Topic: Draw Profile Tool - Geopak Road

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GEOPAK 2004 introduces a new way to create existing ground profile, plot existing ground profile and plot proposed profiles through one dialog. The Draw Profile Tool enables the user to draw several profiles from a variety of sources; GEOPAK coordinate geometry database, GEOPAK binary TIN file and Site Model or Site Object when using GEOPAK SITE.

The Draw Profiles Tool is not available through project manager workflow dialog box, but can be accessed by selecting **Applications>GEOPAK ROAD>Plans Preparation>Draw Profiles** or from the **Plans Preparation tool palette** as shown below.

elect Job # - :lect Chain —	Image: Solution s Image: Solution s Image: Solution s Image: Solution s			

Brown Bag Lunch & Learn #11 8/9/06

Microstation File Station Elevation H. Scale	V. Scale Gap Profile Ce Place Profile Cell
Station: 10+00.00	
Horizontal Scale: 100.000000 Vertical Scale: 10.000000 No Gap V Cell Range Top Elevation 7600.00 Bottom Elevation 7400.00	Enter Project Info.

Data point to place the profile cell and Profile Cell Control dialog box will be populated as shown below.

	8 Profile Cell Control							
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Active Profile Cell -	🔸 💽 A 🛛 Active Design	10+00.00	7400.00000	100.00	10.00	uap	*⊐ ★ ★	- make Active

Double click will allow also to activate the designated profile cell (large dot will be placed in the dialog). "A" tells that the profile cell is in the active design.

Close the Profile Cell Control dialog box. A profile cell is required in order to unghost the majority of the Draw Profile Tool dialog box. Profile cell can be placed by any method within GEOPAK prior to drawing profiles.

The Draw Profile dialog box has 3 tabs: Surfaces, Cogo and Projection.

Surfaces Tab

Surfaces tab can be used to cut existing ground profile from a tin file using the triangles method (recommended). Existing ground profile can be plotted using the level symbology or the D&C Manager Feature setting.

	궁 Draw Profile		
	File Edit Update Options		
	Job Number: 101 🛨 🦂 🚰 Chain: MAIN 💽	Label Scale: 100.0000 🔶	-Select Label Scale
	Surfaces COGO Projection		
	Type Name Display Settin	2	
	Details*		
	TIN File: roject\Survey\Pro		1000 C 2000
	Method: Triangles Triangles	Select Triangles (Rec	mmended option)
Select By Feature -	Display Settings	Filter Tolerances Horizontal: 0.10	
(Recommended option)	By Feature Feature: < No Entries >	Horizontal: 0.10 Variance: 0.03	Use for english projects
	Station Limits	Offsets	Metric use: .03 & .009
	☐ Begin: 10+00.00 ***	Horizontal: 0.00	
	🖵 End: 115+66.87 👐	Vertical: 0.00	
	r Void Energy		

To select D&C Manager feature settings, browse to CHAINS/PROFILES> CFL/EFL>EXPROF Existing ground profile. Select OK to accept feature from D&C Manager.

8 Select Design & Computation Payitem	
<u>File Edit S</u> ettings F <u>a</u> vorites <u>H</u> elp	
岗 id	OK Close
N:\Standards\V8_RESOURCE_30\Standards\DDBS\English\V8_ENGLISH.ddb CHAINS/PROFILES	
CFL/EFL	
📥 CL Proposed Centerline/Baseline	
DPROF Design profile	
EXPROF Existing ground profile LT Low Profile	
A BT Low Profile	
💾 PLINE Staked line	
MVBA Applications	
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Select the **Add Surface Settings** icon to populate the surface settings into the dialog box and instantly draw the profile onto the profile cell.

8 Draw Profile		Î	
File Edit Update Options Job Number: 101 💽 💦 着 Chain: MAIN 💽	Label Scale: 0.000000		
Surfaces COGO Projection			
Type Name Display Settings TIN c:\\Project.tin EXPROF	Draw	– Add Surface Setting - Modify Line - Remove Surface - Store Surface in Cog	<u>jo</u>
		8 Store Profile	
Details TIN File: roject\Survey\Project.tin Method: <u>Triangles</u> Display Settings <u>By Feature</u> Feature: EXPROF	Filter Tolerances Horizontal: 0.10 Variance: 0.03	Ptotile Name: EXMAIN	
☐ Begin: 10+00.00 ↔ Ho	fsets rizontal: 0.00 Vertical: 0.00	—— Cut ground at Horizontal and/or Vertical Offsets	

<u>COGO Tab</u>

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File Edit Update Options	
Job Number: 1101 🛨 🦧 🚪 Label Scale: 100.0000 🔶 Chain: MAIN 🖃	Enter Label Scale
Surfaces COGO Projection	
Name Display Settings Draw	— Select Add Cogo Profile Settings icon once the desired options are selected, profie will be drawn.
Details* Select Proposed Profile	
Profile Name: PRMAIN Station Limits Vertical Offset: 0.00	- Options
☐ End: [49+14.36 ↔	General VPI Labels From VPI
□ Display Settings □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	VC Grade Labels '+' and '' ▼
By Feature Feature: DPROF Grant Line Style	
Options Select D&C Feature	- Options
General Strip Grade Increment: 0.00	General 🔲 Incremental Elevations 🗖 VPC/VPT Label
VPI IF Horizontal Axis Labels VC IF Vertical Axis Labels	VPI V.C. Parameters
Vertical Axis Labels	I External Length
	Stopping Sight Distance
Select Options (same as D&C)	

Cogo tab can be used to plot multiple profiles defined in Cogo using the D&C Manager Feature settings or Level Symbology.

Proposed profiled D&C Manager Feature settings can be selected from CHAINS/PROFILES> CFL/EFL>DPROF Design profile. Select OK to accept feature.

Projection Tab

Projection tab can be used when the chain and profile that needs to be drawn is different than the chain and profile used to create the profile cell. Example: Bottom of Wall chain and profile projected to the Top of Wall Chain.

	🛿 Draw Profile 🛛 🗐 🔀
	File Edit Update Options
Top of Wall—	Job Number: 101 - A Label Scale: 100.0000 Chain: TOPW - Chain: Court of the chain of the c
	Type Chain Profile/Surface Display Settings Drain Cogo BOTW BOTW1 Lv: AUX_02, Co:\ 3 Image: Colored c
Bottom of Wall- Chain & Profile	Details Type: Cogo Chain Stationing Chain: BOTW BoTW Profile: BOTW1 End: Vertical Offset: 0.00
	Filter Tolerances TIN File: Method:
	Display Settings By Level Symbology Feature: DPROF

Profile settings can be saved for future use by selecting **File>Save**, file will be saved with a **.prd** extension.

🖁 Draw P	rofile	Use Update Profile icon to update
File Edit Load Append Save Save As	Update Options Iber: 101 IN OGO Projection	any previously drawn profile. (synchronizes with latest GPK) User selected update option will be applied. Update Options Delete Existing Elements and Redraw
Exit	Chain Profile/Surface Display Settings Dra	 Delete Non-Modified Elements and Redraw Draw on Top of Existing

Query

Information contained in this handout is taken from Geopak Help Files.

Related links: Using Knucklehead's Guide for GEOPAK Road 2004 Edition.-Draw Profiles