

MERVA ESA Components



MERVA USE & Branch for Windows NT Migration Guide

Version 4 Release 1

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Version 4 Release 1

Note!

Before using this information and the product it supports, be sure to read the general information under “Appendix D. Notices” on page 57.

Third Edition, March 2000

This edition applies to

Version 4 Release 1 of IBM MERVA ESA Components (5648-B30)

and to all subsequent releases and modifications until otherwise indicated in new editions.

This edition replaces SH12-6393-01.

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About This Book

Read this book to find out how to export your data, for example, routing data or user access rights, from MERVA OS/2 V3.3 (hereafter abbreviated to MERVA OS/2) to MERVA USE & Branch for Windows NT by using the migration import and export programs.

An online version of this book with the latest changes is located on the Internet. You can access it via a link on the MERVA homepage.

Who Should Read This Book

This book helps system programmers migrate data from MERVA OS/2 to MERVA USE & Branch for Windows NT.

It is assumed that you are familiar with:

- OS/2 (R)
- Windows NT
- MERVA customization
- TCP/IP
- SNA
- X.25
- Communications Server
- MERVA Link
- SWIFT Link

How This Book Is Organized

This book contains the following main chapters:

- Chapter 1 gives you an overview of the migration process and the system requirements of OS/2 and Windows NT that are prerequisite for the migration.
- Chapter 2 describes the different steps of the migration process.
- Chapter 3 contains detailed information about the different components that are to be migrated.
- The appendixes contain an example of a configuration file, export files, and user groups.

This book also contains a glossary of terms and abbreviations, a bibliography, and an index.

Chapter 1. Getting Started

This chapter describes the migration process in general. It also contains information about the system requirements of OS/2 and Windows NT.

Before You Migrate

It is recommended that you do the following before you start the migration process:

- Create a backup of the MERVA OS/2 databases by using the database manager backup function.
- Create a customization report.
- Create a user-right report for each user.
- Create **M2Config** output.

For information on how to create a backup of the MERVA OS/2 databases, refer to the corresponding DB2 (R) Universal Database documentation. For information on the other items, refer to the corresponding MERVA OS/2 documentation.

You can use this information to check the result of the migration process.

Understanding the Migration Process

The migration process runs automatically for the most part. The following section tells you what the migration process does automatically and what you have to do manually.

What the Migration Program Does Automatically

The migration program **enmexim** exports the following data and functions from OS/2 to Windows NT:

- Routing
- MERVA Link
- SWIFT Link
- SWIFT USE
- Automatic Print
- Alarms
- User access rights
- Bank Identifier Code (BIC) data, such as correspondents
- Templates and currency codes

The migration program **enmexim** writes the data to export files. The export files are stored in an export directory. For a list of the export files, refer to Table 19 on page 53.

To migrate the Bilateral Key Exchange (BKE) data, such as keys and pre-agreements, use the Bilateral Key (BK) Backup/Restore program. For detailed information on how to do this, refer to "Migrating BKE Data" on page 43.

What You Have to Do Manually

The migration program **enmexim** creates a basic scenario. Your system concepts, however, might differ from this scenario. In this case, you have to prepare the migration data manually. The following list shows your tasks.

- Plan the user access right migration.
- Use specific notes for different topologies of MERVA OS/2 installations.
- Configure connection features.
- Migrate non-MERVA settings, such as applications.
- Port customer application programs.
- Transfer files from OS/2 to Windows NT.

What Is Not Migrated

The following data is not migrated:

- Message Database **ENMQMSGC**
- Log Database **ENMLOGDB**
- Log files, traces, reports
- Non-MERVA configurations, for example, DB/2, Communications Server, or system settings

System Requirements

Note that OS/2 and Windows NT must be running in parallel until the migration process is finished.

OS/2 Requirements

The following software is required for OS/2:

- MERVA OS/2 V3.3
- Program Temporary Fix (PTF) **UQ30314** that contains the migration utility
- DB2 Universal Database 5.2

Windows NT Requirements

The following software is required for Windows NT:

- MERVA USE & Branch for Windows NT.

Ensure that the installation is complete and verified. For a detailed description on the installation, and the hardware and software requirements, refer to the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

- Protocols and adapters for network connectivity.

Ensure configuration and verification of the installation.

It is recommended to install the PTF **UQ30927** for MERVA USE & Branch for Windows NT. This PTF is required if you plan to migrate and use MERVA Link.

TCP/IP Settings

If you have installed and configured TCP/IP on your MERVA OS/2 machine and you plan to install it also under Windows NT, the following information might be helpful for the installation. For more detailed information contact your network administrator.

Important TCP/IP settings are:

IP Address

The unique address of the computer. If the new machine replaces the old one, make a note of the setting on your MERVA OS/2 machine.

Subnet Mask

Determines which part of the IP address is for the network (if the two machines are in the same network segment).

Host Name

A descriptive name that is translated to the IP address by the name server. If the new machine replaces the old one, make a note of the setting on your MERVA OS/2 machine.

Local Domain

The name of your domain.

Name Server (DNS)

The IP address of the name server in your domain.

Router

Connects different network segments if you want to reach systems outside your network segment. This parameter is called **Gateway** in Windows NT.

The TCP/IP configuration contains these settings. To access this information, open a command window and type **tcpcfg** in the command line.

Overview of Migration Steps

The following table shows a chronological overview of the migration steps in the respective operating system.

Table 1. Migration Steps - Overview

Step Number	Task	OS/2	Windows NT
1	Create user right reports for each MERVA OS/2 user.	x	
2	Create an M2config output and a customization report.	x	
3	Check the existing MERVA OS/2 environment.	x	
4	Plan the future MERVA USE & Branch for Windows NT environment.		x
5	Back up MERVA OS/2 databases.	x	
6	Back up bilateral keys and pre-agreements by using the BK Backup program.	x	
7	Change the user right translation file enmusmig.cfg according to the requirements of your organization.	x	
8	The migration export program exports the MERVA OS/2 customization.	x	
9	Transfer migration data files.	x	
10	Install MERVA USE & Branch for Windows NT prerequisites.		x
11	Install MERVA USE & Branch for Windows NT.		x

Table 1. Migration Steps - Overview (continued)

Step Number	Task	OS/2	Windows NT
12	The migration import program imports data files.		x
13	Create Windows NT user IDs.		x
14	Approve MERVA users.		x
15	Restore bilateral keys and pre-agreements by using the BK Restore program.		x
16	Check the migrated system by using the customization report of MERVA OS/2 and the migration log file.		x
17	Change the migrated system according to the new Windows NT requirement, for example, customize printers for Automatic Print or insert the symbolic destination for MERVA Link.		x

Chapter 2. Migrating from OS/2 to Windows NT in Four Steps

To migrate your MERV installation from a MERV OS/2 Workstation to MERV USE & Branch for Windows NT, you have to do the following:

- Export data from MERV OS/2 to an export directory.
- Transfer export data to Windows NT.
- Import transferred data to your Windows NT workstation.
- Verify the results of migration.

Exporting Data from MERV OS/2

To export data from MERV OS/2 to an export directory is the first step of the migration process.

The migration program **enmexim** does the following:

- Export data from your MERV OS/2 installation to export files.
For a list of the export files, refer to “Appendix B. Export Files in the Export Directory” on page 53.
- Change definitions, names, and values that do not match with those of MERV USE & Branch for Windows NT.

After the migration is finished, you have to specify definitions, names, and values that cannot be changed automatically. For example, you have to add the parameter **Symbolic Destination**. For a description on how to change these definitions, names, and values, refer to “Chapter 3. Migration in Detail” on page 19.

To export data from MERV OS/2, do the following:

1. Stop MERV OS/2.
 - In a stand-alone scenario, log off the workstation. To do this, double-click **MERV OS/2 Logoff**. Then click **Logoff Workstation**.
 - In a LAN scenario, log off all clients from the server and stop the server process with the command **enmsrv stop**.
2. Customize the migration of the user access rights. For information on how to do this, refer to “Migrating User Access Rights” on page 35.
3. Open an OS/2 command window.
4. Change to the MERV OS/2 installation directory, for example, type **x:\MERVA2\Install** in the command line, where *x* denotes the drive on which MERV OS/2 is installed.
5. Type **enmexim /e** in the command line.

You then get the Export window. The following figure shows an example of this window.

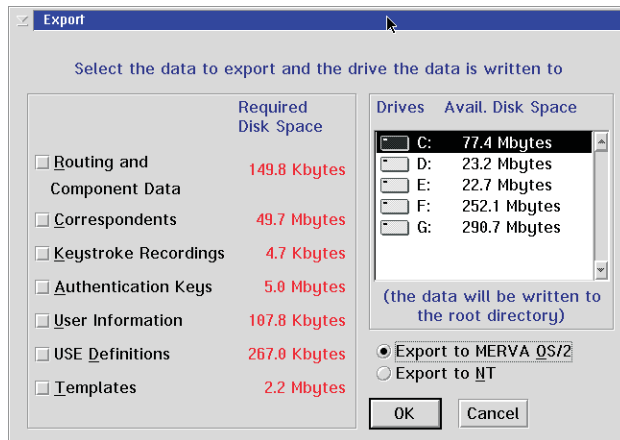


Figure 1. The Export Window

6. Click **Export to NT**.

You then get the **Export to NT** window.

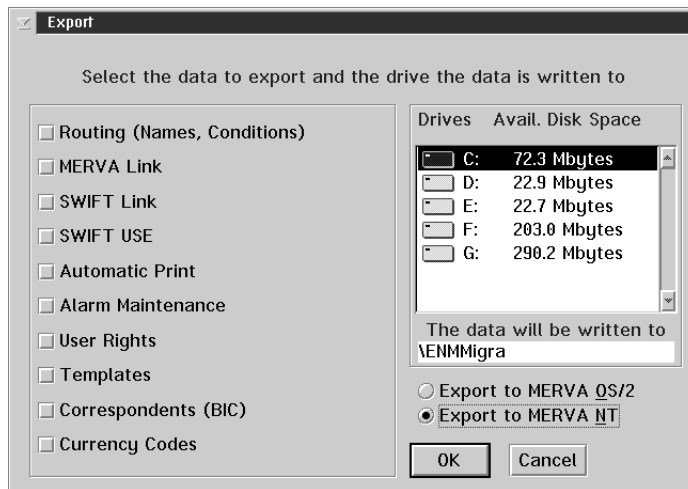


Figure 2. The Export to NT Window

The following list shows the contents of the data that are to be exported.

Routing

- Queue names
- Field definitions
- Constants
- Routing conditions

MERVA Link

- Local node name
- Partner definitions
- Application Support Process (ASP) definitions

SWIFT Link

- Logical terminals (LTs)
- Queue assignments for LT definitions

- Network data
- FIN copy service data

SWIFT USE

- Pregenerated session keys
- Secure Transmission Key (STK)
- USE background process definitions
- USE message headers
- USE definitions
- Card reader data
- Integrated Circuit Cards (ICC) set information
- Certificates

Automatic Print

Settings for print queues with corresponding printers

User Access Rights

MERVA users and their access rights to MERVA

Alarms

Settings for alarms

BIC

Address of a bank as assigned by S.W.I.F.T. and other information

Templates

Templates with information that is reused on a regular basis

Currency Codes

Definitions of currency codes

7. Select all items.

Note: If you do not select all items, the import of data in Windows NT might fail because of data dependencies. The following list shows an example for dependencies:

Automatic Print - Routing	Print queues must exist.
SWIFT USE - Routing	USE background process queues must exist.
Templates - SWIFT Link	Templates are only available if the LT does not change.
MERVA Link - Routing	Send and receive queues must exist.
SWIFT Link - Routing	Send and receive queues must exist.
Alarms - Routing	Alarm queues must exist.
Users - Routing	Queues for user right details must exist. SWIFT Link LTs must exist.

Queues that are missing and LTs that do not match cause errors during the data import. The migration process then stops. To avoid this, select each data and change it after the migration is finished. For a detailed description of how to customize the data, refer to the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

8. Select the drive in which the export files are to be stored.

The available disk space is shown for each drive. Ensure that the amount of free disk space is sufficient. The required disk space depends on your configuration and can be from 1 to 30 MB. The export file with the data of the

users and the export file with the data of the correspondents need most of the disk space. If you have, for example, 80 MERVA users, the size of the export file is approximately 2 MB. If you have installed, for example, 50000 correspondents, the size of the export file is approximately 23 MB.

Note: If you export data a second time, existing export files in the export directory are overwritten.

9. Specify the path in which the export files are to be located.
10. Click **OK** to start the export of the data.

You then get a window that contains information about progress, warnings, or errors. In this window, you have to specify information, for example, if you want to change the automatic print entries to Print to File. The following figure shows an example of this window.

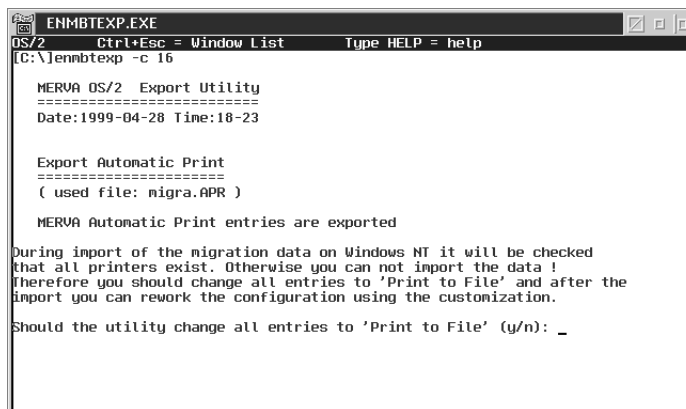


Figure 3. Example of the ENMBTEXP.EXE Window

After the export is complete, you get the migration log file. This file contains warnings, hints and tips, and a protocol of the changes.

11. Back up your bilateral keys and preagreements. For information on how to do this, refer to "Migrating BKE Data" on page 43.

Transferring Export Data to Windows NT

This section describes how you transfer the export data that is stored in the export directory from your OS/2 Workstation to Windows NT. Depending on your environment, you can transfer the files to Windows NT by using one of the following means:

- File Transfer Protocol (FTP)
- Shared Directory
- Diskette

Using FTP

If you have TCP/IP installed and configured on your machine, you can use the network to transfer large files. TCP/IP for OS/2 Warp contains an FTP server. Windows NT Version 4 contains an FTP client. To use FTP, you have to prepare the OS/2 Workstation and connect it to your Windows NT system. The following sections show you how to do this.

Preparing FTP on OS/2

To activate the FTP server on OS/2:

1. Open an OS/2 command window.
2. Type `tcpcfg` in the command line.

You then get the TCP/IP Configuration window.

3. Select the notebook page **Autostart**.

The following figure shows an example of this window with the Autostart page on which the options for **inetd** are specified.

