NEWSLETTER 2017

2017

Welcome to NRG 2017.

Most of the development this last year has been for improving the efficiency of survey processing, earthworks volumes and our drainage module

We are pleased to announce that we have developed a link with FP McCann the largest manufacturer of precast products in the UK in order to streamline the workflow from drainage takeoff to ordering. With their specialist knowledge we have been able to develop the drainage module to output directly to the factory floor.

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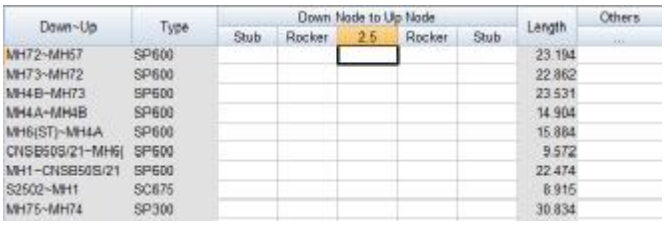
Rockers & Stubs

Drainage pipe components now supports customising the pipe units in a run.



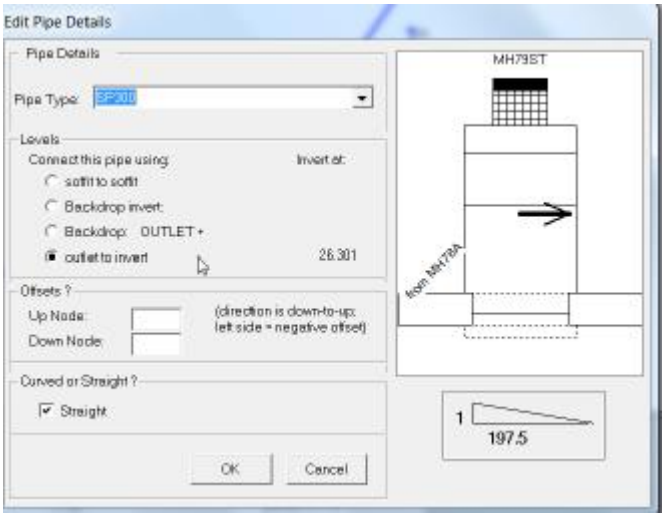
Down~Up	Type	Down Node to Up Node					Length	Others
		Stub	Rocker	2.5	Rocker	Stub		
MH72~MH57	SP600						23.194	
MH73~MH72	SP600						22.862	
MH4B~MH73	SP600						23.531	
MH4A~MH4B	SP600						14.904	
MH6(ST)~MH4A	SP600						15.884	
CNSB50S/21~MH6(	SP600						9.572	
MH1~CNSB50S/21	SP600						22.474	
S2502~MH1	SC675						6.915	
MH75~MH74	SP300						30.834	

Right click on the column header, select add column

Add, delete or edit column headers to suit

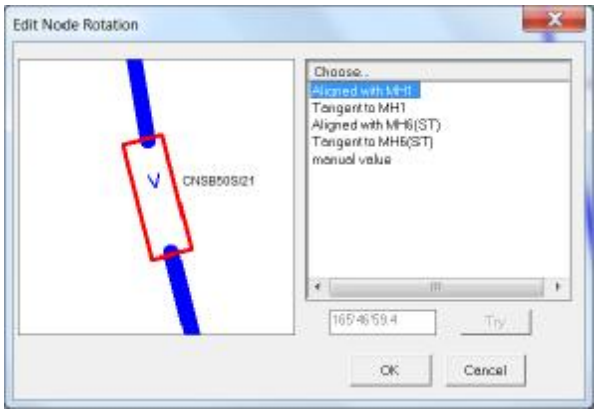
Pipe Offsets

By default pipes are assumed aligned to the centre of the manhole, these can be changed when adding a pipe by entering the offsets or in the pipes tab where there is a column for up and down node offsets



Cover Rotations

Square and rectangular manholes can be rotated, right click on the manhole in the nodes tab and select Edit node rotation.

