

2.1 Text fields, Masks and Projects

If more than 31 text fields are needed for the marking of a workpiece, several masks must be created. If a text field shall contain more than 50 characters, its content must be divided on 2 text fields. However, only one mask can be loaded and marked.

Example A mask e. g. corresponds to a type plate, the text fields correspond to the individual fields of the type plate like year of manufacture, serial number, etc.

The arrangement of a text field within the mask is determined by the X- and Y-coordinates of the text field. The origin of the coordinate system lies in the lower left corner of the marking area.

Switching on the control



- Control boots, axes of the marking head reference: the slide of the marking head moves in X-direction until the X-initiator actuates. Then it continues to move in X-direction by the value of "Overtravel" (see page 4-29). The slide moves likewise in Y-direction. The reached position is defined as basing point of the marking head. This basing point is the origin of the marking field.

PinWare 4.3110

File Edit Marking System Help Menubar [F10]

F1-Load File

F2-Start

F3-Edit File

ÖSILING

DEMO

ZEN MARK





File:default.msk
Edit Mode

Fig. 10393en

Switching off the control

1. Save all changes of the current mask or project (see pages 4-19 and 4-20).
2. After no keys is pressed for a short time: switch off MAIN SWITCH.

2.3 Brief instruction: marking a workpiece

1. Switch on control via MAIN SWITCH.
2. Select  *Load file*.
3. Select the desired file.
4. Select .
5. Enter the number of workpieces to be marked behind "Number".
6. Select  to start the marking. To mark another workpiece: select  again.

3 Working with masks

3.1 Creating a text field

Several text fields which belong to one workpiece are combined in a mask. A mask can contain max. 31 text fields. If more than 31 text fields are needed for the marking of a workpiece, several masks must be created.

Type text field 5 different types of text field are available:

- Text: text is aligned on a straight line.
- Circular text: text is aligned on the inside or outside of a circle.
- HPGL file: graphic file in the format *.plt is inserted.
- DataMatrix Symbol: insert data matrix.
- Position: insert empty text field at a defined position.

Alignment Depending on the type of the text field different alignments are available. For the types "Text", "HPGL file" and "DataMatrix Symbol":

- Bottom left: The reference point of the text field lies in the lower left corner of the text field.
- Bottom center: The reference point of the text field lies in the lower center of the text field.
- Bottom right: The reference point of the text field is in the lower right corner of the text field.

The following alignments are available for the type "Circular text":

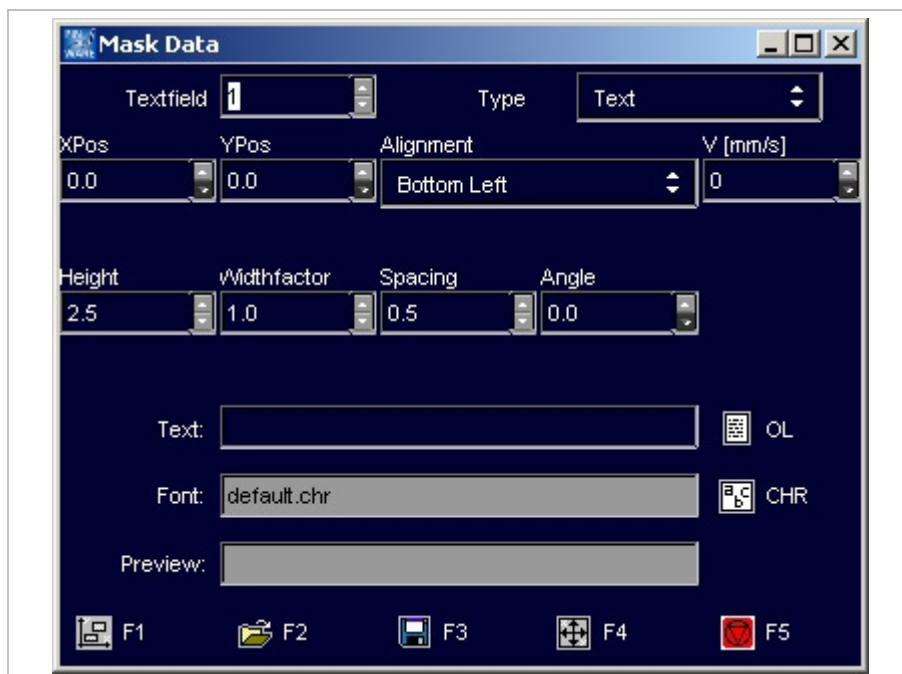
- Circle I left: the lower edge of the text is put on the circular arc; the text is aligned in the clockwise direction on the circular arc. The beginning of the text lies on the reference point.
- Circle I center: the lower edge of the text is put on the circular arc; the text is aligned in the clockwise direction on the circular arc. The center of the text lies on the reference point.
- Circle I right: the lower edge of the text is put on the circular arc; the text is aligned in the clockwise direction on the circular arc. The end of the text lies on the reference point.
- Circle O left: the lower edge of the text is put on the circular arc; the text is aligned in the anti-clockwise direction on the circular arc. The beginning of the text lies on the reference point.
- Circle O center: the lower edge of the text is put on the circular arc; the text is aligned in the anti-clockwise direction on the circular arc. The center of the text lies on the reference point.
- Circle O right: the lower edge of the text is put on the circular arc; the text is aligned in the anti-clockwise direction on the circular arc. The end of the text lies on the reference point.

Note

The origin of the coordinate system (0,0) always lies in the lower left corner of the marking area.

Creating a new text field

1. Select *File > New mask*.
"Mask Data" appears.



Mask "Mask Data"

Fig. 10221en

2. Enter the number of the text field behind "Textfield".
3. Select the desired type of text field (see page 4-8) behind "Type".
Depending on the selected "Type" a different number of further input fields are displayed.
4. Select the desired alignment of the text field (see page 4-8) under "Alignment".
5. Enter the X- and Y-position of the reference point (see Alignment on page 4-8) under "XPos" and "YPos".
6. Enter the marking speed under "V [mm/s]".

Note

Text field with $V = 0$ mm/s are not marked and are displayed in the preview in blue colour.

7. Enter the character height of the capital letters in [mm] under "Height". Heights from 0.5 to 99.9 mm can be entered. When marking a data matrix enter the "Dot size" in [mm].
8. If the characters of the text shall be marked wider or smaller than standard: enter a value unequal to 1.0 under "Widthfactor". Character widths from 0.1 to 10 can be entered.
0.5 causes half character width, 2.0 double character width.
9. If the spacing between 2 adjacent characters shall be larger than standard: enter a value between 0 and 10 in [mm] under "Spacing".

