Profil Manager Software

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1. INTRODUCTION

1.1 PROFIL MANAGER SOFTWARE

Profil Manager is a utility program supplied with the Roctest Profil inclinometer system. The Profil Manager program can:

- Create inclinometer databases.
- Import inclinometer surveys.
- Display, print, and export simple inclinometer plots.
- Generate QR codes for use as inclinometer IDs.

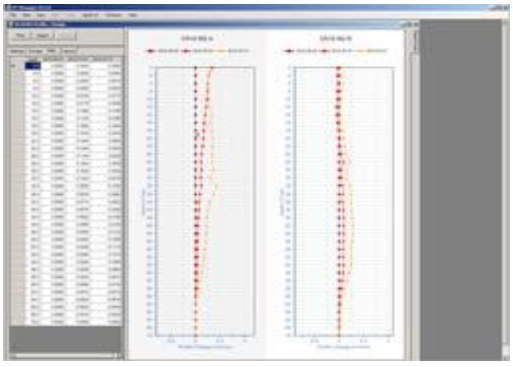
1.2 SYSTEM WORKFLOW

1. The Roctest Profil probe, reel, and reader are used to survey inclinometers. Survey readings are saved to inclinometer data files.

2. The Profil reader sends borehole data files to a PC, which stores the files in an import folder.

3. Profil Manager imports the inclinometer data into a database.

4. Profil Manager displays and prints inclinometer plots.



2. CREATE A DATABASE

2.1 OVERVIEW

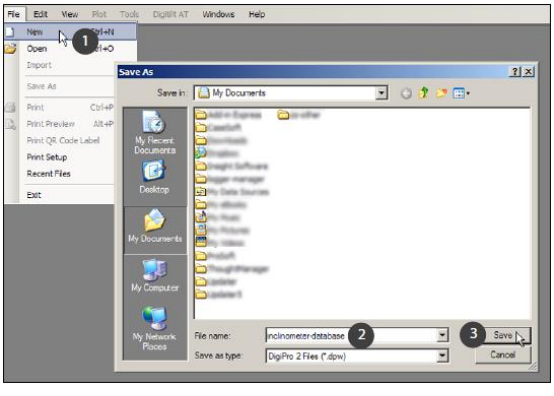
Profil Manager Program creates a database to keep inclinometer surveys neatly indexed by inclinometer name and survey date.

2.2 INSTALLING PROFIL MANAGER

1. Direct your browser to www.roctest.com.
2. Click Support - Download – Roctest Profil Manager.
3. Run the “Profil_manager _setup.exe” program after it downloads.

2.3 CREATING A DATABASE

1. Start Profil Manager, then click File - New.
2. Enter a name for the database.
3. Click Save.



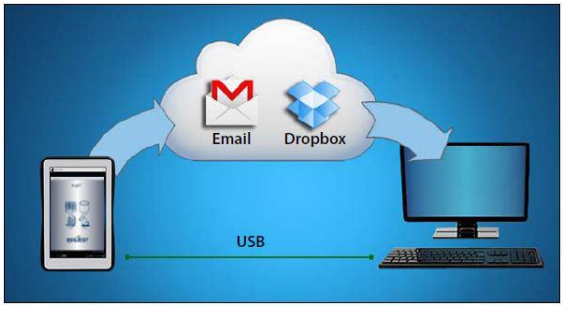
Notes:

- The default folder for the database is “My Documents” in Windows XP or “Documents” in Windows 7 and 8. You can choose a different default folder: click Edit - Preferences - Database Folder.
- In this example, the database file is named “inclinometer-database.” You can choose a different filename.
- The database file has a .dpw extension and is compatible with Profil Manager and DigiPro 2.

3. DUX FILE TRANSFERS

3.1 OVERVIEW

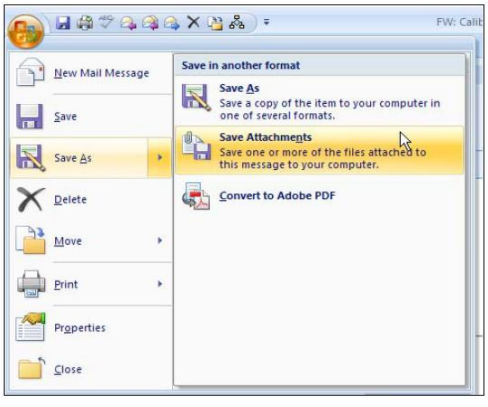
If the internet is available, the Reader can send dux files to the PC by email or Dropbox. Internet transfers are convenient and partially automated. If the internet is not available, you can use the Windows file manager and a USB cable to copy files from the Reader to the PC.



3.2 EMAIL TRANSFERS

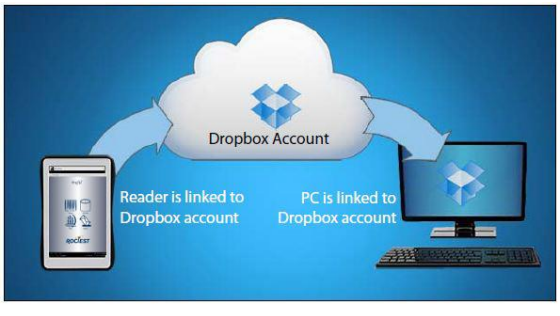
The Reader sends dux files as attachments to an email message.

1. Open the email message with Outlook, Gmail, or some other email client.
2. Save the dux files attachments into the import folder.



