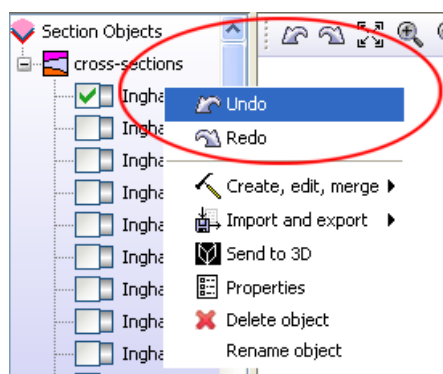
GVS AND LEGEND EDITOR (BETA)

GVS and Legend (GLEG) files can be edited inside GSI3D using the GVS and Legend editor. This new editor cannot yet handle lenses and is released as **BETA** functionality. It can be accessed via the **File > Properties** dialog. The capability of this dialog is fully described in the User Manual. Always make backups of GVS and Legend files before making edits.



UNDO-REDO IN SECTION

An Undo-Redo facility is provided for cross sections. Most actions are undoable, including line digitizing, editing and deletion. The buttons on the section toolbar operate on the currently active section (i.e. the section currently visible in the section window). Each section also has undo and redo menu options available via right-click. There are 10 levels of undo available on each section.



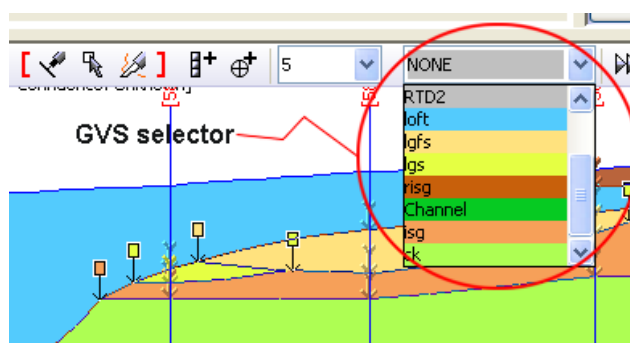
UNDO-REDO IN GEOLOGICAL UNIT

An Undo-Redo facility is provided for geological units. Most actions are undoable, including line digitizing, editing and deletion. The undo and redo options are available via right-click on the unit entry in the map window ToC. There are 10 levels of undo available on each geological unit.



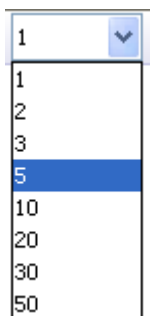
GVS SELECTOR

When digitizing a section correlation line in GSI3D v2.6.3 it was necessary to then name the line manually. In 2011 a GVS selector is provided in the section window toolbar which allows you to choose which unit is being digitized before drawing the linework. Any lines drawn following the selection will be automatically attributed with the selected value.



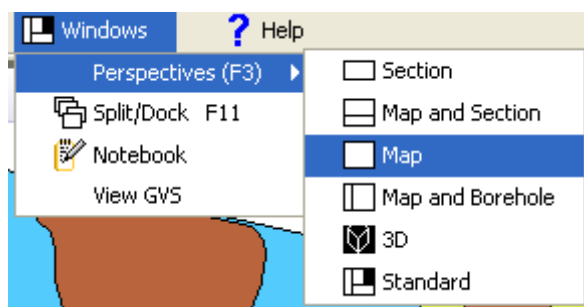
VERTICAL EXAGGERATION SELECTORS

All vertical exaggeration fields are now provided as selection lists with preset values. The fields are also editable so that you can enter your own values which will then be added to the preset listing for the duration of the work session.



LAYOUT PERSPECTIVES

Layout perspectives (**Windows > Perspectives**) enable rapid layout of all windows to suit different aspects of modelling work. The keyboard shortcut **F3** also cycles through the list of available perspectives.



MOUSE WHEEL ZOOMING

The borehole, map and section windows are all zoom-able by using your mouse wheel. Scrolling the wheel forwards zooms in by a preset amount, and scrolling backwards zooms out in the same manner.

