Installation

Automatic Installation

Heaven Nodes Light includes an automated installation program for extracting the program and database files from the installation files and adding the Heaven Nodes Light Management icon to the Windows Desktop.

To begin the installation routine, start Windows and select **File...**, **Run...** from the Program Manager Menu. Enter ***<drive>*:*<\path...>*\HNLSetup** in the Command Line text box, where ***<drive>*:** represents the drive designation (e.g., **C:**) and *<\path...>* represents the path location (e.g., **Heaven**) containing the installation files (**HNLSetup.Exe** and **HNLSetup.001**). You may also simply launch **HNLSetup** from a DOS prompt, and the installation program will launch Windows and continue with the Heaven Nodes Light installation.

Note: You must use the installation program to extract the Heaven Nodes Light files from the installation files. The installation files are in a compressed format and must be decompressed before the program will run.

The installation program will present a dialog box with several options for installing the program files.

Install Heaven Nodes Light will install all of the Heaven Nodes Light files, overwriting any Heaven Nodes Light program and database files that exist in the target directory. Use this option for new installations, or for existing installations that contain Heaven Nodes databases that you do not wish to keep. *This option will overwrite any existing node information from previous installations of Heaven Nodes Light.*

Install Heaven Nodes Light, Include sample data will install all of the Heaven Nodes Light files and a small database containing some example node definitions. You can refer to the sample node definitions for examples of a fully defined node database. This option will overwrite any Heaven Nodes Light program and database files that exist in the target directory. *This option will also overwrite any existing node information from previous installations of Heaven Nodes Light.*

Update Heaven Nodes Light, Retain old data will install the program files for Heaven Nodes Light, but will preserve any existing databases in the target directory. Use this option for upgrading the node count of your existing software or for upgrading your Heaven Nodes Light program files to a newer version. *Be sure to check the distribution diskette for any notes pertaining to database conversions before using new Heaven Nodes Light software with existing database files.*

Update Heaven Nodes Light, Empty database files will only install empty database files for Heaven Nodes Light. It will not install any of the program files. Use this option if your database files become corrupted and cannot be restored to an uncorrupted state, or if you want to throw away any existing data and start over. *This option will overwrite any existing node information from previous installations of Heaven Nodes Light.*

Update Heaven Nodes Light, Sample database files will only install a sample database containing some example node definitions. *This option will also overwrite any existing node information from previous installations of Heaven Nodes Light.*

About Heaven Nodes Light Installation contains a brief description of the Installation program options.

Exit without installing Heaven Nodes Light will abort the installation program.

After selecting one of the Install options, the installation program will show you a list of all available local and network drives, showing space available on each drive and the amount of space required to install Heaven Nodes Light. *Heaven Nodes Light should be installed on a network drive and all of the Heaven Nodes Light files must be in the same directory*. If you select a local drive, the installation program will warn you to select a network drive. You may continue the installation on a local drive, but the multiuser functions of the Heaven Nodes Light database will be unusable. After selecting a valid drive, the installation will prompt you for a directory name, assuming a default of **Heaven.** You may accept this or change the name to suit your needs. Although you may select an existing directory, we strongly recommend that you keep all of the Heaven Nodes Light files in a separate directory for ease of program maintenance. Selecting the **OK** button will begin the installation process.

After the files are copied to the program directory and decompressed, the installation program will ask if you wish to create a **Heaven Nodes Group** on your Windows desktop and place the Heaven Nodes Light and Heaven Nodes Light Alarm program icons in the newly created group. This step will complete the Windows portion of the Heaven Nodes Light installation. If you choose to complete the installation without this step, you will have to manually add the Heaven Nodes Light and Heaven Nodes Light Alarm program icons to a **Windows Program Group** using the **Program Properties** menu selection in the **Windows Program Manager.**

After the Windows installation is complete, you must finish setting up the rest of the Heaven Nodes programs using your network utilities.

Completing the Network Files Installation

To complete your Heaven Nodes Light installation, you must set the file attributes of the Heaven Nodes Light program and data files using your network file management utilities. You must make sure that all network users have full access rights to the files in the program directory. All of the files should be set to Read-Only and Sharable except for those files listed below.

The following files must be set to Read-Write and Non-Sharable:

  *.BT?
  *.dBF
  *.PCX
  *.Trn

Database Conversions

If you are upgrading from a previous version of Heaven Nodes Light, it may be necessary to perform a database conversion. As new capabilities are added to Heaven Nodes Light, database formats and structures may change. If a database conversion is required, dTech will include a conversion program with the distribution files.

For example, to upgrade from Version 2.6 to Version 2.7, a database conversion program, **HN26-27.Exe**, must be run before the new version of Heaven Nodes Light will function. If a database conversion is required, and you have not run the conversion utility, Heaven Nodes Light will alert you and will not allow the new version to access the database until the database conversion has been properly performed. This feature is provided to protect your existing data from becoming corrupted.

The database conversion program is a Windows utility. You may access the conversion program by selecting **File.., Run** from the Program Manager menu and entering the command in the **Command**

Line: box. The program will automatically perform all required database conversions for you.

