



NPLIB

Navan Netfile Processing Utility for the iSeries

Version 7 Release 4

January, 2023

NPLIB - Navan Netfile Processing Utility for the iSeries

TABLE OF CONTENTS

COPYRIGHT	4
VERSION 7 RELEASE 4.....	4
AN OVERVIEW	5
AUTOMATIC RECEIPT OF NETWORK FILES	5
AUTOMATIC TRANSMISSION OF NETWORK FILES.....	6
SUPPORT FUNCTIONS.....	6
RECOMMENDATIONS.....	6
TERMINOLOGY USED IN THE MANUAL.....	7
INSTALLATION	8
INSTALL THE NETFILE PROCESSING UTILITY LIBRARY	8
RUNNING THE INSTALL PROCEDURE	11
<i>NPINSTALL – Install Netfile processing</i>	11
SAVE A COPY OF THE INSTALLED UTILITY.....	12
THE NETFILE PROCESSING MAIN MENU.....	13
USING THE UTILITY TO AUTOMATICALLY RECEIVE FILES.....	14
DEFINING THE RX CONTROL INFORMATION	14
<i>User control file maintenance</i>	14
<i>Netfile control file maintenance</i>	16
NETFILE RX PROCESSING IN OPERATION	20
<i>STRRCVNETF - Starting a Netfile Receiver job</i>	20
<i>INTNETFP - Interrupting a Netfile Receiver job</i>	22
<i>CHGNETFP - Changing a Netfile Receiver job attributes</i>	23
<i>ENDNETFP - Ending a Netfile Receiver job</i>	24
<i>DSPNETFLOG - Displaying/Printing the Rx audit log</i>	25
<i>RGZNETFLOG - Cleansing the processing audit log</i>	27
WHAT TO DO IF THINGS GO WRONG.....	28
<i>PRCNETF - Processing a specific network file</i>	29
RETRIEVING NETFILE INFORMATION IN THE ‘COMMAND TO PROCESS’	30
<i>RTVNETFA - Retrieving the Netfile Attributes</i>	31
<i>Local Data Area (*LDA) definition</i>	33
LOGIC FLOW OF THE NETFILE RECEIVER PROCESSOR JOB	35
<i>The Netfile Rx Processor job for a specific user profile</i>	36
USING THE UTILITY TO AUTOMATICALLY SEND FILES	37
DEFINING THE TX CONTROL INFORMATION	37
<i>Transmission control file</i>	37
NETFILE TX PROCESSING IN OPERATION	39
<i>STRSNDNETF - Starting the autosend of a file</i>	39
<i>ENDSNDNETF - Ending the autosend of a file</i>	40
<i>DSPNETFLOG - Displaying/Printing the Tx audit log</i>	41
LOGIC FLOW OF THE NETFILE TRANSMISSION PROCESSOR JOB	44
<i>The Transmission Processor job for a specific database file</i>	45
APPENDIX	46
NETFILE PROCESSING REPORTS.....	46
OBJECT COMPRESSION.....	46
OBJECT OWNERSHIP	46

OPERATING SYSTEM CONFIGURATION..... 46

SUPPORT CONTACTS..... 47

COPYRIGHT

© Copyright 2023, Navan Limited. All rights reserved.

Limited rights to copy the present work are hereby granted by the copyright owner named above. Accordingly, there is hereby granted the right to make a limited number of additional copies solely for the internal convenience of the recipient; no copies may otherwise be made. In particular, no copies may be made, no derivative works may be created and no compilations of the subject work may be created for purposes of republication, for redistribution, for sale, for rental, for lease or for any profit motivated activity whatsoever including the use of this work in support of or in conjunction with any service or service offering.

™ IBM, i5, i5/OS, eServer, iSeries, OS/400 and DB2/400 are trademarks of International Business Machines.

™ Microsoft, MS, Word, Excel and Windows are trademarks of Microsoft Corporation.

Information in this document is subject to change without notice.

The latest version of this manual can always be read and/or downloaded from the Navan Internet Website, which can be found at [The Navan Website](#)

VERSION 7 RELEASE 4

This edition applies to Version 7 Release 4 of the NPLIB Navan Netfile Processing Utility Program Product.

Unless otherwise stated, all pages in this edition are to Version 7, Release 4 and refer to the iSeries Operating System, Version 7.1 or greater.

NPLIB Version 7 Release 4 is certified to be operationally compliant with IBM Power Systems servers running the IBM i Operating System V7R5 and requires the NUTIL (Navan Utilities) program product to be installed at Version 7.4 or greater.

Any references in this manual to Navan Utilities or NUTIL refer to standard Navan Utility products.

Information on these products can be obtained from your nearest Navan agent.

An Overview

The NPLIB Netfile Processing Utility is designed to automate the sending and receiving of network files.

Automatic receipt of Network Files

Consistent and timely processing of Network files that have been received always causes problems in the operations environment; files received to an incorrect data file, or not received at all, or processed incorrectly - these are situations that can (and do) happen when the receipt of the transmissions is handled manually.

The aim of this Utility is to provide a consistent interface between the Network files received and the processing that is subsequently performed, without any operator intervention being required.

The function operates using two control files: one defines the user identities of the users for which automatic Network file receipt is to be performed, the other defines the Network file names which are to be automatically received. The receipt of Network files will only be performed by this utility for users/files defined in these control files - any others will be left alone for manual processing.

The automatic Network file receiver jobs are loaded upon request, via a command supplied. It is usually more convenient if this request is run as part of a routine, perhaps as a scheduled job or as a part of a regular start-up routine.

Automatic transmission of Network Files

The facility also includes routines that can transmit specified files on a time scheduled basis.

A control file defines which files are to be processed for auto-transmission. This file contains details about when, and to whom, the file is to be sent.

The automatic Auto-send jobs are loaded upon request, via a command supplied. It is usually more convenient if this request is run as part of a routine, perhaps as part of a regular start-up routine.

Support functions

Routines are provided to display history log information relating to the automatic processing. Log cleanse procedures are also provided.

All workstation display screens support the use of the HELP key, with sufficient detail on the help screen to perform the related function.

Recommendations

You should define all standard receiving files using the Netfile Control Maintenance option (Option 2 on your Netfile Processing Menu).

If you don't receive your files in number sequence order you will experience problems. Refer to *What to do if things go wrong* for instructions if the situation occurs.

Terminology used in the manual

Throughout this manual, all dates are shown in day/month/year format. The format you see on the screen will depend on your installation.

Time values are stored and displayed in hour/minute/second format (HH:MM:SS) and refer to a 24hour clock.

For example, 14:30:00 is 2.30pm (afternoon) and 23:59:59 is one second before midnight.

The abbreviations Rx and Tx will be seen throughout this utility.

Rx refers to **receiving** network files

Tx refers to **sending** data files

This manual is logically split between these two functions; the first section of the manual discusses Receiving files and the second section of the manual discusses transmitting files.

Installation

Installation of the Netfile Processing utility is quite simple, but the installation process must be performed, otherwise the application will not work.

Install the Netfile Processing Utility library

Before commencing, please ensure you have the most recent version of NUTIL (The Navan Utilities program product) available for your operating system. A fully licensed copy of NUTIL is a pre-requisite for NPLIB operations.

