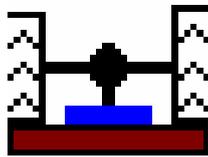


Analysis and presentation of plate loading tests  
according to DIN 18134 or Austrian Standard B 4417

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# GGU-PLATELOAD

VERSION 9



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Last revision:  
Copyright:  
Technical implementation, layout and sales:

February 2019  
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Civilsolve GmbH, Steinfeld

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## 1 Preface

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The program **GGU-PLATELOAD** enables the analysis and presentation of plate loading tests according to German Standard DIN 18134 or Austrian Standard B 4417.

Data input is in accordance with conventional WINDOWS operations and can therefore be learned almost entirely without the use of a manual. Graphic output supports the true-type fonts supplied with WINDOWS, so that excellent layout is guaranteed. Colour output and any graphics (e.g. files in formats BMP, JPG, PSP, TIF, etc.) are supported. PDF and DXF files can also be imported by means of the integrated Mini-CAD module (see the "**Mini-CAD**" manual).

The program has been thoroughly tested. No faults have been found. Nevertheless, liability for completeness and correctness of the program and the manual, and for any damage resulting from incompleteness or incorrectness, cannot be accepted.

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## 2 Licence protection

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GGU software is provided with the WIBU-Systems CodeMeter software protection system. For this purpose the GGU-Software licences are linked to a USB dongle, the WIBU-Systems CmStick, or as CmActLicense to the respective PC hardware.

It is required for licence access that the CodeMeter runtime kit (CodeMeter software protection driver) is installed. Upon start-up and during running, the **GGU-PLATELOAD** program checks that a licence on a CmStick or as CmActLicense is available.

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## 3 Language selection

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**GGU-PLATELOAD** is a bilingual program. The program always starts with the language setting applicable when it was last ended.

The language preferences can be changed at any time in the "**Info**" menu, using the menu item "**Spracheinstellung**" (for German) or "**Language preferences**" (for English).

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## 4 Starting the program

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After starting the program, you will see two menus at the top of the window:

- File
- Info

After clicking on the "**File**" menu, a previously calculated system can be loaded by means of the "**Load**" menu item, or a new one created using "**New**".

The program allows simple input procedures by moving directly to the option box after "**New**" is clicked; this can also be reached by pointing to the "**File/New**" menu item. You can now directly select the standard to be adopted and the target values to be used. After leaving this box by pressing "**OK**" you will arrive at the initial program screen, containing all elements of the output sheet that will be filled after data input.

Five menus then appear at the top of the window:

- File
- Edit
- Graphics preferences
- Output preferences
- Info

After clicking one of these menus, the so-called menu items roll down, allowing you access to all program functions.

The program works on the principle of *What you see is what you get*. This means that the screen presentation represents, overall, what you will see on your printer. In the last consequence, this would mean that the screen presentation would have to be refreshed after every alteration you make. For reasons of efficiency and as this can take several seconds for complex screen contents, the **GGU-PLATELOAD** screen is not refreshed after every alteration.

If you would like to refresh the screen contents, press either **[F2]** or **[Esc]**. The **[Esc]** key additionally sets the screen presentation back to your current zoom, which has the default value 1.0, corresponding to an A4 format sheet.

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## 5 Description of menu items

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### 5.1 File menu

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#### 5.1.1 "New" menu item

You use this menu item to start a new plate loading test. A dialog box opens, where you can decide whether you want to use the German DIN 18134 (old version of 2001 or current version dated April of 2012) or the Austrian Standard B 4417.

The dialog box titled "New" contains the following settings:

- Standard:**  DIN 18134:2012-04,  DIN 18134:2001-09,  Austrian standard B 4417
- Only for Austrian standard B 4417:** Stress factor 1 [-]: 0.400, Stress factor 2 [-]: 0.800,  With correction function
- Target values:**  Test and show target values (Ev2, etc.), Allow. Ev2 [MN/m<sup>2</sup>): 120.000, Allow. Ev2/Ev1 [-]: 2.500,  Also test Ev1 >= allow. factor · Ev2, Allow. factor [-]: 0.600
- Diagram with output table
- Use MPa as unit

You can define the target values for  $E_{v2}$  and the ratio of  $E_{v2}/E_{v1}$ , that will be checked and entered by the program. In addition, a target value factor can be given, with which  $E_{v1}$  can be correlated.

If the "**Diagram with output table**" check box is activated, a short output table is displayed together with the load-settlement curve evaluation (see also Section 5.4.13). Furthermore you can use the unit "**MPa**" instead of "**MN/m<sup>2</sup>**".

### 5.1.2 "Load" menu item

You can load a file with test data, which was created and saved at a previous sitting, and then edit the test data.

### 5.1.3 "Save" menu item

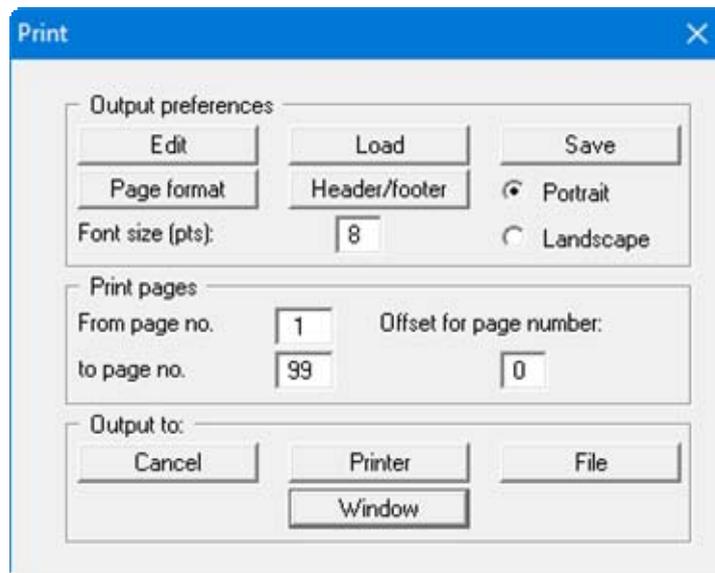
You can save data entered or edited during program use to a file, in order to have them available at a later date, or to archive them. The data is saved without prompting with the name of the current file. Loading again later creates exactly the same presentation as was present at the time of saving.

