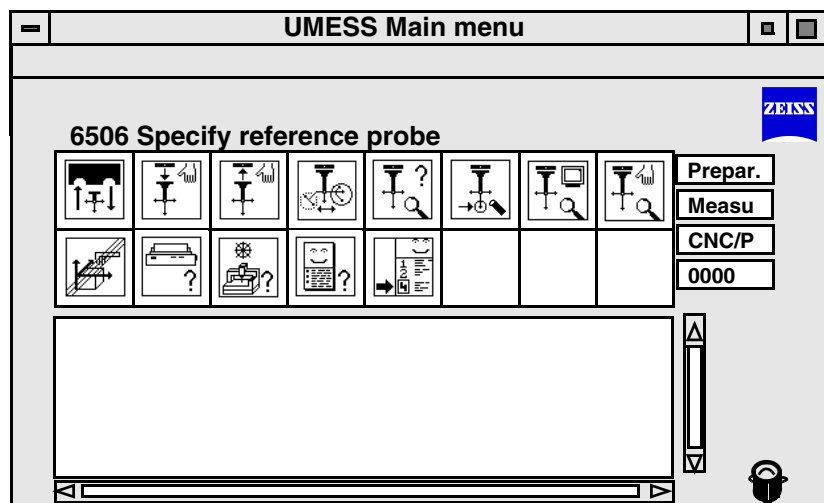


UMESS UX

**Starting and operating
UX measuring software**



Operating Instructions



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Preface

These operating instructions describe the function and operation of the **Starting and operating SAM-UX measuring software** program.

It is here assumed that the user is familiar with the coordinate measuring machine and the **SAM UX** and **UMESS UX** basic software. Please keep all printed materials delivered with the measuring machine ready to hand at all times.

All rights pertaining to changes in the measuring machine version, scope of delivery, the software packages and the pertaining documentation reserved.

Principles in this operating manual

Before starting to work with this manual, the user has to familiarize himself with the applied principles.

In the following, you will find information on the used font types, signs and symbols.

Typographic principles

The font types and font schemes used in this manual have the following meaning:

- **bold face**
 - Dialog element on the screen
Example: "... the button <**TERMIN**>"
 - Term
Example: "During calculation the location of a **measuring element** in relation to a **reference element** is determined."
 - File and directory names
Example: **/home/zeiss/UB**
- *italic*
 - Highlighted text of which the contents are very important
Example: "Click with the *right* mouse button ..."
 - Cross reference
Example: "..., see also ➤ *"Signs and symbols" on page -4*"

- **Courier bold face**

Text in dialog windows and records

Signs and symbols

Special signs and symbols are used in this manual.

Symbols for warnings and information



Danger!

In this case, special care is called for. The warning triangle indicates risk of injury. Non-observance of this warning may cause personal injury.



Caution

This symbol warns against situations which may lead to loss of data, measuring errors, errors in the measuring run, collisions or damage to the machine and workpiece.



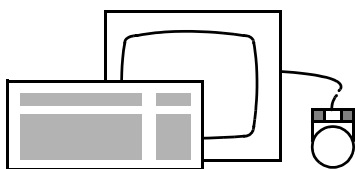
The **Note** symbol is shown next to important text and helpful additional information.

Symbol for function call

There are several possibilities:

- Direct input by means of the DI number
- Selection of function by way of a softkey

Example:



<Service>
<Pictogram pages>

Symbol for softkey



Reference to softkeys in dialogs.

Overview of chapters

This manual describes the function, operation and application possibilities of the **Starting and operating SAM UX measuring software** program.

The following subjects are described:

- *"Introduction" on page 1-1*
- *"Starting the UX measuring software" on page 2-1*
- *"Description of the windows" on page 3-1*
- *"Working with windows" on page 4-1*
- *"Ending the system mode" on page 5-1*
- *"UMESS_W_Main menu" on page 6-1*

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Chapter

1

Introduction

This chapter contains:

General comments on windows.	1-2
Prerequisites	1-3

General comments on windows

The UX measuring software and the corresponding options are used with so-called windows. Several windows are automatically generated on your screen in which dialog with the computer and the output of the peripheral devices are displayed. This manual describes

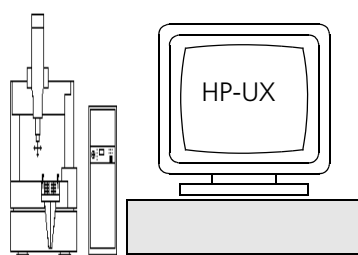
- how you log on and start the UX-measuring software
- the meaning of the windows which are generated automatically
- how you can design the windows according to your own requirements and how you can create new windows .

Prerequisites

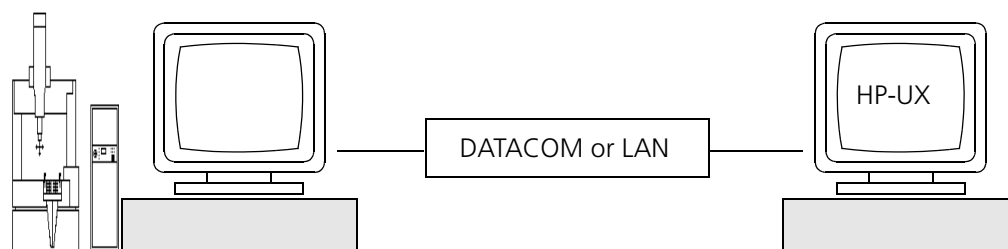
The UX measuring software is used on computers of the type HP 9000 series 300 with the HP-UX operating system.

Computer and peripheral devices must be connected together electrically and, if you are not working on an ACE station, linked with the control cabinet of the measuring machine.

Computer at the measuring machine



Computer as ACE station



Chapter

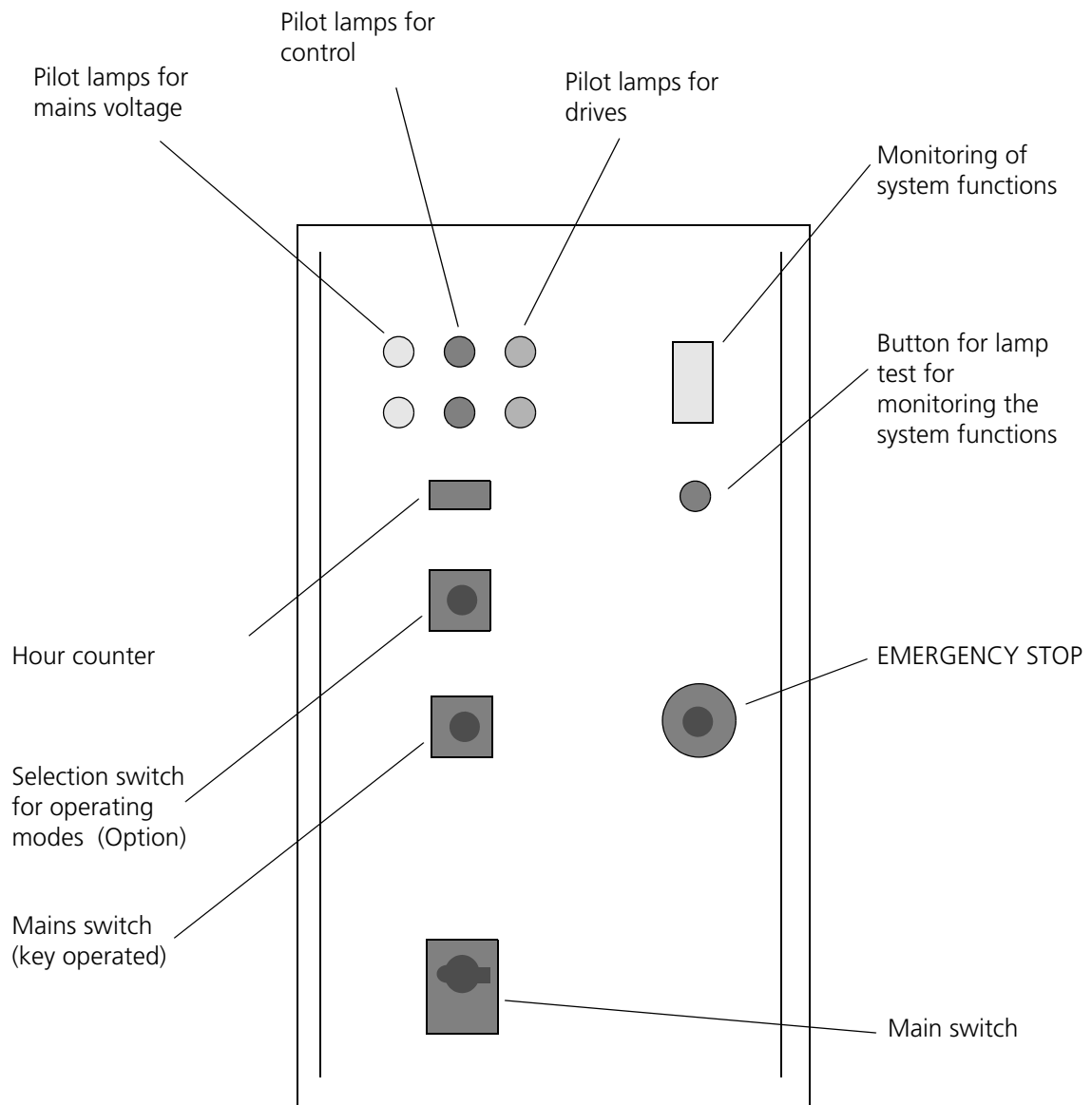
2

Starting the UX measuring software

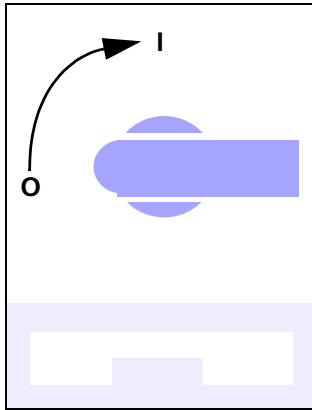
This chapter contains:

Operating and display elements on the control cabinet	2-2
Switching on the measuring machine and computer	2-3
Starting UMESS or ACE	2-4

Operating and display elements on the control cabinet

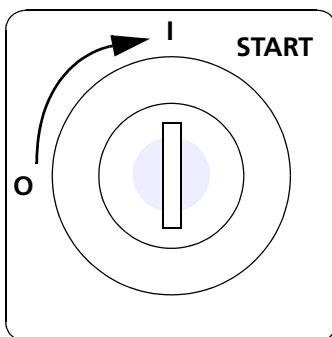


Switching on the measuring machine and computer



Rotate the main switch to the right:

- The pilot lights **MAINS ON** come on
 - The machine cabinet with the computer units is now ready for operation
- For more information on the display field refer to Hardware manual



Rotate the keyswitch to the right to position I

- The control pilot lamps come on. In the display field of the monitor +24 V, +15 V, -15 V, +5 V come on.
- Rotate the keyswitch further and hold for about 2 sec. in the START position until the air bearings are activated.
- The **DRIVES** pilot lamps and all the other pilot lights for monitoring the voltage come on.
- The software is then loaded automatically (takes approx. 40 sec.).

After the following prompt has been displayed

Machine zero point! Clear!! (X = 0, Y = 0, Z = maximum value)

you must move the CMM manually into a position from which it can subsequently travel automatically and collision free to the machine zero point.

The CMM first moves up in the Z axis, then simultaneously in X and Y.



Caution

If a rotary table is assembled, this also moves to its reference point. Be careful with clamped parallel rotating pieces!
Risk of crushing and / or collision!!

