

## Chapter 11: NetPower Tools

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### What is NetPower Tools?

NetPower Tools is a group of integrated utilities designed to merge files and archive databases.

When you install multiple NetPower DeviceServers, each DeviceServer collects data, specifically energy, time stamp, trend, alarm, waveform, and system event data, into separate files. NetPower Tools allows you to merge like data from multiple NetPower DeviceServers into a single database.

### Running NetPower Tools

For detailed information about starting, logging on to, checking out a license for, logging off of, and exiting an application, see *Chapter 6: Logging On and Off*.

#### Starting NetPower Tools

To start NetPower Tools, do the following:

1. Choose NetPower Tools from the IMPACC PowerNet Suite program group in the Start menu.
2. If you have not previously checked out a license, check out a license for NetPower Tools.

The NetPower Tools main window displays. If you are not currently logged on to a PowerNet Software application, you have view-only security privileges. If you are currently logged on to an application, you are logged on to NetPower Tools with the last user ID and password you used.

## Logging On

To log on to NetPower Tools, do the following:

1. If you have not previously logged on to an application, select Log On “NetPower Tools” from the File menu.
2. Enter your user ID and password into the Log On dialog box.
3. Click OK.

NetPower Tools logs you on.

## Logging Off

### Note

If NetPower Tools does not detect any keyboard input or mouse movement, you will be logged off automatically after a set time interval. For more information, see *Chapter 6: Logging On and Off*.

To log off NetPower Tools, choose Log Off “NetPower Tools” from the File menu.

NetPower Tools logs you off. You now have view-only security privileges.

## Exiting NetPower Tools

### Note

Exiting NetPower Tools disables scheduling. NetPower Tools cannot run automatic merging or archiving if you exit.

To exit NetPower Tools, do the following:

1. From the File menu, choose Exit.  
A confirm dialog box displays, verifying the request to exit.
2. Click OK.

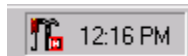
NetPower Tools exits, and scheduling is disabled.

### Note

You can also use the Exit and Keep License command, which does not return the license to the NetPower License Manager. For more information about automatic log off, see *Chapter 6: Logging On and Off*.

## Minimizing NetPower Tools

If you minimize NetPower Tools, the NetPower Tools icon displays by the clock in the system tray on the Microsoft Windows task bar.



## NetPower Tools Main Window

From the NetPower Tools main window you can:

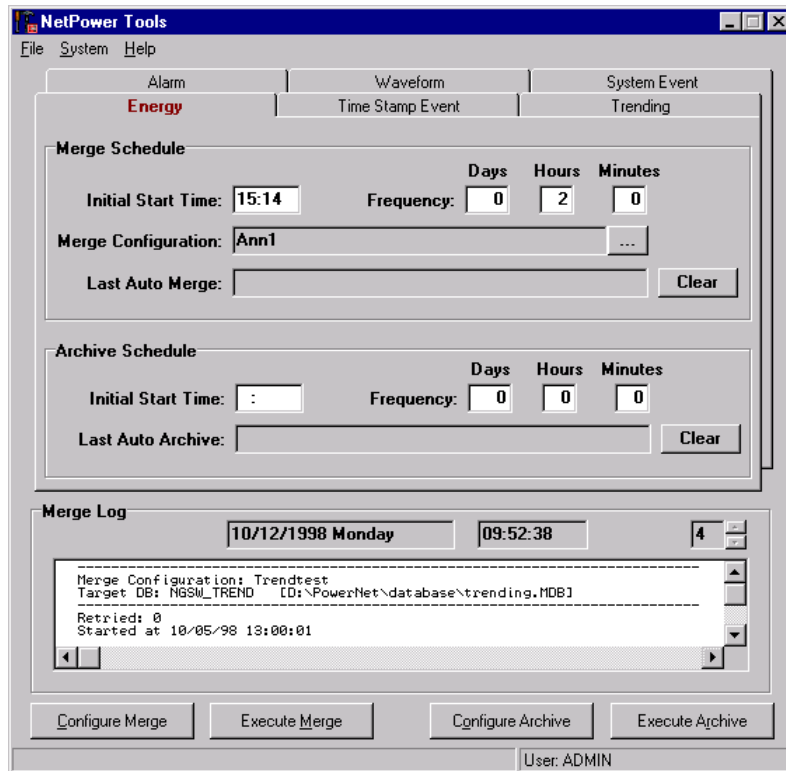
- ◆ Configure, schedule, and execute a merge
- ◆ Configure, schedule, and execute an archive, and restore an archived file
- ◆ Configure the E-Log settings for all connected NetPower DeviceServers.

The NetPower Tools main window contains six tabs, each with a Merge Schedule and Archive Schedule section. For more information about the NetPower Tools tabs, see the section *Tabs*.

Below the NetPower Tools tabs is the Run-time Log. The Run-time Log displays the current date and time, as well as the log file of the last merge or archive NetPower Tools ran, including any errors or problems NetPower Tools encountered.

The log file number, which indicates the log file being displayed, displays in the edit box in the upper right-hand corner of the Run-time Log. There are a maximum of 20 log files a user can view. If the edit box is gray, the last merge or archive file is displayed. To see other log files, double-click on the edit box and use the spin buttons.

At the bottom of the main window, NetPower Tools lists the user ID of the individual logged on.



## Menu Options

The following table describes the menu options:

Menu Option	Description
<b>File</b>	
Exit	Exits NetPower Tools and returns the license.
Exit and Keep License	Exits NetPower Tools and keeps the license.
Setup Auto Logoff	Sets up the automatic logoff time interval.
Log On "NetPower Tools"	Logs you on to NetPower Tools.
Log Off "NetPower Tools"	Logs you off of NetPower Tools.
<b>System</b>	
E-Log Settings	Displays the Energy Log settings dialog box.

Menu Option	Description
<b>Help</b>	
Contents	Displays the Table of Contents for on-line help.
Keyword Search	Performs a keyword search.
About	Displays the About NetPower Tools dialog box.

## Tabs

The NetPower Tools main window contains six tabs. You can click the top of the tab to display the rest of the tab. The six tabs are titled as follows:

- ◆ Energy
- ◆ Time Stamp Event
- ◆ Trending
- ◆ Alarm
- ◆ Waveform
- ◆ System Event

Each tab has an associated Merge Schedule section and an Archive Schedule section.

### ***Merge Schedule Section***

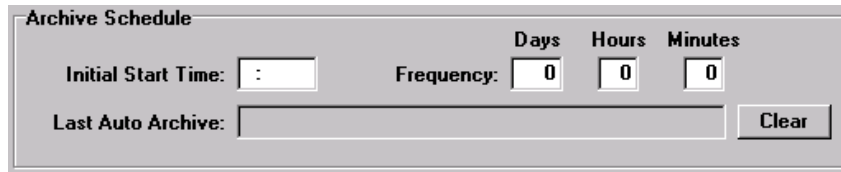
The Merge Schedule section is identical for every tab. From the Merge section, you can set the initial start time for the merge, change the frequency of the merge, and change which merge configuration to automatically merge. The section also lists when the last auto merge occurred.