### 5.1.4 "Save as" menu item

You can save data entered during program use to an existing file or to a new file, i.e. using a new file name. For reasons of clarity, it makes sense to use ".pdr" as file suffix, as this is the suffix used in the file requester box for the menu item "File/Load". If you choose not to enter an extension when saving, ".pdr" will be used automatically.

### 5.1.5 "Print output table" menu item

You can have an output table that can be sent to the printer or to a file (e.g. for further editing in a word processor). Alternatively, you have the option of viewing the result in a separate window and of editing them there.



- "Output preferences" group box  
Using the "Edit" button the current printer preferences can be changed or a different printer selected. Using the "Save" button, all preferences from this dialog box can be saved to a file in order to have them available for a later session. If you select "GGU-PLATELOAD.drk" as file name and save the file in the program folder (default), the file will be automatically loaded the next time you start the program.

Using the "Page format" button you can define, amongst other things, the size of the left margin and the number of lines per page. The "Header/footer" button allows you to enter a header and footer text for each page. If the "#" symbol appears within the text, the current page number will be entered during printing (e.g. "Page #"). The text size is given in "Pts". You can also change between "Portrait" and "Landscape" formats.

- **"Print pages"** group box  
If you do not wish pagination to begin with "1" you can add an **"offset"** number to the check box. This offset will be added to the current page number. The output range is defined using **"From page no." "to page no."**.
- **"Output to:"** group box  
Start output by clicking on **"Printer"** or **"File"**. The file name can then be selected from or entered into the box. If you select the **"Window"** button the results are sent to a separate window. Further text editing options are available in this window, as well as loading, saving and printing.

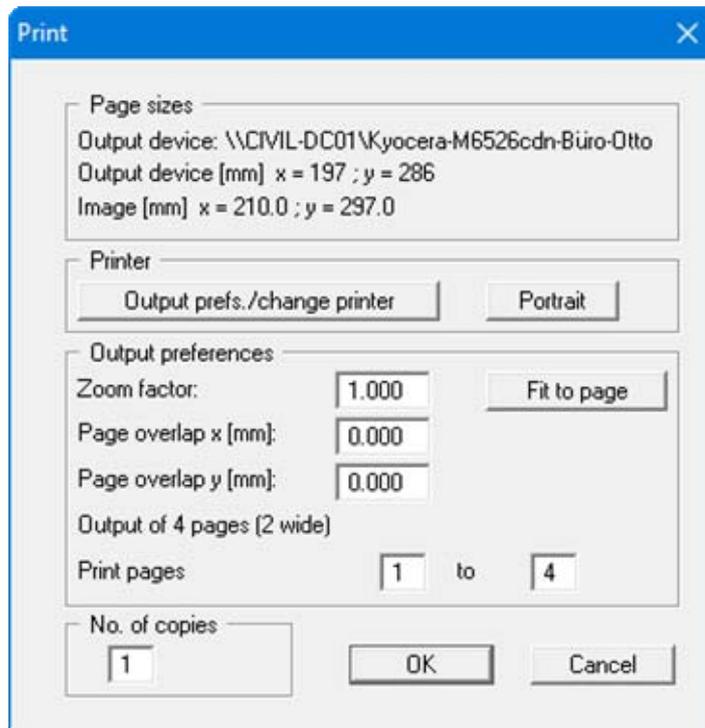
### 5.1.6 "Printer preferences" menu item

You can edit printer preferences (e.g. swap between portrait and landscape) or change the printer in accordance with WINDOWS conventions.

### 5.1.7 "Print and export" menu item

You can select your output format in a dialog box. You have the following possibilities:

- **"Printer"**  
allows graphic output of the current screen to the WINDOWS standard printer or to any other printer selected using the menu item **"File/Printer preferences"**. But you may also select a different printer in the following dialog box by pressing the **"Output prefs./change printer"** button.



In the upper group box, the maximum dimensions which the printer can accept are given. Below this, the dimensions of the image to be printed are given. If the image is larger than the output format of the printer, the image will be printed to several pages (in the above example, 4). In order to facilitate better re-connection of the images, the possibility of entering an overlap for each page, in x and y direction, is given. Alternatively, you also have the possibility of selecting a smaller zoom factor, ensuring output to one page ("**Fit to page**" button). Following this, you can enlarge to the original format on a copying machine, to ensure true scaling. Furthermore, you may enter the number of copies to be printed..

- "**DXF file**"  
allows output of the graphics to a DXF file. DXF is a common file format for transferring graphics between a variety of applications.
- "**GGU-CAD file**"  
allows output of the graphics to a file, in order to enable further processing with the **GGU-CAD** program. Compared to output as a DXF file this has the advantage that no loss of colour quality occurs during export.
- "**Clipboard**"  
The graphics are copied to the WINDOWS clipboard. From there, they can be imported into other WINDOWS programs for further processing, e.g. into a word processor. In order to import into any other WINDOWS program you must generally use the "*Edit/Paste*" function of the respective application.
- "**Metafile**"  
allows output of the graphics to a file in order to be further processed with third party software. Output is in the standardised EMF format (Enhanced Metafile format). Use of the Metafile format guarantees the best possible quality when transferring graphics.