3.3 DROPBOX TRANSFERS

Dropbox transfers are more automated than email transfers. No user actions are required. The dux files sent from the Reader simply appear in the import folder on your PC.

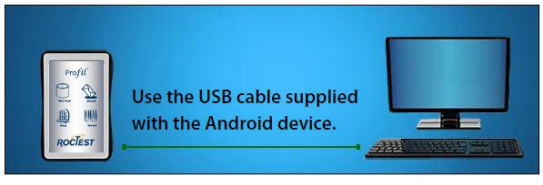


The convenience of Dropbox is well worth the time that it takes to set up. Other cloud services such as Google Drive can be set up in a similar way.

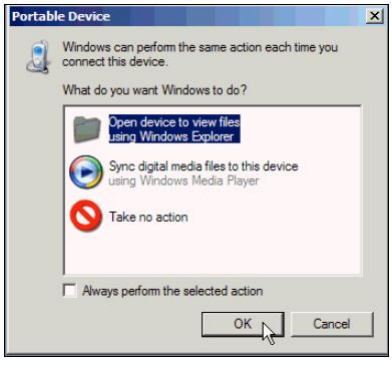
1. Visit Dropbox.com using your web browser. Create a free Dropbox account. Enter an email address for the User ID, then create a Dropbox password. User ID and password are used again in the next steps
2. Download Dropbox for Windows. Run the setup program and then log in to Dropbox, using your User ID and password. Now your PC is linked to Dropbox in the cloud.
3. Start RPM and create a default import folder in Dropbox, as explained in the previous chapter.
4. Visit the Google Play store using your Android device. Search for Drop-box and install it. You already have a Dropbox account, so login using your User ID and password. Now the Android device is linked to Drop-box, too.
5. The Dropbox file listing on your Android device now shows the default import folder. That is where the Reader app will send dux files.

3.4 USB TRANSFERS

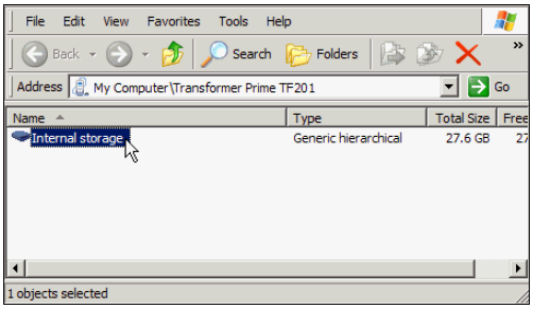
Use the Windows file manager and the USB cable supplied with your Android device. No USB drivers are required.



1. Connect the Reader to the PC using the USB cable.
   Switch on the Reader.
   A dialog appears on your PC. Choose “Open device ...”

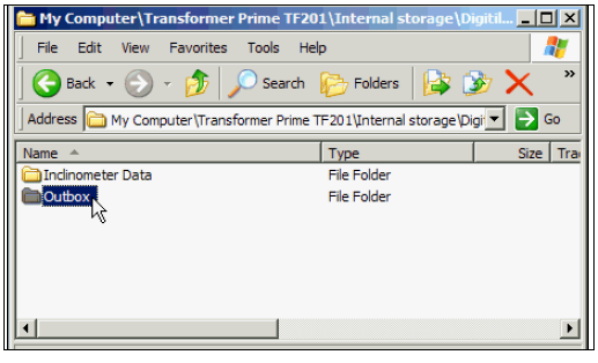


2. Windows opens the device. Click on “Internal storage.”

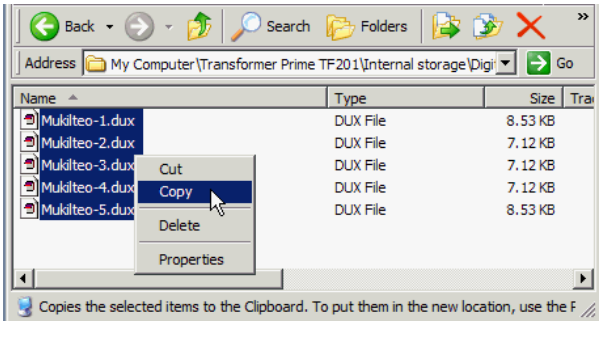


3. Windows displays list of folders. Click on the “Profil Reader” folder.

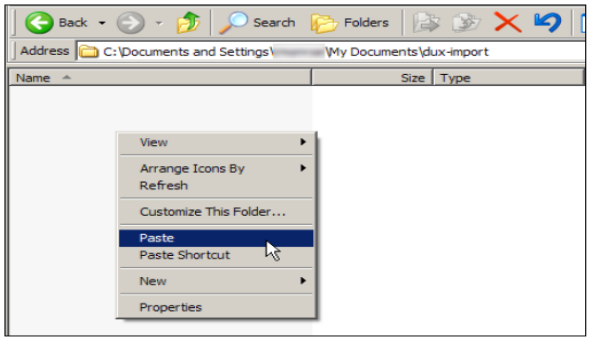
4. Click on the Outbox folder. This folder holds the dux files that should be transferred.