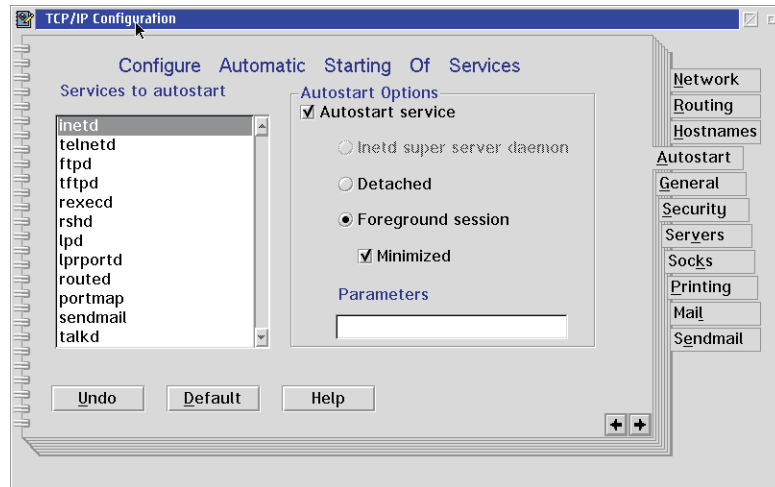


Figure 4. The TCP/IP Configuration Window – Options for **inetd**

4. Specify the options for **inetd**:
 - a. From the field **Services to autostart**, select **inetd**.
 - b. From the field **Autostart options**, select **Autostart service**, **Foreground session**, and **Minimized**.

5. Specify the options for **ftpd**.

The following figure shows an example of the Autostart page on which the options for **ftpd** are specified.

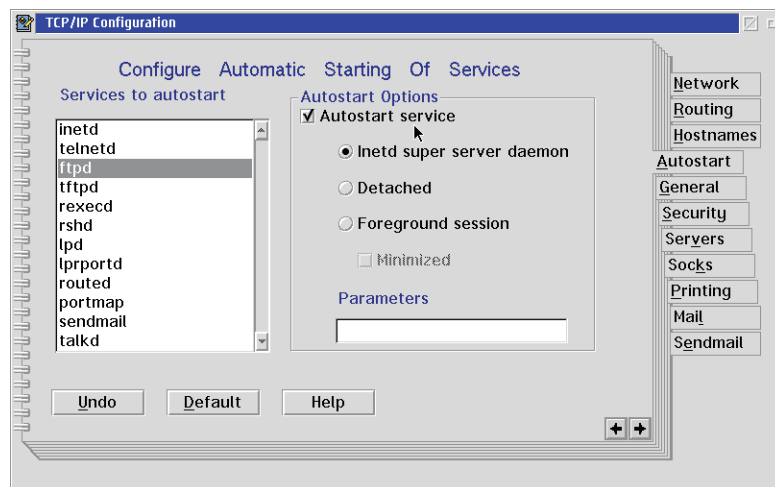


Figure 5. The TCP/IP Configuration Window – Options for **ftpd**

- a. From the field **Services to autostart**, select **ftpd**.
 - b. From the field **Autostart options**, select **Autostart service** and **Inetd super server daemon**.
6. Select the notebook page **Security**.
The following figure shows an example of the Security page.

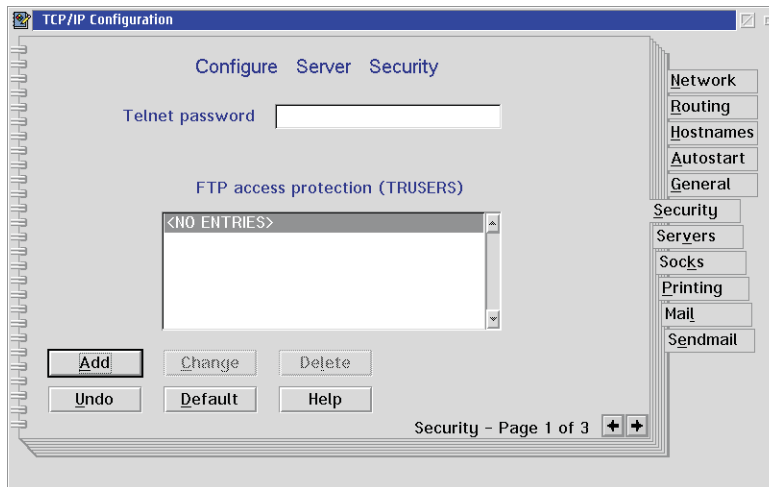


Figure 6. The TCP/IP Configuration Window – Security Page

- a. From the field **FTP access protection**, select **<No Entries>**.
- b. Click **Add**.

You then get the FTP User Entry window. The following figure shows an example of this window.



Figure 7. The FTP User Entry Window

7. In the field **Username**, specify the name of the user, for example, **USER1**.
8. In the field **Password**, type the password.
9. In the field **Directory access for read**, specify the path of the directory in which the export files are stored.

10. Click **Add**.

To finish preparing the server:

1. Close the TCP/IP Configuration window.
You are then asked whether you want to save the changes.
2. Click **Yes** to save the changes of the TCP/IP configuration.
3. Restart your OS/2 system.

After you restart your system, you see **Inetd** in the task list. To connect your Windows NT system as a client to this OS/2 server, you need the host name of your OS/2 system.

To get the host name of your OS/2 system:

1. Open an OS/2 command window.
2. Type **hostname** in the command line.
You then get the name of the host, for example, **asterix.ibm.com**.

The next step is to connect the Windows NT client to the OS/2 FTP server.

Preparing FTP on Windows NT

To activate the FTP client on Windows NT, do the following:

1. Open a Command Prompt window.
2. Create a directory for the migration data and change to this directory.
3. Type **ftp hostname**, where *hostname* represents the name of the OS/2 system, for example, **asterix.ibm.com**.
4. Type the user name and password that are identical to user name and password that are used for the FTP server setup on OS/2.
5. Type **pwd** to check whether you are in your export directory on OS/2.
6. Type **ls** to list all files in the export directory.
7. Type **bin** to set the transfer mode to binary.
8. Type **mget *** to send all files from the OS/2 directory to your current Windows NT directory.
9. Type **y** for each file to confirm that you want to transfer the files.

After you receive the files, do the following:

On Windows NT:

1. Type **bye** to stop the FTP connection.
2. Type **dir** to check whether all files are transferred.

On OS/2:

1. Delete the FTP user that you created before.
2. Remove the automatic start for **ftpd** and **inetd** by unchecking the option **Autostart service** in the corresponding notebook page.

Using a Shared Directory

If you have NETBIOS installed on your machine and a network connection between the two workstations, you can use a shared directory of your Windows NT system. The OS/2 workstation can connect to this network resource and copy the export files to Windows NT.

To use a shared directory, you have to prepare your Windows NT and OS/2 system. The following sections show you how to do this.

Preparing Windows NT

To set up the shared directory on Windows NT:

1. Open the **Windows NT Explorer**.
2. Select an existing directory or create a new directory.
3. Right-click the folder.
4. Select the notebook page **Sharing**.
5. Select **Shared As:**.
6. In the field **Share Name:**, specify the name of the shared directory.

Note: By default, the group **EVERYONE** has access to this directory. To restrict the access, click **Permissions....** You can then change the settings.

7. Click **OK** to save your entries.

To connect Windows NT and OS/2, you need the NETBIOS name of your Windows NT system. OS/2 uses this name to identify your Windows NT system.

To get the NETBIOS name, do the following:

1. Click **Start** → **Settings** → **Control Panel** → **Network**.
2. Click **Identification**.

The field **Computer Name** contains the NETBIOS name.

Preparing OS/2

On OS/2, a user ID with a password that is identical to the password in Windows NT is required. The user ID must have access to the shared directory that you created in Windows NT.

To share the directory with the Windows NT system:

1. Log off all users IDs.
2. Log on with the user ID that exists in OS/2 and Windows NT.
3. Open a command window in OS/2.
4. Type the command **net use x: \\NETBIOSNAME\RESOURCE** in the command line.
Where:
 - **x** denotes an unused drive letter.
 - **NETBIOSNAME** denotes the name of your Windows NT machine.
 - **RESOURCE** denotes the name of the shared directory.
5. You then get the message **The command completed successfully**.
6. Change to the directory in which the export files are located and type **copy * x:**.
7. The export files are copied to the shared drive.
8. After this process is finished, type **net use x: /d** to free the shared drive.
9. On Windows NT, stop sharing the directory.
 - a. In **My Computer**, click the directory that you want to stop sharing.
 - b. From the **File** menu, click **Properties**.
 - c. Click the **Sharing** tab, then click **Not Shared**.

Using a Diskette

If you do not have a network connection between OS/2 and Windows NT, you can transfer the export data by using a diskette.

1. Ensure that OS/2 and Windows NT have a diskette drive of the same format.

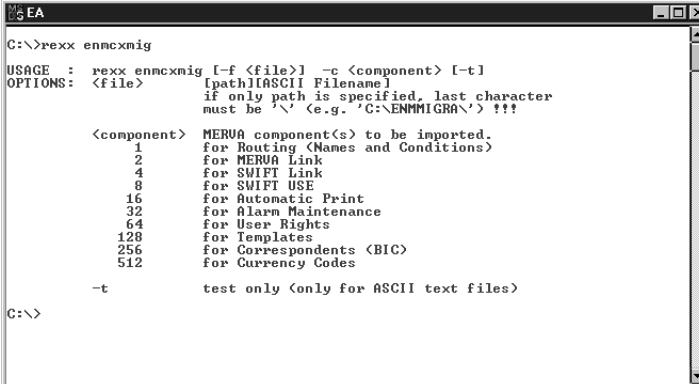
2. Ensure that each file fits on a diskette.
If you have many correspondents, the size of the file **ENMBIC.IXF** might not fit on the diskette. In this case, compress this file.
3. Open an OS/2 command window and change to the directory in which the export files are located.
4. Type **copy filename a:** where **filename** denotes the name of the export file, and **a** denotes the letter for your diskette drive.
5. Repeat this step for each file that you want to copy.
For a list of the file names, refer to Table 19 on page 53.
6. On Windows NT, copy the files to a directory on one of your hard disks.

Importing Transferred Data to Windows NT

This section describes how to import your migration data from MERVA OS/2 to MERVA USE & Branch for Windows NT.

Before you start to import data, check that you have set up your Windows NT system, for example, check your printer setup. Ensure also that your MERVA USE & Branch for Windows NT installation is set up correctly.

The following figure shows an example of the REXX import program **enmcxmig** and its syntax.



```

C:\>rexx enmcxmig
USAGE : rexx enmcxmig [-f <file>] -c <component> [-t]
OPTIONS: <file>          [path][ASCII Filename]
                        if only path is specified, last character
                        must be '\' (e.g. 'C:\ENMMIGRA\') !!!

      <component> MERVA component(s) to be imported.
                  1   for Routing (Names and Conditions)
                  2   for MERVA Link
                  4   for SWIFT Link
                  8   for SWIFT USE
                 16   for Automatic Print
                 32   for Alarm Maintenance
                 64   for User Rights
                128   for Templates
                256   for Correspondents (BIC)
                512   for Currency Codes

      -t          test only (only for ASCII text files)

C:\>

```

Figure 8. The REXX Import Program

You can import the migration data in different ways. It is recommended to import all components by using the following command:

```
C:\>rexx enmcxmig -f D:\data\enmmigra\migra -c 1023
```

where **D:\data\enmmigra** is the path in which your migration files are located.

The following list shows other commands with which you can import migration data.

- To import all components except, for example, currency codes, specify:
C:\>rexx enmcxmig -f D:\data\enmmigra\migra -c 511
- If you are in the directory that contains the migration files, specify only the file name:
D:\data\enmmigra\>rexx enmcxmig -f migra -c 511
- If you want to import only DBM IXF files, you can skip the file name:

```
C:\>rexx enmcxmig -f D:\data\enmmigra\ -c 128
```

- If you are in the directory that contains the migration files, and if you want to import only DBM IXF files, you can skip **-f** and the full path name:

```
D:\data\enmmigra>rexx enmcxmig -c 512
```

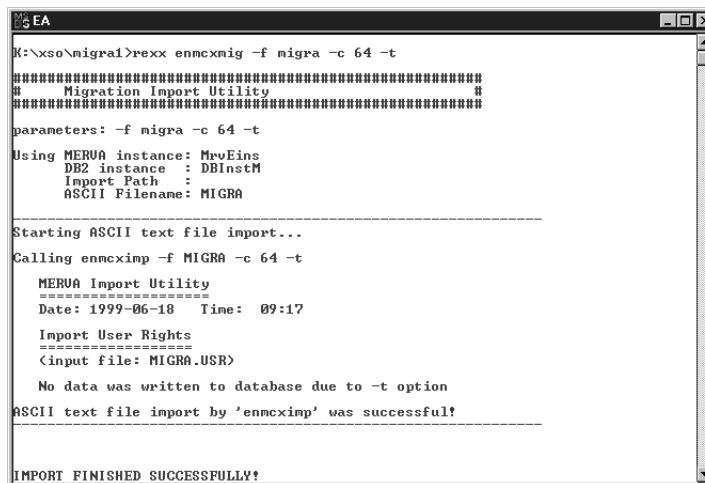
- To check the validity of all migration ASCII files you can use the following command:

```
C:\rexx enmcxmig -f d:\data\enmmigra\migra -c 127 -t
```

You can also specify the components separately, for example, replace **127** by **8** to check only the SWIFT USE ASCII file. If the data is not consistent, you get an error message.

Note that the option **-t** affects only ASCII text files. The option is passed to the import program **enmcximp**. The program is then switched to test mode. It checks whether the migration files are valid. The data is, however, not written to the database. The validity of the DBM IXF files cannot be checked.

The following figure shows an example of the import of ASCII text files.



```
EA
K:\xso\nigra1>rexx enmcxmig -f migra -c 64 -t
#####
# Migration Import Utility #
#####
parameters: -f migra -c 64 -t
Using MERVA instance: MvEins
DB2 instance : DBInstM
Import Path :
ASCII Filename: MIGRA

-----
Starting ASCII text file import...
Calling enmcximp -f MIGRA -c 64 -t
MERVA Import Utility
=====
Date: 1999-06-18 Time: 09:17

Import User Rights
=====
(input file: MIGRA.USR)

No data was written to database due to -t option
ASCII text file import by 'enmcximp' was successful!

-----
IMPORT FINISHED SUCCESSFULLY!
```

Figure 9. The Import Program - ASCII Text Files

First, the **enmcximp** program is called to import the ASCII text files. Therefore, MERVA is started in customization mode.

If MERVA runs in multi-user mode, you are asked whether you want to restart MERVA automatically in customization mode. If other users are currently not logged on to MERVA, type Y. MERVA is then restarted in customization mode, and the **enmcximp** program is called with the corresponding options.

If you do not start MERVA in customization mode, the **enmcxmig** program abends and you have to restart MERVA manually.

