Data Editor ZeissEd

for Win 95 / Win NT

Version 1.1

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Program Description

This data editor provides a convenient tool for the management of coordinates, data transfer and DXF export. Coordinates can be filtered out from all Zeiss formats for processing. Three additional formats can be freely defined. Data conversion is possible between any of the different formats. The program also creates the project-related CTL file for Rec Elta C instruments. The DXF export function enables editing of a coordinates file for virtually any CAD program. Data transfer permits loading down the measured data and coordinates stored in the instrument, and transmitting the edited coordinates back to the instrument.

Installation

If the program is available on an installation disk, proceed as follows:
Select Windows *Start->Run* and start the setup.exe file on the disk. For the execution of the installation process, follow the user guidance of the program.
If the program is available in the form of packed files, proceed as follows:
Create your target directory using the Windows explorer (or another suitable program) and copy the files from the disk to this directory. Unpack the packed files with pkunzip.exe (*pkunzip filename.zip*). Then click the Windows user interface with the right mouse button and select *New->Shortcut*. Now select the *zeissed.exe* file and enter the name *ZeissEd*. The ZeissEd icon will then be available on the desktop. The installation of the program is now completed.

After the installation, you have to configure the program to suit your specific requirements. The following sequence is recommended for this process:

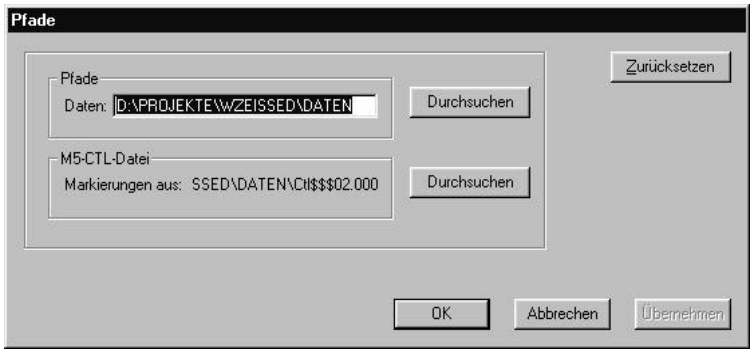
- Adapt the paths
- Configure the file formats
- Set the data transfer parameters
- Configure the DXF parameters
- Select the CTL standard file (for Rec Elta C instruments only)

The following describes the configuration procedure in more detail.

Configuration

Data directory

The path for the data is set with *Configuration->Path*. The selected path will subsequently be offered by default.



Formats

The program supports the following file formats:

Rec 500 - Rec 500, Rec Elta
M5 - Rec Elta, Elta S, Elta R
R4 - Elta 40R, 50R
R5 - Elta 40R, 50R

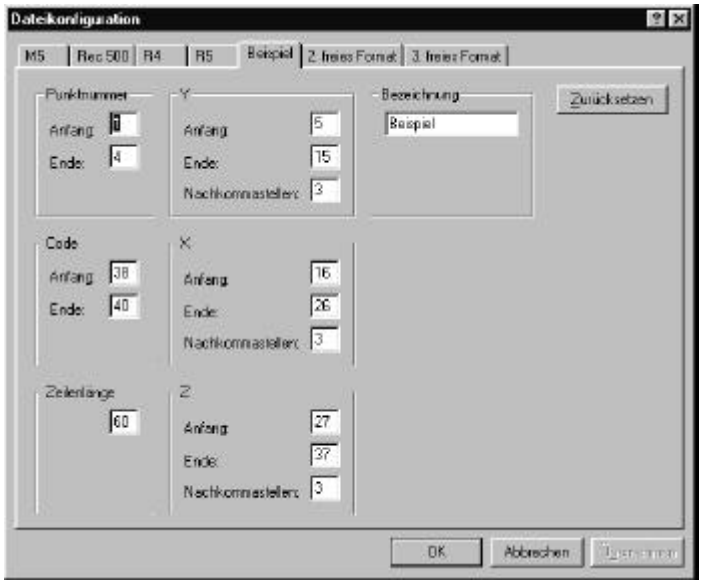
and

three freely selectable formats

In the fixed formats, the digits for the coordinates have been preset and cannot be changed. The digits for the point number and code can be varied by the user as required, by specifying the respective start and end digits. These settings are stored in the configuration file and will be available when the program is called up the next time.
In the free formats, you have to set not only the digits for the point number and code, but also those for the coordinates and the record length. The assigned name is stored and will be available for further use.

