SIEMENS

SINUMERIK 840 C OEM Version Windows
Remote Diagnostics
Host for MMC, Viewer for SINUMERIK

Planning Guide Edition 05.96

Service documentation

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SINUMERIK 840 C OEM Version Windows

Remote Diagnostics

Host for MMC,

Viewer for SINUMERIK

Planning Guide

Service documentation -

Valid for

Control	*Software release*
SINUMERIK 840 C OEM version Windows	5.4

Edition 05.96

SINUMERIK® documentation

Edition coding

Brief details of this edition and previous editions are listed below.

The status of each edition is shown by the code in the „Remarks“ column.

Status code in the „Remarks" column:

A .... New documentation.
B .... Unrevised reprint with new Order No.
C .... Revised edition with new status.
If factual changes have been made on the page since the last edition, this is indicated by a new edition coding in the header on that page.

Edition	Order No.	Remarks
05.96	6FC5163-0BX03-0AB0	**A**

Order No. 6FC5163-0BX03-0AB0
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Contents

Brief description

1

How does the remote diagnostics function?

From software release 5.4, the „Remote diagnostics host for MMC“ option is available for the SINUMERIK 840C OEM version Windows. With remote diagnostics, the control at the machine is connected to another PC via modem. The same display as at the control is displayed at the PC, which allows the control to be handled from that PC. The remote diagnostics includes the following functions:

- Remote control
- File transfer
- Chat, dialog

Remote control

The service support person (viewer) can directly and remotely control the machine. He can interactively handle the control (host) using the keyboard and mouse. Depending on the access level, the viewer can obtain the same functionality and the same display contents as the host.

File transfer

Files can be transferred between the PC and control system.

Chat

The chat function allows the operators at the PC and at the control system to communicate with one another. Both operators can simultaneously enter texts through a data input window, and read the messages from the other partner in a data output window.

Host 840C

For remote diagnostics, the control system is designated the ”Host 840C”. An appropriately designated software must also be installed on the MMC of the CNC.
The MMC-CPU must have 16Mbyte of RAM memory.
If the host software is activated, the control can be handled from the ”Viewer PC”.

Viewer 840C

The PC connected to the control is designated as ”Viewer for SINUMERIK”. The remote diagnostics software must be installed under Windows 3.1 /3.11 or Windows 95.

Modem

A modem is required with a minimum of 2400 baud (14400 baud is recommended).

Keyboard, mouse

A keyboard and a mouse should be available so that the remote diagnostics can be easily handled at the control. This simplifies text input in the chat

window. It is also possible to control the remote diagnostics with the control system keyboard.■

Detailed description 2

2.1 General information

2.1.1 General comments

Software

The remote diagnostics can be installed on a SINUMERIK 840 C OEM control system, Windows version using the supplied software, and can be integrated in the area changeover.

The software is supplied on floppy disks to install the remote diagnostics (disks 1 and 2), and a floppy disk (disk 3), which includes the software required to integrate the remote diagnostics into the SINUMERIK 840C OEM version Windows, in the form of a configuring tool.

The remote diagnostics and configuring tool are in English.

Help function

Comprehensive help functions are available to handle the remote diagnostics software at the viewer PC; it is handled the same as for Windows. There are other help files on the floppy disks
e. g. README.TXT, SIEMENDD.WRI, SIEMENSE.WRI.

Keyboard, mouse

The remote diagnostics at the viewer PC is handled using the keyboard and possibly the mouse. In order to be able to handle the control system more effectively (MMC) when service is required, a keyboard and possibly a mouse can be connected. Thus, the control system should be configured at start-up for hardware such as modem, keyboard and mouse. When service is required, the configuration for remote diagnostics does not have to be changed.

Note

It is only possible to control the viewer PC with a mouse, if a mouse is also installed on the SINUMERIK 840C (MMC).

Second telephone connection

A so-called chat window is available to permit communications between the operator at the machine and service personnel at the viewer PC. This window cannot be opened at the control (MMC) without the use of an additional MFII keyboard. It permits communications via text inputs. For more detailed service work, it is recommended that a voice communication is established using a second telephone.

Actions from the external PC (viewer)

All operations can be executed (softkeys) as if the operator was directly at the control system himself (MMC). It is not possible to use the machine operator control panel.

Caution

In order to activate the machine control panel functions, the viewer must instruct the operator the control via the CHAT function or the 2nd telephone connection. The operator at the control is exclusively responsible in ensuring that the instructions from the viewer may be executed without creating potentially hazard situations for man or machine. If an instruction cannot be safely executed, then the operator at the control system must absolutely reject this. The viewer cannot see the status of the machine and its relevant safety devices.

2.2 Hardware structure for remote diagnostics

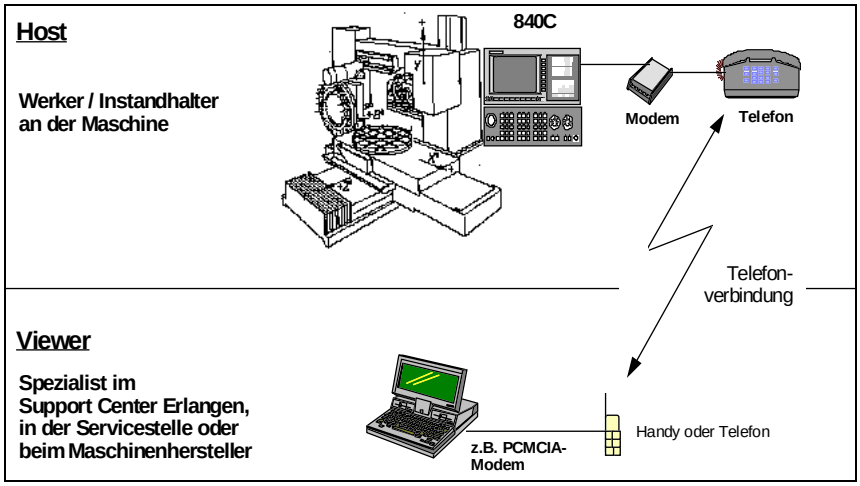

Fig. 2-1 Hardware structure for remote diagnostics

Hardware structure

The external PC and the CNC are connected to a modem via V24 interface. Both modems are connected with one another via a telephone cable.

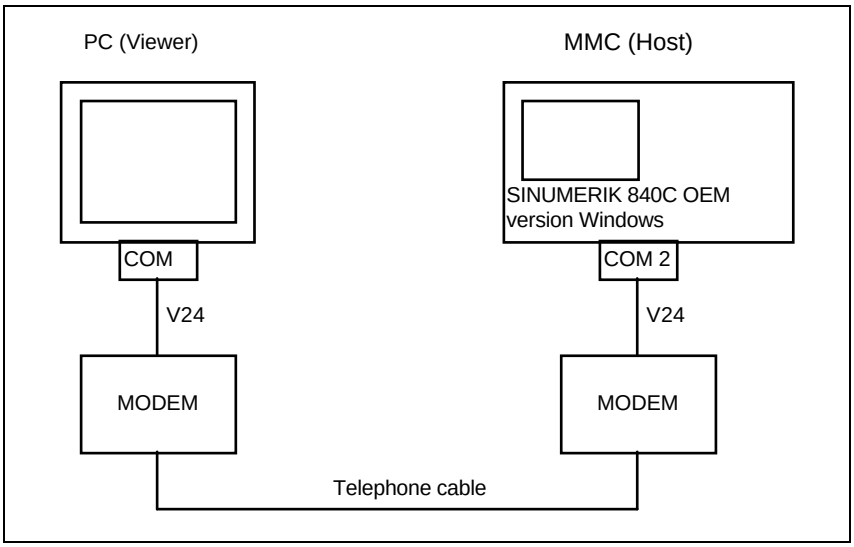

Fig. 2-2 Schematic hardware structure

PC (viewer) requirements

- IBM AT or 100% compatible PC, minimum Intel 386
- MS–DOS 5.0 and Windows 3.1 or 3.11, or Windows 95
- 4 MB RAM
- approx. 3MB memory on the hard disk to install the viewer
- VGA or SVGA display
- analog modem, connected e. g. at a V.24 interface

Modem requirements

A modem with a minimum of 2400 baud and the specific driver must be activated. In most cases the ”Hayes AT compatible” modem driver can be used. A modem with a minimum of 14400 baud is recommended.

Control system requirements (host)

- MMC-CPU 486 with 16 Mbyte RAM
- system software 840C OEM version Windows
- approx. 5MB memory on the hard disk to install the host and the 840C configurating software

2.3 Installing the remote diagnostics

The remote diagnostics can either be installed on a PC (viewer) as well as on a SINUMERIK 840 C OEM version (host).

2.3.1 Installing the remote diagnostics in the control system (host)

Installing the remote diagnostics software on the MMC

The host for MMC software package is available for the remote diagnostics option.
Order No. **6FC5 163-0BX03-0AB0**
The remote diagnostics software (ReachOut Host) is installed on the control system (MMC) using the attached installation program. At least one password must be entered when installing the program. This password must be documented, as it must be entered at the viewer PC after a connection has been established when executing remote diagnostics.
Remote diagnostics service, e. g. from a Siemens department, is not possible unless this password is known.
Note the password in the control system logbook.