The screenshot shows a 'Merge Schedule' dialog box with the following fields and controls:

- Initial Start Time:** A text box containing '12:00'.
- Frequency:** Three spin boxes for 'Days' (0), 'Hours' (2), and 'Minutes' (0).
- Merge Configuration:** A dropdown menu showing 'Ann1' and a button with three dots to the right.
- Last Auto Merge:** An empty text box.
- Clear:** A button located to the right of the 'Last Auto Merge' field.

### ***Archive Schedule Section***

The Archive Schedule section is identical for every tab. From the Archive Schedule section, you can set the initial start time for the archiving, and the frequency of the archiving. The section also lists when the last auto archive occurred.



The 'Archive Schedule' dialog box contains the following fields and controls:

- Initial Start Time:** A time selection field with a colon separator.
- Frequency:** Three numeric input fields for **Days**, **Hours**, and **Minutes**, each currently set to 0.
- Last Auto Archive:** A text input field.
- Clear:** A button located to the right of the 'Last Auto Archive' field.

## Merging

If you have multiple NetPower DeviceServers and therefore, have multiple files and databases (such as trend logging files or energy databases), you can use the functions of NetPower Tools to combine the contents of like energy databases or files (e.g., merge the energy logging files from multiple NetPower DeviceServers). You can then use the files and databases as if you had one DeviceServer.

Once you configure the databases or files you want to merge, NetPower Tools can run in the background and perform the merges automatically. You can use the NetPower Tools Scheduler to schedule how frequently NetPower Tools merges the databases.

### Configuring Databases for Data Merge

Before you can use NetPower Tools to merge databases, you must set up the database names using the ODBC Administrator. In a database merge, you combine two or more existing databases or files into a new database, so you must set up a data set name for each database or file you are merging and a source name for the new database.

#### Note

For more information, see *Appendix C: ODBC-32 Administrator*.

Your data source names should be in the following form:

<source path>\DatabaseName.MDB

Where <source path> is the network path to a database you want to merge, and DatabaseName.MDB is the name of the database.

The target source database name should be in the following form:

<main server database path>\DatabaseName.MDB

Where <main server database path> is the path to the database that an application uses, and DatabaseName.MDB is the name of the database.

#### Important

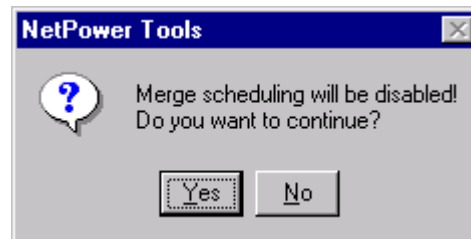
You must exit all PowerNet Software applications before using the ODBC Administrator, as the ODBC administrator is unable to modify open databases.

## Creating a Data-Merge Configuration

NetPower Tools uses merge configurations to determine which files should be merged. To create a merge configuration, do the following:

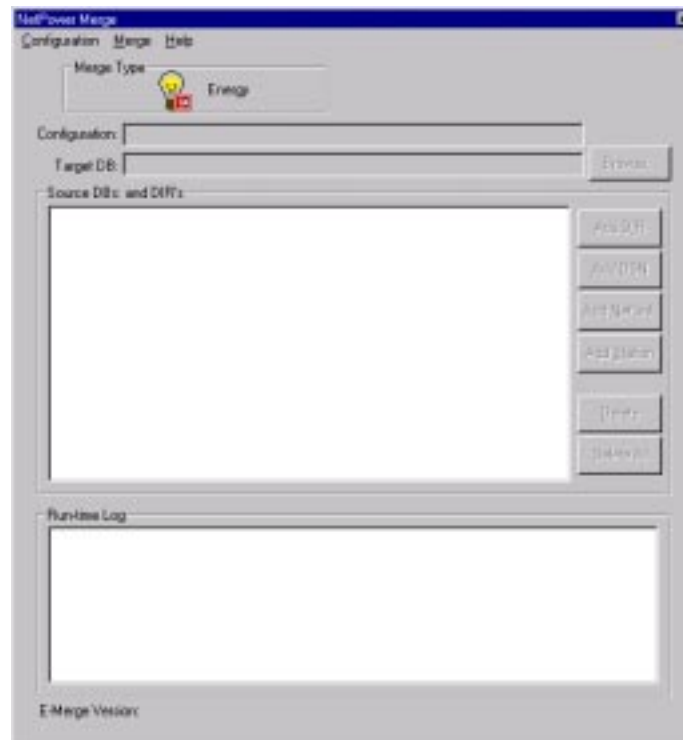
1. On the NetPower Tools main window, click Configure Merge.

A confirm dialog box displays, verifying the request to configure and informing you that scheduling will be disabled.



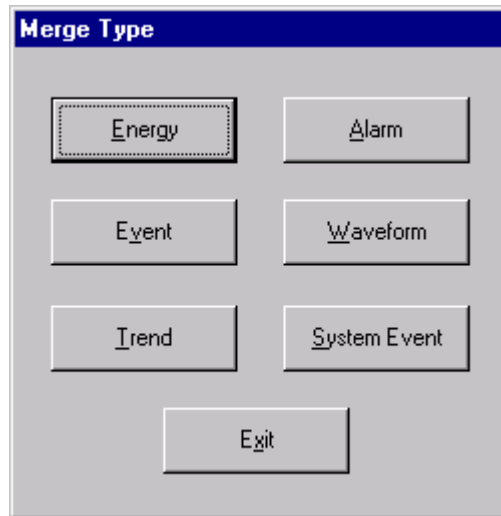
3. Click Yes.

The NetPower Merge dialog box displays.



4. From the Configuration menu of the NetPower Tools dialog box, choose New.

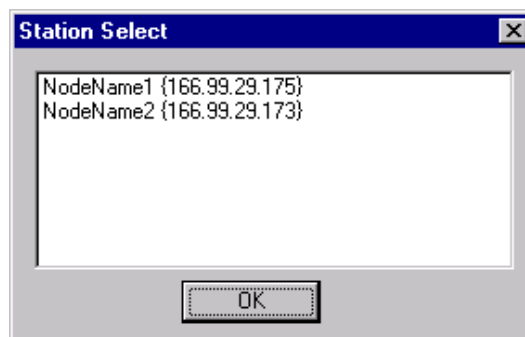
The Merge Type dialog box displays.