5. Select all the dux files in the Outbox, then right-click, and choose Copy.



6. Now paste the dux files into the default import folder.



4. CREATE AN IMPORT FOLDER

4.1 OVERVIEW

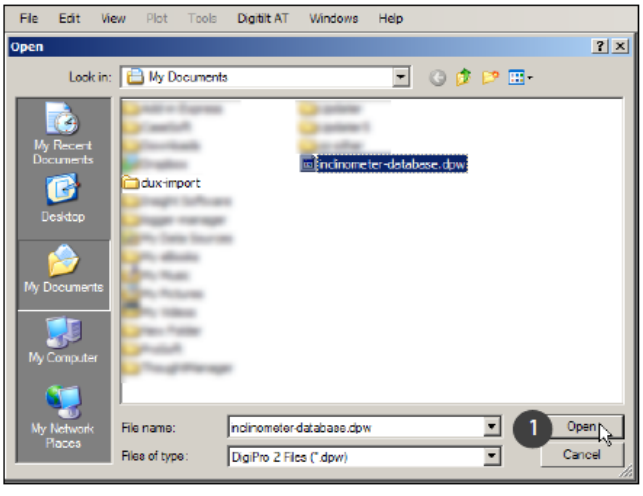
The Profil Reader sends inclinometer data files to the PC. This chapter tells how to create an import folder to hold the files.

4.2 .DUX FILES

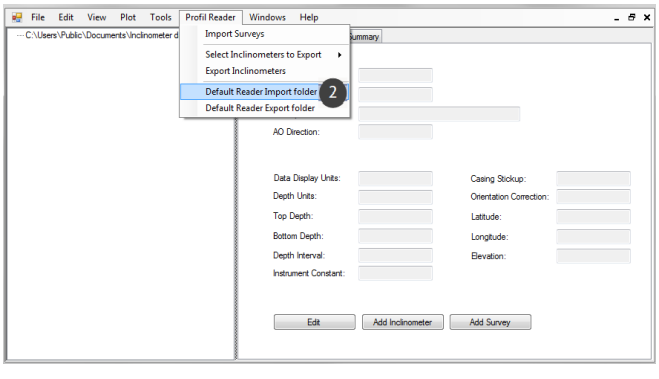
Roctest Profil inclinometer data files have a .dux extension.

4.3 CREATING THE IMPORT FOLDER

1. Start Profil Manager. Open the database that you just created. Import Folder

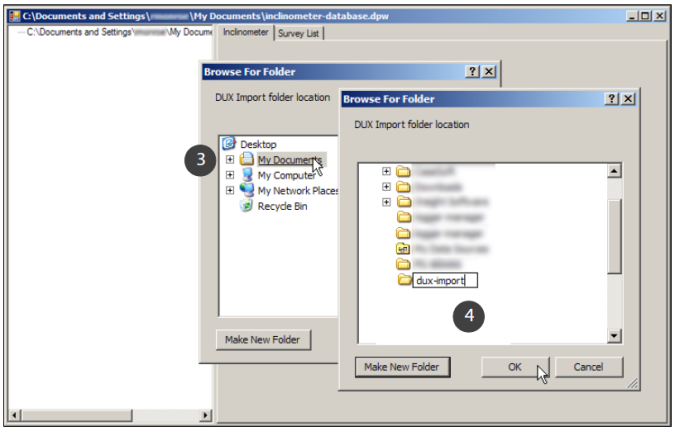


2. Click Roctest Profil - Default Import Folder.



4.4 CREATE IN MY DOCUMENTS

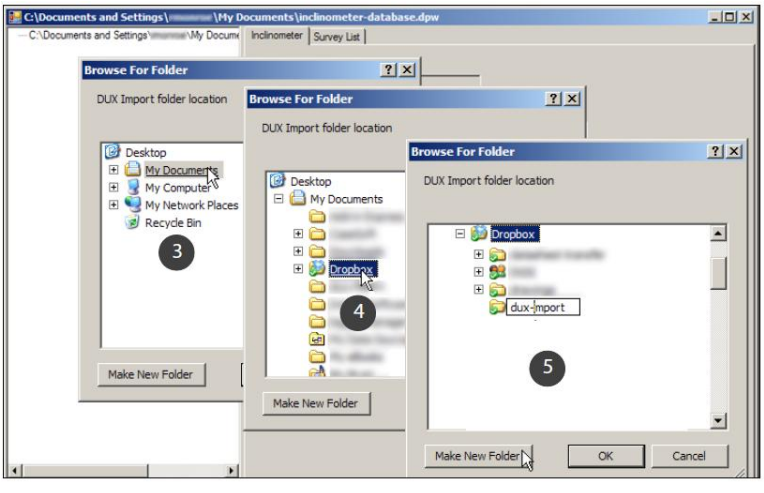
1. Click “My Documents” (XP) or “Documents” (Win 7 & 8).
2. Click “Make New Folder,” enter a name for the folder, and click OK. In the example below, the folder is named “dux-import,” but you can choose your own name.



4.5 OR CREATE IN DROPBOX

Dropbox appears as a folder within My Documents, so create the import folder within Dropbox:

1. Click My Documents.
2. Click the Dropbox Folder.
3. Click “Make New Folder,” enter a name for the folder, and click OK. In the example, the folder is named “dux-import,” but you can choose your own name.