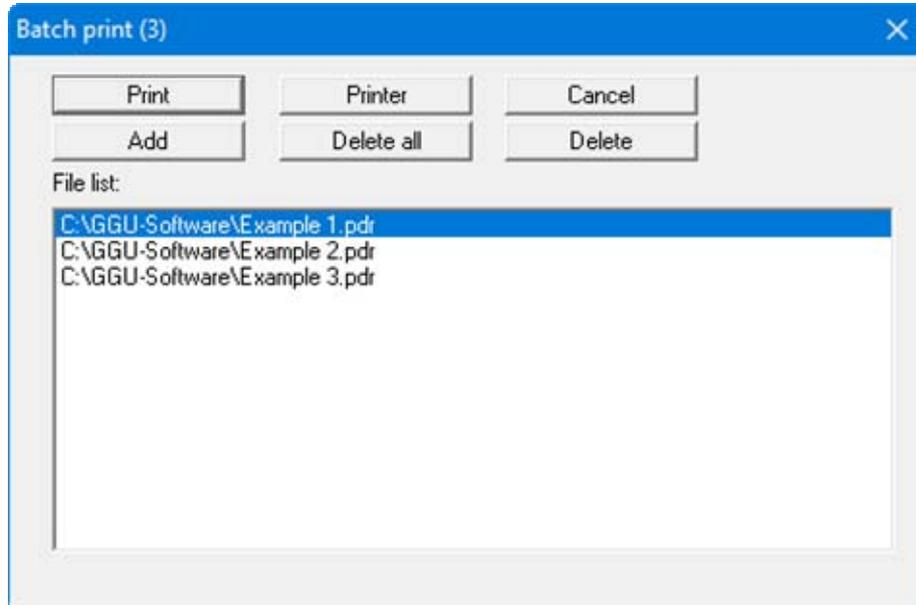
If you select the "**Copy/print area**" tool  from the toolbar, you can copy parts of the graphics to the clipboard or save them to an EMF file. Alternatively you can send the marked area directly to your printer (see "**Tips and tricks**", Section 6.3).

Using the "**Mini-CAD**" program module you can also import EMF files generated using other GGU applications into your graphics (see Section 5.3.8).

- "**Mini-CAD**"  
allows export of the graphics to a file in order to enable importing to different GGU applications with the **Mini-CAD** module.
- "**GGUMiniCAD**"  
allows export of the graphics to a file in order to enable processing in the **GGUMiniCAD** program.
- "**Cancel**"  
Printing is cancelled.

### 5.1.8 "Batch print" menu item

If you would like to print several appendices at once, select this menu item. You will see the following dialog box:



Create a list of files for printing using "Add" and selecting the desired files. The number of files is displayed in the dialog box header. Using "Delete" you can mark and delete selected individual files from the list. After selecting the "Delete all" button, you can compile a new list. Selection of the desired printer and printer preferences is achieved by pressing the "Printer" button.

You then start printing by using the "Print" button. In the dialog box which then appears you can select further preferences for printer output such as, e.g., the number of copies. These preferences will be applied to all files in the list.

### 5.1.9 "Exit" menu item

After a confirmation prompt, you can quit the program.

### 5.1.10 "1, 2, 3, 4" menu items

The "1, 2, 3, 4" menu items show the last four files worked on. By selecting one of these menu items the listed file will be loaded. If you have saved files in any other folder than the program folder, you can save yourself the occasionally onerous *rummaging* through various sub-folders.

## 5.2 Edit menu

### 5.2.1 "Preferences"

A dialog box opens, which can also be reached via the "File/New" menu item (see Section 5.1.1). The applicable standard and the target values can be edited.

### 5.2.2 "Test" menu item

This is the central menu item of the program. Here you can enter almost all base data for calculation. After clicking on this menu item the following dialog box appears:

The dialog box titled "Plate loading test values" contains the following fields and controls:

- Transmission ratio: 1.0000
- Plate diameter [cm]: 30.000
- Plate substratum: [empty text box]
- Apparatus with one gauge  First test only
- Manometer values in:  bar  MN/m<sup>2</sup>  kN
- Test number: [empty text box]
- Measuring station: [empty text box]
- Depth: [empty text box]
- Soil type: [empty text box]
- Water content under plate: [empty text box]
- Station: [empty text box]
- Buttons: Edit first test, Edit second test, Show current data, Zero gauge readings, Import ASCII file, Done

First, enter general information on your data collection point into the respective input boxes. Newer plate loading apparatus only have one dial gauge for measuring the settlement of the loading plate. The "Apparatus with one gauge" check box is therefore activated as the default. If you deactivate this check box it is possible to enter several gauge readings.

Then the entry of the dial gauge reading follows with the unit [0.01 mm]. The marked texts in the dialog box also appear in the output sheet. Input boxes can be altered or switched off such as "Station:" as shown in the above dialog box by going to the menu item "Output preferences/Texts" (see Section 5.4.2). The following buttons are then available:

- "Edit first test"  
After clicking the button you reach a dialog box, where you enter the manometer readings of each load increment (including the unloading). The entry of a negative manometer reading characterises the end of the table. Then the entry of the dial gauge reading follows with the unit [0.01 mm].

- **"Edit second test"**  
A dialog box appears which enables the entry of the second loading cycle. Input is completely the same as described for the first loading cycle.
- **"Show current data"**  
The data which belong to the latest test are calculated and shown.
- **"Zero gauge readings"**  
The button allows all the dial gauge (first and second loading cycle) to be set on **zero** after a confirmation prompt.
- **"Import ASCII file"**  
You can import measured values received with plate loading apparatus from various companies.
- **"Done"**  
After leaving the dialog box by pressing the **"Done"** button the data is evaluated and all input and results displayed on the output sheet.

### 5.2.3 "Target values" menu item

Using this menu item the target values for  $E_{v2}$  and the ratio of  $E_{v2}/E_{v1}$  can be defined. These values will be checked and entered by the program, just as under the menu item **"File/New"**. In addition, a target value factor can be given, with which  $E_{v1}$  can be correlated.

You can select the type of marker or annotation for the subsequent representation of the results if the condition is fulfilled.

