Installation/Update Procedures For SHAREPLEX/iX

Overview

Typically, the installation and configuration of each system or the updating of software can be accomplished in less than 30 minutes. In general, the following steps comprise the installation/update process:

1. **Restore the NetBase software from tape using NETACCT job.**

2. **Install the NetBase shell routines and restart the system.**

3. **Configure operational parameters and define all nodes in the network.** Note that this step is required for initial implementation only. Updates will not overwrite this information.

4. **Validate the NetBase installation and modify system startup procedures.**

Before Installing NetBase

Before installing NetBase, determine which of the following scenarios describes your system, and then take the action listed for that scenario.

- If you are updating from a NetBase 9.6 or 9.7 global installation, proceed to the "Updating From NetBase Global Install" on the next page.

- If you are updating from a version of NetBase that is prior to 9.6, or converting from an account installation, turn to the Installation Appendix at the end of this chapter before performing the installation/update.

- If you are installing NetBase for the first time, proceed to **Step 1** on page A-3.

If you have any questions or if you are unsure about any of the steps, please contact Technical Support at (714)-720-1434.

Updating From NetBase Global Install

> ☞ **Note.**When Step 1 - Stream Netacct has been completed, Step 2 - Install the NetBase Shell must be performed immediately.

If you are updating from a previous version of NetBase 9.6 or 9.7 that is globally installed, perform the following steps *before* you update.

_____ **A.** Stop all sessions and jobs except for NetBase.

_____ **B.** If shadowing, flush shadow transactions:

```
:RUN NBFLUSH.PUB.NETBASE,STOPWAIT;PARM=shadownode#
```

_____ **C.** Stop the NetBase background job:

```
:RUN NBCTRL.PUB.NETBASE;INFO="STOP NETBASE"
```

_____ **D.** Disable the CM intercepts for NetBase:

```
:RUN NBVERS.PUB.NETBASE,DISABLE
```

_____ **E.** If the **NMCMDUDC** is set, delete it:

```
:SETCATALOG NMCMDUDC.PUB.NETBASE;SYSTEM;DELETE
```

_____ **F.** Back up the NetBase account to tape.

Installation Steps

Once you have read the "Before Installing NetBase" section, take steps 1 through 4 to install NetBase. Notice that the "Before Starting" section in **Step 1** describes three system scenarios with actions to take.

Step 1. Restore NETACCT job and STREAM NETACCT

To create NetBase's environment and install/update the software, you will restore a job into **PUB.SYS**. This job is then streamed to create/update the NetBase account and restore the required files.

Before Starting

Before doing **Step 1**, determine if any of the following scenarios describes your system, and if so, take the action for that scenario.

- If you use VESOFT's **STREAMX** utility, do *one* of the following:

  - Disable **STREAMX** and use the MPE **STREAM** command

  - Modify the installation job and change each **STREAM** command to **STREAMX**

- If you use SECURITY/3000, enter this command *prior* to streaming the installation job:

  :NEWACCT NETBASE,MGR;PASS=QUEST

- If you have a lockword on **QUERY.PUB.SYS**, remove it prior to streaming **NETACCT**.

To do Step 1:

_____ **1.1.** Sign on to **MANAGER.SYS** and restore the job stream file:

> ☞ **Note.** Characters in **<< >>** marks are comments and are not entered or displayed. User input is underlined and bold.

```
:HELLO MANAGER.SYS,PUB
:RESTORE ;NETACCT.JOB.@;LOCAL

<<reply to the tape request>>
```

_____ **1.2** If necessary, add any required passwords to the **NETACCT.PUB.SYS** file. This job may stream additional jobs depending on your environment, so the job limit must allow for at least two NetBase jobs. To stream the job:

:STREAM NETACCT

<<reply to the tape request>>

This job will request the tape and print a message to the console when complete. If the job encounters any errors, a message telling what action is necessary will be displayed to the console.

☞ **Note.** If you are using private volumes, we require that you install Netbase on the system volume set, and not a user volume set. If however, you are concerned about the amount of free disc space on the system volume set, then you can move the **LOG** and **QUEUE** groups onto a user volume set.

_____ **1.3** When the NETACCT job has successfully completed, please add the following entry to the NetBase Directory.

```
:RUN NBDIR.PUB.NETBASE
D> PROGRAM NBPOST.NB.NETBASE;NONB
D> EXIT
```

If the entry already exists, answer yes to override it.