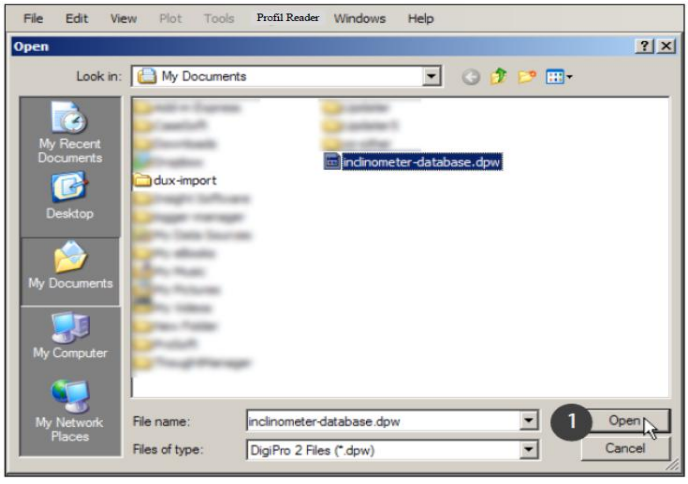
5. IMPORT SURVEYS

5.1 OVERVIEW

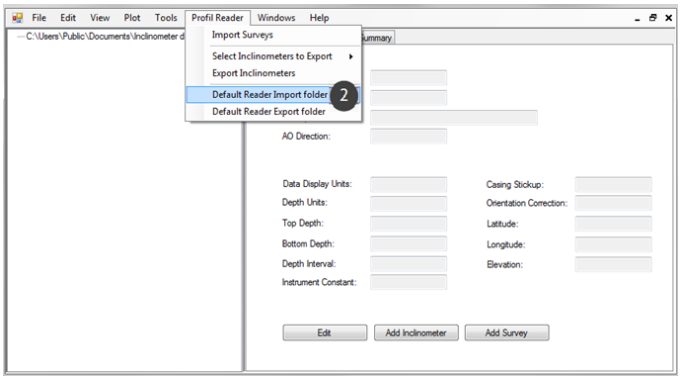
The instructions below assume that you have a database and some dux files in the import folder.

5.2 IMPORTING SURVEYS

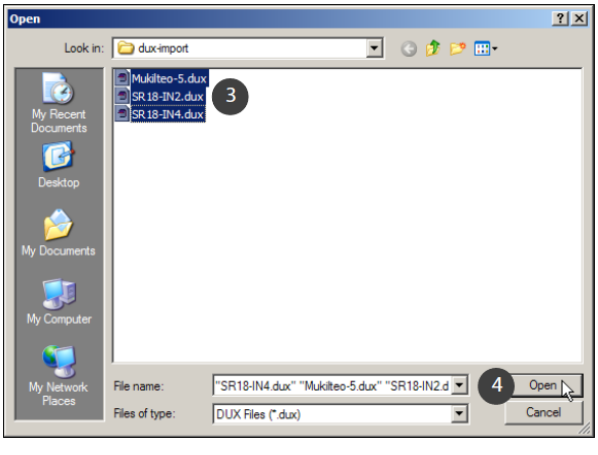
1. Open the database.



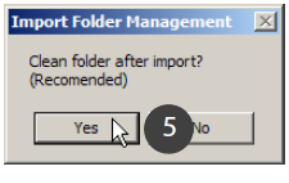
2. Click Profil - Import Surveys. Profil Reader opens the default import folder.



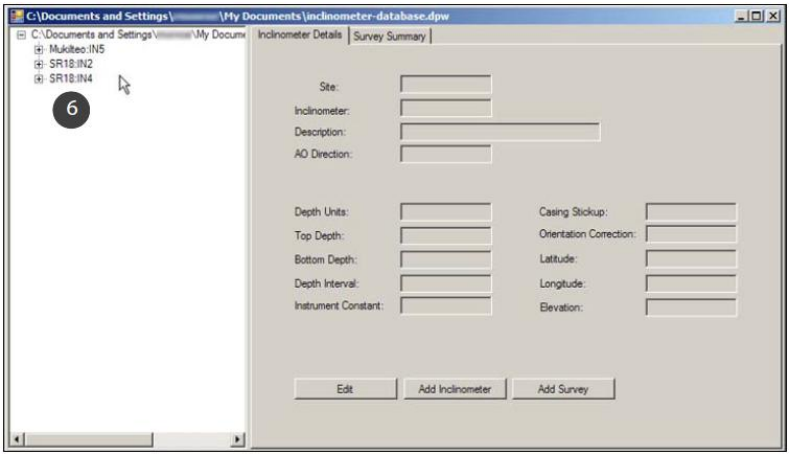
3. Select the dux files that you want to import (Ctrl-A for All).
4. Click Open.



5. Click “Yes” to allow Profil Manager to delete dux files that are imported successfully. These are no longer needed.
   The Reader keeps the original files and the database has the transferred readings.



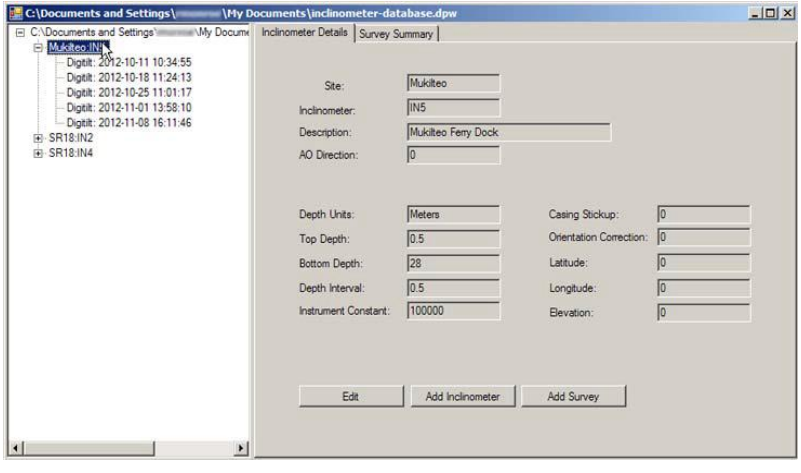
6. Profil Manager imports the surveys and cleans the imported files from the folder.