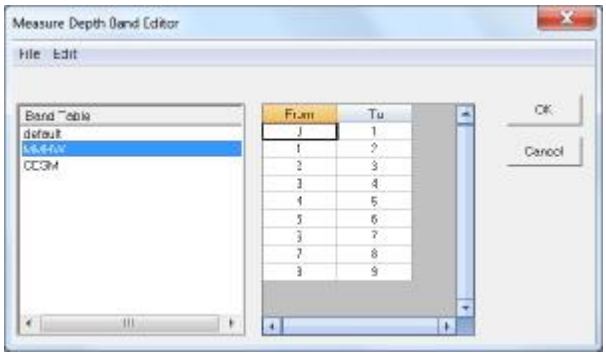


Extended Materials Library

Depth Bands

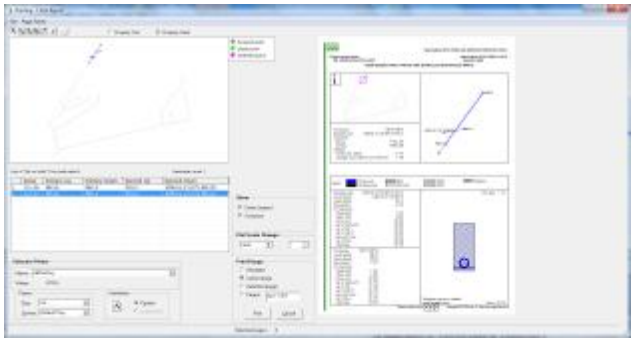
The system will now split the pipe lengths into depth bands to accommodate the method of measurement.

Select Settings, measure depth bands



Clash Detection

Report, Clash by Interesection

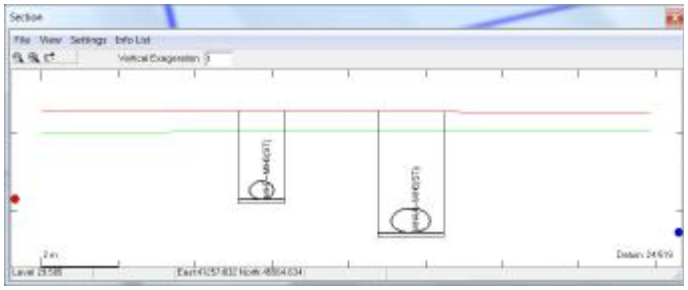


The report finds all of the crossing pipes and displays a report for each one showing the location and a cross section through the intersection

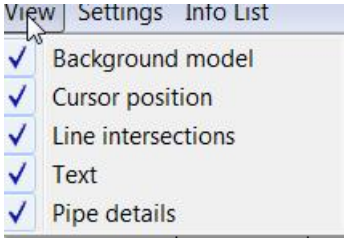
Cross Sections

Tools, Cross Section

Left click the mouse at the start of the section, drag and left click again to end the section



Select View to switch on elements of the section

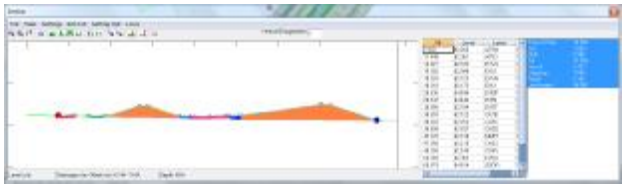


Move the section using the red, blue or green circle on the plan

Volume Template View

The volume template is used in DTM volumes to compile earthworks schedules from the miriad of results that are generated running a prism volume.

How these quantities are generated is now available in dynamic cross sections. All you have to do is have your finised model in the editor and the original model as the primary background and load a volume template from dynamic sections FILE menu



When you now draw a section it will shade each quantity using the colour you assigned and will show cross sectional areas in a table on the right

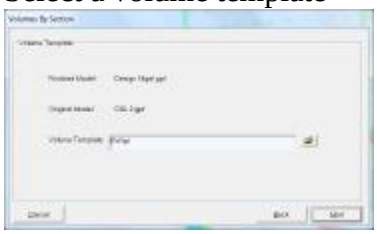
To remove a shaded area un-highlight the reference to it.