File format configuration

To configure the formats, select *Configuration->File formats*.
In the Zeiss M5 and Rec 500 formats, you have to define the digits for the point number and code. In the Zeiss R4 and R5 formats, the digits for the point number and code only need to be changed if you want to use code characters for the point number or vice versa.
In the free formats, you have to define the complete layout. The annex gives examples of common free formats. When specifying the digits, you always have to start counting at the beginning of the line.



Marking for Rec 500 and M5 formats

```
0         1         2
12345678901234567890123456 7
<------------><-----------> 
```

To define the digits for the point number and code, call up the relevant marking on the instrument and count the digits. Add 8 to the starting and end values for Rec 500 and 21 to those for M5, and enter the appropriate values for the configuration of the file formats.

Data transfer parameters

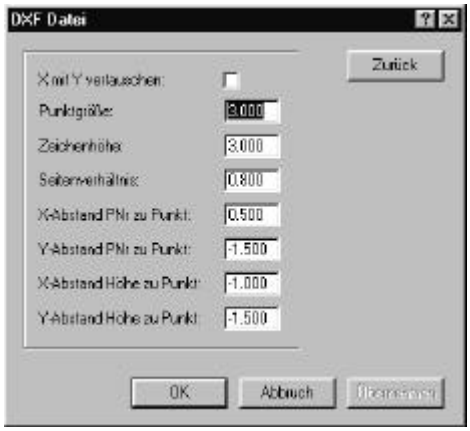
To set the data transfer parameters, select *Data transfer->Parameters*. You can define profiles for up to five instruments.
Set the parameters as required for the instrument concerned. An overview of the parameters for the different instruments is included in the annex.

Note! Remember to specify the correct interface.

DXF parameters

The DXF export function supports the connection of two successive points by a line. If you want to use this function, you have to make an appropriate entry for this coding in *Configuration->DXF configuration->Source file*. If you enter '0', the connecting line is ignored.

For the output in the DXF format, you can set the size and digits for the point number and elevation. The optimum values are dependent on the scale to be subsequently used and should therefore be selected to meet your specific requirements. If the coordinates appear wrong-reading in the CAD program, you can exchange their positions using the button *'Exchange Y and X'* .



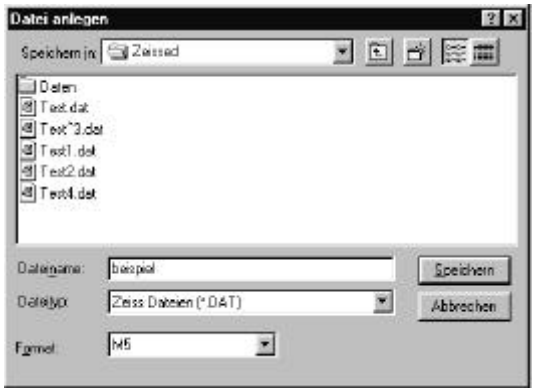
CTL file

To create a CTL file, you have to specify a standard CTL file. Copy this file from the PCMCIA card of the instrument to the data directory. The file has to originate from a project in which the markings you use have been defined. The file is stored via *Configuration >Path* and is subsequently used as the standard format for the creation of CTL files.

Program functions

New file

Select *File >New* to create a new file. Enter the file name and the format to be used. By default, the program searches for all files with the extension DAT. However, you can also select other filters in the *File type* menu.



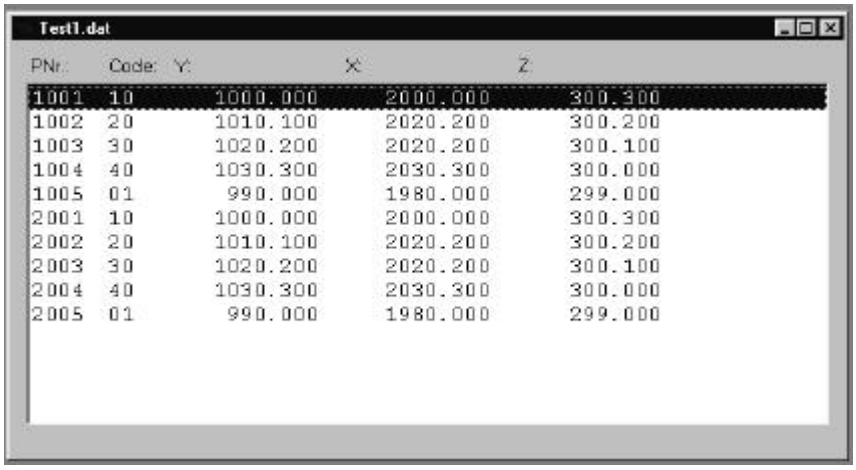
Open file

Select *File->Open* to open an existing file. If no file format is specified, the program automatically tries to identify the format of the opened file.