The following figure shows an example of the import of DBM IXF files.

```

EA - rexx enmcmig -f migra -c 0
ENM21511: Base Customization Server Termination (pid=333) started
ENM21551: Base Customization Server (pid=363) terminated
ENM21551: Base Customization Server Termination (pid=333) terminated
ENM21511: Interprocess Communication Server Termination (pid=323) started
ENM21551: Interprocess Communication Server (pid=78) terminated
ENM21551: Interprocess Communication Server Termination (pid=323) terminated
ENM21571: Waiting for MERVA processes being terminated
ENM21681: MERVA stopped

Service of MERVA instance 'MrvEins' successfully stopped.

Connect to ENMCNTRL ...
Connected

Importing SWIFT USE TABLE USEDEF ...
Importing SWIFT USE TABLE USEDEF finished!

Importing SWIFT USE TABLE CUTAB1 ...
Importing SWIFT USE TABLE CUTAB1 finished!

Importing SWIFT USE TABLE DESTTAB1 ...
Importing SWIFT USE TABLE DESTTAB1 finished!

Importing SWIFT USE TABLE ICCSET ...
Importing SWIFT USE TABLE ICCSET finished!

Importing SWIFT USE TABLE ICCTAB1 ...
Importing SWIFT USE TABLE ICCTAB1 finished!

Importing SWIFT USE TABLE LIACCESS ...
Importing SWIFT USE TABLE LIACCESS finished!

Importing SWIFT USE TABLE LITAB1 ...

```

Figure 10. The Import Program - DBM IXF Files

After the import of the ASCII text files is finished, the **enmcmig** program imports DB2 IXF files if the corresponding option is specified. During this import process, MERVA is stopped.

If MERVA runs in customization or multi-user mode, you are asked whether you want to stop MERVA automatically. If other users are currently not logged on to MERVA, type Y. MERVA is then stopped, and the **enmcmig** program imports the DBM IXF files.

If you do not stop MERVA, the **enmcmig** program abends and you have to stop MERVA manually.

After the import is finished, do the following:

1. Start MERVA in multi-user mode by using the MERVA command center **MCC**.
2. Check the access rights of the MERVA users. If you have migrated user access rights, only the initial user **merva** has access to MERVA. For a description on how to work with user access rights, refer to "Importing User Access Rights to MERVA USE & Branch for Windows NT" on page 40.
3. Check your customization data with a user ID that has the right to ensure that the data is migrated correctly.

Note: If the import fails, you should reimport all components.

Handling an SQL0964C Error

If an error occurs during the import process of the ASCII text files, the import is canceled. The conditions valid at the start of the import process are restored. Therefore, the import data has to fit into the transaction log.

When you import large migration files, a DB2 SQL0964C error can occur. It indicates that the DB2 transaction log file is full. You must then increase the log size.

To increase the log size:

1. Open a command line window.
2. Ensure that the environment variable **DB2Instance** specifies your MERVA database instance.

3. Type **db2cc** in the command line.
You then get the Control Center window. The following figure shows an example of this window.

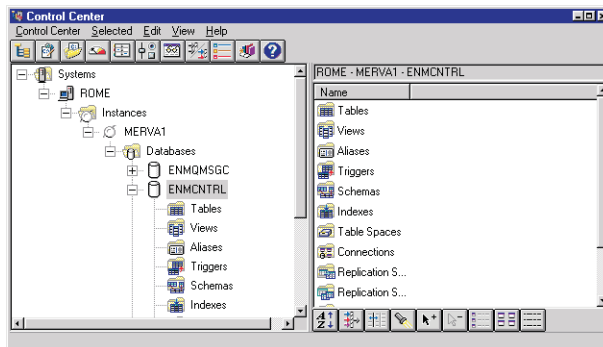


Figure 11. The Control Center Window

4. Select the Control Database **ENMCNTRL** of your MERVA database instance, for example, **MERVA1**.
5. Right-click **ENMCNTRL**.
6. Select **Configure**.

You then get the Configure Database - ENMCNTRL window. The following figure shows an example of this window.

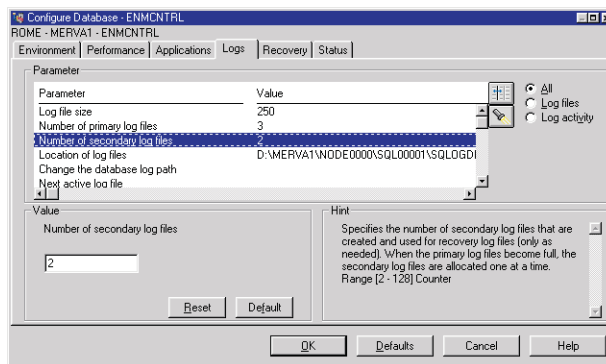


Figure 12. The Configure Database - ENMCNTRL Window

7. Select the notebook page **Logs**.
8. In the field **Parameter**, select **Number of secondary log files**.
9. In the field **Value**, increase the value from 2 to 10 or 20.

Note: Ensure that you have enough free disk space in the path **Location of log files**.

10. Click **OK**.
11. Close the Configure Database - ENMCNTRL window.
12. Close the Control Center window.
13. Open a command line window.
14. Type **db2stop** in the command line to stop the DB2 instance.
15. Start the migration import process again.

Verifying the Migration Process

This section tells you how to verify different steps of the migration process.

After you migrate the user access rights, only the initial user **merva** can log on to MERVA. Before you can work with the imported user IDs, you must approve them. For information on how to approve users, refer to “Approving Migrated Users” on page 42.

Verifying Customization Settings

To verify that the customization settings are migrated correctly:

1. Start MERVA in customization mode.
2. Log on to MERVA with a user ID that has the following rights:
 - Customization - Components
 - Customization - Routing
 - Customization - System Configuration
3. Check all Customization windows and ensure that they contain the migrated values. These values are described in “Chapter 3. Migration in Detail” on page 19 and in the migration log file **MIGRA.LOG**.
4. Log off from MERVA.

Verifying SWIFT USE

To verify that the SWIFT USE data, correspondents, and templates are migrated correctly:

1. Start MERVA in multi-user mode.
2. Log on to MERVA with a user ID that has at least the rights for the data that you want to check, for example:
 - Secure Transmission Key
 - Bilateral Keys - Maintain
 - Certificates - Maintain
 - ICC Sets - Maintain
 - IC Cards - Maintain
 - Card Reader - Maintain
 - Correspondents - Maintain
 - Templates - Maintain and Messages - Create
3. Check the data in the program groups **SWIFT USE UKMO** and **SWIFT USE USOF**.
4. Check the program correspondents in the program group **Administration**.
5. Check the templates by using **Message Processing** from the program group **Messages**.
6. Log off from MERVA.

You can then customize MERVA according to the new environment as described in “Chapter 3. Migration in Detail” on page 19.

Chapter 3. Migration in Detail

This chapter contains detailed information about the different components that are to be migrated.

In general, data is migrated without changes. The following sections describe both, the changes that are performed by the migration program and the changes that you have to do manually.

Migrating the Routing Data

Routing data is an important part of your MERVA installation. Routing conditions that consist of queues, fields, and constants, determine when routing of a message starts. They also determine the queue to which a message is routed.

The routing data is written to the migration file **MIGRA.ROU**. The migration file is an ASCII text file. The migration log file **MIGRA.LOG** contains a detailed protocol of the changes that are made during the migration process of the routing data.

Migrating Queues

The queues are exported to the export file with the corresponding purpose group name.

In MERVA OS/2, some purpose group names are different to those of MERVA USE & Branch for Windows NT. The migration program checks all queues and changes the purpose group name accordingly as shown in Table 2 and in Table 3 on page 20.

The following table shows the purpose groups of MERVA OS/2 and MERVA USE & Branch for Windows NT that have different names.

Table 2. Purpose Groups of MERVA OS/2 and MERVA USE & Branch for Windows NT

MERVA OS/2	MERVA USE & Branch for Windows NT
Ready to Send	SWIFT Ready to Send
Manual Authentication	SWIFT Manual Authentication
Incoming Messages	SWIFT Received
API Messages	API
Print Messages	Print
Delete Messages	Delete
Message Received	MERVA Link Received
Message Ready To Send	MERVA Link Ready To Send
Message Ack Wait	MERVA Link Ack Wait
Message Control	MERVA Link Control
Message Verification	Message Retype Verification
Message Authorization One	Message Authorization
Negatively Acknowledged Telexes	Telex NAKed

MERVA USE & Branch for Windows NT does not support the same purpose groups as MERVA OS/2. Therefore, the migration program maps the purpose groups as shown in the following table.

Table 3. Different Purpose Groups

MERVA OS/2	MERVA USE & Branch for Windows NT	Purpose Group Description
Purge Messages	API	In the standard routing of MERVA OS/2, three queues belong to this group. SLPURGE and TMPPURGE are MERVA OS/2 specific. SLRL1ACK also exists in MERVA USE & Branch for Windows NT. The three queues are migrated. Additional user-defined queues belonging to this group are changed to the API group. To purge messages, the enmcqpur command is used.
Unload Messages	API	In the standard routing of MERVA OS/2, three queues belong to this group. They are renamed according to the corresponding MERVA USE & Branch for Windows NT queues as shown in Table 4 on page 21. The purpose group is also changed. Additional user-defined queues belonging to this group are changed to the API group.
Load Messages	API	In the standard routing of MERVA OS/2, only the MBLOAD queue belongs to this group. It is migrated to the API purpose group of MERVA USE & Branch for Windows NT. The API sample program to load messages can also use other queues to load messages. Additional user-defined queues belonging to this group are also changed to the API group.
Message Authorization Two	Message Authorization	In the standard routing of MERVA OS/2, this group does not contain any queues. If a user-defined queue is found, it is changed to the Message Authorization group of MERVA USE & Branch for Windows NT. You then get a warning message, because in MERVA USE & Branch for Windows NT you must restrict access to this queue via queue restrictions on the user right Messages - Authorize. For details on the user right, refer to Table 15 on page 37.

Table 3. Different Purpose Groups (continued)

MERVA OS/2	MERVA USE & Branch for Windows NT	Purpose Group Description
Testkey Calculation	Message Edit	<p>In the standard routing of MERVA OS/2, the queue TMKEYCAL receives messages from SMAUTH1, SLRURG02, SLRNRM02, and TMNAKS. Messages are routed to TP2_SND or SMEDIT. Because MERVA NT does not have the manual telex testkey calculation, this queue is changed to the purpose group Messages - Edit.</p> <p>Note: In this group, a user can edit the complete message, not only the field for the telex testkey.</p> <p>This message is then routed to the telex send queue without further retyping or authorization. Ensure that this conforms to your organization security regulations. It is recommended to change the routing conditions for this queue after the import to Windows NT.</p> <p>You can:</p> <ul style="list-style-type: none"> • Add another authorization step to check if only the testkey was added. • Change the routing so that the manual telex testkey calculation is done before the authorization step.
Testkey Verify	Message Authorization	<p>In the standard routing of MERVA OS/2, only the queue TMKEYVER belongs to this group. MERVA USE & Branch for Windows NT does not support manual test key verification. These queues are transferred to the Message Authorization purpose group.</p>
Received Telexes	API	<p>This group is only valid in MERVA/2 V3.2. During migration to MERVA OS/2 V3.3, it should have been deleted. If the migration program finds a queue belonging to this group, it changes the queues to the API group.</p>

The migration program renames standard queues with names that are not identical in MERVA OS/2 and MERVA USE & Branch for Windows NT as shown in the following table.

Table 4. Queue Names of MERVA OS/2 and MERVA USE & Branch for Windows NT

MERVA OS/2	MERVA USE & Branch for Windows NT
TMNAKS	TP2_NAK
SLUNLFIN	SLRCVFIN
SLUNLNST	SLRCVNST
SLUNLSYS	SLRCVSYs
MLSND2	MLSEND
MBLOAD	SL_IN

Notes:

1. For SLRCVFIN, SLRCVNST, and SLRCVSYs, the purpose group is changed to the API group as shown in Table 3 on page 20.
2. For MBLOAD, the purpose group is changed to the API group as shown in Table 3 on page 20.

The migration program ignores all queues of the MERVA/2 V3.2 purpose group System Message Generation, for example, the queue SMSYSGEN. It should have been deleted during migration to MERVA OS/2 V3.3. The migration program checks that the migration data contains all system queues that exist in the MERVA USE & Branch for Windows NT standard routing. It adds missing system queues but does not add routing conditions. These queues are not used.

The following table shows the system queues that are added during the migration process. The queues are automatically created by the program **enmcximp**. The program **enmcximp** is automatically called by the migration import program. Note that only a default target queue is defined. Routing conditions are not defined.

Table 5. System Queues Added during Migration Process

Queue	Purpose Group	Default Target Queue
SMCREATE	Message Creation	MBMERROR
SLINCMS1	SWIFT Received	
SLINCMS2	SWIFT Received	SLRCVFIN
SLRNRM02	SWIFT Ready to Send	MBMERROR
SLRSYS01	SWIFT Ready to Send	
SLRSYS02	SWIFT Ready to Send	
SLRURG02	SWIFT Ready to Send	
MLAKWAIT	MERVA Link Ack Wait	MBDELETE
MLCNTRL	MERVA Link Control	
MLRECEIV	MERVA Link Received	MBMERROR
MLSEND	MERVA Link Ready to Send	MBDELETE
UFROMSWF	USE Received Messages	SLPRINT2
UNAKED	USE NAKed	
USEINCMD	USE Received Commands	MBMERROR
USESEND	USE Message Entry	
MBDELETE	Delete	MBDELETE
SLPRINT2	Print	
SLRCVFIN	API	
MBMERROR	Corrupt Messages	MBMERROR

Note: The system queues that are created during the import process cannot be accessed regardless of the user right settings. Only the queues that are included in the migration data can be accessed.

The following additional standard queues exist only in MERVA OS/2 but are migrated:

- MLSNDESA
- PRINTACK

- PRINTTLX

Note: The MERVA OS/2 default routing does not have a queue for the purpose group Message Completion. To create messages by using the local message processing of MERVA USE & Branch for Windows NT, you must do the following:

1. Create a queue that belongs to the purpose group Message - Completion of MERVA USE & Branch for Windows NT.
2. Include this queue in the details of the corresponding user rights, for example:
 - Messages - Create
 - Messages - Delete
 - Messages - Display/Print

Migrating Fields

The migration program exports each field with the corresponding name, start tag, offset, length, message part, scan flag, and data type to the export file. It does not change any data but records the export in the migration log file.

Migrating Constants

The migration program exports each constant with the corresponding name and value to the export file. In MERVA OS/2, several constant names or values are different to those of MERVA USE & Branch for Windows NT. The migration program checks the constants for these names and values and changes the constants with different names or values.

The following table shows the name of the constants that are different in MERVA OS/2 and MERVA USE & Branch for Windows NT.

Table 6. Constant Names of MERVA OS/2 and MERVA USE & Branch for Windows NT

MERVA OS/2	MERVA USE & Branch for Windows NT
INCOM966	INC_966
TMLK_ACK	TX_ACK
TMLK_NAK	TX_NAK

The following table shows the values of the constants that are different in MERVA OS/2 and MERVA USE & Branch for Windows NT.

Table 7. Constant Values of MERVA OS/2 and MERVA USE & Branch for Windows NT

MERVA OS/2	MERVA USE & Branch for Windows NT	Constant Description
ENM5578	ENM9978	AUTINKEY
ENM5579	ENM9979	AUTNOKEY
ENM5585	ENM9985	AUT_FAIL
ENM5581	ENM9981	AUT_SUSP

Note: MERVA OS/2 Branch does not contain all standard routing constants. Therefore, the migration export program adds the constant **OK** with the value **OK**. This ensures correct routing after the import on MERVA USE & Branch for Windows NT is finished.

