

NEVSLETTER September2007

NRG Survey System for Windows Version 11.0

V 11.0 Available 12th September 2007

Summary of new features

DTM / Map

- New DXF import
- Support for CAD lines and blocks
- Text culling
- Text overwrite removal
- Volume reporter
- Benching measure option
- Annotate volumes and centroids
- Import Trimble GPS data
- Line widths for parallel lines
- 'Break' lines

News

We receive constant feedback from users and we welcome it very much. Our wish list is currently on item 2543, and we have probably dealt with 2300. It's been running for 15 years, but I'm sure you'll think of more.

What you may not know is that we record who makes the suggestions, and this year to show our appreciation we will be giving awards to those contributors. Leica and Topcon have kindly supplied goody bags for the winners and we'll also be presenting trophies which you can take home and show your mum.

User Forum

We are pleased a few of you have made use of the new forum this year, there's at least one user making regular posts, but it's not actually turned out to be the lively discussion page we'd hoped for, with everyone sharing ideas and suggestions.

Do you feel that this could be developed further, or altered in any way? Any feedback would be greatly appreciated.

User Group

There's just about time to book your place for this years user group – 12th 13th September. If you haven't had an invitation then call us now.

Import DXF

We've made some radical changes to the DXF import, mostly in the way we handle blocks and line styles. The interface has also been jazzed up, so you can actually see what's happening.



On importing a DXF you will now be presented with the drawing as it displays in AutoCAD, with the same layers turned on and off. Toggle the settings to select which components of the DXF you want to import. You'll see the picture change accordingly.

the Carlos		
Corest.		
× 864		of Referenced
- 7h		Characterization Rest and Pro-
Ter.	000-10	C hearing
- Laws		Inclusion of Frank Property lies
hadrol.on		2028
- Lincigues		1 Maria
Number of Antipies		- NAMPHON
< Hesta		C REALING RELEASER
N-standings.		C least these
* Datter		Honor & Name and
Number of Parts		
Reader of College		Labor .
Standard Test		·* legel lyter Cene Presides
Number of Long	juga -	C MexaliseCondustryEaler
Number of California		Test local
Number of Subme		The set fault and a flat fields for
habitation .		1 Address of the state of the state
hade elitere		January II.
Number of State American	2004	UNION IX
		100 E
Od below/b		-
Od helowite parameter	Parking	1
No Gand		that gar

After pressing Next, a screen will be displayed with a summary of the data you're about to import. There are check boxes to choose how to deal with splines, arcs and elipses, and also how to use text in the drawing as 3D points. There is a range to this, so if you know the approximate height of the site then you can eliminate too much redundant data coming in. This option is used where the drawing is in 2D but has levels quoted as text.

You'll also see paths specified to CAD line and CAD points style libraries. These libraries are a new feature in NRG and we'll explain those later.

Next;

and a	Inside	law	-	Darter		To Sector
IN 141510		~	1.1		1	1
04		1		0	-	1 1 1 1 1 1 1
	8.8.3945	0			-	
	Viteor	-		*	-	
	Disk Bullers	0		r .	-	
ML.	Well Driven	~		*	-	-
a inc yes	-896.816	1		0	-	1
ALC: N	HER	c .			1	-
OF IPS	Lanuel No.	-		e	1	3
nex.	NAME AND					2
Pastala ja	ing last a	Carlor Party	-	-Jane		Joine (2)
	Data Ser		-	ophag) Suit for hit device flui	Part los los los	let restantes

you'll see a list of all the lines in the drawing, you can add these to the CAD linestyle library, ignore them or substitute them for an existing line. Take care the first time you do this because the system will remember your preferences and build up a comprehensive default template for you. If you choose to add, then you'll need to set the line attributes for any lines you add, either here or with the features manager later.

Finally you'll see the blocks that are contained in the drawing, again decide whether you want to add the blocks or substitute them with existing point styles. If you add them they will be stored in the CAD point style library and and be used with feature codes as normal.

01248 681240 • www.nrgsurveys.co.uk



You can always use the new line and point styles manager to eidt individual lines and points, or delete them if necessary.

Finally, you'll have a drawing in DTM Map which matches the Autocad drawing.



A tip by the way, if you only have a few points with levels in your drawing, you can model these separately and 'shift' points onto that model to interpolate between them.

Line Styles

We have introduced the concept that there are 3 classes of lines available, these are:

Windows CAD Complex

The reason is entirely because Autocad cannot deal with 3D complex line styles. The solution to this is to either export your complex line styles as a block overlay or as a shape file. The disadvantage of shape files is that they then have to be compiled into the drawing using CAD, although that can give a preferable solution to using blocks, since these can be difficult to edit in CAD.