Note

An MF2 keyboard should be connected to the control system to commission remote diagnostics.

Preparation:

Before you install the remote diagnostics software on your PC, please observe the following:

- Remove all other remote control software from the PC
- If you use a modem, ensure that it is correctly configured and connected to the telephone network.
- Note down the modem type, model No., data transfer rate
- Connect the modem to the COM2 interface of your control.

Install.exe

The software package for the remote diagnostics on the PC includes the ”ReachOut Host” tool. The tool can be set-up under Windows on the control system as follows using the attached Install.exe installation program:

1. Insert floppy disk 1 of the remote diagnostics into drive A:
2. Select ”Execute” under the file in the program manager
3. Enter A:\INSTALL
4. Then actuate OK
5. Proceed according to the installation instructions.

If you require help during installation, then click-on the help symbol. The help function is available at each step.

Note

When the SINUMERIK control system runs-up, Windows with SINUMERIK 840 C OEM version Windows environment is automatically started. In order to access the Windows file manager, the password must be entered, and the *„File manager“* menu item in the *„Services“* menu selected.

Installations menu

When installing the remote diagnostics, the operator is asked in which directory he wishes to install the software. The **c:\reachout** directory is offered as standard.

Change this into **C:\OEM\REACHOUT**.

This path is in the back-up path for USER data. Thus, simple back-up is available.

!

Important

For data integrity reasons, it is **NOT** permissible to install the remote diagnostics in one of the system directories (e. g.: **c:\windows**, **c:\mmcwin, c:\tools, c:\mmc.001**.).

Note

The directory, in which the remote diagnostics was installed, must always be documented in the SINUMERIK logbook or as dedicated document at the machine, even if this was the same as the standard setting.

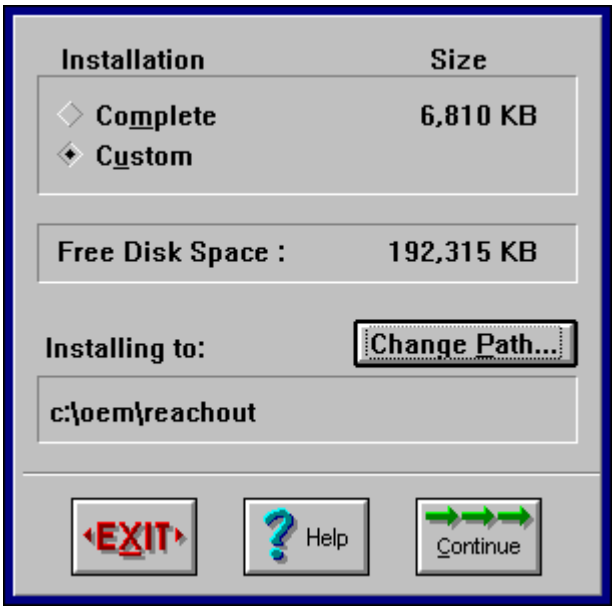

Fig. 2-3 Installation menu

6FC5163-0BX03-0AB0

Custom

Select the installation form „Custom“ and activate the control box „Windows Host“ as well as „Modem“.De-activate the control box „Windows Viewer“ and „DOS Viewer“, as these components are not required at the control system. You should install the DOS host, if you also wish to access the DOS level of the control system.

Fig. 2-4 Custom

Copying files to the MMC

After the settings have been made in the „Custom“ form, the remote diagnostics directory is generated on the MMC, and the files are copied.

When installing, you will be prompted to insert floppy disk 2:

- Remove floppy disk 1 from the drive and insert floppy disk 2
- Acknowledge this

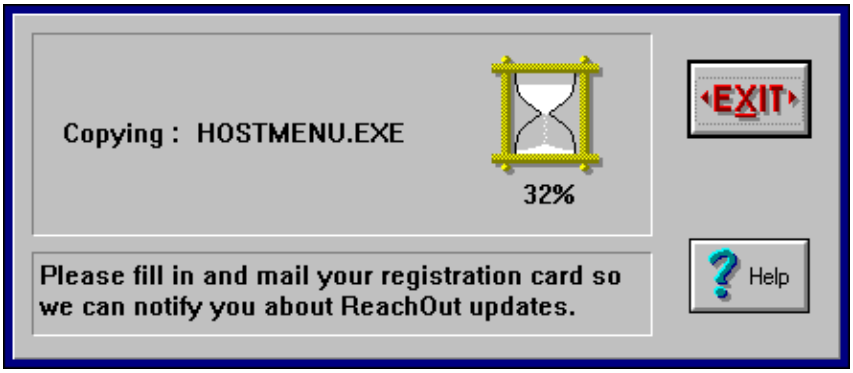

Fig. 2-5 Copying files on the MMC

Connection type

The connection type is selected here. „Modem“ is pre-set as standard.

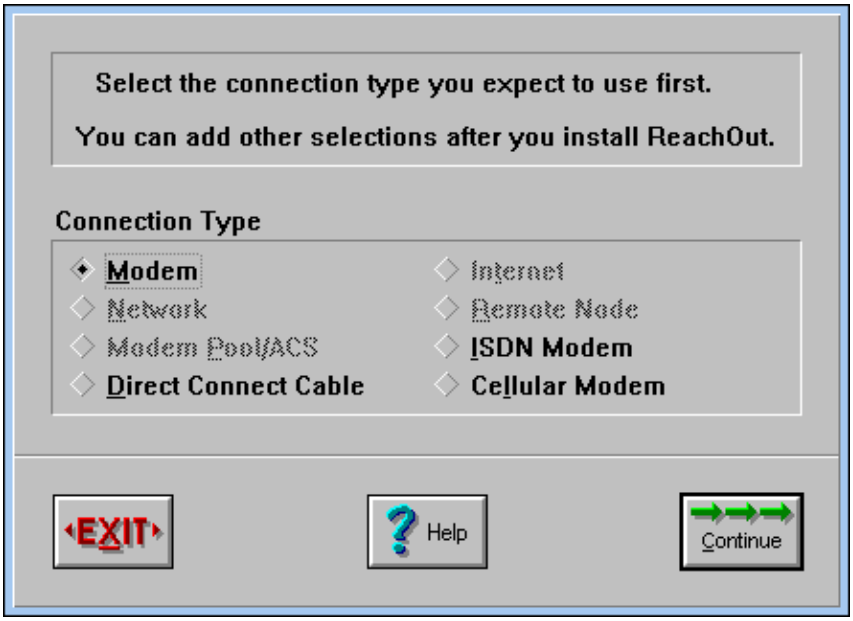

Fig. 2-6 Connection type

Host identification name

A unique identification name must be assigned to the host. This name is displayed when the connection is established at the PC (viewer).

Example: SINUMERIK_840C_machine123

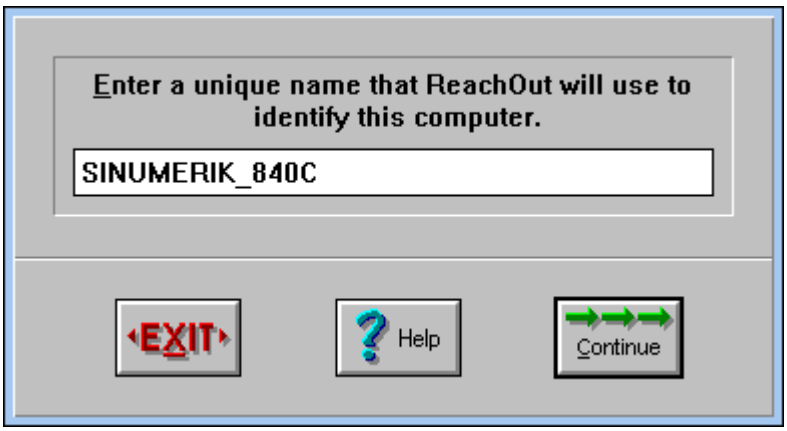

Fig. 2-7 Host identification name

Communications port

Activate the control box with the interface No. to which your modem is connected. Select interface COM2.

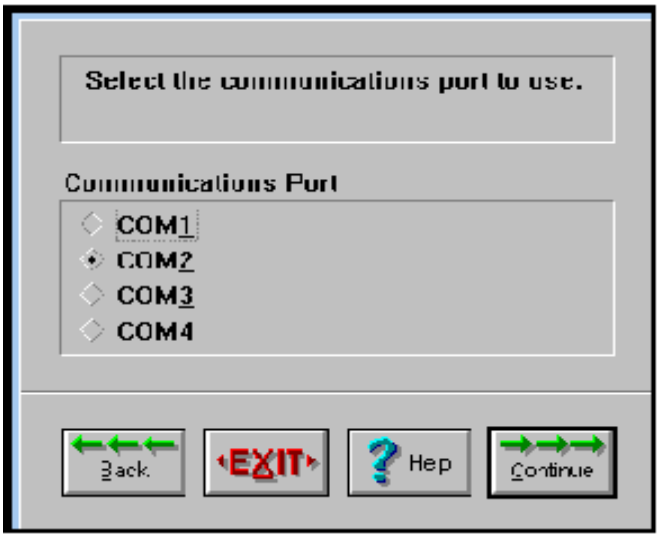

Fig. 2-8 Communications port

Modem type

Select the modem which you have connected in this menu.
If your modem doesn't appear in the list, then generally the "Hayes AT compatible" modem driver can be used.
Also refer to your modem Instruction Manual.