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Editing a text field

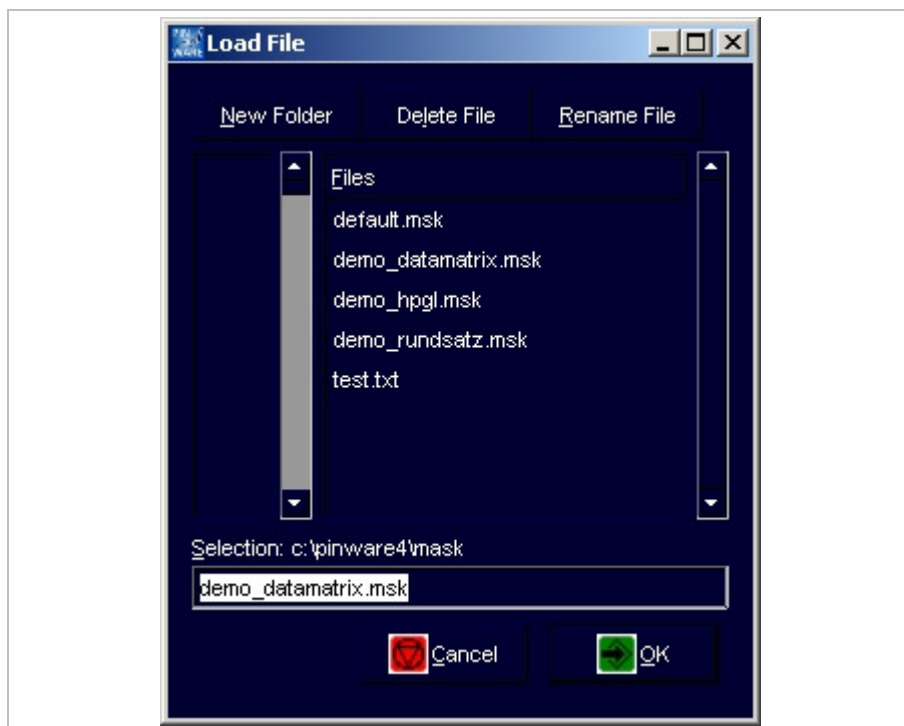
A text field that is already created can be edited in the edit or service mode at any time.

1. If the mask in which the text field shall be edited is not the current mask: select *File > Open mask* in the main menu.

or

- Select *Load file*.

"Load File" appears.



Mask "Load File"

Fig. 10222en

2. Select the desired file (mask).

3. Select

4. Select *Edit > Mask* in the main menu.

or

- Select *Edit File*.

5. Enter the number of the text field to be edited behind "Textfield".

or

- Select the desired text field with the arrow keys.

6. Edit the text field (see page 4-9).

3.2 Working with wildcards

Instead of text also a wildcard can be entered in a text field. With wildcards variable information (e. g. current date or time) can be marked. The information isn't queried by the system until the marking takes place.

Wildcards are included by 2 "@" characters. Several wildcards can be combined. The characters . - , : / and the blank can be used together with wildcards, in order to obtain e. g. usual formatting of dates.

The following wildcards are available:

Type of wildcard	Entry	Result	Example
Day	T	Day in the week	1, 2, 3, ..., 7
Day	TT	Day in the month (two-digits)	01, 02, 03, ..., 31
Day	ttt	Day in the year	1, 2, 3, ..., 366
Week	KW	Week (two-digits)	01, 02, 03, ..., 53
Month	MM	Number of the month (two-digit)	01, 02, 03, ..., 12
Year	J	Date (last digit)	0, 1, 2, ..., 9
Year	JJ	Date (last 2 digits)	98, 99, 00
Year	JJJJ	Date (four-digit)	2005
Time	hh	Hour (two-digit)	00, 01, 02, ..., 23
Time	mm	Minute (two-digit)	00, 01, 02, ..., 59
Time	ss	Second (two-digit)	00, 01, 02, ..., 59
Counter	arbitrary number	Number which is increased automatically.	100, 101, 102, ...

Tab. 1

Example:

A text field with the content: Date: @TT.MM.JJ@ Time: @hh:mm@

e. g. generates: Date: 19.01.05 Time: 09:26

3.3 Creating objects

In addition to wildcards, objects can also be entered in text fields. The following objects are available:

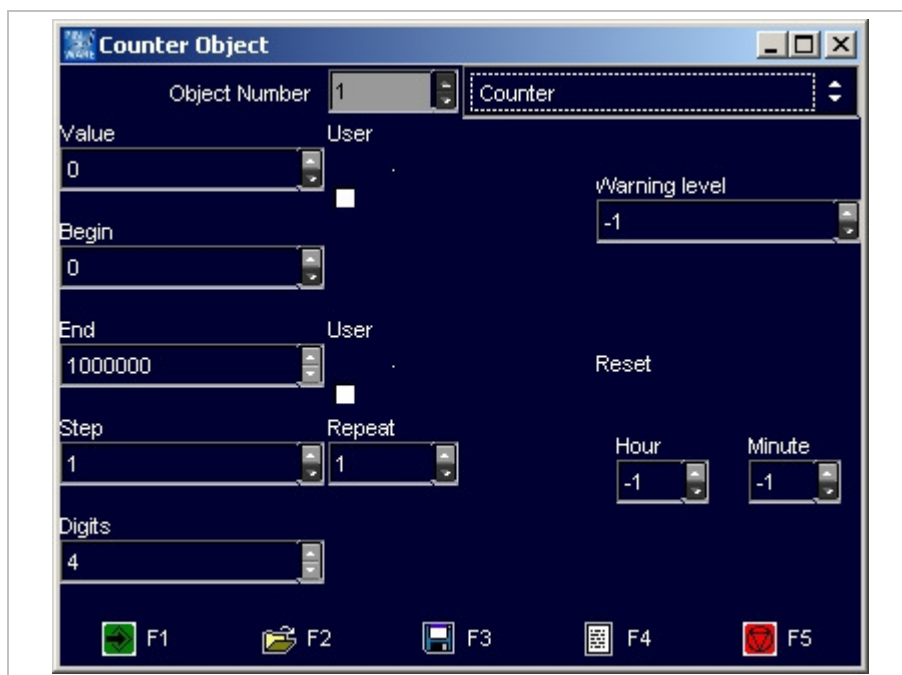
- Counter.
- Date and time.
- User input: text field is reserved for data that are entered by the user just before the marking. The query of the data occurs automatically.
- Shift index.

Note

Objects are activated with a "%" character. Several objects can be combined.

Creating a counter

- "Counter Object" appears.