Starting UMESS or ACE

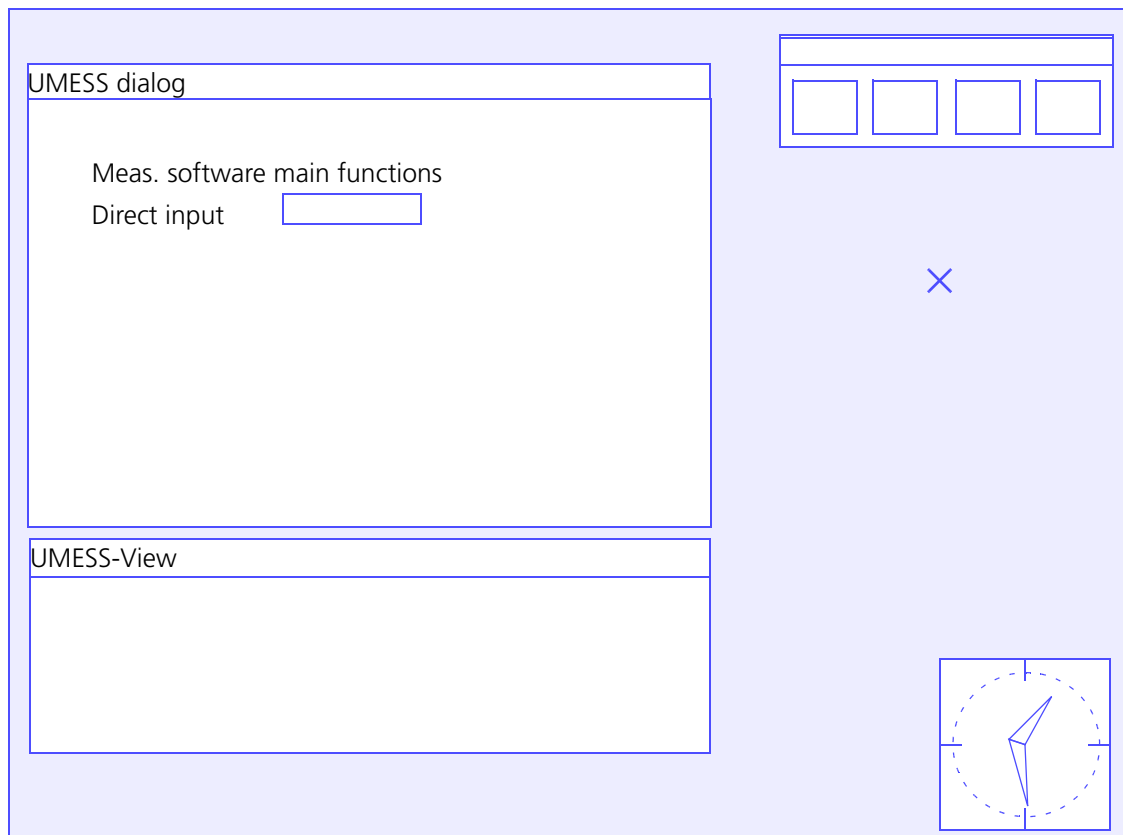
NOTE

(ACE can only be started if AXE UX is installed)

UMESS (ACE) is started automatically after the computer is switched on, as soon as the operating system is active.

The dialog window (UMESS and ACE dialog) and the plotter window (ACE view) are automatically displayed on the screen.

The further windows, e.g. the printer window are closed and are present as symbol (icon) in the separate window **Icons**.



UMESS or ACE is now ready for operation, for further explanation see ACE UX manual or UMESS UX manual.

Chapter 3

Description of the windows

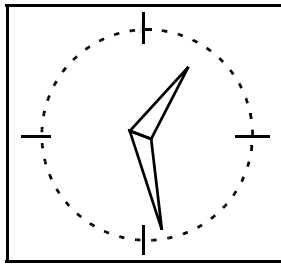
This chapter contains:

Clock	3-2
Dialog window	3-3
Printer window	3-4
Plotter window	3-5
System window	3-6

Clock

The analog clock (digital clock with small screen) appears automatically after log on.

The time can only be set by the **Superuser'** (**root**). Contact your system administrator.



Dialog window

Different functions can be called with softkey or direct input with the dialog window. The different contents of the window are described in the operating instructions as input mask. With certain input masks you make a selection with the softkeys **<YES>** or **<NO>** (e.g. between different output media). The dialog window is the interface you use to communicate with the application software.

The window appears automatically when you start the UX measuring software.

The screenshot shows a window titled "UMESS Dialog". Inside, the text "Meas. software Main functions" is at the top. Below it, there are several settings: "c Direct input" followed by an empty text box; "Probe configuration = 902" and "Record decimal places = 4"; "Probe combination = 1" and "Result counter = 0"; and "Fixed plane = 0" with a checkbox to its left. Below these is the text "No space axis defined". At the bottom, there is a grid of softkeys arranged in two rows. The first row contains: STANDARD, GEO.ELEM, TRANSF, LINKING, *, GDT 7184, PROBE, TRAVEL, CNC. The second row contains: SPEC PRG, MODE, ADD OUTP, FORMPLOT, COMPLINK, RT 05, TECHNIC, CNC ADM. A vertical scrollbar is on the right side of the dialog area.

Printer window

The data which the program outputs is shown in the printer window (e.g. measuring records, control data lists). Inputs in the record window are not possible.

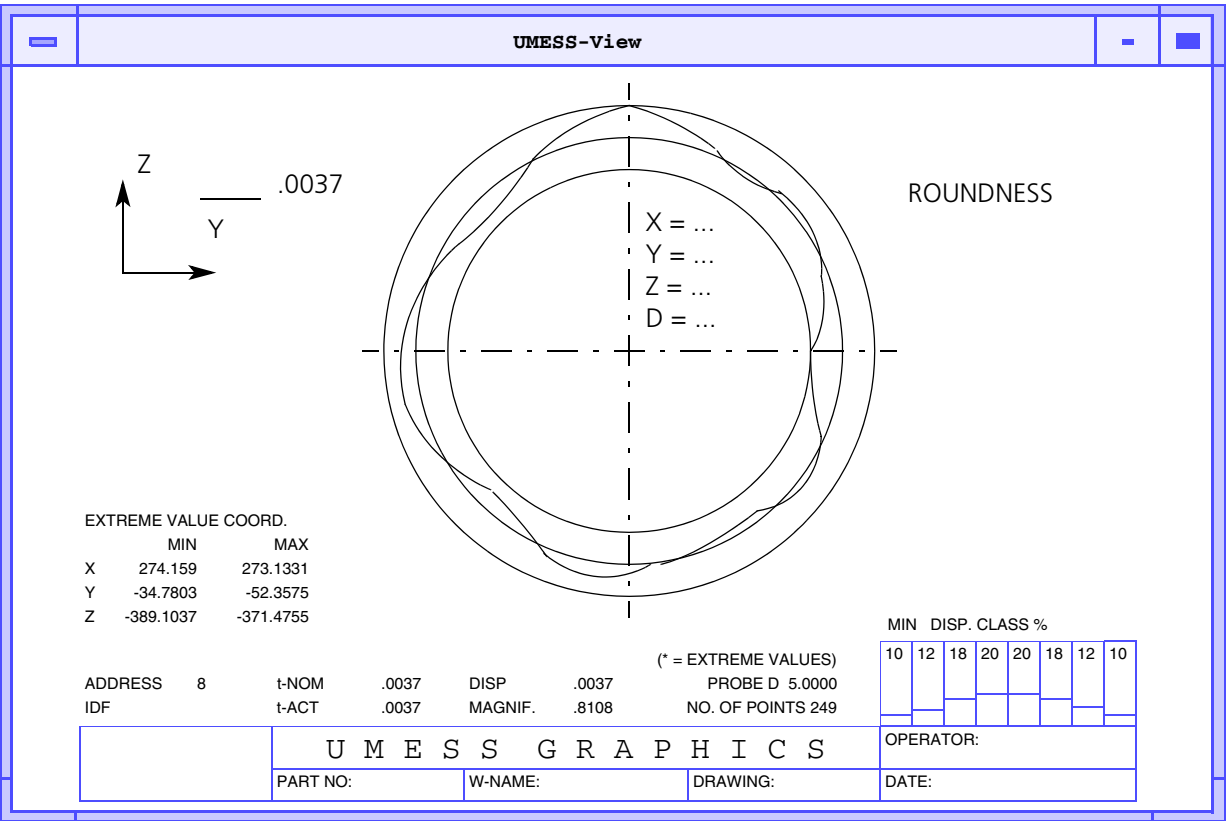
The record window also appears automatically when you log on and start the UX measuring software. Or you open the record window by clicking quickly twice the symbol **record** with the left mouse key in the window **Icons**.

Record											
MEASURING RECORD						UMESS					
Housing				CNC RUN							
DRAWING NO.		ORDER NO.		SUPPLIER/CUSTOMER				PROCESS			
63250030		2710-697		I-AT				Check			
OPERATOR =====		DATE		PART NO							
Huber		13.11.89		1							
=====											
ADR	REC	TASK	IDF	SY	ACTUAL	NOMINAL	U.TOL	L.TOL	DEV	EXC	
=====											
1		SURFACE		Z	0.0000						
		X/Z		A1	0.0000						
		Y/Z		A2	0.0000						
		4P S/MIN/MAX			0.0000		(1)	0.0000		(1)	0.0000
=====											
Edit			Delete			Store					

Plotter window

All the graphics which the program outputs are displayed in the plotter window (e.g. cylinder form plot, roundness plot).

The plotter window appears automatically when you log on and start the measuring software; inputs are not possible.

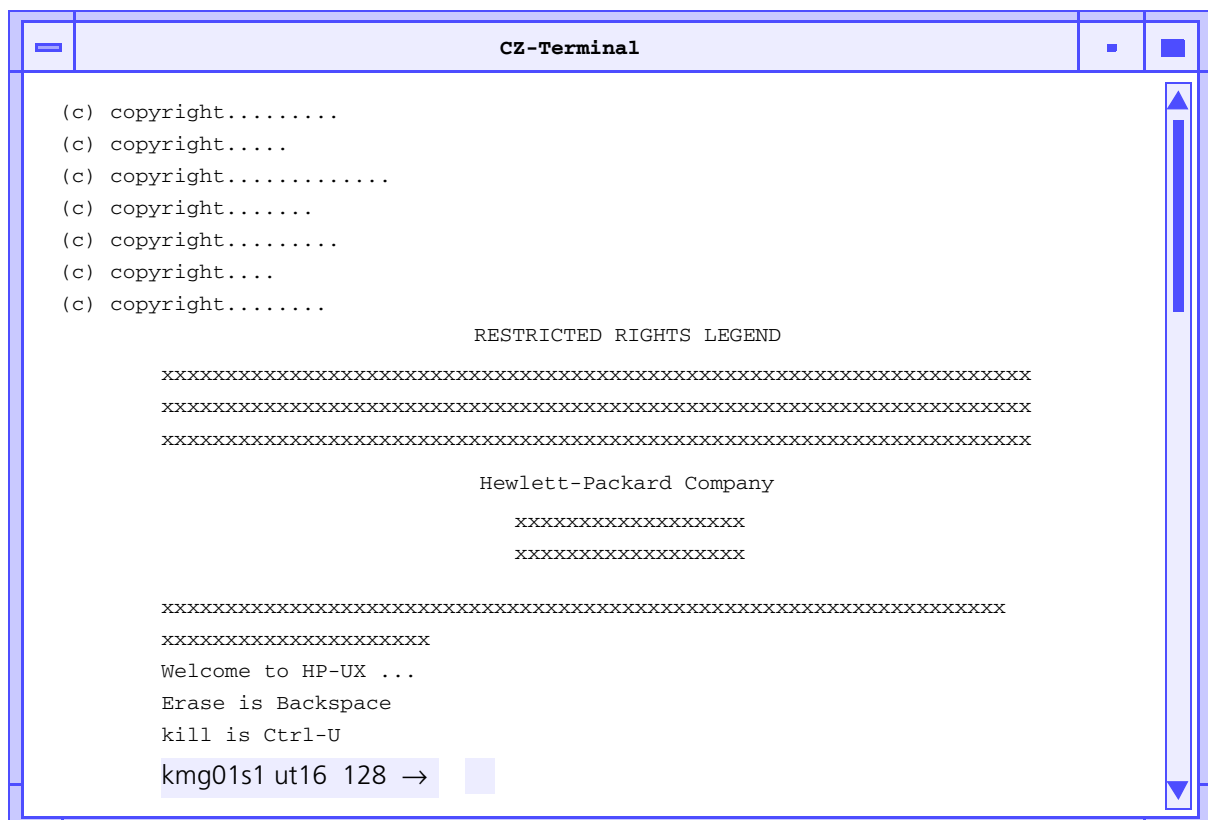
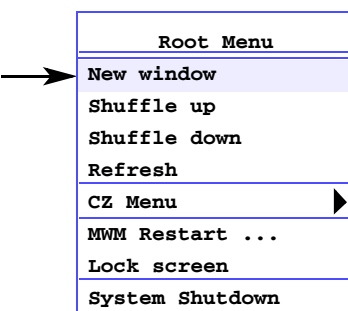


System window

The system window is only required for working at the operating system level (e.g. changes of the configuration).

This work requires specialist knowledge and must only be carried out by our service team or the system manager.

You can call the system window using the Root menu with **<new window>**.



Chapter

4

Working with windows

This chapter contains:

Mouse functions	4-2
Activating windows	4-3
Moving windows	4-3
Modifying the window size	4-3
Shrinking the window to an icon	4-4
Moving the contents of the window	4-5
Window menu.	4-5
Root menu.	4-7

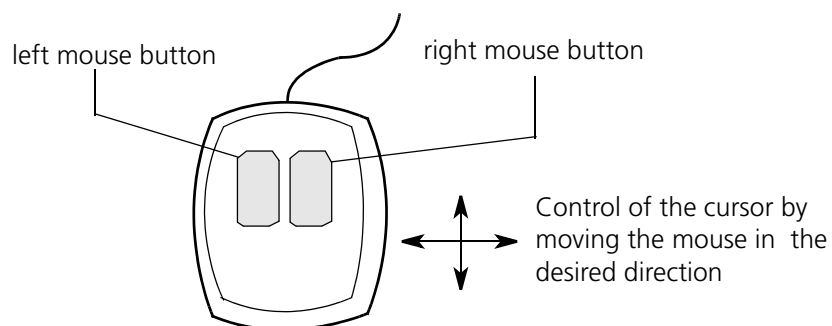
Mouse functions

The mouse is a small device for moving the cursor around on the display screen. The mouse is an operating element in addition to the computer keyboard.

