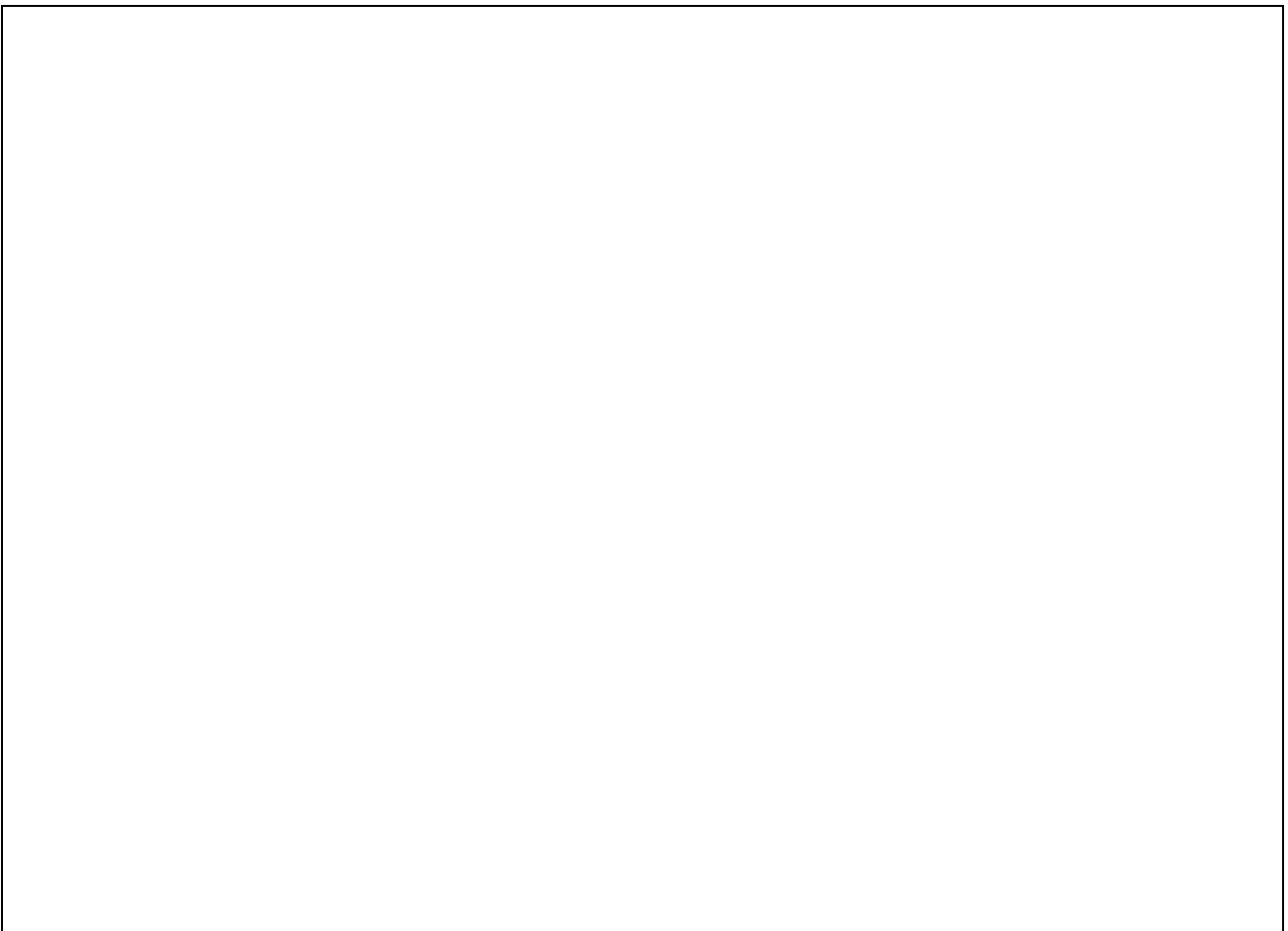




MT-CNC
General and Password Administration
16VRS

User Interface



2 7 4 6 5 3

DOK-MT*CNC-ALL*PAS*V16-ANW2-EN-P

- Title** General and Password Administration
- Type of document** Description of the user interface
- Documentation type** DOK-MT*CNC-ALL*PAS*V16-ANW2-EN-P
- Internal filing**
 - Folder 2/Register 1
 - Drawing number 109-0768-4191-EN 12.97
- Purpose of the document**
 - This document is intended to provide you with the functions that are valid for all menu items. These are, in particular, general information about the screen structure and about the functions in the setup.
 - Another chapter describes the possibilities of using the user/password administration function.

Configuration control

Documentation identification of previous releases	Release date	Comment
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109-0768-4191-01	12/97	

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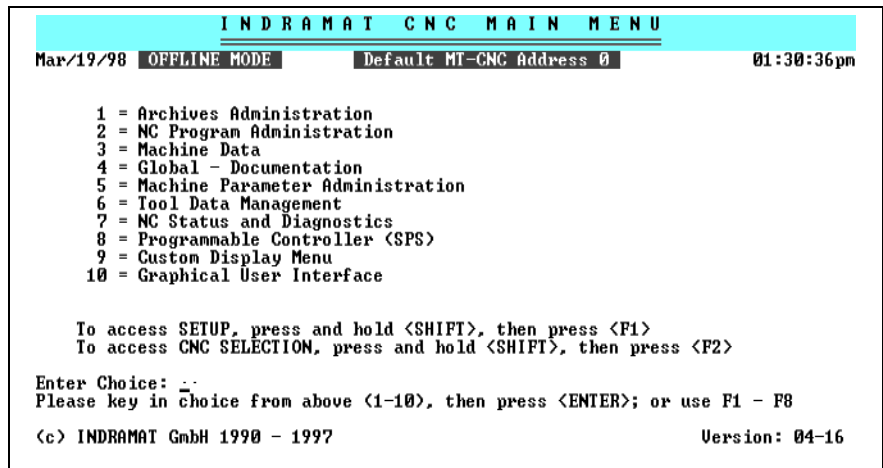
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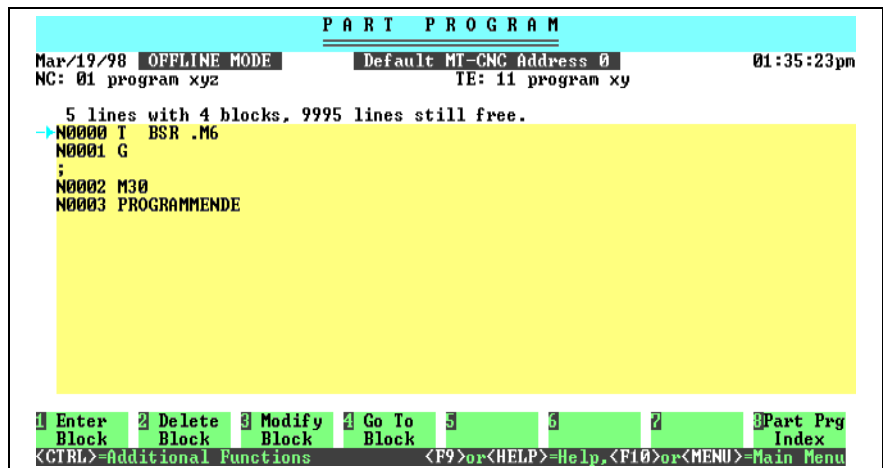
1.1 Main Menu



Use the function keys **F1** through **F8** or the numeric keys to select the menu items 1 through 8, respectively.

The menu items 9 and 10 can only be selected via the numeric keys. Enter the number and press **Enter** to confirm the entry.