Migrating Routing Conditions

The migration program exports routing conditions for each queue. Depending on the settings, all target queues with the corresponding conditions, including queue names, fields, and constants, are exported. This ensures correct routing in MERVA USE & Branch for Windows NT.

The migration log file contains the queue names that are affected by the changes of queue names, fields, or constants. After the migration process is finished, check these routing conditions by using the customization program. For a detailed description on customization, refer to the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

Migrating MERVA Link

MERVA Link on MERVA OS/2 and MERVA NT have different concepts. For a detailed description of MERVA Link, refer to the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

Before you can use MERVA Link of MERVA USE & Branch for Windows NT, you must set up Communications Server or Personal Communications.

The migration program writes an ASCII text file that contains your MERVA Link configuration including the local node name, partner node definitions, and ASP definitions.

MERVA Link Node Names

MERVA Link in MERVA USE & Branch for Windows NT identifies partners by a MERVA Link node name. The node names must be unique within a network of interconnected MERVA systems.

In MERVA OS/2, the local APPC LU name is also used as the local MERVA Link node name. You cannot define a different local MERVA Link node name. In MERVA USE & Branch for Windows NT, you can use different names as LU name and MERVA Link node name. During migration, the local LU name of MERVA OS/2 is also used as local MERVA Link node name for the installation in MERVA USE & Branch for Windows NT.

Note: You can change the setting of the local MERVA Link node name after migration. If you change the name, you must also change the parameter **MERVA Link Local Node Name (b24)** in the MERVA Link partner table of MERVA ESA. For a description on how to do this, refer to *MERVA Workstation Based Functions*.

In MERVA OS/2, the partner node name of MERVA Link is specified with the parameter **Partner MTN Name**. During migration, this value is used as the partner node name of MERVA Link. The value corresponds with the local MERVA Link node name of the communication partner.

If you have to change the local LU name during migration, you must adjust the value in the configuration of Communications Server or Personal Communications.

You must also change the parameter **Workstation LU Name (d2)** in the MERVA ESA configuration. For a description on how to do this, refer to *MERVA Workstation Based Functions*.

Symbolic Destination

In MERVA USE & Branch for Windows NT, the name of the CPI-C side information profile of Communications Server or Personal Communications for Windows NT is used to retrieve information of partner LUs and transaction program names.

After the import of the migration data is finished, insert the parameter **Symbolic Destination** in the MERVA Link ISC customization. This parameter complies to the CPI-C side information profile name. You can specify the transaction program within MERVA. This overrides the TP name in the CPI-C side information profile. The LU name is not used in MERVA USE & Branch for Windows NT.

Transaction Program Name

The name of the transaction program is migrated. This ensures that the configuration of the communication partner does not have to be changed.

In MERVA USE & Branch for Windows NT, the default name of the transaction program is **EKAR1**. In MERVA OS/2, the default name of the transaction program is **EKAOSVR**.

If the name of your transaction program in MERVA OS/2 is **EKAOSVR**, you must use this name for the configuration in Communications Server and Personal Communications. This is different to the transaction program name **EKAR1** that is suggested in the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

ASP

MERVA OS/2 has only one local ASP for all partners. MERVA USE & Branch for Windows NT allows you to define more than one local ASP. A local ASP can correspond only to one remote partner ASP. This is different to MERVA OS/2.

Therefore, the migration program creates one local ASP name for each defined partner ASP, if you have more than one communication partner. If your local ASP is **SAMPLE** and if you have three ASPs, the migration program creates three local ASPs with the names **SAMPLE1**, **SAMPLE2**, and **SAMPLE3**.

The ASP name can be up to eight characters long. If the original ASP name including the appended numbers is too long, the last characters are replaced with the numbers.

You must add the new ASP name to the configuration of the corresponding partner node by changing the parameter **Workstation ASP Name (b3)**. For information on how to do this, refer to *MERVA Workstation Based Functions*.

Note: MERVA USE & Branch for Windows NT can also use TCP/IP. MERVA OS/2 uses only SNA connections. Therefore, a TCP/IP configuration cannot be migrated. You can customize the TCP/IP settings after the migration process is finished.

The following table shows the correlations between the customization values and the keywords of the export files.

Table 8. MERVA Link

MERVA OS/2 Dialog Field	Export File Keyword	MERVA USE & Branch for Windows NT Dialog Field	Remarks
Local node			One section
Local Definition - Local LU Name	Nodename	Local Node Name	Name at MERVA Link layer
Details for partner node			One section for each partner node
Partner MTN Name	Nodename	Partner Node Name	Name at MERVA Link layer
	SNA_Symbolic_Destination	SNA - Symbolic Destination	Name of side information profile of SNA settings. Not used in MERVA OS/2
Transaction ID	SNA_TP_Name	SNA - Transaction Program Name	For details refer to "Transaction Program Name" on page 25
	TCP/IP_Host_Name	TCP/IP - Host Name	Not used in MERVA OS/2
	User_ID	Security - User ID	Optional for SNA. Not used in MERVA OS/2
ASP information			
Local Process Names - Local ASP Name	Local_ASP_Name	ASP Name	Only one in MERVA OS/2. A consecutive number is appended to this ASP
Local Process Names - Local MTP Name	Local_MTP_Name	MTP Name	Only one in MERVA OS/2
Partner ASP Name	Partner_ASP_Name	Partner ASP Name	
Partner MTP Name	Partner_MTP_Name	Partner MTP Name	
Partner MTN Name:	Partner_Node_Name	Partner Node Name	Name at MERVA Link layer
	Application_User_Exit	Other Information - Application User Exit	Not used in MERVA OS/2
	Security_User_Exit	Other Information - Security User Exit	Not used in MERVA OS/2
	Security_Key_Modifier	Other Information - Security Key Modifier	Not used in MERVA OS/2
	Message_Audit_Logging	Other Information - Message Audit Logging enabled	Not used in MERVA OS/2; set to "YES"
Send Queue (Urgent)	Urgent_Send_Queue	Sending Information - Urgent	

Table 8. MERVA Link (continued)

MERVA OS/2 Dialog Field	Export File Keyword	MERVA USE & Branch for Windows NT Dialog Field	Remarks
Send Queue (Normal)	Normal_Send_Queue	Sending Information - Normal	
Send Queue (Low)	Low_Send_Queue	Sending Information - Low	
Transfer Format	Transfer_Format	Sending Information - Transfer Format	
	Preferred_Connection	Sending Information - Preferred Connection Type	Only SNA in MERVA OS/2; set to "SNA APPC"
Automatic Start	Autostart	Sending Information - Autostart	
Authentication	Authentication	Sending Information - Authentication	
Encryption	Encryption	Sending Information - Encryption	
Receiving Queue	Receive_Queue	Receiving Information - Receive Queue	
Ack Wait Queue	Ack_Wait_Queue	Receiving Information - Acknowledgement Wait Queue	
	State_of_Receiving_Process		MERVA Link Operating; set to "enabled"
	Description	Description	Not used in MERVA OS/2; set to "Here you can insert a description."
Status Report for SWIFT	User_Exit_Flag1	Other Information - Application User Exit Flag 1	
Status Report for Telex	User_Exit_Flag2	Other Information - Application User Exit Flag 2	

In addition to the configuration of MERVA, you must set up the Communications Server. For information on how to do this, refer to the corresponding Communications Server documentation and to the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

Migrating SWIFT Link

The migration program exports the following data to an ASCII text file:

- LT definitions
- Queue assignments for LT definitions
- SWIFT Link network data

- FIN copy service data

The following list shows differences between SWIFT Link network data in MERVA OS/2 and MERVA USE & Branch for Windows NT:

1. In MERVA USE & Branch for Windows NT, SWIFT Link does not support the network type BSC. Therefore, this configuration of SWIFT Link is not migrated.
2. In MERVA OS/2, it is possible to create an LT without assigning SWIFT Link send and receive queues (FIN and GPA). This applies especially to the USE scenario where you do not have SWIFT Link on the USE PC.

MERVA USE & Branch for Windows NT requires that each defined LT has assigned at least one send queue and one receive queue for FIN and GPA. Otherwise, the import tool does not import the data.

Therefore, the migration export tool on MERVA OS/2 checks each LT. Because at least one LT is mandatory, the first LT that is found is treated as follows:

If this LT is not valid for MERVA USE & Branch for Windows NT, the export tool assigns the standard queues for MERVA USE & Branch for Windows NT. The following table shows these queues.

Table 9. Queues for FIN and GPA Messages

Queue Name	FIN	GPA
Send Immediate	–	–
Send System	SLRSYS02	SLRSYS01
Send Urgent	SLRURG02	–
Send Normal	SLRNRM02	–
Receive	SLINCMS2	SLINCMS1

If, for example, a GPA send queue is not defined, the export tool assigns the queue SLRSYS01 as GPA Send System queue.

All succeeding LTs are also checked. If they are not valid, a message is printed to the screen and to the migration log file **MIGRA.LOG**. These LTs are not migrated. You cannot assign the standard queues again, because two LTs are not allowed to use the same send or receive queue. You have to create them on MERVA USE & Branch for Windows NT using the customization program (as described in the *MERVA USE & Branch for Windows NT Installation and Customization Guide*).

3. The MERVA SWIFT Link parameter **Link name** cannot be customized in MERVA OS/2.

It refers to the X.25 profile that is created during configuration of the ARTIC Support for X.25 on Windows NT. The standard value is **ENMX25L**. Therefore, the value of the export file keyword **Link_Name** is set to **ENMX25L** by default. For a detailed description of the **Link name** parameter, refer to the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

The following table shows the correlations of the customizer values and the keywords of the ASCII text export file.

Table 10. SWIFT Link

MERVA OS/2 Dialog Field	Export File Keyword	MERVA USE & Branch for Windows NT Dialog Field	Remarks
LTs			One section is defined for each master LT
LTs with master flag	LT_Name	Master LTs	Only master LTs
LTs following a master LT to the next master LT	Synonym_i	Synonym LTs	One line for each corresponding synonym of this master LT
Queue Assignments for LTs			One section GPA and one FIN for each master LT
Send: Immediate	Send_Immediate	Send Immediate	
Send: Normal	Send_Normal	Send Normal	
Send: System	Send_System	Send System	
Send: Urgent	Send_Urgent	Send Urgent	
Receive	Receive	Receive	
Network Data for SWIFT Link			
Line Type	Line_Type	Line Type	
Dial Type	Dial_Type	Dial Type	
First part of symbolic address (destination)	Symbolic_Address	First part of symbolic address (destination)	
Second part of symbolic address (connection ID)	Connection_ID	Second part of symbolic address (connection ID)	
Local Telephone	Local_Phone_Number	Local phone number	
Local DTE	Local_DTE	Local DTE	
Remote DTE	Remote_DTE	Remote DTE	
Suspend desired	Suspend_Desired	Suspend desired	
	Link_Name	Link name	Does not exist in MERVA OS/2; reference to X.25 profile; set to "ENMX25L"
Time-outs (sec.) - Acknowledge	Ack_Timeout_Period	Time-outs (sec.) - Acknowledgment	
Time-outs (sec.) - Association	Ass_Timeout_Period	Time-outs (sec.) - Association	
PDU Size (bytes) - Transport Layer	TPDU_Size	PDU Size (bytes) - TPDU size	
Resynchronization - Number of retries	Retries	Resynchronization - Number of retries	
Resynchronization - Delay before start	Delay	Resynchronization - Delay before start (sec.)	

Table 10. SWIFT Link (continued)

MERVA OS/2 Dialog Field	Export File Keyword	MERVA USE & Branch for Windows NT Dialog Field	Remarks
Resynchronization - Maximum duration of recovery	Duration	Resynchronization - Maximum duration of recovery in minutes	
FIN Copy Services			One section for each service defined
Copy Service Identifier	Name	Copy Service Identifier - ID	
Definition's Activation - Date	Activation_Date	Definition's Activation - Date	
Definition's Activation - Time	Activation_Time	Definition's Activation - Time	
Central Institution Destination	Central_Institution	Central Institution Destination	
Live Service Flag	Live_Service_Flag	Live Service Flag	
Authentication Mode	Authentication_Mode	Authentication Mode	
Full Copy Flag	Full_Copy_Flag	Full Copy Flag	
Value Date Range	Date_Range	Value Date Range	
Currency Code	Currency_Code	Currency Code	
Add field 103 automatically	Add_103	Add field 103 automatically	
Message Fields			One section for each service defined
Message types	Name	Message Types	
Value Date field	Value_Date	Value Date Field	
Currency field	Currency	Currency Field	
CID field	CID	CID Field	
List of included message fields	Included_MSG_Field_1	List of included message fields	One line for each included message field

Migrating SWIFT USE

The migration program exports the settings for the USE background process to an ASCII text file.

The following items are exported to DBM IXF files. Note that you cannot view or edit these files.

- SWIFT USE message headers
- Timeout definitions
- BKE start conditions
- STK
- Certificates

- Pregenerated session keys
- ICC sets
- ICC cards
- Card reader definitions

Note that MERVA USE & Branch for Windows NT also allows to use remote card readers because you cannot share a COM port in Windows NT. Therefore, you might have to change the settings.

In a MERVA OS/2 LAN, you can customize more than one USE background process, each running on a different workstation. In MERVA USE & Branch for Windows NT, the USE background process can only run on the workstation on which MERVA is installed. Therefore, you can customize only one process. In a command line window, you have to define the process that you want to migrate.

The following figure shows an example of this window.

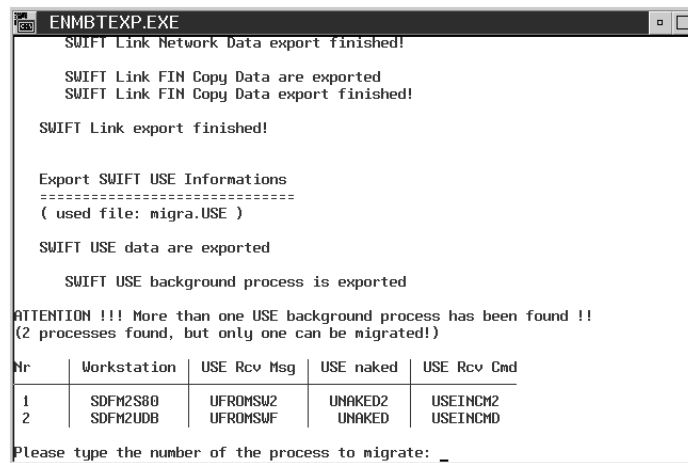


Figure 13. Example of the ENMBTEXP.EXE Window

Type the number of the process you want to migrate. The settings of the other processes are written to the ASCII text export file only as a comment. During the import process on Windows NT, the comments are ignored.

The following table shows the correlations of the customizer values and the keywords of the ASCII text export file.