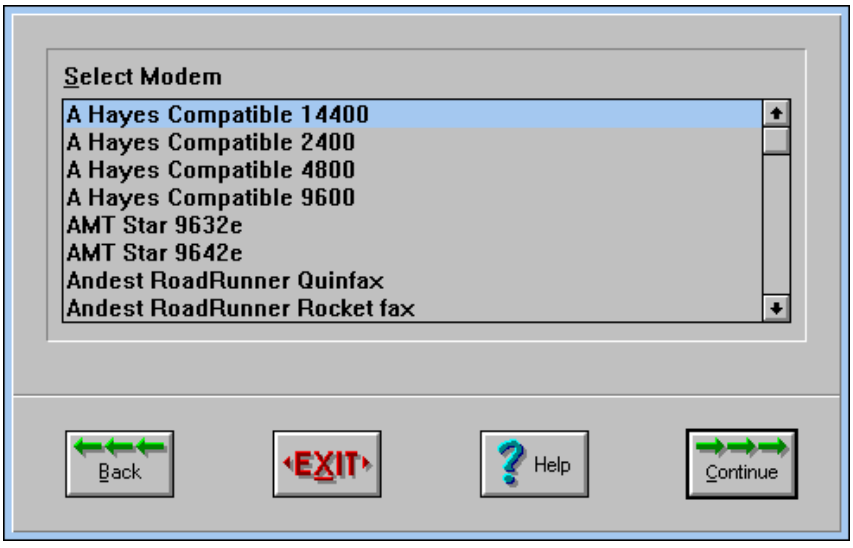

Fig. 2-9 Modem type

Automatic start

Note

When installing the remote diagnostics software, you will be asked whether you wish to include the remote diagnostics in the autostart group of the Windows system. You **must** respond with no to this question. Remote diagnostics must be explicitly activated using the specific menu item (refer to Section 2.4 *„Integrating the remote diagnostics“)*. If the remote diagnostics was to be set-up within the autostart group, then Windows system files would also be manipulated. Thus, there would then no longer be a clean demarkation between the remote diagnostics and the standard system!

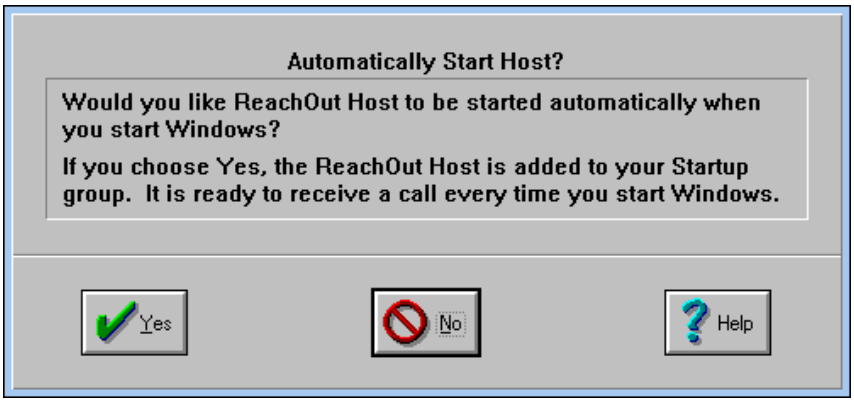

Fig. 2-10 Automatic start

Password

At least one password must be entered when the software is being installed. Please document these passwords in the control system logbook, because it must be entered when establishing remote diagnostics on the viewer PC after a connection has been established. Remote diagnostics is not possible without entering a password. The software must be re-installed if the password has been lost.

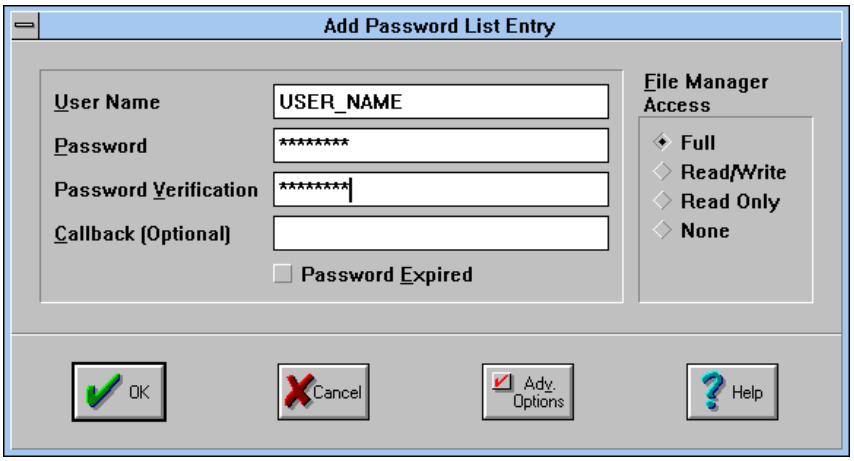

Fig. 2-11 Password

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End of the installation

You will be informed when the software has been successfully installed. Now return to Windows and integrate the remote diagnostics functionality. (Refer to Section 2.4 „Integrating remote diagnostics“).

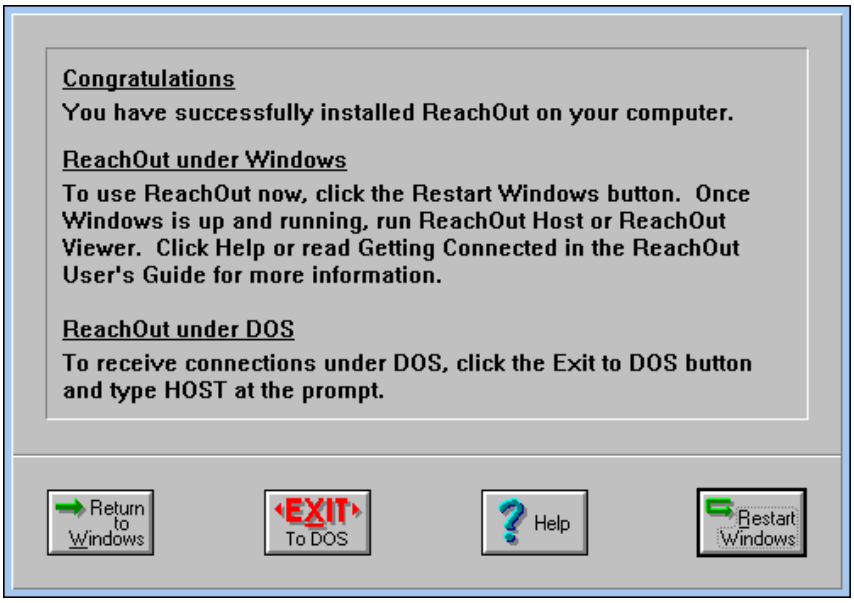

Fig. 2-12 End of installation

Configuring the modem

The modem is adapted to the control system using the ”Configuration, remote diagnostics” tool in the services menu item (refer to Section 2.6 ”Configuring the modem“)

2.3.2 Installing the remote diagnostics software on the PC (viewer)

Preparation

Please note the following before installing the remote diagnostics software on your PC:

- Remove any other remote control software from the PC
- If you are going to use a modem, please ensure that it is correctly configured and is connected to the telephone network.
- Document the modem type, model No., data transfer rate
- Determine which V24 interface the modem is connected (e. g. COM1 or COM2).

Install.exe

The optional „Remote diagnostics viewer for SINUMERIK“ package,
Order No.: 6FC5 260-0FX16-0AB0
for remote diagnostics with the PC includes the ”ReachOut Viewer” tool.
The tool can be set-up under Windows on the PC as follows using the install.exe installation program on the floppy disk.

1. Insert floppy disk 1 of the remote diagnostics into drive A:
2. Select ”Execute” under file in the program manager
3. Enter A:\INSTALL in the command line.
4. Then depress OK.
5. Follow the other instructions to complete installation.

If you require the help function during installation, then click on the help symbol. The help function is accessible at every step.

Installation menu

When installing the remote diagnostics software you are asked in which directory you want to make the installation. The **c:\reachout** directory is offered as standard.

