

SURPAC Ver 5.35 for Windows XP/Vista/7 - Observation File Editing

File General Conversions Least Squares Topographical Engineering Mining Cadastral Help

Actions: Open a File, Print Field File, Print Raw Obs, File Options, Download Data, Import ASCII, Merge a File, Descriptions, Add Data, Insert Data, Delete Data, Copy Data, Paste Data, Find Item, Find Next, Replace Item

| Desc Code | Obs Code | Point Name | Horizontal Angle | Slope Distance | Vertical Angle | Inst/Targ Height | F/B Page | Obs Active |
|-----------|----------|------------|------------------|----------------|----------------|------------------|----------|------------|
| | 05 | KLD001 | 85:55:12.0 | 77.8590 | 89:50:57.0 | 0.0000 | | No |
| | 02 | TV2 | SET UP | STATION | | 0.0000 | | |
| | | | Date = | 18/02/2008 | Time = | 15:12 | | |
| 2 | 04 | MH2 | 193:42:12.0 | | 90:23:53.0 | 0.0000 | | ✓ |
| 3 | 05 | MH2 | 193:42:12.0 | 57.6210 | 90:23:53.0 | 0.0000 | | ✓ |
| 4 | 01F | 05 | 62DF | 205:06:26.0 | 15.4810 | 89:39:46.0 | 0.0000 | ✓ |
| 5 | 01F | 05 | 62DF | 205:06:26.0 | 15.4820 | 89:39:46.0 | 0.0000 | ✓ |
| 6 | 05 | TV1 | 44:14:27.0 | 18.8030 | 90:31:41.0 | 0.0000 | | ✓ |
| 7 | 09P | 05 | H9 | 346:52:52.0 | 12.5940 | 92:37:24.0 | 0.0000 | ✓ |
| 8 | 09P | 05 | H10 | 289:11:21.0 | 6.4600 | 93:56:24.0 | 0.0000 | ✓ |
| 9 | 09P | 05 | H11 | 288:39:34.0 | 12.5740 | 91:06:17.0 | 0.0000 | ✓ |
| 10 | 16P | 05 | MR1 | 279:44:18.0 | 30.8420 | 91:28:15.0 | 0.0000 | ✓ |
| 11 | 09P | 05 | H12 | 273:11:00.0 | 68.9970 | 91:01:51.0 | 0.0000 | ✓ |
| 12 | 09P | 05 | H3 | 272:22:44.0 | 33.2980 | 91:25:54.0 | 0.0000 | ✓ |
| 13 | 09P | 05 | H4 | 272:22:28.0 | 12.9720 | 92:18:21.0 | 0.0000 | ✓ |
| 14 | 09P | 05 | H5 | 259:13:55.0 | 7.3410 | 93:08:32.0 | 0.0000 | ✓ |
| 15 | 04 | MH2 | 193:42:09.0 | | 91:26:21.0 | 0.0000 | | ✓ |
| | 02 | TV1 | SET UP | STATION | | 0.0000 | | |
| | | | Date = | 18/02/2008 | Time = | 15:27 | | |
| 17 | 04 | MH2 | 201:04:39.0 | | 90:26:29.0 | 0.0000 | | ✓ |
| 18 | 05 | MH2 | 201:04:39.0 | 74.4310 | 90:26:30.0 | 0.0000 | | ✓ |