The distribution media supplied contains a complete (replacement) NPLIB library and can be installed automatically. If you already have an old version of NPLIB on your iSeries, your data will be loaded from the old version into your new version, by the installation command. Installation is performed as follows:

1. If already installed, ensure that no users are using any NPLIB functions. No NPLIB activity is allowed whilst this installation is being performed:

```
ENDNETFP *ALL
```

2. Sign on as the System Security Officer QSECOFR, or as a user profile that has *ALLOBJ special authority. This installation **MUST** be performed by a user with *ALLOBJ authority for all programs to function as designed.

3. If NPLIB is in your library list, remove it:

```
RMVLIBLE NPLIB
```

4. Save a copy of your existing version of the NPLIB library (if you have it already installed):

```
SAVLIB LIB(NPLIB) . . .
```

You are now ready to commence the installation. The installation routine can be run by one of the following three methods:

**** INSTALLING FROM CD-ROM DISK ****

- 5(CD). Load the supplied CD-ROM disk into the iSeries CD drive and install the new version of the NPLIB library using the LODRUN command:

```
LODRUN          DEV (*OPT)
```

The supplied CD can also be used to extract all NPLIB documentation. Documentation is stored in the \DOCS directory of the CD and can be accessed using the CD-ROM drive of your PC.

**** INSTALLING FROM .ISO IMAGE FILE ****

5(iso). NPLIB can be installed from a supplied .iso image file in one of two ways:

- The image can be used to burn a CD, and then the CD can be used to install the product
- The image file can be installed in the system image catalog and installed directly from there.

Please refer to separate documentation relating to the correct processing for these tasks.

**** INSTALLING FROM TAPE ****

5(tape). Load the supplied tape onto the tape drive and install the new version of the NPLIB library using the LODRUN command:

```
LODRUN DEV(TAP01)
```

If you are using a tape device other than TAP01, alter the DEVICE parameter in the above command accordingly.

6. The procedure will then install NPLIB. At the completion of the procedure you should receive the message

'NPLIB installation procedure completed successfully'

If you do not get this message, the installation procedure was processed incorrectly. You can determine the cause of the error by reviewing the low level messages for the job. If you cannot resolve the problem, you should contact your NPLIB support representative for assistance. You will not be able to continue the installation of this version of NPLIB and you should reinstall your old version of NPLIB.

7. The NPLIB library objects are supplied in compressed form. You should give consideration to decompressing the objects in order to improve user access times. Refer to the CL Reference manual for a discussion of the Decompress Objects (DCPOBJ) command.

Running the Install procedure

Before you can use the Netfile Processing utility, you must install it. This is achieved by taking option 50 from the application main menu:

<u>ADDLIBLE</u>	<u>NPLIB</u>	Include NPLIB in your library list
<u>GO</u>	<u>NPL</u>	Access the main menu
<u>50</u>		Take option 50 from the menu

The installation option runs the NPINSTALL command.

NPINSTALL – Install Netfile processing

The NPINSTALL Netfile Installation command is used to apply the job routing requirements of NPL Netfile Processing to an existing subsystem description. The Netfile processor jobs cannot run in a subsystem that has not had these routing requirements installed.

Note: The subsystem you specify cannot be active when this command is run.

The NPINSTALL command must be run before the NPL Netfile Processing utility will work. It must also be run again if OS/400 is being reinstalled.

```

                Install Netfile processing (NPINSTALL)

Type choices, press Enter.

Subsystem to use . . . . . SBSD      QUSRWRK
Library name . . . . .              QSYS
Routing entry sequence number . . . . SEQNBR 5000
Reset file numbering control? . . . . . RESET *YES

```

The Subsystem to Use (SBSD) parameter specifies the name of the subsystem that will be used to process the asynchronous Netfile Processor jobs.

You must enter a valid, existing, subsystem description name. The default subsystem name is QUSRWRK. Although not essential, it is highly recommended that you allow all Netfile processors to run in the QUSRWRK subsystem.

The possible library values are:

- *LIBL - The library list is used to locate the subsystem description.
- *CURLIB - The subsystem description is in the current library. If no current library is defined for this job, QGPL is assumed.
- Library name - Specify the name of the library where the subsystem description resides.

The Routing entry sequence number (SEQNBR) parameter specifies the unique number that will be used to add an entry to the routing table in the specified subsystem description. This entry number must not

currently exist in that table and is a numeric value between 1 and 9999. The default entry is 5000. The (RESET) parameter option is required when a reinstall of OS/400 is performed. This is because the SNADS system file numbering is reset at this time to start again at 1. If you do not reset the NPL numbering, it may not process the files that will be received.

The possible entries for the Reset parameter are:

- *YES - The user control file is processed, and all user control numbering of netfiles is reset to zero.
- *NO - User control numbering is not reset. The current 'last file number processed' for each user is not changed.

Save a copy of the installed utility

After completing this function successfully, NPLIB Netfile processing is now installed. It is suggested that you now take a backup of your installed version of the utility.

The Netfile Processing Main Menu

All operational functions of the utility can be accessed from the Netfile Processing Main menu:

<u>ADDLIBLE</u>	<u>NPLIB</u>	Include NPLIB in your library list
<u>GO</u>	<u>NPL</u>	Access the main menu

```

NPL                               Netfile Processing

Select one of the following:

Rx Netfile receiving functions
 1. User control file maintenance           NPL001
 2. Netfile control file maintenance       NPL002
 3. Start a netfile receiver processor job  STRRCVNETF
 4. Change a netfile receiver processor job CHGNETFP
 5. Interrupt a netfile receiver processor INTNETFP
 6. End a netfile receiver processor job   ENDNETFP

Tx Netfile sending functions
11. Netfile transmission control file maintenance NPL003
12. Start a netfile transmission processor job STRSNDNETF
13. End a netfile transmission processor job   ENDSNDNETF

Netfile support functions
21. Display the netfile processing log         DSPNETFLOG
22. Cleanse the netfile processing history log  RGZNETFLOG

Netfile install functions
81. Add netfile routing entry to a subsystem  NPINSTALL
82. Display NPLIB installation attributes

Other options
 90. Sign off

Selection or command

```

From this menu, you can access the various features of the NPLIB Netfile Processing utility. The purpose of each option available on the menu is explained later in this manual.

Menu options 1-6 relate to the *receiving* of network files.

Menu options 11-13 relate to the *sending* of network files.

Menu options 21-22 relate to the history log.

Menu option 81 relates to the installation facilities.

Menu option 82 relates to the installation attributes.

In addition, the menu also allows the following function keys:

F3= Exit the Menu
F6= Display workstation message queue.
F14= Work with submitted jobs.
F18= Work with spool files.

Using the utility to automatically receive files

Defining the Rx control information

The Rx control information within the Netfile Processing utility must be setup before the utility can be used to automatically receive network files. Control information for receiving network files is defined using options 1 and 2 of the NPL menu.

