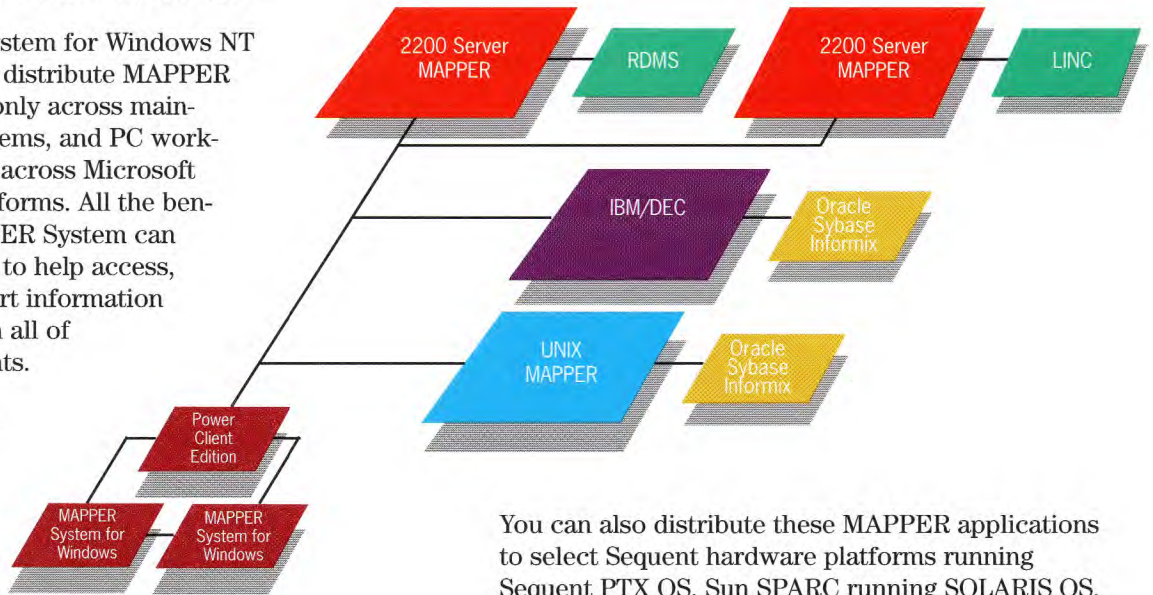# The MAPPER System for Windows NT

Extend Your MAPPER Environment

Now MAPPER System for Windows NT software lets you distribute MAPPER applications not only across mainframes, Unix systems, and PC workstations, but also across Microsoft Windows NT platforms. All the benefits of the MAPPER System can now be extended to help access, analyze, and report information from databases in all of these environments.

You get the same MAPPER realtime business information system you need to make effective business decisions.

The MAPPER System for Windows NT has a robust, rapid application development environment. An easy-to-use script includes Graphical User Interface (GUI) outputs that allow you to develop applications with colorful, state-of-the-art, graphical forms that have windows, pictures, buttons, boxes, text, and other graphical functions and controls.

### Write One, Extend to Many

Applications developed using the MAPPER System for Windows NT are portable. With little or no modification, you can distribute them to other MAPPER platforms, including: Unisys 2200 and A Series enterprise servers, Unisys U 6000 Unix servers, and Intel platforms running Windows 3.1 and 3.11.

You can also distribute these MAPPER applications to select Sequent hardware platforms running Sequent PTX OS, Sun SPARC running SOLARIS OS, and IBM RS/6000 running AIX OS. Additional platforms are planned for future MAPPER releases.

Build a Flexible Computing Environment

You also have access to most popular databases that use standard data access methods with MAPPER for Windows NT. This gives you the ability to mine data from many different sources and transform it into useful business information.

MAPPER for Windows NT has powerful networking capabilities, communicating and interoperating with other systems and servers using MAPPER networking or other vendor tools. MAPPER can also network with a variety of non-MAPPER systems with common, inexpensive networking tools.
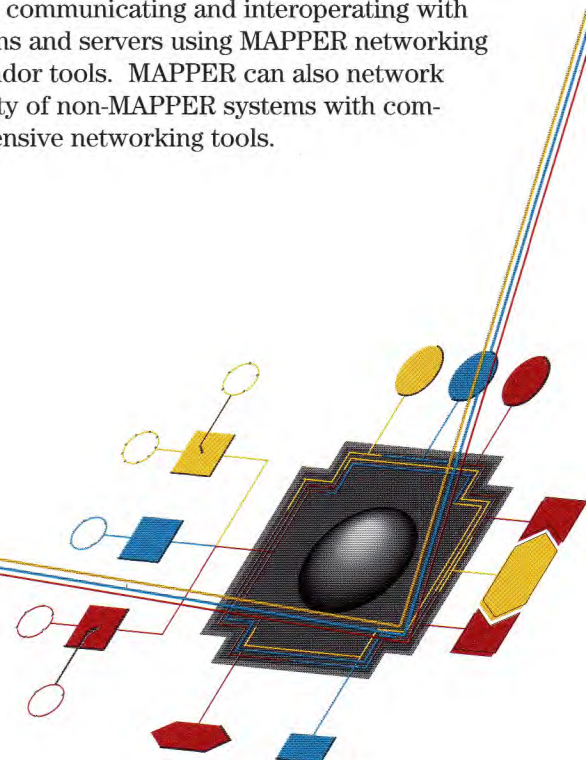
Manage And Secure Your Information

With the MAPPER System for Windows NT, you can generate new data or transfer data you already have into the MAPPER internal data storage facility.

This storage facility is structured in a user-friendly, office-like filing system of cabinets and drawers. End users can create their own individual temporary or permanent data store.

Multi-level security is built in to the MAPPER System. You have the flexibility to implement various levels of security from the system level to the end-user level.