5. Click the merge type you want, either Energy, Event, Trend, Alarm, Waveform, or System Event.

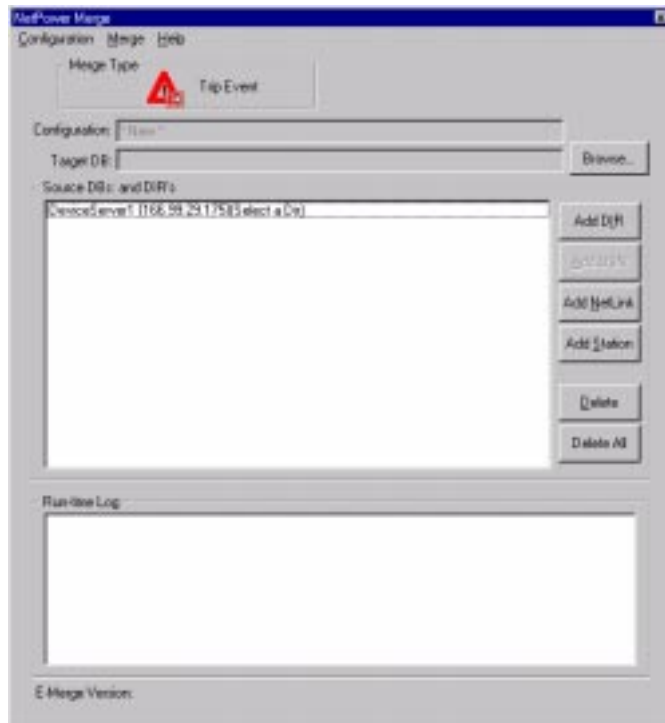
If you select Energy, the Merge Type dialog box closes.

If you select Event, Trend, Alarm, Waveform, or System Event, the Station Select dialog box displays, listing the NetPower DeviceServers.

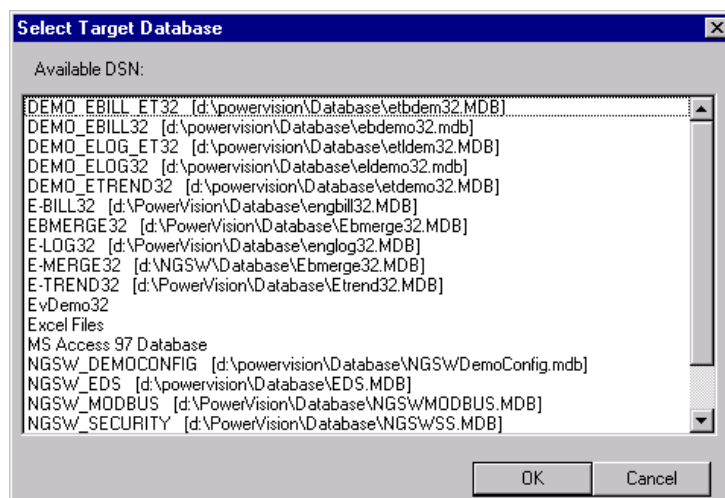


- ◆ Select a NetPower DeviceServer in your network and click OK.
- ◆ The NetPower Merge dialog box updates to list the NetPower DeviceServer in the Source DBs and DIR's list box.





6. On the NetPower Merge dialog box, click Browse.  
The Select Target Database dialog box displays.



7. From the list box, select a target database.

Depending on the merge type you selected, choose one of the database file names listed in the table below.

Merge Type	Database
Energy	E-LOG32
Event	NGSW_TSEVENT
Trend	NGSW_TREND
Alarm	NGSW_ALARM
Waveform	NGSW_WAVEFORM
System Event	NGSW_SYSEVENT

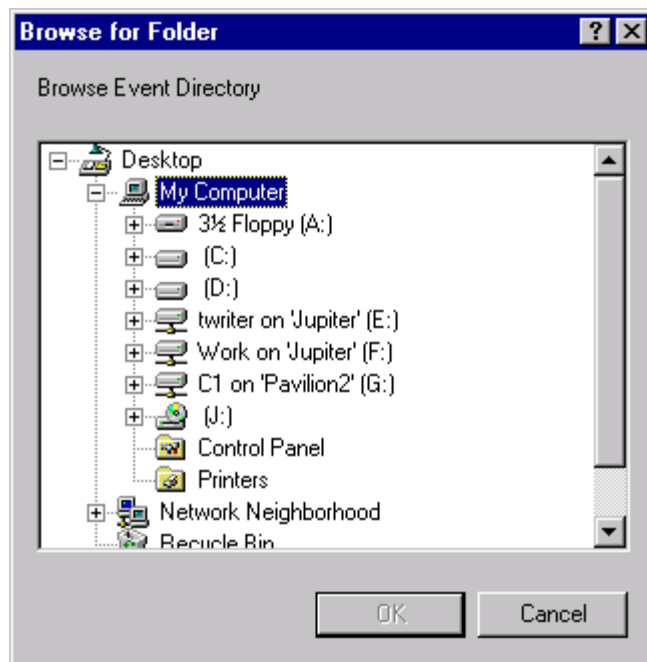
8. Click OK.

The NetPower Merge dialog box updates to list the target database in the Target DB field.



9. If you are configuring Event, Trend, Alarm, Waveform, or System Event, select a source in the Source DB's and DIR's list box, then click Add DIR.

The Browse for Folder dialog box displays.



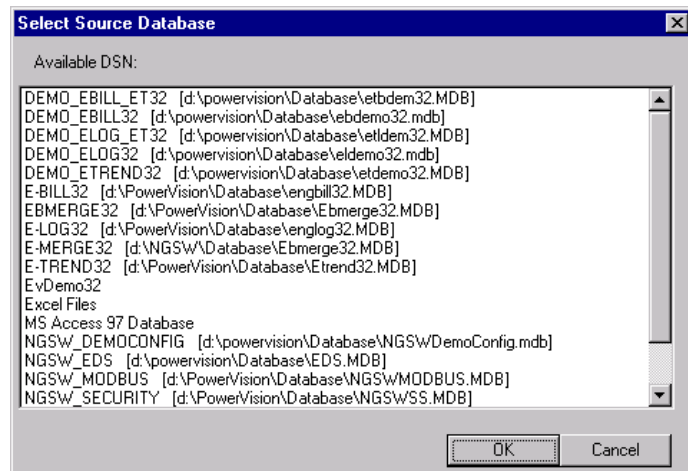
Browse to the NetPower DeviceServer folder in the directory where your NetPower DeviceServer was installed, and select one of the following:

- ◆ If you are configuring an Event merge, select the TsEvent folder
- ◆ If you are configuring a Trend merge, select the Trend folder
- ◆ If you are configuring an Alarm merge, select the Alarm folder
- ◆ If you are configuring a Waveform merge, select the Waveform folder
- ◆ If you are configuring a System Event merger, select the Event folder

Click OK.

10. If you are configuring Energy, click Add DSN.

- ◆ The Select Source Database dialog box displays.



- ◆ From the list box, select a source database, and click OK.