| 19 | 05 | 62DF | 215:36:27.0 | 33.8160 | 90:18:22.0 | 0.0000 | | ✓ |
| 20 | 09P | 05 | H6 | 224:00:40.0 | 33.6070 | 89:56:59.0 | 0.0000 | ✓ |
| 21 | 09P | 05 | H5 | 233:52:15.0 | 25.2380 | 93:53:21.0 | 0.0000 | ✓ |
| 22 | 09P | 05 | H10 | 239:26:14.0 | 22.3280 | 92:26:54.0 | 0.0000 | ✓ |
| 23 | 09P | 05 | H9 | 265:36:38.0 | 16.0270 | 92:47:33.0 | 0.0000 | ✓ |
| 24 | 16P | 05 | MR2 | 267:07:53.0 | 43.6810 | 89:46:14.0 | 0.0000 | ✓ |
| 25 | 16P | 05 | 3PF | 275:58:19.0 | 11.8850 | 92:13:52.0 | 0.0000 | ✓ |
| | 02 | TV3 | SET UP | STATION | | 0.0000 | | |
| | | | Date = | 18/02/2008 | Time = | 16:03 | | |
| 27 | 16P | 04 | MH2 | 126:17:08.0 | | 89:14:41.0 | 0.0000 | ✓ |
| 28 | 05 | MH2 | 126:17:08.0 | 78.4640 | 89:14:42.0 | 0.0000 | | ✓ |
| 29 | 05 | KLD001 | 103:25:41.0 | 60.8240 | 89:14:26.0 | 0.0000 | | ✗ |
| 30 | 09P | 05 | H17 | 83:08:24.0 | 42.4220 | 87:05:13.0 | 0.0000 | ✓ |
| 31 | 09P | 05 | H18 | 86:05:00.0 | 41.8030 | 88:22:57.0 | 0.0000 | ✓ |
| 32 | 09P | 05 | H2 | 64:32:13.0 | 26.4120 | 89:27:51.0 | 0.0000 | ✓ |
| 33 | 09P | 05 | H12 | 30:53:30.0 | 15.5930 | 89:35:22.0 | 0.0000 | ✓ |
| 34 | 09P | 05 | H13 | 5:51:00.0 | 16.1470 | 90:09:01.0 | 0.0000 | ✓ |
| 35 | 09P | 05 | H14 | 4:40:38.0 | 19.3060 | 87:22:25.0 | 0.0000 | ✓ |
| 36 | 05 | 62FF | 323:37:03.0 | 21.3850 | 90:39:48.0 | 0.0000 | | ✓ |
| 37 | 05 | 3U | 327:59:27.0 | 24.9340 | 90:42:50.0 | 0.0000 | | ✓ |
| 38 | 04 | MH2 | 126:17:12.0 | | 89:40:10.0 | 0.0000 | | ✓ |
| | 02 | MH1 | SET UP | STATION | | 0.0000 | | |
| | | | Date = | 18/02/2008 | Time = | 16:33 | | |
| 40 | 04 | MH2 | 108:07:51.0 | | 89:42:42.0 | 0.0000 | | ✓ |
| 41 | 05 | MH2 | 108:07:51.0 | 86.0110 | 89:42:41.0 | 0.0000 | | ✓ |
| 42 | 05 | KLD001 | 85:55:12.0 | 77.8590 | 89:50:57.0 | 0.0000 | | ✗ |
| 43 | 09P | 05 | H6 | 77:43:55.0 | 87.1550 | 89:44:22.0 | 0.0000 | ✓ |
| 44 | 09P | 05 | H8 | 69:29:02.0 | 64.2540 | 89:50:49.0 | 0.0000 | ✓ |
| 45 | 09P | 05 | H2 | 53:46:14.0 | 52.4870 | 90:21:16.0 | 0.0000 | ✓ |
| 46 | 09P | 05 | H3 | 63:46:15.0 | 69.2590 | 88:44:35.0 | 0.0000 | ✓ |