6. INSPECT SURVEYS

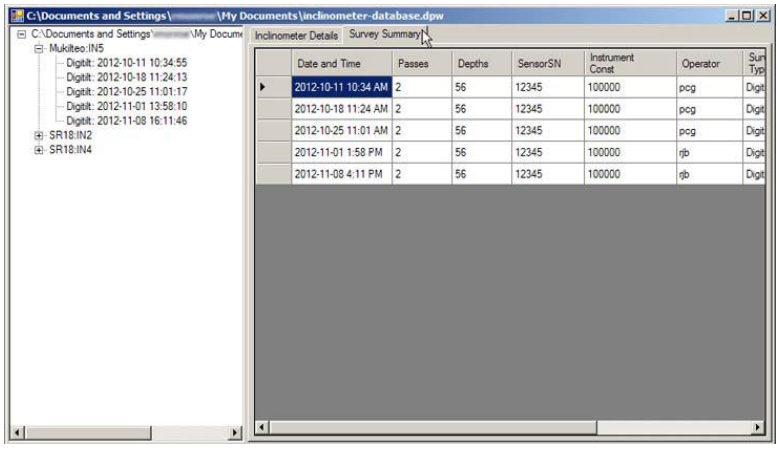
6.1 INCLINOMETER DETAILS

Inclinometers appear on the left. Double-click an inclinometer to see its details on the right. You can also see survey dates.



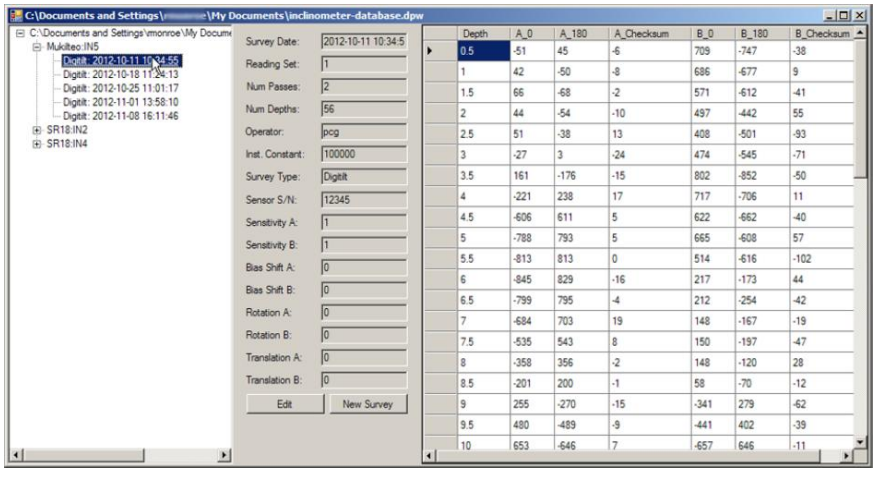
6.2 SURVEY SUMMARY

Click the survey summary tab to see basic survey parameters.



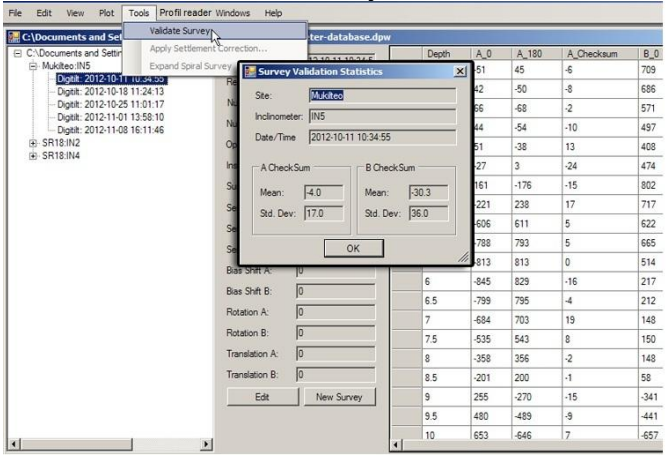
6.3 SURVEY DATA

Double-click a survey (date) to see readings and checksums.



6.4 VALIDATE SURVEY

Click on Tools - Validate Survey to see checksum statistics.



Notes:

- Checksum statistics are an older method for validating surveys. (Plotting checksums is a superior method). In general, checksum statistics are useful only when compared with statistics generated for other surveys of the same inclinometer. Large differences indicate a bad survey.

7. GENERATE PLOTS

7.1 OVERVIEW

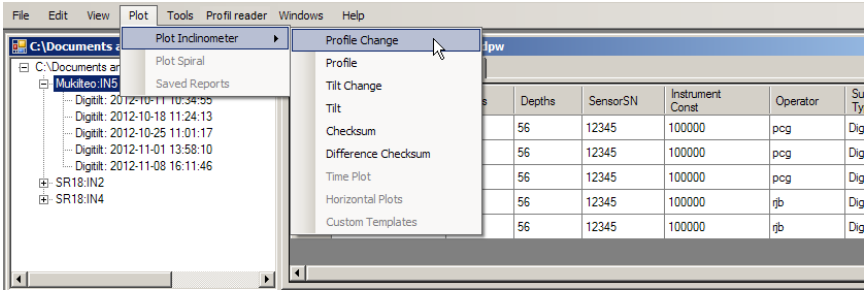
Profil Manager can generate, print, and export a variety of simple plots. It can also plots as graphic files and export calculated data to .csv files.