The MAPPER System for Windows NT

8/95

5.3.3.E1 Information

Database Upgrade Purge File

A MAPPER purge file (MSWNT533E1.pur) is included with this Interim Correction (IC) . It is in the same directory where the IC software is located. The IC purge file contains database reports which have been changed. The IC purge file also contains the *ICUPDATE* run, which is used to update your database with these changed reports. Before executing the *ICUPDATE* run, you should have a **FULL BACKUP** of your database.

The following steps show how to load and execute the *ICUPDATE* run.

1. Copy the IC purge file to your system.

2. Sign on to MAPPER as MAPCOORD in department 2.

3. Execute the APPLOAD run to load the *ICUPDATE* run (report 150I2) from the IC purge file.

4. Execute the DELCAB run on cabinet 10 (if cabinet 10 exists).

5. Execute the AGENDA run. Select Run Registration. Register the *ICUPDATE* run as follows:
   - Run name = *ICUPDATE*
   - Department = 2
   - Cabinet, Drawer, Report = 2 , I , 150
   - Cabinets this run may access = ALL
   - User-id = MAPCOORD
   - Maximum I/Os = 1.0E6   Maximum LLPs = 1.0E6
   - Total variable characters = 20000
   - User group? = Y

6. Execute the *ICUPDATE* run. At the "Load from media" prompt, specify the location of the IC purge file.

7. Restart MAPQUE by stopping the MAPPER site you are updating and restarting it.

8. If there are additional MAPPER sites, repeat steps 2-7 for each site. Your system is now ready for use again.

Year 2000 Command Syntax Enhancement

The MAPPER Year 2000 Command Syntax Enhancement allows the MAPPER System to process data as dates rather than characters. The user identifies the fields which contain dates and also specifies the

format of the dates. With this feature, dates with two-digit years are processed in the correct sequence, such as 991231 being earlier than 000101. No changes are required to the data in the MAPPER reports.

The following functions and run statements are affected by this enhancement:

- Binary Find
- Find
- Match and Match Update
- Search and Search Update
- Sort and Sort and Replace

For two-digit dates, make sure all dates processed are between 1944 and 2043.
For four-digit dates, make sure all dates processed are between 1900 and 2299.

This is a list of the MAPPER numeric date formats and their corresponding alphabetic date formats:

numeric	alphabetic
0	YMMDD
1	YYMMDD
2	DD MMM YY
3	YDDD
4	YYDDD
5	DDMMYY
6	MM/DD/YY
7	MONTH DD, YYYY
8	MMDDYY
9	DD/MM/YY
11	YYYYMMDD
12	DD MMM YYYY
14	YYYYDDD
15	DDMMYYYY
16	MM/DD/YYYY
18	MMDDYYYY
19	DD/MM/YYYY

Note: At this time, there are no date formats for numbers 10, 13, and 17. Spaces are optional for date format numbers 2 and 12.

Binary Find

The Y option specifies date field processing:

Option Description
Y[(x)] Indicates that the data contains dates and optionally specifies the character used to identify the date format parameter line. The optional character cannot be an R. This character defaults to a Y and should be changed only if your target data contains Y line types. Finds are not made on invalid dates.

Use these parameters with the Y option:

Parameters   Description
Y or x Identifies the date format parameter line and is entered in the first column of the line. Use Y or the value of x.
0 - 19 Specifies the numeric date format. You can also use the alphabetic date format rather than a number (for example, YYMMDD could be used in place of number 1).

```
 sh 990101
Rsh 001231
Y   1
```

Search equivalent run statement example:

```
@srh,'drawerb' Y 2-2,5-6 |,sh,970101/r,sh,001231/Y,,1
```

- **Sort and Sort and Replace**

The Y parameter specifies date field processing:

Parameters   Description
Yn   Defines date fields to be processed. The number corresponding to the date format of 0 to 19 is n. The Y parameter immediately follows the parameter used to identify the field to sort. Invalid dates are handled as binary zeros. MAPPER places binary zeros at the top of the report for ascending sorts and at the bottom of the report for descending sorts.

Sort Example

This example sorts data. The Y parameter is used with the date format of 1 (YYMMDD). Note that the parameter immediately follows the parameter used to identify the fields to sort.

<div align="center">

SORT

</div>

```
*St.Status.By. Product .Serial.Produc.Order.Cust.Produc.Produc. Ship .Ship .
*Cd. Date .In.  Type   .Number. Cost .Numbr.Code. Plan .Actual. Date .Order.
*==.======.==.=========.======.======.=====.====.======.======.======.=====.
    2dY1        1
```

Sort equivalent run statement example:

```
@sor,'drawerb' '' 5-6,15-9 |,2dY1,1
```

5.3.3 Information

General Information

See the installation Help file (ntinstal.hlp) accompanying this product. You can find this Help file in the root directory of the CD-ROM (also available directly from the CD-Browser dialog when the autorun feature is enabled) or disk one if you are using disk images.

Updating System Files

The following system files in \windows\system32 and font files in \windows\system directories may be installed or updated by the setup program.

msvcrt20.dll
msvcrt40.dll
odbc32.dll
odbccp32.dll

UISCL1_B.TTF
UISCL1_I.TTF

UISCL1_R.TTF
UISCL1BI.TTF

If an older version is found, it will be replaced with the newer version.

MAPPER Presentation Client (MPC)

Scripts created or modified with MPC 2.1 are not compatible with and will not function with MPC 1.0 or MPC 1.1.

MAPPER Purge File

A MAPPER purge file that contains the current database is located in the following directory on the CD-ROM: **\mswnt\purge\mswnt.pur.** Use this purge file to update your database when executing an update install of MAPPER System for Windows NT.

Startup Assignment of the Number of Deferred Updates

MAPPER allows each user, by default, to defer updates on 10 reports. The max_dfu parameter allows a site to set the number of deferred updates to a value between 10 and 19 using the Microsoft regedit32 utility. The new value takes effect on the next MAPPER startup.