Current File Printed Pages: Pg: 123

SURPAC Calculator: 0. Dms, Dec, TT, CE, AC, Sin, Cos, Tan, MR, MC, Asn, Acs, Atm, M+, M-, x², √x, xY, S, E, Join, Polar, X, O, X!, Y, N, Inst, FV, PV, Rate, RS?, 7, 8, 9, ←, →, 4, 5, 6, X, ÷, 1, 2, 3, +, -, 0, ., =, ←

Co-ordinate File = C:\Surpac98\Samples\General_test_file Observation File = C:\Surpac98\Samples\Veldwerk - Pasion 09:05:18 06-05-2010

Observation File showing Set Up Stations and non-Active (temporarily disabled) observations



General Observation File Loading/Editing

- This is one of the core programmes in SURPAC, as it the primary interface between the Surveyor's field work and the calculation and/or draughting applications within the software.
- Data in an Observation File are required to be in the observation mode, viz :-
 - Point Name
 - Point Description Code
 - Observation Code

- **Horizontal Angle**
- **Vertical Angle (If 0°, 90°, 180° or 270°, then the Distance given must be the Horizontal Distance)**
- **Slope Distance**
- **Instrument Height**
- **Target Height**
- **The Point Description Code is a simple value, 1 through 9, which allows the selected application to identify the function of each Data Line in the Observation file, and to apply the appropriate action.**
- **Data input into an Observation File is by either :-**
 - **Direct Downloading from a Total Station or an Electronic Logger,**
 - **The currently supported Total Stations and/or Electronic Loggers are :-**
 - **The Psion Organiser using the "Handi-Data Solutions Booker Ver 5" software,**
 - **The Psion Workabout, using the "Handi-Data Solutions Booker Ver 6" software,**
 - **The Leica/Wild GIF10 data logger,**
 - **The Leica TC 605/805/905 Series Total Station,**
 - **The Leica TCR 303/305/307 Series Total Station,**
 - **The Nikon DTM-400 Series Total Station,**
 - **The Nikon NPL-300/350/500/800 Series Total Station,**
 - **The Pentax PCS-300/R-300 Series Total Station,**
 - **The Pentax W-825NX Series Total Station,**
 - **The Sokkia SET2C/SET3C Series Total Station,**
 - **The Sokkia SET2100/SET3100/SET4100 Series Total Station,**
 - **The Sokkia SET2110/SET3110/SET4110 Series Total Station,**
 - **The Sokkia SET300/ SET500/ SET600 Total Station,**
 - **The Topcon GTS-200/210 Series Total Station,**
 - **The Topcon GTS-500/700 Series Total Station.**
 - **The Topcon GPT-3000 Series Total Station.**



The Topcon GPT-3100 Series Total Station.

- Downloading from a variety of ASCII file formats,
- Copying from the Windows Clipboard,
- Importing from another SURPAC Observation File, or
- by Manual Data entry.
- The following SURPAC applications use data extraction from a User selected Observation File :-
 - Mass Polar reductions, or individual Polar reductions,
 - Reverse Polar reductions,
 - "Two Sides and the included Angle" reductions,
 - Tacheometric reductions,
 - Field Traverse calculations,
 - Least Squares Adjustment of Single Point Fixes [Y, X, Z] (or [E, N, H]),
 - Least Squares Adjustment of [Y, X] (or [E, N]) Networks,
 - Least Squares Adjustment of Trigonometrical Height Networks,
 - Mining "Double Set-Up" Peg Fixing,
 - Mining "Double Button" Peg Fixing,
 - Mining Off-Set (direct and/or indirect) reductions.
- Once an Observation File has been generated, various editing/printing functions are available, such as :-
 - Manually modifying, or Deleting, Data Lines,
 - Using the Windows "Cut and Paste" to move blocks of Data around the File,
 - Manually Adding or Inserting new Data Lines,
 - Meaning multiple Point sightings within a Set Up,
 - Auto-detecting any Code inconsistencies in the File,
 - Applying a User selected factor to Distances and/or Target Heights,
 - Changing the "Active" status for individual observations, or Set Ups. The "Active" status of a Data Line determines whether or not that Line is used in a called application,
 - Printing the Observation File in "Raw" format,
 - Printing the Observation File in "Field Book" format,
 - Creating an ASCII file of the Data,
 - Sending the Data to the Windows Clipboard.