Profil Manager plots are limited to three surveys. Scales and labels can be modified, but cannot be saved for reuse. Title blocks, annotations, borehole logs, and correction routines are not available.

If you need more advanced features, we recommend that you upgrade to DigiPro 2. A summary of DigiPro 2 features is provided in the appendix.

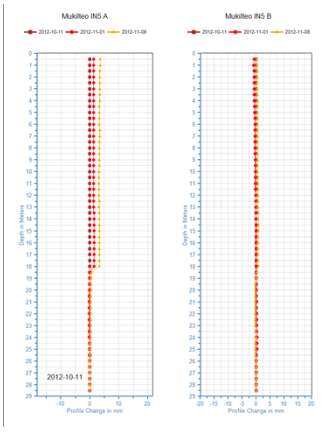
7.2 PLOTTING

Click on an inclinometer, click Plots - Inclinometer, and choose a plot type



7.3 PROFILE CHANGE

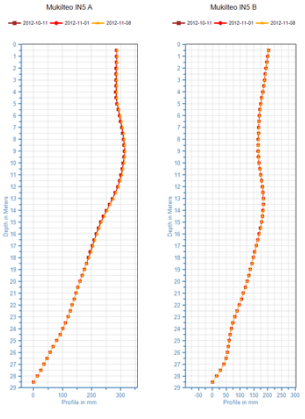
This is the most common way to present inclinometer data. The plot compares the current profile against the initial profile. A change in profile is understood to be displacement (movement).



7.4 PROFILE

This is a diagnostic plot that accumulates tilt readings (in mm or inches) to show the profile of the installed casing. The plot can be used to judge borehole verticality and is also used in diagnostics.

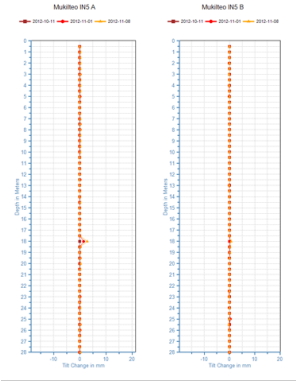
It is also known as an “absolute position” plot because there are no comparisons between surveys.



7.5 TILT CHANGE

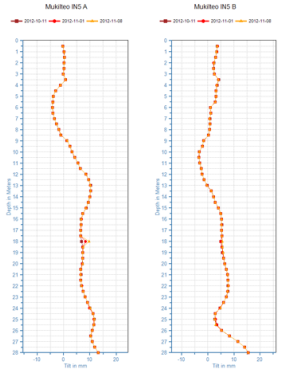
This is a presentation plot that compares the current tilt reading at a given depth against the initial tilt reading at the same depth. A change in tilt understood to represent displacement.

It is differs from the Profile Change plot in that there is no accumulation of values, so a subsurface displacement is not represented at the top of the plot.



7.6 TILT

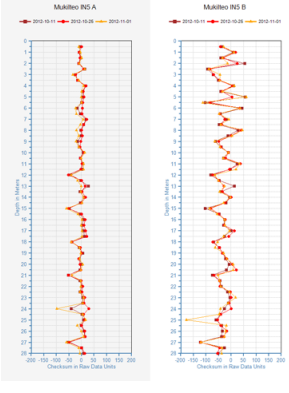
This is a diagnostic plot that shows tilt in mm or inches at each depth. It can be used to evaluate the installed “straightness” of the inclinometer.



7.7 CHECKSUM

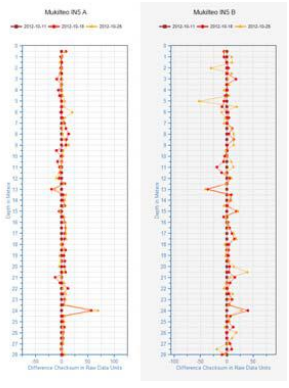
This is a diagnostic plot that shows the checksum at each depth. A checksum is the algebraic difference between 0 and 180 readings.

Generally speaking, the magnitude of the checksums is less important than the uniformity of checksums within a survey. In that regard, you would expect to see plots that are straight and vertical rather than curved and off vertical.



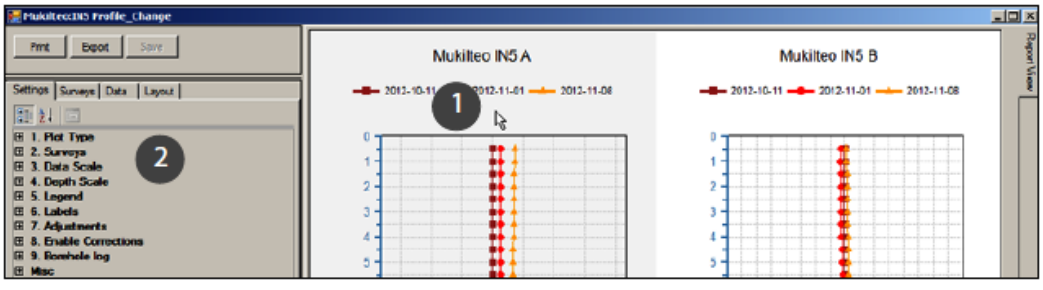
7.8 DIFFERENCE CHECKSUM

This is a diagnostic plot that attempts to remove casing irregularities from the analysis of checksums. The initial checksum is subtracted from the current checksum.