Volumes by Section

You can also carry out a measure entirely using cross sections

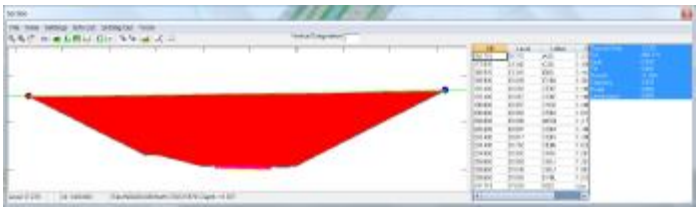
Under Volumes and Areas select Volumes by sections

Select a volume template

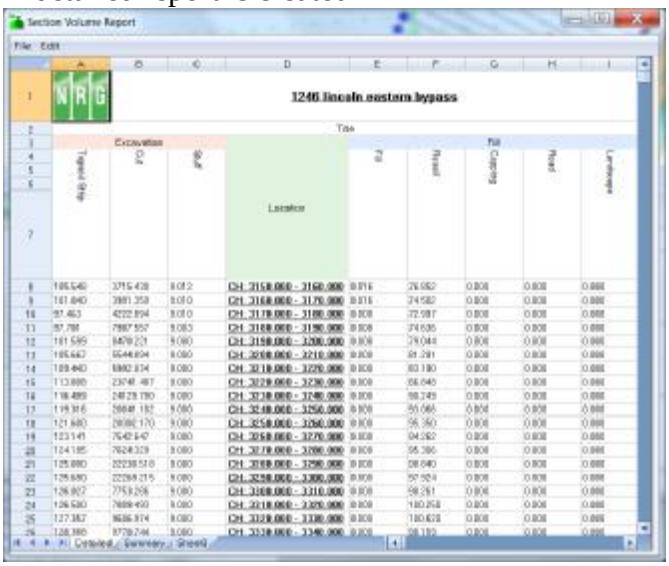


Enter chainage ranges for zones

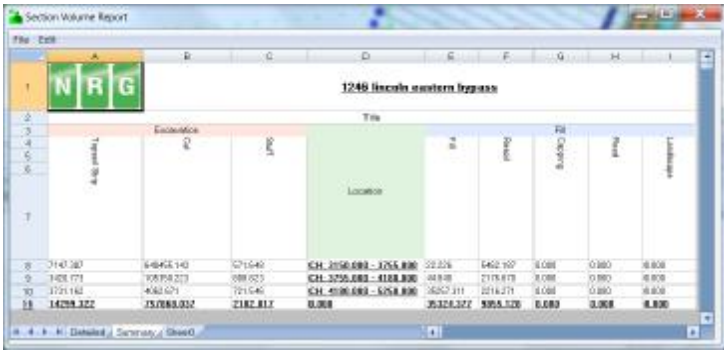
Sections are then displayed as the volumes are calculated



A detailed report is created



With a summary tab for the chainage zones

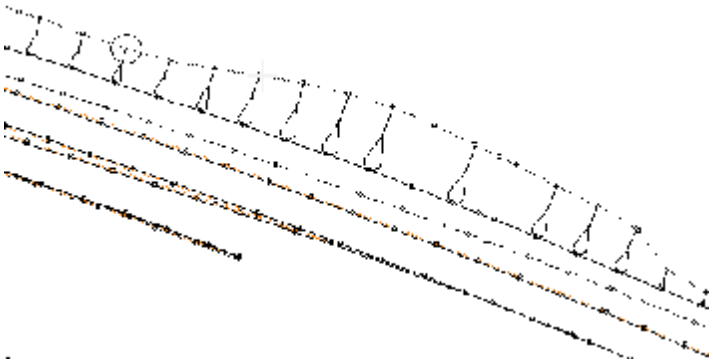


And a third tab showing the files used

Tadpoles

We now support tadpoles using a Command switch. /INTCW= followed by the length of the tadpole and then the bearing in radians