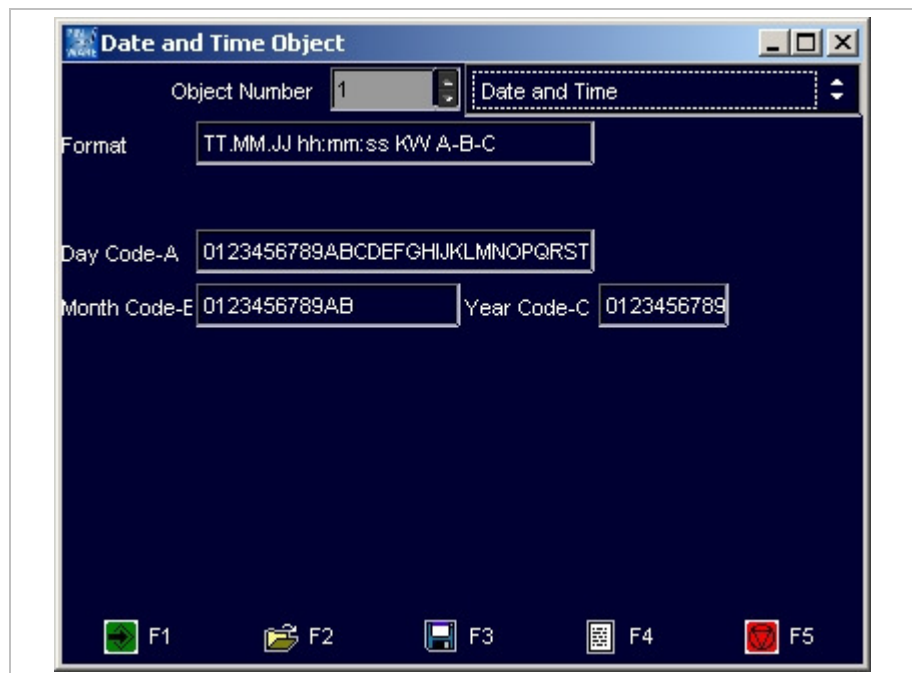
Mask "Counter object"

Fig. 10223en

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Creating the object "Date and Time"

1. Select *Edit > Object List*.
or
 - Select *OL* in "Mask Data"."Object List" appears.
2. Select unimplemented object or object "Counter" to be changed and select ENTER.
3. Select "Date and Time" in the field on the right.



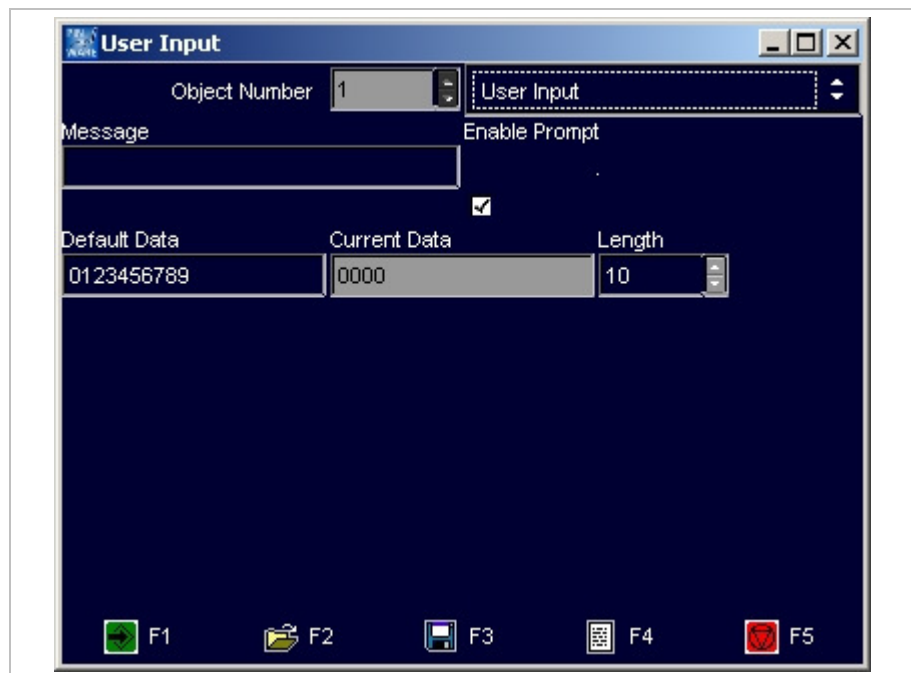
Mask "Date and Time Object"

Fig. 10224en

4. Enter the value "Format": format of the date/time (see "Working with wildcards" page 4-12).
5. If desired, also special formats of the date can be marked: Enter the letters A B C (if desired with separators) and the values of A, B and C in the lower rows:
 - "Day Code-A": 31 digits or letters from which the digit and/or the letter is marked which corresponds to the current day.
 - "Month Code-B": 12 digits or letters from which the digit and/or the letter is marked which corresponds to the current month.
 - "Year Code-C": 10 digits or letters from which the digit and/or the letter is marked which corresponds to the current year.
6. To assume the object in the object list: select .

Creating the object "User Input"

1. Select *Edit > Object List*.
 or
 - Select *OL* in "Mask Data".
 "Object List" appears.
2. Select unimplemented object or object "Counter" to be changed and select ENTER.
3. Select "User Input" in the field on the right.



Mask "User Input"

Fig. 10225en

4. Enter the following values:
 - "Message": message that is displayed if the system waits for an input from the user, e. g. Fig. 10235. The message is only displayed if "Enable Prompt" is selected.

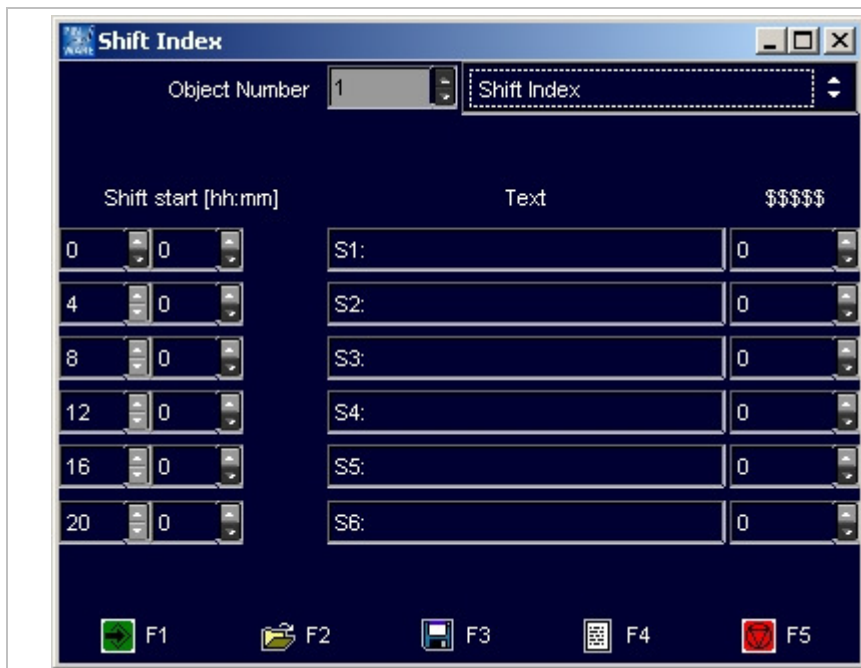


Fig. 10235en

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Creating a shift index

- or**



Mask "Shift index"