Table 11. SWIFT USE

MERVA OS/2 Dialog Field	Export File Keyword	MERVA USE & Branch for Windows NT Dialog Field	Remarks
Background Processes			
USE Received Messages	Received_ Messages	USE Received Messages	Only one set of queues chosen by the user
USE NAKed	NAK	USE NAK	
USE Received Commands	Received_ Commands	USE Received Commands	

Note: After the migration import is finished on Windows NT, you must change the routing. Send USE messages that come from SWIFT Link or MERVA

Link to the three queues that the migrated USE background process handles. Otherwise, messages are sent to a USE background process that is not migrated.

Migrating Automatic Print

The migration program exports the following data to an ASCII text file:

- Printer
- Print queue
- Print to File flag
- Autostart flag

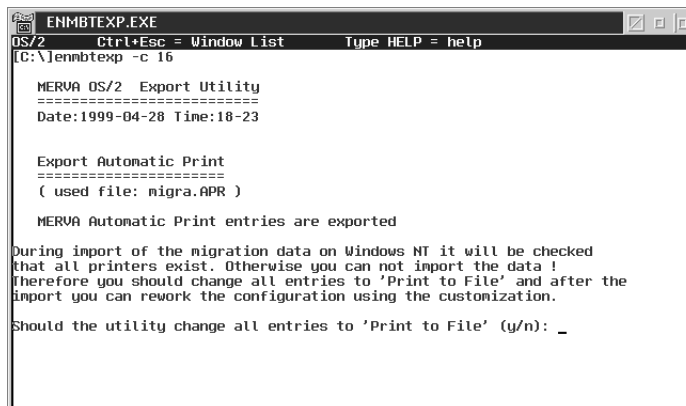
In MERVA USE & Branch for Windows NT, you can use local printers, network printers, and shared printers.

In a MERVA OS/2 LAN, automatic print can run concurrently on different workstations. In MERVA USE & Branch for Windows NT, automatic print can only run on the workstation on which MERVA is installed. You can, however, start automatic print from different queues.

The name of the printer in MERVA USE & Branch for Windows NT should be identical to the name in MERVA OS/2. During the import process it is checked whether the printers specified in the migration data are defined in Windows NT. If not, the import fails.

The migration program shows a command line window. In this window, you have to define whether entries for automatic print are changed to Print to File.

The following figure shows an example of the enmbtexp.EXE window.



```
ENMBTEXP.EXE
OS/2 Ctrl+Esc = Window List Type HELP = help
[C:\]enmbtexp -c 16

MERVA OS/2 Export Utility
Date:1999-04-28 Time:18-23

Export Automatic Print
=====
( used file: nigra.APR )

MERVA Automatic Print entries are exported

During import of the migration data on Windows NT it will be checked
that all printers exist. Otherwise you can not import the data !
Therefore you should change all entries to 'Print to File' and after the
import you can rework the configuration using the customization.

Should the utility change all entries to 'Print to File' (y/n): _
```

Figure 14. Example of the ENMBTEXP.EXE Window

If you type **Y**, the entries for automatic print are changed to Print to File. In spite of this fact, the printer names that are defined in MERVA OS/2 are written to the ASCII text export file. Entries regarding the printers are, however, ignored during the import process.

To change the Print to File flag, use the customization program of MERVA USE & Branch for Windows NT after the migration is finished.

The following table shows the correlations of the customizer values and the keywords of the ASCII text export file.

Table 12. Automatic Printing

MERVA OS/2 Dialog Field	Export File Keyword	MERVA USE & Branch for Windows NT Dialog Field	Remarks
Print Queues			One section for each print queue defined
Queue	Name	Message Queue	
Automatic Print: Parameters - Print to File	Print_to_file	Print Parameter - Print to file	
Printer Queue	Printer	Printer Queue/File	Only evaluated if Print_to_file = "NO"
Automatic Print: Parameters - Autostart	Autostart	Print Parameter - Autostart	

Migrating Alarms

The migration program exports the semaphore name and the queue name for all user-defined alarms to the migration export file.

In a MERVA OS/2 LAN, alarms can be assigned to any workstation. This is not possible in MERVA USE & Branch for Windows NT.

The way you assign queues and alarms in MERVA OS/2 is different to MERVA USE & Branch for Windows NT. In MERVA OS/2, you first have to define an alarm.

The following window shows an example of the Alarm Maintenance window.

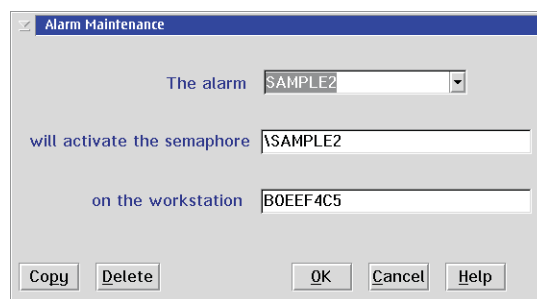


Figure 15. The Alarm Maintenance Window

You can assign this alarm to one or more queues.

The following window shows an example of the Alarm Selection window.

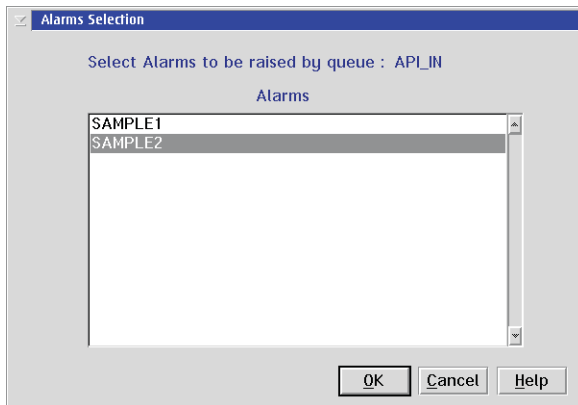


Figure 16. The Alarm Selection Window

In MERVA USE & Branch for Windows NT, you can define the alarm in one window.

The following figure shows an example of the Alarms window of MERVA USE & Branch for Windows NT.

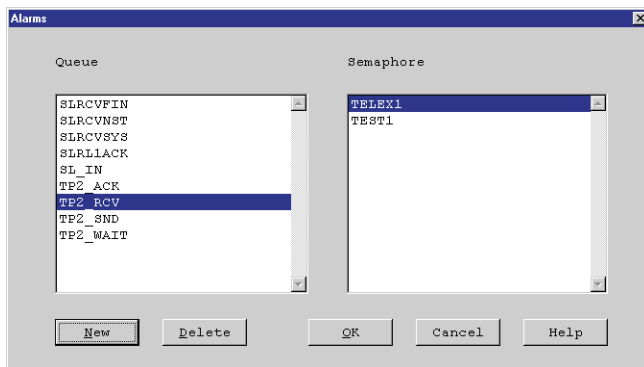


Figure 17. The Alarms Window of MERVA USE & Branch for Windows NT

The MERVA OS/2 alarm name is not migrated. Only the semaphore name is migrated because API programs use the semaphore name and not the alarm name.

If an alarm is not assigned to a queue, it is not migrated. The export process checks whether the queue to which the alarm is assigned exists. If not, the queue is not migrated.

The following table shows the correlations of the customizer values and the keywords of the ASCII text export file.

Table 13. Alarms

MERVA USE & Branch for Windows NT Dialog Field	Export File Keyword	MERVA OS/2 Dialog Field	Remarks
Alarms			One section for each alarm defined
Semaphore	Alarm Name	Activates Semaphore	

Table 13. Alarms (continued)

MERVA USE & Branch for Windows NT Dialog Field	Export File Keyword	MERVA OS/2 Dialog Field	Remarks
Queue	Queue_Name	Alarm Selection Select Alarm to be raised by queue	In MERVA OS/2, you must edit or create a queue to assign an alarm.

Migrating User Access Rights

The MERVA user access rights define the rights that a user has for queues and message types and MERVA-related tasks. Only these MERVA user access rights are migrated. They do not define group memberships or rights that depend on the operating system.

Exporting User Access Rights from MERVA OS/2

The migration program creates the ASCII file **migra.usr**. This file contains user names, assigned LTs, and the granted rights including message type restrictions. The migration log file **MIGRA.log** contains a protocol and a list of the migrated user IDs. With this information and the following tables, you can create MERVA USE & Branch for Windows NT users access rights.

The user rights of MERVA OS/2 and MERVA USE & Branch for Windows NT are different. The migration program translates the user rights of MERVA OS/2 so that they meet the standards of MERVA USE & Branch for Windows NT. For this purpose, the translation configuration file **enmusmig.cfg** in the directory **MERVA2\install** is used.

This file contains all user rights of MERVA OS/2 and MERVA USE & Branch for Windows NT, and their correlations. Before you export your data, you can edit settings that do not meet the requirements of your environment. For a description of the configuration file, refer to “Appendix A. The Configuration File *enmusmig.cfg*” on page 49.

Note: Queue restrictions that are defined for MERVA OS/2 rights are not migrated. For example, if users have a specific right for a specific queue in MERVA OS/2, they have this right for all available queues in MERVA USE & Branch for Windows NT. Therefore, you must redefine queue restrictions in MERVA USE & Branch for Windows NT. For a description on how to do this, refer to the *MERVA USE & Branch for Windows NT User’s Guide*.

The following categories for user rights exist:

- Unchanged user rights (see Table 14 on page 36).
- Changed user right names (see Table 15 on page 37).
- Changed user right definitions (see Table 16 on page 38).
- User rights that are valid only for MERVA OS/2 (see Table 17 on page 39).
- User rights that are valid only for MERVA USE & Branch for Windows NT (see Table 18 on page 40).

The following table shows the user rights that are valid for MERVA OS/2 and MERVA USE & Branch for Windows NT.

Table 14. Unchanged User Rights

Name	Description
Bilateral Keys - All	Work with all correspondent relationships.
Bilateral Keys - Approve pre-agreement	Approve a previously created pre-agreement.
Bilateral Keys - Backup	Back up the existing bilateral keys in a file using a specified format.
Bilateral Keys - Maintain	Record the necessary details about each correspondent with which bilateral keys are exchanged. The list of correspondents contains only relationships in which the own Key Management Authority (KMA) destination is identical to the destination (LT) defined in User Administration.
Bilateral Keys - Restore	Restore previously backed up bilateral keys.
Bilateral Keys - Sequential Operations	Allow consecutive operations with correspondent relationships.
Certificates - Delete	Delete certificates from one or more corresponding card reader and from the database, or from the database only.
Certificates - Maintain	Administer the certificates that are used by S.W.I.F.T. to prove that a public key is genuine and valid.
Certificates - Revoke	Revoke valid certificates. This has to be done if it is suspected that the security of the respective secret key has been compromised.
Correspondents - Delete	Delete BIC records from the correspondents database.
Correspondents - Import BIC diskettes	Load BIC records from a BIC file to the correspondents database.
Correspondents - Maintain	View and maintain BIC records stored in the MERVA database. This includes maintenance of telex information for the correspondents.
Customization - Components	Customize the MERVA components, such as communication links, logical terminal identifiers and their queue definitions, USE start, and automatic print definitions.
Customization - Routing	Define parameters such as message queues, fields, and constants. View and update the MERVA routing table. Specify the flow of messages within the system.
Customization - System Configuration	View and, if necessary, update system parameters, for example, date format or logging level. Change the log level in the Setup menu.
IC Cards - Maintain	Administer individual USOF, UKMO, and USER cards belonging to ICC sets.
ICC Sets - Activate	Activate available card sets.
ICC Sets - Maintain	Administer the sets of ICCs supplied by S.W.I.F.T. to allow the use of Secure Login and Select (SLS) and BKE services. To activate an ICC set is a separate user right.
Incoming MT960/MT966	Process MT960 (BKE initiation request) messages from correspondents for which pre-agreements do not exist in the database or for which the pre-agreement is not yet approved.
Messages - Create	Create new messages, for example, S.W.I.F.T., Telex, or S.W.I.F.T. system messages, or complete incomplete messages.

Table 14. Unchanged User Rights (continued)

Name	Description
Messages - Delete	Delete messages from queues.
Messages - Edit	Edit messages that have failed verification or authorization.
Messages - Move	Move messages to another queue.
Messages - Sequential Operations	Perform consecutive message-processing operations, for example, creating, verifying, and authorizing a message without involving a second person.
SLS Keys - Pregeneration	Perform tasks relating to the administration of SLS, such as registering logical terminals, pregenerating session keys, or changing the technology flag.
Users - Approve Rights	Approve new or modified users.
Users - Maintain Rights	Create or update a MERVA user. Assign LT, user rights, message queues, and the S.W.I.F.T. message types to a MERVA user.

The following table shows the names of the user rights that are different in MERVA OS/2 and MERVA USE & Branch for Windows NT. The migration program changes the names accordingly.

Table 15. Changed Names

MERVA OS/2	MERVA USE & Branch for Windows NT	Description
Card Reader (SCR/BCR) - Blacklist	Card Reader - Blacklist	Blacklist a card reader. This function of the Card Reader Maintenance program is used when it is suspected that the security of the card reader has been compromised.
Card Reader (SCR/BCR) - Maintain	Card Reader - Maintain	Administration of card readers and functions like recording the card reader details or carrying out an interface test.
Generate Public Key (RSA)	Public Key (RSA)	Generate a new public key to be sent to correspondents as part of the BKE process.
Messages - Verify	Messages - Retype	Retype the data of the message exactly as it was originally entered.
Secure Transmission Key (STK)	Secure Transmission Key	Administer the generation, installation, and activation of STK in the SCR and on the database.
Telex - Route NAKed Telexes	Telex - Process NAKed	Correct the telex addressing information of a negatively acknowledged telex message before retransmitting.

Table 15. Changed Names (continued)

MERVA OS/2	MERVA USE & Branch for Windows NT	Description
Telex - Route to Telex	Telex - Route	Route S.W.I.F.T. messages ready to be sent to the S.W.I.F.T. network or to a telex send queue to be sent to the public telex network.

The following table shows the definitions of the user rights that are different in MERVA OS/2 and MERVA USE & Branch for Windows NT. The migration program changes the user rights accordingly.

Table 16. Changed User Rights

MERVA OS/2	MERVA USE & Branch for Windows NT	Description
Automatic Message Print - Start	Messages - Automatic Print	Start or stop automatic printing of messages in queues that belong to the print Purpose Group.
Automatic Message Print - Stop		
Customer Application Program	API with password	Run customer-written API programs with password.
Customer Application Program	API without password	Run customer-written API programs without password.
External messages - Load from File	API with password	Function not available in MERVA USE & Branch for Windows NT; use the API.
External messages - Load from File	API without password	
External messages - Unload to File	API with password	
External messages - Unload to File	API without password	
MERVA Link - Display Queue Status	MERVA Link - Operating	Note: A user with one MERVA Link right on OS/2 gets all MERVA Link rights.
	MERVA Link - Display/Kickoff local ASPs	
	MERVA Link - Operate local ASPs	
	MERVA Link - Set ISC information	
MERVA Link - Update Queue Status	MERVA Link - Operating	
	MERVA Link - Display/Kickoff local ASPs	
	MERVA Link - Operate local ASPs	
	MERVA Link - Set ISC information	
Messages - Copy to Print	Messages - Display/Print	Display or print messages.
Messages - Display		

Table 16. Changed User Rights (continued)

MERVA OS/2	MERVA USE & Branch for Windows NT	Description
Messages - First Authorize	Messages - Authorize	Note: Restrict the access to queues that belong to the purpose group Messages - Authorize to users who had access to queues in the purpose group Messages - Second Authorize on MERVA OS/2.
Messages - Second Authorize		
S.W.I.F.T. - Abort Application/LT/CBT	SWIFT Link - Operating	Operate the SWIFT Link.
S.W.I.F.T. - Line Status		
S.W.I.F.T. - Login		
S.W.I.F.T. - Logout		
S.W.I.F.T. - Manual Authentication	Messages - Manual Authentication	Manually authenticate messages that have failed automatic authentication.
S.W.I.F.T. - Quit Application	SWIFT Link - Operating	Operate the SWIFT Link.
S.W.I.F.T. - Select Applications		

The following table shows user rights that are only valid for MERVA OS/2.