Setting up Login Scripts

The *Investigator* portion of the program executes when each workstation logs into the network. It is not a TSR. Each time the user logs on, the *Investigator* program loads into the workstation's memory, executes, and then returns the memory to the workstation. The program is very compact and adds only one to two seconds to the normal login time. The program is launched from either the *system login script* or an individual *user login script*.

The *dTechtiv/SoftScan* portion of Heaven Nodes Light may also execute during the login procedure. Since the *dTechtiv/SoftScan* software scan can cause a "slight" delay while it scans the local disk drives, you may want to modify your login script to have the *dTechtiv/SoftScan* execute once or twice a week, rather than during every login attempt.

The following is an example of the setup for the *system login* script in a **Novell NetWare** environment:

Example:

— Heaven Nodes Light *Investigator* —

1.	Attach FS1/HeavenNodesInvestigator;External
2.	If Error_Level = "0" then
2a.	Begin
3.	Map Q: = FS1\Sys:\Heaven
4.	Drive Q:
5.	#GetHNInf /C
6.	If Hour24>"07" and Hour24<"10" and Day_of_Week="Friday" then #SoftScan
7.	Map Q:=FS\Sys:\Public
8.	#Logout FS1
9.	Drive *1:
10.	Map Del Q:
11.	End

Explanation by Line Number:

1. Attach to the Server hosting the Heaven Nodes Light program as a user with access to the Heaven Nodes Light program directory.
    Note: If you only have one file server on your network, this step is not necessary.

2. This checks to see if the Attach command in the previous step was successful. If the Attach command failed, the Login Script will bypass the Investigator process.
    Note: If you only have one file server on your network, this step is not necessary.

2a. For NetWare Versions prior to 3.0, you must put this **"Begin"** statement at the end of the previous line (step #2) after the **"then"**.

3. Map a drive letter to equal the Heaven Nodes Light directory. The format is *<Server>\<Volume>:\<Subdirectory>*.

4. Make the default drive equal to the drive specified in line 1, **Q:** - in this case.

5. This is the ***Investigator*** program that reports the workstation information back to the Heaven Nodes Light databases. After finishing its job, this program will unload itself. Because of a minor defect in the NetWare login script processor, a space is required immediately after external program names before any switches or parameters. The ***Investigator*** program has several optional command line switches. These switches are defined in the Technical Specifications section of the manual. A brief description of the switches is available by running the program with a **/H** or **/?** switch (**GetHNInf/?**) at a DOS prompt.

6. This line tests to see if the current time is between 8:00 AM and 9:59 AM on Friday morning. If the login time is between these times, the ***dTechtiv/SoftScan*** program that scans all local drives for specified files and reports the results back to the Heaven Nodes Light database, will then execute. After executing, the program will unload itself.

7. This line maps the drive letter to the original server's Public directory. This must not be the Public directory on the server being logged out in step #8. It should be the Public directory of the server running the login script to properly complement the **Attach** in step #1.
    Note: This step is related to Step #1 above. If you only have one file server on your network, this step is not required.

8. This line logs out of the Heaven Nodes Light host file server after completing the ***Investigator*** program.
    Note: This step is related to Step #1 above. If you only have one file server on your network, this step is not required.

9. This line restores the default drive to the first network drive letter.

10. This line removes the temporary drive mapping used in steps #3 through #8 to run the ***Investigator*** and ***SoftScan***.

11. This line closes the "**If**" statement from step #2a.

The following is an example of the setup for the Users Profile in a **Banyan VINES 4.10+** environment:

Example:

— Heaven Nodes Light *Investigator* —

1. SetDrive   Q   "User@Group@Company"   *(optional)*

2. PostLogin   C:\Command.Com   /C   Q:\Heaven\NodeInfo   Q: \Heaven   \   N:

Explanation by line number:

1. Set a drive letter (**Q**, for example) to access the Heaven Nodes Light directory on that drive letter. This is an optional step, and is not required for Heaven Nodes Light. You may simply use the parameters on the following statement to specify a sub-directory of an existing network drive.

2. Request Banyan VINES to run the batch file **NodeInfo.Bat** after the login has completed. Note that Banyan VINES will only run **.Com** and **.Exe** files, requiring **Command.Com** to be used to run the **NodeInfo.Bat** file. The **/C** parameter tells **Command.Com** to exit after completing the **NodeInfo** batch file. Also note that **NodeInfo.Bat** *requires* four parameters (**Q:**, **\Heaven**, ****, and **N:**, for example). The first parameter is the drive to be used to access the Heaven Nodes Light directory. The second parameter specifies the directory for the Heaven Nodes Light files. The third parameter is the directory you wish to return the drive used to access the Heaven Nodes Light directory after the *Investigator* program has executed. The fourth parameter is the drive to return the user to, after the *Investigator* completes its analysis. The *Investigator* program (**GetHNInf.Com**) included in **NodeInfo.Bat** has several optional command line switches. These switches are defined in the Technical Specifications section of this manual. A brief description of the switches is available by running the program with a **/H** or **/?** switch (**GetHNInf/?**) at a DOS prompt.