Fig. 10226en

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3.4 Saving masks

1. Create the mask with all desired text fields (see paragraph 3.1, page 4-8).
2. Select *File > Save Mask*.

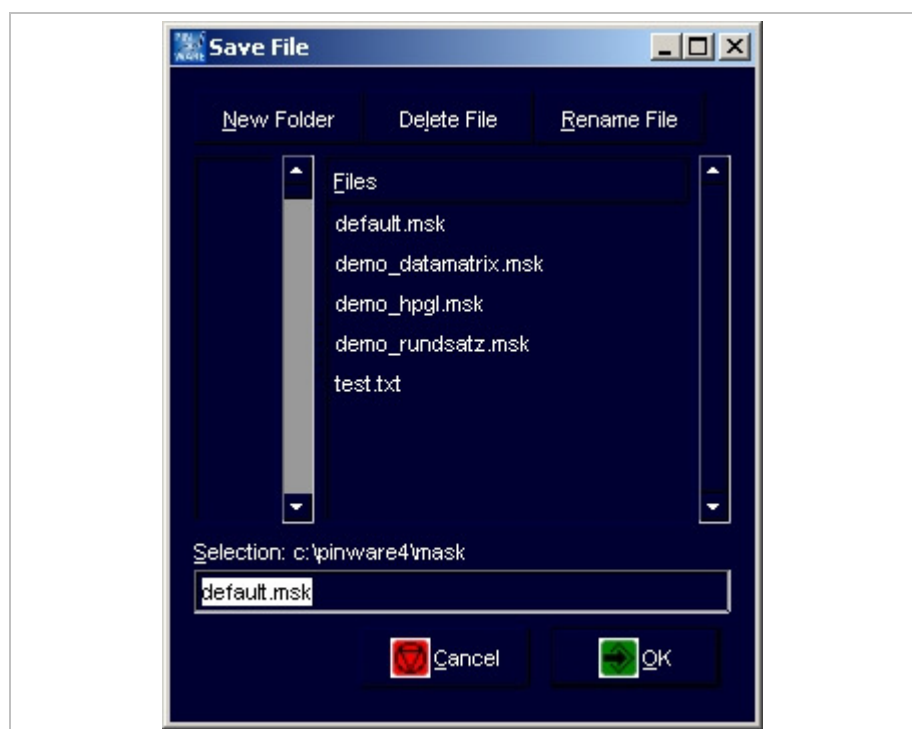
If a new mask is saved (mask doesn't have a file name yet) "Save File" appears.

If the mask has been saved once and therefore has a file name, the mask will be saved. The following steps are inapplicable.

or


- Select *File > Save Mask As.*

"Save File" appears.



Mask "Save File"

Fig. 10266en

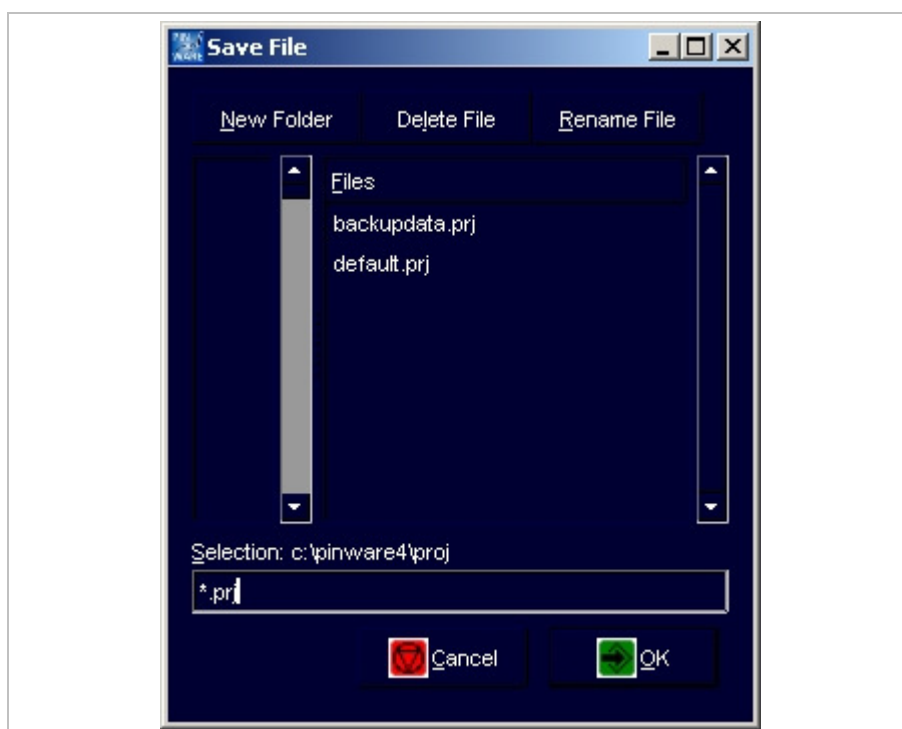
3. Enter file name you wish to give to the mask.
The ending '.msk' is automatically added by the software.
4. Select 

4 Working with projects

If the same masks are used on different marking units with different marking heads, the masks can be stored as projects. Beside the mask with all text fields a project contains also all current adjustments e. g. used marking head. If the mask is stored as project, these adjustments must be entered only once for each marking head. If the mask is to be marked again with one of these marking heads, just open the corresponding project.


4.1 Saving a mask and adjustments as project

1. Create the mask with all desired text fields (see paragraph 3.1, page 4-8).
2. Enter all other adjustments, e. g. used marking tool (see paragraph 7.5, page 4-31).
3. Select *File > Save Project As*.
"Save File" appears.



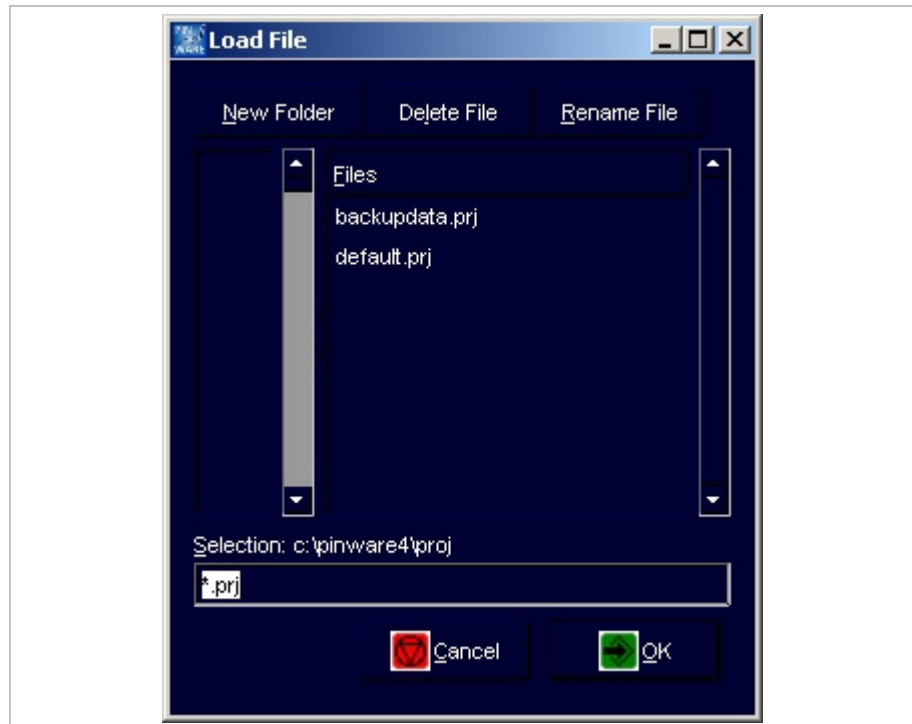
Mask "Save File"

Fig. 10267en

4. Enter file name you wish to give to the project.
The ending '.prj' is automatically added by the software.
5. Select 


4.2 Opening a project

1. Select *File > Open Project*.
"Load File" appears.



Mask "Load File"

Fig. 10268en

2. Select the desired file (project).
3. Select .


Project is opened: mask which is stored in this project is opened, all stored adjustments are assumed by the control.