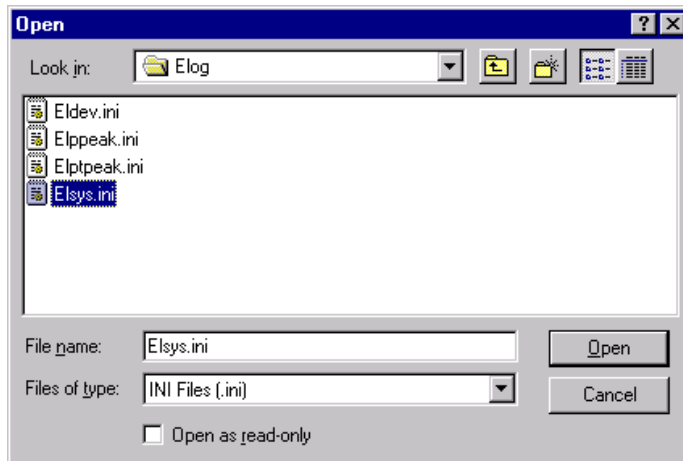
**Note**

You can select more than one database by control-clicking a database (hold down the Ctrl key and left-click the mouse).

**OR**

Click AddDIR.

- ◆ The Open dialog box displays.

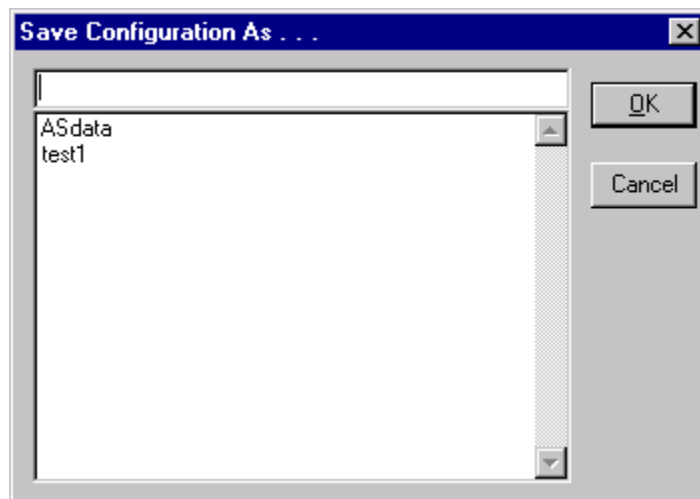


◆ Browse for and select the Elsys.ini file.

11. To add additional databases/files to merge, repeat steps 9 and 10.

12. From the Configuration menu, choose Save As.

The Save Configuration As dialog box displays.



13. In the top field, type a unique name for the configuration.

14. Click OK.

NetPower Merge saves the configuration and closes the Save Configuration As dialog box.

15. To close the NetPower Merge dialog box, choose close from the Configuration menu.

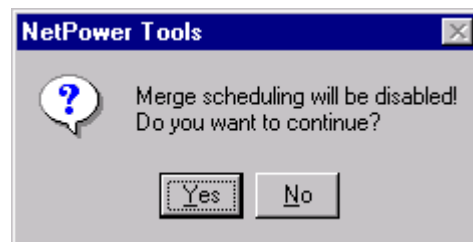
The NetPower Merge dialog box closes.

## Deleting a Data Merge Configuration

To delete a database merge configuration, do the following:

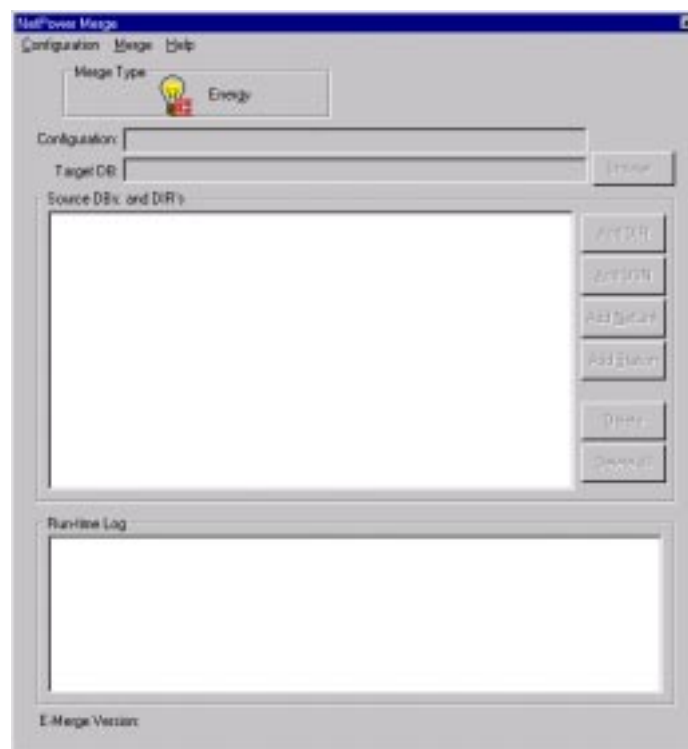
1. On the NetPower Tools main window, click the tab for which you want to delete a merge configuration.
2. Click Configure Merge.

The NetPower Tools dialog box displays, verifying the request to configure and informing you that scheduling will be disabled.



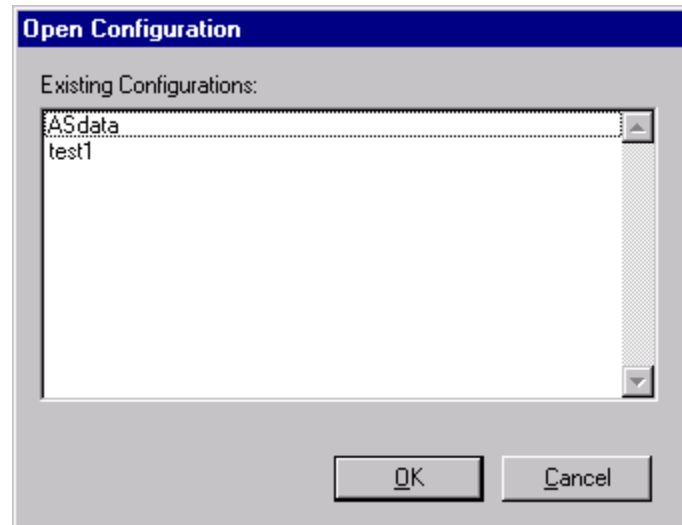
3. Click Yes.

The NetPower Merge dialog box displays.



4. From the Configuration menu, choose Open.

The Open Configuration dialog box displays.

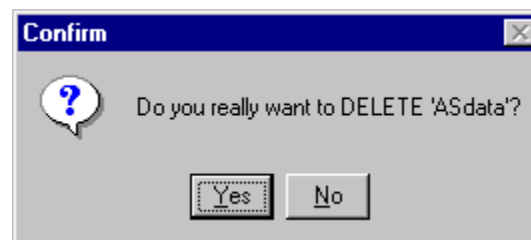


5. Select the configuration you want to delete.
6. Click OK.

The NetPower Merge dialog box updates to display the configuration information.