With the mouse you can

- activate and manipulate windows
- call functions

Mouse



You can control the movement of the cursor on the screen with the mouse. The cursor is shown as an "X". When you move the mouse on the mouse pad, the cursor moves on the screen in the same way. The mouse has two or three buttons. If the mouse has three buttons, the mouse button in the middle has no function.

You must press the left, right or both mouse buttons depending on the function required.

NOTE

If your computer is not equipped with a mouse, the cursor is moved with the cursor keys in the numerical key pad of the keyboard.

Activating windows

You can activate a window by positioning the cursor in the window (the cursor is now displayed as a "I") and clicking once .

The frame around the window activated becomes brighter and is moved to the front. Inputs made at the keyboard appear in the command line of the window activated.

Moving windows

- Click the frame field at the upper edge of the window with the left mouse button and keep the button pressed.
The cursor becomes a "+"; a frame shows the current position of the window.
- Determine the new position of the window by moving the mouse and release the left mouse button.

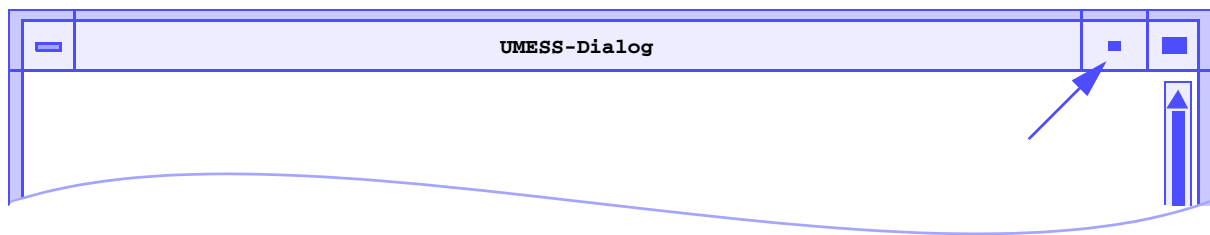
Modifying the window size

You can change the size of a window by clicking any point on the frame with the left mouse button and keeping the button pressed. The point where you click the frame determines the direction in which you can enlarge or reduce the frame. If, for example, you click the right side you determine the new form of the frame by moving the right edge sideways. If you want to move the height and width of the window simultaneously, click a corner of the frame.

Shrinking the window to an icon

If you do not need a window or your screen is no longer clear due to the multitude of windows, you can shrink individual windows to an icon.

Click the corresponding window in the shrinkage field in the upper right corner of the frame with the left mouse button.



The window is shrunk and displayed at the right edge of the screen. You can move it by pressing the left mouse button and keeping the button pressed.

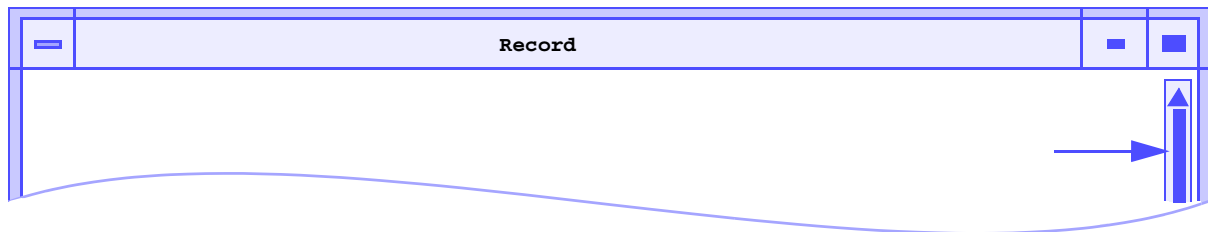
The icon follows the movement of the cursor and is positioned where you release the button.

You can change the icon back to a window by clicking it quickly twice with the left mouse button. The window appears in the same position where it was before it was shrunk.

Moving the contents of the window

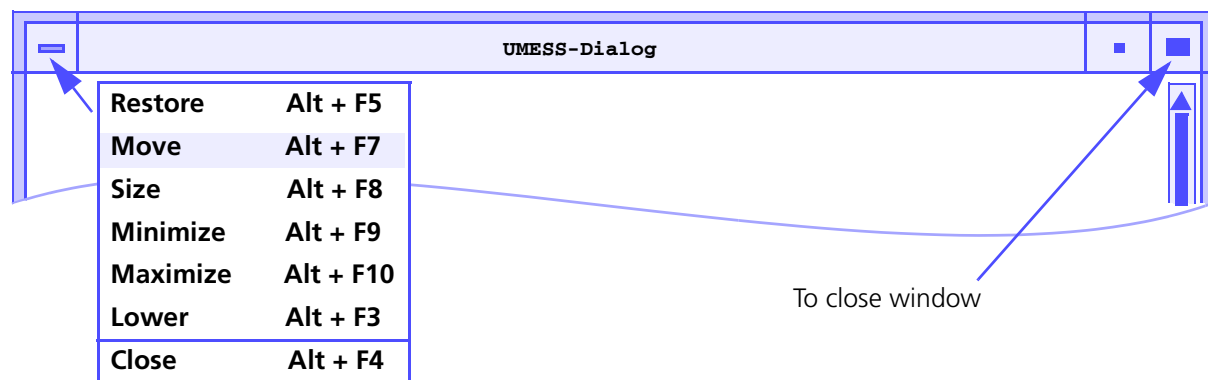
If you want to move the contents of a window vertically, with some windows you can click a bar on the right edge.

If you keep the mouse button pressed and move the cursor up or down, the text section shown in the window is changed correspondingly.



Window menu

Each window has a system menu in which you can select the different functions concerning the window. Click the menu field in the upper left corner of the frame with the left mouse button and keep pressed.



The lines are highlighted by moving the cursor up and down the system menu. The highlighted function is executed by letting go of the mouse button.

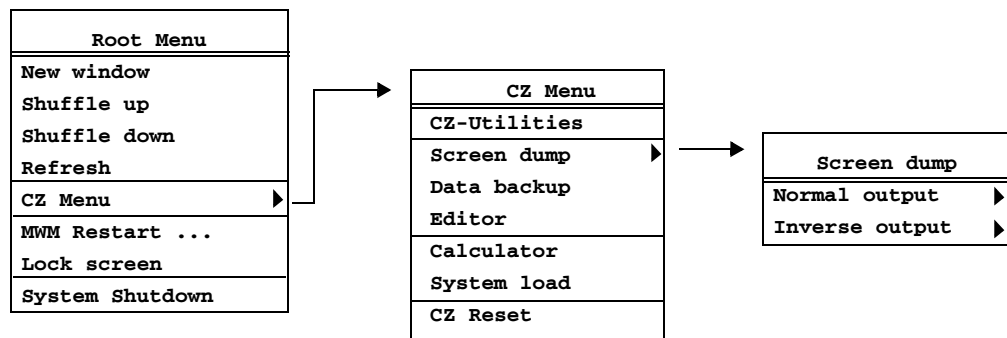
<Restore>

By selecting <Restore>, a change which you have made with the system menu is reversed. Therefore you **"restore"** the window and reproduce the previous status.

<Move>	By selecting <Move> and releasing the button, a frame appears which can be moved about the screen. The coordinates are given referring to the upper left screen corner in the center of the screen. The new position of the window is determined by activating the left mouse button.
<Size>	By selecting <Size> you can modify the size of the window. A frame specifies the size which the window assumes if you activate the left mouse button.
<Minimize>	The window is shrunk to an icon with <Minimize> .
<Maximize>	<Maximize> enlarges the window to the size of the screen.
<Lower>	By selecting <Lower> , the window is positioned behind the other windows. By clicking the window it is positioned at the front. If you no longer see the window after you have selected <Lower> , you must partly expose it by moving or shrinking the other windows.

Root menu

The background on which all windows are displayed is the root window. If you click any spot of the root window with the left mouse button, the root menu appears:



<New window>

A new window is produced with this function which simulates an HP-terminal. If you activate this window, you will be working at the operating system level.

<Shuffle up>

This call places a window in the foreground.

<Shuffle down>

This call places a window in the background.

<Refresh>

With refresh the screen contents are recreated. This is important in a network environment if, for example, another user modifies the window or has sent messages.

<CZ Menu>

Call of the menu for the CZ programs consisting of the following options:

CZ Menu
CZ Utilities
Screen dump ▶
Data backup
Editor
Calculator
System load
CZ Reset

<MWM Restart ...>

Restart checks the functioning capability of the windows and if necessary restarts them.

<System Shutdown>

End of the computer mode ▶ *chapter 5 "Ending the system mode" on page 5-1* <Default Pa>.



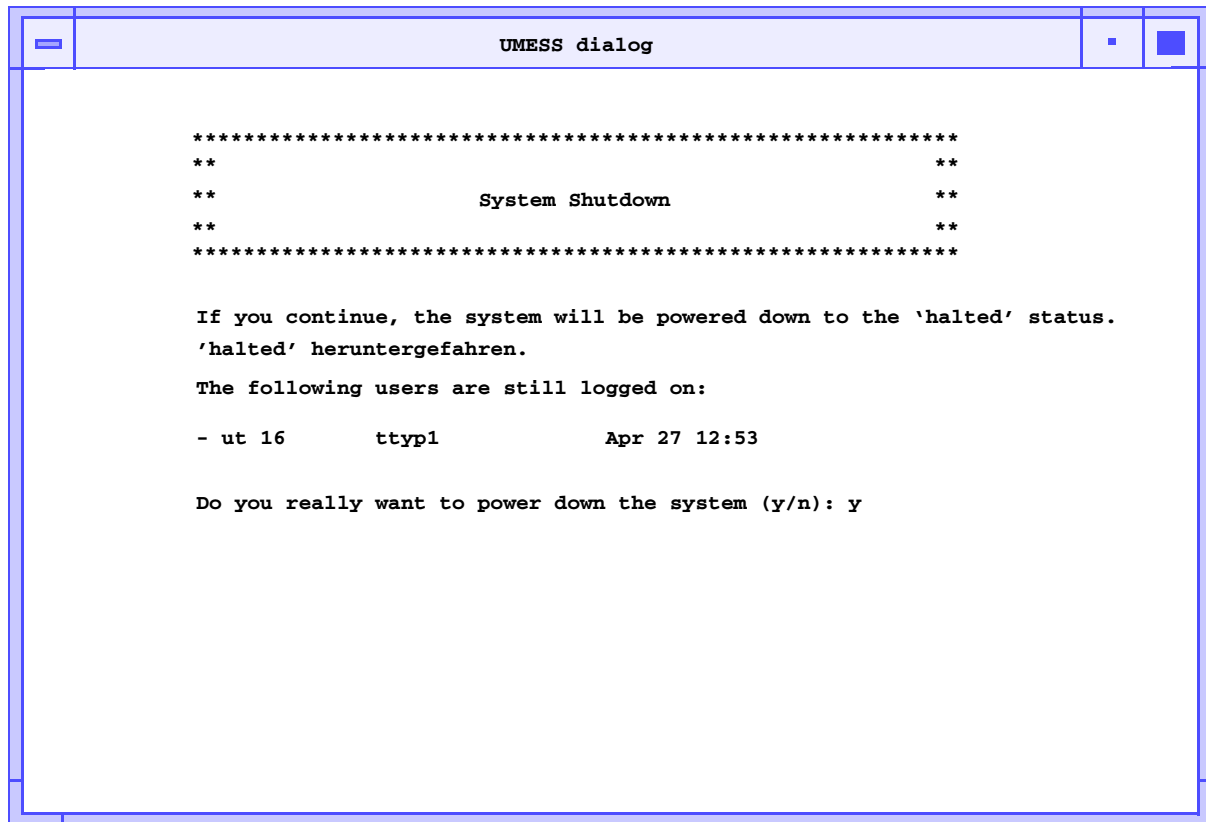
Chapter

5

Ending the system mode

Proceed as follows to end the system mode:

- Conclude operations running
- Save data still needed
- Move the probe clear
- End UMESS , by input of **<DI 1003>** or **<END>**, or in UMESS_W_basic menu with **<Probe>**, **<UMESS-End>**
- Outside of a window, activate root menu by clicking with the mouse **root menu** and select **system shutdown**. The following mask appears:



Your own user code **ut 16** and possibly other users still active in the system are displayed for information purposes. The operating system is halted by entering "**y**" and **<Return>**. At the same time the compute mode is interrupted for other users who may be using the system.

Once the UNIX system has been stopped, the following message is displayed:

halted, you may now cycle power

You can now switch off your system, i.e.