User control file maintenance

User control maintenance is option 1 of the NPL menu. This program allows you to define the identities (user profile names) of the users for which the Netfile processing utility will attempt to perform automatic processing of received Network files.

```

NPL001D1          User processing control - Maintenance
Select

Type options, press Enter.
 2=Change

User              Job
Profile   Sts Name      Job description      Data queue      Retry
ACCTS     H  RCV_ACCTS  NPLIB/NPLJOBDB     QUSRSYS/RCV_ACCTS    150
QSECOFR   A  RCV_SECOFR NPLIB/NPLJOBDB     QUSRSYS/RCV_SECOFR  180
QPGMR     A  RCV_PGMR   NPLIB/NPLJOBDB     QUSRSYS/RCV_PGMR    150
USER1     A  RCV_USER1  NPLIB/NPLJOBDB     QUSRSYS/RCV_USER1   150

Position list to:
QPGMR

F3=Exit          F6=Add

```

This screen shows you a list of all Netfile processing users currently defined. The user must be defined here for Netfiles to be automatically processed. If the status field shows an 'H' highlighted, it means that the user is defined but no processing will occur (the user is 'held').

To change an existing user entry, type a '2' beside the entry and press enter. You will then be shown the 'change' screen (see below).

To add a new user, press F6.

```
NPL001D2          User processing control - Maintenance
Change

User profile to process. . . . . QPGMR
User status. . . . . A (H=Held)

Job Name to submit . . . . . RCV_PGMR
Job description to use . . . . . NPLIB__ / NPLJOB__

Retry delay. . . . . __150

Control data queue name. . . . . QUSRSYS / RCV_PGMR

F3=Exit  F11=Delete  F12=Previous
```

This screen allows you to define the control information for a specific user of the Netfile processing utility.

User Profile to process: This identifies the name of the user to receive Netfiles for. The name entered must already exist as a user profile on this machine.

User Status: this field can be either A=Active, or H=Held. An active user entry means that Netfile processing can be started for the user. If the entry is held, Netfile processing is not available for the user.

Job name to submit: This will be the job name of the Netfile processing receiver job. The submitted job processes all netfiles received at this system for this user. The default name of 'RCV_NETF' should be changed to something more meaningful. A good naming convention would be to ensure the user name is included in the job name; so, for example, the receiver job for user QPGMR could be called RCV_PGMR.

Job description to use: This will be the job description that is used to submit the Netfile processing receiver job. Note that it is NOT the job description used to process the network files (this job is defined for each file).

Retry delay: This is the time (in seconds) between attempts to receive any Netfiles that have arrived, but have not yet been received.

Control data queue name: Each Netfile processor job is controlled by a data queue. This queue is used to control the delay time, as well as to process 'interrupt' commands that have been sent to the job. Unless you have a special need to change the standard naming convention, you should let the program generate a default name by leaving the '*DFT' entry as it is. The default name for the data queue is generated by adding the prefix 'NTF_' to the user profile name; the default library is QUSRSYS.

To delete the user entry, press F11. This will also automatically delete any file control records that have been defined for the user.

Netfile control file maintenance

Netfile control maintenance is option 2 of the NPL menu. This program allows you to define the names of the Network files for which the Netfile processing utility will attempt to perform automatic processing of received Network files.

```
NPL002D1          Netfile file control - Maintenance
Select

Type options, press Enter.
2=Change
User             Netfile
Profile          File name      Sts      Netfile description
QPGMR           ORDER          H        Customer order
QPGMR           STKORDER        A        Customer stock order
QPGMR           EMRORDER        H        Customer emergency order
QPGMR           QUOTE           A        Customer price quotation request
QPGMR           PRICELIST        A        Factory price list

Position list to:
  QPGMR          STKORDER

F3=Exit  F6=Add
```

This screen shows you a list of all Netfiles defined for all defined Netfile Processing users. The file must be defined here for that Netfile to be automatically processed for the defined user. If the status field shows an 'H' highlighted, it means that the file is defined but no processing will occur (the file is 'held').

To change an existing user/file entry, type a '2' beside the entry and press enter. You will then be shown the 'change' screen (see below).

To add a new user/file, press F6. Note that the user profile definition must have already been defined to the utility before files can be associated with the user.


```

NPL002D2                Netfile file control - Maintenance
Change

User Profile. . . . . OPGMR
Netfile name. . . . . STKORDER      Last processed . . . 14/01/10 11:23:15
File description. . . . . Customer stock order

File status. . . . . A      A=Active, H=Held

Copy to file. . . . . /                *FILE, *NONE, file name
to member. . . . .                *FROMMBR, *FIRST, member name
member option . . . . .                *ADD,*REPLACE

Command to process. . . . . CALL PGM(RCVSTKORD)
-----
Process option . . . . . C            C=Call, S=Submit, T=Schedule
Job name . . . . . RCVSTKORD        *NETF, job name
Job description . . . . . ORDERLIB / ORDERJOB
Submit time . . . . . 00:00:00     scheduled jobs only
Send msgs to user . . . . . *SYSOPR *SYSOPR, *USER, user ID
Library list . . . . . *JOBDB       *JOBDB, *CURRENT, *DEFINE

F3=Exit      F4=Prompt Cmd      F11=Delete      F12=Previous

```

This screen allows you to define the file control information for a specific file *relating to* a specific user of the Netfile processing utility.

User Profile: This is the name of the user for which file processing is to occur. The user must have already been defined to the Netfile Processing utility (via option 1 of the NPL menu).

Netfile name: This is the name of the file to be processed for the user. When a network file is received with this name, *and for the user specified*, the processing defined on this control record will be performed.

File description: This is a text field to allow you to provide explanatory text for the file to be processed.

File Status: this field can be either A=Active, or H=Held. An active file entry means that Netfile processing can occur for this file. If the entry is held, Netfile processing will not automatically occur for this file.

Copy to file: This is the name of the file that will be used to receive the Netfile in to (using the RCVNETF command). The file must already exist in the specified library.

- The special entry of *FILE will receive the Netfile into a file with the same name as the Netfile. It is important to note that if you specify *LIBL for the library name, the library list of the Netfile processor job is used to find the file.
- The special entry of *NONE will not receive the Netfile; it is assumed that the Receive Network File function will be performed by the 'Command to process', defined below.

Copy to member: This is the name of the member in the file that will be used to receive the Netfile in to.

- A special value of *FIRST will cause the Netfile to be received into the first member in the file.
- A special value of *FROMMBR will cause the Netfile to be received into a member with the same name as the Network file member name.

Member option: Specifies how to copy the Netfile into the specified file member.

- If you specify *ADD, the records in the Netfile will be added to the existing member in the file.
- If you specify *REPLACE, the contents (if any) of the existing member in the file will be removed and the Netfile will then be copied into the file member.

Command to process: This entry advises the Netfile processor of any processing that should be performed after the successful receipt of a Netfile into the specified database file. The entry must be a valid command.

You can prompt for command parameters by pressing the function key F4. If you do not require any processing to be performed you can use the special value of *NONE.

Process option: If you require additional processing to be performed, this parameter defines how to perform that processing.

- An entry of 'C' will cause the Netfile processor job to perform the request directly after receiving the Netfile.
- An entry of 'S' will cause the Netfile processor to submit a job to batch for processing.
- An entry of 'T' will cause the Netfile processor to submit a job to the NUTIL Job Scheduler.

Job name to submit: This is the job name that will be used to submit (or schedule) the additional processing job (if any). The default entry of *NETF will use the Netfile file name as the job name.