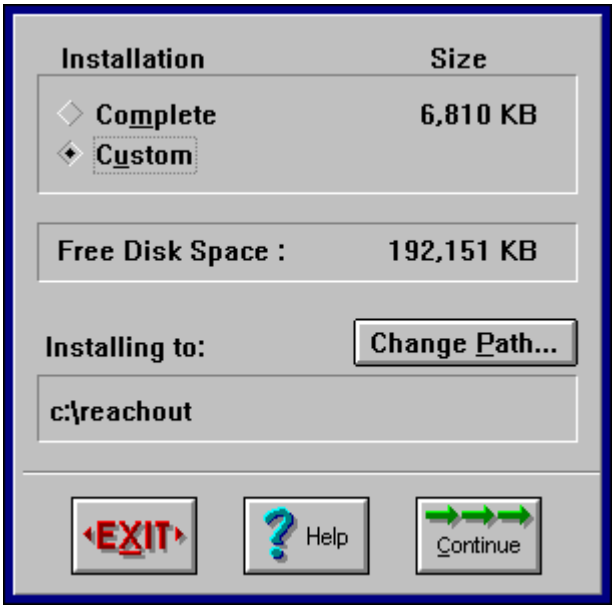

Fig 2-13 Installation menu

Custom

Select the „Custom“ installation form and activate the control box „Windows Viewer“ as well as „Modem“, „Modem Pool“ or „Network“ depending on the PC configuration. De-activate the control box „Windows Host“, „DOS Host“ as these components are not required on the PC. If you also wish to use the viewer at the PC DOS level, then you should also activate the „DOS Viewer“ control box.

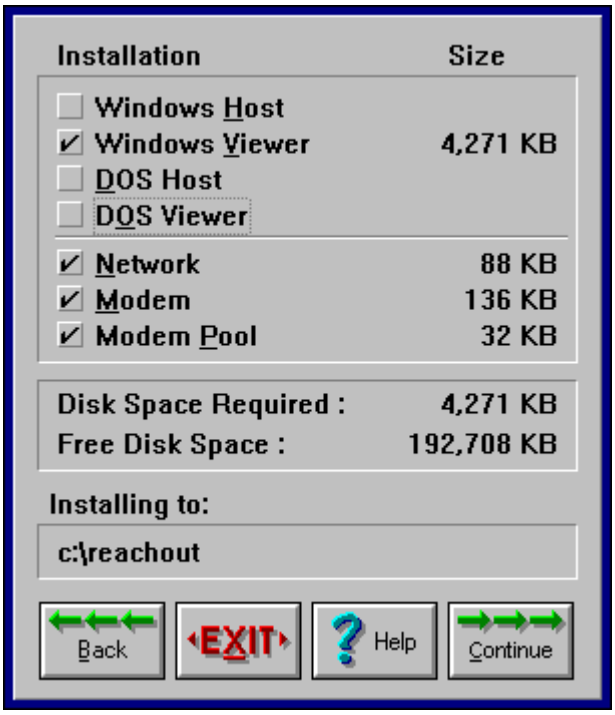

Fig. 2-14 Custom

Copy files to the PC

After the settings were made in the „Custom“ display, the remote diagnostics directory is set-up on the PC, and the files copied into this directory.
During installation you will be asked to insert disk 2:

- Remove disk 1 from the drive and insert disk 2 •
Confirm this

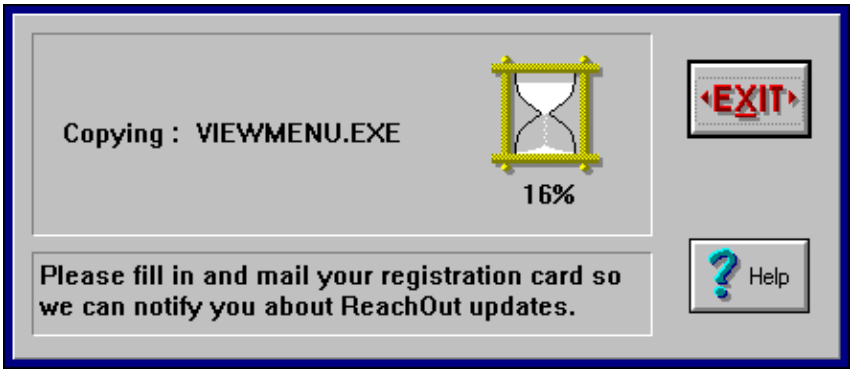

Fig. 2-15 Copying files to the PC

6FC5163-0BX03-0AB0

Connection type

The connection type is set here. „Modem“ is pre-set as standard.

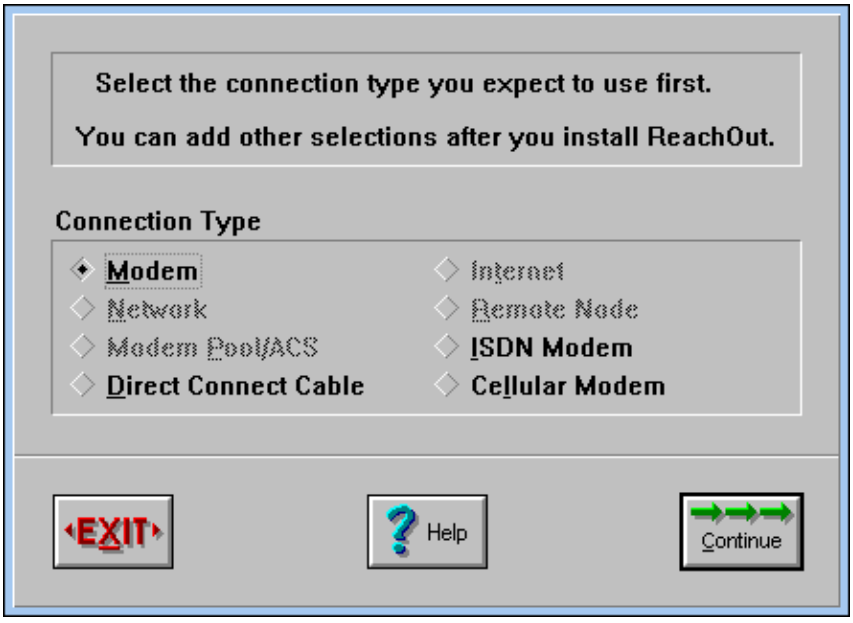

Fig. 2-16 Connection type

Viewer identification name

A unique identification name must be assigned for remote diagnostics. This name is displayed at the control system (host) when the connection is being established. Example: „Viewer-PC1 remote service“.

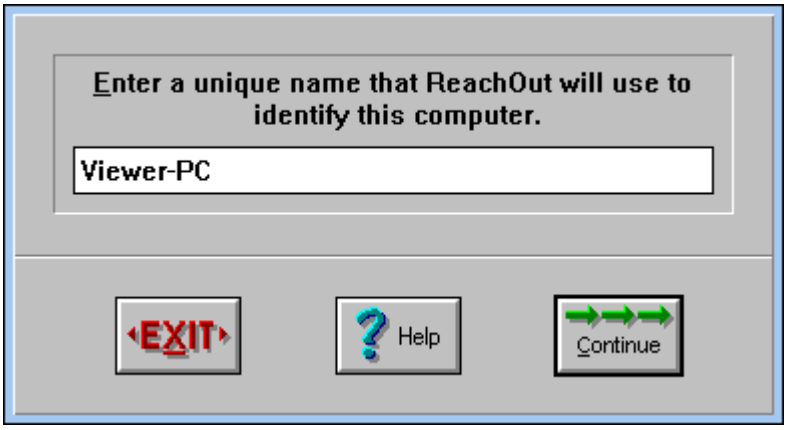

Fig. 2-17 Viewer identification name

Communications port

Activate the control box with the interface No. to which your modem is connected.

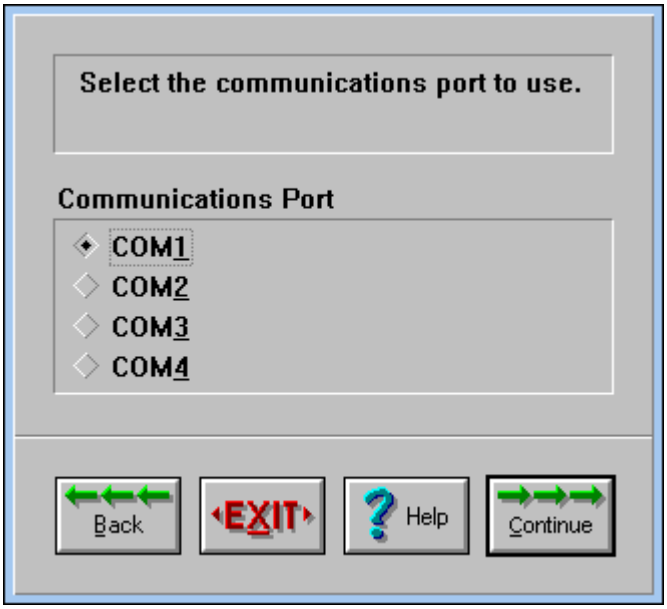

Fig. 2-18 Communications port

Modem type

Select the modem which you have connected in this menu.
If your modem doesn't appear in the list, then generally the "Hayes AT compatible" modem driver can be used.
Also refer to your modem Instruction Manual.