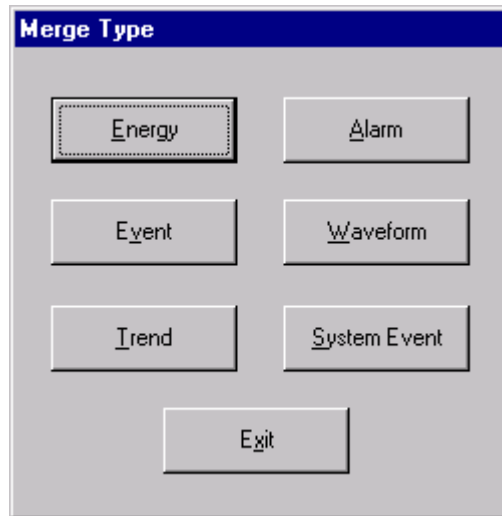
7. From the Configuration menu, choose Delete.

A confirm dialog box displays, verifying the request to delete.



8. Click Yes.

NetPower Merge deletes the configuration, and displays the Merge Type dialog box.



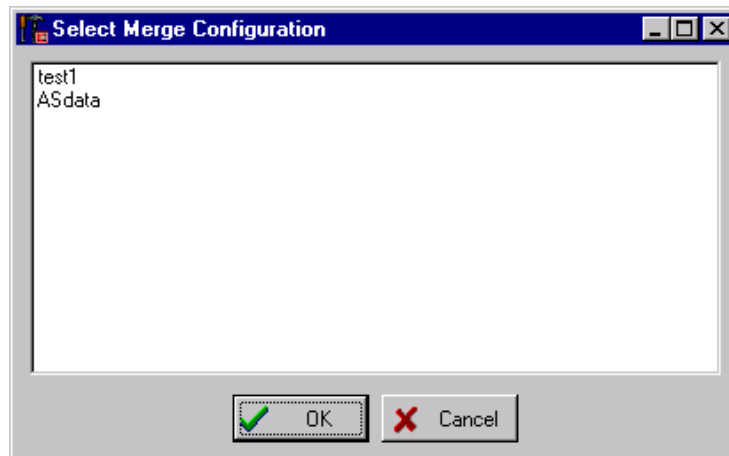
9. Click Exit.
10. To close the NetPower Tools dialog box, from the Configuration menu, choose Close.

## Running a Merge

To run a merge outside of its scheduled time, do the following:

1. On the NetPower Tools main window, click the tab for which you want to run a merge.
2. If the merge configuration you want to run is not the merge configuration listed in the Merge Configuration field, click ... (browse) next to the Merge Configuration field.

The Select Merge Configuration dialog box displays.



3. From the list box, select a configuration.
4. Click OK.

The Merge Configuration field updates to list the merge configuration.

5. Click Execute Merge.

NetPower Tools runs the merge. The log of the merge displays in the Merge Log section.

## Scheduling a Merge

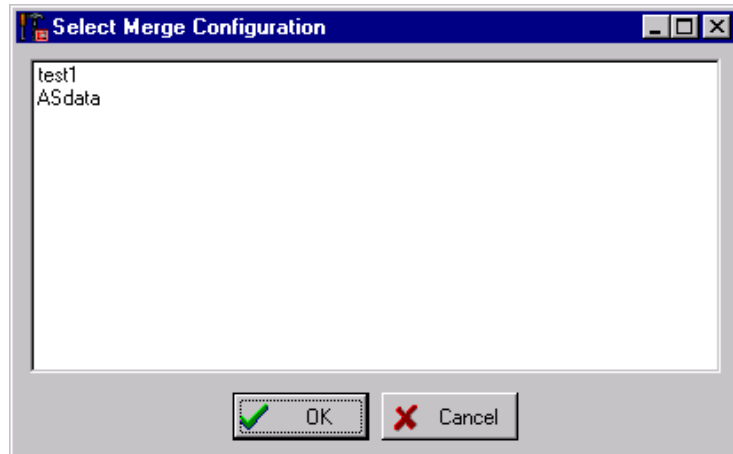
NetPower Tools can automatically perform a merge using the merge configuration, initial start time, and frequency you specify.

To schedule a merge configuration, do the following:

1. On the NetPower Tools main window, click the tab for which you want to schedule a merge.
2. In the Initial Start Time field of the Merge Schedule section, type the initial start time, in 24-hour time, for the merge. The initial start time you enter is the time when NetPower Tools first runs the selected merge.
3. In the Frequency field of the Merge Schedule section, type the frequency in days, hours, and minutes, for when you want the merge to run. The frequency you enter is how often the merge will run after the initial merge.
4. To select a merge configuration, click ... (browse) next to the Merge Configuration field.

The Select Merge Configuration dialog box displays.





5. From the list box, select a configuration.
6. Click OK.

The Merge Configuration field updates, displaying the configuration. NetPower Tools runs the selected merge configuration when the initial start time occurs, then runs the merge at the frequency you selected.

**Important**

NetPower Tools must be running in order for the merge to run automatically.

## Archiving and Restoring Data

PowerNet databases can become very large, consuming disk space and impeding the performance of your computer. The archiving feature of NetPower Tools provides you with the means of removing data that you no longer need from the database and storing it in an archive file. The archived data is compressed so that it requires less disk space. If you require the data at a later time, you can restore it from the archive.

### Archiving Data

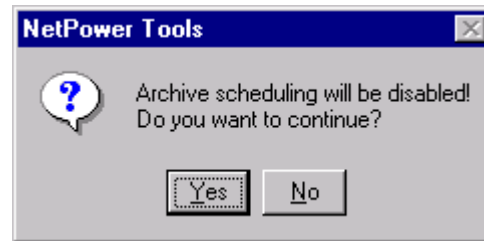
The process to archive energy data is different from the process to archive time stamp event, trending, alarm, waveform, and system event data. Be sure to choose the appropriate procedure from the following.

#### ***Energy Tab***

To archive energy data, do the following:

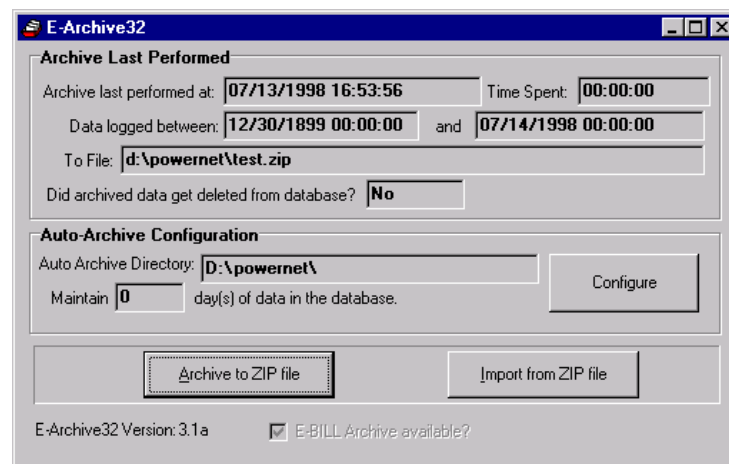
1. On the NetPower Tools main window, click the Energy tab.
2. Click Configure Archive.

The NetPower Tools dialog box displays, verifying the request to configure and informing you that scheduling will be disabled.