1.2 Screen Structure



Lines 1, 2 Menu headline

Line 3 Current date and time, and name of the selected device.

System faults are displayed here as a blinking text.

Example:

In the event of failure on the data link to the MT-CNC, the following text will blink on line 3:

'CNC does not reply!'

Lines 4,5 Status display for selected program and station names.

Line 6 Banner line of the subsequent data window.

Lines 7-21 Data window

The arrow at the left-hand margin of the data window marks the line that has been selected for the next operation.

Use the cursor keys , , , ,  and  to move the arrow.


Lines 19-21

These lines are temporarily overwritten by the input window.

Line 22



Instructions and error messages.

Instructions explain the next step that is to be executed. They disappear as soon as that step has been completed.



An error message is accompanied by an audible sound. They are displayed until they are acknowledged by the  key.

Lines 23, 24





8 fields with function keys.


Press one of the keys  through  to activate the function that is displayed in the respective field. The corresponding function key field is inverted as long as the execution of that function is in progress.

Line 25

Reference to any further functions that are available in connection with the  and  keys.

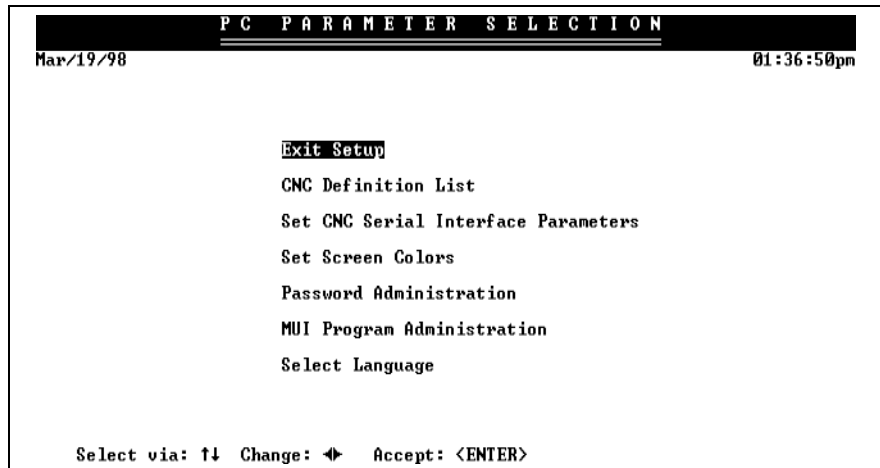
Menu levels

In the individual menu levels, the functions are executed by selecting the function keys that are displayed in the function key fields. If a menu contains more than 8 function keys, the additional function key are displayed when you press and hold the  or  key. To execute the corresponding function, press the combination  + <function key> or  + <function key>.

You may press the  key at any time to abort an executing function.

2 Setup

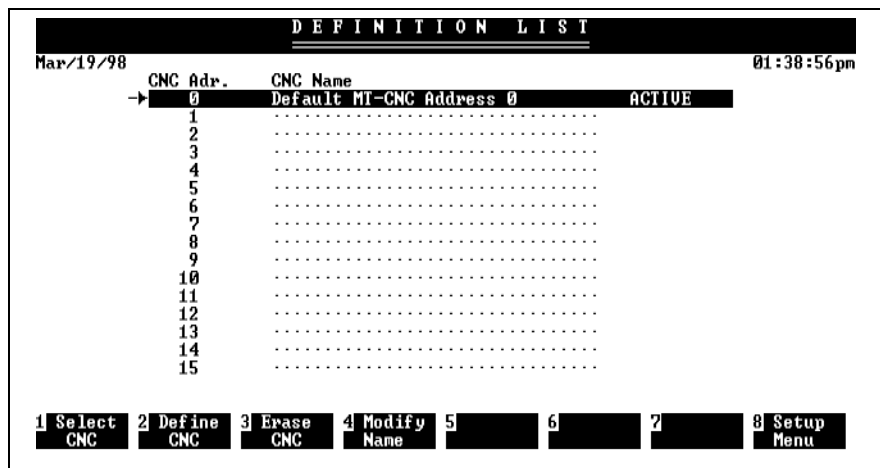
Setup menu The setup screen can be reached via the main menu. To activate the setup screen, press the **Shift** + **F1** key combination in the main menu, Before you can enter the setup screen you must have selected the language (see page 2-6).



The "Exit setup" function saves modifications and takes you back to the main menu.

After major changes have been made, the initialization upon the termination may take some time.

2.1 MT-CNC Configuration





A total of 16 devices may be entered.

Selecting the MT-CNC


Press the **F1** key to activate one of the devices from the list. The following instruction is displayed:


Set the arrow onto the required MT-CNC, and press **Enter**.

The device is activated immediately when you press . This is shown by the inverted bar and the text "ACTIVE".

Press the  function key to return to the setup menu.


Defining the MT-CNC

Press  to enter a new device with a special MT-CNC name.


Use the cursor keys to set the arrow onto a free MT-CNC address and press .


The following text is displayed:

```
MT-CNC name:.....
Enter the MT-CNC name (up to 32 characters).
```


Enter the device name (up to 32 characters) and press  to confirm the entry.

Deleting the MT-CNC

Press  to delete an existing device.


Use the cursor keys to set the arrow on the MT-CNC you wish to delete, and press . The screen asks:

```
Do you really want to deleted all MT-CNC data records
(Y/N)?
```


The function is aborted when you enter <N> or press  to acknowledge the default reply NO.





WARNING

⇒ All data records of the device will irrevocably be deleted when you press <Y>, or when you move the cursor to <Y> and press .

Changing the Name

Press  to rename an existing device. The following instruction is displayed:

```
Set the arrow onto the MT-CNC name you want to change,
and press .
```



Use the cursor keys to set the arrow on the MT-CNC you wish to rename, and press . The following text is displayed:



```
MT-CNC name: old MT-CNC name
Enter the new MT-CNC name (up to 32 characters)
```

The existing MT-CNC name may be edited.

Press  to terminate the procedure.

2.2 MT-CNC Interface

Use the  and  keys to select channel, baud rate, data bits, stop bits, or parity.

Use the  and  keys to select the required value.

The active selections are highlighted.

Not all offered values can be selected with the cursor.

Either there are restrictions from the computer (say COM2 does not exist), or the selection is not compatible with the previously selected configuration (there is no baud rate selection in off line mode, for example).

Press  to accept the selections.

Here, you may modify the pre-selected on line operation via the COM1: serial interface.

The interface selection includes a maximum of two serial interfaces and the fiber optics conductor.

Besides on line mode, the controller-independent off line mode may be selected.

The on line mode of the MT-CNC user interface requires an INDRAMAT MT-CNC to exist and to be connected to the PC via one of its serial interfaces (COM1: and COM2:).

The serial interface of the PC must be adjusted to the interface definition of the MT-CNC (defined on the SIO; DIP switch S1).

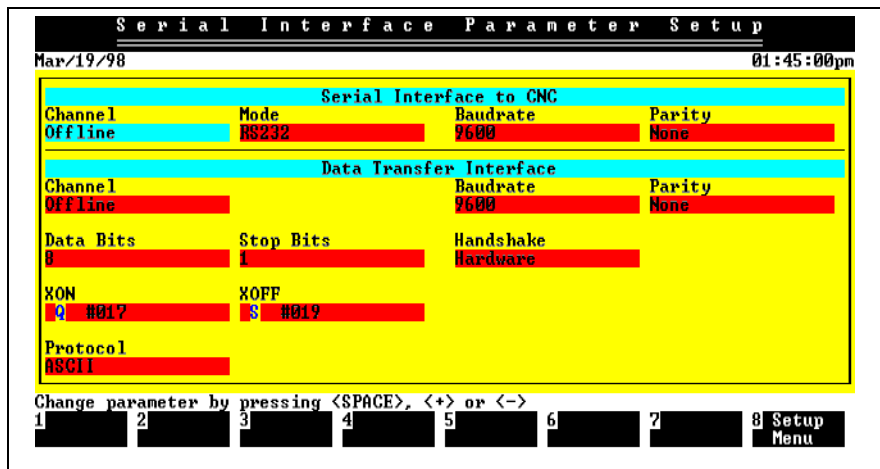
Note:

The interface parameters in the original setup file agree with the factory setting on the SIO. Modifications are usually not necessary.