The max_dfu startup parameter defaults to 10. This is the recommended value. Any value less than 10 defaults to 10. Any value greater than 19 defaults to 19.

Case 1: Existing or new sites using the dfu default:
　　　　No action is necessary.

Case 2: Adding a site requiring more dfu's:
　　　　The site registry will contain the parameter max_dfu 10.
　　　　The value may be changed with regedit32.

Case 3: Upgrade existing site:
　　　　The site registry will not contain the parameter max_dfu. The internal value default to 10. The
　　　　parameter and value should be added with regedit32 only if the value is to be changed from the
　　　　default.

TPRG Run

The MAPCOORD may schedule a timed save (backup) by executing the TPRG Run from a station. The text "Load_Tape!" will appear in the SYS output in the function field for the TBPRG Run whenever a tape mount is required. This field may be monitored by an operator or by a monitor Run that operates an automatic tape changer.

Printing Reports from MAPPER System for Windows NT

Use the AGENDA run to configure printers. See the Software Release Announcement (SRA) for information related to this area.

Accessing Network Files

Binary Find Example

This example finds data within a range of dates. The Y option indicates the presence of a date format parameter line and the Y parameter identifies the date format parameter line. The number 1 in the Status Date field specifies the numeric date format to use.

BINARY-FIND

```
Y
*St.Status.By. Product .Serial.Produc.Order.Cust.Produc.Produc. Ship .Ship .
*Cd. Date .In.  Type    .Number. Cost .Numbr.Code. Plan .Actual. Date .Order.
*==.======.==.==========.======.======.=====.====.======.======.======.=====.
  sh 970101
Rsh 020101
Y    1
```

Binary Find equivalent run statement example:

```
@bfn,'drawerb' y 2-2,5-6 |,sh,970101/r,sh,020101/y,,1
```

• Find

The Y option specifies date field processing:

Option Description

Y[(x)]   Indicates that the data contains dates and optionally specifies the character used to identify the date format parameter line. The optional character cannot be an R. This character defaults to a Y and should be changed only if your target data contains Y line types. Finds are not made on invalid dates.

Use these parameters with the Y option:

Parameters   Description

Y or x   Identifies the date format parameter line and is entered in the first column of the line. Use Y or the value of x.

0 - 19   Specifies the numeric date format. You can also use the alphabetic date format rather than a number (for example, YYMMDD could be used in place of number 1).

Find Example

This example finds data within a range of dates. The Y option indicates the presence of a date format parameter line and the Y parameter identifies the date format parameter line for finding a range of dates. The YYMMDD date format in the Status Date field specifies the alphabetic date format to use.

FIND

```
Y
*St.Status.By. Product .Serial.Produc.Order.Cust.Produc.Produc. Ship .Ship .
*Cd. Date .In.  Type    .Number. Cost .Numbr.Code. Plan .Actual. Date .Order.
*==.======.==.==========.======.======.=====.====.======.======.======.=====.
  sh 970101
Rsh 101231
Y    YYMMDD
```

Find equivalent run statement example:

```
@fnd,'drawerb' y 2-2,5-6 |,sh,970101/r,sh,101231/y,,YYMMDD
```

• Match and Match Update

The Y parameter specifies date field processing:

Parameters   Description

Yn   Defines date fields to be processed. The number corresponding to the date format of 0 to 19 is n. The Y parameter immediately follows the parameter used to identify the fields to match in each report. Note that invalid dates do not match other invalid dates. Blank fields are considered invalid dates.

Match Example

This example matches dates. The Y parameter is used with the date formats of 1 (YYMMDD) and 8 (MMDDYY). Note that the parameter immediately follows the parameter used to identify the fields to match.

<div align="center"><u>MATCH</u></div>

```
*St.Status.By. Product .Serial.Produc.Order.Cust.Produc.Produc. Ship .Ship .
*Cd. Date .In.  Type    .Number. Cost .Numbr.Code. Plan .Actual. Date .Order.
*==.======.==.==========.======.======.=====.====.======.======.======.=====.
    3Y1                                                 1Y1     2Y8

*St.Status.By. Product .Serial.Produc.Order.Cust.Produc.Produc. Ship .Ship .
*Cd. Date .In.  Type    .Number. Cost .Numbr.Code. Plan .Actual. Date .Order.
*==.======.==.==========.======.======.=====.====.======.======.======.=====.
    3Y1                                                 1Y1     2Y8
```

Match equivalent run statement example:

@mch,0,b,2,0,c,1 '' 5-6,50-6,57-6 |,3Y1,1Y1,2Y1 5-6,50-6,57-6 |,3Y1,1Y8,2Y8

• Search and Search Update

The Y option specifies date field processing:

Option Description

Y[(x)]   Indicates that the data contains dates and optionally specifies the character used to identify the date format parameter line. The optional character cannot be an R. This character defaults to a Y and should be changed only if your target data contains Y line types. Finds are not made on invalid dates.

Use these parameters with the Y option:

Parameters   Description

Y or x   Identifies the date format parameter line and is entered in the first column of the line. Use Y or the value of x.

0 - 19   Specifies the numeric date format. You can also use the alphabetic date format rather than a number (for example, YYMMDD could be used in place of number 1).

Search Example

This example finds data within a range of dates. The Y option indicates the presence of a date format parameter line and the Y parameter identifies the date format parameter line. The number 1 in the Status Date field specifies the numeric date format to use.

<div align="center"><u>SEARCH</u></div>

```
Y
*St.Status.By. Product .Serial.Produc.Order.Cust.Produc.Produc. Ship .Ship .
*Cd. Date .In.  Type    .Number. Cost .Numbr.Code. Plan .Actual. Date .Order.
*==.======.==.==========.======.======.=====.====.======.======.======.=====.
```

This release of MAPPER System for Windows NT allows users to reference network-based files with the FILE and RET functions. To access this type of file, it is necessary to validate the user with a 'local' logon to the Windows NT system (which allows access to network resources).