EXCLUDE OBJECT FROM CALCULATION

Both cross sections and geological units can be individually excluded from the model calculation via **Right-click > Exclude/include when calculating**. This can be useful for troubleshooting problem units and to exclude partially constructed or purely schematic sections without having to delete them.

SNAPPING CORRELATION LINES

Correlation lines in sections can be snapped to both crossing sections and to map linework. When finishing a line, GSI3D will automatically attempt to snap the new correlation line to these positions (hold down the **Ctrl** key and then double-click to complete the line to override this).

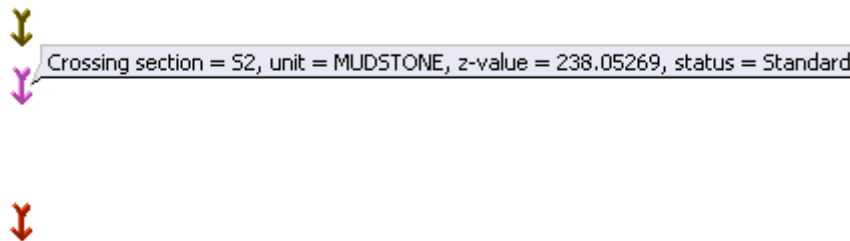
Existing lines can also be snapped manually by holding down the **Ctrl** key whilst dragging an individual node towards a snap-able position.

Snap-able map linework positions are displayed as arrows with rectangular flags as shown below. It is only possible like-with-like, so the geological attribution of the correlation line and the map line must match.

Arrows will automatically drop to the base of any stratigraphically overlying units if a subcrop position arises in the section.

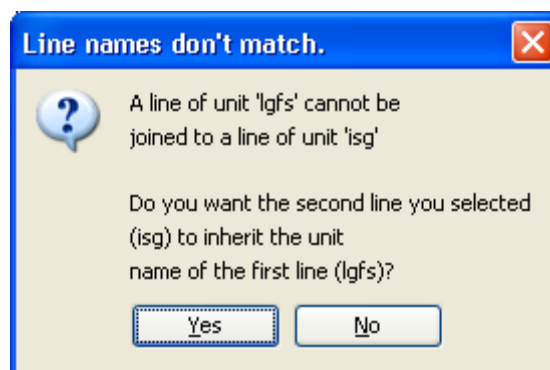


Snap-able crossing section positions are displayed as arrows as shown below. It is only possible like-with-like, so the geological attribution of the correlation line in both sections must match. Information for each arrow can be rapidly found using the tooltips function (hold down **Shift** key and hover over arrow).





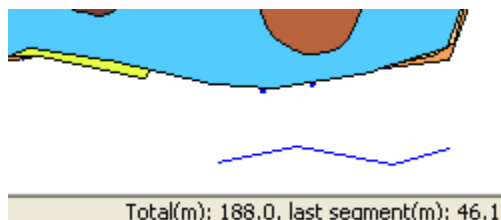
JOIN CORRELATION LINES

Correlation lines can be joined together in a section. To do this, select the 'j' tool from the section window toolbar, then hold down the Ctrl key and click on the two lines that should be joined one after the other. If the attribution of the two lines does not match you will be prompted to re-attribute the second line or abort the join operation.