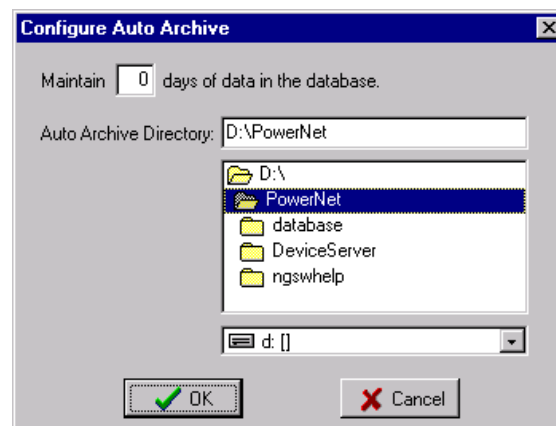
3. Click Yes.

The E-Archive32 dialog box displays. If you have archived data before, some of the details show in the information boxes.



4. Click Configure.

The Configure Auto Archive dialog box displays.

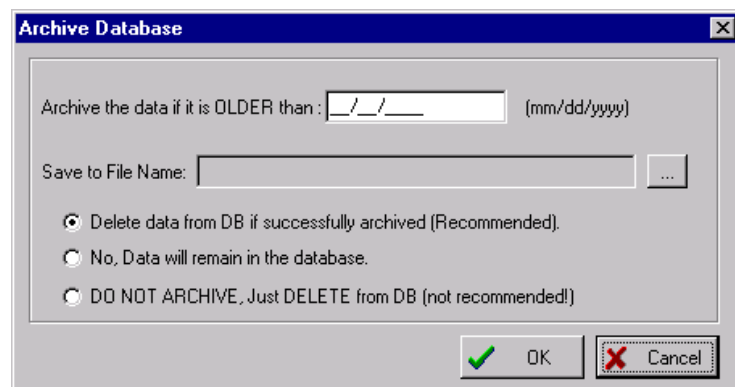


5. Specify the number of days worth of data that you want to remain in the database. The default is 90 days. NetPower Tools ' archive function removes all older data from the database.
6. Specify the directory to which you want the archive to be saved.
7. Click OK.

The Configure Auto Archive dialog box closes, and the NetPower Tools archive function dialog box updates the Auto Archive Configuration section.

8. Click Archive to Zip File.

The Archive Database dialog box displays.



9. Specify the file name and location where you want to save the file.
10. Click OK.

The Archive Database dialog box updates the Save to File Name field.

11. Choose one of the following archive options:
  - ◆ Delete data from DB if successfully archived (recommended)  
Use this option if you want to delete the archived data from the database after the data is successfully archived.
  - ◆ No, Data will remain in the database  
Use this option if you do not want to delete the archived data from the database.
  - ◆ Do not Archive, just Delete Data from DB (not recommended)  
Use this option if you want to delete information from the database, without archiving the information. This option is not recommended, because you cannot retrieve the data once you delete it.
12. Click OK.

**Important**

If you choose to delete the data from the database after the data is archived, a Confirm dialog box displays, verifying the request to delete the data.

If you choose to delete the data without archiving the data, a Confirm dialog box displays, verifying the request to delete, and warning that the data will be deleted without being saved.

13. Click Yes to continue with the delete.

**Note**

If you chose to archive without deleting the data, a Confirm dialog box does not display. The archive process begins once you click OK on the Archive Database dialog box.

While NetPower Tools archives the data, a progress dialog box displays.

When archiving is complete, the data is stored in the archive file you specified. If you requested that the data be deleted, it is deleted from the database.

The E-Archive32 dialog box updates to display the details of the archive you performed.

14. To close the E-Archive32 dialog box, click close.

The E-Archive32 dialog box closes.

***Time Stamp Event, Trending, Alarm, Waveform, and System Event Tabs***

To archive Time Stamp Event, Trending, Alarm, Waveform, or System Event data, do the following:

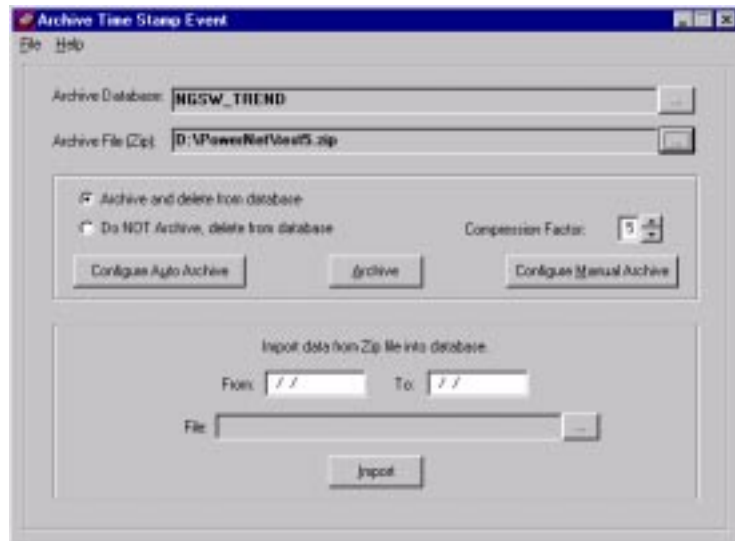
1. On the NetPower Tools main window, click the tab for which you want to archive data.
2. Click Configure Archive.

A confirm dialog box displays, verifying the request to configure and informing you that scheduling will be disabled.

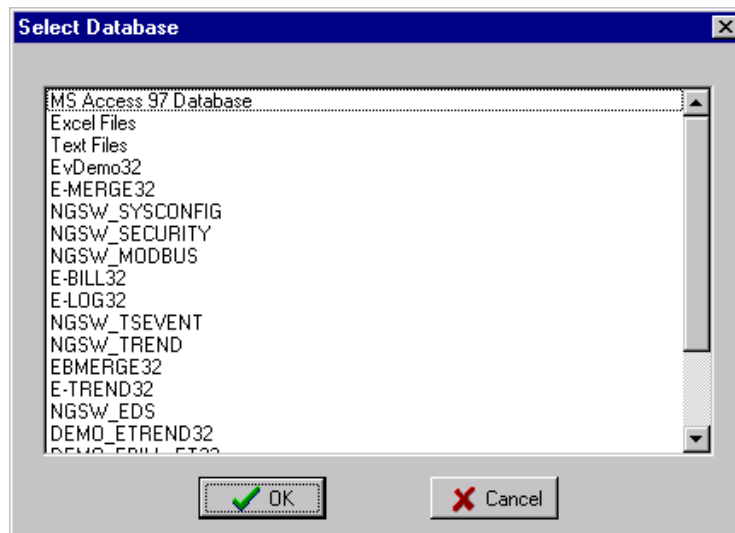
3. Click Yes.

The Archive dialog box for that tab displays.

If you have archived data before, some of the details show in the information fields.



4. Click ... (browse) next to the Archive Database field.  
The Select Database dialog box displays.



5. Select the database you want to archive.  
Depending on the merge type you selected, choose one of the database file names listed in the table below.