7.9 SETTINGS

1. Click on the A or B plot to display the settings grid.
2. The settings grid appears.

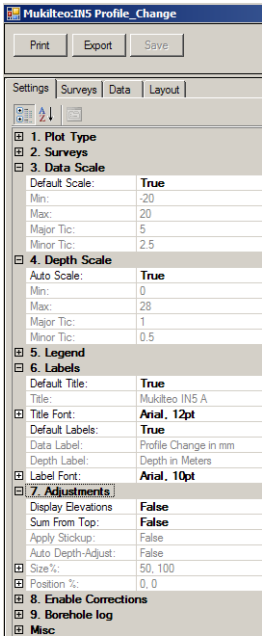


Data Scale: Double click to open the grid. Double click “Default-Scale” to change the value to false. Now you can enter scales. The plot shows changes when you move from each field.

Depth Scale: Double click to open the grid. Double click “Auto-Scale” to change the value to false. Now you can enter scales.

Labels: Double-click to open the grid. Double click “Default Title” or “Default Labels” to change the values to falsees to “false.” Now you can enter text for titles and labels.

Adjustments: Double click to open the grid. To show elevations rather than depths, double-click “Display Elevations,” then adjust values in the Depth scale grid. To invert the reference from bottom to top, double click “Sum-From” to invert the reference.

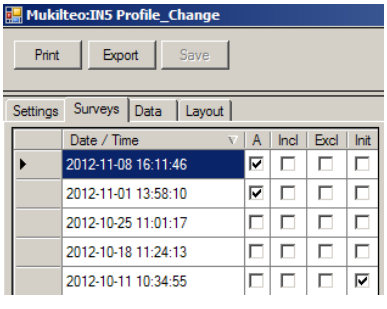


Notes:

- Profil Manager does not save modified settings.
- Settings in 1, 2, 5, 8, 9, and Misc are available only in DigiPro 2.

7.10 SURVEYS

Click the “Surveys” tab to select control which surveys are selected for the plot. Profil Manager allows a maximum of three surveys.



A (Auto-Select): Profil Manager auto-selects the two most recent surveys. You can exclude a survey to force a different auto-selection.

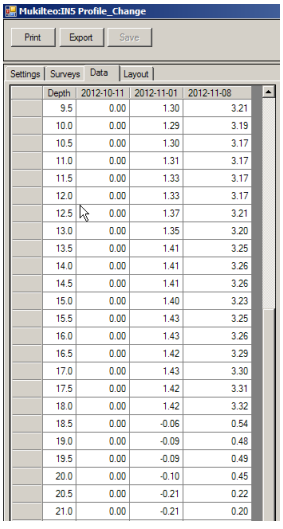
Inc (Include): Disabled in Profil Manger.

Exc (Exclude):Profil Manager excludes the checked survey.

Init (Initial): Profil Manger uses the checked survey as the initial for change plots.

7.11 DATA

Click the “Data” tab to display the values used in the plot. Survey dates appear at the top of each column. Use the scroll bar to see other depths.

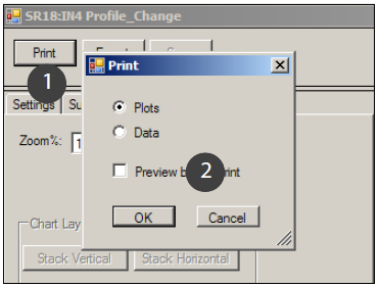


Depth	2012-10-11	2012-11-01	2012-11-08
9.5	0.00	1.30	3.21
10.0	0.00	1.29	3.19
10.5	0.00	1.30	3.17
11.0	0.00	1.31	3.17
11.5	0.00	1.33	3.17
12.0	0.00	1.33	3.17
12.5	0.00	1.37	3.21
13.0	0.00	1.35	3.20
13.5	0.00	1.41	3.25
14.0	0.00	1.41	3.26
14.5	0.00	1.41	3.26
15.0	0.00	1.40	3.23
15.5	0.00	1.43	3.25
16.0	0.00	1.43	3.26
16.5	0.00	1.42	3.29
17.0	0.00	1.43	3.30
17.5	0.00	1.42	3.31
18.0	0.00	1.42	3.32
18.5	0.00	-0.06	0.54
19.0	0.00	-0.09	0.48
19.5	0.00	-0.09	0.49
20.0	0.00	-0.10	0.45
20.5	0.00	-0.21	0.22
21.0	0.00	-0.21	0.20

8. PRINT & EXPORT PLOTS

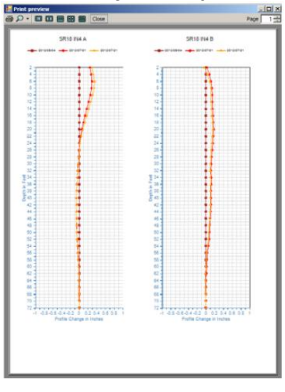
8.1 PRINTING PLOTS

1. Click the “Print” button.
2. Choose “Plots” or “Data.” Click the checkbox for a print preview. Then click OK.



8.2 PREVIEW

Print preview lets you inspect the page before you print it. Click the print button to print.