Another option is not to use complex line styles and only use the ones supported by CAD, we've made clear which these are now with the separate classes.

Occess silamator	verandroDIF file .		Context		
TeatleeA	forales follows and	ihaa fin	Shall Canton Cornear Inn Linei Combo	ayal:	Len
Too NathStule 12	Filese Dotoe	•	FuielDight If County C County	Single-Trans PG-Frans Stole	1.50
Course	W Dates 1	Carlo Marca			
E Concer E Localitate	P fera	Failt Vice State Are	D'Anim	Autorit 2000	
P Det Les	P Text	Frank Visco Statk Alto Eageta Sortice	gorvene GM	Autorial 2000	1
P Dest Less P Ofer Less P Ofer Less P Ofer Less	P Jaka P Tegi P StreCharker representation	Faith Vitch Vitalit Arts Selected Series Faith Difference Prode Difference	Ballen BH hegefor 1	And an and a second state	1

Support of 2D Shape files for line styles has been re-introduced.

NRG - Practical Solutions to Technical Problems

Point and Line Style libraries

Our line and point styles have always been made using complex shapes, why AutoCAD with it's huge resources find this so difficult I am at a loss to know. Anyway in order that the user can manage the line and point styles we've created a line and point styles manager.

This will let you load libraries from CAD, edit and delete them etc. You can also see clearly from the manager which lines are inherently supported by CAD (windows and CAD ones) and those which they can only understand in 2D (Complex)

Pleased and Pairtight		- 140 M	- Inter Taxi
Latence drials			
(tole	Appendix	Tare	
-bungviot	- Antonio antonio antonio antonio a	Complex Life Site	_
-bumpyRight		Complex Line Strike	
anto	CONTRACTOR OF A DESCRIPTION OF A DESCRIPTION	Complex Line 5040	
Trons .		Complex Live Stole	
lang/hml	8	MPUS Paint Digits	
Ecology .		MADE Frank 10/14	
490		RPUS Paint 25m	
phé		BRG: Paint Style	
crosseconde	0	KRO Paint Style	
chap-shippare	12	NPG Point Style	
crossebspare .	- BI	MND Paint Owle	
(croine)	86	MDID Paint OMM	
INVITE 1	-	KPUS Paint Digits	
6Hillh		Caspite Life 18th	
-604.05	And a second	Complex Life 354b	
Drachen:	01	RPCS Paint Style	
heath	90046	NEW Point Own	

Access the line and point styles manager from the Display menu or from the features manager menu.

Right click on a style to edit, or use the edit button.

Text Culling

In the display menu there is now a Text Cull option, with 4 sub options

Restrict Line feature text Remove text overwrite Replace culled text Text Cull settings

Restrict Line feature text

Text Culling	Options	
	I Inplene	nt lext culling
Ensure text is n	ot drawn closer tog	pether than:
Datasa		
Uniess ve	ctor difference is g	saler mar. [045/00/00.0
	OK	Cancel

This enables the user to set a minimum distance between text on lines in an attempt to prevent text overwrite.



01248 681240 • www.nrgsurveys.co.uk

Text Culling Cont'd...

This option will examine all the free text and dynamic text and check where they overwrite, then depending on the priorities set, it will add a \TC command indicating the text is to be culled.

Remove culled text by using the remove option and it will show all the feature codes that have culling associated which you can then turn off if desired, this will remove the /TC commands.

Change **Text Cull settings** using this option, where you can prioritise Free text and dynamic text and sort the feature codes into a priority list.



Volume Centroid

After a volume has been run, use this button to highlight a cut or fill. The software tracks around the perimeter of that cut or fill.

Then it shows the volumes for that area and the centroid position. You can attach shading to the area using the dialogue.

				Date
Codine 1-Road 2-ropp 3-laten Typel	VALUE 2001 2005 SYL Have	1973 1973 1981 1984 1984 1958	Gansien El L ante al D	V Atractor Caffare Caffare Thereate Thereate

Use this tool to annotate separate cuts and fills on a project.



Use the centroids to calculate Mass haul

NRG - Practical Solutions to Technical Problems

Volume Compiler

Now that we've optimised the process of calculating volumes so much we found that the most time consuming task was to abstract all the information into a schedule.