Merge Type	Database
Event	NGSW_TSEVENT
Trend	NGSW_TREND

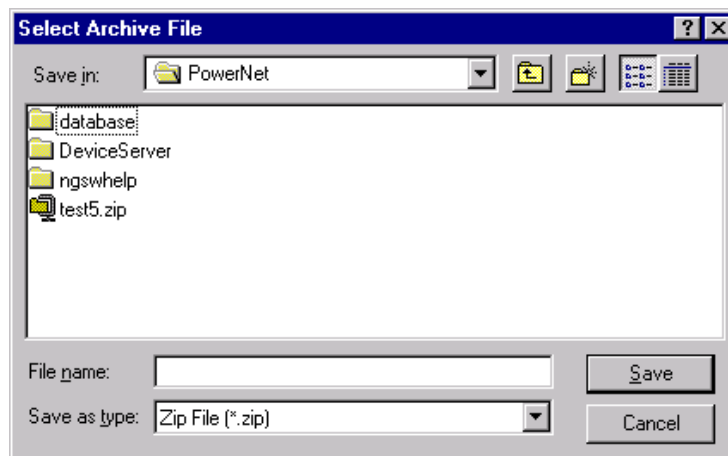
Alarm	NGSW_ALARM
Waveform	NGSW_WAVEFORM
System Event	NGSW_SYSEVENT

6. Click OK.

The Archive dialog box updates to list the database in the Archive Database field.

7. Click ... (browse) next to the Archive File (Zip) field.

The Select Archive File dialog box displays.



8. Select a zip file from the list box.

**OR**

Type a name for a new zip file.

9. Click Save.

10. Choose one of the following archive options:

- ◆ Archive and Delete from Database

Use this option if you want to delete the archived data from the database after the data is successfully archived.

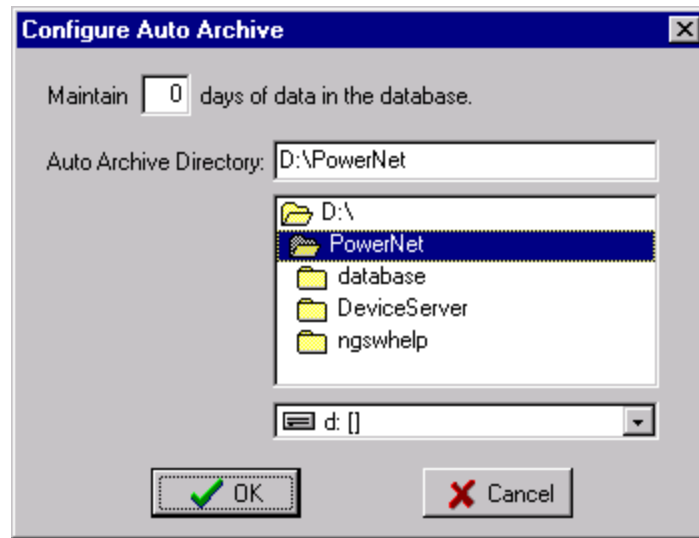
- ◆ Do not Archive, Delete Data from DB

Use this option if you want to delete information from the database, without archiving the information. This option is not recommended, because you cannot retrieve the data once you delete it.

11. In the Compression factor field, set the compression factor for the zip file. The default is five.

12. If you are configuring an automatic archive, click Configure Auto Archive.

The Configure Auto Archive dialog box displays.



- ◆ Specify the number of days worth of data you want to remain in the database. NetPower Tools removes all older data from the database.
- ◆ Specify the directory to which you want the auto archive files to be saved. A new archive file is created each time Archive is executed automatically. The auto archive files use the following format:

File	Format
Event	TS yyyy-mm-dd_hh-mm-ss.zip
Trend	TR yyyy-mm-dd_hh-mm-ss.zip
Alarm	AL yyyy-mm-dd_hh-mm-ss.zip
Waveform	WF yyyy-mm-dd_hh-mm-ss.zip
System Event	SE yyyy-mm-dd_hh-mm-ss.zip

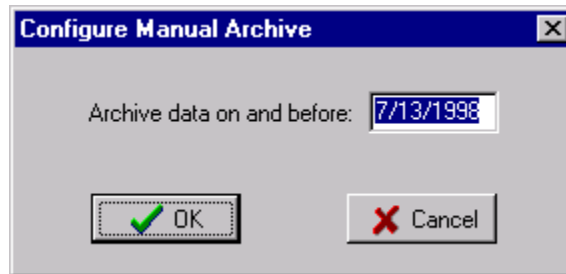
- ◆ Click OK.

**OR**

If you are configuring a manual archive, click Configure Manual Archive.

The Configure Manual Archive dialog box displays.

When a manual archive is performed, only data from the entered date and before are archived.



- ◆ In the Archive data on and before field, type a date.
- ◆ Click OK.

13. To run a manual archive, click Archive.

The Archive Data progress box displays for the duration of the archive process.

If you selected Archive and Delete from Database, NetPower Tools archives the data to the zip file you specified.

NetPower Tools deletes the data from the database.

14. To exit the Archive dialog box, choose Exit from the File menu.

A confirm dialog box displays, verifying the request to exit.

15. Click Yes.

The Archive dialog box closes.

## Restoring Data from an Archive file

The process to restore energy data is different from the process to archive time stamp event, trending, alarm, waveform, and system event data. Be sure to choose the appropriate procedure from the following.

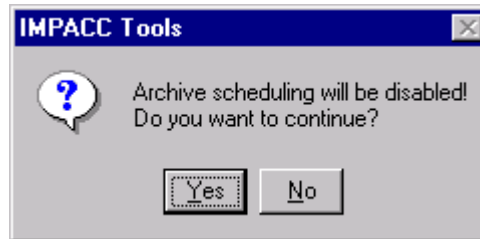
### ***Energy Tab***

To restore data from an archive file, do the following:

1. On the NetPower Tools main window, click the Energy tab.
2. Click Configure Archive.

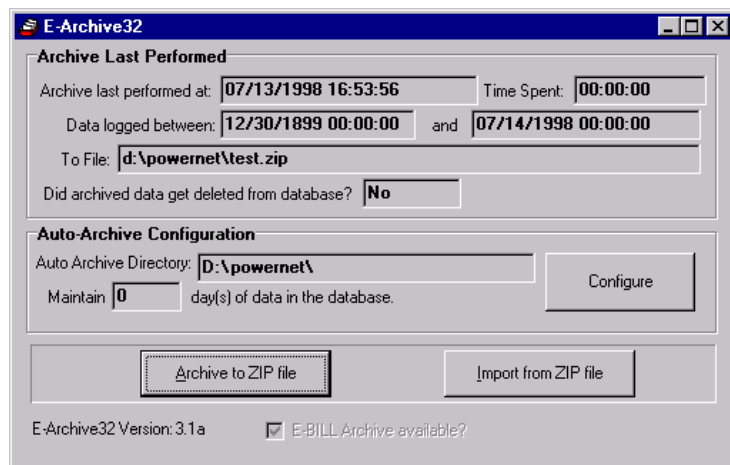
A confirm dialog box displays, verifying the request to configure and informing you that scheduling will be disabled.