### 5.2.4 "Weather conditions" menu item

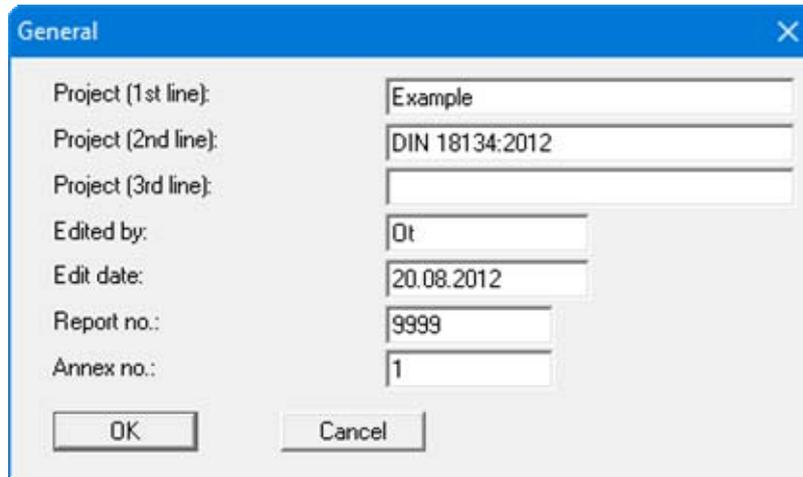
Corresponding information about the weather can be entered.

### 5.2.5 "Test times" menu item

You can enter start and end time of a test.

### 5.2.6 "General" menu item

After selecting this menu item you can enter general data such as project designation, report number, annex number etc.



These data will be displayed in the corresponding areas of the output sheet.

### 5.2.7 "Company" menu item

You can enter your company address in four lines. These lines will be entered at the top left of the output sheet.

### 5.2.8 "Remarks" menu item

You can enter more information, such as deviations from the specified procedure or any observations made during the test.

## 5.3 Graphics preferences menu

---

### 5.3.1 "View output table"/"View diagram" menu item

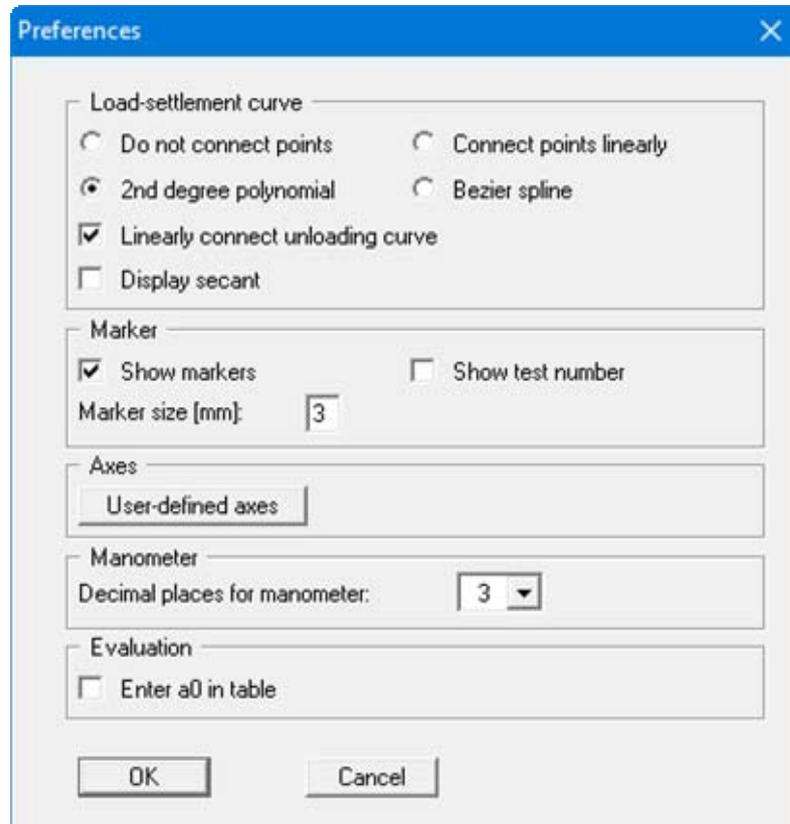
By selecting the menu item "**Graphics preferences/View output table**" you can have the results calculated by the program shown on the screen. This output table contains the most important test data and can be printed for delivery.

After once selecting this menu item you will see the menu item "**View diagram**" instead of "**View output table**" in the "**Graphics preferences**" menu. If you select the "**View diagram**" menu item, the load-settlement curve will be visible again.

You can switch between diagram and output table presentation with the smart icon  in the toolbar of the program.

### 5.3.2 "Preferences" menu item

After selecting this menu item a dialog box appears, in which you can edit preferences for graphical presentation.



By activating the "**Do not connect points**" switch, you can ensure that the measured values are not connected to a load-settlement curve. Only in rare cases, e.g. if you need to draw a load-settlement curve *by hand*, you will use this switch.

According to DIN 18 134, a 2<sup>nd</sup> degree polynomial using compensation according to the least squares method is required for analysis of the plate loading test. This method is utilised in all cases to determine the governing plate loading values, completely independently of the smoothing out procedure selected here. However, representation of the plate loading test using the "**2nd degree polynomial**" switch sometimes leads to rather unusual curves. Alternatively, then, and for optical effect only, you can select between the methods "**Connect points linearly**" or "**Bezier spline**" for the representation.

Regardless of the selected setting for the load-settlement curve you can separately specify a linear connection for the unloading curve data points. In addition it is possible to display the secant in accordance with Figure 4 of DIN 18134.

By activating the "**Show markers**" or the "**Show test numbers**" switch the load-settlement curve will be displayed with markers or their current numbers at all measuring points. You can switch off both, when you only want to display the curve on the output sheet. The size of the markers can be influenced with the input in the "**Marker size [mm]:**" field.

Using the "**User-defined axes**" button it is possible to define your own axes scales. Otherwise, the axes will be scaled automatically. If you select this button you are first offered the automatic scale values in a box, which you can then edit as required.

In addition, you can vary the number of decimal places for manometer data input between "**3**" and "**5**" for each plate loading test performed.