If, however, the error message

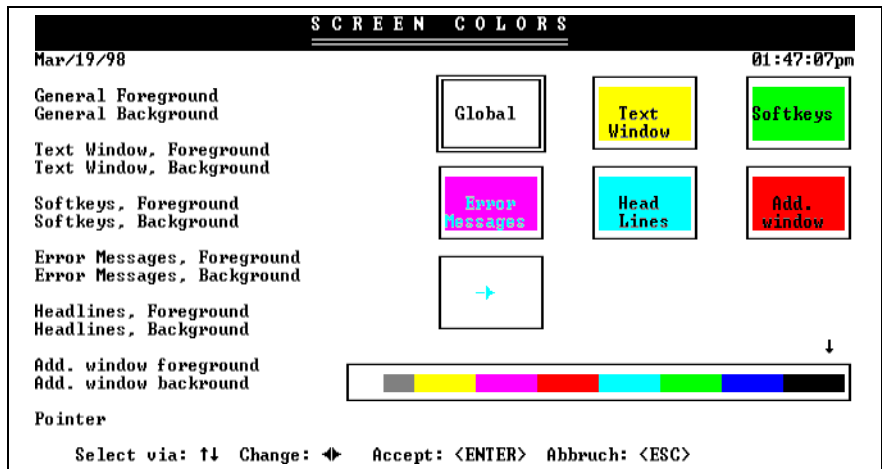
'CNC does not reply!'

is displayed after the MT-CNC user interface has been started, the interface parameters must be checked and adjusted, if necessary.



2.3 Screen Settings

This function permits the default colors of the screen to be modified.



You may assign colors to the screen elements that are listed at the left-hand side.

Use the cursor keys and to select the screen elements.

To the right of the screen elements, a preview window shows the effect of the selections. The currently selected screen element is identified by a double frame around the preview window.

Use and to select the required colors from the color palette, and to assign those color to the currently active screen element. The associated preview window supports the color selection, and shows the combination of foreground color and background color.

Press to terminate the color selection and to save your selections.

Press to abort the color selection and to quit without saving.

2.4 Password Administration

Password The password is a software key that protects special functions within the MT-CNC against unauthorized access.

Only authorized persons have access to password administration.

2.5 Program Administration

Using the item „Program administration“ in the setup menu, the versions of the different programs that are required for the MT-CNC user interface can be verified. The following screen structure is displayed:

User Interface <MUI> Version							
Mar/19/98				01:48:34pm			
MT-CNC MUI Version: 04.16/08				Number of EXE-Files : 60			
Program	Version	File ID	UR	Length	Date	Time	Author
→ MT-CNC.EXE	01.11	00.00	X	42544	08/05/97	04:16:16am	****
ABP0101S.EXE	16.43	01.01	X	48480	06/12/97	04:16:14am	****
ABP0201I.EXE	02.00	01.02	X	75520	06/12/97	04:16:14am	****
ABP0301S.EXE	00.00	00.00	-	14736	06/12/97	04:16:14am	****
ABPRG01S.EXE	16.40	01.00	X	69696	06/12/97	04:16:14am	****
NCPRG02S.EXE	00.00	00.00	-	1020928	06/12/97	04:16:14am	****
MADAT03R.EXE	02.12	03.00	X	204160	06/12/97	04:16:14am	****
GL00304Y.EXE	16.02	04.03	-	147520	06/12/97	04:16:14am	****
GL00504Y.EXE	16.02	04.05	-	242240	06/12/97	04:16:14am	****
GL00404Y.EXE	17.00	04.04	-	123552	06/12/97	04:16:14am	****
GL00204Y.EXE	16.02	04.02	X	53168	06/12/97	04:16:14am	****

1 2 3 4 Print 5 6 7 8 SETUP MENU

The columns have the following meanings:

- Program: Internal INDRAMAT program name
- Version: Version number
- ID: Internal INDRAMAT identifier
- OVR: X - program possesses an OVERLAY module
- Length: DOS program length in bytes
- Date: DOS date of the program
- Time: DOS time of the program
- Author: Internal use only

Use the cursor keys to scroll within the table.

Use the **F4** function key to print the table into a file or on a printer.


User Interface <MUI> Version							
Mar/19/98				01:50:28pm			
MT-CNC MUI Version: 04.16/08				Number of EXE-Files : 60			
Program	Version	File ID	UR	Length	Date	Time	Author
→ MT-CNC.EXE	01.11	00.00	X	42544	08/05/97	04:16:16am	****
ABP0101S.EXE	16.43	01.01	X	48480	06/12/97	04:16:14am	****
ABP0201I.EXE	02.00	01.02	X	75520	06/12/97	04:16:14am	****
ABP0301S.EXE	00.00	00.00	-	14736	06/12/97	04:16:14am	****
ABPRG01S.EXE	16.40	01.00	X	69696	06/12/97	04:16:14am	****

N
 N Print file : User Interface <MUI> Version
 M Start printing with page : 1
 G Print to : File
 G Printer driver: : IBMPRO
 G Print file directory ('' = standard) : G:\MT-CNC\ANLAGE00\PRINT\
 G Select using <Space>, <+> or <->

Press <CTRL><ENTER> to activate printer parameters <Hit <ESC> to abort>

1 2 3 4 Print 5 6 7 8 SETUP MENU

2.6 Language Selection



```
Für DEUTSCHE SPRACHE drücken Sie Funktionstaste..... < F1 >  
< inverse Darstellung bedeutet : momentan aktivierte Sprache >
```

```
To select ENGLISH LANGUAGE, press function key..... < F2 >  
<Reverse video indicates currently selected language>
```

The offered language palette depends on the number of languages that have been installed. The currently active language is highlighted.

Press the corresponding function key if you wish the user interface to be displayed in a different language.

Press the highlighted function key if you wish to retain the currently active language.

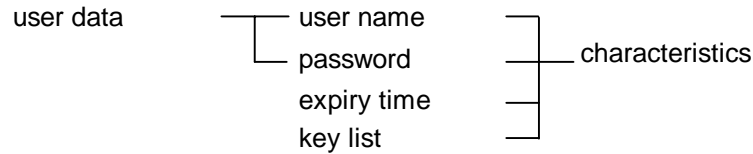
3 Password Administration

Password as a software key

A password is used as a software key that protects specific functions within the MT-CNC user interface against unauthorized access. The necessary user data must be entered when a locked function is called.

Each of the (maximum of) 99 users must have the key assigned that is necessary for the job that is to be performed.

Data from password administration:



Please refer to page 3-4 for further information about the ID data.

3.1 Password Hierarchy

We distinguish between a supervisor and a normal user. The supervisor, together with his or her related identification data, is defined during installation. The supervisor is the sole person who is entitled to nominate further users.

Supervisor Characteristics

The supervisor's characteristics are entered during the new installation of the MT-CNC user interface. In the key list, the supervisor has automatically access privileges for all functions assigned.

The installing person is the sole person who knows that data (and should not forget it) because he or she has assumed the supervisor function through that entry. He or she is the only person who is able to enter users and their data in the list and/or to modify data.