Access to network resources requires the 'Log on locally' user right. To activate this user right, the Windows NT Administrator must add the 'Log on locally' user right to all users that need access to network drives from the MAPPER System for Windows NT. If all MAPPER users need access to network drives, this user right can be added to the MAPPER Group.

Note that the 'Log on locally' user right presents a security issue because it gives the user the ability to log on at the system console. This could be a significant security risk if users have access to the Windows NT system console.

Installations Prior to 5.3.3

Any prior installations of MAPPER for Windows NT on an NTFS file system, modified the access rights of the root directory of the database drive.
See workaround in PLE 17068288.

Unisys and MAPPER are registered trademarks of Unisys Corporation.
Windows NT is a registered trademark of Microsoft Corporation.

Unisys MAPPER System 5.3.3 for
Microsoft Windows NT 4.0

General Information

See the installation Help file (ntinstal.hlp) accompanying this product. You can find this Help file in the root directory of the CD-ROM (also available directly from the CD-Browser dialog when the autorun feature is enabled) or disk one if you are using disk images.

Updating System Files

The following system files in \windows\system32 and font files in \windows\system directories may be installed or updated by the setup program.

_msvcrt20.dll
 svcrt40.dll
odbc32.dll
odbccp32.dll

UISCL1_B.TTF
UISCL1_I.TTF
UISCL1_R.TTF
UISCL1BI.TTF

If an older version is found, it will be replaced with the newer version.

MAPPER Presentation Client (MPC)
Scripts created or modified with MPC 2.1 are not compatible with and will not function with MPC 1.0 or MPC 1.1.

MAPPER Purge File

A MAPPER purge file that contains the current database is located in the following directory on the CD-ROM: **\mswnt\purge\mswnt.pur.** Use this purge file to update your database when executing an update install of MAPPER System for Windows NT.

Startup Assignment of the Number of Deferred Updates

MAPPER allows each user, by default, to defer updates on 10 reports. The max_dfu parameter allows a site to set the number of deferred updates to a value between 10 and 19 using the Microsoft regedit32 utility. The new value takes effect on the next MAPPER startup.

The max_dfu startup parameter defaults to 10. This is the recommended value. Any value less than 10 defaults to 10. Any value greater than 19 defaults to 19.

Case 1: Existing or new sites using the dfu default:
    No action is necessary.

Case 2: Adding a site requiring more dfu's:

The site registry will contain the parameter max_dfu 10.
The value may be changed with regedit32.

Case 3: Upgrade existing site:
The site registry will not contain the parameter max_dfu. The internal value default to 10. The parameter and value should be added with regedit32 only if the value is to be changed from the default.

TPRG Run

The MAPCOORD may schedule a timed save (backup) by executing the TPRG Run from a station. The text "Load_Tape!" will appear in the SYS output in the function field for the TBPRG Run whenever a tape mount is required. This field may be monitored by an operator or by a monitor Run that operates an automatic tape changer.

Printing Reports from MAPPER System for Windows NT

Use the AGENDA run to configure printers. See the Software Release Announcement (SRA) for information related to this area.

Accessing Network Files

This release of MAPPER System for Windows NT allows users to reference network-based files with the FILE and RET functions. To access this type of file, it is necessary to validate the user with a 'local' logon to the Windows NT system (which allows access to network resources).

Access to network resources requires the 'Log on locally' user right. To activate this user right, the Windows NT Administrator must add the 'Log on locally' user right to all users that need access to network drives from the MAPPER System for Windows NT. If all MAPPER users need access to network drives, this user right can be added to the MAPPER Group.

Note that the 'Log on locally' user right presents a security issue because it gives the user the ability to log on at the system console. This could be a significant security risk if users have access to the Windows NT system console.

Installations Prior to 5.3.3

Any prior installations of MAPPER for Windows NT on an NTFS file system, modified the access rights of the root directory of the database drive.
See workaround in PLE 17068288.

Upgrading the System

When the installation program detects an existing version of the MAPPER System for Windows NT on your Windows NT server, the upgrade dialog box appears.

Select the site you want to upgrade and click Next to upgrade your software and site files. A status screen appears during the installation process. When installation is complete, the setup complete dialog box appears. Click Finish to view the README file.

If you want to stop the installation process, click Cancel.

Note

To upgrade your database, use the APPLOAD process to copy the UPGRADE run from the \MSWNT\PURGE directory on the CD before executing it. See UPGRADE Run Details for additional information about the UPGRADE run.

Detailed Procedure

Upgrading from Level 5.3.x to Level 5.3.3 — Brings your existing level of software and database to the current level.

To upgrade your database, you must ~~Refer~~ run APPLOAD and execute the UPGRADE run after starting Mapper

Upgrading from Level 5.3.x to Level 5.3.3

The UPGRADE run updates your MAPPER System for Windows NT database from level 5.3.x to level 5.3.3.

Notes

- If your database contains translated reports in cabinets 0 through 14, they may be overwritten with English language reports. Consider rearranging your database so that English language reports are in cabinets 0 through 14.

- Cabinet 10 must be an unused cabinet because it is used by the update process.

To upgrade your 5.3.x database to 5.3.3

Using MAPPER Presentation Client

(See Connecting to the MAPPER System for Windows NT Using MAPPER Presentation Client for more information.)