Earthworks schedules made simple!

ource File				-94	E.																
timery Cal.	Secondary D		Terlie	Cat		Dip	Tp	1.0	TRef.		Cut plue As	ou of	1	Nakoka	art	0	ut surface	Ássa tif	[78 pute	ca Asea	
1: Amat	Der	-	-			-	-	898 905	58	1.600		12602	591		2016	771		12620.478	-		3
	1.64	in CWig				8.1	80	872.748	16	129		12363	018		1476	160		12368.998			ì
						2		8.000		0000			080		0	080		0.000	1		
			1:1	Colory (arisport.			002.347		1 952		11502	947		1350	773		11538.39			j
				2	Had veg			8.000		008.0		6	080		0	080		0.008	l		
					3 Yes	e		2.763	1	8 305		58	100		120	096		59.543	1		
	-				4.14	01	_	1.000	-	1,322			080		6	280		0.000			
			1245.4			5: Certhal Receive 67.639 0 800			776	563		0	080		771.067						
	2.5	de Road				L1	80	8.000	_	0.000			080		0	080		0.000	<u> </u>		
													CHART .								
Aput In an address						-	-	-	_		1	_		-						_	
53.180	an Miner Land	EQ Ha	52	Castric	Casaly F	ANT AL PAR	W.F	aller Film	a Masa	of Unit	out Sheep	Cheve	Par G	of Particip	See. 1	Barel	by Renativ	Anna	Ben Da	Manual	i
	53 15 4	1	78	32	17 6	0				0	0	0	83	1	15	15	Û	0	28	1	
	89 1080 87	1	3799	105	128 0	23			0	0	0	0	713	BE3	1043	952	0	1: Armil CW	1080	15	
	COM CONC. 100	1	202	900	724 1	1 20				0	0	0	1190	899	\$12	989	2	2 Avea2 DW	589	21	
-	NY 2317 263		10.04	1452	681 1	368			83	3	0	0	838	794	1898	1997	0	3 AreaG DW	730	30	
1	49 1797 202	82	10							Ú.	0	0	1457	18	302	183	0	4 Armal DW	323	299	
1	49 1787 202 71 882 504	82	17	1858	13 1	11 200															
1	49 1767 202 71 682 504 47 277 105	83 1 1	17	1158	13 1 28 5	11 230 8 120			ġ.	ò	0	0	630	17	149	51	0	\$ Avail Dw	343	140	
1	49 1787 200 71 682 504 47 277 105 16 2140 127	127	17 12 1207	1158 485 406	13 1 23 5 525 7	11 290 5 125 6 60			8	00	0	0	E30 292	10	145	51 1714	0	S. AreaS DW R. AreaS DW	30 20	140	
1	49 1767 200 71 682 504 47 277 105 16 2140 127 41 2 130	82 8 1 17 1	17 12 1207 44	1158 405 406 586	13 1 28 5 525 7 191 3	11 290 8 120 6 36		8		000	0	0	502 502 314	100	145 1873 3	51 1714 2	0	2 Anal DV E Anal DV A Anal DV	30 252 118	140	

op tot	Name and Address of State	Tailing-D	14	100	10.01	Cat also done a
Sea 10		-	-	1.00	10.44	
	1.000	+ +			1.00	
			-	100	100	
		-	-			
		1000		10	- 10	-
	_	1100	7	- 10	10	
		of Personal		100	12	-
	2 Sale Read		4.14	1.00	1.00	
F						
Ine		Totale Corport	r Parts	annos ner	And Table	18408
_		_	_			_

To access the volume compiler after running a volume press the 'volume compiler' button this will load the results into a schedule. Alternatively to load a previously saved volume select volume compiler from the Volumes Menu.

Once you have a set of results loaded you can use one of our default templates or create your own. To start a new template – File, New Template. Then add items in using the add item option

"Velocitador literator laterative literative	ngia officeran peritori dei	ad up ar we have been to your ve	лан нүлс
Entertainmento the sea late: [GLScale Later]	takar-nater)	_	
and 1			1

The wizard will guide you through adding an item

The primary category that you have set in the measure will always be used to determine the measure zones.

01248 681240 • www.nrgsurveys.co.uk

Gelezite Honelon rangenie tribe indiele	Sofè-Ion.		
1 Ban Dola 1 Yangi 2 Yangi 2 Jangu ana 2 Jangu ana 2 Jangu ana 3 Jangu ana 3 Jangu ana 113		7	

Add the secondary categories to be included in the item. Then the third, fourth and fith depending on the categorisation you have set during the volume run.