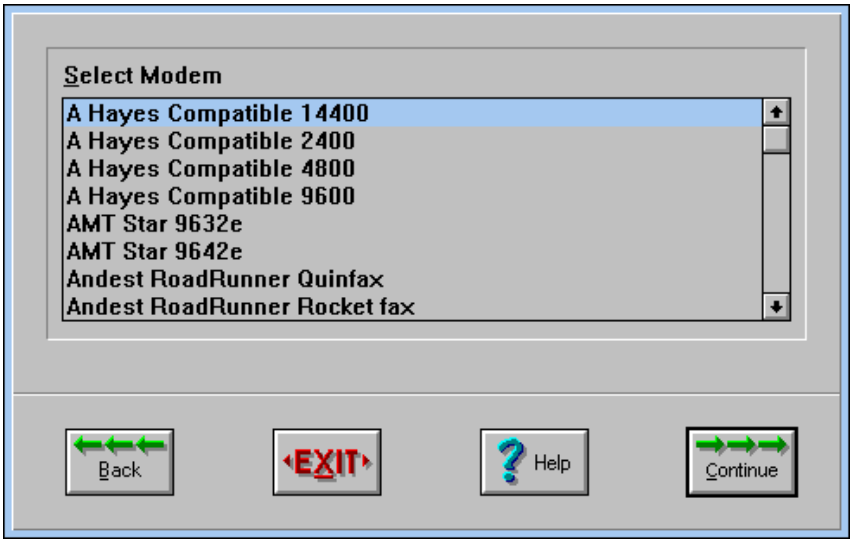

Fig. 2-19 Modem type

6FC5163-0BX03-0AB0

End of the installation

You are informed when the software has been successfully installed. Restart Windows and then the remote diagnostics software can be started.

Fig. 2-20 Installation end

Configuring the modem

The modem is adapted to the PC using the ”Configuration” tool. (Refer to Section 2.6 ”Configure modem “)

1. Start ”Configuration” by clicking twice on the symbol.
2. Select the connection type (modem).
3. If the master password dialog box appears, enter the password you assigned and depress OK.
4. Enter the COM number (COM1,2), baud rate and modem type into the next ”ReachOut Configuration” window. Click on the ”Advanced Settings” symbol for further modem driver settings.
5. Close the window with OK.

2.4 Integrating the remote diagnostics software

2.4.1 Integrating the remote diagnostics on a PC

If the remote diagnostics software was installed on a PC, then no further steps are required for integration. A program group was automatically generated during installation. The remote diagnostics software can be simply started by clicking on the symbol.

2.4.2 Integrating the remote diagnostics software into the SINUMERIK 840 C OEM version Windows control system

Integrating the remote diagnostics into the area changeover

The remote diagnostics is integrated in the control system as host. This means, that it involves the passive part of the remote diagnostics software. Two parts must be integrated into the system in order to control the remote diagnostics:

- on one hand it involves the host software itself,
- on the other hand this is the configuration application of the remote diagnostics. Remote diagnostics settings can be manipulated using this functionality, e. g. the data transfer type (modem, ISDN ...).

The host software should be integrated into the **„Diagnosis“** area, and the configuration application of the remote diagnostics in the **„Services“** area, as menu item. In this case, the **„Configuration SINUMERIK 840 C Task Switch Area“** configuration tool (disk 3) should be used.

Note

An MF2 keyboard should be connected to the MMC to commission the remote diagnostics.

Install.exe

After the remote diagnostics software has been successfully installed, as described in Section 2.3 *„Installing the remote diagnostics“*, this is integrated into the control system using the **install.exe** installation program, which is on floppy disk 3 **„Teleservice host for MMC“**. The installation program makes the global changes in the files of the numerical control, required for the remote diagnostics.
In addition, the configuration tool is started in order to allow the operator to carry-out the specific integration as described in the following.
The configuration tool is permanently installed in the control system so that subsequent changes can be made regarding the integration of the remote diagnostics (delete, other service languages etc.).

The following dialog box appears after **install.exe** has been called-up:

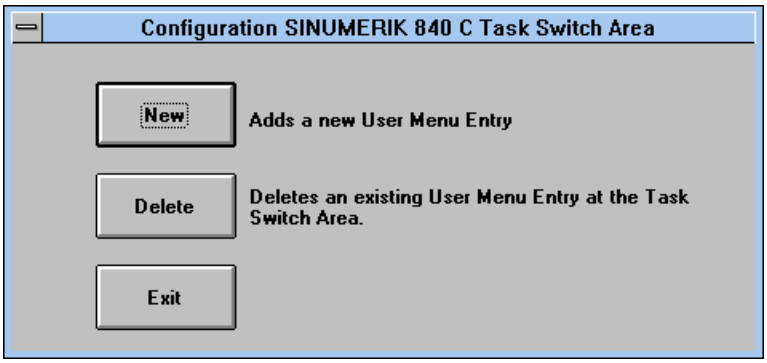

Fig. 2-21 Selection menu, configuration tool area changeover 840C

The input mask to integrate an application into the area changeover of SINUMERIK 840C OEM version Windows can be called-up using the „New“ softkey. When „Delete“ is selected, an input mask is displayed, in which menu items, defined by the user, can be deleted in the system.

2.4.3 Inserting a menu entry

The following input mask with input groups is displayed after „New“ has been selected:

- Select language
- Options
- Select area
- Program

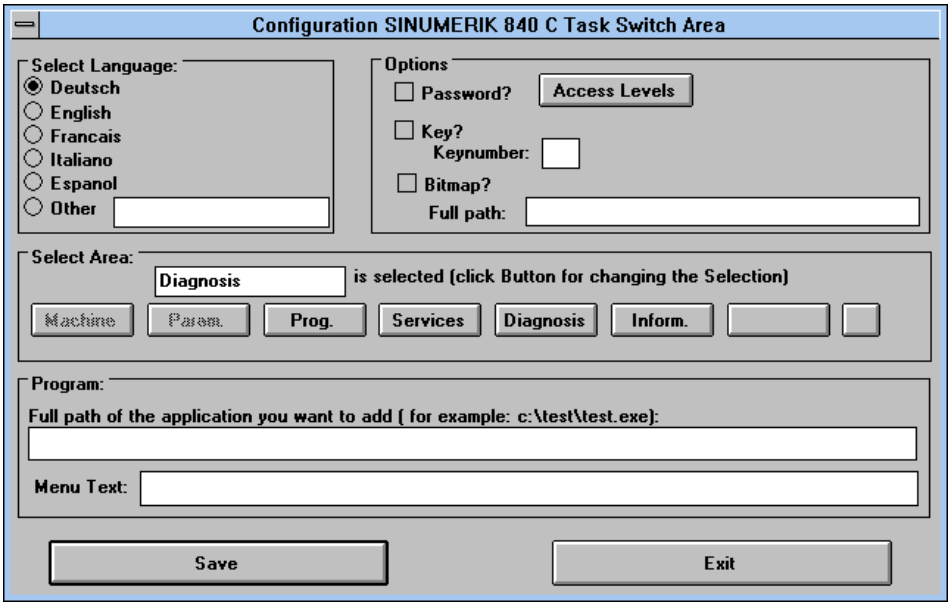

Fig. 2-22 Integrating an application into the area changeover

The user can define as to how the software is to be integrated into the control system by making appropriate inputs in the input groups.

The possible inputs and manipulation possibilities are described in the following.

Select language

This is used to specify in which language version the software is to be integrated. This is important for two reasons. On one hand, a language-specific menu text (refer to *input group, program*) can be specified, and on the other hand, it is possible to selectively select options in specific languages (the language of the service personnel). 5 standard languages are available. If a language, deviating from the standard is used, e. g. Portuguese, then other should be selected and the designation of the associated language directory, e. g. portugue should be entered in the input field.

Options

Options is used to specify as to whether the application is assigned a password or key switch inhibit function, or, instead of a menu text (refer to the input group, program), a bitmap is displayed as symbol. When activating a symbol display, the complete path of the bitmap file *.bmp should be entered in the input field. Also when activating the key switch inhibit function, the key switch position must be specified in the associated input field. If a password is required, then the user can determine which password levels (1-6), should enable the application (Fig. 3).

Fig. 2-23 Password levels

One or several password levels should only be selected, if several password levels were configured for the MMC system of the control. Only one password level is available as standard. A detailed description of the possible alternatives can be taken from the *„User Guide of SINUMERIK 840C OEM version Windows“*.

Select area

This specifies behind which softkey the area changeover, program group, application, is to be integrated. Only the appropriate button must be selected; the selection is displayed in an output window. Normally, the „**Diagnosis**“ area should be selected.