Step 2: Install the NetBase Shell

Note. After the installation of the shell has been completed, the system MUST be shutdown and restarted.

Global installation of NetBase requires that NetBase modules be installed into the system libraries located in **PUB.SYS**. These libraries are **SL.PUB.SYS**, **RTMSL.PUB.SYS** and **XL.PUB.SYS**. Before performing any installations to a system library, you should perform a complete backup of all important data. In addition, you should have a current SLT prior to the install. The system should be quiet, this means no active jobs or sessions, during the installation.

Global installation is accomplished via **NBINST.PUB.NETBASE**, an auto-installation program. This installation program requires the user to be **MANAGER.SYS**, logged into the **PUB** group. **NBINST** is run with an **INFO** string depending on the product(s) being installed.

The following table lists the various installation options and when each is used.

Install Option	Usage
INSTALL	Most installations.
INSTALL OMNIDEX	Required if using OMNIDEX 3.0 and NetBase NFA. If using this option, there is an additional configuration step. Turn to the "NetBase and Third Party Products" chapter for more information on the OMNIDEX/NetBase interface.
INSTALL NOIMAGE	Used when installing NBSpool Plus *only* (without NetBase).
INSTALL NFS	Used when installing NFS Client *only* (without NetBase).

_____ **2.1** Run the **NBINST** installation program:

```
:HELLO MANAGER.SYS, PUB
:SETJCW NBDISABLE=FATAL
:RUN NBINST.PUB.NETBASE;INFO="INSTALL"

NetBase/NFS Auto-Install Program [x.x] Update n (C) QUEST Software 1996

Ready to install NetBase? Y

PHASE 1 - CHECK CURRENT INSTALLATION
PHASE 2 - CHECK SYSTEM SL STRUCTURE
PHASE 3 - SCAN SYSTEM SL
PHASE 4 - CREATE NETBASE SL
PHASE 5 - INSTALL NETBASE SYSTEM SEGMENTS
PHASE 6 - UPDATE SYSTEM SL
PHASE 7 - OCT THE NETBASE SL
PHASE 8 -OCT THE NETBASE SYSTEM SEGMENTS
PHASE 9 -INSTALL NATIVE MODE NETBASE

Now shutdown and retart the system

END OF PROGRAM
```

The above example shows a typical **NBINST** display. The actual number of steps or the text of each step may vary from installation to installation.

📖 **Note:** If you receive an error stating that the NetBase Segmented Library is in use when running NBINST.PUB.NETBASE, ensure that NetBase is disabled by running NBVERS.PUB.NETBASE,STATE. If it is disabled, it may be that the network is using the library RTMSL.PUB.SYS. Stop the network by issuing the NETCONTROL STOP command and try running NBINST again.

_____ **2.2** After the successful completion of the NetBase installation program, the system MUST be shut down and restarted.

Step 3. Configure Network Nodes for NetBase

> ☞ **Note.** If you are updating to a new version of NetBase, this step can be skipped. Updating will not overwrite your current configuration files.

In order for NetBase to communicate to the other systems on the network, all systems must be defined to each other. Additionally, the operating parameters and limits of each system must be defined. This is accomplished using the **CONFIG** subsystem in **NBCTRL**. All configuration must be performed from the NetBase account. Some of the operating parameters should be configured before running NetBase for the first time. Others may or may not need to be configured, depending on the system. To get started, you will need to do the following:

_____ **A.** Assign a *node number* for each system being configured. Node numbers can be assigned arbitrarily, however, once a number is assigned to a particular node, that number *must* be used consistently for that node throughout the configuration for *all* nodes.

_____ **B.** Assign a **System Name** — it can be any name up to 8 characters long. This name will be used in NetBase displays, reports, and commands. It is the internal NetBase name.

Example

We have two systems we want to configure for NetBase. We will assign node numbers **3** and **4** and use their network node names for the system name:

Node #	System Name
3	**FOX**
4	**VIXEN**

After the node numbers and names have been assigned, proceed to step 2.1 where a **modify quick** and **add node** commands must be performed.

