

SURPAC Ver 5.06 for Windows 98/NT/2000 - Field Traverse Calculations

File General Conversions Least Squares Topographical Engineering Mining Cadastral Help

Set Up Point Y Co-ordinate X Co-ordinate Height Instr. Height [SI+SE] Fac Orient Correction
 TS4 113 969.927 2 846 648.413 1 453.114 0.000 0.999932 -0:05:10 ±14.0"

Fwd Direction Fwd Distance Back Distance Fwd DH Back DH
 268:44:08 451.927 -0.731

Start Traverse
 Re-Do Last Leg

Traverse To Y Co-ordinate X Co-ordinate Height Mean Distance Mean DH
 TSS 113 518.110 2 846 638.440 1 452.383 451.927 -0.731

Print Traverse
 Save Traverse
 Options

Set-Up Points
 RESEC
 RESEC
 TS1
 TS2
 TS3
 TS4
 TS5
 TREE

Observed Points
 TR 56
 TR156
 TS3
 TS5

Field Traverse using Observation File : Rtrav

Name	Y	X	Observed	Calculated	Correction	
SET-UP RESEC	114 286.413	2 845 483.026				
TR 56	114 885.620	2 847 115.260	20:09:53	20:09:31	-0:00:22	
TR156	118 952.630	2 841 854.620	127:52:14	127:52:06	-0:00:08	
TR102	114 996.740	2 842 552.480	166:22:35	166:22:30	-0:00:05	
TR247	112 417.850	2 846 621.410	299:03:30	299:03:41	+0:00:11	
TR248	108 335.071	2 839 519.384	224:56:28	224:56:27	-0:00:01	
Mean Orientation Correction at RESEC = -0:00:04						
F/B	Oriented	Reduced				
Page	Direction	Distance	Name	Y	X	Z
25	355:22:50	405.441	TS1	114 253.760	2 845 687.150	1 452.942
Name	Y	X	Observed	Calculated	Correction	
SET-UP TS1	114 253.760	2 845 687.150				
TR 56	114 885.620	2 847 115.260	27:18:57	27:13:33	-0:05:24	
TR248	108 335.071	2 839 519.384	222:59:28	222:54:24	-0:05:04	
RESEC	114 286.413	2 845 483.026	175:27:44	175:22:50	-0:04:54	
Mean Orientation Correction at TS1 = -0:05:06						

Co-ordinate File = C:\Surpac98\Samples\Rtrav Observation File = Rtrav 12:48 21-10-02 NUM CAPS INS

The Field Traverse Programme, showing intermediate calculations



Field Traverse Calculations

- Calculates and adjusts a series of Traverse Points, using adjusted data extracted from a User defined SURPAC Observation File.
- Each Set-Up in the Traverse is oriented using one, or more, interior and/or exterior orientations. The T-t corrections are also applied.
- Traverse Distances are reduced for Scale Enlargement, Sea Level, Projection Factor and Slope. Vertical Angles are corrected for Curvature and Refraction.
- If observed, the mean of forward and back distances and vertical height differences are used.
- Traverse may be 2D (Y, X) or 3D (Y, X, Z).
- Three adjustment alternatives are offered to adjust the Traverse mis-closure.
- The SURPAC Planimetric Least Squares Adjustment programme may also be used for computing Traverses.