Program

The path, including the program name and the application to be integrated should be specified in the first input field of the „Program“ input group. A menu text is entered in the second input field, behind which, when the program group is selected via the area changeover, the application is located. If a bitmap symbol is selected (refer to *input group „Options*“), then a menu text should be assigned, as the area changeover of the control when a fault condition would develop would display the text (erroneous bitmap file, memory problems).

Save & exit

When the „Save“ softkey is actuated, the inputs are transferred and the system files updated. The configuration tool is terminated with „Exit“.

For a standard configuration and assuming that the software of the remote diagnostics was installed under c:\oem\reachout, the remote diagnostics software should be integrated with the configuration tool with the followingly listed settings:

	Host software	**Configuration software**
Select Language:	Dependent on the current service language.	Refer to host software
Options:	Only the password protection should be activated (no password levels).	Refer to host software
Select Area:	Diagnosis	Services
Program:	Path: **c:\oem\reachout\hostmenu.exe** Menu text: Depends on the current language, recommended: Remote diagnostics	Path: **c:\oem\reachout\setup.exe** Menu text: Depends on the actual language, recommended: Configuration, remote diagnostics

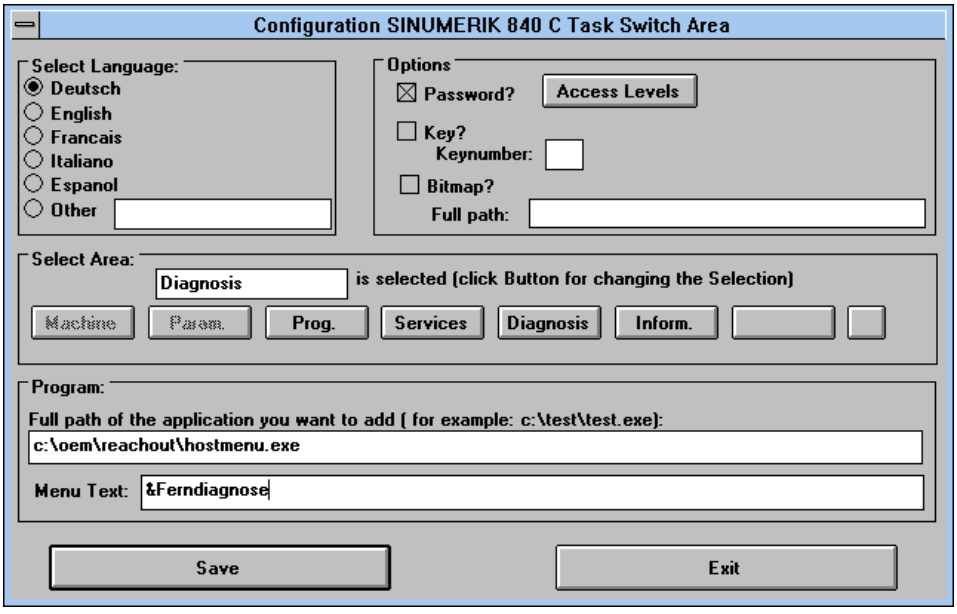

Fig. 2-24 Example, host software integration

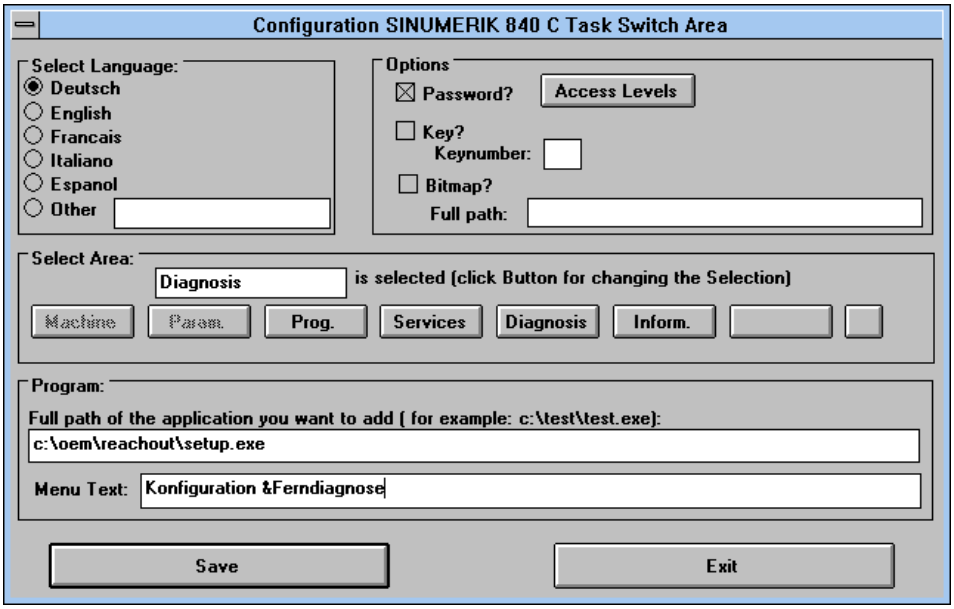

Fig. 2-25 Example, configuration software integration

Note

If the integration of the applications is to be changed, the current application should be removed from the area changeover using „Delete“, and then re-installed using „New“.

Directories and files

The following files / directories are manipulated or generated.

- **c:\oem\<language directory>\oem.bat** = batch file, is run when the control system runs-up, and ensures that the changes are transferred into the numerical system when the DOS tools mixmen and mixer are called-up.
- **c:\oem\<language directory>\oem.org** = original version of the file oem.bat; if there is no **oem.bat** available when installation is started, **c:\oem\aconfig\empty.org** is copied to **oem.org**. This file only contains an info, that no oem.bat existed before installation.
- **c:\oem\<language directory>\oem.sav** = if an **oem.org** file is already available when installing, the current version of **oem.bat** is saved to oem.sav.
- **c:\oem\<language directory>\sin840c.ini** = global changes for the remote diagnostics. These changes are automatically integrated into the numerical system files using the mixer DOS tool when the control system runs-up.
- **c:\oem\oem.bat** = oem.bat of the active language.
- **c:\oem\sin840c.ini** = sin840c.ini of the active language.
- **c:\oem\mixmen.exe** = DOS tool to integrate menu items into **c:\mmcwin\ps\regie.ini** of the numerical system. The file regie.ini is available as before, in the appropriate language directory **c:\mmcwin\pc\<language>**.
- **c:\oem\aconfig** = the configuration tool is installed in this directory.

- **c:\oem\aconfig\aconfig.exe** = configuration tool of the area changeover.
- **c:\oem\aconfig\mixmen.exe** = s. c:\oem\mixmen.exe.
- **c:\oem\aconfig\empty.org** = location saver for the original file **oem.org.**
- **c:\oem\aconfig\install.ini** = ini file to install the remote diagnostics software. This file is only required to install the remote diagnostics using **install.exe**. It specifies for which languages, the global changes must be made in the numerical system files.

If an additional language is to be integrated after successful installation, then the changes described in the installing file should be manually modified in the language directory. Presently, standard languages include German, English, French, Italian and Spanish.

Note

For service, the original status of the operator control interface can be re-established by simply re-naming the file **oem.bat** and by copying the original **regie.ini** file.

2.4.4 Deleting a menu entry

An application, integrated in the area changeover of SINUMERIK 840C OEM version Windows, can be removed using „Delete“ (e. g.: If for instance the software was incorrectly installed, or if the remote diagnostics software was only temporarily installed). The following mask appears after „Delete“ has been selected:

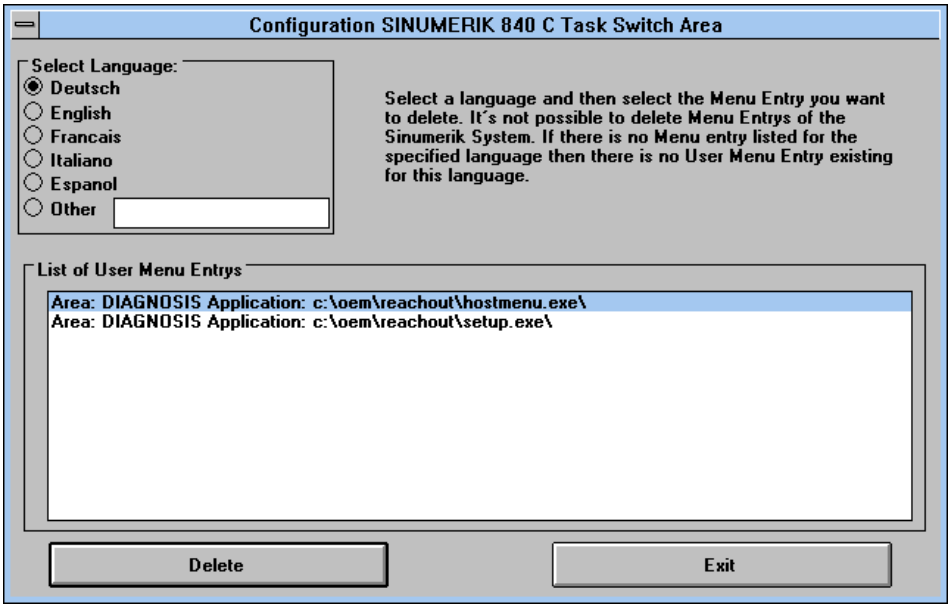

Fig. 2-26 Deleting a menu item

In the input mask, the language is selected, which is required to process the area changeover. All additional menu entries of the area changeover are now displayed in the list box, which were entered into the system using the configuration tool for this particular language. The operator selects the menu item to be deleted (in the above example, this would be the host software) and then actuates „Delete“. The line disappears from the list box after processing.