To do Step 3:

_____ **3.1** Modify the parameters by entering the **CONFIG** subsystem in **NBCTRL** as follows:

```
:HELLO MGR.NETBASE
:RUN NBCTRL.PUB.NETBASE

NetBase Control Program [v.u.f] Update n (C) QUEST Software
1987

*> CONFIG
C> MODIFY QUICK

GLOBAL - Local Node Number......... [1]    3
GLOBAL - Maximum Local Users....... [0]    128
NFA - Maximum Remote Users......... [0]    256
NFA - Initial Server Allocation.... [0]    64
NFA - Server Initial Priority...... [CS]
SPOOL - Use S' and J' on incoming.. [Y]
DIR - Default Directory Name .......[NBD.DATA.NETBASE]
DIR - Allow File Equates........... [N]
DIR - Allow Wildcards.............. [Y]
SHADOW - Flush Shadow File Posts... [N]
PASSWORD - User password...........
PASSWORD - Group password..........
PASSWORD - Account password.......
```

The password parameters apply to the job that **NBCTRL** streams to start NetBase. The default passwords are correct for the account, group and user as they are created by **NETACCT.JOB**. If the default passwords are changed, the password parameters (shown below) must be modified.

In this example, we are setting the **Local Node Number = 3**. This node will be configured as **Node 3** on all systems. The values that appear in brackets **[ ]** are the defaults for each of the parameters.

_____ **3.2**   Enter each system in the network into the configuration using the **ADD [Node#]** command. This includes the local system being configured.

```
:HELLO MGR.NETBASE
:RUN NBCTRL.PUB.NETBASE

NetBase Control Program [v.u.f] Update n (C) QUEST Software
1987

*> CONFIG

C> ADD 3

System Name........................         FOX
Startup Access (S/I/O/A/W)......... [A]
Node Name..........................         FOXTROT.QUEST.COM
Node Connection Timeout............ [180]
SHADOW - Direction (N/E/I/B)....... [N]
SHADOW - Export queue size......... [3172]
SHADOW - Import queue size......... [3172]
SHADOW - Post queue size........... [3172]
SHADOW - Initial Post Priority..... [DEFAULT]
SHADOW - Post Inactivity Timeout... [0]
SHADOW - Enable Post Logging....... [N]
SHADOW - Log all Post Transactions. [N]
SHADOW - Save Process Info on Post. [N]
SHADOW - Abort Post on Errors...... [N]
SHADOW - Buffered Exporting........ [Y]
SHADOW - Transfer mode only........ [N]
SHADOW - Transfer Single Queues.... [N]
SHADOW - Transfer ACK Frequency.... [0]
SHADOW - Post Directory Filename... [DEFAULT]
```

In the above example, node **FOXTROT** is the local node and has now been assigned node number 3. It must continue to be defined as node 3 in the node configuration on each system in the network.

```
C> ADD 4

System Name........................       VIXEN
Startup Access (S/I/O/A/W)......... [A]
Node Name.......................... VIXEN.QUEST.COM
Node Connection Timeout............ [180]
SPOOL - Direction (N/E/I/B).. ..... [N]   B
SPOOL - Allow incoming job streams. [N]
SPOOL - Enable Export Flow Control. [N]
SHADOW - Direction (N/E/I/B)....... [N]   B
SHADOW - Export queue size......... [3172]
SHADOW - Import queue size......... [3172]
SHADOW - Post queue size........... [3172]
SHADOW - Initial Post Priority..... [DEFAULT]
SHADOW - Post Inactivity Timeout... [0]
SHADOW - Enable Post Logging....... [N]
SHADOW - Log all Post Transactions. [N]
SHADOW - Save Process Info on Post. [N]
SHADOW - Abort Post on Errors...... [N]
SHADOW - Buffered Exporting........ [Y]
SHADOW - Transfer mode only........ [N]
SHADOW - Transfer Single Queues.... [N]
SHADOW - Transfer ACK Frequency.... [0]
SHADOW - Post Directory Filename... [DEFAULT]
```

This procedure is repeated for each system in the network to be accessed by NetBase. The **LIST** command can be used to display the configured nodes.

_____ **3.3**   Check the configuration using the **LIST NODES** command in **CONFIG**.

```
C> LIST NODES

Node      Sys name     Line Type     Startup   Spool    Shadow
3*        FOX          N             A         N        N
4         VIXEN        N             A         B        B

Currently 2 Nodes are defined

The * designates the local node.
```

Step 4. Validate Installation and Modify System Startup Procedures

Once the NetBase Shell has been installed, NetBase will begin to intercept all file system and IMAGE intrinsic calls. This happens automatically for Native Mode (**NM**) programs. However, for the NetBase Shell to be able to intercept Compatibility Mode (**CM**) programs, NetBase must be "enabled". The "enabling" of NetBase for **CM** programs is done through the utility, **NBVERS.PUB.NETBASE**. This "enabling" must be done each time the system is restarted and should become part of the standard system startup procedures.