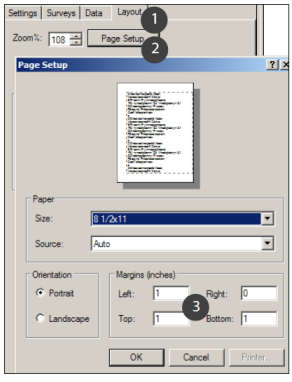


8.3 PAGE LAYOUT

To adjust page margins:

1. Click the “Layout” tab.
2. Click the “Page Setup” button.
3. Adjust margins as required, then click OK.

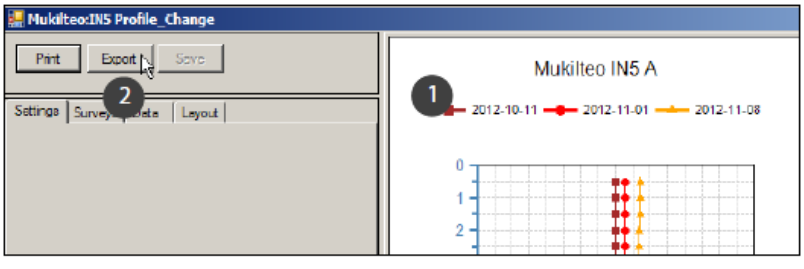
4.



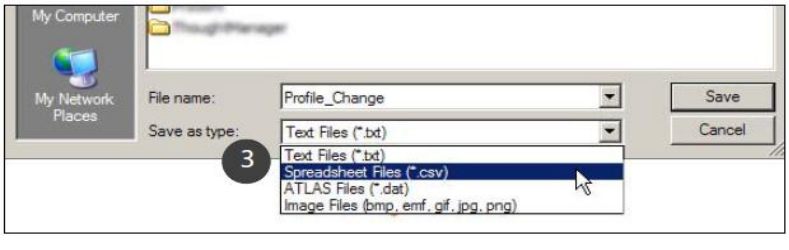
8.4 EXPORTING PLOTS

Profil Manager can export plots as text files or graphic files.

1. Generate the plot.
2. Click the Export button.



3. The Save-As dialog appears. Choose a file type from the drop menu.

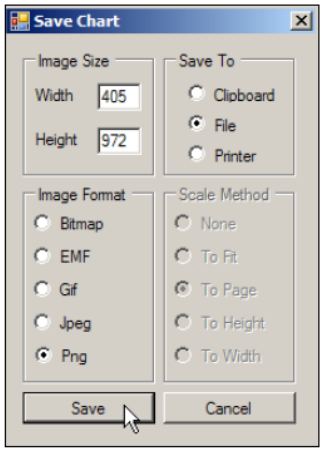


Text File: Printable file with tab separated values.

Spreadsheet File: Spreadsheet-ready file with regionalized field separators and decimals.

Atlas File: Data arrays formatted for Atlas. Each array has a date stamp followed by depth-value pairs. A values first, then B values.

Image File**:** First select the A or B plot, and then click Export. Choose an image format and click save. PNG and GIF provide the sharpest results.



9. Profil Manager vs DigiPro 2

9.1 PROFILE MANAGER

Profil Manager is a utility program supplied at no charge with the Roctest Profil system.

9.2 DIGIPRO 2

DigiPro 2 is a full-featured inclinometer processing program available in 1-seat, 3-seat, or site-license.

Feature Comparison

	Profil manager	DigiPro 2
Create DPW databases	●	●
Import dux files from Digitilt AT system	●	●
Import surveys directly from Digitilt DataMate		●
Import mdb (DMM/DigiPro 1) databases	●	●
Import Gtilt and other file formats	●	●
Export surveys data to many formats	●	●
Export processed data to txt, csv, dat, and image file	●	●
Standard vertical plots	●	●
Surveys per plot	3	Unlimited
Special vertical plots: time plots, resultant plots		●
Horizontal plots		●
Copy settings (scales, etc) between plots		●
Mixed plot types, additional plots on page		●
Title block, annotations, uncertainty-V		●
Boring Log, Spiral Plot		●
Corrections for Inclinometer: Orientation, Spiral		●
Corrections for Surveys: bias shift, rotation, sensitivity, xy translation, settlement		●
Save plots for reuse on new surveys		●
Save plots as templates for use with other inclinometers		●
Bias shift Analysis		●
Rotation Analysis		●

10. TERMINOLOGY

10.1 INTRODUCTION

Inclinometer terminology has changed over the years, and the Profil system introduces some more changes.

10.2 INSTRUMENT & DATA

Inclinometer Probe: The wheeled sensor that is used to obtain tilt readings. Sometimes it is called a “torpedo” or a “Probe.”

Inclinometer: The installed portion of the inclinometer system, sometimes called an “installation,” “borehole,” or “hole.”

Inclinometer Survey: The readings obtained from two traverses of the inclinometer (by the inclinometer probe). Other names for surveys are “reading set” and “dataset.”

10.3 FILE EXTENSIONS

dpw: Database file used by Profil Manager and DigiPro 2.

dux: Inclinometer data file used by Profil System.

10.4 PLOT TYPES

Tilt: Previously called Incremental Deviation or Lateral Deviation.

Change in Tilt: Previously called Incremental Displacement.

Profile: Previously called Cumulative Deviation or Absolute Position.

Change in Profile: Previously called Cumulative Displacement.