- Keyswitch to 0
- Main switch to 0

Chapter 6

UMESS_W_Main menu

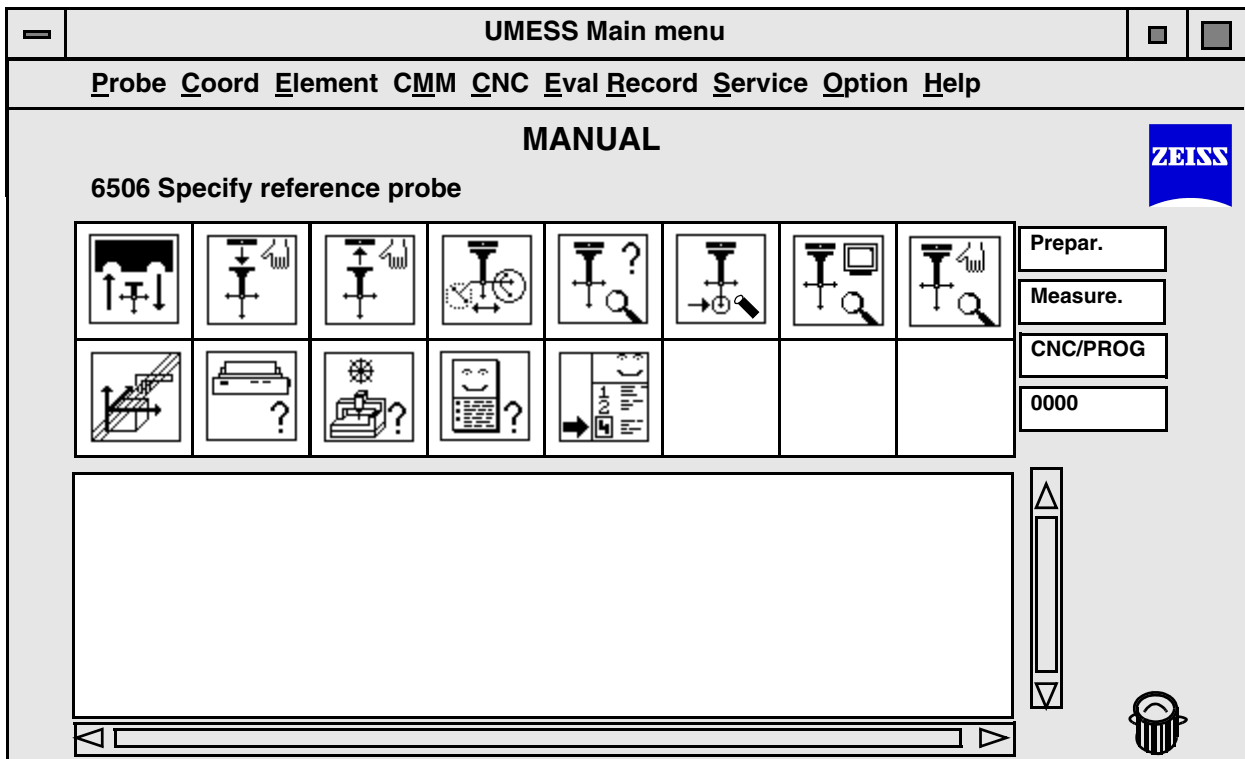
With the UMESS_W_Main menu you can operate the UMESS program system using windows (windows technology). You can call all UMESS-Functions by selecting from menus (pulldown menus), pictograms or by entering the direct input number (DI No.).

This chapter contains:

Structure and function of the "UMESS_W_Main menu"	6-3
Calling UMESS functions using pictograms.	6-5
Calling UMESS functions using menus	6-8
Representation of all menus.	6-11
Calling UMESS functions with direct input (DI)	6-21
Activating/Deactivating the UMESS_W_Main menu	6-23
Editing pictogram page	6-24
Utilities for the pictogram pages	6-27
Setting colors and fonts	6-28
Dialog window under UMESS_W_Main menu"	6-30
Changing the language	6-31

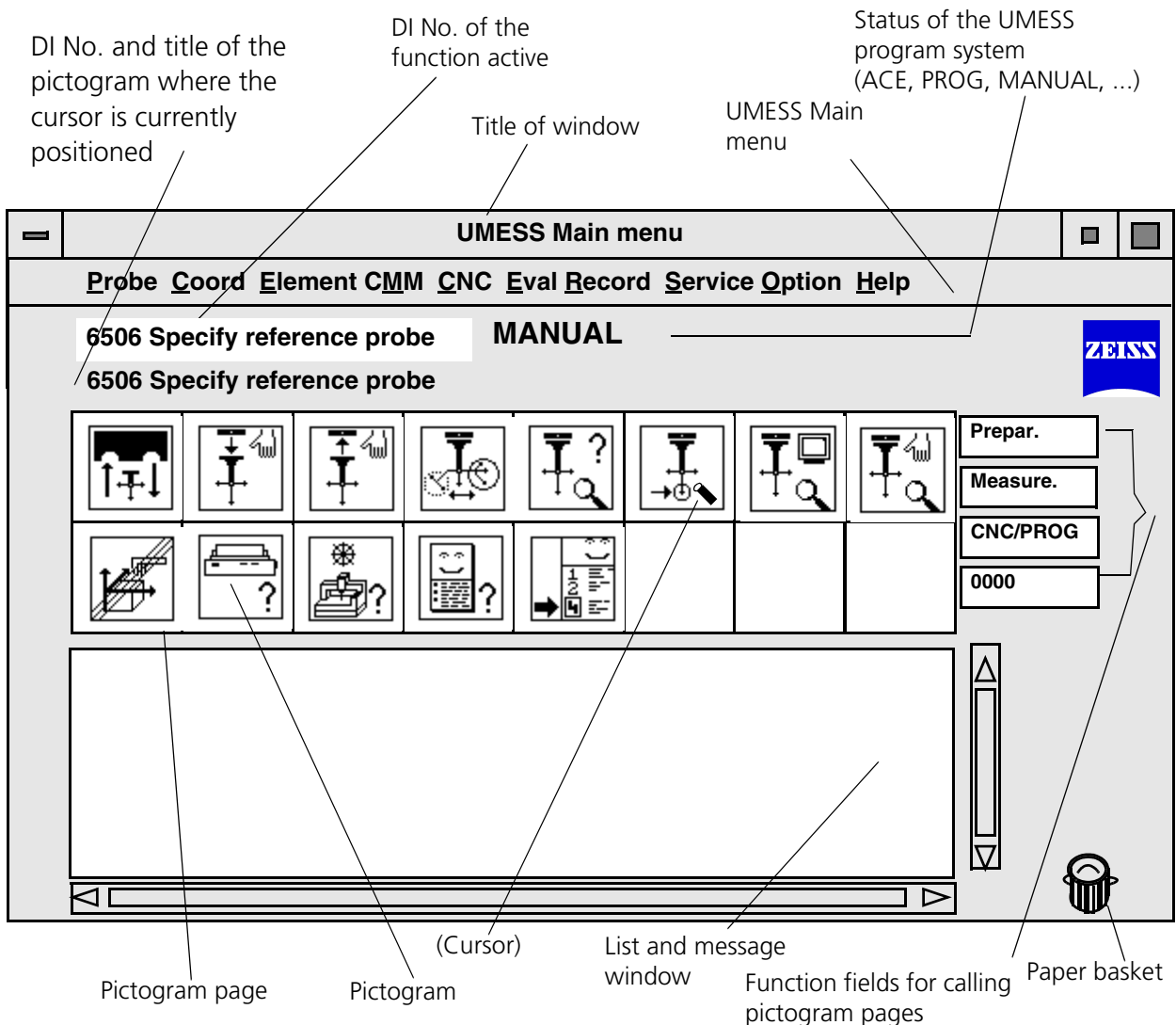
The menus are combined under a main menu with two submenu levels. By using the menus you can select and activate in plaintext the UMESS function you desire.

In the UMESS_W_Main menu there are 64 pictograms combined in 4 pictogram pages. You can make up the pictogram pages to meet your own requirements.



- With the UMESS _W_ Main menu you can
- Call UMESS functions using menus
 - Call UMESS functions using pictograms
 - Call UMESS functions using DI numbers
 - Change to the options (KUM, SAM ETC.)
 - Select pictogram pages
 - Compose your own pictogram pages
 - Set type fonts and colors
 - Operate UMESS in other languages

Structure and function of the "UMESS_W_Main menu"



The **UMESS_W_Main menu** determines the DI No. for a selected UMESS function and passes this onto the UMESS program system where the UMESS function in question is activated.

The **UMESS_W_Main menu** is a graphical user interface and can therefore be operated most simply by using the mouse. You activate a function by positioning the mouse pointer to a pictogram or menu option by clicking *once* with the left mouse button.

You can also operate the **UMESS_W_Main menu** without a mouse, from the computer keyboard or from the control panel.

As long as a function is activated in the UMESS program system, the DI No. of this function is displayed with the message **Job being processed**, Figure above ➤ page 6-3. During this time it is not possible to activate any other UMESS function.

A dialog window is opened automatically for UMESS functions requiring further inputs. The dialog window must be closed with **<TERMIN>** after concluding all inputs, so that the corresponding UMESS functions can be executed.

User activities may cause the dialog window to be positioned in the background. In order to be able to make inputs, you must place the dialog window in the foreground using **<Shuffle up>**, ➤ *Root menu on page 4-7*.

If a function is activated in the UMESS program system, you can make changes to **UMESS_W_Main menu**, for example modifying the pictogram page, you cannot activate further UMESS functions at the same time.

In the **UMESS_W_Main menu**, you can call each UMESS function in three different ways:

- using pictograms, ➤ *Calling UMESS functions using pictograms on page 6-5*
- using menus (pulldown menus), ➤ *Calling UMESS functions using menus on page 6-8*
- using direct input numbers n, ➤ *Representation of all menus on page 6-11*

You can operate the **UMESS_W_Main menu** in three different ways:

- using the mouse, ➤ *Calling UMESS functions using pictograms on page 6-5* or ➤ *Calling UMESS functions using menus on page 6-8* or ➤ *Representation of all menus on page 6-11*
- using the computer keyboard, ➤ *Calling UMESS functions using pictograms on page 6-5* or ➤ *Calling UMESS functions using menus on page 6-8* or ➤ *Representation of all menus on page 6-11*
- using the control panel, ➤ *Calling UMESS functions using pictograms on page 6-5* or ➤ *Calling UMESS functions using menus on page 6-8* or ➤ *Representation of all menus on page 6-11*

Calling UMESS functions using pictograms

Pictograms are fields with graphics symbols. A UMESS function is assigned to each symbol. In the **UMESS_W_Main menu** there are 64 pictograms combined in 4 pictogram pages .

The **UMESS_W_Main menu** has four standard pictogram pages, which are made available automatically in the **UMESS_W_Main menu** when the measuring system is started.

The pictogram pages preassigned in the **UMESS_W_Main menu** (File: **TableFile**) deal mainly with the tasks: **PREPARATION**, **MEASUREMENT**, **CNC/PROG** and a blank page for your own entries. You can store further pictogram pages and read them in with the functions **<Service> <Pictogram pages>**, *► Utilities for the pictogram pages on page 6-27*.

The pictogram pages which have been displayed last, i.e. at **UMESS-end** are displayed again when UMESS is restarted; provided they have already been stored in this form already (*► Storing pictogram pages on page 6-27*). In this way, the pictograms you worked with last appear again the same the next time you work with them, e.g. the next day.

Calling another pictogram page

Using the mouse

If you click one of the four function fields on the right next to the pictogram page *once* with the left mouse button, the corresponding pictogram page is displayed.

Using the computer keyboard:

With the **<Next>** and **<Prev>** keys, you can switch forwards / backwards from one pictogram page to the next. With the **<F9>** softkey you can also switch to the next pictogram page.

From the alphanumeric keyboard:

If the horizontal representation of the pictogram pages each with 16 pictograms (*► Utilities for the pictogram pages on page 6-27*) is set, you can call the next pictogram page on the alphanumeric control panel with the **<ADR PROG>** fixed function key.

From the standard control panel 26:

With the **<F9>** softkey you can also switch to the next pictogram page.

Activating a UMESS function in the pictogram page

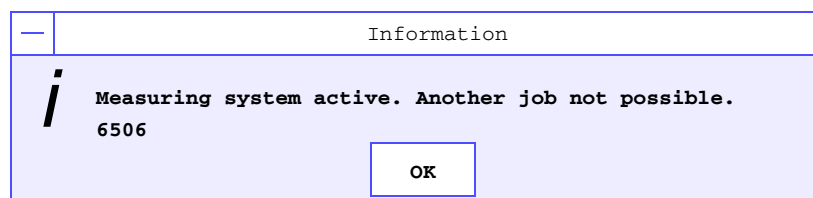
Using the mouse

If you position the mouse pointer on a pictogram above the pictogram page, the corresponding direct input number (DI No.) is displayed straightaway and the title (identification of the UMESS function) displayed in plaintext.

You activate the applicable UMESS function by clicking **once** with the left mouse button. The DI No. of the active UMESS-function is then displayed with the message **"Job being processed"**.