To Enable NetBase for CM programs:

_____ **4.1** Logon as **MGR.NETBASE** or **MANAGER.SYS**:

```
:RUN NBVERS.PUB.NETBASE,ENABLE
NetBase Version Display  [x.x]  Update 3  (C) QUEST Software 1996

Program File:   NBCOP.NB.NETBASE        Version:  [v.u.f]  Upd nn
Program File:   NBCTRL.PUB.NETBASE      Version:  [v.u.f]  Upd nn
Program File:   NBDIR.PUB.NETBASE       Version:  [v.u.f]  Upd nn
Program File:   NBINST.NB.NETBASE       Version:  [v.u.f]  Upd nn
Program File:   NBCOM.PUB.NETBASE       Version:  [v.u.f]  Upd nn
Program File:   NMSERVER.NB.NETBASE     Version:  [v.u.f]  Upd nn
Program File:   NBSPOOL.PUB.NETBASE     Version:  [v.u.f]  Upd nn
Program File:   NBSPOOLC.NB.NETBASE     Version:  [v.u.f]  Upd nn
Program File:   NBSPOOLE.NB.NETBASE     Version:  [v.u.f]  Upd nn
Program File:   NBSPOOLI.NB.NETBASE     Version:  [v.u.f]  Upd nn
Program File:   NBSPOOLT.PUB.NETBASE    Version:  [v.u.f]  Upd nn
Program File:   NBSTATCP.NB.NETBASE     Version:  [v.u.f]  Upd nn
Program File:   NBSTATLG.NB.NETBASE     Version:  [v.u.f]  Upd nn
Program File:   NBEXPORT.NB.NETBASE     Version:  [v.u.f]  Upd nn
Program File:   NBIMPORT.NB.NETBASE     Version:  [v.u.f]  Upd nn
Program File:   NBPOST.NB.NETBASE       Version:  [v.u.f]  Upd nn
Program File:   NBILOGC.NB.NETBASE      Version:  [v.u.f]  Upd nn
Program File:   NBILOG.NB.NETBASE       Version:  [v.u.f]  Upd nn
Program File:   NBSYNC.PUB.NETBASE      Version:  [v.u.f]  Upd 00
Program File:   NBFLUSH.PUB.NETBASE     Version:  [v.u.f]  Upd 00

Program File:  NFS.NET.SYS      Allocated
Program File:  CMSTORE.PUB.SYS  Allocated
Program File:  RPMDAD.NET.SYS   Allocated


NetBase access has been ENABLED
```

The NetBase utility **NBVERS** can be used to verify the version of the NetBase shell procedures installed in the system SL (and XL).

_____ **4.2**   Verify the installation of the NetBase Shell

```
:RUN NBVERS.PUB.NETBASE,SHELL

NetBase Version Display  [x.x]  Update n  (C) QUEST Software 1996

SL Procedure:    NBVERSION'SSL    Version:      [v.u.f]       Upd nn
SL Procedure:    NBVERSION'SSL1   Version:      [v.u.f]       Upd nn
SL Procedure:    NBVERSION'PSL    Version:      [v.u.f]       Upd nn
SL Procedure:    NBVERSION'PSL1   Version:      [v.u.f]       Upd nn
XL Procedure:    NMVersionXLI     Version:      [v.u.f]       Upd nn
XL Procedure:    NMVersionXLF     Version:      [v.u.f]       Upd nn
XL Procedure:    NMVersion XLP    Version:      [v.u.f]       Upd nn
XL Procedure:    NMVersionSYS     Version:      [v.u.f]       Upd nn
```

_____ **4.3**   Modify system startup procedures:

Now that NetBase is globally installed on the system, the system startup procedures must be modified to include NetBase. The NetBase steps in the system startup must be performed each time the system is restarted and need to be performed in the order listed below:

1.   Start the network. Since NetBase makes use of the network, the NetBase background job cannot run unless the network has already been started. Starting the network includes the **NETCONTROL** command.