Each workstation must have full rights to the Heaven Nodes Light directory in order for the databases to be updated and compared. This can be done by the system administrator in a group, or individual user rights file, or placed in-line with the login procedure outlined above.

The following is an example of a logon batch file for a **LAN Manager 2.0+** environment:

Example:

— Heaven Nodes Light *Investigator* —

1. Net Use N:\\Server1\Heaven

2. N:

3. GetHNInf   /C

4. G:

5. Net Use N:\\Server1\"Original"

Explanation by Line Number:

1. Set up drive to point to proper directory.

2. Set default drive to above.

3. This is the *Investigator* program that reports the workstation information back to the Heaven Nodes Light databases. After finishing its job, this program will unload itself. The *Investigator* program has several optional command line switches. These switches are defined in the Technical Specifications section of this manual. A brief description of the switches is available by running the program with a **/H** or **/?** switch (**GetHNInf/?**) at a DOS prompt.

4. Make the default drive your standard default (**G:** for example).

5. Set the Net Use back to its normal/original value.

This file should be executed after **Server** services have been started for DOS in an **AutoExec.Bat** file or in a user script (e.g., **User1.Bat**). This example assumes your standard is Drive **G:**, and you have loaded Heaven Nodes Light in **N:\Heaven** on **Server1**.

Don't forget to replicate the logon batch file for multiple servers; and for RPL workstations, add the above code to the proper subdirectories. For RPL, add above code after **A:\RPLTerm**, for example.

Installation Caveats

The **/L** switch for the *Investigator* (**GetHNInf.Com**) may be used to collect information on any new nodes logging into the network and then log those machines off the network. These new nodes will not be allowed access to the network through Heaven Nodes Light until their associated record in the Heaven Nodes Light database is approved by the system administrator. In order for these new nodes to log in, the system administrator must change the Node Name field in the Heaven Nodes Light database from the default of **New Node - XXXXXXXXXXXXXXXX** to any other name. This functionality allows the system administrator to approve the configuration of any new network nodes before they are allowed access to the network. In a Novell environment, the logout process is automatic, other network operating systems will require you to check the DOS **ErrorLevel** immediately after executing **GetHNInf.Com**. If the **ErrorLevel** is equal to **2**, issue the appropriate command to log the machine off the network.

An example of a batch file incorporating the **/L** switch in a Microsoft LAN Manager environment is provided below.

— Heaven Nodes Light *Investigator* —

1. Net Use N: \\Server1\Heaven

2. N:

3. GetHNInf   /C/L

4. If ErrorLevel 2 GoTo Else

5.   G:

6.   Net Use N: \\Server1\"Original"

7.   GoTo EndIf

8.   :Else

9.   C:

10.   Net Logoff

11.   :EndIf

In order for the *Investigator* program to function properly on a Banyan VINES, you must add the following line to the **AutoExec.Bat** file on each workstation that you expect *Investigator* or *Recon* to query, or use the software mentioned in the next paragraph.

   Set NodeAddr=<*NIC Address*>

Where **<*NIC Address*>** is the actual hexadecimal address provided with the network interface card. This address is usually printed on the network interface card. Enter the address exactly as it appears on the card. Although Heaven Nodes Light can usually determine this address automatically in a Novell or LAN Manager environment, other network operating systems, such as Banyan VINES, do not report this information. Since there are also some circumstances in a Novell environment, such as an IPX load failure, that will prevent Heaven Nodes Light from automatically obtaining the NIC address, we recommend that this statement be included in all workstations on any network as soon as their addresses can be determined.

For your convenience, we have included a freeware software program, **NodeAddr.Exe** from Scott Sharkey at LANShark Systems, Inc. This program will allow you to get the Ethernet node address in a Banyan VINES environment. *If the **NodeAddr.Exe** program is installed in the Heaven Nodes Light directory, the **Investigator** will call it to get the Ethernet Address automatically in a Banyan environment.* The **NodeAddr** program is documented in the file **NodeAddr.Hlp** in the Heaven Nodes Light files. D-TECH, Inc. ("dTech") does not warrant this program or its suitability for a particular purpose, it is simply provided as a convenience.

If you have a multiple server/segment operation, then each workstation must attach to the control server that is hosting Heaven Nodes Light, run the *Investigator*, logout of the control server, and continue on with the normal login routine. You may want to consider setting up a single login name for all remote nodes. In our NetWare example, we used the a login name of *HeavenNodesInvestigator* to allow the node to attach to the server and execute the Investigator program.   User *HeavenNodesInvestigator* would only need network access to the directory containing the Heaven Nodes Light files and to the **Logout.Exe** file (which could be copied to the Heaven Nodes Light directory). The *Investigator* is fast enough that breaching the network operating system user connect limit on a per server basis is extremely remote. If you are at your limits on a server basis, call your dealer, or call dTech at (918) 583-7447, and we'll assist you.

Installation Summary

1. Run the HNLSetup program to copy the distribution diskette contents into a network subdirectory.

2. Assign "**Heaven.Exe**" and "**HNAlarm.Exe**" to a Windows Application Group on the management station.

3. Set up a system or user login script to include the node reporting program.

4. Make any required changes to the workstation **AutoExec.Bat** file.