NOTE

Do not make any double clicks, as with the second click you would activate a function twice at the same time which is not allowed. If you attempt to activate two UMESS functions at the same time, a window is opened for the second function:



OK

To continue you must confirm the information, i.e. click the function field **<OK>** once with the left mouse button or press the **<RETURN>** button once.

Using the computer keyboard:

The area of the **UMESS_W_Main menu** where you are at the moment is marked by a thick border. I.e. the border shows which of the keyboard focus areas (main menu, pictogram page etc.) is selected. Using the **<F10>** softkey, you can switch between the UMESS main menu and the pictogram page. Using **<Shift> + <Tab>** you can switch between the list and log on window and the pictogram page. You can move between the pictograms on the pictogram page using the cursor keys (**<→>**, **<↓>**, **<←>**, **<↑>**). You then activate the UMESS function of the pictogram selected by pressing **<RETURN>**.

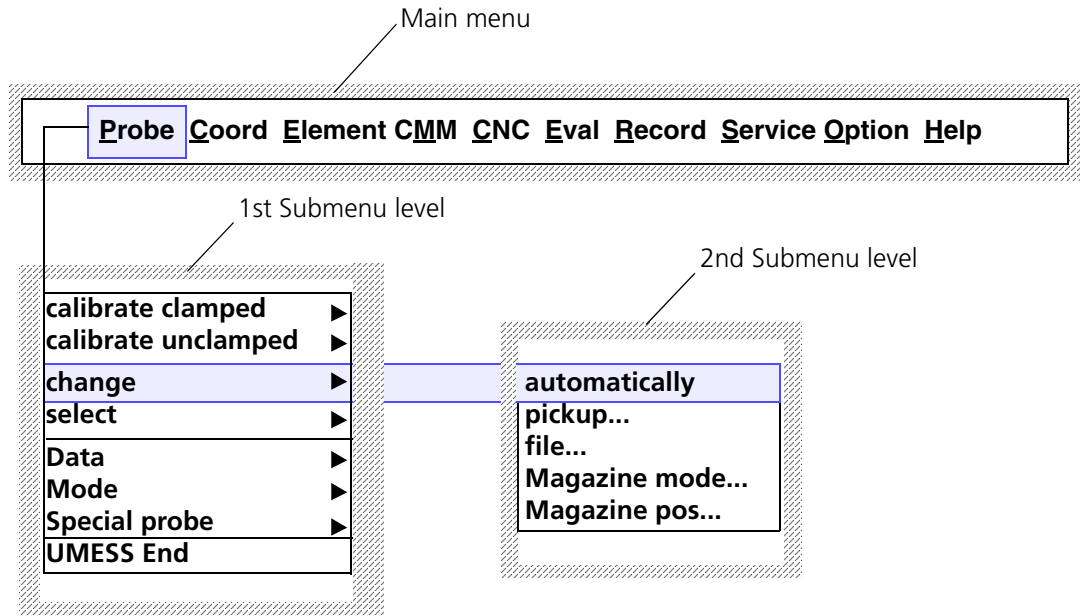
If the horizontal display of the pictogram page is set (► *Utilities for the pictogram pages on page 6-27*), i.e. two rows each with 8 pictograms, and the pictogram page is selected, you can activate one of the UMESS functions of the upper pictogram row with the **<F1>** to **<F8>** keys on the computer keyboard and the pictogram in the bottom row using the **<Shift> + <F1>** to **<Shift> + <F8>** keys.

Using the control panel:

If the horizontal display of the pictogram page is set (► *Utilities for the pictogram pages on page 6-27*) you have in each pictogram page two rows with 8 pictograms each displayed. Using the **<F1>** to **<F8>** softkeys you can activate one of the UMESS functions of the upper pictogram row with **<Shift> + <F1>** to **<Shift> + <F8>** you can activate one of the UMESS functions each of the lower pictogram row.

From the standard control panel 26, you can also select and activate UMESS functions within the pictogram page with the cursor keys and **<RETURN>** as on the control keyboard.

Calling UMESS functions using menus



Using the menus, you can call all UMESS functions with the mouse or by inputs at the keyboard. The submenus are assigned in 2 levels under the main menu (in the form of pulldown menus).

The individual menu options are marked in the submenus:

- A submenu follows

change ► example (see figure)

... A function is called for which inputs are still needed in a corresponding dialog window (► *Utilities for the pictogram pages on page 6-27*), example (see figure)

automatically ...

You can also cancel the function called using the applicable dialog window.

(only text) The function is executed immediately, there is no window and no possibility to abort, example (see figure) **UMESS End**.

Using the mouse

If you click one of the menu options (**Probe/Coord/Elements** or ... etc.) once with the left mouse button in the main menu (click the text directly), you will reach the first submenu level.

If in the first submenu level you click a menu option once with the left mouse button, you activate the applicable function, or branch to the second submenu level. In the second submenu level you can click a menu option once with the left mouse button and activate the applicable function.

You can look for a menu option throughout the entire menu by positioning the cursor in the main menu on a menu option and then by pressing the left mouse button and keeping it pressed. As long as you keep the left mouse button pressed, you can move with the cursor through all menus. Once you have found the menu option you were looking for, you can activate this at once by positioning the cursor on it and letting go of the left mouse button.

Using the keyboard

In the main menu a letter is underlined for each menu option. If you keep the **<Extend char>** key pressed and enter one of these letters, you will reach the corresponding first submenu level.

Using the softkey **<F10>** you can switch between the UMESS main menu and the pictogram page. If you have selected the UMESS Main menu, you can move from menu option to menu option within the UMESS Main menu with the **<→>** and **<←>** cursor keys. Using the **<↓>** **<↑>** cursor keys you can branch from the UMESS Main menu to the first submenu level of the menu option in question.

In the submenu, the cursor is positioned on the top menu option; using the cursor keys **<↓>** **<↑>** you can move the cursor bar up and down. You reach the second submenu level by pressing **<RETURN>** or using the cursor key **<→>**. With the cursor key **<←>** you return to the first submenu level. By pressing **<RETURN>** you activate the UMESS function of the menu option selected.

From the alphanumeric control panel:

You can only activate UMESS functions via pictograms or by entering direct inputs (DI).

From the standard control panel 26:

Using the **<F10>** softkey, you can switch between the UMESS main menu and the pictogram page. If you have selected the UMESS Main menu, you can move from menu option to menu option within the UMESS Main menu with the **<→>** and **<←>** cursor keys. Using the **<↓>** **<↑>** cursor keys you can branch from the UMESS Main menu to the first submenu of the menu option in question.

In the submenu, the cursor is positioned on the top menu option; using the cursor keys <↓> <↑> you can move the cursor bar up and down. You reach the second submenu by pressing <RETURN> or using the cursor key <→>. With the cursor key <←> you return to the first submenu level. By pressing <RETURN> you activate the UMESS function of the menu option selected.

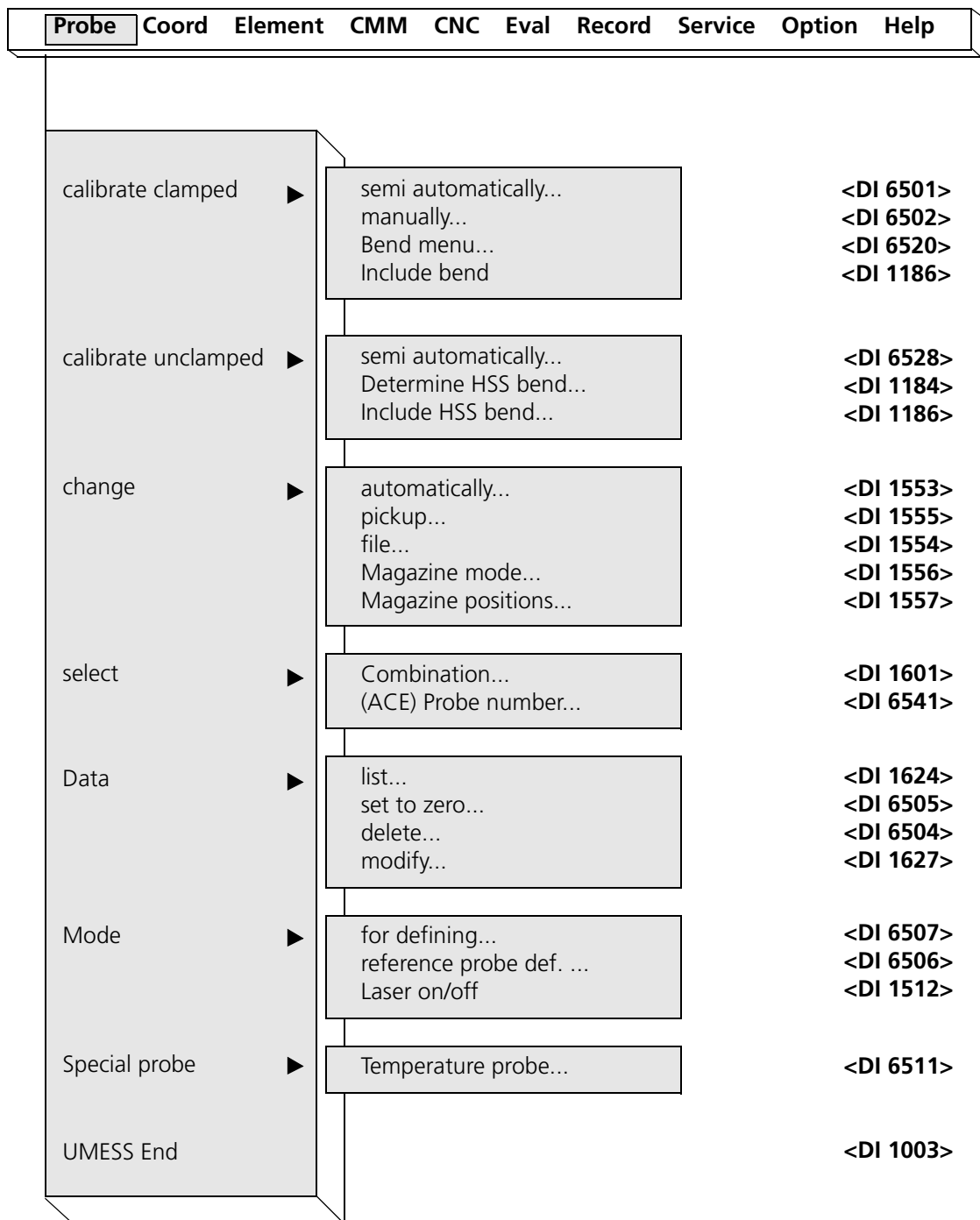
Representation of all menus

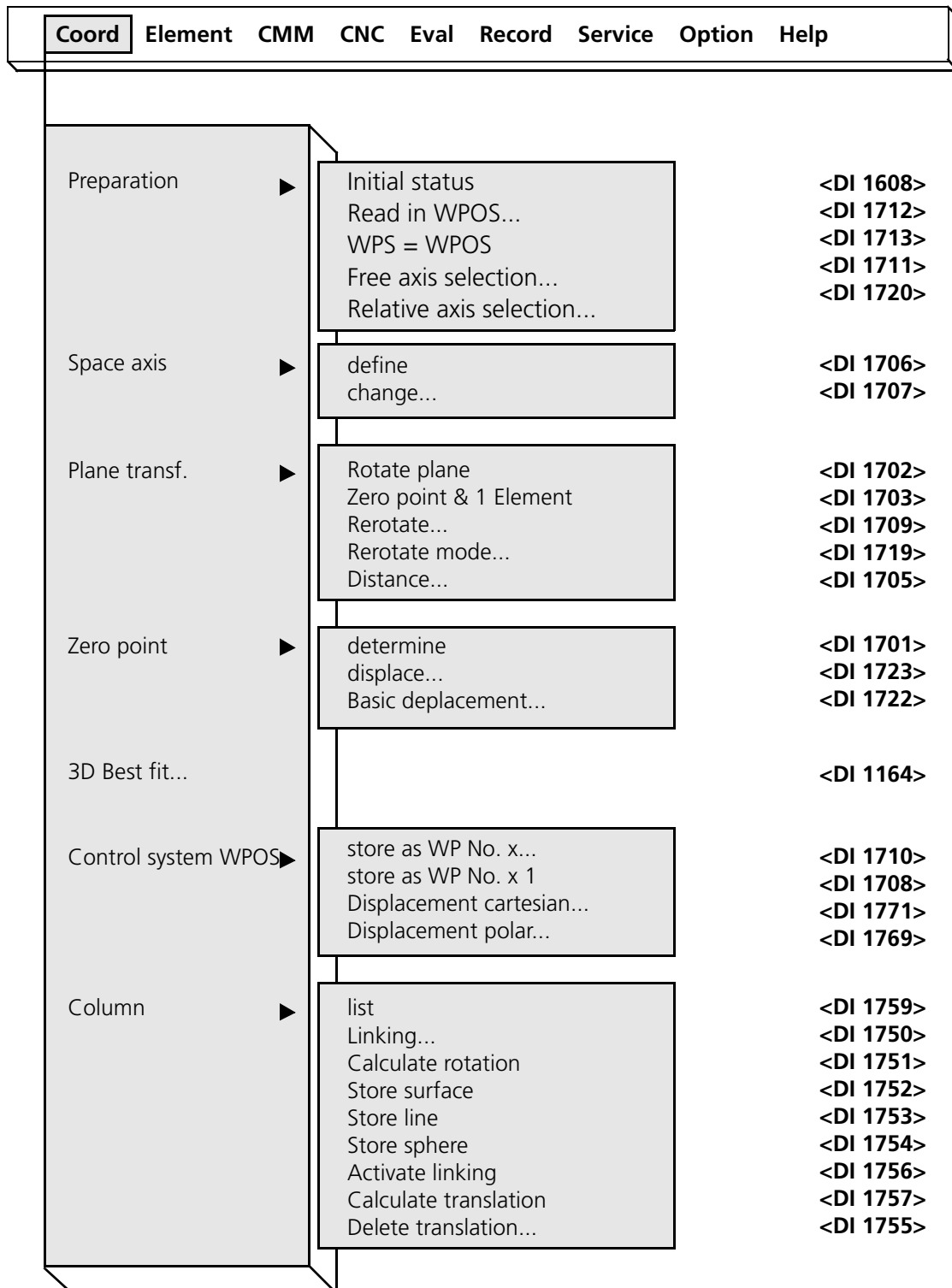
In the following (➤ *"Probe" menu on page 6-12* to ➤ *"Help" menu on page 6-20*) all the menus have been reproduced, i.e. the corresponding first and second submenu levels are shown for each menu option of the main menu.