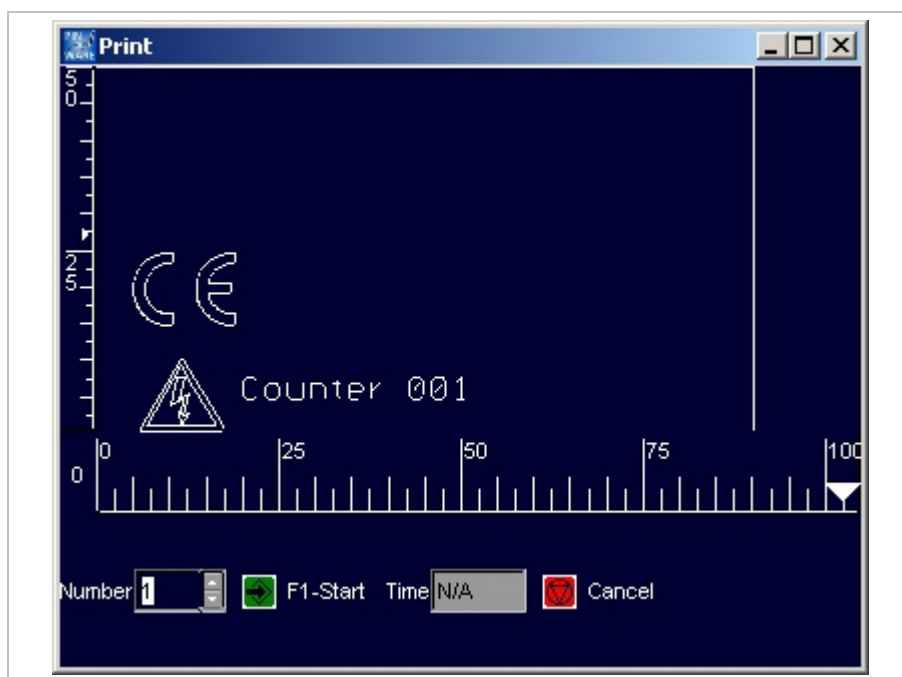
Note

The marking unit does **not** give a feedback to the control which marking head or which marking tool is attached to the marking unit. When working with projects the stored adjustments must be controlled by the user.

ÖSTLING Markiersysteme GmbH



5.2 Starting the marking

1. Select *Marking > Start*.
or
- Select  *Start* in "Preview".
"Print" appears.



Mask "Print"

Fig. 10270en

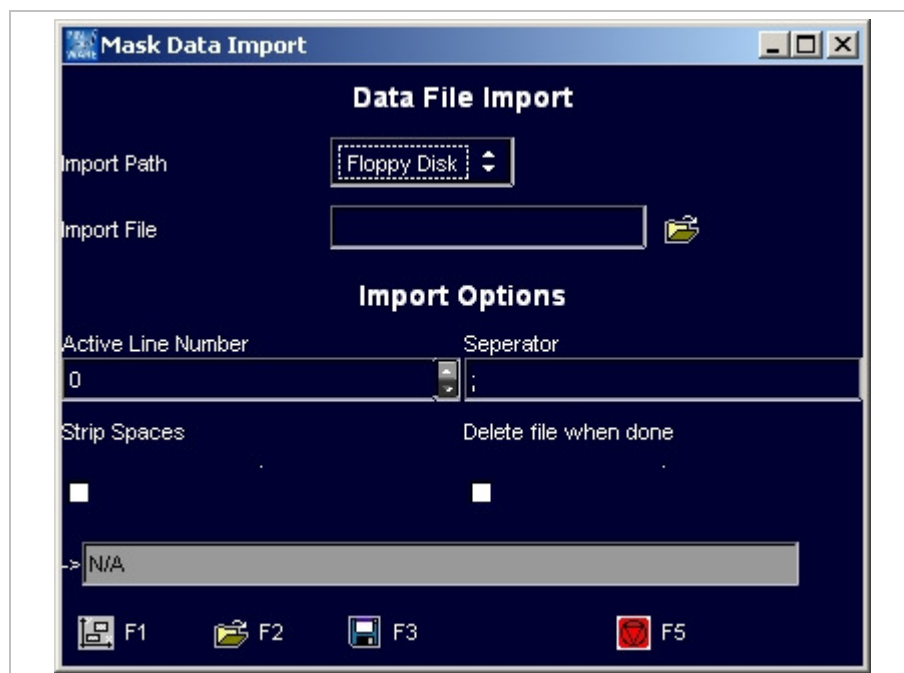
2. Enter the number of workpieces to be marked behind "Number".
3. Select , to start the marking.
After the marking, the system indicates behind "Time" how long the marking has lasted in [s].
4. To mark another workpiece: select  again.

6 Further functions

6.1 Importing data



Texts from files which are on an external storage medium (disk, net drive assembly) can be imported. The software assumes all characters from the file. These characters are inserted in one or more text fields of one or several masks.

1. Select *Edit > Data import*.
 "Mask Data Import" appears.



Mask "Mask Data Import"

Fig. 10272en

2. Select the desired "Import Path".
3. To open the directory in which the file with the data to be imported is saved:
 select  behind "Import File".
 "File Selection" appears.
4. Select the desired file.
5. Select .
 "File Selection" is closed.

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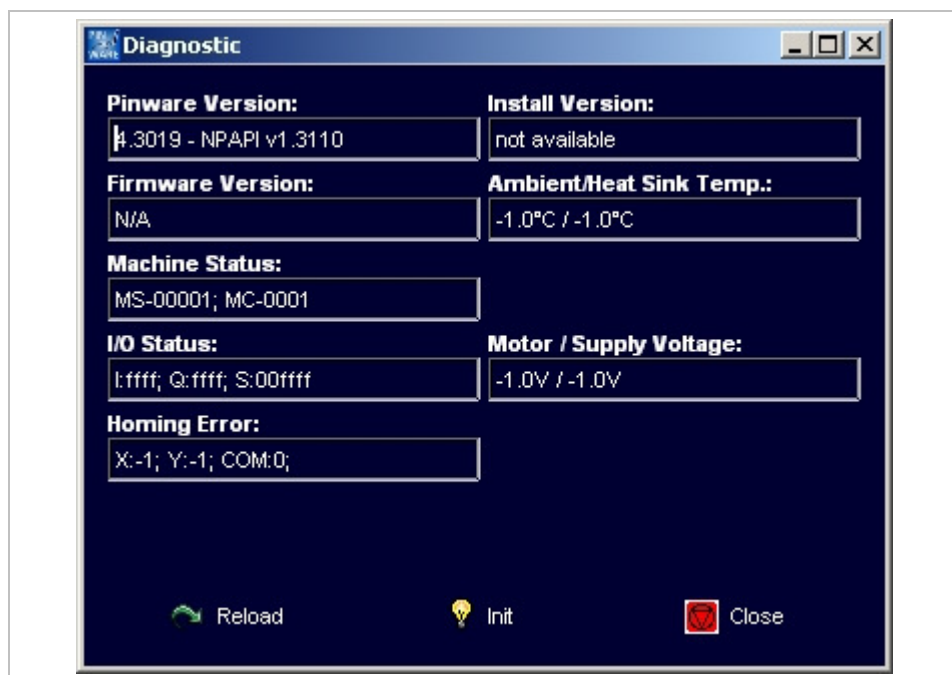
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7 System control

7.1 Reading out diagnostic data

- Select *System > Diagnostic*.