Files

The following files are manipulated.

- **c:\oem\<language directory>\oem.bat** = batch file is run when the control runs-up, and ensures that the changes are transferred into the numerical system when the DOS tools mixmen and mixer are called-up. The appropriate mixmen call of the application which was removed, is commented
- **c:\oem\<language directory>\oem.sav** = the current version of **oem.bat** is saved to oem.sav.
- **c:\oem\oem.bat** = oem.bat of the active language

2.5 De-installing the remote diagnostics

De-installing on the PC

To de-install the remote diagnostics from the PC, the *„Deinstall“* icon should be selected in the ReachOut program group.

De-installing on the control

The remote diagnostics in the control system can be de-installed by running the **remove.exe** program, which is part of the remote diagnostics software. **remove.exe** is in the installation directory of the remote diagnostics for the standard installation **c:\reachout**.

To remove the menu items *„Remote diagnostics“* and *„Configuration, remote diagnostics“*, the **c:\oem\aconfig\aconfig.exe** configuration tool should be used, and the *„Delete“* function executed, as described in Section 2.4.4 *„Delete menu entry“*.

Note

The **remove.exe** and **aconfig.exe** applications are started from the Windows file manager

2.6 Configuring the modem

Configuring the modem

To change the configuration, the appropriate password must be activated in the control system. You can open a configuration menu using the menu item, under *services / configuration remote diagnostics*. You can select the connection type here. If you require help, simply select "? Help".

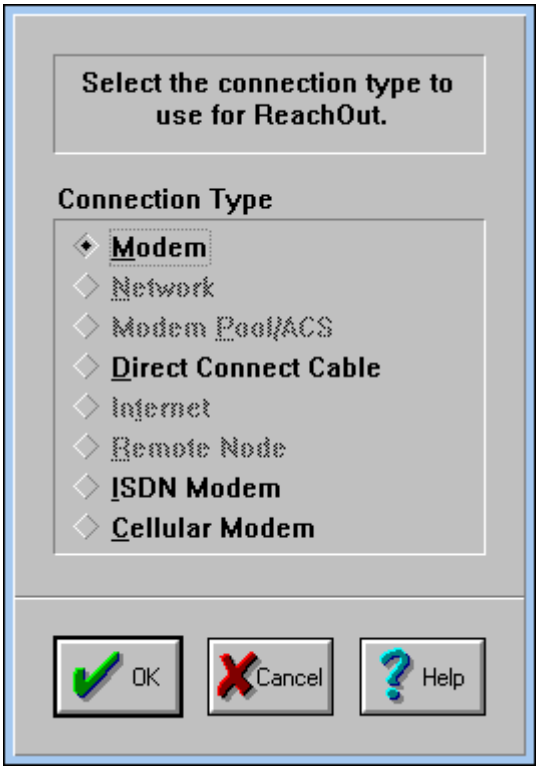

Fig. 2-27 Display to select the connection type „Connection type"

Select "Modem" and confirm with "OK". You now enter the ReachOut configuration display.

ReachOut configuration

You can set the following in the ReachOut configuration display:

- V24 interface (COM1, COM2, ...)
- Baud rate
- Modem type (modem driver)
- Computer name

If you made the settings, select "OK" to close, or "Advanced Settings" to make additional modem settings.

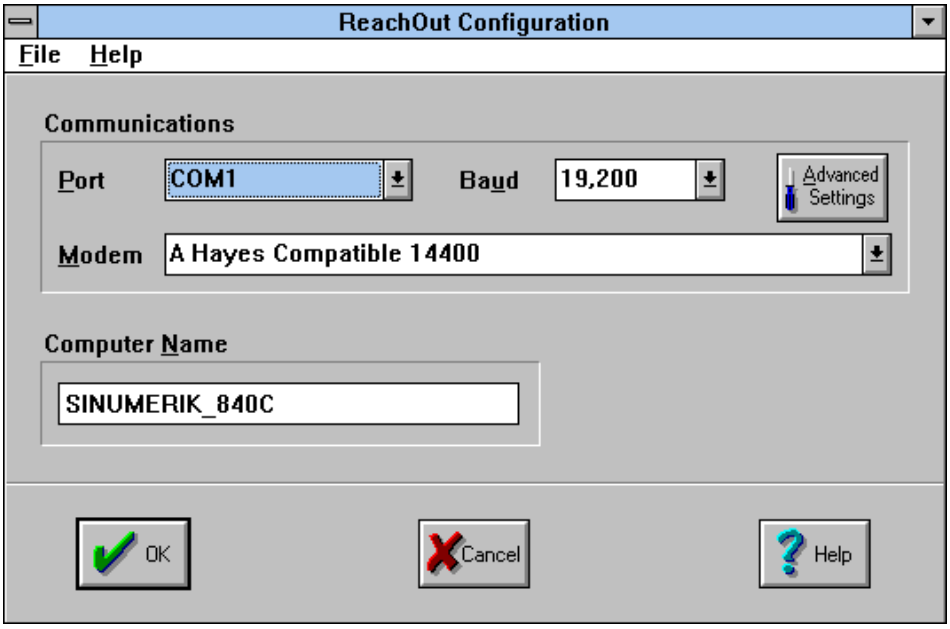

Fig. 2-28 ReachOut Configuration (communication settings).

Advanced settings

Additional modem settings can be selected here. For example, for the prefix: tone or pulse dial, ATDT is tone and ATDP is pulse dial. A detailed description is provided under "?Help". Confirm with "OK" in order to close the window or select "Modem Config" to configure the modem driver.

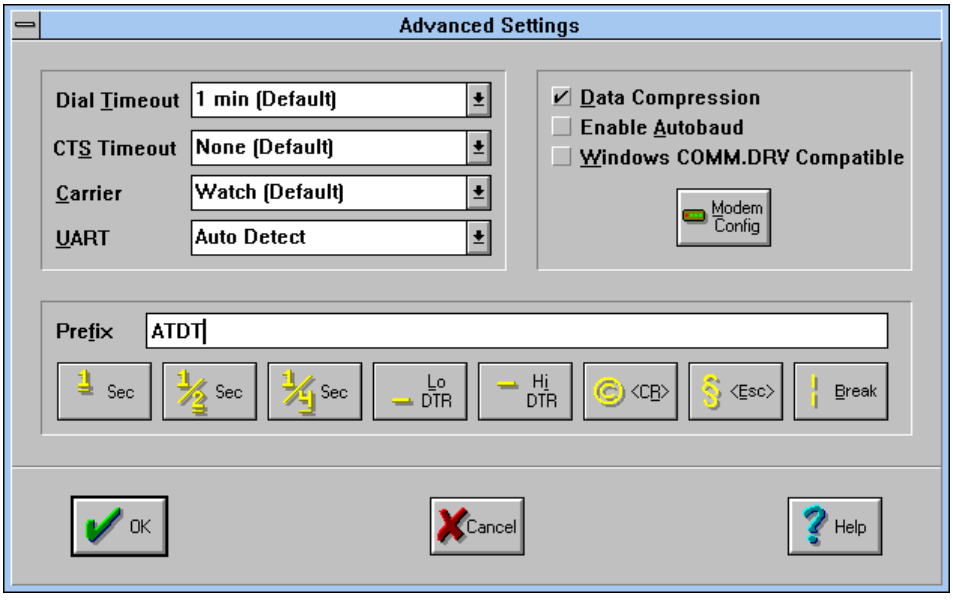

Fig. 2-29 Advanced settings

ReachOut modem editor

If you selected the ”Modem Config”, a select window appears with modem driver. Select your modem driver and acknowledge with ”Edit”. If you require help, select ”?Help”.