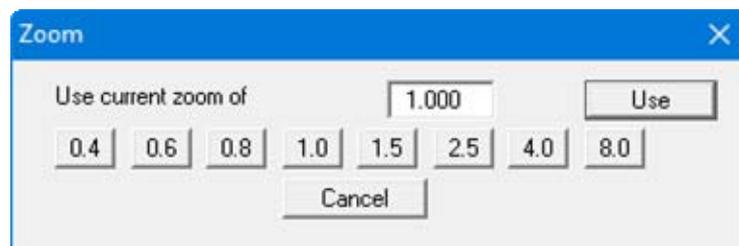
The value  $a_0$  should be given in the evaluation of your plate loading test in compliance with DIN 18134. Display in the "**Deformation modulus**" evaluation table can be achieved by activating the check box "**Enter  $a_0$  in table**".

When you leave the dialog box with "**OK**", all preferences will be accepted.

### 5.3.3 "Refresh and zoom" menu item

The program works on the principle of *What you see is what you get*. This means that the screen presentation represents, overall, what you will see on your printer. In the last consequence, this would mean that the screen presentation would have to be refreshed after every alteration you make. For reasons of efficiency and as this can take several seconds for complex screen contents, the screen is not refreshed after every alteration.

If, e.g., after using the zoom function (see below), only part of the image is visible, you can achieve a complete view using this menu item.



A zoom factor between 0.4 and 8.0 can be entered in the input box. By then clicking on "**Use**" to exit the box the current factor is accepted. By clicking on the "**0.4**", "**0.6**", etc. buttons, the selected factor is used directly and the dialog box closed.

It is much simpler, however, to get a complete overview using [**Esc**]. Pressing [**Esc**] allows a complete screen presentation using the zoom factor specified in this menu item. The [**F2**] key allows screen refreshing without altering the coordinates and zoom factor.

### 5.3.4 "Zoom info" menu item

By clicking two diametrically opposed points you can enlarge a section of the screen in order to view details better. An information box provides information on activating the zoom function and on available options.

### 5.3.5 "Legend font selection" menu item

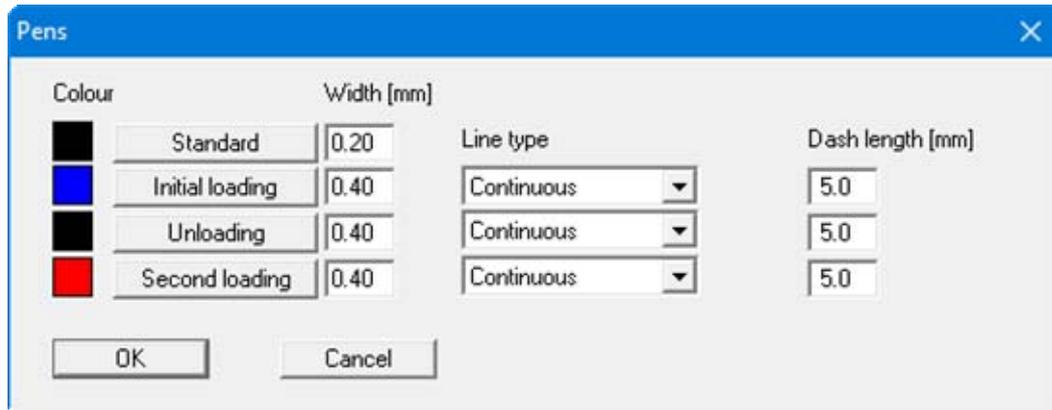
With this menu item you can switch to a different true-type font. All available true-type fonts are displayed in the dialog box.

### 5.3.6 "Font size selection" menu item

You can edit font sizes for various text elements of your graphic.

### 5.3.7 "Pen colour and width" menu item

For reasons of clarity, different colours are used as default for graphic presentation of the loading curves, as well as the type of dashing. With this menu item you can alter the preferences to suit your wishes.



The pen width, line type and dashing can be edited for the load-settlement curves and, after clicking the corresponding buttons, the pen colours can be adapted.

On *monochrome printers* (e.g. laser printers), colours are shown in a corresponding grey scale. Graphic elements employing very light colours may be difficult to see. In such cases it makes sense to edit the colour preferences.

### 5.3.8 "Mini-CAD toolbar" menu item

Using this menu item you can add free text, lines, circles, polygons and images (e.g. files in formats BMP, JPG, PSP, TIF, etc.) to the main program graphics. PDF files can also be imported as images. A pop-up menu opens, the icons and functions used are described in more detail in the **Mini-CAD** manual saved in the 'C:\Program Files (x86)\GGU-Software\Manuals' folder during installation..

### 5.3.9 "Toolbar preferences" menu item

After starting the program a horizontal toolbar for menu items appears below the program menu bar. If you would rather work with a popup window with several columns, you can specify your preferences using this menu item. The smart icons can also be switched off.

At the bottom of the program window you find a status bar with further information. You can also activate or switch off the status bar here. The preferences will be saved in the "**GGU-PLATELOAD.alg**" file (see menu item "**Graphics preferences/Save**") and will be active at the next time the program is started.

By clicking on the tools (smart icons) for menu items you can directly reach most of the program functions. The meaning of the smart icons appears as a text box if you hover with the mouse pointer over the tools. Some of the tool functions can be activated from the normal menu items.



#### "Zoom out"

If you have previously *zoomed in*, this tool returns to a full screen display.



#### "Zoom (-)"/"Zoom (+)"

With the zoom functions you can zoom in or out of parts of the image, by clicking the left mouse button.



#### "Undo move object"

If you have previously moved a legend ([F11] or used "Output preferences/Move objects"), you can undo the last movement with this tool.



#### "Restore move object"

If you have previously undone a movement, you can restore with this tool.



#### "Copy/print area"

Use this tool to copy only parts of the graphics in order to paste them, e.g. to a report. You will see information on this function and can then mark an area, which is copied to the clipboard or can be saved in a file. Alternatively you can send the marked area directly to your printer (see "Tips and tricks", Section 6.3).



#### "Diagram/output table"

By clicking on this tool you can switch between the load-settlement curve and the output table.