Table 17. MERVA OS/2 User Rights

MERVA OS/2	MERVA USE & Branch for Windows NT	Description
Customization - Password settings		Not supported
Display Print - Diagnosis Log		Allowed for every MERVA user
Installation - Maintain		Via Windows NT user rights
Installation - PTF		Via Windows NT user rights
Installation - Reinstall Database		Via Windows NT user rights
Messages - Purge		Refer to the explanation of the enmcqpur command in the <i>MERVA USE & Branch for Windows NT User's Guide</i> .
Status - Monitor		There is a similar program Logged-on User Operating in the program group Administration . The user right Logged On Users - Operating is described in Table 18 on page 40.
Telex - Calculate Testkey	Messages - Edit	For information refer to the description of the purpose groups Testkey Calculation and Testkey Verify in Table 3 on page 20.
Telex - Verify Testkey	Messages - Authorize	

The following table shows new user rights that are only valid for MERVA USE & Branch for Windows NT. You must assign these rights to the users in one of the following ways:

- Before you start the migration export process, change the configuration file **enmusmig.cfg**. This file is described on page 49.
- After the migration process is finished, assign the rights by using the MERVA User Maintenance program.

Table 18. MERVA USE & Branch for Windows NT User Rights

MERVA USE & Branch for Windows NT	Description
Logged On Users - Operating	Display information about the users logged on to MERVA. Send messages to MERVA users and log off users from MERVA.
Users - Allow sequential access	Maintain and approve user rights using the same user without involving a second person.
Users - Revoke user	Revoke users from MERVA.
Users - Change user password	Change MERVA user passwords.
Console Application	Use the message console to monitor MERVA status information.
Telex - Maintain Envelope	Add telex envelope information to a message or remove telex envelope information from a message.
Templates - Maintain	Display, edit, or delete a template.
USER_R1 - USER_R10	User rights that can be defined.

Importing User Access Rights to MERVA USE & Branch for Windows NT

After you import the data to MERVA USE & Branch for Windows NT, all MERVA OS/2 users have the status **not approved** and the initial password **merva6k**.

A user **merva** with the password **merva6k** is created. The user **merva** has the following rights:

- Users - Allow sequential access
- Users - Change user password
- Users - Approve Rights
- Users - Maintain Rights

Use this user ID to approve all migrated user definitions.

To do this:

1. Ensure that you have Windows NT administration authority.
2. Create the Windows NT user IDs for the migrated users.
For a list of the migrated user IDs, refer to the migration log file **migra.log**.
3. To open the Windows NT User Manager, click **Start → Programs → Administration Tools (Common) → User Manager**.
4. Click **User → New User**.

You then get the New User window. The following figure shows an example of this window.

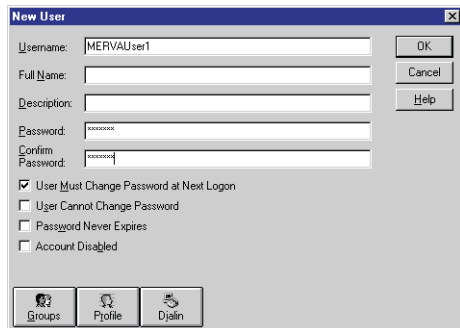


Figure 18. The New User Window

5. In the field **Username**, type the user name in lowercase letters.

Note that the user IDs are translated to lowercase letters during the migration process. Therefore, you must also type the Windows NT user IDs in lowercase letters. This does, however, not affect the way you log on to Windows NT. Windows NT is not case sensitive.

6. In the field **Password**, type the password.

Note that the passwords for Windows NT and MERVAs do not have to be identical. When you log on to MERVAs for the first time, you need both passwords. MERVAs then synchronizes the passwords and uses the password of the operating system.

7. In the field **Confirm password**, retype the password.

8. Click **Groups**.

You then get the Group Membership window. The following figure shows an example of this window.

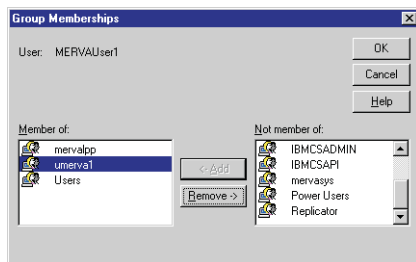


Figure 19. The Group Membership Window

9. Add the corresponding user groups.

For a brief description of the different authorities, refer to “Appendix C. User Groups” on page 55.

For a detailed description of the user authorities and groups refer to the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

Note that the groups **MERVASYS** and **MERVALPP** are created during installation of MERVAs USE & Branch for Windows NT. The user group of the MERVAs instance is created during creation of the instance.

10. Click **OK**.

You then get the New User window again.

11. Click **Profile**.

You then get the User Environment Profile window. The following figure shows an example of this window.

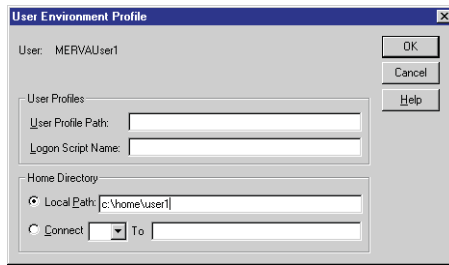


Figure 20. The User Environment Profile Window

12. In the field **Local Path**, type a home directory.
13. Click **OK**.
You then get the New User window.
14. Click **OK** to close the New User window.
You then get the User Manager window.
15. Close the User Manager window.

Approving Migrated Users

To approve migrated users, do the following:

1. Ensure that the Windows NT user ID **merva** is created.
2. Ensure that all Windows NT user IDs that are listed in **MIGRA.LOG** are created.
3. Start MERV in multi-user mode.
4. Log on to Windows NT with the user ID **merva**.
5. Log on to MERV.
6. From **Program Group**, select **Administration**.
7. From **Program**, double-click **Users**.
8. Ensure that the migrated users have the rights that you assigned.
9. Restrict the queue details if necessary.
10. Approve the users.
11. Set a new user password for MERV, if you do not want to use the default password **merva6k**.

Migrating Templates

The migration program exports the database table that contains the templates to the DBM IXF file **ENMTEMPL.IXF**. Note that you cannot view or edit this file.

The templates include the LT for which they are created. The LT depends on the SWIFT Link data. If you change the LT during the migration process, the templates are imported to the database of MERV USE & Branch for Windows NT, but you cannot view them. Only a user with the LT for which the templates are created can view them.

Migrating BIC Data

The migration program exports the database table that contains the correspondents data to the DBM IXF file **ENMBIC.IXF**. Note that you cannot view or edit this file.

If you do not want to migrate your nicknames or telex envelope data, you can use the update diskettes for S.W.I.F.T. BIC data to install your correspondents on MERVA USE & Branch for Windows NT.

Migrating Currency Codes

The migration export program exports the database table that contains the currency codes data to the DBM IXF file **ENMCC.IXF**. Note that you cannot view or edit this file.

If you did not add additional currency codes, you can also use the standard currency codes that are provided with the MERVA USE & Branch for Windows NT installation.

Migrating BKE Data

Use the MERVA function BK Backup/Restore to migrate bilateral keys and pre-agreements. You back up your BKE data on MERVA OS/2, then restore it on MERVA USE & Branch for Windows NT.

Backing Up the BKE Data on MERVA OS/2

To back up the BKE data on MERVA OS/2:

1. Log on to MERVA OS/2 with a user ID that has the right **Bilateral Keys - Backup**.
2. Click **User Key Management Officer**.
3. Click **BK Backup/Restore**.

You then get the BK Backup/Restore window. The following figure shows an example of this window.

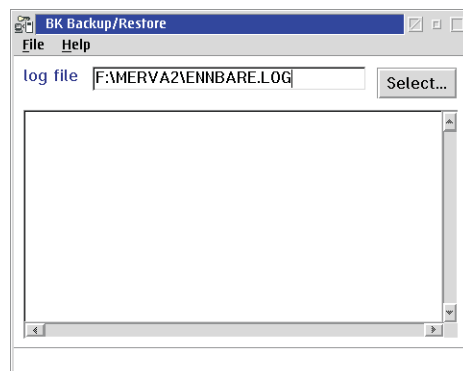


Figure 21. The BK Backup/Restore Window

4. Select a log file name.
5. Select **File → Backup**.

You then get the Backup Bilateral Keys window. The following figure shows an example of this window.

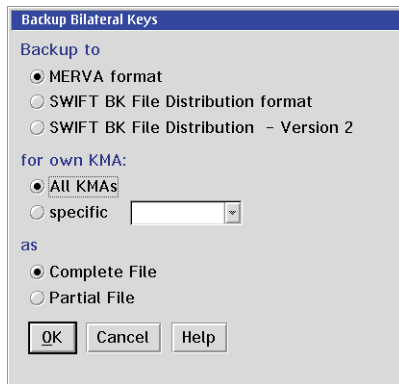


Figure 22. The Backup Bilateral Keys Window

6. In the field **Backup to**, select **MERVA format**.
7. In the field **for own KMA**, select **All KMAs**.
8. In the field **as**, select **Complete File**.
9. Click **OK**.

You then get the Specify File Name for Backup File window. The following figure shows an example of this window.

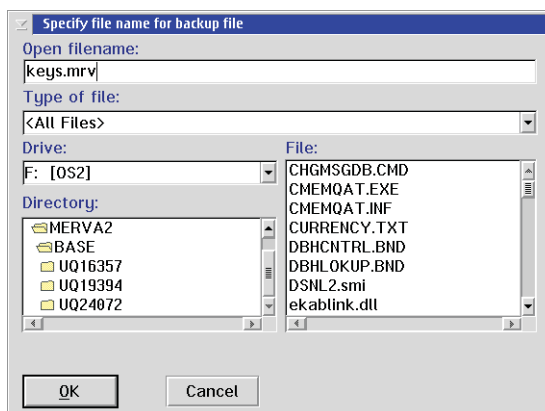


Figure 23. The Specify File Name for Backup File Window

10. In the field **Open filename**, type the name of the file in which the backup data is to be stored. You should use the export directory of the migration program to store the file.
11. Click **OK**.

You then get the Specify Protection Password window. The following figure shows an example of this window.



Figure 24. The Specify Protection Password Window

12. In the field **Password**, type a password.

13. In the field **Verify password**, retype the password.
14. Click **OK**.

Restoring the BKE Data on Windows NT

To restore the BKE data on Windows NT:

1. Import the migration data. For a description on how to do this, refer to “Importing Transferred Data to Windows NT” on page 13.
2. Ensure that your STK is installed.
To do this:
 - a. Start MERVA in multi-user mode.
 - b. Log on to MERVA with the user ID that has at least the right **Secure Transmission Key**.
 - c. From the field **Program Group**, select **SWIFT USE UKMO**.
 - d. From the field **Program**, select **Secure Transmission Key**.
 - e. Double-click **Secure Transmission Key**.
 - f. Check whether an STK is installed. If not, you have to install an STK. For a description on how to do this, refer to the *MERVA USE Administration Guide*.
3. Log on to MERVA with the user ID that has at least the right **Bilateral Keys - Restore**.
4. From the field **Program Group**, select **SWIFT USE UKMO**.
5. From the field **Program**, select **BK Backup/Restore**.
6. Select a log file.

You then get the BK Backup/Restore window. The following figure shows an example of this window.

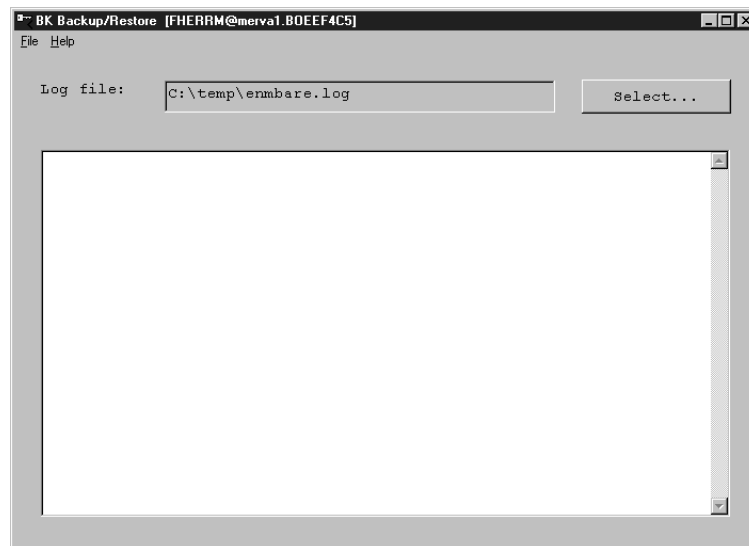


Figure 25. The BK Backup/Restore Window

7. Click **File** → **Restore**.
8. Select the file that you created in MERVA OS/2.

You then get the Enter Protection Password window. The following figure shows an example of this window.

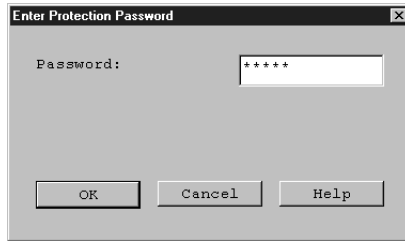


Figure 26. The Enter Protection Password Window

9. In the field **Password**, type the password.
The password is identical to the password that you used to encrypt the file in MERVA OS/2.
10. Click **OK**.
You then get an information window. The following figure shows an example of this window.

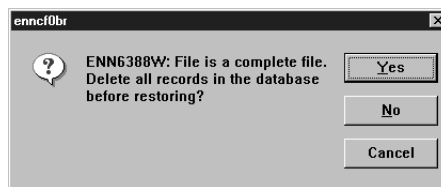


Figure 27. The Information Window

11. Click **Yes** because the database does not contain any records.
You then get the BK Restore window. The following figure shows an example of this window.

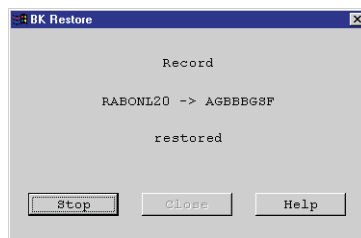


Figure 28. The BK Restore Window

Configuring Communications Server

Automatic migration for the Communications Server configuration is not possible. For information on how to set up the Communications Server on Windows NT, refer to the corresponding Communications Server documentation.