User ID Data

The supervisor must define the characteristics of the individual users that control the restricted access to the MT-CNC user interface. To protect the controller data, those persons are only authorized to perform specific operations.

3.2 Password Organization



Password generation - overview

Use the following procedure to generate new characteristics:

- (1) Activate the SETUP menu
 - (2) Activate password administration
 - (3) Enter the supervisor user data
 - (4) Enter the user with
 - user name:
 - password:
 - expiry time:
 - activate the required keys
- Exit the password administration
Exit the SETUP menu

Changing users and, consequently, changing the current access privileges is possible in any menu item on the user interface.

The user data input is activated

- manually via the  +  key combination, or
- automatically when a locked function is called.

Only the supervisor can view the characteristics of all users in the password administration.

If a normal user activates password administration, he or she will only obtain his or her own user data. That data is displayed on the screen and may be edited.

Password Output System

The passwords can be assigned under different aspects. The individual users may be entered by their names, for example, or user groups may be combined under their topics.

User organization

As an example, we want to present the following typical user organization:

1. System configuration

With his or her characteristics, the supervisor (no. 1) has access to all protected functions.

2. NC control using the keys

- storage
- NC program execution
- tool data management
- NC program active
- current magazine list

3. Additional users

Additional users may be entered according to the requirements that result from the utilization of the controller.

Overview of the Functions that Can Be Locked

The following keys have been implemented in the password administration:

1. NC programming

Entering, deleting, and renaming NC programs.

Loading from and to the storage device.

Any function within the execution of an NC program:

Entering, deleting, editing, copying, etc. a program.

2. Activating an NC Program

This key permits NC programs to be transferred to the MT-CNC and a program in the MT-CNC to be selected for execution.



WARNING


⇒ This function can be locked via a hardware key on the MT-CNC.





3. Modifying system parameters

This key permits the system parameters and, consequently, the configuration of a machine section to be defined or to be modified.

Further options are:

Entering, editing, deleting, copying, saving, and transferring complete parameter records.




- | | |
|---|---|
| 4. Modifying process parameters | This key permits changes in the configuration (tool magazine) and adjustment work (selecting the velocity) to be performed.
Further options are:
Copying, saving, and transferring parameter records. |
| 5. Modifying axis parameters | Further options are:
Copying, saving, and transferring parameter records. |
| 6. Modifying drive parameters | Further options are:
Copying, saving, and transferring parameter records. |
| 7. Tool preparation | Entering, deleting, editing, and saving magazine lists. |
| 8. Tool list (active) | Transferring magazine lists to the MT-CNC.
On line changes in the current magazine list. |
| 9. Modifying variables/events | This key permits the variables and events that are displayed in the „Diagnoses“ menu item to be modified during on line operation. |
| 10. Modifying messages | This key permits the base and user messages that are displayed in the „Diagnoses“ menu item to be modified. |
| 11. Modifying SPS programs | Any function that permits an existing SPS program to be modified. |
| 12. Activating SPS programs | This key permits SPS programs to be transferred to the MT-CNC. |
| <hr/> <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;">⇒ This function can be locked via a hardware key on the MT-CNC.</div> </div> <p>WARNING</p> <hr/> | |
| 13. Releasing storage device | In conjunction with the corresponding modification keys of the individual menu items, programs may be loaded to and from the storage device. |
| 14. System reset | This key permits a system reset to be performed in the MT-CNC. |
| 15. Device configuration | This key permits different devices to be defined, deleted, or modified. |
| 16. Editing images | This key permits images for the status display (main menu item 9) to be edited in the internal on line editor. |
| 17. Modifying variables | This key permits soft keys of the status display (main menu item 9) to be used for manipulating SPS variables, NC variables, and events. |
| 18. Tools list (GEO) | This key permits the following data to be edited within the brief tools list:
Geometry data, offset data and wear data. |
| 19. Tool wear | This key permits the following data to be edited within the brief tools list:
Tool wear data. |

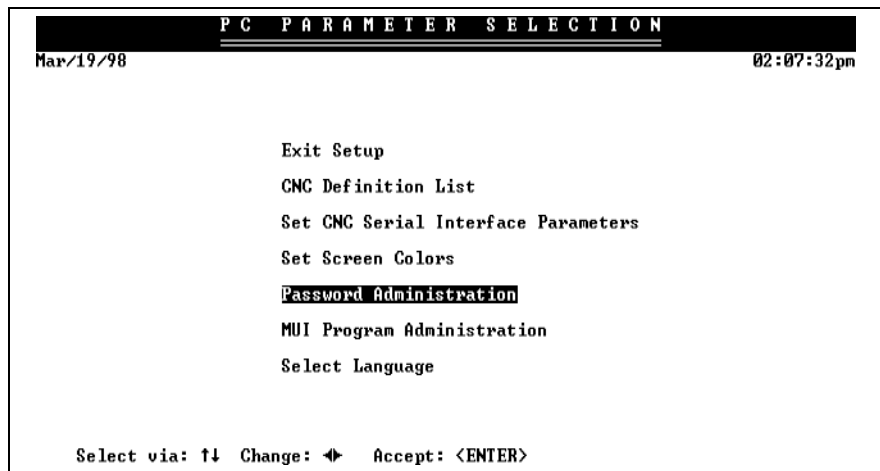
20. Cycle handling	This key permits the cycle handling - editing - selecting
21. Exiting the MUI	This key permits the user interface to be exited when the  and  keys are pressed.
22. PC setup	This key permits the  and  keys to be pressed for activating the PC setup menu. In the PC setup menu, the following PC parameters may be modified: Interface settings, password administration, color selections, ...
23. TeleByte	This key permits the TELEBYTE function to be activated and deactivated. That function displays and/or logs the message frame traffic between the MT-CNC and the PC.
24. SFP machine adaptation	This key permits SFP-related machine data to be adapted and SFP machine installation diskette to be produced.
25. GNE system adaptation	This key permits the GNE system dialog to be edited.
26. Editing tool data	This key permits the <ul style="list-style-type: none"> • wear data to be modified • remaining service life to be modified • tool to be replaced • tool to be disabled • location to be disabled
27. Editing machine data	This key permits password-protected machine data in the controller to be modified.
28. Editing machine definition	This key permits the machine data structures to be <ul style="list-style-type: none"> • entered • deleted • modified

3.3 Password Handling

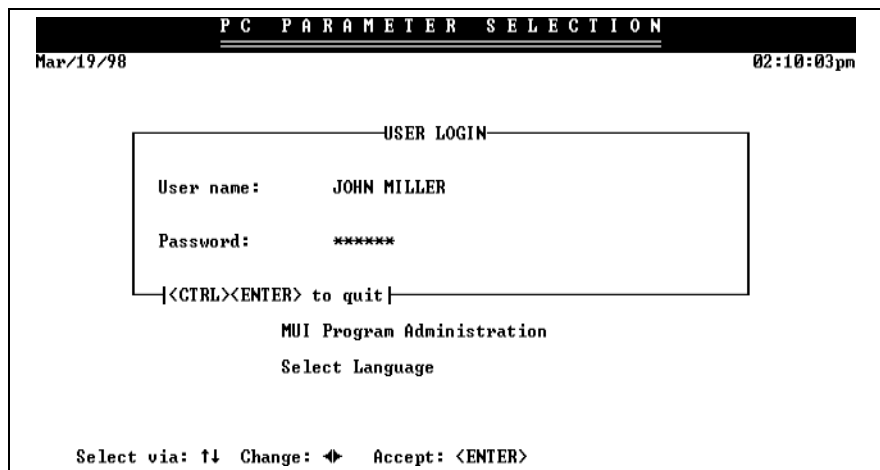
Editing the Supervisor Characteristics

To modify the supervisor characteristics, the password administration must be activated in the setup menu.