### 5.3.10 "Load graphics preferences" menu item

You can reload a graphics preferences file into the program, which was saved using the "Graphics preferences/Save graphics preferences" menu item. Only the corresponding data will be re-freshed.

### 5.3.11 "Save graphics preferences" menu item

Some of the preferences you made with the menu items of the "Graphics preferences" menu as well as the inputs using the "Edit/Company" menu item can be saved to a file. If you select "GGU-PLATELOAD.alg" as file name, and save the file on the same level as the program, the data will be automatically loaded the next time the program is started and need not be entered again.

If you do not go to "File/New" upon starting the program, but open a previously saved file instead, the preferences used at the time of saving are shown. If subsequent changes in the general preferences are to be used for existing files, these preferences must be imported using the menu item "Graphics preferences/Load graphics preferences".

## 5.4 Output preferences menu

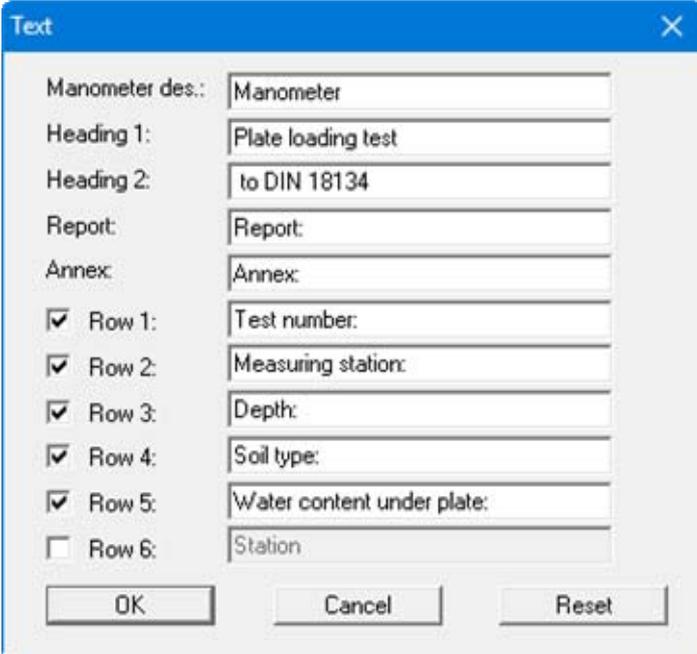
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### 5.4.1 "Page size" menu item

The default page set-up is A4 when the program is started. Using this menu item you can edit height and width of the output sheet.

### 5.4.2 "Texts" menu item

The default labelling of some output sheet elements can be edited in this menu item's dialog box. Among other things, the name of the output sheet can be specified here.



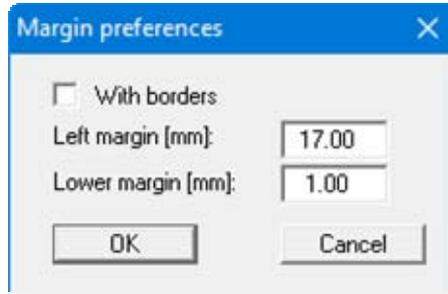
Manometer des.:	Manometer
Heading 1:	Plate loading test
Heading 2:	to DIN 18134
Report:	Report:
Annex:	Annex:
<input checked="" type="checkbox"/> Row 1:	Test number:
<input checked="" type="checkbox"/> Row 2:	Measuring station:
<input checked="" type="checkbox"/> Row 3:	Depth:
<input checked="" type="checkbox"/> Row 4:	Soil type:
<input checked="" type="checkbox"/> Row 5:	Water content under plate:
<input type="checkbox"/> Row 6:	Station

Your input in the first row, "**Manometer designation**", will be used as column heading in the output tables. Your input in rows 1 to 6 of the above dialog box, as well as the input for "**Report:**" and "**Annex:**" also represent the designations for the input boxes in the "**Edit/Test**" and "**Edit/General**" menu items dialog boxes.

If rows are deactivated in the above dialog box, the corresponding input boxes in the "**Edit/Test**" menu item dialog box are also deactivated (see Section 5.2.2). Use "**Reset**" to restore the default labelling settings. If you have retroactively changed the language you will see the internal program translations in the input boxes.

### 5.4.3 "Margins" menu item

In the default program preferences the output sheet is shown with cutting borders. For output to an A4 printer, a reduction of the printer output is generally necessary, as proprietary printers cannot fully cover an A4 page. The margin preferences can be defined in a dialog box.



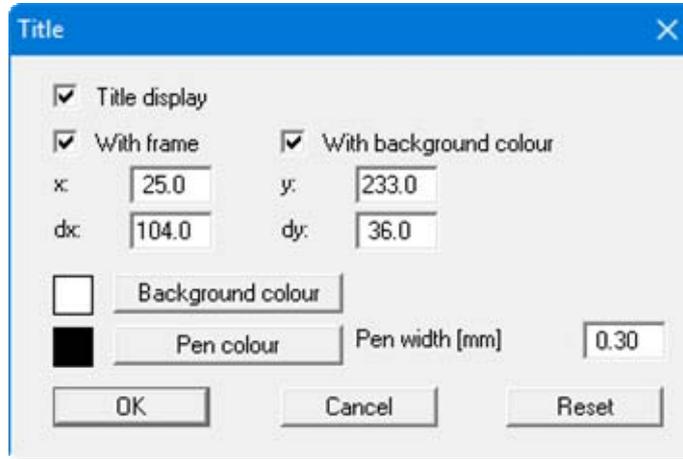
By deactivating the "**With borders**" check box and with an appropriate choice of left and lower margins, it is generally possible to create a non-reduced printer output. It is necessary to also adapt the page height and width (see Section 5.4.1).

### 5.4.4 "Position info" menu item

The positions and layout of the individual elements on the output sheet can be altered using the following menu items. This menu item provides information on the options for altering the position and layout more quickly using the mouse.

#### 5.4.5 "Title (change position)" menu item

The position and layout of the title element can be altered via the dialog box for this menu item, if the "Title display" check box is activated.