"Diagnostic" appears.



Mask "Diagnostic"

Fig. 10247en

- Pinware Version: software version that is installed on the control.
- Install Version: version of the compact flash card.
- Firmware Version: software version of the motor card.
- Ambient/Heat sink temperature: temperature of the ambient air in [°C] and temperature of the heat sink of the motor card in [°C].
- Machine status:
 - MS: system status, 5-digit. Contains information about temperatures, voltage ranges and output drivers.

Digit	Description	Status	Description of the status
left-most	Output driver	0	Error.
		1	OK.
2. from left	Supply voltage: voltage in [V] that impressed to the motor card.	0	No voltage.
		1	Voltage OK.
		2	High voltage.
		3	To high voltage, error.
		4	Low voltage.
		5	Too low voltage, error.

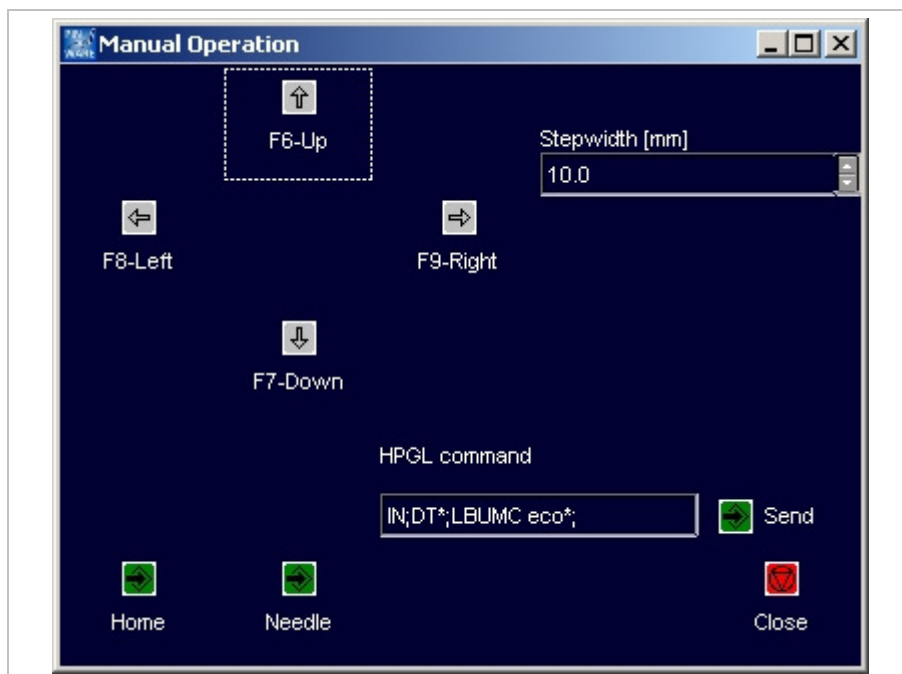
Tab. 2

- Tab. 3

- 4-27

7.2 Operating the marking head in manual operation

1. Select *System > Manual Control*.
"Manual Operation" appears.



Mask "Manual Operation"

Fig. 10240en

2. To move the marking tool manually: enter step width in [mm].
3. Select F6 to F9 to move the marking tool in the desired direction.
4. To operate the marking tool with HPGL commands: enter HPGL command and select *Send*.

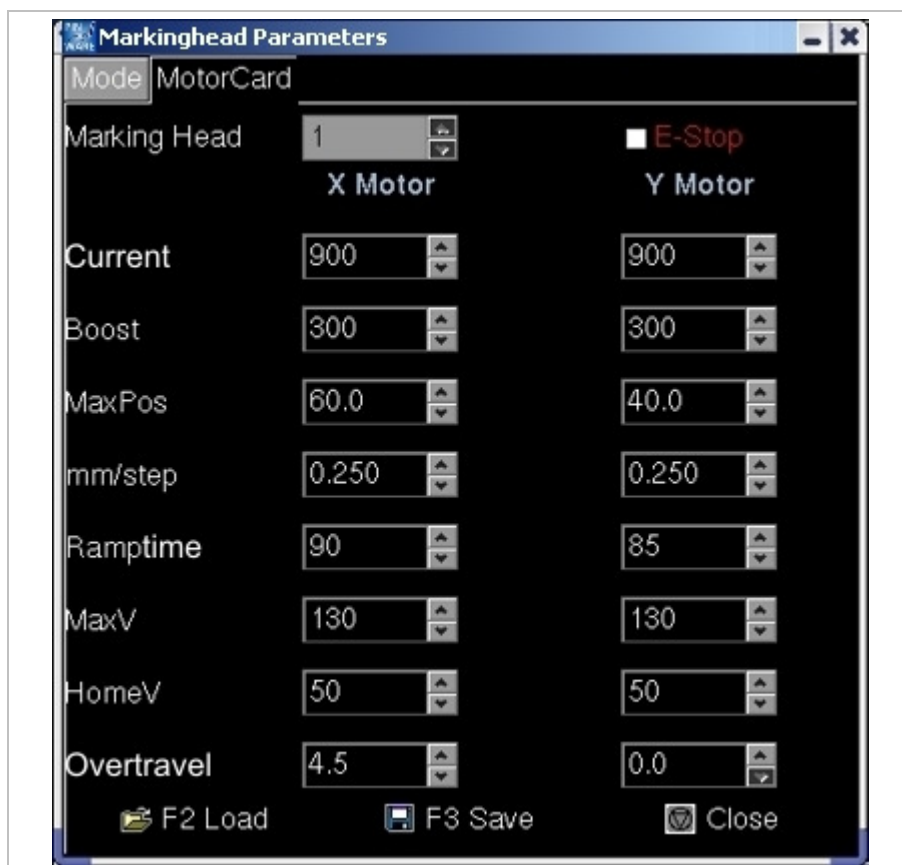
Note

The motor card uses HPGL commands to control the marking head. The plotter language was created by Hewlett Packard to process vector data for plotters.