To get an overview of the Communications Server configuration on your MERVA OS/2 machine, you can use a Communications Server response file (**.RSP**). Usually, this file is located in the **CMLIB** directory. The keywords and values used in this file are documented in the online book *Response File Reference*. Note that you cannot import this response file to your Windows NT machine.

Configuring Connection Features

To connect a remote application program to MERVA OS/2, you can use, for example, MERVA Connection/NT.

Usually, the network address, such as the TCP/IP host name, of the new MERVA USE & Branch for Windows NT is different to the network address of MERVA OS/2. Therefore, you must change the configuration of the connection feature to connect to MERVA USE & Branch for Windows NT.

Using SNA

If you use SNA to connect to MERVA OS/2, do the following:

Change the configuration of Communications Server by creating a new symbolic destination or by changing the existing one.

- Insert the fully qualified partner LU name of MERVA USE & Branch for Windows NT, for example, **APPN1.LUA**.
- If the new name of the partner transaction program is different, you must also change the partner transaction program.

If you created a new symbolic destination, change the parameter in the application profile of the connection feature.

Using TCP/IP

If you use TCP/IP to connect to MERVA OS/2, do the following:

1. Ensure that the MERVA Inetd daemon is configured and running on the MERVA USE & Branch for Windows NT machine.

For information on how to do this, refer to the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

2. Add the partner host name and the TCP/IP port number of the MERVA USE & Branch for Windows NT machine to the application profile of the connection feature.

Migrating Customer Application Programs

If you have application programs that use the MERVA OS/2 API, you have to migrate them.

For MERVA USE & Branch for Windows NT, change the code that depends on the operating system and recompile the program. You have to consider the following differences between the APIs:

- Differences between the MERVA OS/2 and the MERVA AIX or MERVA USE & Branch for Windows NT API:
 - The functions **ENMCheck**, **ENMCheckUserRight**, and **ENMSetAppl** are not available for MERVA OS/2.
 - The MERVA USE & Branch for Windows NT API or the MERVA AIX API implements all semaphores.

If you port a MERVA OS/2 API program to MERVA USE & Branch for Windows NT, replace all OS/2 dependent semaphore functions by MERVA USE & Branch for Windows NT API functions.

- Differences between the MERVA AIX and the MERVA USE & Branch for Windows NT API:

- For MERVA AIX, the return types of all semaphore functions are LONG. For MERVA USE & Branch for Windows NT, these return types are changed to USHORT. This ensures compatibility to MERVA Connection/NT. It does not affect the MERVA AIX API programs.
- Differences between the MERVA USE & Branch for Windows NT API and the MERVA OS/2 or MERVA AIX API:
 - The new function **ENMQueueQueryEx** counts the number of messages in a queue (up to 2 147 483 647). The existing function **ENMQueueQuery** can only count up to 65535 messages. To ensure compatibility, **ENMQueueQuery** is not deleted. It is recommended to use **ENMQueryQueueEx**.
 - The MERVA USE & Branch for Windows NT API contains additional functions that ensure source code compatibility between MERVA Connection/NT and MERVA USE & Branch for Windows NT API programs. These functions do not have a special purpose in this implementation.
 - Windows NT defines the type MSG in its header file **windows.h**. Therefore, you have to use the types MMSG or PMMSG instead of MSG or PMSG. Except for the porting of existing programs for which you do not need the header file **windows.h**, you can use the types MSG or PMSG.
 - In the MERVA USE & Branch for Windows NT API, the names of the header and library files are as follows:
 - The name of the header file is changed from **enmoapi.h** to **enmcapi.h**. Although **enmoapi.h** is kept for compatibility reasons, use the file **enmcapi.h** whenever possible.
 - The name of the library files is **enmcapi.lib** and **enmcapi.dll**.
 - Several changes are compiler specific. For example, AIX (R) programs use the include file **IString.h**, the MERVA USE & Branch for Windows NT API uses the include file **IString.hpp**.

Appendix A. The Configuration File *enmusmig.cfg*

The configuration file *enmusmig.cfg* contains the user access rights of MERVA OS/2 and MERVA USE & Branch for Windows NT, and their correlations. The following example shows this file with the default settings.

```
#####
# MIGRATION translation file for user access rights      #
#                                                       #
# This file must include all rights of MERVA OS/2 and   #
# MERVA USE & BRANCH for Windows NT to ensure         #
# correct translation.                                 #
# Each specified line must contain a MERVA OS/2 right  #
# and a MERVA USE & BRANCH for Windows NT right,      #
# separated by a colon.                                #
#                                                       #
# Example:                                             #
#       "SWIFT - Login" : "SWIFT Link - Operating"     #
# Meaning:                                             #
#       During migration from MERVA OS/2 to           #
#       MERVA USE & BRANCH for Windows NT, every     #
#       user in MERVA OS/2 with the right             #
#       'SWIFT - Login' gets the                      #
#       MERVA USE & BRANCH for Windows NT right      #
#       'SWIFT Link - Operating'.                    #
# Remark:                                             #
#       You can specify a right more than once but   #
#       each specified line must be unique.          #
#       You can specify up to 150 lines that contain #
#       a MERVA OS/2 right and a                     #
#       MERVA USE & BRANCH for Windows NT right.     #
#####

#####
# Rights that are known in MERVA OS/2 and              #
# MERVA USE & BRANCH for Windows NT                  #
#####
"Bilateral Keys - All" : "Bilateral Keys - All"
"Bilateral Keys - Approve pre-agreement" : "Bilateral Keys - Approve pre-agreement"
"Bilateral Keys - Backup" : "Bilateral Keys - Backup"
"Bilateral Keys - Maintain" : "Bilateral Keys - Maintain"
"Bilateral Keys - Restore" : "Bilateral Keys - Restore"
"Bilateral Keys - Sequential Operations" : "Bilateral Keys - Sequential Operations"
"Certificates - Delete" : "Certificates - Delete"
"Certificates - Maintain" : "Certificates - Maintain"
"Certificates - Revoke" : "Certificates - Revoke"
"Correspondents - Delete" : "Correspondents - Delete"
"Correspondents - Import BIC diskettes" : "Correspondents - Import BIC diskettes"
"Correspondents - Maintain" : "Correspondents - Maintain"
"Customization - Components" : "Customization - Components"
"Customization - Routing" : "Customization - Routing"
"Customization - System Configuration" : "Customization - System Configuration"
"IC Cards - Maintain" : "IC Cards - Maintain"
"ICC Sets - Activate" : "ICC Sets - Activate"
"ICC Sets - Maintain" : "ICC Sets - Maintain"
"Incoming MT960/MT966" : "Incoming MT960/MT966"
"Messages - Create" : "Messages - Create"
"Messages - Delete" : "Messages - Delete"
"Messages - Edit" : "Messages - Edit"
"Messages - Move" : "Messages - Move"
"Messages - Sequential Operations" : "Messages - Sequential Operations"
"SLS Keys - Pregeneration" : "SLS Keys - Pregeneration"
```

```
"Users - Approve Rights"           : "Users - Approve Rights"  
"Users - Maintain Rights"         : "Users - Maintain Rights"  
#####
```

```

#####
# Rights that have different names                                     #
#####
"Card Reader (SCR/BCR) - Blacklist"      : "Card Reader - Blacklist"
"Card Reader (SCR/BCR) - Maintain"      : "Card Reader - Maintain"
"Generate Public Key (RSA)"             : "Public Key (RSA)"
"Messages - Verify"                     : "Messages - Retype"
"Secure Transmission Key (STK)"         : "Secure Transmission Key"
"Telex - Route NAKed Telexes"          : "Telex - Process NAKed"
"Telex - Route to Telex"                : "Telex - Route"
#####

#####
# Rights that are different                                           #
#####
"Automatic Message Print - Start"       : "Messages - Automatic Print"
"Automatic Message Print - Stop"       : "Messages - Automatic Print"
"Customer Application Program"          : "API - Without password"
"Customer Application Program"          : "API - With password"
"External messages - Load from File"    : "API - Without password"
"External messages - Load from File"    : "API - With password"
"External messages - Unload to File"    : "API - Without password"
"External messages - Unload to File"    : "API - With password"
# ATTENTION: a user with one MERV Link right will now get all MERV Link rights!!
"MERVA Link - Display Queue Status"     : "MERVA Link - Operating"
"MERVA Link - Display Queue Status"     : "MERVA Link - Display/Kickoff local ASPs"
"MERVA Link - Display Queue Status"     : "MERVA Link - Operate local ASPs"
"MERVA Link - Display Queue Status"     : "MERVA Link - Set ISC information"
"MERVA Link - Update Queue Status"      : "MERVA Link - Operating"
"MERVA Link - Update Queue Status"      : "MERVA Link - Display/Kickoff local ASPs"
"MERVA Link - Update Queue Status"      : "MERVA Link - Operate local ASPs"
"MERVA Link - Update Queue Status"      : "MERVA Link - Set ISC information"
"Messages - Copy to Print"              : "Messages - Display/Print"
"Messages - Display"                    : "Messages - Display/Print"
"Messages - First Authorize"            : "Messages - Authorize"
"Messages - Second Authorize"           : "Messages - Authorize"
"SWIFT - Abort Application/LT/CBT"      : "SWIFT Link - Operating"
"SWIFT - Line Status"                   : "SWIFT Link - Operating"
"SWIFT - Login"                          : "SWIFT Link - Operating"
"SWIFT - Logout"                         : "SWIFT Link - Operating"
"SWIFT - Manual Authentication"          : "Messages - Manual Authentication"
"SWIFT - Quit Application"               : "SWIFT Link - Operating"
"SWIFT - Select Applications"            : "SWIFT Link - Operating"
#####

#####
# Rights that exist only in                                           #
# MERV USE & BRANCH for Windows NT                                     #
#####
""                                       : "Logged On Users - Operating"
""                                       : "Users - Allow sequential access"
""                                       : "Users - Revoke user"
""                                       : "Users - Change user password"
""                                       : "Console Application"
""                                       : "Telex - Maintain Envelope"
""                                       : "Templates - Maintain"
#####

```

```
#####
# Rights that exist only in MERVA OS/2 #
#####
"Customization - Password settings"      : ""
"Display/Print - Diagnosis Log"          : ""
"Installation - Maintain"                 : ""
"Installation - PTF"                     : ""
"Installation - Reinstall Database"      : ""
"Messages - Purge"                       : ""
"Status Monitor"                         : ""
"Telex - Calculate Testkey"              : "Messages - Edit"
"Telex - Verify Testkey"                 : "Messages - Authorize"
#####
```

Each line contains a user right of MERVA OS/2 and MERVA USE & Branch for Windows NT. A user who has a user right in MERVA OS/2 gets the corresponding user right in MERVA USE & Branch for Windows NT. If you want to avoid this, leave the corresponding user right of MERVA USE & Branch for Windows NT blank as shown in the following example.

```
"Display/Print - Diagnosis Log"          : ""
```

Comment lines start with the number sign (#). If a line contains, for example, a syntax error, a misspelled right, or if a colon is missing, the line is ignored.

During the export process it is checked whether the file contains all user rights of MERVA OS/2 and MERVA USE & Branch for Windows NT. If not, the export process stops.

Note: Queue restrictions that are defined for MERVA OS/2 user rights are not migrated. A user right is valid for all queues that belong to this right. Therefore, you must redefine queue restrictions in MERVA USE & Branch for Windows NT.

Appendix B. Export Files in the Export Directory

The structure of the ASCII migration files is identical to the structure of the files that are processed by the **enmcximp / enmcxexp** program of MERVA USE & Branch for Windows NT. For a description of the file format, refer to the *MERVA USE & Branch for Windows NT Installation and Customization Guide*.

You can edit the ASCII files if the default changes do not meet your requirements. The DBM IXF files are in a binary format. You cannot view or edit the DBM IXF files.

The following table shows the export files that are stored in the export directory.

Table 19. Export Files

FILE COMPONENT	COMPONENT	FILETYPE
MIGRA.LOG	migration log file	ASCII text
MIGRA.ROU	routing file	ASCII text
MIGRA.MLI	MERVA Link	ASCII text
MIGRA.SLI	SWIFT Link file	ASCII text
MIGRA.USE	SWIFT USE files	ASCII text
ENMUSED.F.IXF	SWIFT USE files	DBM IXF
ENNCV.IXF	SWIFT USE files	DBM IXF
ENNDEST.IXF	SWIFT USE files	DBM IXF
ENNICCSE.IXF	SWIFT USE files	DBM IXF
ENNICCTA.IXF	SWIFT USE files	DBM IXF
ENNLTACC.IXF	SWIFT USE files	DBM IXF
ENNLTAB1.IXF	SWIFT USE files	DBM IXF
ENNLTAB2.IXF	SWIFT USE files	DBM IXF
ENNRDR.IXF	SWIFT USE files	DBM IXF
ENNUSE.IXF	SWIFT USE files	DBM IXF
ENNUSE.IXF	SWIFT USE files	DBM IXF
MIGRA.APR	Automatic print file	ASCII text
MIGRA.ALR	Alarms file	ASCII text
MIGRA.USR	User access rights file	ASCII text
ENMBIC.IXF	Correspondents (BIC)	DBM IXF
ENMCC.IXF	Currency codes	DBM IXF
ENMTEMPL.IXF	Templates	DBM IXF

Appendix C. User Groups

The following table gives an overview of the different user groups.

Table 20. User Groups

MERVA User Authority	Windows NT Group	MERVA Group	MERVA Instance Group
MERVA system admins	Administrator	MERVASYS	for example, umerval
MERVA user admins	Users	MERVASYS	for example, umerval
MERVA user	Users	MERVALPP	for example, umerval

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Glossary of Terms and Abbreviations

This glossary defines terms and abbreviations as they are used in the MERVA books. If you do not find the terms you are looking for, refer to *Dictionary of Computing*, New York: McGraw-Hill, 1994, or the *S.W.I.F.T. User Handbook*.

A

AMPDU. Application Message Protocol Data Unit defined in the MERVA Link P1 protocol. It consists of an envelope and ASP-supplied information.

answerback. In telex, the response from the dialed correspondent to the "WHO R U" signal.

AP. Application.

APC. Application Control.

APAR. Authorized Program Analysis Report.

APDU. Application Protocol Data Unit.

API. Application Programming Interface.

APPC. Advanced Program-to-Program Communication based on LU 6.2 protocols.

Application Support (AS). Name of the upper sublayer functionality of MERVA Link.

Application Support Layer (ASL). Contains the Application Support functionality.

Application Support Process (ASP). Part of MERVA Link that implements the Application Support Layer.

AS. Application Support.

ASCII. American Standard Code for Information Interchange.

ASL. Application Support Layer.

ASP. Application Support Process.

ASPDU. Application Support Protocol Data Unit defined in the MERVA Link P2 protocol.

association timeout. The period of time allowed for the establishment of a MERVA Link session with the remote partner before giving up.

authentication. The S.W.I.F.T. security check to ensure that a message is not changed during transmission and that a message is sent by an authorized sender.

authenticator key. A set of alphanumeric characters used to check the authentication of a message sent via the S.W.I.F.T. network.

authenticator-key file. A file that contains the keys to authenticate messages. It also contains a record for each correspondent bank.