Gloubble-Immiorne under	in calendary accordio- at \$0°
	T Ensembles
	* 19
formers desired since of	and the local sector of the local sector of the
	and the second
And in the second second	An annual a second and the first second second like the data in start of second s
Acclinate states with to map column invelicit Colocald Se-	the banks a generation, wher the courses work: We the data to their it and the seated.
Acclinate itses with to map come involution to should be Wingstract	The larve a generalized, arise the reveals would be the data to dark it and the second.
Anchinelle straps with its mag coloure Provident & strands for 19 Magnifest	The hard of a standard of the first

Finally specify whether it is to be included as a cut or fill, set the number of decimal places to use and map it to a spreadsheet if you wish. Default Excel spreadsheets have been included in your set up



Next tell it which element is to be used



Earthworks schedules have never been this easy!

ž,	È	ë	i.		-																										1.4	-	i nin Bada
	-	-	-	-		-	-	-	-	-	-	-		-		The statement of some	in a s	121	-		412	-	-	-	-	-	-	-	-	-	-	-	
	-	-	-	-	-	ΞĒ.	20	1.10	(Pri	-	-	-	-	-	-		٣	-		-		-	-		18.1		-	-	-	-	-	-	_
		CD.	UPD)	80		Г	199	CT.	177	-	8	Г	Г	Г	Г	1	Þ	ЯN	80	Ł	1.08	Г	FEL.	10	12-	OB.	44	60	П		11		1
3.6		1	91	12	17	ħ	14	Ľ.	1h	Г	12	ī	ħ	ī	1	1					-	Þ	=	R	1.0	-	57	F	53	1		10	3
	Gos IntendeCulte	And in the foundary and an	And Annual Annual Control of State	And the party of the local division of the l	state in an investor	Most National or Venue	And Industry Artic	New Tastendo Calles	Main Techniky Artist	Advent Stational and a Collins	hiter lastenske/beike	service water offer that they fight	THE REPORT	saming of Charle 16	and the second second	LOCATER	Manager A	hunghest in whether	on the particular particular of the	Invite Autor (Red)	Althu & and any or home	Bank Lape Balan Take	haire Layer/Count	have Lape	Status Lappy makers at	Capity for cause Middle day	Calify A	NA ACCREATE	Caneta in Law and Dame Robinson	Capity Solice Sublication	Callery Sources Subdrawn	WACKING In Cases Induction	College of the and these functions
1	1	1	4	5	6	F	ŀ	1	P	F	11	11	P	11	1	and the second sec	-	-	1			-	21	64		18	81	*	11	81		14	11 1
	-	Ц	_	_	-	+-	1	1	4	⊢		⊢	1	⊢		warding on the	1		Ц	_	_	1	-		Ц	-	-	Ц		_	Ц	_	\rightarrow
		Ц		_	_	1	1	1	1	1	1	1	L	1	1	Read of a response of the set	1	1	Ц		_	1		1	Ц	-	_	Ц		_	Ц	_	-
	-		-	-	-	+-	+-	⊢	+-	⊢	-	⊢	_	⊢	-	And a second sec	_	-	н	-	_	-	-	-	н	-	-	н	-	_	н	_	\rightarrow
	-	H	-	-	-	+	+	⊢	+	⊢	-	⊢	⊢	⊢	-	No. of Academic Street, or other	+	-	н	-	-	⊢	-	-	н	-	-	н	-	-	н	-	\rightarrow
		Π				t	t	T	t	t		F	t	F	\square	No. of Concession, Name	T	\square	Π			T		\square	Π	F		Π			Π		Ħ

Once you have you items defined simply call them up in excel, save the summary as a CSV file or print them from the File menu.

NRG - Practical Solutions to Technical Problems



Benching Wizard



anting Kristel Maximum and anti-terrating saturation Takamunikanan kalak kirikataring saturation	
Fished Medd Trap Mann Tar	1.00
Edwing Nodel	NH.
See to be	1.00

Specify the model to bench

Specify the models to use for benching

Specify the surfaces

Specify the gradients

And the second s

Specify the rise or going

Break up the measure using a locations model

lanet made			
1000	Total No.	1744	14
÷	108	189	
	1988	INVITE N	
	- 140	1.85	
	1.00	1.48	
	- 101	4.04	
1	100	3490	
-	1.00		_
	14,004	1.40	
	1.02	1.00	_
-	141	149	
	100.000	10.04	- 6

Display results

Line widths / parallel Lines

Windows and CAD line styles now recognise the /W command as a parallel line.



Trimble Link

Trimble have been kind enough to give us direct access to their link engine which means we can import virtually any type of Trimble survey data direct from their devices.

'Break' Lines 🔀

To get rid of long lines we've added this simple tool which allows you to add /ST's by dragging a line across the screen, it will break any lines that it crosses.



NRG Surveys Ltd. Castle View, Station Road, Llanfairfechan, Gwynedd LL33 0AN

> Tel: 01248 681240 Fax : 01248 680914 www.nrgsurveys.co.uk