5. To move home the marking tool: select *Home*.
6. To move the marking tool up and down once: select *Needle*.

7.3 Displaying marking head parameters

1. Select *System > Marking Head Parameters*.
"Markinghead Parameters" appears.
2. Select "MotorCard".



Mask "Markinghead Parameter", tab "MotorCard"

Fig. 10248en

- Current: motor current in [mA].
- Boost: increase of the motor current in [mA] during ramping.
- MaxPos: maximum position in [mm] the marking head can reach. According to the marking field.
Example: 90 mm in X-direction, 50 mm in Y-direction for marking head 5/9.
- mm/step: with coining heads: feed in [mm] after each drop of the coining tool.
- Ramptime: time in [ms] during which the motor current is increased.
- MaxV: travel speed of the marking head in X- or Y-direction in [mm/s] during deadhead.
- HomeV: speed of the marking head in X- or Y-direction in [mm/s] during homing.
- Overtravel: position of the initiator. An initiator is an inductive proximity switch. Distance of the initiator from home in [mm] in X- or Y-direction.

7.4 Displaying marking head origin

- Select *System > Marking Head Origin*.

"Markinghead Origin" appears.



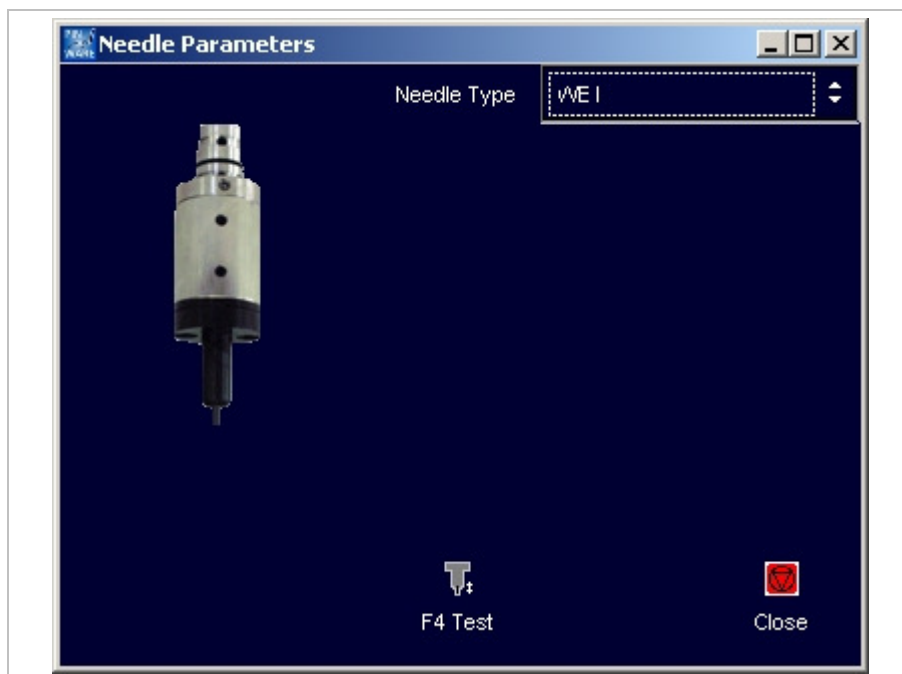
Mask "Markinghead Origin"

Fig. 10249en

- Origin: origin of the X- and Y-axis in [mm]. For hand-held units it is useful to displace the origin in order that the marking isn't "turned upside down".
- Scale: the value "-1" causes a mirroring of the axes. Useful for hand-held units, see "Origin".
- RestPos: standby position of the marking head in [mm] in relation to the "Origin".


7.5 Selecting the marking tool

1. Select *System > Needle Parameters*.
"Needle Parameters" appears.



Mask "Needle Parameters"

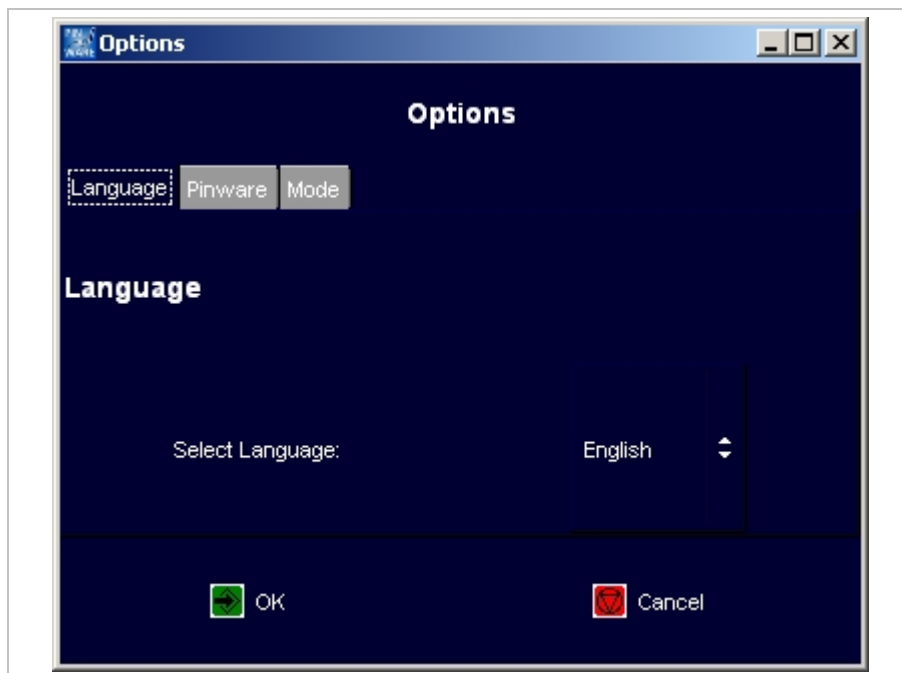
Fig. 10250en

2. Select the desired marking tool behind "Needle Type".
Image of the selected marking tool is displayed.
3. If desired, change the parameters of the marking tool:
 - Turn-on delay: The needle of the marking tool is brought to oscillating by compressed air. Due to the mass inertia of the needle the oscillation achieves the entire amplitude only after short time. Then the marking tool is moved. This time in [ms] is the turn-on delay.
 - Turn-off delay: After switching off the compressed air the needle continues to swing still a short time due to the mass inertia. Only after this time (= turn-off delay) in [ms] the marking tool may be proceeded to the starting point of the next marking.
 - Frequency (only with WP needles): frequency in [Hz] with which the needle is brought to oscillating.
 - Needle on time (only with WP needles): time in [ms] during which the needle is brought to oscillating.
4. To test the marking tool: select  and hold the button.