MEASURING TOOL

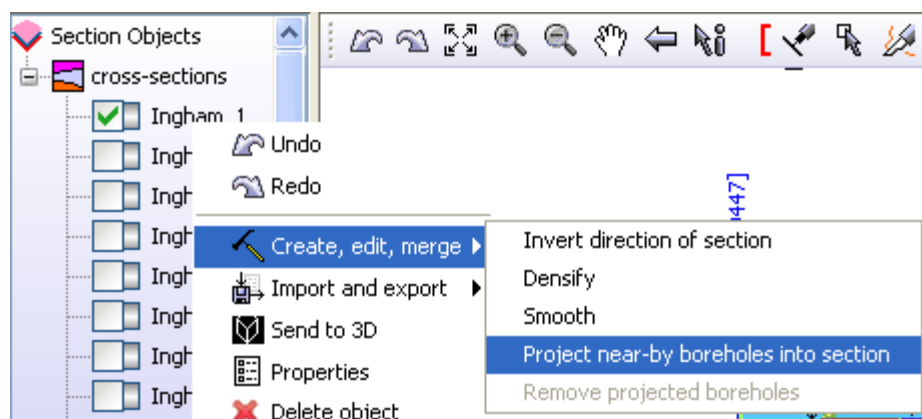
A measuring tool is available in the toolbar of both the map and section windows . To access it click the arrow tool at the far right of the toolbar to expand the extra tools . Click once to activate the measuring tool and then make successive clicks in the window to measure a path. A blue line will appear as you digitize and the distance (in metres) will be displayed in the status bar of the window. Double click to finish measuring which will also exit the measuring mode. To measure again, select the measuring tool once more.



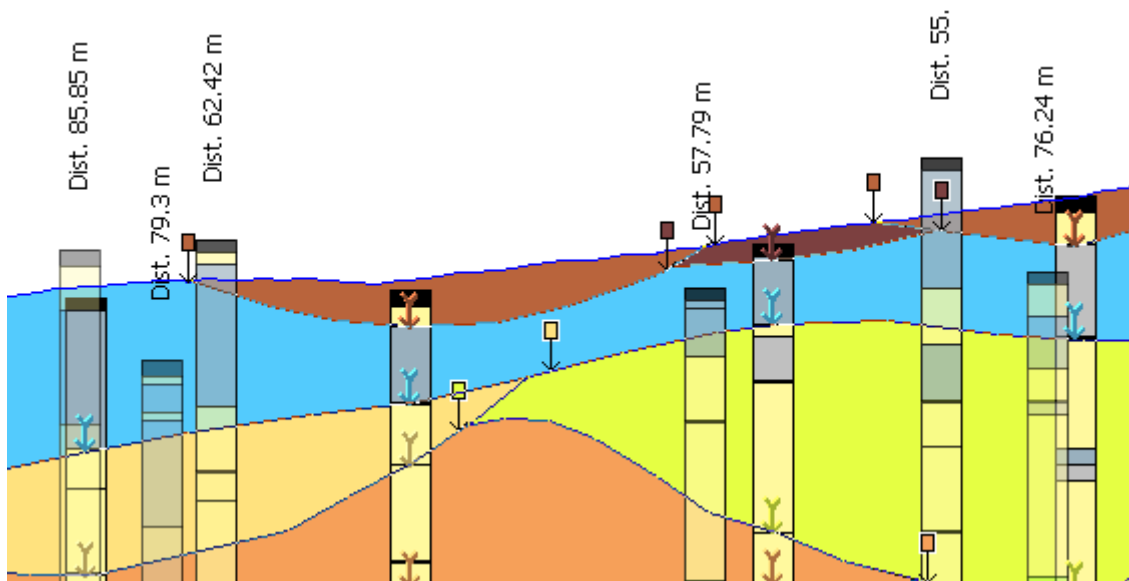
PROJECTING BOREHOLES INTO SECTIONS


To see a borehole log in section in GSI3D v2.6.3 required that borehole to be added as a real position on the line of section. This makes it difficult to see near-by borehole information without contriving zig-zag lines of section that join the boreholes together. 2011 brings the ability to 'project' near-by borehole data graphically into the section either by manually selecting the borehole(s) or by specifying a buffer distance around the section.

To specify a buffer, right-click on the section entry and choose **Create, edit, merge > Project near-by boreholes into section**.



You will be prompted to specify a buffer value in metres (the buffer will be applied on both sides of the line of section). Boreholes lying within the buffer will be drawn as logs in the section window. A label above each log shows the distance to the log from the line of section and a variable transparency will be applied to indicate relative distance.



To bring individual boreholes into a section, expand the extra tools in the map window toolbar, choose the project borehole tool  and then select a borehole in the map. The borehole will be projected into the currently active section.

To delete all projected boreholes from a section, right-click on the section entry and choose **Create, edit, merge > Remove projected boreholes**.