The position of the element on the output sheet and its size can be defined or edited by means of the variables "x" and "y", "dx" and "dy". The element can be provided with a frame and a background colour to suit your personal requirements. If the element needs to be returned to its original condition, this can be done using the "Reset" button. Alternatively, you can alter the size and shape of the element using the mouse (see menu item "Output preferences/Move objects", Section 5.4.21).

The heading shown in the title element can be edited in the menu item "Output preferences/Texts" (see Section 5.4.2). The texts "Project (1<sup>st</sup> line)" to "Project (3<sup>rd</sup> line)" are entered immediately after double-clicking the element or using the menu item "Edit/General" (see Section 5.2.6).

#### 5.4.6 "Deformation modulus" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "Output preferences/Title (change position)" menu item (see Section 5.4.5). Simply proceed as described there to edit the "Deformation modulus" element.

The value  $a_0$  should be given in the evaluation of your plate loading test in compliance with DIN 18134. After double-clicking the "Deformation modulus" element a dialog box opens allowing activation of the "Enter  $a_0$  in table" check box.

#### 5.4.7 "Company" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "Output preferences/Title (change position)" menu item (see Section 5.4.5). Simply proceed as described there to edit the "Company" element.

The input for this element can be edited immediately after double-clicking on the element or via the menu item "Edit/Company" (see Section 5.2.7).

#### 5.4.8 "Text no., etc." menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). To edit the "**Test no. etc.**", element, simply proceed as described there.

The input for this element can be edited immediately after double-clicking on the element or via the menu item "**Edit/Test**" (see Section 5.2.1). For this element you also have the option of adapting the texts in front of the input boxes to suit your needs. Go to the menu item "**Output preferences/Texts**" (see Section 5.4.2).

#### 5.4.9 "Annex and report" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). To edit the "**Annex and report**" element, simply proceed as described there.

The input for this element can be edited directly by double-clicking the element or by going to the menu item "**Edit/General**" (see Section 5.2.6). For this element you also have the option of adapting the texts in front of the input boxes to suit your needs. Go to the menu item "**Output preferences/Texts**" (see Section 5.4.2).

#### 5.4.10 "Load-settlement curve" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). Simply proceed as described there to edit the "**Load-settlement curve**" element.

#### 5.4.11 "Plate diameter" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). Simply proceed as described there to edit the "**Plate diameter**" element.

#### 5.4.12 "Remarks" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). To edit the "**Remarks**" element, simply proceed as described there.

The input for this element can be edited immediately after double-clicking on the element or via the menu item "**Edit/Remarks**" (see Section 5.2.8).

#### 5.4.13 "Short output table" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). Simply proceed as described there to edit the "**Short output table**" element.

#### 5.4.14 "Weather conditions" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). Simply proceed as described there to edit the "**Weather conditions**" element.

The input for this element can be edited immediately after double-clicking on the element or via the menu item "**Edit/Weather conditions**" (see Section 5.2.4).

#### 5.4.15 "Target values" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). Simply proceed as described there to edit the "**Target values**" element.

The input for this element can be edited immediately after double-clicking on the element or via the menu item "**Edit/Target values**" (see Section 5.2.3).

#### 5.4.16 "Test times" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). Simply proceed as described there to edit the "**Test times**" element.

The input for this element can be edited immediately after double-clicking on the element or via the menu item "**Edit/Test times**" (see Section 5.2.5).

#### 5.4.17 "First test (output table)" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). Simply proceed as described there to edit the "**First test (output table)**" element.

To view the output table you must change to the output table using the menu item "**Graphics preferences/View output table**" or by clicking the  icon.

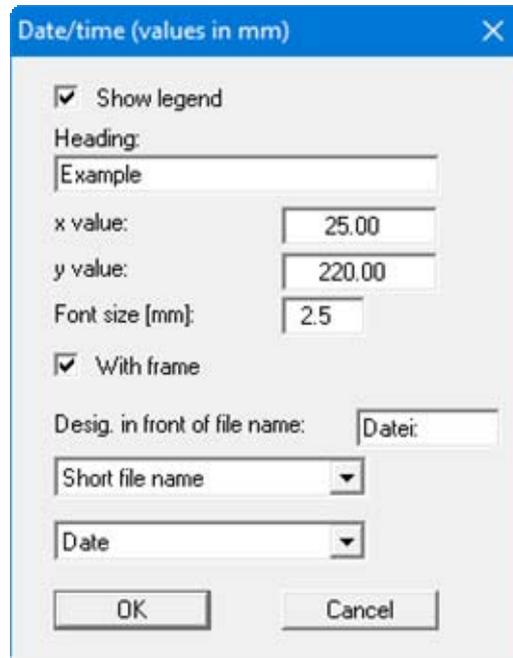
#### 5.4.18 "Second test (output table)" menu item

Almost exactly the same dialog box opens with the same preference options as that described in the "**Output preferences/Title (change position)**" menu item (see Section 5.4.5). Simply proceed as described there to edit the "**Second test (output table)**" element.

To view the output table you must change to the output table using the menu item "**Graphics preferences/View output table**" or by clicking the  icon.

#### 5.4.19 "File name" menu item

If the button "**Show legend**" is activated, a legend with file information will be displayed on the output sheet.



You can define and edit the position of the legend using the "**x value**" and "**y value**" and the size of the legend using "**Font size**".

In addition to the prompted heading, you can have a designation before the file name. The file name can be excluded or displayed automatically with or without the file path and/or date and time.

#### 5.4.20 "Reset all" menu item

With this button, all preferences for the aforementioned elements, which may have been edited with the previous menu items, will be reset to the program defaults.

#### 5.4.21 "Move objects" menu item

When you go to this item you can move the various objects with the aid of the mouse. Move the mouse over the object to be moved. When you are located above a moveable object the mouse pointer appears in the shape of a cross. You can now press and hold the left mouse button and drag the object to the required position.

After going to this menu item only one object at a time can be moved using the mouse or its size be altered.