2.   Enable NetBase for **CM** programs. By default only **NM** programs are automatically intercepted by the NetBase shell, therefore everytime the system is restarted, the NetBase shell must be enabled for **CM** programs.

```
:RUN NBVERS.PUB.NETBASE,ENABLE
```

3.   Start the NetBase background job:

```
:RUN NBCTRL.PUB.NETBASE;INFO="START NETBASE"
```

_____ **4.4**   Set the **NMCMDUDC** to enable the capture of certain MPE commands such as **BUILD**, **PURGE**, **RENAME** etc. This is required if shadowing non-IMAGE files.

> **Note.** If the Quest **NMCMDUDC** was disabled for this update, you must set it again. Enter the following command:
>
> `:SETCATALOG NMCMDUDC.PUB.NETBASE;SYSTEM;APPEND`

Implementation Notes

This section provides notes on system startup procedures and global installation.

System Startup Procedures

Once NetBase is installed and running, you should take steps to insure that it is always running when you expect it to be. We recommend modifying your **SYSSTART** file to automatically enable NetBase and launch your NetBase services when your system is brought up.

Sample startup procedure:

1. **Start the network**
2. **Enable NetBase for CM programs**
3. **Start the NetBase background job**

Global Installation

Now that NetBase is globally installed on the system, all programs will load through the NetBase procedures. However, some programs/software need to be ignored by the NetBase Shell. This is accomplished in one of two ways. If it is a **CM** program, then the file **ALLOCATE.DATA.NETBASE** can be used to place individual filenames of programs to **Allocated** prior to enabling NetBase for **CM** programs. The other way makes use of the NetBase directory and the **PROGRAM** entry. Utility software such as **ADAGER**, **DBGENRL**, **FASTBACK** are examples of software that should be **NONB**ed - ignored by the NetBase Shell.

When the **NBVERS,ENABLE** command is issued, any **CM** programs specified in **ALLOCATE.DATA** will be loaded through **SL.PUB.SYS** before NetBase is enabled for **CM** programs.
For **NM** programs, use the **PROGRAM** command of **NBDIR** with the **;NONB** option to disable a specific program or set of programs. Following is an example of a **PROGRAM** entry:

```
:RUN NBDIR.PUB.NETBASE

NetBase Directory Program  [x.x]  Update n  (C) QUEST Software 1996

D> PROGRAM @.@.ORBIT;NONB
D> EXIT
```

The default NetBase directory already contains a number of **NONB** statements. They are automatically added any time a directory is built. To see what **PROGRAM** statements are already in the NetBase directory, use the **LISTP @.@.@** command in **NBDIR**. Turn to the "NBDIR" chapter for more information on the **PROGRAM** command.

There is also a file called **SLEXCLUD.DATA.NETBASE** that can be used to prevent **NBINST** from adding certains segments into the **RTMSL.PUB.SYS** file. For example, the **FORMATION** segments can be prevent from being placed into **RTMSL** by editing the file **SLEXCLUD** and adding an entry for **PSP@**.

```
:PRINT SLEXCLUD.DATA.NETBASE
NETBASE@
VESOFT@
CORONA2
TIMAGE
PSP@
```

Installation Appendix

This Appendix covers the following subjects:

- Converting from an account installation to global installation. With the 9.7 release of NetBase, account installations are no longer supported. Before updating to 9.7 NetBase, the account installation must be removed.

- Updating from a global installation of NetBase that is previous to the 9.6 Release.

If you have any questions, or if you are unsure about any of the steps, please contact Technical Support at (714)-720-1434.

Converting From an Account Installation to a Global Installation

The Account installation must be removed prior to installing the 9.7 Release. Perform the steps below for removing the Account installation prior to updating.

_____ **1.** Logon as **MGR.NETBASE**.

_____ **2.** Use **NBCTRL** to remove the NetBase segments from account libraries:

```
:RUN NBCTRL.PUB.NETBASE
*> CONFIG
C> REMOVE @
```

Verify that the NetBase segments have been removed from all account libraries:

```
C> SHOW
```

_____ **3.** Proceed to **Step 1** in the "Installation Steps" section.

Updating From Global Installation Prior to NetBase 9.6

Any release prior to 9.6 is unsupported and the NetBase Shell must be removed before updating to the 9.7 Release.

_____ **1.** Logon as **MANAGER.SYS,PUB**.

_____ **2.** Remove the NetBase Shell:

```
:RUN NBVERS.PUB.NETBASE,DISABLE

:RUN NBINST.PUB.NETBASE;INFO="REMOVE"
```

_____ **3**. Reboot the system.

_____ **4.** Proceed to **Step 1** of the "Installation Steps" section.