Job description to use: This will be the job description that will be used to submit (or schedule) the additional processing job (if any).

Submit time: If the additional processing job (if any) is to be sent to the Job Scheduler for processing, this will be the time used for scheduling purposes.

Send messages to user: Specify the name of the message queue that is to receive and messages relating to the receipt or processing of this Netfile. The default entry of *USER will cause any messages to be sent to the user ID that the file is being processed for (defined above). An entry of *SYSOPR will cause any messages to be sent to the system operator.

Library list: This allows you define what library list is to be used for the additional processing (if any).

- An entry of *JOBDB will be used by submitted and scheduled processing and causes the processing to be performed using the library list defined on the job description previously specified. *JOBDB is not valid for called processing.
- An entry of *CURRENT will be used by called and submitted processing and causes the processing to be performed using the library list of the Netfile processor job. *CURRENT is not valid for Scheduled processing; scheduled processing will always use the library list defined on the associated job description.
- An entry of *DEFINE allows you to enter a library list to use for called and submitted processing (see below). *DEFINE is not valid for Scheduled processing; scheduled processing will always use the library list defined on the associated job description. Once you have defined the library list, this entry will change to *DEFINED.

If this file definition has already been used by a Netfile processor job, the date and time of the last use will also be displayed on the screen.

To delete the file entry, press F11.

Defining the processing library list

If you specified *DEFINE for the library list, you will be shown the Change Library list (CHGLIBL) command prompt:

```
Change Library List (CHGLIBL)

Type choices, press Enter.

Libraries for current job . . . LIBL > NPLIB
                                         USRFILES
                                         USRPGMS
                                         QGPL
                                         QTEMP
```

Enter the library list that is to be used when processing the 'Command to process'.

Netfile Rx processing in operation

STRRCVNETF - Starting a Netfile Receiver job

The STRRCVNETF command is used to start an asynchronous Netfile Processor job, which will automatically handle Netfile receipts for a specific user.

```

                                Start a netfile receiver job (STRRCVNETF)

Type choices, press Enter.

User profile to process . . . . . USRPRF      *CURRENT
Job queue . . . . . JOBQ                     QUSRNOMAX
Library name. . . . .                          QSYS

Reset file numbering control?.. RESET      *NO

Processing subsystem . . . . . SBS           QUSRWRK
Library name. . . . .                          QSYS

```

The User profile parameter specifies which user profile to receive Netfiles for. Only user profiles that have been defined on the Netfile User Control parameter file may be entered. Possible values are:

- *CURRENT: A Netfile Processor job will be started for the current user.
- *ALL: A Netfile Processor job will be started for each user defined on the Netfile User Control parameter file.
- User profile name: Specify the user profile to start a Netfile Processor job for.

The Job Queue parameter defines the name of the job queue in which this job is to be placed. Possible values are:

- QSYS/QUSRNOMAX: This is the default entry. Although not essential, it is highly recommended that you use this default entry.
- *JOBQ: The job queue defined on the job description is to be used.
- Job queue name: Specify the name of the job queue to be used.

The possible library values are:

- *LIBL: The library list is used to locate the job queue.
- Library name: Specify the name of the library where the job queue resides.

The Reset File Numbering parameter is used to reset the 'last file number processed' control field. Periodically, the system file numbering sequence will reset to zero (when the maximum file number is reached, or when OS/400 is reinstalled or upgraded). To ensure you receive all files you must also reset the control data in NPLIB.

The possible entries for the Reset parameter are:

- *NO: User control numbering is not reset. The current 'last file number processed' for each user is not changed.
- *YES: The user control file is processed, and all user control numbering of netfiles is reset to zero.

The Processing Subsystem parameter specifies the name of the subsystem that the Netfile Rx Processor job will run in.

The purpose of this parameter is to allow the submitter job to first check that the Netfile Rx Processor job isn't already active in the specified subsystem.

You must enter a valid, existing, subsystem description name. The default subsystem name is QUSRWRK.

The possible library values are:

- *LIBL The library list is used to locate the subsystem description.
- Library name Specify the name of the library where the subsystem description resides.

INTNETFP - Interrupting a Netfile Receiver job

The INTNETFP command is used to break into the delay on a currently running Netfile Rx Processor job and, optionally, to process a specified command from within that job.

```
Interrupt Netfile Rx processor (INTNETFP)

Type choices, press Enter.

Netfile processor to interrupt . . . . . USRPRF  *CURRENT
Interrupt request . . . . . RQSDTA  _____
```

The User profile parameter specifies which user profile to interrupt Netfile Processing for. The possible values are:

- *CURRENT: The Netfile Processor job will be interrupted for the current user.
- User profile name: Specify the user profile to interrupt Netfile Processing for.

The Interrupt request parameter is an optional entry that allows you to process a request from within the processor job. If you make an entry in this parameter, it must be a valid command (command prompting is available via the F4 function key).

The command will be sent to the specified user Netfile Processor job, which will then process the command.

CHGNETFP - Changing a Netfile Receiver job attributes

The CHGNETFP command is used to alter the run attributes of a currently running Netfile Rx Processor job.

```
Change Netfile Rx processor job (CHGNETFP)

Type choices, press Enter.

User profile to process . . . . . USRPRF  *CURRENT
Retry delay (seconds) . . . . . DELAY    _____
```

The User profile parameter specifies which user profile to change Netfile Rx Processing attributes for.

The possible values are:

- *CURRENT: The Netfile Processor job will be changed for the current user.
- *ALL: The currently active Netfile Processor job will be changed for every user defined on the Netfile User Control parameter file.
- User profile name: Specify the user profile to be changed.

The Retry Delay Time parameter specifies the time (in seconds) that the Rx processor job will stay inactive between two scans of the incoming netfiles for the user.

Note: The change you make will become effective immediately. It will only affect the currently active processor job; this is not a permanent change.

ENDNETFP - Ending a Netfile Receiver job

The ENDNETFP command is used to end a currently running Netfile processor job. It is not normally necessary to end the Netfile receiver job; if the job detects that the subsystem it is running in is being terminated, it will terminate itself.

```
                End a Netfile Rx processor job (ENDNETFP)
Type choices, press Enter.
User profile to process . . . .  USRPRF  *CURRENT
```

The User profile parameter specifies which user profile to end Netfile Processing for.

The possible values are:

- *CURRENT: The Netfile Processor job will be ended for the current user.
- *ALL: The Netfile Processor job will be ended for every user defined on the Netfile User Control parameter file.
- User profile name: Specify the user profile to be ended.

DSPNETFLOG - Displaying/Printing the Rx audit log

The DSPNETFLOG command is used to display or print the activity log of the Netfile Processing facility.

```

                Display Netfile processing log (DSPNETFLOG)

Type choices, press Enter.

User profile . . . . . USRPRF          *CURRENT
Log type . . . . . LOGTYPE           *RCV
Start date . . . . . FROMDATE        *CURRENT
Start time . . . . . FROMTIME        *AVAIL
Output . . . . . OUTPUT              *

```

The User profile parameter specifies which user profile to display the log entries for. The possible values are:

- *CURRENT: The Netfile Processing log will be displayed for the current user.
- *ALL: The Netfile Processing log will be displayed for all users.
- User profile name: Specify the user profile to display the Netfile Processing log for.
- *AUDIT: This is a special entry, which will print an audit log report. All other parameters in the command are ignored.