7.6 Setting options


Selecting the language

1. Select *System > Options*.
"Options" appears.



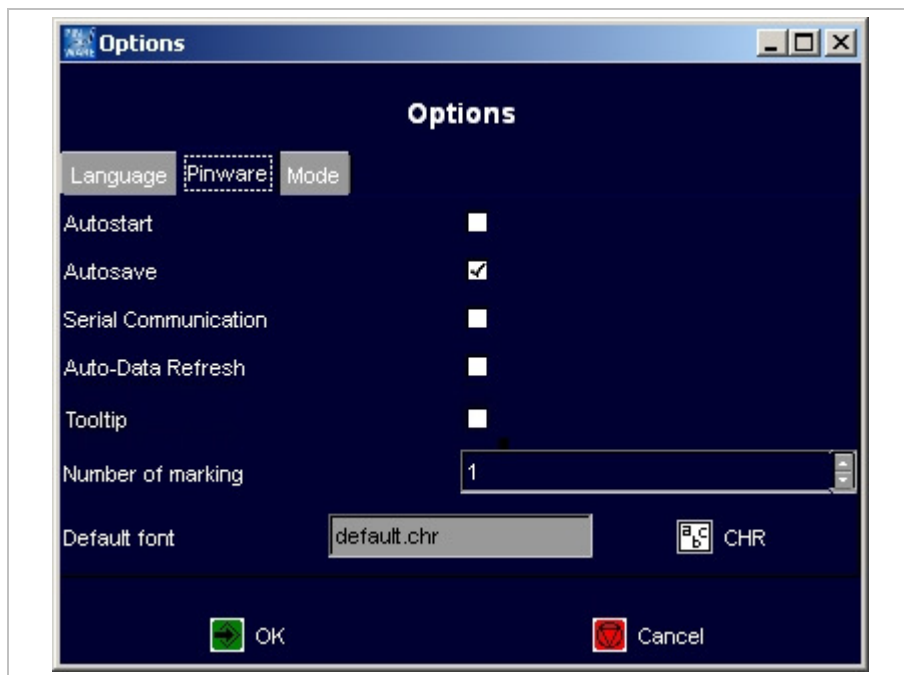
Mask "Options", Tab "Language"

Fig. 10394en

2. Select the desired language.
3. To convert the software into the selected language: select .


Selecting software adjustments

1. Select *System > Options*.
"Options" appears.
2. Select "Pinware".



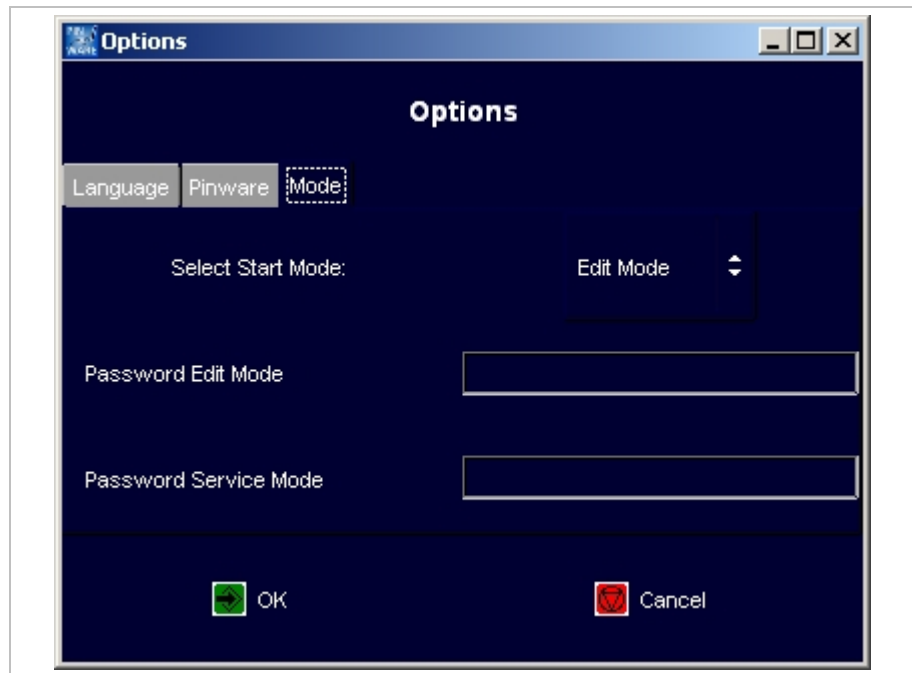
Mask "Options", Tab "Pinware"

Fig. 10395en

- Autostart: If selected the page "Print" appears directly when booting the control.
- Autosave: If selected the current mask is saved after each marking. Use this function if e. g. the current value of a counter is to be saved.
- Auto-Data Refresh: If selected changeable data (e. g. time, date) refreshed at once.
- Tooltip: If selected tooltips are displayed (short explanations to the field on which the mouse is).
- Number of marking: default how often a mask is marked. This value is displayed on "Print" behind "Number" (see Fig. 10270, page 4-23). The value "-1" corresponds to endless markings, the field "Number" will not be displayed.
E. g. if generally at least 10 markings are needed of all masks, "10" can be entered here, so that before each start of a marking the number doesn't have to be set manually to 10.
- Default font: font used by default when creating a mask. Select  to change the font.

Changing the start mode of the control

1. Select *System > Options*.
"Options" appears.
2. Select "Mode".



Mask "Options", Tab "Mode"

Fig. 10396en


3. Select the desired start mode:
 - Work mode: files (projects and masks) can be loaded and marked.
 - Edit mode: files (projects and masks) can be loaded, changed and marked. It is also possible to create new masks and projects.
 - Service mode: all operating functions are possible. E. g. also system parameters can be changed.
4. If the edit mode is to be made accessible only for a certain person subgroup and therefore is to be protected with a password: enter password.
5. If the service mode is to be made accessible only for a certain person subgroup and therefore is to be protected with a password: enter password.

Note

Passwords cannot be read out anywhere! Therefore if possible select a password which cannot be forgotten.

6. Select .

8 Fonts

15 different fonts are available in the software. By default the software uses the font 'litt.chr'. To select another font: select  CHR in "Mask Data" and select the desired font from the list (see page 4-10).

For every individual of the 31 text fields of a mask you can select another font. As a result of the different layouts of the individual fonts however differences can arise in the character width, height and size.

8.1 Default font

By default the software uses the font 'litt.chr' if no other font was selected.



Default font 'litt.chr'

Fig. 10283

The 'litt.chr' consists of 96 characters. It contains the moving lines with the corresponding positions of the marking tools for all 96 characters. In addition each character contains the character height and broad of the grid. This is not the actually marked character height and broad, but the vertical and horizontal resolution of the character.

The default font has a vertical resolution of 7 steps. That is a letter is defined by a resolution of 7 steps, based on capital letters. Umlaut in capitalisation and special characters exceed the normal character height, lower case with descender such as g, p, q, y and special characters fall below the character height of 0.

Fig. 10293

8.2 Further fonts

- bold.chr
- d5x7.chr: dot font.
- euro.chr
- goth.chr
- lcom.chr
- ocrA.chr
- rlit.chr: cyrillic font.
- rtri.chr: cyrillic font.
- sans.chr
- scri.chr
- sima.chr
- simp.chr
- trip.chr
- tscr.chr



Fig. 10277



Fig. 10278



Fig. 10280

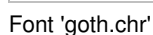


Fig. 10281



Font 'lcom.chr'

Fig. 10282



Font 'ocra.chr'

Fig. 10284



Font 'rlit.chr'

Fig. 10285



Font 'rtri.chr'

Fig. 10286

Font 'sans.chr'

Fig. 10287

Font 'scri.chr'

Fig. 10288

Font 'sima.chr'

Fig. 10289

Font 'simp.chr'

Fig. 10290

Fig. 10291

Fig. 10292