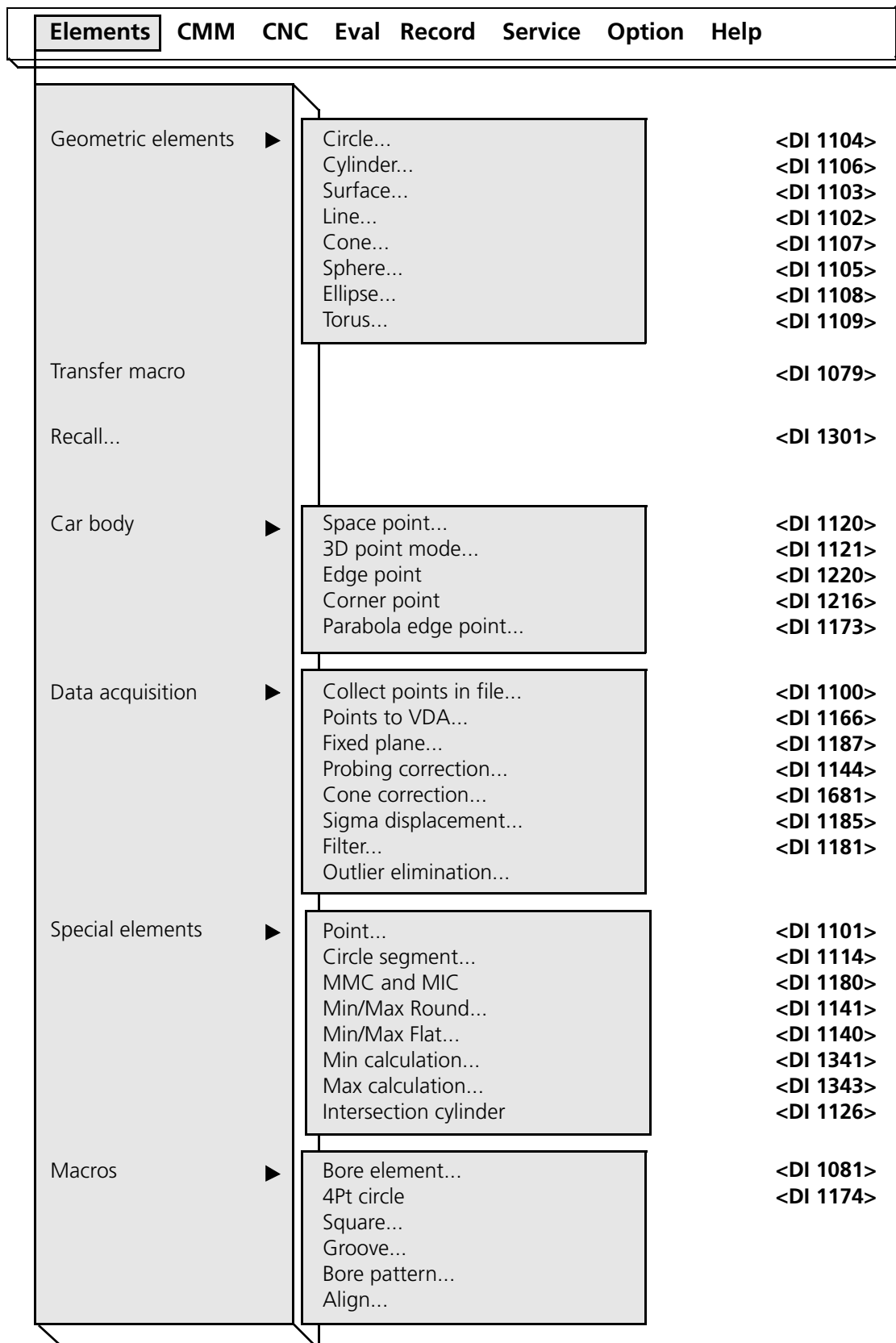
You find the menus reproduced in the third chapter of the main operating instructions of UMESS UX. The menus contain cross references to the corresponding chapter. If not specified otherwise, the chapter referred to is a chapter in the UMESS operating instructions.

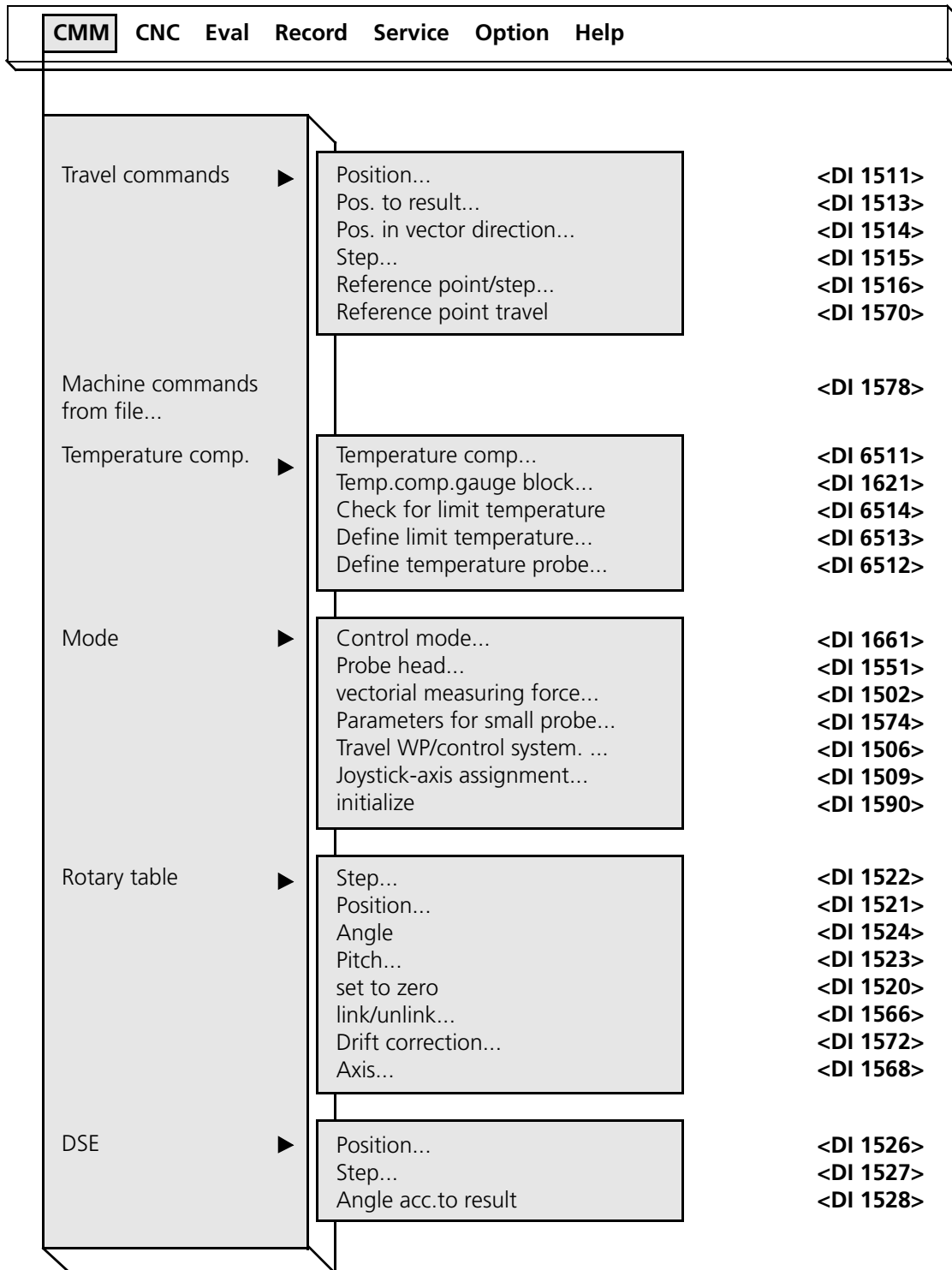
The DI No. for each menu option is specified as cross reference to the option **Function call with direct input** (➤ *Calling UMESS functions with direct input (DI) on page 6-21*).