The Log type parameter specifies whether you wish to access the log entries for transmissions sent or received. The possible values are:

- *RCV: Log entries for transmissions received will be processed.
- *SND: Log entries for files transmitted will be processed.

The Start date parameter is used to specify what date to start the log display from. The possible values are:

- *CURRENT: The Netfile Processing log will be displayed for the current date only.
- Start date: Enter a date to start the display from. The date must be entered in Job format.

The Start time parameter is used to specify what time to start the log display from. The entry relates directly to the start date entered. The possible values are:

- *AVAIL: All log entries from the specified start date are displayed.
- Start time: Enter a time to start the display from. The time must be entered in 24-hour format and can be entered with or without a time separator.

The Output parameter specifies whether the log entries are to be displayed or written to a spool file. The possible values are:

- '*': The log entries are displayed (if requested by an interactive job) or written to a spool file (if requested by a batch job).
- *PRINT: The log entries are written to a spool file.

Displaying Rx audit log entries

Note: The displays given here as examples show the result of using the LOGTYPE(*RCV) option; the displays will appear slightly differently when LOGTYPE(*SND) is used.

If the request was made to display the log entries, a list panel will be displayed, showing all log entries within the limits defined in the command parameters:

```

NPL011D1                               Netfile Rx processing history log
Select

Type options, press Enter.
1=Select

   Processed      File      Member      From      From      File      To
   date         time      name      name      user      system     nbr      file

25/02/10 17:46:16  ORDER    ORDER    DAVE     VERMONT    21      *NONE
25/02/10 17:51:28  ORDER    ORDER    HARRY    VEGAS     22      *NONE
25/02/10 18:41:25  ORDER    ORDER    HARRY    VEGAS     23      *NONE
25/02/10 18:43:36  ORDER    ORDER    SAM      SOCAL     25      *NONE

Position list to:
25/02/10 17:46:16  ORDER    ORDER

F3=Exit

```

This screen shows you a list of all Netfile processing that has been performed with the parameters you specified on the DSPNETFLOG command. To display additional information about one of the listed entries, type a '1' beside the entry and press enter.

```

NPL011D2                               Netfile Rx processing history log
Display

Network file name. . . . . ORDER      Member. . . . . ORDER
Network file number. . . . . 23      File type . . . . . *DTA

From . . . . . HARRY      VEGAS
To . . . . . QPGMR      CENTRAL

Sent . . . . . 25/02/10 18:41:25
Arrived. . . . . 25/02/10 18:41:25
Processed. . . . . 25/02/10 18:41:26 By. . . QPGMR

Record length. . . . . 80
Record count . . . . . 6

Copied to file . . . . . / *NONE
File member . . . . .

Audit report date. . . . . 26/02/10

F3=Exit  F12=Previous

```

This screen displays the full processing information relating to a specific Netfile receipt.

RGZNETFLOG - Cleansing the processing audit log

The RGZNETFLOG command allows you to remove old entries from the Netfile Processing history log.

```
Cleanse Netfile processing log (RGZNETFLOG)
Type choices, press Enter.
Number of days history to keep  KEEP      30
```

The Keep parameter allows you to define how many days history are to be kept in the cleansed log file. Any entries older than the date calculated from this parameter will be removed.

Specify a number of days value, between 1 and 300. A 'cleanse prior to' date will be calculated from this value (cleanse date = current date - keep days value specified) and used in the cleanse processing.

What to do if things go wrong...

In some cases, the processing specified for a Netfile may not be performed as you expected; for example you may have defined a job description incorrectly, causing the processing job to fail.

Once a Netfile has been read for processing by the automatic processor, it will not be read again (the reason for this is to ensure that Netfiles do not get processed twice). So if your processing fails for a Netfile, the automatic processor will ignore that Netfile in any future processing.

If this situation occurs, you must manually process the Netfile, using the PRCNETF (Process network file) command. This command works against a *specific* network file and performs any specified processing for it.

PRCNETF - Processing a specific network file

The PRCNETF command is used to manually receive a network file, in accordance with the processing control information defined in the Netfile Utility for a specific file/user. This command would only normally be used to restart the receipt of a netfile, where previous processing did not complete successfully.

Note: Because this processing is considered to be 'non-standard', it cannot perform time scheduled processing of the Netfile. If the File Control information held for the Netfile requires it to be sent to the Scheduler for processing, the PRCNETF command will ignore this and submit it for normal batch processing (not time dependent).

```

                                Process Network File (PRCNETF)

Type choices, press Enter.

For user . . . . .          USRPRF          *CURRENT
From file . . . . .         FROMFILE
File number . . . . .       NBR             *LAST
  
```

The User profile parameter specifies which user profile to receive a Netfile for. Only user profiles that have been defined on the Netfile User Control parameter file may be entered. The possible values are:

- *CURRENT: The network file is to be processed for the current user.
- User profile name: Specify the user profile to process the network file for.

The From file parameter specifies the name of the network file to be received. The network file must exist for the specified user, and a control record for the file/user must be defined in the Netfile Processing Facility for it to be processed by this command.

The File number parameter defines the specific network file to be received. The possible values are:

- *LAST - If one or more network files of this name have been received for this user process the last one that arrived on your system.
- *ONLY - Only one network file of the specified name has been received - process it. If more than one network file of this name has been received for this user, process the last one that arrived on your system.
- file number - Specify the number of the file to be processed.

Retrieving Netfile information in the 'Command to process'

In some cases, it may be necessary for a program (called via the 'Command to process') to be able to determine the attributes of the Netfile. For example if the Netfile has not yet been received, you will need to receive it in your user program. Or you may want to have a program that writes or updates a log of all netfile transaction activity for a specific application.

There are two ways of determining the original Netfile attributes and both are based on information that is loaded into the Local Data Area (*LDA) by the Netfile processor job.

RTVNETFA - Retrieving the Netfile Attributes

The RTVNETFA command is used in a CL program to retrieve the control information relating to a Netfile processed by the Netfile Processing Utility. The command is only valid when used in a CL program that is called via the 'Command to Process' parameter of a Netfile file control record.

The use of the command is only valid at the start of the CL program. The data is retrieved from the Local Data Area (*LDA), so if any attempt is made by the program to alter the contents of the *LDA before the RTVNETFA command is used, the results of RTVNETFA command may be unpredictable.

Restrictions: This command is only valid within a CL program; and then only one that is called via the 'Command to Process' parameter of a Netfile file control record.

```

Retrieve Netfile Attributes (RTVNETFA)

Type choices, press Enter.

CL var for Netfile name (10) . FILE
CL var for Member name (10) . MBR
CL var for Netfile nbr (6 0) NBR
CL var for Sending user (8) . . SNDUSR
CL var for User address (8) . . SNDADR
CL var for Date sent (8) . . SNDDATE
CL var for Time sent (6) . . SNDTIME
CL var for Receive user (10) . . RCVUSER
CL var for Record length (5 0) RCDLEN
CL var for Record count (8 0) RCDCNT

```

The *Netfile name* parameter specifies the name of the CL variable that receives the name of the Netfile being processed. The variable must be a character variable with a length of 10 characters.