In order to move or edit several objects, this function can be more quickly activated by pressing [F11] or the  icon.

The size of an object can also be altered using this menu item or the [F11] key. If you move over the frame of a changeable object after activating this function the mouse assumed the shape of a double-headed arrow. Hold the left mouse button and move the frame until the object has reached the required size. To retain the ratio of the sides, pull at one corner only. If on one side only is pulled the object will become higher or wider.

The last change made in the position or size of an object can be undone using [Back] or by clicking the  icon.

## 5.5 Info menu

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### 5.5.1 "Copyright" menu item

You will see a copyright message and information on the program version number.

The "System" button shows information on your computer configuration and the folders used by **GGU-PLATELOAD**.

### 5.5.2 "Maxima" menu item

Here you can check the defaults for maximum values.

### 5.5.3 "Help" menu item

The **GGU-PLATELOAD** help is opened as a PDF document. The help function can also be accessed using the [F1] function key.

### 5.5.4 "GGU on the web" menu item

Using this menu item you can access the GGU Software website: [www.ggu-software.com](http://www.ggu-software.com).

Get information on updates and modifications on a regular basis from your program module page. You can also subscribe to email notifications, which provide information on all modifications on a monthly basis.

### 5.5.5 "GGU support" menu item

This menu item takes to the GGU-Software Contact area at [www.ggu-software.com](http://www.ggu-software.com).

### 5.5.6 "What's new?" menu item

You will see information on program improvements in comparison to older versions.

### 5.5.7 "Language preferences" menu item

This menu item allows you to switch the menus and the graphics from German to English and vice versa. To work in German, deactivate the two check boxes "**Dialoge + Menüs übersetzen (translate dialogues, menus)**" und "**Graphiktexte übersetzen (translate graphics)**".

Alternatively, you can work bilingually, e.g. with German dialog boxes but with graphic output in English. The program always starts with the language setting applicable when it was last ended.

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## 6 Tips

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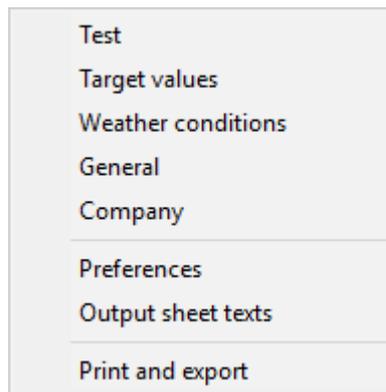
### 6.1 Keyboard and mouse

---

You can scroll the screen with the keyboard using the cursor keys and the [**Page up**] and [**Page down**] keys. By clicking and pulling with the mouse, with [**Ctrl**] pressed, you activate the zoom function, i.e. the selected section will fill the screen. Furthermore you can use the mouse wheel to zoom in/out or scrolling the screen presentation. The following mouse wheel functions are available:

- Mouse wheel up = move screen image up
- Mouse wheel down = move screen image down
- [**Ctrl**] + mouse wheel up = enlarge screen image (zoom in)
- [**Ctrl**] + mouse wheel down = shrink screen image (zoom out)
- [**Shift**] + mouse wheel up = move screen image right
- [**Shift**] + mouse wheel down = move screen image left

If you click the right mouse button anywhere on the screen a context menu containing the principal menu items opens.



By double-clicking the left mouse button on output sheet or **Mini-CAD** objects, the editor for the selected object immediately opens, allowing it to be edited. By double-clicking output sheet elements while holding the [**Shift**] key, the preferences for the position, size and appearance of the element open for editing in the editor.

## 6.2 Function keys

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Some of the function keys are assigned program functions. The allocations are noted after the corresponding menu items. The individual function key allocations are:

- [Esc] refreshes the screen contents and sets the screen back to the given format. This is useful if, for example, you have used the zoom function to display parts of the screen and would like to quickly return to a complete overview.
- [F1] opens the manual file.
- [F2] refreshes the screen without altering the current magnification.
- [F3] opens the menu item "Graphics preferences/Refresh and zoom".
- [F11] activates the menu item "Output preferences/Move objects".

## 6.3 "Copy/print area" icon

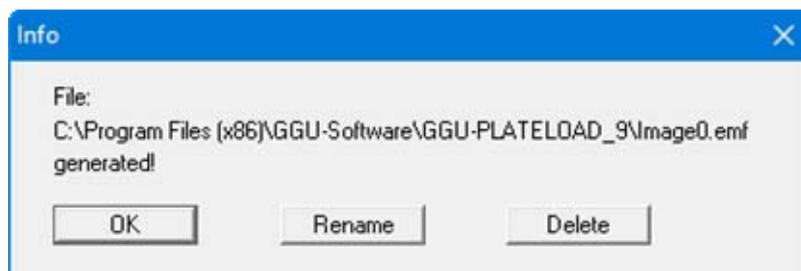
---

A dialog box opens when the "Copy/print area" icon  in the menu toolbar is clicked, describing the options available for this function. For example, using this icon it is possible to either copy areas of the screen graphics and paste them into the report, or send them directly to a printer.

In the dialog box, first select where the copied area should be transferred to: "Clipboard", "File" or "Printer". The cursor is displayed as a cross after leaving the dialog box and, keeping the left mouse button pressed, the required area may be enclosed. If the marked area does not suit your requirements, abort the subsequent boxes and restart the function by clicking the icon again.

If "Clipboard" was selected, move to the MS Word document (for example) after marking the area and paste the copied graphics using "Edit/Paste".

If "File" was selected, the following dialog box opens once the area has been defined:



The default location of the file is the folder from which the program is started and, if several files are created, the file is given the file name "Image0.emf" with sequential numbering. If the "Rename" button in the dialog box is clicked, a file selector box opens and the copied area can be saved under a different name in a user-defined folder. Saving can be aborted by pressing the "Delete" button.

If the "Printer" button was pressed in the first dialog box, a dialog box for defining the printer settings opens after marking the area. Following this, a dialog box for defining the image output settings opens. After confirming the settings the defined area is output to the selected printer.

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