I3J1/INTCW=-6.7044B=3.4764

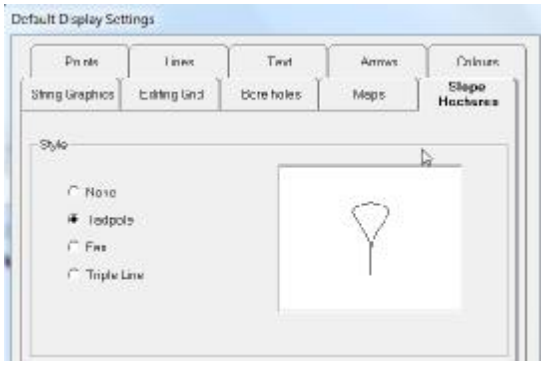


To add tadpoles use the Edit, Line, Add Slope Hachures

You will be prompted to click on a line to add slope hachures, left click on a point with the line running through, then you will be prompted to click on a line to define the slope hachure, left click on the line it goes to.

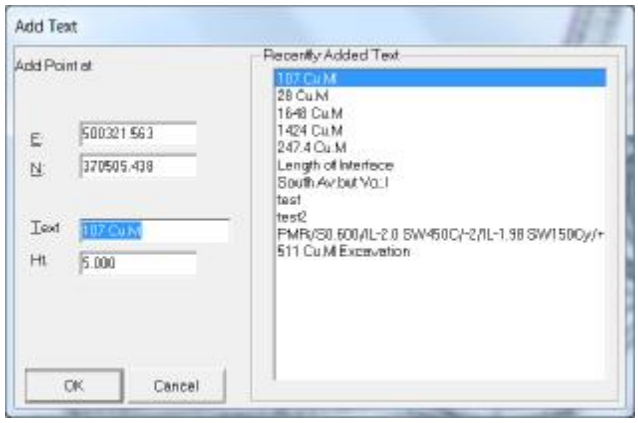
The slope hachures will be drawn, to exit the mode press ESC

To control the style of the tadpole, go to settings, default display settings and choose the slope hachures tab, from there you can select from a number of pre-defined shapes



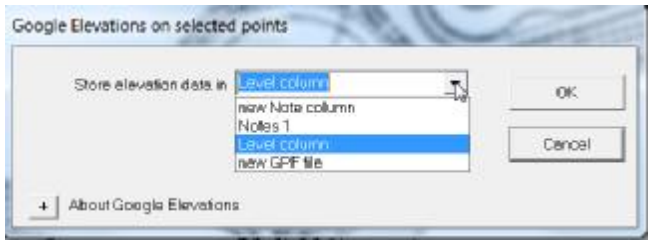
Add Text

Add text has been improved so that it remembers the text that has been added to a drawing and lets you select from the list… Saves re-typing the same thing again and again.



Google Map Heights

Add heights to a drawing from google maps. First select the points you want heights for then select Calc, Google Elevation



You are given a choice of which field to add the elevations to or to write them to a new file

Results are varied, sometimes large areas are very close, within 100mm others are 3000mm but it's handy if you just want a rough idea

Interpolate Levels Along Line

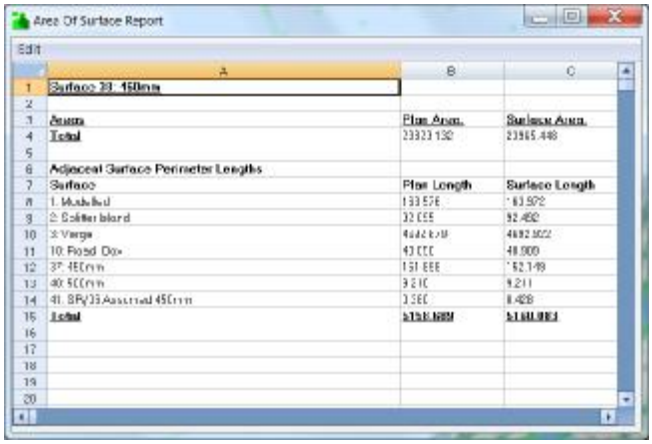
Define the start point and end point within a line and all the levels between are interpolated to fall on this line

Edit, Lines, Interpolate Levels along Line. You are prompted to left click on the start point, then the end point and then it will adjust all the levels to suit.