B

Bank Identifier Code (BIC). The S.W.I.F.T. address of a bank as assigned by S.W.I.F.T. See also *S.W.I.F.T. address*.

BCR. Basic Card Reader.

BIC. Bank Identifier Code. See also *S.W.I.F.T. address*.

bi-directional key. A bilateral key that authenticates messages sent to and received from a correspondent.

bilateral key. A key that is generated inside an SCR. It authenticates financial messages interchanged with two correspondents. A bilateral key can be bi-directional or uni-directional.

bilateral key exchange (BKE) service. The S.W.I.F.T. USE service in which authenticator keys are generated in an SCR and exchanged via the S.W.I.F.T. network instead of being exchanged by mail.

BK. Bilateral Key.

BKE. Bilateral Key Exchange.

BK ID. Bilateral Key Identifier. The BK ID has the following format:

- The first character is either B (Bilateral) or M (Manual).
- The second character is the BK type, as defined by S.W.I.F.T.
- Characters 3 to 8 denote the date.
- Characters 9 to 16 denote the key check value.

blacklist. A list of USE items, such as SCRs or CVs, that are no longer valid. For example, a stolen SCR is blacklisted to prevent future use.

branch code. The last 3 digits of the BIC to identify a bank.

C

CBT. S.W.I.F.T. Computer-Based Terminal.

certificate. A guarantee by S.W.I.F.T. that the holder of a public key is genuine. You need a certificate for each public key that you want to generate before you can start bilateral key exchange.

CHK. checksum trailer.

CID. Central Institution Destination.

Communication Services (CS). With CS, you can use Communications Server or Personal Communications.

Control Center. See *MERVA Control Center*.

control database. Contains MERVA-specific configuration data, such as routing table information, system configuration data, and user-specific information, such as the user file with details of MERVA users and their access rights to functions and queues.

correspondent. An institution to which your institution sends messages and from which messages are received.

correspondents database. A database that contains the S.W.I.F.T. address, nickname, descriptive name, and address of each bank with which your bank corresponds. The file is used to store the descriptive names and addresses that are needed in the address expansion process.

country code. A 2-character code that is part of the BIC to identify countries.

CRC. Cyclic Redundancy Check.

CS. Communication Services.

CUG. Closed User Group.

CV. See *certificate*.

CV ID. Certificate Identity. A unique identifier of a certificate that consists of the destination, expiring date, and number of the certificate.

D

destination. For S.W.I.F.T., the first 8 characters of the S.W.I.F.T. address that consists of the bank, country, and location codes.

DTE. Data Terminal Equipment.

DTR. Data Terminal Ready.

domain. A set of workstations that share a MERVA installation. The MERVA domain is a part of the MERVA Message Reference Number (MRN).

E

emitting destination. The S.W.I.F.T. destination that is shown on messages sent to S.W.I.F.T. You must specify the emitting destination, for example, when you send a message to S.W.I.F.T. to request the blacklisting of a card reader.

F

FIN. Financial Application (S.W.I.F.T.).

four-eyes principle. A banking security concept in which changes and the approval of changes must always be done by two different people.

I

IAM. Interapplication Messaging.

ICC. Integrated Circuit Card.

IM-ASPDU. Interapplication Messaging Application Support PDU. It contains an application message and consists of a header and a body.

initiator. The correspondent that starts bilateral key exchanges. See also *responder*.

Interapplication messaging (IAM). Interapplication messaging is used as a MERVA Link message exchange protocol.

ISC. Intersystem Communication.

ISN. Input Sequence Number.

ISO. International Organization for Standardization.

K

kernel. A secret value stored on a USER ICC for each LT to define access rights to S.W.I.F.T. applications and to generate session keys. Each USER ICC has eight kernels.

kernel version. A pointer to the kernel that is currently in use.

key check value. (1) Part of the *BK ID*. If you encounter problems when you communicate with your correspondent, check whether the key check value is identical to your correspondent's key value. (2) Part of the *secure transmission key (STK)*, to check whether you have entered the remainder of the STK correctly.

KMA. Key Management Authority.

L

LAK. Login Acknowledgment Message. This message informs you that you have successfully logged on to the S.W.I.F.T. network.

LNK. S.W.I.F.T. login negative acknowledgment message. This message informs you that the login to the S.W.I.F.T. network has failed.

local LU name. The logical unit name or workstation identifier of the local machine.

logging database. Contains all MERVA audit logging data.

logical unit. In SNA, a port through which the user accesses the SNA network.

LSN. Login Sequence Number.

LT or LTERM. Logical Terminal. The S.W.I.F.T. II equivalent of the TID (Terminal Identifier).

LU name. Name of the Logical Unit.

M

MAC. Message Authentication Code.

master logical terminal. The 9-character code assigned by S.W.I.F.T. to uniquely identify each terminal attached to the S.W.I.F.T. II network.

MERVA. Message Entry and Routing with Interfaces to Various Applications.

MERVA Control Center. A program to:

- Start a MERVA instance.
- Stop a MERVA instance.
- Show the status of a MERVA instance.
- Maintain MERVA databases.

MERVA domain. See *domain*.

MERVA Link. The component to interconnect MERVA systems.

MERVA Workstation. Message Entry and Routing with Interfaces to Various Applications USE & Branch for Windows NT.

message. A string of fields in a predefined form to provide or request information. See also *S.W.I.F.T. message*.

message buffer. The part of the queue buffer that holds messages in network format.

message database. Contains all messages created by the user or received by the MERVA system.

message field. A predefined part of a message, identified either by a known offset from the start of a message, or by a delimiter known as a scan pattern.

message header. The leading part of a message that contains the sender and receiver of the message, the message priority, and the type of message.

message integrity. A facility provided by MERVA Link. It ensures that in case of an interruption during message exchange duplicates of messages are not sent. It also ensures that no messages are lost.

message integrity protocol. A facility used by MERVA Link to assist the provision of message integrity.

message queue. A queue used to store messages on a first-in, first-out basis.

message reference number (MRN). A unique 16-digit identifier assigned by MERVA to each message for identification purposes. The message reference number consists of an 8-character domain identifier followed by an 8-digit sequence number.

message separator. A predefined series of characters used to separate message fields. For example, :32A is the separator of the S.W.I.F.T. currency field. Also known as a scan pattern.

message sequence number (MSN). MERVA Link protocol element. Sequence number for messages transferred by MERVA Link.

message transfer. The name of the lower sublayer functionality of MERVA Link.

Message Transfer Process or Program (MTP). Exchanges messages and reports with this partner. The conversation protocol used by these programs must be bilaterally agreed between two programs. The MERVA Link Message Transfer Program supports a specific remote partner MTP.

message type (MT). A number of up to 7 digits long, that identifies a message. S.W.I.F.T. messages are identified by a 3-digit number; for example, S.W.I.F.T. message type MT S100.

MPDU. Message Protocol Data Unit defined in the MERVA Link P1 protocol.

MRN. Message Reference Number.

msg ID. Message Identifier.

MSN. Message Sequence Number.

MTN. Message Transfer Node. The unique identifier of a MERVA Link system. Exchanged as part of the address information when establishing a connection with a remote MERVA Link system.

MTP. Message Transfer Process or Program.

N

nested message. A message that is composed of one or more message types. For example, SWIFT MT 195 could be used to request information about a S.W.I.F.T. MT 100. The S.W.I.F.T. MT 100 (only mandatory fields) is then nested in S.W.I.F.T. MT 195.

network identifier. A single character stored with the message in the MERVA message database that shows which network is to be used to send the message. For example, S for S.W.I.F.T.

NCP. Network Control Program.

nickname. An abbreviation or synonym of the Bank Identifier Code (BIC) of a financial institution with which you frequently correspond.

NSDU. Network Service Data Unit. A logical unit of data used at the network layer of the SWIFT Link communications protocol.

O

OSI. Open System Interconnection.

OSN. Output Sequence Number.

P

PAC. Proprietary Authentication Code.

Partner Table (PT). In MERVA ESA, the Partner Table defines message processing in MERVA Link. It consists of a header and different entries, such as entries to define the message-processing parameters of an ASP or MTP.

PDE. Possible Duplicate Emission.

PDU. Protocol Data Unit.

Personal Identification Number (PIN). A 6-digit confidential code number used to restrict the use of ICCs to authorized card holders only.

personalize. To customize the information stored about a card set. This includes unblocking the cards, setting the PIN parameters, and for USER cards, setting the LT access rights.

PIN. Personal Identification Number.

pre-agreement. An agreement between an institution and its correspondents that governs the exchange of bilateral keys.

protocol data unit (PDU). In MERVA Link, a PDU consists of a structured sequence of implicit and explicit data elements:

- Implicit data elements contain other data elements.

- Explicit data elements do not contain any other data elements.

PSN. Public Switched Network (connection).

PSPDN. Packet Switched Public Data Network.

PSTN. Public Switched Telephone Network.

PT. MERVA Link Partner Table (for MERVA ESA).

PTF. Program Temporary Fix.

PTT. National Post and Telecommunication Authority (post, telegraph, telephone).

PU. Physical Unit.

public key. A key with which an institution enciphers a bilateral key received from a correspondent. See also *secret key*.

purpose group. A logical grouping of queues associated with a function. The function processes the messages to all queues that belong to the purpose group.

P1. In MERVA Link, a peer-to-peer protocol between cooperating ASPs in remote systems.

P2. In MERVA Link, a peer-to-peer protocol between cooperating MTPs in remote systems.

Q

queue. See *message queue*.

queue buffer. The internal representation of a MERVA message when held in a queue.

queue management. A MERVA process that handles the storing and retrieval of messages in the message database.

R

repeatable sequence. A field or group of fields that can be successively entered or displayed more than once in a message.

responder. The correspondent that does not initiate a bilateral key exchange. See also *initiator*.

routing. The passing of messages from one of the processing stages in a predefined processing path to the next stage.

routing condition. A logical test to determine the target queues to which messages are sent. Routing conditions are defined for source queues. A source queue is the queue from which messages are taken for further routing. You can check:

- The presence of a field within a message

- The presence of data within a message field
- The value of the contents of a message field

RSA. Asymmetric cryptographic algorithm designed by Rivest, Shamir, and Adleman.

S

scan pattern. A character string that is placed between message fields to identify where a field begins. It is also known as a tag.

SCR. Secure Card Reader.

SDLC. Synchronous Data Link Control.

secret key. The part of an RSA key to encipher bilateral keys. It remains stored inside the SCR. See also *public key*.

secure login and select (SLS) service. ICC-based alternative to paper LOGIN/SELECT tables.

secure transmission key (STK). Generated by the SCR to protect the transfer of bilateral keys over the link between the SCR and the workstation. The STK is also used in the workstation to store the bilateral keys securely.

security management center (SMC). The S.W.I.F.T. facility responsible for security administration and the issue of ICCs to users. The SMC also acts as the certification authority for Public RSA keys.

session key (SK). A number required for each LOGIN and SELECT request.

SK. Session Key.

SK number. A parameter stored on an ICC. It specifies the number of session keys that can be generated with a USER card before the user must enter the PIN again.

SLS. Secure Login and Select.

SMC. Security Management Center.

SNA. Systems Network Architecture.

source queue. In a routing condition, the queue from which messages are routed to the next defined message queue.

SSN. Select Sequence Number.

STK. Secure Transmission Key.

subfield. A subdivision of a field with a specific meaning. For example, S.W.I.F.T. field 32 has the subfields date, currency, and amount. A field can have several subfield layouts depending on how the field is used in a particular message.

S.W.I.F.T. Society for Worldwide Interbank Financial Telecommunication, s.c. (S.W.I.F.T.).

S.W.I.F.T. II. Refers to the S.W.I.F.T. II network of the Society for Worldwide Interbank Financial Telecommunication, s.c. (S.W.I.F.T.).

S.W.I.F.T. address. A code used to identify a bank within the S.W.I.F.T. network. The code is also called a bank identifier code (BIC) or a terminal identifier. It is assigned by S.W.I.F.T.

S.W.I.F.T. correspondents database. The database that contains the S.W.I.F.T. address or BIC, together with the name, postal address, and zip code of each financial institution in the BIC directory.

S.W.I.F.T. destination address. The first 8 characters of the S.W.I.F.T. address that consist of the bank, country, and location codes.

S.W.I.F.T. financial message. A message in the S.W.I.F.T. categories 1 to 9 that you can send or receive via the S.W.I.F.T. network. See *S.W.I.F.T. input message* and *S.W.I.F.T. output message*.

S.W.I.F.T. header. The leading part of a message that contains the sender and receiver of the message, the message priority, and the type of message.

S.W.I.F.T. input message. A S.W.I.F.T. message prepared by a user to be sent to the S.W.I.F.T. network.

SWIFT Link. The MERVA component that provides you with a link to the S.W.I.F.T. II network, enabling you to send messages to and receive messages from the S.W.I.F.T. network.

S.W.I.F.T. message. A message in one of the S.W.I.F.T. categories as defined in the *S.W.I.F.T. User Handbook* that can be sent or received via the S.W.I.F.T. network. See also *S.W.I.F.T. input message* and *S.W.I.F.T. output message*.

S.W.I.F.T. output message. A S.W.I.F.T. message from the S.W.I.F.T. network.

S.W.I.F.T. system message. A message in S.W.I.F.T. category 0.

systems network architecture (SNA). The description of the logical structures, formats, protocols, and operating sequences for transmitting information units through networks. It also controls the configuration and operation of networks.

T

tag. A field identifier, consisting of a 2- or 3-digit number, or a 2-digit number followed by a letter.

target queue. In a routing condition, the message queue to which messages are next routed.

TCT. Terminal Control Table.

technology flag. A parameter that is controlled by the USOF. It tells S.W.I.F.T. which access technology, ICCs, or paper tables are used by the LTs of a particular destination.

TNG. Training trailer.

TPDU. Transport Protocol Data Unit. A logical unit of data used at the Transport layer of the SWIFT Link communications protocol.

TRN. Transaction Reference Number.

U

UKMO. User Key Management Officer.

uni-directional key. A type of bilateral key for which different separate keys are used to authenticate messages sent to and received from a correspondent.

USE. User Security Enhancements.

USER. SWIFT Link operator; the holder of a USER ICC.

user file. The user file has a record for each MERVA user, containing the user's details. The record specifies the functions that a user is allowed to access. The user file can be accessed only by authorized users.

user key management officer (UKMO). The administrator who is the holder of a UKMO ICC. The UKMO is responsible to manage the exchange and use of bilateral keys and other BKE-related functions.

user security officer (USOF). The administrator who is the holder of a USOF ICC. The USOF is responsible to control and manage ICCs, card readers, and their related data.

USOF. User Security Officer.

W

whitelist flag. A mechanism to prevent the use of cards that are suspected of being lost, stolen, or otherwise compromised. If a card is lost, the USOF increments the whitelist flag on the remaining cards, thus rendering the whitelist flag on the lost card incorrect.

X

X.25. ISO standard for interface to packet switched communications services.

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Printed in Denmark by IBM Danmark A/S



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SH12-6393-02