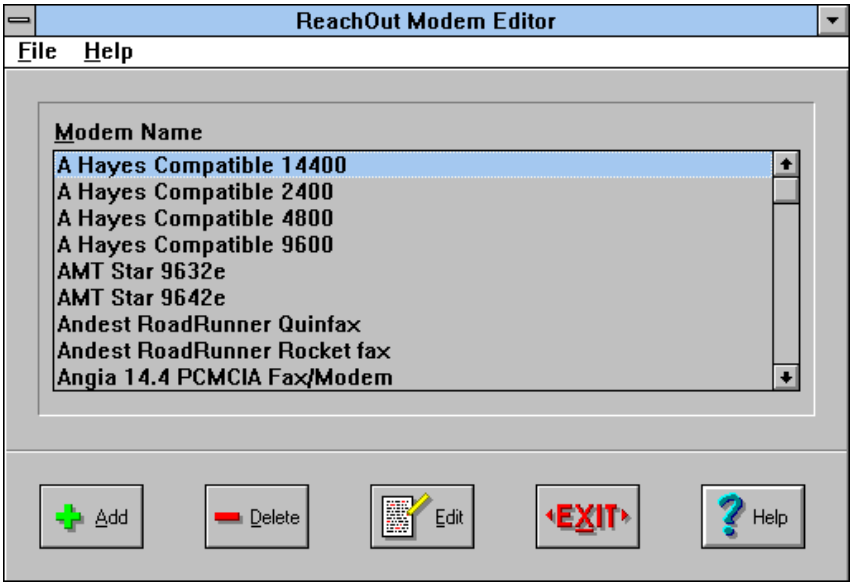

Fig. 2-30 Selecting the modem driver to edit „ReachOut Modem Editor“

Edit modem entry

In the ”Edit Modem Entry” display, you can set the reset–, answer– and hangup–string. Confirm your changes with ”OK”.

If you are connect through a **telephone switchboard**, replace the character **X4** in the reset string by character **X3**.

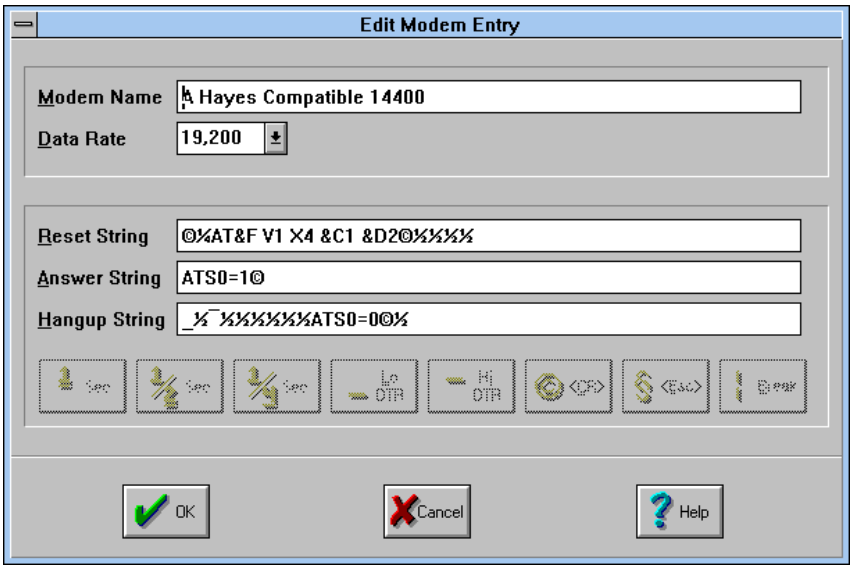

Fig. 2-31 Editing the modem driver in the „Edit Modem Entry“ display.

6FC5163-0BX03-0AB0

2.7 Establishing a telephone connection

Preparations at the control system

If the remote diagnostics has been completed on the control system, the ”remote diagnostics” softkey is available under the diagnostics menu.

- connect the modem to the MMC (COM 2) and to the telephone line.
- actuate the ”Remote diagnostics” softkey.
- the ”ReachOut Host” remote diagnostics has now been started, and waits for a connection to be established with the viewer PC.

Preparations at the viewer PC

- connect the modem at the PC port COM1 or 2. Check whether the modem is also connected with the telephone line.
- start Windows.
- open the ReachOut window.
- check the modem configuration using the configuration tool.

Establishing a connection

If you have made all of the preparations at the viewer PC, establish the connection as follows:

- start the ”ReachOut Viewer” program in the ReachOut window.
- then click on remote control.
- select the telephone No., and add with ”Add” and close the window using ”OK”.
- the ReachOut logon status window is displayed. The connection is now established.
- once the connection has been successfully established, you will be prompted to enter the control system ”Password”, which was assigned during installation.
- after a password has been entered the control system is displayed on your PC screen. You can now control the control system using keyboard and mouse.

2.8 Viewer PC functions

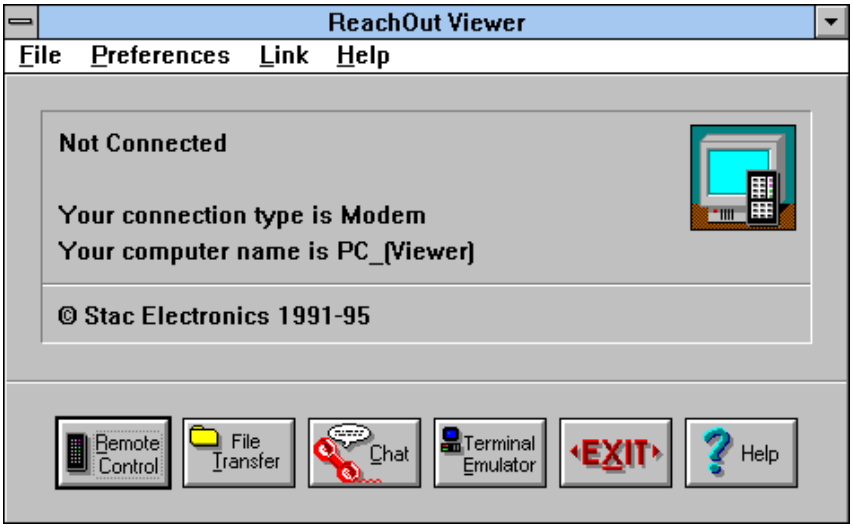

Fig. 2-32 Selection display with the ReachOut viewer functions

2.8.1 Remote control

MMC operator control

In the "Remote Control" mode you can see the screen contents of the control on your PC screen and also control the MMC with mouse and keyboard. The softkeys can either be activated by clicking on them twice with the mouse, or using the function keys. For the horizontal keys, F3 to F9 corresponds to SK1 to SK7, recall is F2 and the operator control changeover is F11. The vertical softkeys are reached from the top, with shift + F3 to shift + F9. All of the areas which can be reached using the MMC keyboard, can be controlled from the viewer PC. The machine operator control panel cannot be controlled.

Note

Please refer to the *„Instruction Manual SINUMERIK 840 C OEM version Windows"* for the complete range of operator control elements of the full keyboard.

Abort connection

If you wish to abort the connection, depress shift left + shift right. The ReachOut viewer mask is displayed. Select the disconnect symbol and confirm the abort in the next window. However, the control remains in the receive condition, so that the telephone connection can be re-established again.

2.8.2 File transfer

What does file transfer do

Files can be transferred between the viewer PC and the control system using the file transfer function. In this case, the viewer PC is designated as LOCAL and the MMC as HOST. The data transfer speed is approx. 6–8min for 1 Mbyte, at 9600 baud.

Aborting the function

You can re-access the ReachOut viewer selection display using the key combination shift left + shift right.

2.8.3 Chat

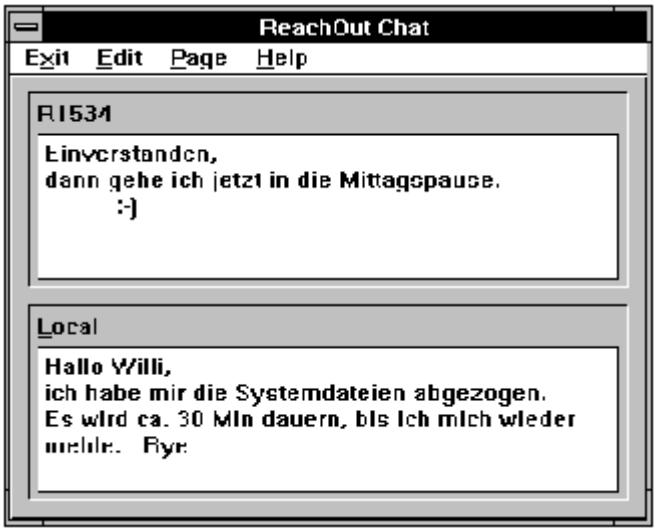

Fig. 2-33 Chat function

Chat window

Both operators can simultaneously communicate with one another using text entries via a so-called chat window. Thus, operators can communicate messages and information without a telephone.

Aborting the function

The chat window is closed using exit.

2.8.4 Terminal emulation

This function is not required for remote diagnostics.

2.8.5 Exit

You exit the menu using EXIT. The program is only terminated if the telephone connection was previously interrupted.

2.8.6 Help

A comprehensive help menu is available at every operator control step.

2.9 Secondary conditions

If the remote diagnostics was configured for modem, and if communications cannot be established when the remote diagnostics is started, the following message is displayed:

„You are attempting to run setup from within Windows .....
To quit setup press F3
F3 = Exit“

The message must be acknowledged using F3. The error can be caused by the following:

- the modem is powered-down.
- there is no connection between the modem and control system.
- there is no connection between the modem and the telephone line socket.

Before calling up the remote diagnostics again, the error cause has to be eliminated.

■