Perimeter of Surface

In volumes and Areas there is a new function for Area of a Surface

Right click into a surface and it will calculate the contiguous surface area as well as the perimeter length and further split that length into the adjacent surface types

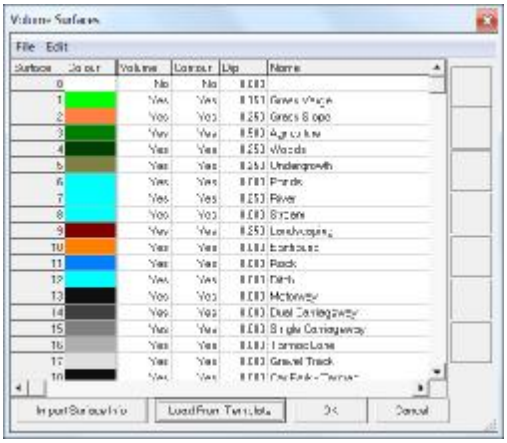


Surface Templates

It is a good idea when using the volume compiler to standardize on surface names so we have introduced a means of storing templates as well as importing from another model.

Settings, Surfaces

Under File there is a load from template and a save to template which are global across all projects. Import surface info still reads the surface data in from another model



Shift in Live Sections

In the tools menu of Live Sections you will find an option to drag.

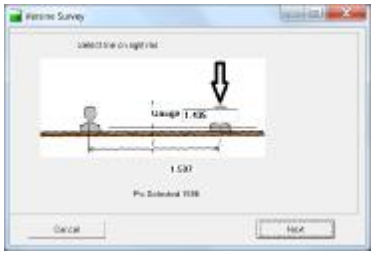
Choose either to drag an entire line or just a segment, left click on a line in the section window and it will move that line.

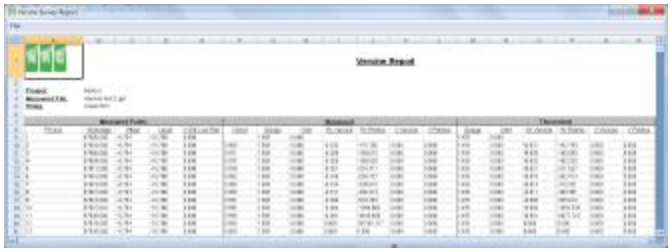
Versine Survey

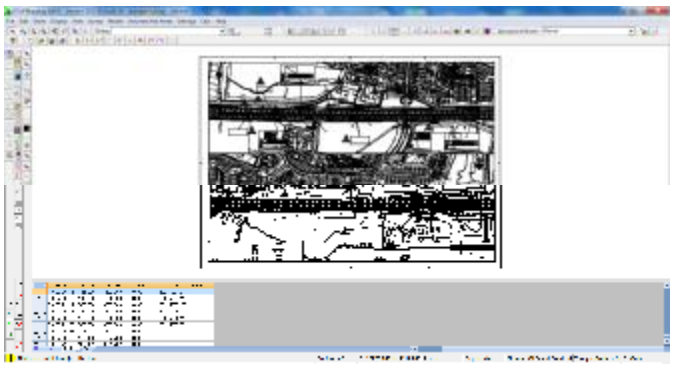
The has been upgraded to make it a little more user friendly and develops more answers in the report

It is used for surveying railway tracks using the Hallade method where the offset from a chord is measured (the versine) and from this radii of the track calculated.

We assume you have surveyed the two rails as lines which you pick, then if you have a theoretical alignment it will make comparisons to that, otherwise it will develop a schedule of versines both horizontal and vertical giving you the measured geometry of the track





Import PDF

Most PDF's can now be imported into DTM, a good idea before you import them through is to turn off any layers you don't want and then you will get all of the points and lines to which you can then scale in DTM map and use as you would any model, if you are lucky the PDF might even contain height data but that is rare