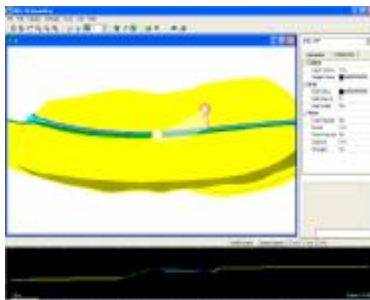### 3D Render

A few additions have been made to the render engine;

Cross Sections

Now view cross sections through the model dynamically. Draw the section on the plan using the mouse, then grab either handle to move it over the model as the cross section updates.

Query Points and Lines

The Calc Menu now has a query point and point to point info to give bearing, distance etc. between points

Insert Tables

A nice addition to the presentation is the facility to add a table showing Isopach and surface colours.

Use Edit\Legends and insert the legend at the required size and position by dragging the mouse.

Edit legends to re-size and move, delete to remove legends.

What do you have to say

We would like to hear your comments over the technical support line and the conference / user group. Please tell us what you think and give us any comment on how we can improve the service.

Surveys Ltd

Castle View,
Station Road
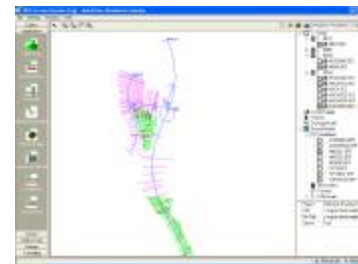Llanfairfechan,
Gwynedd,
LL33 0AN

Tel : 01248 681240
Fax : 01248 680914

News Letter

NRG Survey System for Windows Version 8.0

Just when you thought it couldn't get better – it has !! – NRG Version 8.0 will now be available from 19th August 2004. Coinciding with our User Group at the St George Hotel Llandudno. If you need to book a place, do so now, it's a great event and you'll be able to see all of the new features first hand and be able to question the experts, meet other users but most importantly put your ideas forward for future development.

New Interface / 32 bit upgrade

The main news this year is our new front end, we've been working on the upgrade to 32bit for sometime – long filename support and greater speed as well as a few advantages so technical you'll have to corner Martin at the user group if you want to know more. We've taken the opportunity to re-design the front end and whilst we know it will be sadly missed, I think you'll really like the new one.

The interface now allows you to see all of your jobs, files and alignments at a glance.
Create and change jobs in a friendly and graphical manner as well as access the editors by right clicking on any of the files.

You'll also see we've introduced a setting to disable password login.

Traverse

You'll be pleased to know we've finally done away with the old DOS traverse program. We looked at this from the user point of view and decided to give you two routes to close and adjust your traverses. One is very much in the style of the DOS traverse program in that it allows you to review and edit all your traverse obs and encourages a rigid observation method (except it will support observations in any order) the other works within DTM Map and traces a traverse route through the observations, no matter how they've been observed.

DTM Map Traverse

DTM Map traces the route through the control network. The user gets the opportunity to view residuals, reject observations and fix individual stations.

Left Page

A closed network can be adjusted by bearing and coordinates if a closing pair of fixed stations are observed or just coordinates if only one fixed station is closed to.

The resulting observations and adjustments are shown and can be used to update the survey and or control file.
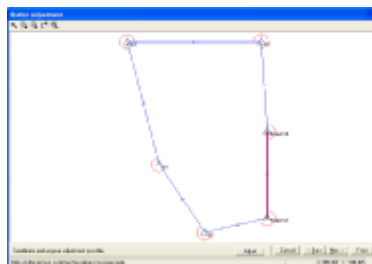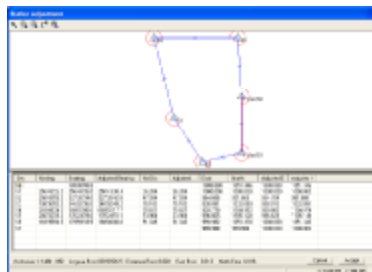

Traverse Program

The new traverse editor supports existing .TRV files but will also load observation - .PDF files. Using the traverse logging routines on our Psion Workabout logger will automatically create .TRV files but observations can also be taken in a survey and the type of observation assigned using a switch on the field code.

- /BS   Backsight
- /FS   Foresight
- /RS   Resection sight
- /SS   Side shot

The field code represents the station name.

Error elipses are drawn showing angular and distance deviations for each set up.

Using these observations the user can view and edit individual set ups.

Right Page

Select by column range

Here's one we thought up in the pub! We needed to see all the target heights that were above 1.3 and this was a simple way to do it. Could be used for all sorts of things, especially when used with the setting out columns – pick off all the points outside certain tolerances perhaps.

Depth at cursor position

When a background model is loaded why not view the depth between models at the cursor position. Set this in the view menu.

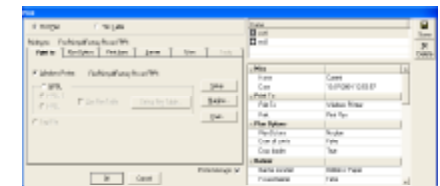### View dynamic sections – MX Extractor

How groovy is this ??

Exporting cross sections to GSI from MX extractor.