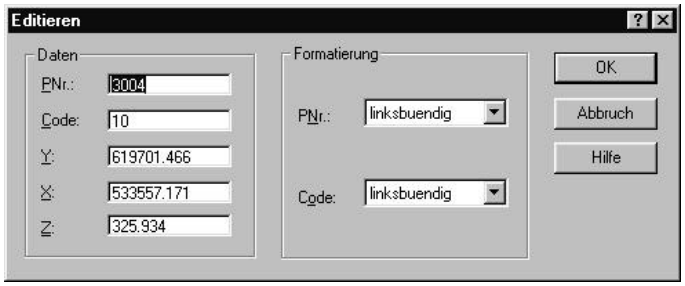
If the format cannot be identified, an enquiry is displayed and you have to enter the format manually.

Edit data

Once a file has been opened, you can enter and edit coordinates in it.



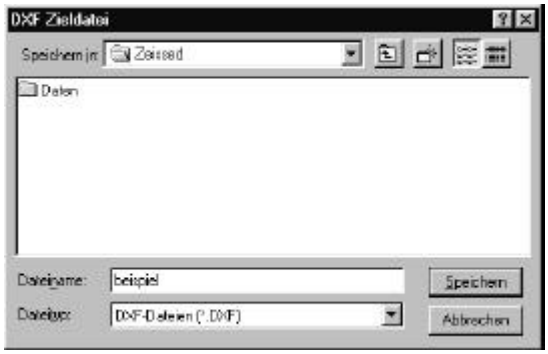
Use the ⇧ and ⇩ cursor keys to select the record required and press the *Return* key for editing. Select *'Paste'* to insert a new record at the current position or cursor ⇩ to add a new record at the end of the file.



The point number, code, Y, X and Z coordinates of each record are managed.
For the point number and code, you have the option of left-adjusted, right-adjusted or unformatted storage.

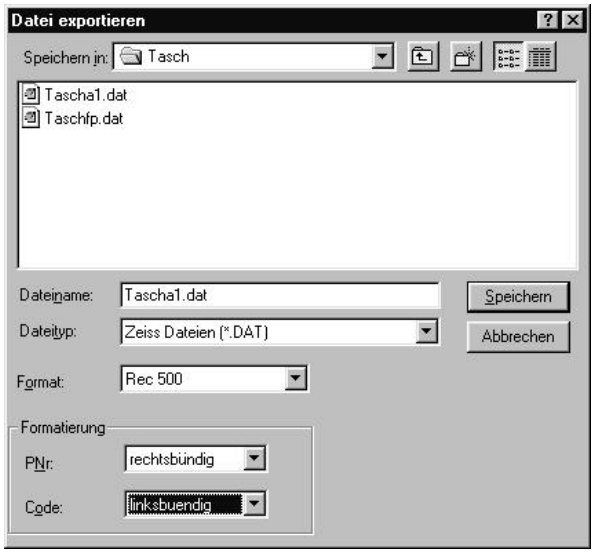
DXF export

An open coordinates file is exported in the DXF format via Export->DXF. For this purpose, a 3D point information is generated, which contains separate layers for point symbol, point number and elevation. If connecting lines are used, successive points are connected in accordance with these specifications.



Conversion

The program permits you to save a loaded file in a different format by selecting either *File-> Save as* or *Export->Other format*.



In addition to the file name, you have to specify the target format. If you use *File-> Save as,* the current file will afterwards be processed with the new name and format. If you use *Export->Other format*, the current file will keep its name and format, and a new file with the changed specifications will be saved.
In data conversion between different formats, it is essential that the point number and code are transferred in a formatted way if the two formats provide a different number of digits for this data.