1   Verify the integrity of the database using the VER command.

Using MAPPER Administration

2   Perform a purge of your entire database by selecting Back Up Database from the server tree context menu.

Using MAPPER Presentation Client

3   Verify your purge media using the VPM run.

Using MAPPER Administration

4   Stop all MAPPER sites.

5   Exit the MAPPER administration program.

On your Windows NT server

6   Install the MAPPER System for Windows NT level 5.3.3. You are asked to select the database you want to update.

Using MAPPER Administration

7   Connect to the site you selected for upgrade and start it.

Using MAPPER Presentation Client

8   Sign on as MAPCOORD in department 2.

9   Copy 67l2 from \MSWNT\PURGE\MSWNT.PUR on the level 5.3.3 CD-ROM using the APPLOAD process. Remember to change N to Y when asked whether you want to overwrite the report.

10 Register the UPGRADE run (report 67l2) in report 2E2.

11 Edit the line for the UPGRADE run in report 2E2 to delete 1000 in the I/O column, to delete 2000 in the LINES column, and to type 20000 in the VCHAR column.

12 Stop the MAPQUE run, and then execute the UPGRADE run. You are prompted for the path where the purge file is located. The purge file (MSWNT.PUR) is under the MSWNT\PURGE directory on the CD-ROM.

See UPGRADE Run Details for additional information about the UPGRADE run.

13 Execute the REGDRW run to register new drawers that may have been loaded.

Using MAPPER Administration

14 Take the MAPPER system down and restart it.

Related Topic

Upgrading Multiple 5.3 Sites

Connecting to the MAPPER System for Windows NT Using MAPPER Presentation Client

1   Start MAPPER Presentation Client.

2   Create a new script from the Windows NT script template provided. (Refer to the Help that comes with MAPPER Presentation Client for information on creating a new script.)

3   Select the File menu.

4   Select Open Session.

5   Select the script you created in step 2.

You are now ready to use MAPPER software on your Windows NT server from a workstation running MAPPER Presentation Client.

Notes

- You can skip steps 3 through 5 if you change the properties line of the MAPPER Presentation Client icon to include the name of the script (using the C option.)

- You can also create scripts to connect to a MAPPER System for UNIX or MAPPER System for 2200 host system using the script templates provided (UNIX and 2200, respectively).

Upgrading from Level 5.3.x to Level 5.3.3

The UPGRADE run updates your MAPPER System for Windows NT database from level 5.3.x to level 5.3.3.

Notes

- If your database contains translated reports in cabinets 0 through 14, they may be overwritten with English language reports. Consider rearranging your database so that English language reports are in cabinets 0 through 14.

- Cabinet 10 must be an unused cabinet because it is used by the update process.

To upgrade your 5.3.x database to 5.3.3

Using MAPPER Presentation Client

(See Connecting to the MAPPER System for Windows NT Using MAPPER Presentation Client for more information.)

1   Verify the integrity of the database using the VER command.

Using MAPPER Administration

2   Perform a purge of your entire database by selecting Back Up Database from the server tree context menu.

Using MAPPER Presentation Client

3   Verify your purge media using the VPM run.

Using MAPPER Administration

4   Stop all MAPPER sites.

5   Exit the MAPPER administration program.

On your Windows NT server

6   Install the MAPPER System for Windows NT level 5.3.3. You are asked to select the database you want to update.

Using MAPPER Administration

7   Connect to the site you selected for upgrade and start it.

Using MAPPER Presentation Client

8   Sign on as MAPCOORD in department 2.

9   Copy 67I2 from \MSWNT\PURGE\MSWNT.PUR on the level 5.3.3 CD-ROM using the APPLOAD process. Remember to change N to Y when asked whether you want to overwrite the report.

10 Register the UPGRADE run (report 67I2) in report 2E2.

11 Edit the line for the UPGRADE run in report 2E2 to delete 1000 in the I/O column, to delete 2000 in the LINES column, and to type 20000 in the VCHAR column.

12 Stop the MAPQUE run, and then execute the UPGRADE run. You are prompted for the path where the purge file is located. The purge file (MSWNT.PUR) is under the MSWNT\PURGE directory on the CD-ROM.

    See UPGRADE Run Details for additional information about the UPGRADE run.

13 Execute the REGDRW run to register new drawers that may have been loaded.

Using MAPPER Administration

14 Take the MAPPER system down and restart it.

Related Topic

Upgrading Multiple 5.3 Sites

UPGRADE Run Details

The UPGRADE run replaces selected reports in cabinets 0 through 14 with the updated versions from the level 5.3.3 release database. If you made changes to any of these reports, use your backup purge tape to incorporate your changes after the UPGRADE run has been completed.

The list of changed reports is displayed, so that you can remove them from the list if you want to load them later. Note that reports 2E2, 2E104, and 2F2 are always loaded and combined with your corresponding run and user registration reports.

A list of reports that are no longer used and have been removed from the database is also displayed. If you do not want these reports removed, delete them from the list. Note that the UPGRADE run does not remove run registrations for deleted runs.

Upgrading Multiple 5.3.x Sites

Perform the following steps using MAPPER Presentation Client.

To upgrade additional sites

1   Sign on as MAPCOORD in department 2.

2   Copy report 67I2 from \MSWNT\PURGE\MSWNT.PUR on the level 5.3.3 CD-ROM using the APPLOAD process. Remember to change N to Y when asked whether you want to overwrite the report.

3   Register the UPGRADE run (report 67I2) in report 2E2.

4   Edit the line for the UPGRADE run in report 2E2 to delete 1000 in the I/O column, to delete 2000 in the LINES column, and to type 20000 in the VCHAR column.

5   Execute the UPGRADE run. You are prompted for the path where the purge file is located. The purge file (MSWNT.PUR) is under the MSWNT\PURGE directory on the CD-ROM.

    See UPGRADE Run Details for additional information about the UPGRADE run.