The *Netfile member name* parameter specifies the name of the CL variable that receives the name of the Netfile file member being processed. The variable must be a character variable with a length of 10 characters.

The *Netfile file number* parameter specifies the name of the CL variable that receives the file number of the Netfile being processed. The variable must be a 6 digit decimal variable specified with no decimal positions.

The *Sending user* parameter specifies the name of the CL variable that receives the SNADS name of the user that sent the file. The variable must be a character variable with a length of 8 characters.

The *Sending user address* parameter specifies the name of the CL variable that receives the SNADS address of the user that sent the file. The variable must be a character variable with a length of 8 characters.

The *Date sent* parameter specifies the name of the CL variable that receives the date that the file was sent. The variable must be a character variable with a length of 8 characters, the date is supplied in YYYYMMDD format.

The *Time sent* parameter specifies the name of the CL variable that receives the time that the file was sent. The variable must be a character variable with a length of 6 characters, the time is supplied in HHMMSS format.

The *Receiving User* parameter specifies the name of the CL variable that receives the user ID of the user to whom the file was sent (and received). This would normally be the *CURRENT user but, where the processing has been submitted to Scheduler the receiving user ID may be different to the user ID who is actually doing the RCVNETF file receipt command. The variable must be a character variable with a length of 10 characters.

The *Record Length* parameter specifies the name of the CL variable that receives the record length of the records (in bytes). The variable must be a 5 digit decimal variable specified with no decimal positions.

The *Record Count* parameter specifies the name of the CL variable that receives the total number of records in the file. The variable must be a 8 digit decimal variable specified with no decimal positions.

Using the RTVNETFA command in a CL program

The following CL example shows how to use the RTVNETFA command to process a related Netfile:

```
PGM

DCL      VAR(&NETFILE) TYPE(*CHAR) LEN(10)
DCL      VAR(&NETFMBR) TYPE(*CHAR) LEN(10)
DCL      VAR(&NETFNBR) TYPE(*DEC)  LEN(6 0)

MONMSG   MSGID(CPF0000) EXEC(GOTO ERROR)

/*****
/* Receive the netfile...
*****/
RTVNETFA FILE(&NETFILE) MBR(&NETFMBR) NBR(&NETFNBR)

RCVNETF  FROMFILE(&NETFILE) TOFILE(DATA_FILE) +
         FROMMBR(&NETFMBR) TOMBR(*FIRST) NBR(&NETFNBR)

ERROR: ENDPGM
```

As you can see, the RTVNETFA command is used to retrieve the information about the Netfile that is being processed. The variables loaded by the RTVNETFA command are then used in the RCVNETF (Receive Network File) command.

Local Data Area (*LDA) definition

In most cases, the RTVNETFA command is sufficient for a user program to process a Network file. However there may be instances where you need more information regarding the file - in this case your program will need to access the Local Data Area (*LDA) to retrieve the information. The defined information in the *LDA is as follows:

Local Data Area (*LDA) definition - Netfile Processing

No	User descriptive name	Field	Fmt	Start	Length
1	Not used	-	A	1	700
2	Reserved for use by NPL	-	A	701	20
3	Receiving user ID	NFDUID	A	721	8
4	Receiving user ID qualifier	NFDIDQ	A	729	8
5	Netfile file name	NDFFIL	A	737	10
6	Netfile member name	NFDMBR	A	747	10
7	Netfile file number	NFDNBR	N	757	6
8	Sending user ID	NDFUD	A	763	8
9	Sending user ID qualifier	NFNFSQ	A	771	8
10	Record count	NFNBR	N	779	8
11	Record length	NFDRCL	N	787	5
12	Date file was sent	NFSDST	N	792	6
13	Time file was sent	NFDSTM	N	798	6
14	Date file arrived	NFDADT	N	804	6
15	Time file arrived	NFDATM	N	810	6
16	Date file was sent (<i>full</i>)	NFSDS8	N	816	8
17	Date file arrived (<i>full</i>)	NFDAD8	N	824	8
18	Reserved for use by NPL	-	A	832	193

The data can be retrieved from the Local Data Area (*LDA) using the RTVDTAARA (Retrieve Data Area) command.

If the information is required, it **must** be retrieved before any attempt is made by the program to alter the contents of the *LDA; otherwise the resulting information may be unpredictable.

Note the date sent and date arrived exists twice in the *LDA, once as a 6 digit date (in the form YYMMDD) and once as an 8 digit date (in the form YYYYMMDD). This is to ensure compatibility with old and new versions of processing programs.

Retrieving the *LDA information in a CL program

The following CL example shows how to use the RTVDTAARA command to retrieve the Netfile attributes from the *LDA and process a related Netfile:

```

PGM

DCL      VAR (&NETFILE)      TYPE (*CHAR)      LEN (10)
DCL      VAR (&NETFMBR)      TYPE (*CHAR)      LEN (10)
DCL      VAR (&NETFNBR)      TYPE (*DEC)       LEN (6 0)

DCL      VAR (&NETFNB@)      TYPE (*CHAR)      LEN (6)

MONMSG   MSGID(CPF0000) EXEC(GOTO ERROR)

/*****
/* Retrieve the information from the *LDA...
*****/
RTVDTAARA DTAARA(*LDA (737 10)) RTNVAR(&NETFILE)
RTVDTAARA DTAARA(*LDA (747 10)) RTNVAR(&NETFMBR)
RTVDTAARA DTAARA(*LDA (757 6))  RTNVAR(&NETFNB@)

CHGVAR   VAR(&NETFNBR) VALUE(&NETFNB@)

/*****
/* Receive the netfile...
*****/
RCVNETF  FROMFILE(&NETFILE) TOFILE(DATA_FILE) +
          FROMMBR(&NETFMBR) TOMBR(*FIRST) NBR(&NETFNBR)

ERROR:   ENDPGM

```

This example performs the same processing as the example shown for the RTVNETFA command. The only difference is that the variables used in the RCVNETF command are now loaded direct from the *LDA, rather than via the RTVNETFA command.

Note that the variable used to retrieve the Netfile file number is numeric; thus you must first retrieve the information from the *LDA into a character variable (&NETFNB@) and then copy that variable into a numeric variable (&NETFNBR).

Logic flow of the Netfile Receiver Processor job

The main driver function of the Netfile receiver processing utility is the submitted Netfile Rx Processor job(s).

These are submitted and started by the STRRCVNETF (Start Receive Netfile) command and a separate job is started for each user to be processed. The job name for the submitted job is taken from the related user control record in the Netfile User Control file (maintained via option 1 of the NPL menu).

STRRCVNETF -----> submits the Netfile Rx Processor job for the specified user.

The logic of the Netfile Rx Processor job can be complex and it is relevant to explain how it basically works.

The following discussion (see next page) outlines the logic flow of each user Netfile Rx Processor job, in program pseudo-code.

Where reference is made to 'the user control record' this means the relevant record for the user profile, which is contained in file NPPUCTL - Netfile User Control file.

Where reference is made to 'the file control record' this means the relevant record for a specific Network file for the specific user profile, which is contained in file NPPFCTL - Netfile Control file.