CTL file

In the Zeiss Rec Elta C instruments, each project must be associated with a so-called CTL file containing the preset markings, the maximum number of records and other settings. If you edit a project or create a new one using the data editor, it is also necessary to create the corresponding CTL file. This is done via *Tools->Create M5 CTL file.*

Specify the coordinates file for which the CTL file is to be created, the maximum number of data records required in the project, the standard CTL file and the new CTL file.

Notes on the CTL file:

A control file is required for **each** project (M5 file) on the PCMCIA card. It is generated by the instrument when the new project is created. The CTL file contains such information as the preset markings, the current marking, the maximum number of records and the current record.
If you want to delete a project from the card, you can do this either via the instrument's project management or by manually deleting the *.DAT file and the associated control file. Both files must always be deleted together!
If you want to edit or delete coordinates of a data file on the PC, you have to create a new CTL file using *Tools->Create M5 CTL file*. This file is then copied back to the card, together with the coordinates file. First, however, you have to delete the old file from the card.

The CTL files are continuously numbered. The CTL file which is currently active has the name ctl$$$xx.000, all others are named ctl$$$xx.cfg with 'xx' standing for the consecutive number. Some CTL files should therefore be named ctl$$$yy.cfg, with 'yy' standing for a number which does not yet exist on the PCMCIA card.

Data transfer

Data transfer from and to the instrument is possible. First, you should check the settings for the interface on the instrument and in the program.

To receive data from the instrument, select *Data transfer->Receive data from Elta*. After you have specified the file name, the program switches to the reception mode. You can now start the transfer on the instrument.

After successful completion of the transfer, the received data is displayed on the screen and saved in the specified file.

To transmit data to the instrument, select *Data transfer->Send data to Elta.* After selecting the file to be transmitted, set the instrument to data transfer to make it ready for reception.

Select *'Start'* to start the transfer.

Annex

File formats

Example of Rec 500 format:

```
0         1         2
12345678901234567890123456
<------------><-----------
Point-No_Cod_Comment-----
```

	Start	End
Point number	1+8 = 9	8+8 = 16
Code	10+8 = 18	12+8 = 20

Example of M5 format:

```
0         1         2
12345678901234567890123456
<------------><-----------
Point-No_Cod_Comment-----
```

	Start	End
Point number	1+21 = 22	8+21 = 29
Code	10+21 = 31	12+21 = 33

Examples of free formats:

Caddy KOR	Start	End	Digits after Dec. Point
Point number	1	15	
Code	58	59	
Y coordinate	18	30	3
X coordinate	33	45	3
Z coordinate	48	56	3
Record length	60		

VermOn	Start	End	Digits after Dec. Point
Point number	2	9	
Code	55	56	
Y coordinate	11	23	5
X coordinate	25	37	5
Z coordinate	39	48	5
Record length	68		

Blank tables for your data formats:

	Start	End	Digits after Dec. Point
Point			
Code			
Y coordinate			
X coordinate			
Z coordinate			
Record length			

	Start	End	Digits after Dec. Point
Point			
Code			
Y coordinate			
X coordinate			
Z coordinate			
Record length			

Data Transfer Parameters

We recommend the following parameter settings for data transfer:

Instrument	Baud	Data Bits	Parity	Stop Bits	Handshake	Timeout
Rec 500	4800	8	none	2	XON/XOFF	1
Rec Elta	9600	8	none	1	XON/XOFF	1
Elta R	9600	7	even	2	XON/XOFF	1
DiNi	9600	8	kein	1	XON/XOFF	1

Attention! For data transfer using Rec 500, you have to select the 'Printer' interface on Rec 500.

Files

The delivery package includes the following files:

bds501f.dll - DLL
cw3220.dll - DLL
owl501f.dll - DLL
supercom.dll - DLL
sernr.cfg - key file containing the serial number
zeissed.cfg - configuration file
zeissed.exe - program

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The program is continuously upgraded. We are therefore grateful for your suggestions and for the description of errors that have occurred. We would also appreciate if you could inform us about any file format settings not yet included in the annex.

In the event of errors, please use the attached form or send us an e-mail. Please also address your enquiries and suggestions to us by e-mail; they will promptly be answered.

Updates for error correction and minor functional enhancements are available free of charge in the Internet for downloading. On request, we will also be glad to send you a disk with the update required and the current manual against a charge of currently DM 50.00.