6   Execute the REGDRW run to register new drawers that may have been loaded.

▼MAPPER System for UNIX Administration Guide

Section 2
Defining Hardware

Before you can begin working with the MAPPER software, you need to define and register the physical devices you are using so that the MAPPER system knows how to format output and where to send it. Your setup tasks include the following:

- Defining the characteristics of devices, such as terminals and auxiliary printers, that you plan to use with the MAPPER software
- Executing MAPPER software
- Registering devices as MAPPER stations
- Registering system printers
- Setting up a mouse, if you plan to use one on the MAPPER system

This section explains how to do all the setup tasks listed earlier, and how to make changes later, if necessary. It contains the following subsections:

- Defining devices
- Executing MAPPER software
- Registering stations
- Changing terminal or printer types dynamically
- Terminal and printer session settings
- Registering system printers
- Registering your company name
- Copying MAPPER mouse software to MS-DOS

Defining Devices

This subsection explains how to create or modify Device Configuration reports. Reports enable you to do different things, depending on your system.

You create or modify Device Configuration reports so you can

- Use different terminals, printers, and modems with the MAPPER software.
- Modify characteristics of a terminal, printer, or modem. For example, you could change screen colors for a terminal.
- Define action strings, which enable you to initiate a sequence of actions with one keystroke.

Device Configuration Reports

Device Configuration reports are MAPPER reports that define the characteristics of different terminals, printers, or modems.

There is one Device Configuration report for each different type of terminal, printer, or modem.

Each Device Configuration report lists the attributes of the device in the Name field and shows how the attribute is implemented in the Sequence field.

A report can have different lists of attributes, depending on whether it defines a terminal, printer, or modem. Terminal Device Configuration reports also include action strings, which enable you to initiate a sequence of actions with one keystroke.

You specify which terminal Device Configuration report and which auxiliary printer Device Configuration report to use for each MAPPER station in the Station Registration report. For more details, see Registering Stations in this section.

You specify the modem to use in the Network Registration report. For more details, see Registering Networks in Section 14.

Examples

This terminal Device Configuration report lists three attributes in the Name field and their implementation values in the Sequence field:

```
*          Name            .t.    Sequence
*================================.=.===============
 blink_allowed              b True
 key_function_01            l F1
 color_alpha_field          n cya/bla
```

The following table gives examples of the kind of attributes listed in different kinds of Device Configuration reports:

Type of Report	Example of Attributes
Terminal	• What the function keys do • Screen colors
Printer	• Length of print line • Print speed
Modem	• Response time • String sent when errors occurs

For more information on the attributes in each type of report, see the following reports in cabinet 2, drawer B: Terminal Attribute Definitions, Auxiliary Attribute Definitions, Modem Attribute Definitions, and Sequence Parameter Definitions.

Modifying or Creating Device Configuration Reports

To modify or create Device Configuration reports, you must have write permission for reports in drawer B, cabinet 2.

Before you work with Device Configuration reports, you need to know whether a report already exists for your device. If you are not sure whether a report exists, use the following steps:

1. Make sure you are signed on to cabinet 2.
2. Enter **t** to see a list of drawers in cabinet 2.
3. Select **Device Configuration** from the list.

   A list of terminals, printers, and modems that are already defined is displayed. Terminal definitions begin with T, printer definitions with P, and modem definitions with M.

4. If a report exists, you can modify it to meet your needs or leave it as is. If there is no existing report, you have to create one.

To modify or create a Device Configuration report

1. Select your option:
   • If you are creating a report, go to step 2
   • If you are modifying a report, go to step 5.
2. Duplicate the Device Configuration report that is most similar to the one you want to create.

3. Change the title of the report on line 2.

   Conventions: Follow MAPPER system naming conventions and begin terminal definition names with T, printer definition names with P, and modem definition names with M.

4. Name the new device you are defining on line 3 of the report. Make sure that this name is unique and that it has no more than 18 characters.
5. Look in the Name field and find the attribute you need to redefine. (For an explanation of each attribute, see the Attribute Definitions reports in cabinet 2, drawer B.)
6. In the Sequence field on the same line as the attribute, change the implementation values to reflect how your device works.

   For more details, see <u>Understanding the Fields in Device Configuration Reports</u> in this section.

Special Instructions for Defining Terminals

When you create a new Device Configuration Report for a terminal or PC, you only need to include lines that differ from those in the default terminal Device Configuration report.

If your device implements a particular attribute or action in the same way specified in the default report, delete the line that lists that attribute in your new report. This makes each specific Terminal Configuration report shorter and easier to understand.

You only need to include lines that differ from those in the default report because the MAPPER software reads both the default report and the specific report for your terminal whenever you sign on.

Defining Action Strings

To add action strings to terminal Device Configuration reports

1. Display the appropriate terminal Device Configuration report.
2. Copy the line that defines the key you want to use. For example, if you want to assign an action string to the **F11** function key, copy the line that defines how MAPPER software executes **F11**.
3. On the copied line, type **a** in the Type field.
4. Again on the copied line, type the action string in the Sequence field.

Example

The following lines in the report define an action string:

```
+              Name           .t.     Sequence
+=======================,=,===================
  key_function_17              s  [31-
  key_function_17              a  ^C]mapcoord,2^E^X
```

Understanding the Fields in Device Configuration Reports

This subsection explains the fields in Device Configuration reports. Note that you generally change values in the Sequence field only; the other two fields list the attribute and its type so you can determine what to put in the Sequence field.

Name field
   Contains the parameter name that describes the attribute or action for the device being defined. For an explanation of each attribute, see the Terminal Attribute Definitions, Auxiliary Attribute Definitions, or Modem Attribute Definitions report in drawer B, cabinet 2.