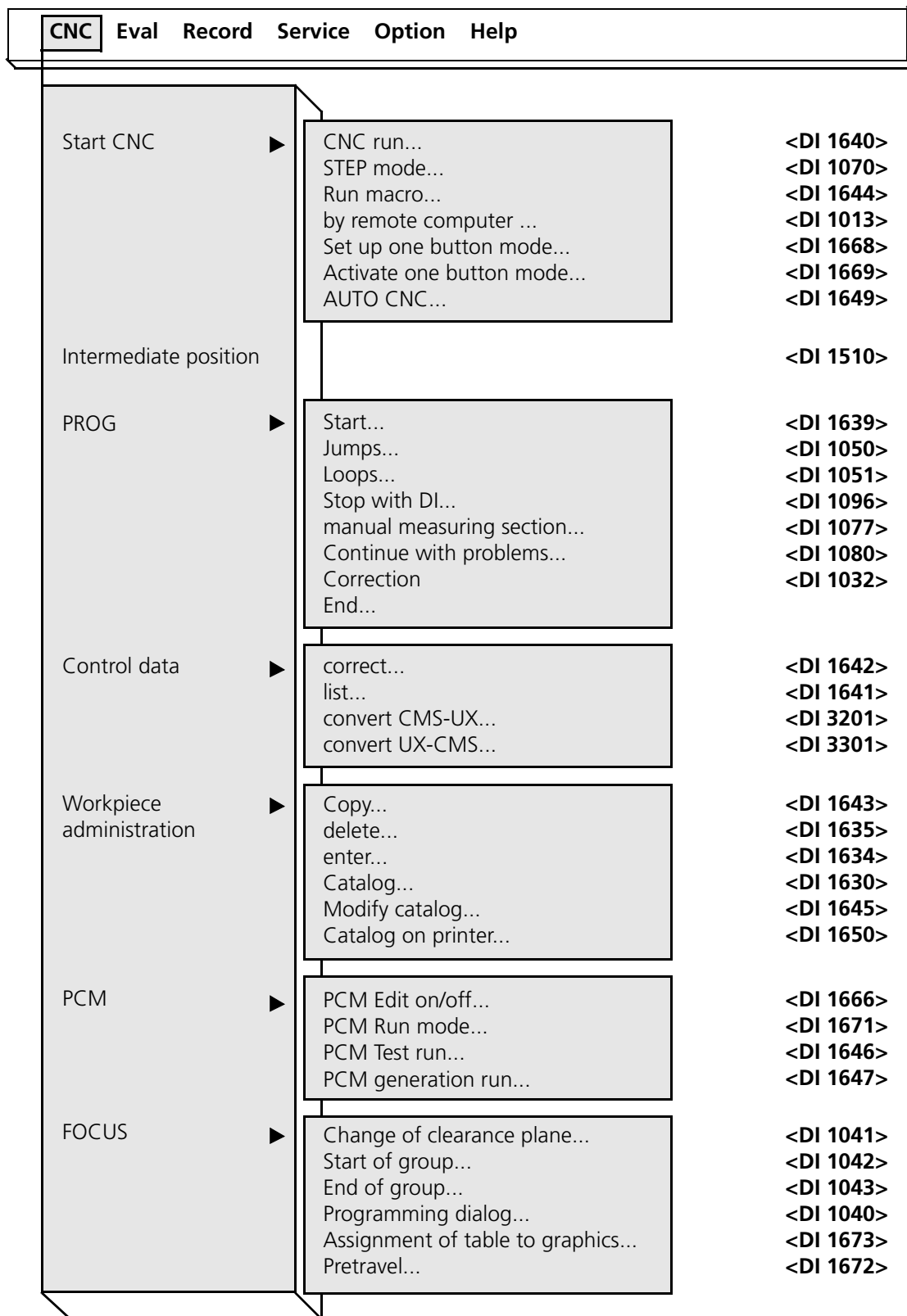
"Probe" menu



"Coordinate system" menu

"Geometric elements" menu

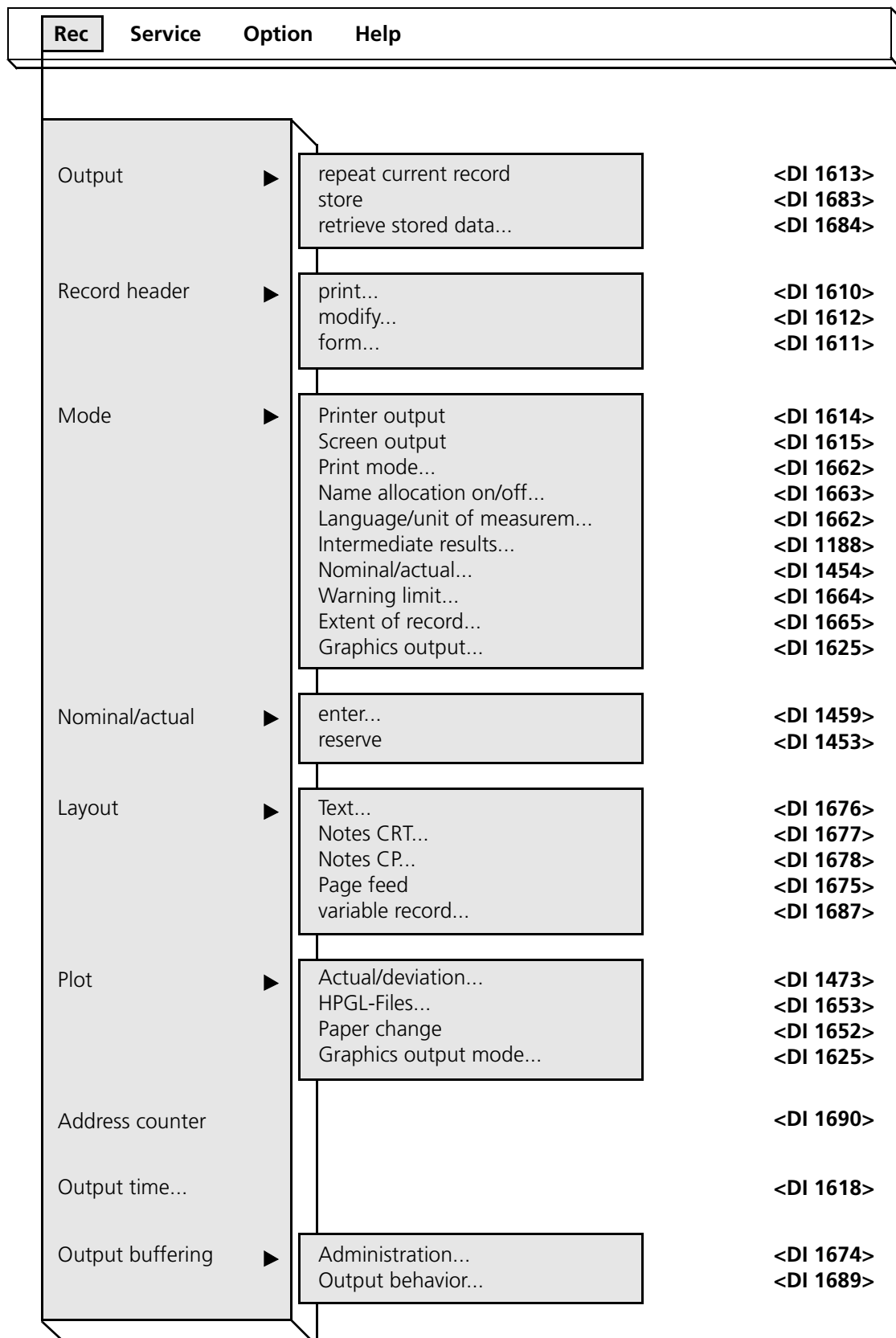
"Coordinate measuring machine" menu

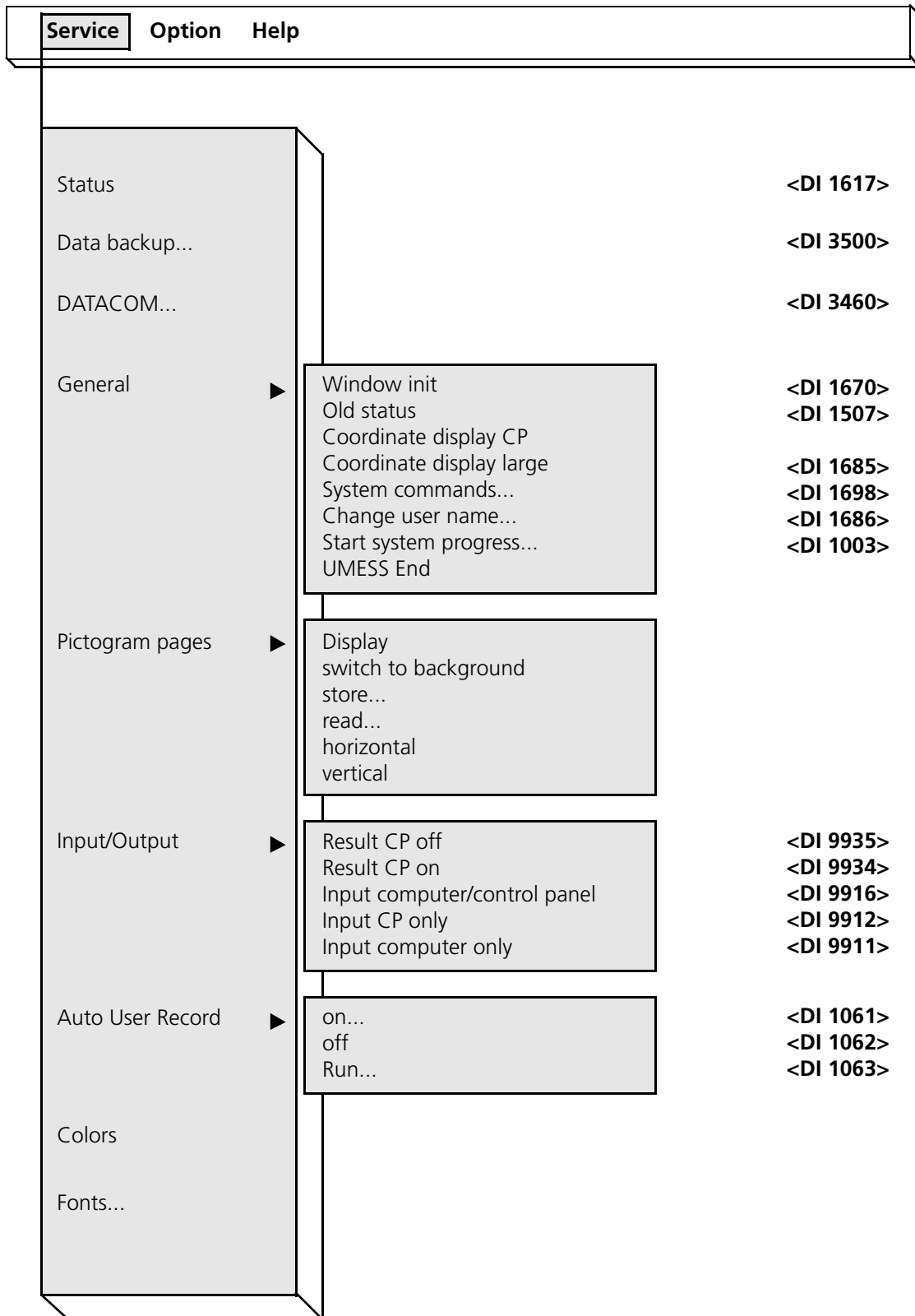
"Automatic runs (CNC)" menu

"Evaluation" menu

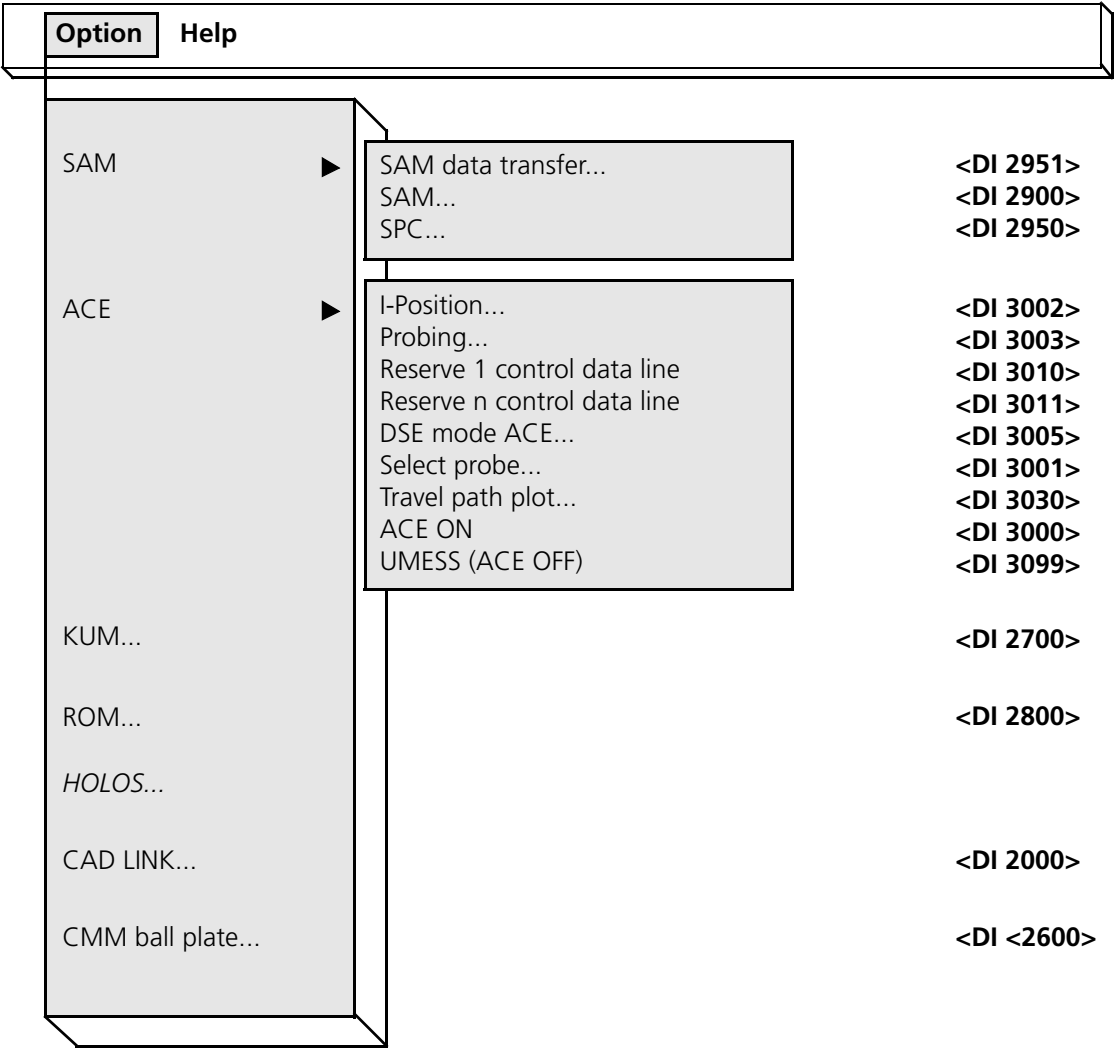
Eval	Record	Service	Option	Help
Form	▶		Straightness... Flatness... Flatness/LengthRoundness... Cylinder form... Form dev. ... GDT PLOT... Fast plot...	<DI 1401> <DI 1402> <DI 1472> <DI 1403> <DI 1404> <DI 1449> <DI 1470> <DI 1461>
Position	▶		Position... Concentricity... Coaxiality... Symmetry... Parallelism... Perpendicularity... Angularity... Run... 2D Bore pattern best fit...	<DI 1407> <DI 1408> <DI 1409> <DI 1410> <DI 1415> <DI 1425> <DI 1435> <DI 1445> <DI 1159>
Distance	▶		cartesian polar 2D polar3D Perpendicular Perpendicular cylinder	<DI 1202> <DI 1203> <DI 1261> <DI 1286> <DI 1285>
Intersection	▶		Intersection 2 Axes 3D Penetration point S/A Convex surface intersections	<DI 1218> <DI 1215> <DI 1217> <DI 1219>
Symmetry element				<DI 1206>
Formula...				<DI 1379>
Mean value...				<DI 1345>
Angle	▶		Angle Output Deg/Min/Sec Conversion...	<DI 1204> <DI 1682> <DI 1251>
Additions	▶		Additional cone... XYZ supplement Extreme values... Circular pitch... Linear pitch... Kink recognition... Write intermediate file... Read intermediate file...	<DI 1243> <DI 1262> <DI 1460> <DI 1311> <DI 1312> <DI 1189> <DI 1303> <DI 1304>