The program is written as a 'Never-Ending program' (NEP) and is intended to run asynchronously with all normal daily activities on the iSeries machine. The program terminates normally via only one of three methods:

- The subsystem it is running in is terminated via a controlled end
- An ENDNETFP command is issued
- An INTNETFP RQSDTA(SIGNOFF) command is issued

The Netfile Rx Processor job for a specific user profile

Job_start: Ensure the controlling data queue for this user exists. If it doesn't, create it based on the information in the user control record.

Loop_Start: If this is not the program initialization, perform a delay job, based on the timeout value in the user control record. If it is the *INIT step, ignore the delay.

Terminate: If the subsystem is being terminated, terminate this job.

Interrupt: If a signal is received from either the INTNETFP (Interrupt Netfile Processor job) or ENDNETFP (End Netfile Processor job) command, interrupt the time delay and perform the requested action. Scan for Network files received for this user. If none are found, go to *Loop_Start*.

Read_List: Read the list of Netfiles found, ignoring any that have already been processed by this utility (a pointer is updated after each file has been processed).

For each 'new' netfile found

- If the Netfile is not defined in the control file, ignore and process next Netfile.
- If Netfile is to be received (TOFILE *NE *NONE), receive it into the specified database file.
- If there is a 'Command to process' specified, process it
- Update the Netfile audit log.
- Update the 'last Netfile processed for user' pointer.

After all Netfiles have been read, return to *Loop_Start*.

Using the utility to automatically send files

Defining the Tx control information

The Tx control information within the Netfile Processing utility must be setup before transmissions can be processed. Control information is defined using option 11 of the NPL menu.

Transmission control file

Transmission control maintenance is option 11 of the NPL menu. This program allows you to define the data files for which the Netfile processing utility will attempt to perform automatic transmission.

```

NPL003D2          Netfile transmission control - Maintenance
Change

File to process . . . . . USRFILES / ORDERDATA
Member to process . . . . . *FIRST      *FIRST, member name
File description . . . . . Stock order
Netfile job name . . . . . SND ORDER  *FILE, job name to use

File status . . . . . A                A=Available for transmission, H=Held
Transmit to . . . . . ORDERS  HEADOFC  user ID, address

Transmission times
 1  07:45:00  2  10:30:00  3  12:45:00    4  13:30:00    5  15:30:00
 6  17:00:00  7  18:25:00  8  0:00:00     9  0:00:00   10 0:00:00

Archive library . . . . . SAVEFILES  *NONE, library name
Transmit from user . . . . . *SYSOPR  *SYSOPR, user ID
Control data queue name. . . QUSRSYS / SND_ORDER  *DFT, data queue name

F3=Exit  F11=Delete  F12=Previous

```

This screen allows you to define the control information for the automatic transmission of a file by the Netfile Processing Facility.

File to process: This identifies the name of the database file that is to be sent. This must be a valid database filename (type *PF or *LF) on this machine.

Netfile job name: This will be the job name of the Netfile processing transmission job. The submitted job processes the automatic transmission of this file. If you do not specify a job name, the system will use the file name as the job name. Note that duplicate job names are not allowed.

File status: this field can be either A=Active, or H=Held. An active file entry means that Netfile processing can be started for this file. If the entry is held, Netfile processing is not available for the file.

Transmit to: the two part user ID of the user to whom the file is being sent. This must be a valid entry in the system directory (validated at transmission time).

Transmission times: up to 10 transmission times can be specified. Transmission can be scheduled between 00:00:01 and 23:59:59. A time of 00:00:00 is ignored by this processor.

Archive library: You can specify that a copy of the data transmitted is loaded into an archive file, before the file is processed. An entry of *NONE will mean that no data archiving is attempted. If you specify a library name, a copy of the data will be taken and added to a file with the same name in the library specified. If no file exists in the archive library, one will be created.

Transmit from user: This is the user profile that will be used to transmit the file. All messages relating to transmissions will be sent to this user profile message queue.

Control data queue name: Each Netfile processor job is controlled by a data queue. This queue is used to control the transmission times, as well as to process 'interrupt' commands that have been sent to the job. If you do not specify a data queue name, the system will use the job name as the data queue name. Note that duplicate data queue names are not allowed.

If this file definition has already been used by a Netfile processor job, the date and time of the last use will also be displayed on the screen.

Netfile Tx processing in operation

STRSNDNETF - Starting the autosend of a file

The STRSNDNETF command is used to start an asynchronous Netfile Processor job, which will automatically handle transmissions of a specific file.

```

                                Start autosend of file (STRSNDNETF)

Type choices, press Enter.

File name . . . . . FILE _____
Library name. . . . . *LIBL _____
Member name . . . . . MBR  *FIRST _____

Job queue . . . . . JOBQ  QUSRNOMAX _____
Library name. . . . .      QSYS _____

```

The File parameter allows you to specify the name and library of the file to be processed. The file you specify must exist and must be defined in the Netfile transmission control file. Possible values are:

- *ALL: Start processors for all files defined in the control file. Note that the library and member parameters are ignored when FILE(*ALL) is specified.
- File name: Specify the name of the file to process.

The possible library values are:

- *LIBL: The library list is used to locate the file.
- *CURLIB: The current library for the job is used to locate the file. If a current library is not defined for the job, QGPL is used.
- Library name: Specify the name of the library where the file resides.

The Member Name parameter allows you to specify the name of the file member to be processed. The possible values are:

- *FIRST: The first member in the file will be processed.
- Member name: Specify the name of the member to be sent.

The Job Queue parameter defines the name of the job queue in which this job is to be placed. Possible values are:

- QSYS/QUSRNOMAX: This is the default entry. Although not essential, it is highly recommended that you use this default entry.
- *JOBQ: The job queue defined on the job description is to be used.
- Job queue name: Specify the name of the job queue to be used.

The possible library values are:

- *LIBL: The library list is used to locate the job queue.
- Library name: Specify the name of the library where the job queue resides.

ENDSNDNETF - Ending the autosend of a file

The ENDSNDNETF command is used to end a currently running Netfile transmission Processor job. It is not normally necessary to end the Netfile processor job; if the job detects that the subsystem it is running in is being terminated, it will terminate itself.

```
                End autosend of file (ENDSNDNETF)

Type choices, press Enter.

File name . . . . . FILE  _____
Library name . . . . .      *LIBL _____
Member name . . . . . MBR  *FIRST _____
```

The File parameter allows you to specify the name and library of the file to be processed. Possible values are:

- *ALL: End all processors for all files defined. The library and member parameters are ignored when FILE(*ALL) is specified.
- File name: Specify the name of the file whose processor job is to be terminated.

The possible library values are:

- *LIBL: The library list is used to locate the file.
- *CURLIB: The current library for the job is used to locate the file. If a current library is not defined for the job, QGPL is used.
- Library name: Specify the name of the library where the file resides.

The Member Name parameter allows you to specify the name of the file member to be processed. Possible values are:

- *FIRST: The first member in the file will be processed.
- Member name: Specify the name of the member to be processed.