T field
   Specifies the type of attribute, which in turn determines the values you can specify in the Sequence field. The types of attributes are as follows:

④

b Boolean (true or false)
n Number
s Sequence of characters
l Label (for terminal keys)
a Action associated with a key

Sequence field

Specifies the actual data required to implement the attribute. The syntax for this field depends on the value in the T field, as shown in the following table:

T Value	What You Can Specify
b	True or False.
n	One of the following: • An octal number preceded by 0 and terminated by a character not in the range of 0 - 7. For example, **0107** (the terminating character is a blank). • A hexadecimal number preceded by 0x and terminated by a character not in the range of 0 - 9, A - F. For example, **0x47** (the terminating character is a blank). • A decimal number terminated by a character not in the range of 0 - 9. For example, **71** (the terminating character is a blank). • A three-character code for foreground and background colors as used for screen control. For example, **bla/whi**. If none of the preceding cases apply, the system uses the ASCII value of the first character. For example, **71** for G.
s	A string of characters that, when sent to the terminal, causes the system to implement the declared attribute or maps keystrokes to a specific MAPPER system action. The following characters alter the input: ^ Treats the next character as a control character. \ When followed by E, translates to an escape sequence. \0 When followed by a valid three-digit octal number, translates into a single character with that value. (If it is not a valid octal number, the characters are sent as is.) \0x When followed by a valid two-digit hexadecimal number, translates into a single character with that value. (If it is not a valid hexadecimal number, the characters are sent exactly as typed.) % Indicates an attribute that requires parameters. For information, see the Sequence Parameter Definition report.
l	The label associated with an input key. This is usually the key map name shown when displaying the current keyboard mapping. Use only in terminal configuration reports.
a	The action associated with an input key. The characters ^, \, and % alter the input as described for the T value s. As long as characters exist in the action string, they are used whenever input is requested. When the characters in the action string are exhausted, the normal input channels (for example, the keyboard) are used.

Executing MAPPER Software

You can execute MAPPER software that is installed on a UNIX system using one of following methods:

- Use the log-in **mapper**.
- Log in to the UNIX operating system and execute MAPPER software as a program.
- Press the MAPPER function key from the MAPPER Administration main menu.

UNIX MAPPER Software Log-In

Supported Auxiliary Printers

Auxiliary printers must be attached to a terminal that the MAPPER system supports and that enables the system to transparently attach the required printer. Terminal emulation packages that run under DOS or Windows must transparently pass the host data directly to the printer (not through the Windows printer drivers). Table 5-6 shows the auxiliary printers that the MAPPER System for UNIX level 5R1 supports.

Table 5–6. Supported Auxiliary Printers

Style #	Printer Definition Report Name
AP1327/29	AP 1327-IBM AP 1327-Epson AP 1329-IBM AP 1329-Epson
AP1337/39	
AP13571	
AP1359	
AP9206	AP9206-Epson
AP9210	AP9210-HPGL[1] AP9210-PostScript[1] HPLJ-Text
AP9215	AP9215-1-HPLJ-Text
AP9230	AP9230-1-HPLJ-Text
AP9310	HPLJ-Text PCL5-Text[2] PCL5-GL2[3]
AP9312	HPLJ-Text PCL5Text[2] PCL5-GL2[3]

Legend

1. Supports graphics printing only. The printer must be in the correct mode (HPGL or PostScript) before you attempt to print.

2. Switches to text mode.

3. Graphics only; switches to graphic mode and resets to text mode when done.

continued

UNISYS PLE (Problem List Entry) 16933350

Product Support ❋ MAPPER Support ❋ Marketplace ❋ Feedback

Symptoms ❋ Workaround Description ❋ Resolution Comments ❋
Resolution Details

Cannot print to various network printers from MAPPER-NT

```
Product:    MAPPER-NT
Component:  MAPPER-NT                 Date Prepared:    October 18, 1996
Form:       TROUBLE REPORT            Date Updated:     August 18, 1998
Affected Level:    5.3         5.3.1            5.3.2
                   5.3.El
Host Processor:    PENTIUM
Affected UCFs:     18239086   37296429   37703154   49663366
Attached CONTACT:  49663366
Keyword:           MUST-FIX                 NETWORK
                   NT                       PRINT
```

Symptoms:

```
Display a MAPPER report and run PR to print it.
Use \pvmcp3\lpl4 as the printer name
(This is a valid print site, and is properly configured in Report 3C2.)
No error messages appear, indicating to me that MAPPER-NT "believes" it
has properly queued the report for printing.
The report never appears on the printer queue.

From the DOS prompt on the NT console, enter:
c:\> print /d:\pvmcp3\lpl4  <file name>

Printing from the DOS prompt in this way DID queue the report to the
printer.  (I did this per instructions from the MAPPER-NT dev. group.)
```

Workaround Description:

```
An updated MAPPER.EXE containing a fix for this problem is available from
customer support.
```

Resolution Comments:

In 5.3.3 and later, remote printers are configured thru a wizard from the
AGENDA run.

Code Fix for necessary only for 5.3. Resolution comments are valid
for 5.3.1 as well as 5.3. There is no code change for 5.3.1.
Printing Reports From MAPPER-NT:

The MAPPER-Group must have the right of "logon as a batch job" in order for
MAPPER users to perform a MAPPER system print.

MAPPER NT (MSW-NT) prints reports by creating a temporary internal
command (.cmd) file which contains one PRINT statement for each copy. An
example of these system PRINT statements might be:

PRINT /D:<print destination> <MAPPER-report-print-file>

Using the /D: option on the PRINT allows MSW-NT to print MAPPER reports on
various printers that have been connected to the Windows NT system that is
hosting MSW-NT.

The /D: option is created by using information from the MAPPER 3C2 report
and the printer information from Windows NT system. This printer
information is established when you create the printers for use by your
Windows NT system.

Use the following information to set up various types of printers for
MSW-NT. Note: You should be familiar with the workings of the Windows NT
4.0 Control Panel Applet named Printers. This applet lets you make the
connections to various printers and assign a share name to them.