To give Leica users the edge in setting out for roads, we've added the ability in MX extractor to export the sections to a GSI file. Cleverly this lets you build up the point ID using chainage, offsets etc. meaning you can use leica's search routines on the instrument to sort and find points as you need them.
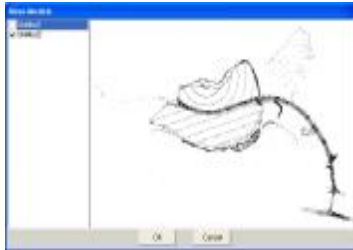

Plot Manager

Again by popular request we've added a plot manager to the print facility. – Name store and delete plot definitions.
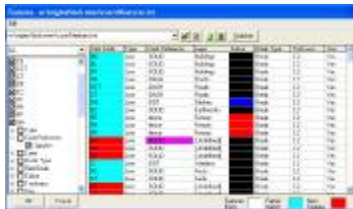
Improved loading of MX files

MX files often contain multiple models, so we've added a preview and option to disable / enable models.

Import Panterra drawing and survey files

For ex Eclipse and Panterra users we've added an import function to seamlessly import exit files and raw obs files. The import recognises all the function, links and attributes in the model and updates a features file in NRG to re-produce the drawing exactly as it was in Panterra

Real time zoom

If AutoCad can have one then so can we!, use mouse wheel or dynamic zoom button ,
and mouse drag to zoom / pan the window.

Show column text for just selected points

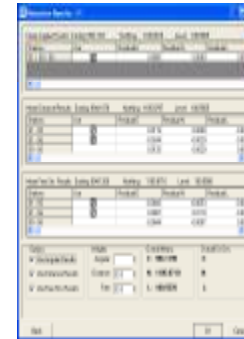Need to just see column text for specific points?

Now you can.

Normalise reverse face obs option

Don't know why we've never done this before. If like us you do reverse face obs to check the instrument and get the best results for measured points then it's nice to see the correct coordinate being calculated. This is a setting which will assume all VCR readings > 180 are in fact observed on the reverse face and are then computed as such.

Calculate resected positions using a variety of methods and apply weights to different methods.

Each traverse within a network can then be adjusted by bearing or by bearing & coordinates.

Full detailed printouts of reports on horizontal and vertical adjustments, raw and reduced obs are provided and can be customised to the users requirements.

Changing surfaces.

The change surface dialogue has been improved so that individual surfaces can be included or excluded from the list.

Change Surface by line

An additional feature that was suggested by a number of users at last years user group is the change surface by line. This allows the user to select a line in the model and choose a number of options to alter the surfaces attached to the line, it works really well when setting surfaces on roads.

Import surfaces from other model

Retaining surfaces has always been a bug bear when a model is re-modelled because all the surfaces go back to the default. One of those suggestions that say, "why didn't we think of this before?", Thanks to those of you who suggested it. Now all you have to do is save the model as another name and use it to assign the surfaces every time the model is re-created.

To access the function use swap triangles from the edit menu or load surfaces from the file menu.

Volumes with dips on both OGL & FGL surfaces

Another addition we've made in response to user requests is to apply dips to surfaces on the OGL model at the same time as the finished
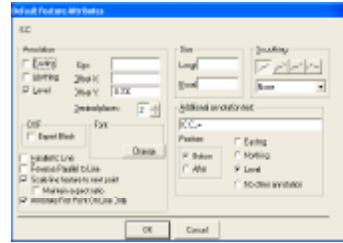

Dynamic text edit

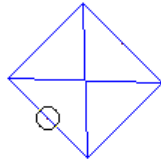By popular demand !! we've added the ability to edit dynamic text (the text associated with points)

Move/Rotate
Add text
Delete text
Change font/size etc.

Annotate first point only on a line

It is now possible to set an attribute for lines that denote single features to place annotation about the first point only.
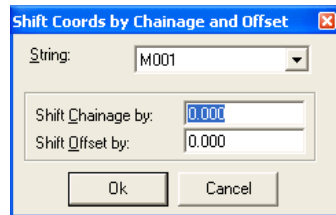

IC CL= 100.00

	Code	No
100	sic/st/w1.5	
100	sic	

This will let you use line styles to display features such as manholes to scale and to the correct orientation.
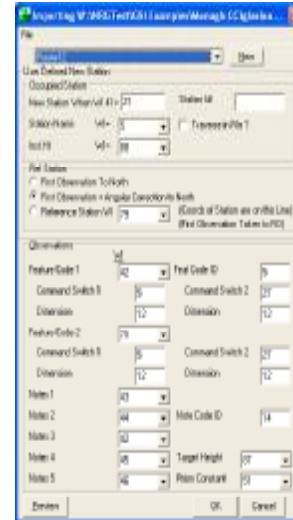
Shift by Ch & Offset

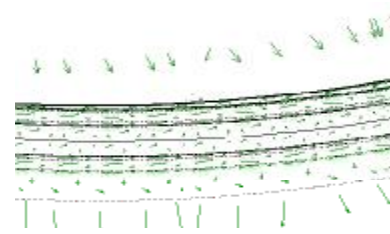Shift groups of selected points by reference to an alignment.

GSI import

Once again the GSI import has had a re-work – just in time for Leica's new instruments which have done away with this format !, anyway for those of you still using pre-2004 Leica instruments then hopefully this will make importing observations much more flexible.

Flow arrows

Show option to see the direction of fall of each triangle.

Cant stick

To develop both rails from a survey of a target attached to a cant stick measuring the gauge and cant of the rails. Takes into account eccentricity of the target etc.

Categorise volumes with surfaces in both models

Previously we could only categorise volumes by surfaces in the finished model, we've now added the original model.