"Record" menu

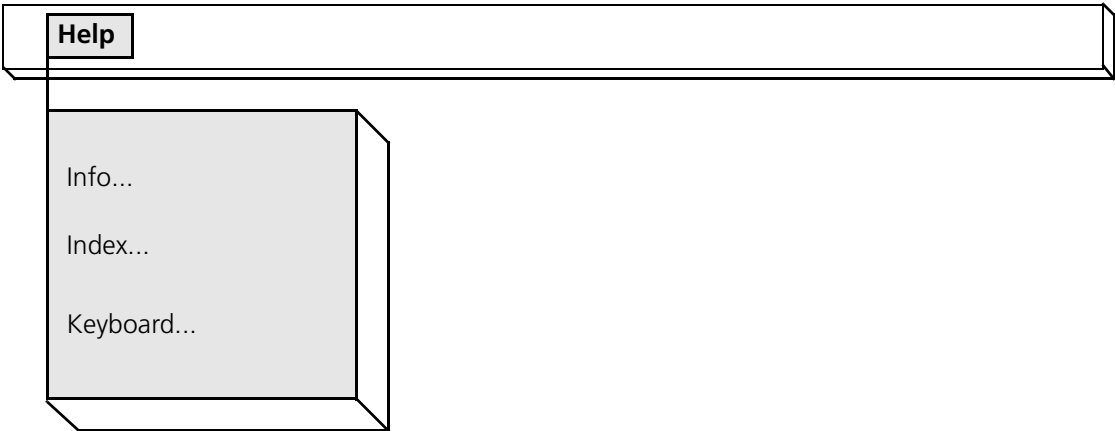


"Utilities" menu

"Options" menu



"Help" menu

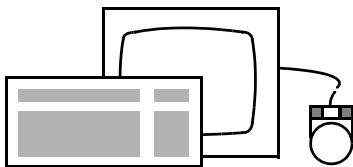


Calling UMESS functions with direct input (DI)

If you know the direct input number (DI) or the text abbreviation of a UMESS function, you can enter this in the **Direct input** window and activate the corresponding UMESS function by pressing **<RETURN>**. Using the **Direct input** input window you can also enter texts and DI numbers in the pictogram pages, for more detailed information

► *Editing pictogram page on page 6-24.*

Function call



F12

Direct input	
✉	
1104	
Previous	Help

Enter the DI number or a valid text abbreviation.

RETURN

You activate the corresponding UMESS function.

PREVIOUS

The input window is closed, no UMESS function is activated.

You can also use the **Direct input** window with the mouse and/or keyboards.

Using the mouse

You call the **Direct input** window using the **<F12>** softkey. You remove the window by clicking the **<Previous>** function field. Even if the **Direct input** window has been called, you can activate UMESS functions in the pictogram pages by clicking with the mouse. If you click a menu option in the UMESS main menu, the **Direct input** window is moved to the background.

Once you have entered the DI number, you have to press **<RETURN>** on the computer keyboard so that the corresponding UMESS function is activated.

Using the computer keyboard or the control panel

You call the **Direct input** window by pressing the **<F12>** softkey. You remove the window by pressing the **<F12>** softkey again. While the **Direct input** window is called, you cannot jump to the UMESS main menu with **<F10>**, nor to the function pallet with **<Tab> + <Shift>**. Within the **Direct input** window you can move between the input field and the **<Previous>** function field with **<Tab>**.

Once you have entered the DI number, you have to press **<RETURN>** so that the corresponding UMESS function is activated.

Activating/Deactivating the UMESS_W_Main menu

You can switch off the **UMESS_W_Main menu** graphics user interface and switch to operation of UMESS using dialog windows. You can then enter direct input numbers in the dialog windows and actuate softkeys.

You can deactivate the **UMESS_W_Main menu** by entering in the **Direct input** window as DI No. <-18> and confirming with <RETURN>.

When you deactivate the **UMESS_W_Main menu**, the **Measuring software main functions** dialog window for entering the direct input number is displayed and active.

The **UMESS_W_Main menu** and the **Direct input** window are still shown on the screen, but are uncoupled from the data flow.

You can re-activate the **UMESS_W_Main menu** by entering the DI No. <-17> in the **Direct input** input field in the **Measuring software Main functions** window and confirming with <RETURN>.

Editing pictogram page

With the **UMESS_W_Main menu**, you can design the user interface according to your own requirements.

You can design the pictogram pages corresponding to those tasks you use the most and store as a file. You can also label the function fields for selecting the pictogram pages. You can store several files.

The file activated last of the files stored is displayed again automatically after the system start.

Storing menu option as pictogram

You can create pictograms from all menu options which are not marked by a triangle and are a UMESS function and store in one of the four pictogram pages.

To fetch a menu option (i.e. a UMESS function) from the menu and to store as pictogram, you have to look for the corresponding menu option. To do this, position the cursor in the main menu on a menu option, press the left mouse button and keep this pressed, the corresponding first submenu is displayed. Move through the menu with the cursor until you have reached the menu option desired. Press the right mouse button and keep pressed. Move the cursor out of the menu and let go of both mouse buttons. The cursor now becomes a letter envelope symbol and the menu is closed.

Position the letter envelope symbol on the pictogram which you want to change (overwrite) and click once with the right mouse button. The letter envelope symbol is closed and the graphics symbol appears. You have stored the menu option as pictogram in the pictogram page. The DI No. is displayed if there is no graphic symbol for the menu option selected.

Copying pictograms

You can copy pictograms and store in the same or another pictogram page.

Position the cursor on the pictogram desired. Press the right mouse button, keep pressed and move the cursor out of the pictogram. The cursor changes to a letter envelope symbol.

With the envelope symbol as cursor, you can select another pictogram page using the function fields on the right of the pictogram page. To do this click the corresponding function field once with the left mouse button.

Position the letter envelope symbol on the pictogram which you want to change (overwrite) and click once with the right mouse button. The letter envelope symbol is closed and the graphics symbol appears. You have copied the pictogram and stored it in another pictogram page.

Deleting pictograms

You can delete a pictogram by copying a blank pictogram onto the pictogram to be deleted.

If there is no blank pictogram available, you can call the **Direct input** input window with the <F12> softkey and from there copy the blank input window into the pictogram page ➤ *Calling UMESS functions with direct input (DI) on page 6-21.*

Paper basket

If you have made a mistake during copying, you can throw the pictogram *into the paper basket*. In the **UMESS_W_Main** menu, there is a paper basket symbol on the lower right of the screen. If you position the letter envelope symbol on the paper basket symbol and press the right mouse button, you can cancel the copy process.

Editing pictogram pages with "Direct input" input window

You can copy texts or numbers you have written into the **Direct input** input window into the current pictogram page or in one of the four function fields.

You will have an operative pictogram if you copy a valid DI No. or a valid text abbreviation from the **Direct input** input window to a pictogram. If there is a graphics symbol for the DI No. entered, then the graphics symbol will be displayed automatically when transferred to the pictogram page. If there is no graphics symbol, the DI No. is displayed in the pictogram.

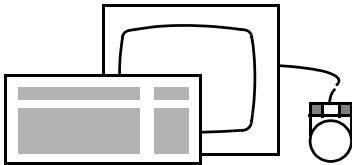
You call the **Direct input** input window using the <F12> softkey. For further explanation on the **Direct input** input window ➤ *Calling UMESS functions with direct input (DI) on page 6-21.*

You can enter up to eight characters in the input field of the **Direct input** input window.

In order to transfer the input from the input field to a pictogram page, you must position the cursor on the input field, press the right mouse button and keep it pressed. If you now move with the cursor from the **Direct input** input window, the cursor becomes an envelope symbol. Position the envelope symbol on the pictogram or function field you want to overwrite and click once with the right mouse button, the text is then entered from the input window into the pictogram or function field. If there is a graphics symbol for the DI No. entered, this is displayed in the pictogram.

Utilities for the pictogram pages

Function call



<Service>
<Pictogram pages>

<display> or
<switch to
background>

<horizontal> or
<vertical>

In the utility program **<Pictogram page>** you can select with:
whether the pictogram pages should be displayed or not,

whether the pictogram pages are to be displayed horizontally with 16 pictograms, or vertically with 12 pictograms.

If you have selected the horizontal representation with 16 pictograms, then you can also activate these 16 pictograms using the soft keys on the alphanumeric control panel. On the alphanumeric control panel both softkey levels (each with 8 softkeys) are assigned with the DI No. of the current pictogram page

<store>

<read>

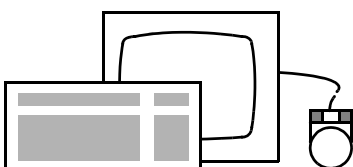
➤ *Storing pictogram pages on page 6-27*

➤ *Reading in pictogram pages on page 6-28*

Storing pictogram pages

After you have edited the pictogram page, you can store the current status of your pictogram pages in a file.

Function call



<Service>
<Pictogram pages>
<store>

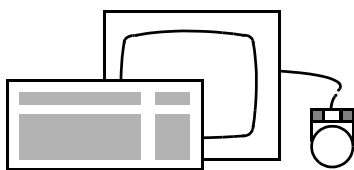
The **"Store pictogram pages"** window is displayed with the function call.

In the window **"Store pictogram pages"** you can enter a file name under which your individual pictogram pages are stored. All four pictogram pages are always stored in one file.

Reading in pictogram pages

You can recall (read in) the files stored with your personal pictogram page and display them in the **UMESS_W_Main menu**.

Function call



<Service>
<Pictogram pages>
<read in>

The window **"Read pictogram pages"** is displayed with the function call.

In the window **"Read pictogram pages"** you can select the file whose pictogram pages you want to have displayed. One file always contains 4 pictogram pages.

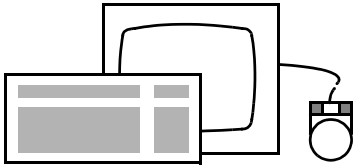
Pictogram page during system start

The pictogram pages you stored or read last are displayed again when UMESS UX is restarted (Storing pictogram pages ➤ *Reading in pictogram pages on page 6-28* ➤ *Pictogram page during system start on page 6-28*). In this way the pictogram pages you worked with last are available again as you left them, e.g. from the day before.

Setting colors and fonts

Setting colors

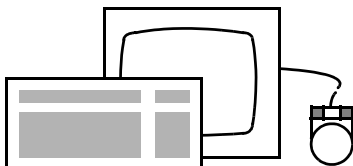
With the **<Colors>** program function you can temporarily set different colors for the foreground and background of the **UMESS_W_Main menu**.

Function call

<Service>
<Colors>

Setting fonts

With the **<Fonts>** program function, you can temporarily set different fonts and font sizes for the **UMESS_W_Main menu**, record, help texts, status texts and list window.

Function call

<Service>
<Fonts>

Dialog window under UMESS_W_Main menu"

The input masks in the dialog window are changed under the **UMESS_W_Main menu**.

The softkeys Grundmenü sind die Eingabemasken im Dialogfensterare arranged at the lower edge of the window.

You can now also activate the softkey functions by using the mouse. Position the cursor on the softkey desired and click once with the left mouse button.

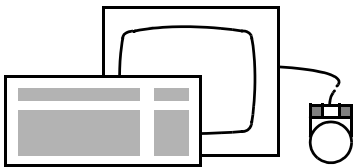
UMESS dialog											
CNC adm.: Start CNC run.				Cat name:		Catalog for MEAS library					
WP code				Workpiece name							
				Comment							
Start line		1		End line							
W-position											
Paper start		manual									
		or autom.		*							
Workpiece number		1									
* YES		NO		WP INFO		*		CATALOG		TERMIN	
BACK										INFO	

Macros are available for geometric elements under the **UMESS_W_Main menu**. In a macro different functions are comprised to one function unit.

Changing the language

If there are several languages stored on your computer in the language file, you can change the **UMESS_W_Main menu**, the dialogs and the records to one of these languages.

Function call



DI	or	menu
1662		<Record> <Mode> <Language/unit of measurem.>

For more details on the language setting see UMESS operating instructions.

With the function call, you immediately change the input masks in the dialog windows to the other language.

NOTE

So that you can use the **UMESS_W_Main menu** in the other language, you have to end the current measuring program (<DI 1003> or <UMESS End>) and restart.

The labeling of the four function fields for calling the pictogram pages and the pictogram pages do not change when the language is converted. If you want to change the pictogram pages and the corresponding function fields for the other language, then you can edit the pictogram pages and the applicable function fields correspondingly (► *Editing pictogram page on page 6-24*), store as new language **TableFile** ► *Storing pictogram pages on page 6-276* and read in after the language conversion (► *Reading in pictogram pages on page 6-28*).

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