- Activate the main menu
- Use the  +  keys to activate the setup menu. Select „Password administration“ and press  to activate it.



3. Password administration can only be opened after the supervisor user data has been entered.



Press to acknowledge the input of the user name, and the + key combination to acknowledge the password. The user data will not be accepted if this is not done properly.

4. Press the function key within password administration to select „Modify user“, and enter the new data.
All keys of the supervisor will remain active, even if the user data is modified.

Entering a User

Only the supervisor is allowed to enter a new user. To do this, the password administration in the setup must be activated.

1. Activate the main menu.
2. Press the + key combination to activate the setup menu. Select „Password administration“ and press to activate it.
3. The supervisor user data must be entered before password administration can be opened. Press to acknowledge the input of the user name, and the + key combination to

acknowledge the password. The user data will not be accepted if this is not done properly.

4. Press the **F1** function key within password administration to select to select „Enter user“, and enter the new data.

```

PASSWORD - ADMINISTRATION
-----
|No| |User Name| |Time| |Logins| |Last login|
|---| |-----| |---| |---| |-----|
-> 1 | N      | |5| |8| |03/19/98 02:21:36pm|
-----
User:  STEVE B.
Password:  ****
Elapse time: 5
-----
Accept : <ENTER>          Abort : <ESC>
-----
1 Enter  2 Delete  3 Modify  4      5      6      7      8 SETUP
User    User    User
  
```



WARNING

Once the image has been exited, the entered password will never again be shown in any menu item.

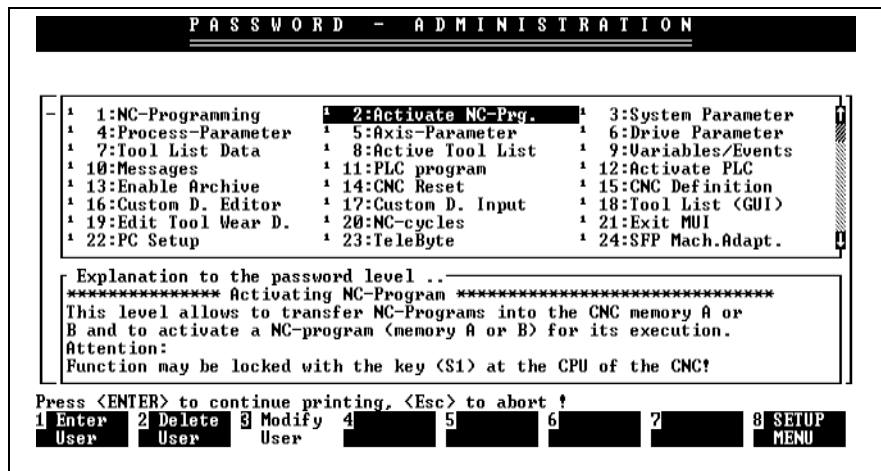
⇒ The system supervisor should note the password in a list.

Entering the characteristics data

The following points should be observed when the characteristics are entered:

- Entering the user
For each controller, the user name may only be used once.
When a user name is duplicated, an error message will be issued that prompts the user to correct the input.
A maximum of 25 characters may be entered. The input is case-insensitive. Blanks are only permitted inside the name; they will be ignored at the beginning and at the end of the entry.
- Entering the password
The password may be up to 10 characters long. The restrictions with respect to the characters are the same as above.
Different users may use the same password.
- Expiry time
This time is specified in minutes.
The expiry time specifies the time interval after which the access privileges of a user are automatically canceled if he or she does not perform any keyboard entry (the time always counts from the last entry).
Entering „0“ for a user means an unlimited time interval that lasts as long as the user interface is active.

5. Once the above-mentioned data has been entered, press **Enter** to enter the menu of the possible keys. Use the cursor keys to select the required key, and press the space bar to activate it.



6. Press the **Enter** key to terminate the activation of the keys for the new user.

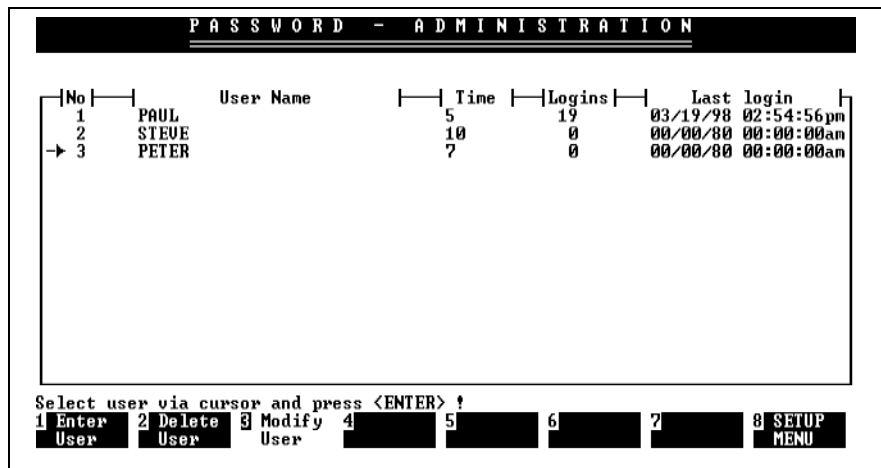
Modifying User/Characteristics Data

To modify the characteristics of a user, you must activate the password administration in the setup menu.

It must be distinguished between a modification that is performed by the supervisor (supervisor mode) and a modification that is performed by another user. Below you find the procedure that is required for each way:

The supervisor modifies the characteristics

1. Activate the main menu.
2. Press **Shift** + **F1** to select the setup menu, and **Enter** to activate the password administration.
 All user data items are shown in the „Password administration“ menu screen.



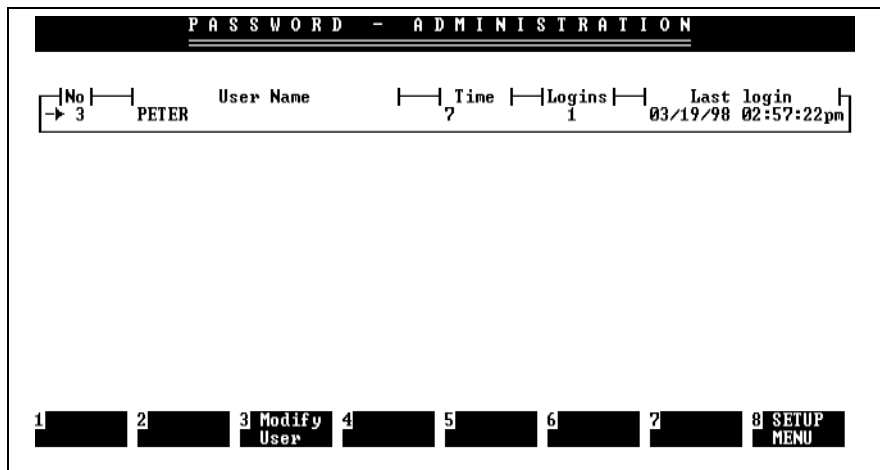
3. The supervisor user data must first be entered in the supervisor mode before the password administration can be opened.
 Press the **Ctrl** + **Enter** key combination to acknowledge the input of user name and password. The user data will not be accepted if this is not done properly.

4. Press the **F3** function key in the password administration to select „Modify user“, and edit the old data (user name, password, expiry time, and key).
5. Press **F8** to exit the password administration function.