DSPNETFLOG - Displaying/Printing the Tx audit log

The DSPNETFLOG command is used to display or print the activity log of the Netfile Processing facility.

```

                Display Netfile processing log (DSPNETFLOG)

Type choices, press Enter.

User profile . . . . . USRPRF      *CURRENT
Log type     . . . . . LOGTYPE    *SND
Start date   . . . . . FROMDATE   *CURRENT
Start time   . . . . . FROMTIME   *AVAIL
Output       . . . . . OUTPUT     *
  
```

The User profile parameter specifies which user profile to display the log entries for. The possible values are:

- *CURRENT: The Netfile Processing log will be displayed for the current user.
- *ALL: The Netfile Processing log will be displayed for all users.
- User profile name: Specify the user profile to display the Netfile Processing log for.
- *AUDIT: This is a special entry, which will print an audit log report. All other parameters in the command are ignored.

The Log type parameter specifies whether you wish to access the log entries for transmissions sent or received. The possible values are:

- *RCV: Log entries for transmissions received will be processed.
- *SND: Log entries for files transmitted will be processed.

The Start date parameter is used to specify what date to start the log display from. The possible values are:

- *CURRENT: The Netfile Processing log will be displayed for the current date only.
- Start date: Enter a date to start the display from. The date must be entered in Job format.

The Start time parameter is used to specify what time to start the log display from. The entry relates directly to the start date entered. The possible values are:

- *AVAIL: All log entries from the specified start date are displayed.
- Start time: Enter a time to start the display from. The time must be entered in 24-hour format and can be entered with or without a time separator.

The Output parameter specifies whether the log entries are to be displayed or written to a spool file. The possible values are:

- '*': The log entries are displayed (if requested by an interactive job) or written to a spool file (if requested by a batch job).
- *PRINT: The log entries are written to a spool file.

Displaying Tx audit log entries

Note: The displays given here as examples show the result of using the LOGTYPE(*SND) option; the displays will appear slightly differently when LOGTYPE(*RCV) is used.

If the request was made to display the log entries, a list panel will be displayed, showing all log entries within the limits defined in the command parameters:

```

NPL012D1          Tx Netfile processing history log

Select
Type options, press Enter.
1=Select

      Date      Time      File transmitted      member      To
              User      System
-  1/01/10  14:25:25  USRDTA / EORDER  ODRDTA      ORDERS      HDOFC
-  1/01/10  14:35:25  USRDTA / EORDER  ODRDTA      ORDERS      HDOFC
-  15/01/10  11:20:08  USRDTA / EORDER  ODRDTA      ORDERS      HDOFC
-  15/01/10  11:20:08  USRDTA / EORDER  ODRDTA      ORDERS      HDOFC
-  16/01/10  11:20:05  USRDTA / SORDER  ODRDTA      ORDERS      HDOFC
  16/01/10  11:20:05  USRDTA / EORDER  ODRDTA      ORDERS      HDOFC

Position list to:
  1/01/10  14:25:25  USRDTA / EORDER  ODRDTA

F3=Exit

```

This screen shows you a list of all Netfile processing that has been performed with the parameters you specified on the DSPNETFLOG command.

To display additional information about one of the listed entries, type a '1' beside the entry and press enter.

```
NPL012D2          Tx Netfile processing history log
Display

File transmitted . . . . . USRDTA      / EORDER
File member . . . . . ODRDTA

To . . . . . HOF400  HOF400

Date Processed . . . . . 1/01/10  14:25:25    By. . . QSYSOPR

Record count . . . . . 520

Audit report date . . . . . 2/01/10

F3=Exit  F12=Previous
```

This screen displays the full processing information relating to a specific Netfile transmission.

Logic flow of the Netfile Transmission Processor job

The main driver function of the Netfile transmission processing utility is the submitted Netfile Tx Processor job(s). These are submitted and started by the STRSNDNETF (Start Autosend of file) command and a separate job is started for each file to be processed. The job name for the submitted job is taken from the related transmission control record in the Netfile Transmission Control file (maintained via option 11 of the NPL menu).

STRSNDNETF -----> submits the Netfile Tx Processor job for the specified file.

The logic of the Netfile Tx Processor job can be complex and it is relevant to explain how it basically works.

The following discussion (see next page) outlines the logic flow of each file Transmission Processor job, in program pseudo-code.

Where reference is made to 'the file control record' or the 'transmission control record' this means the relevant control record for a specific database file, which is contained in file NPPTCTL - Netfile Transmission Control file.

The program is written as a 'Never-Ending program' (NEP) and is intended to run asynchronously with all normal daily activities on the iSeries machine. The program terminates normally via only one of two methods:

- The subsystem it is running in is terminated via a controlled end
- An ENDSNDNETF command is issued

The Transmission Processor job for a specific database file

Job_start: Ensure the controlling data queue for this file exists. If it doesn't exist, create it based on the information in the user control record.

Ensure the specified database file exists, and the member also exists in the specified file. If not, cancel the job.

Ensure the archive file exists (if one is defined). If it doesn't exist, create it based on the information in the user control record.

Loop_Start: Determine the delay time until the next transmission is expected to be sent.

Terminate: If the subsystem is being terminated, terminate this job.

Interrupt: If a signal is received from the ENDSNDNETF (End autosend of file command, interrupt the time delay and perform the requested action.

Read_File: Retrieve the file member information.

If data exists in the file member:

- Obtain exclusive lock on the file member. If not available, wait until lock can be obtained
- Send the file member to the specified network address
- If an archive is specified, copy the data to the archive file member, member option *ADD
- Clear the file member
- Release the exclusive lock on the file member
- Update the Netfile audit log
- Update the 'last processed' information.

Return to *Loop_Start*.

Appendix

Netfile processing Reports

As supplied, all printed output will be to a page size of 66 lines, with page overflow occurring at line 62.

Should you wish to alter this to conform to a different standard you should use the CHGPRTF FILE(NPLIB/*ALL) command, specifying your own definitions as required.

Object Compression

The library objects are supplied in compressed form. You should give consideration to decompressing the objects in order to improve user access times. Refer to the CL Reference manual for a discussion of the Decompress Objects (DCPOBJ) command.

Object Ownership

Unless there are special processing considerations, objects in the Netfile Processing Utility are owned by QPGMR and are freely accessible to all users on the system (all users have free public access).

Where a command performs an operation that is not normally allowable by a 'low' authority user, the program will adopt sufficient authority in order to ensure the function works correctly.

Operating System Configuration

The Netfile Processing Utility is designed to work with a standard iSeries operating system ('OS/400'), as supplied by IBM. Should any local changes have been applied to any portion of this standard operating system, there is no guarantee of correct operation of the system.

Such local changes to OS/400 include any alterations to system object authorisations; changing command parameter defaults; changing command processing environment defaults.

It is important to note that if OS/400 is reinstalled again AFTER the installation of this utility, you must rerun the NPINSTALL command before restarting your operations. Failure to do this may mean that the utility ignores files that should be processed. Refer to the NPINSTALL command for further information.

Support Contacts

Europe, Middle East and Africa

Navan (UK) Limited
The Courtyard
Brooklands, Broughton
Milton Keynes MK16 0HU
England

Email: helpdesk@navan.co.uk

Rest of the World

Navan Australia Pty Ltd
22 Torrington Road
Maroubra
NSW 2035
Australia

Email: helpdesk@navan.com.au

The latest version of this manual, as well as the latest PTF's to this product, can always be downloaded from the Navan Internet Website, which can be found at

<http://www.navan.co.uk>