Novell Network Print Server: In order for the Windows NT Command
Interpreter to correctly complete the PRINT command to access a Novell

0

print server, the complete server name and printer name must be supplied
as the /D: option parameter. For example, a printer named
HP-SERIES-II-P224-3 attached to a server named RS_XX it would be
specified on the PRINT command as follows:
 PRINT /D:\RS_XX\HP-SERIES-II-P224-3 <file-name>

You are usually not able to use a share name here. The results of using a
share name for the printer name for Novell Print Servers is unpredictable
and usually causes unannounced lost of output.

For MSW-NT you CAN specify a share name in the 3C2 report and MSW-NT will
make the correct conversion of the share name to the complete Novell
Print Server Printer Name and Host Name. For example, a Novell printer
named like the above, but given a local share name as PAYROLL, can use a
destination printer named \RS_XX\PAYROLL in MSW-NT s report 3C2.

Printers connected directly to a network without a printer server: For
these type of network printers you must create a share name so the Windows
NT Command Interpreter can use it. The share name is used along with
MSW-NT s Windows NT system host name to provide the path to the desired
printer. For example, if the name of the PC where MSW-NT is hosted is
MPCNTA and the share name you gave the network printer is ROOM12PR, then
the destination printer field in MSW-NT s 3C2 report would be
\MPCNTA\ROOM12PR and the PRINT statement would look as follows:

   PRINT /D:\MPCNTA\ROOM12PR <file-name>

Printers connected to Windows For Workgroups PCs: Here we use the shared
name given to the printer by the owner of the WFW 3.11 PC. For example,
if the name of the WFW 3.11 PC is PCWFW1 and its owner shares a locally
connected printer as PAULSPR, then MSW-NT s report 3C2 contains:
\PCWFW1\PAULSPR as the printer destination. This printer destination is
then used directly as the /D: option parameter on the PRINT command. For
example:

   PRINT /D:\PCWFW1\PAULSPR <file-name>

Printers directly connected to a remote Windows NT Workstations: Here
you will need to create a share name for this printer on the MSW-NT host
system. The share name is then used along with the printer s Windows NT

Workstation s host system name. For example, if you create the shared
name of the printer of L22 for that printer that is locally connected to
a Windows NT Workstation named TESTPC1, then the parameter for the PRINT
command would be as follows:
   PRINT /D:\TESTPC1\L22 <file-name>
(For configuring the server on which MAPPER is executing, to do printing
 on a remote Windows NT Workstation, see ****EXAMPLE below.)

Shared Names: As was indicated earlier, in order for the Windows NT
Command Interpreter to access a non-local printer, a share name is
normally required. The exception is printers connected to a Novell Print
Server. Since MSW-NT requires that the 3C2 report contains the possible
destination(s) for MSW-NT s printed output and since the size of the
 Destination Printer field is 16 characters, it is possible that the
number of characters necessary to specify the complete path to a printer
would exceed this field size. For this reason, you can use a shared name
along with a host name in this field. MSW-NT will make the necessary
conversion to the complete printer destination name and use it on the
Windows NT Command Interpreter PRINT command. For example: A printer
named HP_SERIES_II_P224_2 which is connected to a Novell print server
named RS_ABC can be given a shorter share name. For example, if you give
the printer a share name of P224, then you can specify in MSW-NT s report
3C2 that the destination printer is: \RS_ABC\P224. You must be careful
that the share name you use is unique in order to avoid any ambiguities
that MSW-NT could not resolve.

Special Note: The /D: option on the Windows NT Command Interpreter PRINT
command must contain the correct parameter or the print output can be
quietly (no warning given) lost. For this reason, it is suggested that
you try a Windows NT Command Interpreter PRINT statement specifying your
desired target destination printer before using the printing capabilities
of MAPPER-NT.

****EXAMPLE: Local NT MAPPER Server Configuration:

We have successfully accessed a printer on another NT site using the
MSW NT 5.3.1 print (PR) command. You should be able to duplicate our
success if you do the following on the local NT Server.
(The one that MAPPER is running on.)
1) From the "Settings" then "Printers" choices, select "Add Printer"
2) From the first screen of the "Add Print Wizard" select the
   "My Computer" button.
3) From the 2nd screen select "Add Port..." button.
4) From the "Printer Ports" select "Local Port, then click on the
   "New Port..." button.
5) In the "Port Name" dialog, enter the "server-name" plus "share name"

of the printer on the remote NT server. ex: \RSERVER\NETPR. Then
choose "Close" the "Printer Ports" dialog.
6) Add the necessary driver for the "Manufacturer:" and "Printer:" by
   selecting the correct one from each list.
7) After installing (if necessary) the driver, be VERY careful to
   correctly choose an appropriate "Printer Name:"   It must be short and
   contain no spaces. Change it to an appropriate name: ex.   NETPR
8) In the next Wizard screen, choose the "Shared" button. The name
   should be OK if you used correct names earlier.
9) The next screen asks if you would like to print a "Test Page". Answer
   yes just to be sure everything is OK.

Now be sure that MAPPER's 3C2 printer control report has the name of this
server and the share name as one of the choices. ex. \THISSERVER\NETPR.
MAPPER should now be able to print reports on the network printer.

One last note. In the MSW NT 5.3.1, there is a anomoly that will cause
MPC to "vanish" when attempting to print. If you experience this problem
remove any other printers that do not have a share name associated with
them. Or, simply associate a share name on the other printers.

Resolution Details:

Fixed in System: HMP-IX3.0   HMP-IX4.0
_____

Resolution for Level: 5.3.1   5.3.2
Resolution Status: FIX RELEASED
Fixed in Release: MAPPER-NT-5.3.3
_____

Resolution for Level: 5.3.E1
Resolution Status: FIX RELEASED
Fixed in Release: MAPPER-NT-5.3.3
_____

Resolution for Level: 5.3
Resolution Status: FIX RELEASED
Fixed in Release: MAPPER-NT-5.3.3

Return to top of page