The user modifies the user data

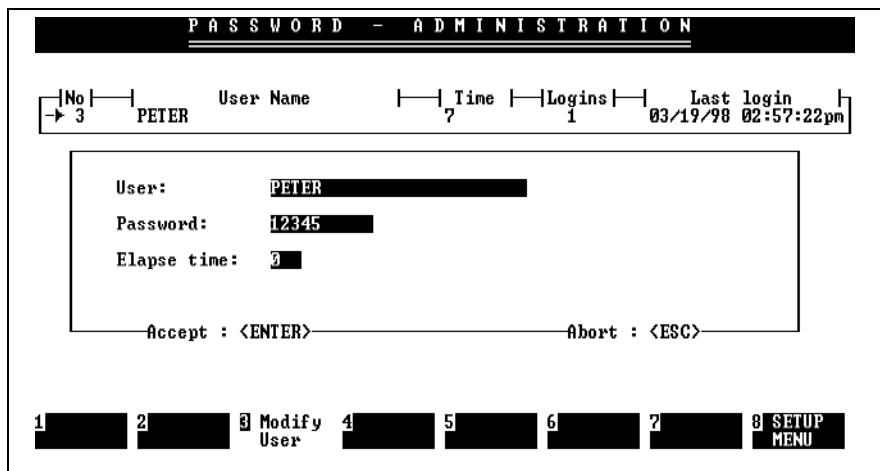
1. Activate the main menu.
2. Press **Shift+F1** to select the setup menu, and **Enter** to activate the password administration.

The password administration menu screen merely shows the user data that are related to the calling user.



3. Press **F3** in password administration to select „Modify user“, and enter the new data (user, password, and expiry time).

Note: The user cannot modify the keys. Only the supervisor is allowed to do this.



4. Press **F8** to exit the password administration function.

Enabling Access - Logging On the User

User name and password may be entered in any menu item.

Once user data with expiry time „0“ has been entered, it remains active as long as the user interface is active and/or until a new user is logged on.

Note: **Expiry time: If an expiry time has been entered for the user, the access privileges are automatically canceled if there are no keyboard entries for the time specified (i.e. the time counts from the last entry).**

Activating the password:

Press the **Alt** + **K** to activate the window in which the user data are entered. The data may then be entered.

```

PC PARAMETER SELECTION
Mar/19/98                                     03:05:35pm

      USER LOGIN
-----
User name:   PETER
Password:   *****
|<CTRL><ENTER> to quit|
MUI Program Administration
Select Language

Select via: ↑ Change: → Accept: <ENTER>
  
```

Press the **Ctrl** + **Enter** key combination to acknowledge the input of user name and password. The user data will not be accepted if this is not done properly.

After the input data has correctly been entered, the window disappears and the active user is saved.

Note: **Recognizing the active user: The currently active user is not shown. To have the active user displayed, you must press the **F3** function key „Modify user“ in „Password administration“ in the setup menu.**

Disabling Access - Logging Off the User

The access functions of a user can be disabled (logged off) in any menu item.

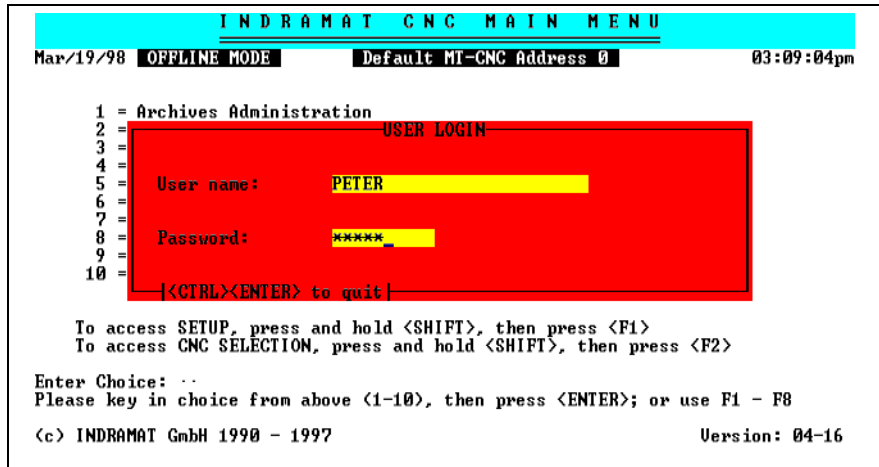
To do this, you must press the **Alt** + **K** key combination to activate user and password input. The user is logged off when you press **Ctrl** + **Enter** to terminate the input.

This function must be used when a user has finished work and wants to leave his or her working position. The log off procedure disables all access functions and prevents unauthorized utilization of the user interface.

Errors

Function disabled

The window below is displayed in the active menu of the user interface if a disabled user function is selected. Enter the user data to proceed.

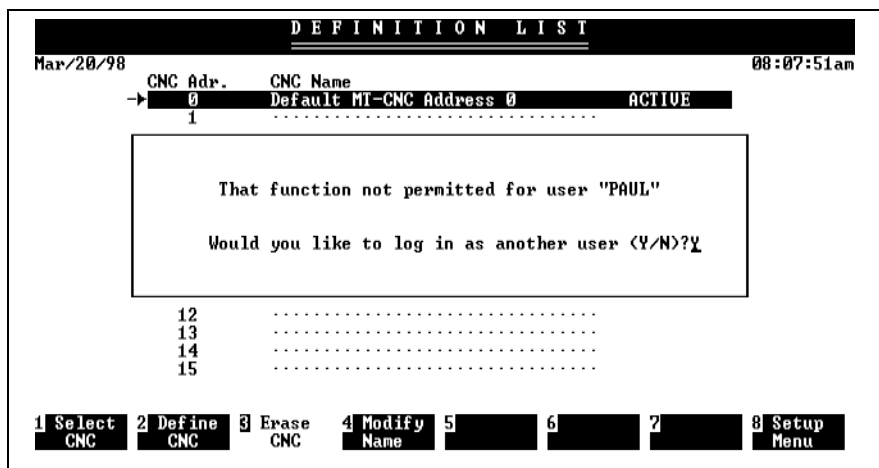


Press the + key combination to acknowledge the input of user name and password. If this is not done properly, the user remains logged off and is not able to execute the required function.

After the user data has correctly been entered, the window disappears, the user is logged on, and is able to execute the allocated functions.

No access privilege is missing

A user with a restricted access privilege has selected a disabled function for which he or she does not have a key assigned.




When you enter [Y] in response to the question and press to acknowledge, a window is displayed that permits a new user to be logged on. The previously disabled function can be executed after the user has correctly been logged on.

The selected function is not executed and remains disabled when [N] is entered.

Incorrect user data

Depending on whether an incorrect user name or an incorrect password has been entered, one of the following messages will appear in a window, permitting the mistake to be corrected.

Press  to terminate the function if a correct entry cannot be made.

```
INDRAMAT CNC MAIN MENU
Mar/19/98 OFFLINE MODE Default MT-CNC Address 0 03:12:09pm

1 = Archives Administration
2 =
3 =
4 =
5 =
6 =
7 =
8 =
9 =
10 =

User name not on file

Hit any key to continue ...

To access SETUP, press and hold <SHIFT>, then press <F1>
To access CNC SELECTION, press and hold <SHIFT>, then press <F2>

Enter Choice: ..
Please key in choice from above (1-10), then press <ENTER>; or use F1 - F8

(c) INDRAMAT GmbH 1990 - 1997 Version: 04-16
```

```
INDRAMAT CNC MAIN MENU
Mar/19/98 OFFLINE MODE Default MT-CNC Address 0 03:13:21pm

1 = Archives Administration
2 =
3 =
4 =
5 =
6 =
7 =
8 =
9 =
10 =

Password incorrect

Hit any key to continue ...

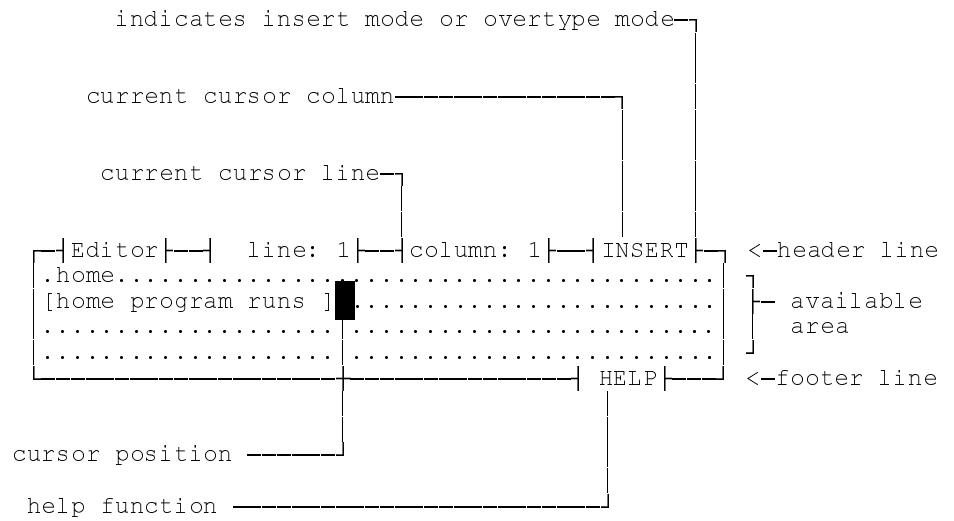
To access SETUP, press and hold <SHIFT>, then press <F1>
To access CNC SELECTION, press and hold <SHIFT>, then press <F2>

Enter Choice: ..
Please key in choice from above (1-10), then press <ENTER>; or use F1 - F8

(c) INDRAMAT GmbH 1990 - 1997 Version: 04-16
```


4 The Editor

All editors of the MT-CNC software are line-oriented, and are of the same structure:



Using the editor makes program input and program editing much easier. The cursor can be moved as required within the editing area, thus facilitating the input of your program.

The available area within the editor varies for different applications. header and footer always exist in order to be able to obtain the necessary information at any time.

4.1 Function Keys

HELP




As long as the editor is active, only the **F9** function key or **HELP** can be used. A help screen is displayed when the „HELP“ function is selected. This screen provides you with help texts about all functions that can be activated. Use the **↑** and **↓** keys to scroll the pages within the help text. You must press **ESC** to terminate the help function before you can proceed with your work inside the editor.



4.2 Control Commands

The cursor marks the point on the screen that is being worked on. All entries, letter, figures or commands refer to the position in the text that is marked by the cursor.



The following cursor control commands are available:

- Ctrl** + **Page Up** Sets the cursor to the beginning of the text.
- Ctrl** + **Page Down** Sets the cursor to the end of the text.
- Ctrl** + **E** Moves the cursor one line up.
- Ctrl** + **X** Moves the cursor one line down.
- Ctrl** + **S** or **←** Moves the cursor one character to the left.

 +  or  Moves the cursor one character to the right.



 +  Scrolls upward by one block.



Note: **This function is only available in NC programming in the „Modify block“ mode. Any modifications within the edited block are automatically entered in the program.**

 +  Scrolls down by one block.



Note: **This function is only available in NC programming in the „Modify block“ mode. Any modifications within the edited block are automatically entered in the program.**

Editing and Completing Text

 +  Inserts a blank line above the cursor position.

 +  Deletes the line that contains the cursor.

 +  Deletes the character to the left of the cursor position.

 +  Deletes the character under the cursor position.




 +  or 

In overwrite mode:

Sets the cursor to the beginning of the next line.

In insert mode:

Sets the cursor to the beginning of the next line. The text to the right of the cursor is included in the new line.

 +  

Terminates the editor. The current content is accepted.

4.3 General Commands



Toggles between insert and overwrite mode.



Terminates the editor. Modifications are discarded.



Deletes the character beneath the cursor.



Deletes the character to the left of the cursor.



Sets the cursor to the beginning of the current line.



Sets the cursor to the end of the current line.

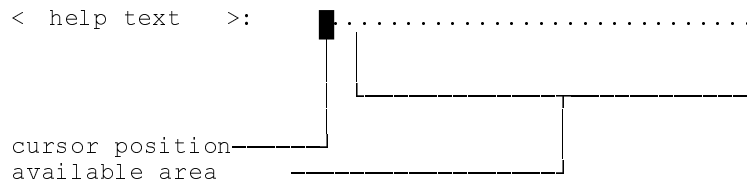


Scrolls upward by one page.



Scrolls down by one page.





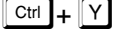

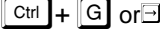



4.4 The Line Editor



Using the line editor makes input and editing of program names, tool data, program numbers, etc. much easier. The cursor can be moved as required within the editing area, thus facilitating the input of your data.

The available area (the maximum number of characters) within the line editor varies for different applications.

The following functions are available:

-  Moves the cursor one character to the left.
-  Moves the cursor one character to the right.
-  Sets the cursor to the beginning of the current line.
-  Sets the cursor to the end of the current line.
-  Deletes the complete input line.
-  Deletes the character to the left of the cursor.
-  Deletes the character under the cursor position.
-  Terminates the input and enters the data.
-  Aborts the input and discards the data.
-  Toggles between insert and overwrite mode.

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List of Customer Service Points

Germany

Sales area Center INDRAMAT GmbH D-97816 Lohr am Main Bgm.-Dr.-Nebel-Str. 2 Phone: 09352/40-4817 Fax: 09352/40-4989	Sales area East INDRAMAT GmbH D-09120 Chemnitz Beckerstraße 31 Phone: 0371/3555-0 Fax: 0371/3555-230	Sales area West INDRAMAT GmbH D-40880 Ratingen Harkortstraße 25 Phone: 02102/4318-0 Fax: 02102/41315	Sales area North INDRAMAT GmbH D-22525 Hamburg Fährhausstraße 11 Phone: 040/853157-0 Fax: 040/853157-15
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Customer service points in Germany

Europe

Austria G.L.Rexroth Ges.m.b.H. Geschäftsbereich INDRAMAT Hägelingasse 3 A-1140 Wien Phone: +43 1/985 25 40-400 Fax: +43 1/985 25 40-93	Austria G.L.Rexroth Ges.m.b.H. Geschäftsbereich INDRAMAT Randlstraße 14 A-4061 Pasching Phone: +43 7229/644 01-36 Fax: +43 7229/644 01-80	Belgium Mannesmann Rexroth N.V.-S.A. Geschäftsbereich INDRAMAT Industrielaan 8 B-1740 Ternat Phone: +32 2/582 31 80 Fax: +32 2/582 43 10	Denmark BEC AS Zinkvej 6 DK-8900 Randers Phone: +45 87/11 90 60 Fax: +45 87/11 90 61
England Mannesmann Rexroth Ltd. INDRAMAT Division Broadway Lane, South Cerney Cirencester, Glos GL7 5UH Phone: +44 1285/86 30 00 Fax: +44 1285/86 30 03	Finnland Rexroth Mecman OY Riihimiehentie 3 SF-01720 Vantaa Phone: +358 9/84 91 11 Fax: +358 9/84 63 87	France Rexroth - Sigma S.A. Division INDRAMAT Parc des Barbanniers 4, Place du Village F-92632 Gennevilliers Cedex Phone: +33 1/41 47 54 30 Fax: +33 1/47 94 69 41	France Rexroth - Sigma S.A. Division INDRAMAT 17, Loree du Golf F-69380 Dommartin Phone: +33 4/78 43 56 58 Fax: +33 4/78 43 59 05
France Rexroth - Sigma S.A. Division INDRAMAT 270, Avenue de lardenne F-31100 Toulouse Phone: +33 5/61 49 95 19 Fax: +33 5/61 31 00 41	Italy Rexroth S.p.A. Divisione INDRAMAT Via G. Di Vittoria, 1 I-20063 Cernusco S/N/MI Phone: +39 2/923 65-270 Telex: 331695 Fax: +39 2/92 36 55 12	Italy Rexroth S.p.A. Divisione INDRAMAT Via Borgomanero, 11 I-10145 Torino Phone: +39 11/771 22 30 Fax: +39 11/771 01 90	Netherlands Hydraudyne Hydrauliek B.V. Kruisbroeksestraat 1a P.O. Box 32 NL-5280 AA Boxtel Phone: +31 41 16/519 51 Fax: +31 41 16/514 83
Spain Rexroth S.A. Centro Industrial Santiago Obradors s/n E-08130 Santa Perpetua de Mogoda (Barcelona) Phone: +34 3/7 47 94 00 Fax: +34 3/7 47 94 01	Spain Goimendi S.A. División Indramat Jolastokieta (Herrera) Apartado 11 37 San Sebastian, 20017 Phone: +34 43/40 01 63 Telex: 361 72 Fax: +34 43/39 93 95	Sweden AB Rexroth Mecman INDRAMAT Division Varuvägen 7 S-125 81 Stockholm Phone: +46 8/727 92 00 Fax: +46 8/64 73 277	Switzerland Rexroth SA Département INDRAMAT Chemin de l'Ecole 6 CH-1036 Sullens Phone: +41 21/731 43 77 Fax: +41 21/731 46 78
Switzerland Rexroth AG Geschäftsbereich INDRAMAT Gewerbestraße 3 CH-8500 Frauenfeld Phone: +41 52/720 21 00 Fax: +41 52/720 21 11	Russia Tschudnenko E.B. Arsenia 22 153000 Ivanovo Rußland Phone: +7 93/22 39 633		

European customer service points without Germany

Outside Europe

<p>Argentina</p> <p>Mannesmann Rexroth S.A.I.C. Division INDRAMAT Acassusso 48 41/7 1605 Munro (Buenos Aires) Argentina</p> <p>Phone: +54 1/756 01 40 +54 1/756 02 40 Telex: 262 66 rexro ar Fax: +54 1/756 01 36</p>	<p>Argentina</p> <p>Nakase Asesoramiento Tecnico Diaz Velez 2929 1636 Olivos (Provincia de Buenos Aires) Argentina Argentina</p> <p>Telefon +54 1/790 52 30</p>	<p>Australia</p> <p>Australian Industrial Machinery Services Pty. Ltd. Unit 3/45 Home ST Campbellfield VIC 2061 Australia</p> <p>Phone: +61 3/93 59 0228 Fax: +61 3/93 59 02886</p>	<p>Brazil</p> <p>Mannesmann Rexroth Automação Ltda. Divisão INDRAMAT Rua Georg Rexroth, 609 Vila Padre Anchieta BR-09.951-250 Diadema-SP Caixa Postal 377 BR-09.901-970 Diadema-SP</p> <p>Phone: +55 11/745 90 65 +55 11/745 90 70 Fax: +55 11/745 90 50</p>
<p>Canada</p> <p>Basic Technologies Corporation Burlington Division 3426 Mainway Drive Burlington, Ontario Canada L7M 1A8</p> <p>Phone: +1 905/335-55 11 Fax: +1 905/335-41 84</p>	<p>China</p> <p>Rexroth (China) Ltd. Shanghai Office Room 206 Shanghai Intern. Trade Centre 2200 Yanan Xi Lu Shanghai 200335 P.R. China</p> <p>Phone: +86 21/627 55 333 Fax: +86 21/627 55 666</p>	<p>China</p> <p>Rexroth (China) Ltd. Shanghai Parts & Service Centre 199 Wu Cao Road, Hua Cao Minhang District Shanghai 201 103 P.R. China</p> <p>Phone: +86 21/622 00 058 Fax: +86 21/622 00 068</p>	<p>China</p> <p>Rexroth (China) Ltd. 1430 China World Trade Centre 1, Jianguomenwai Avenue Beijing 100004 P.R. China</p> <p>Phone: +86 10/50 50 380 Fax: +86 10/50 50 379</p>
<p>China</p> <p>Rexroth (China) Ltd. A-5F., 123 Lian Shan Street Sha He Kou District Dalian 116 023 P.R. China</p> <p>Phone: +86 411/46 78 930 Fax: +86 411/46 78 932</p>	<p>Hong Kong</p> <p>Rexroth (China) Ltd. 19 Cheung Shun Street 1st Floor, Cheung Sha Wan, Kowloon, Honkong</p> <p>Phone: +852 2741 13 51/-54 und +852 741 14 30 Telex: 3346 17 GL REX HX Fax: +852 786 40 19 +852 786 07 33</p>	<p>India</p> <p>Mannesmann Rexroth (India) Ltd. INDRAMAT Division Plot. 96, Phase III Peenya Industrial Area Bangalore - 560058</p> <p>Phone: +91 80/839 21 01 +91 80/839 73 74 Telex: 845 5028 RexB Fax: +91 80/839 43 45</p>	<p>Japan</p> <p>Rexroth Co., Ltd. INDRAMAT Division I.R. Building Nakamachidai 4-26-44 Tsuzuki-ku, Yokohama 226 Japan</p> <p>Phone: +81 45/942-72 10 Fax: +81 45/942-03 41</p>
<p>Korea</p> <p>Rexroth-Seki Co Ltd. 1500-12 Da-Dae-Dong Saha-Gu, Pusan, 604-050</p> <p>Phone: +82 51/264 90 01 Fax: +82 51/264 90 10</p>	<p>Korea</p> <p>Seo Chang Corporation Ltd. Room 903, Jeail Building 44-35 Yoido-Dong Youngdeungpo-Ku Seoul, Korea</p> <p>Phone: +82 2/780-82 07 -9 Fax: +82 2/784-54 08</p>	<p>Mexico</p> <p>Motorización y Diseño de Controles, S.A. de C.V. Av. Dr. Gustavo Baz No. 288 Col. Parque Industrial la loma Apartado Postal No. 318 54060 Tlalnepantla Estado de Mexico</p> <p>Phone: +52 /397 86 44 Fax: +52 /398 98 88</p>	
<p>USA</p> <p>Rexroth Corporation INDRAMAT Division 5150 Prairie Stone Parkway Hoffman Estates, Illinois 60192</p> <p>Phone: +1 847/645-36 00 Fax: +1 847/645-62 01</p>	<p>USA</p> <p>Rexroth Corporation INDRAMAT Division 2110 Austin Avenue Rochester Hills, Michigan 48309</p> <p>Phone: +1 810/853-82 90 Fax: +1 810/853-82 90</p>	<p>USA</p> <p>Rexroth Corporation INDRAMAT Division Northeastern Sales Office 7 Columbia Blvd. Peabody, MA 019660</p> <p>Phone: +1 508/531-25 74 Fax: +1 508/531-2574</p>	<p>USA</p> <p>Rexroth Corporation INDRAMAT Division Southeastern Sales Office 3625 Swiftwater Park Drive Suwanee, GA 30174</p> <p>Phone: +1 770/932 3200 Fax: +1 770/932-1903</p>

Customer service points outside Europe

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