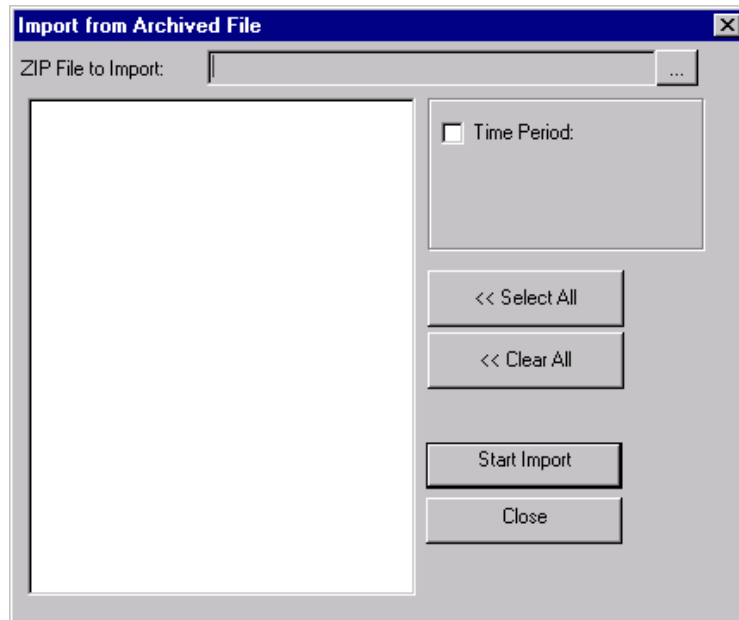
3. Click Yes.

The E-Archive32 dialog box displays. If you have archived data before, some of the details show in the information boxes.

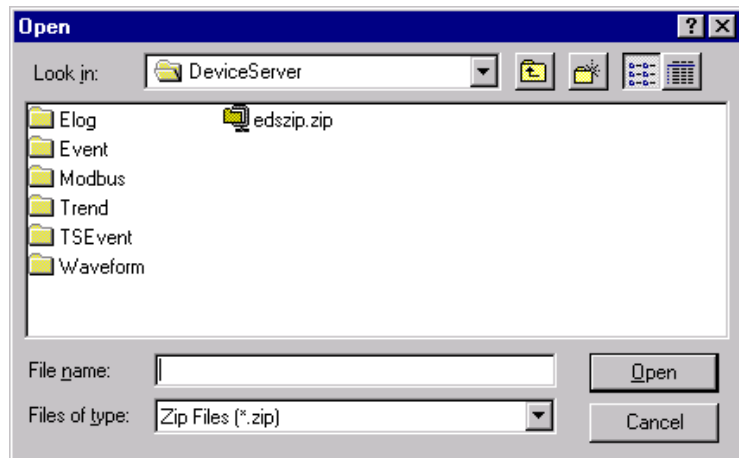


4. Click Import from ZIP file.

The Import from Archived File dialog box displays.

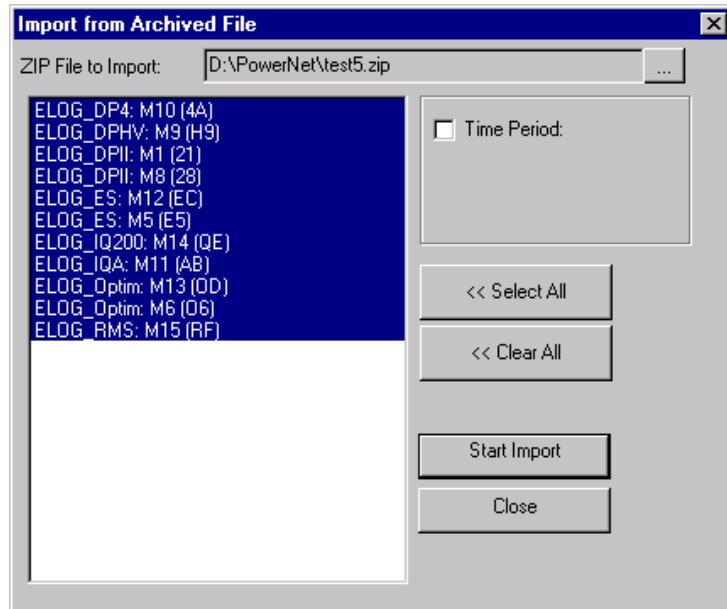


5. Click ... (browse) next to the Zip File to Import field.  
The Open dialog box displays.



6. Select the energy zip file that contains the data you want to restore.
7. Click OK.

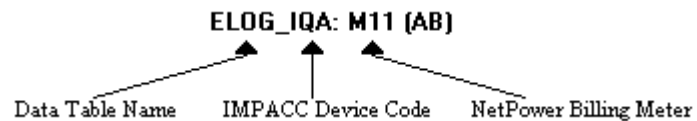
The Import from Archived File dialog box updates the Zip File to Import field with the file name you chose and lists the groups of device data in that zip file. By default, all the groups are selected.



**Note**

The data names in the list box correspond to the devices in the database. You can selectively import only the data you need.

The format of the data group indicates the data file (E-Log), the IMPACC device type, and the NetPower Billing meter.



The following table identifies the IMPACC device that corresponds to the NetPower Tools device code.

Code	Device
ES	Energy Sentinel
IQA	IQ Analyzer
DPII	Data Plus II
OPTIM	Digitrip Optim
DP4	DP 4000
RMS	Digitrip RMS 810, 910
IQ200	IQ 200

8. Specify the data you wish to import in one of the following ways:

- ◆ To select individual device groups, control-click (hold down the Ctrl key and left-click) each device group you want to restore.
  - ◆ To select all the device groups, click Select All.
  - ◆ To clear your selections, click Clear All.
  - ◆ To specify that NetPower Tools only restore data that falls between a range of time, check the Time Period check box, then enter the range of time.
9. Click Start Import.

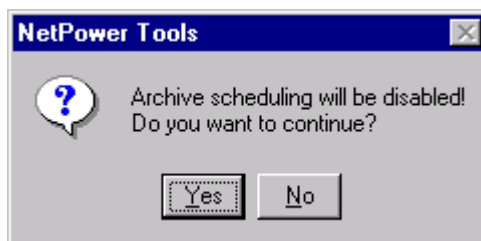
NetPower Tools displays a progress box during the restore. When the restore completes, the data you specified is restored to the NetPower Billing database and the E-Archive32 dialog box displays.
  10. To exit the NetPower Tools dialog box, click Close.

The NetPower Tools main window displays.

### ***Time Stamp Event, Trending, Alarm, Waveform, and System Event Tabs***

1. On the NetPower Tools main window, click the tab for which you want to restore archived data.
2. Click Configure Archive.

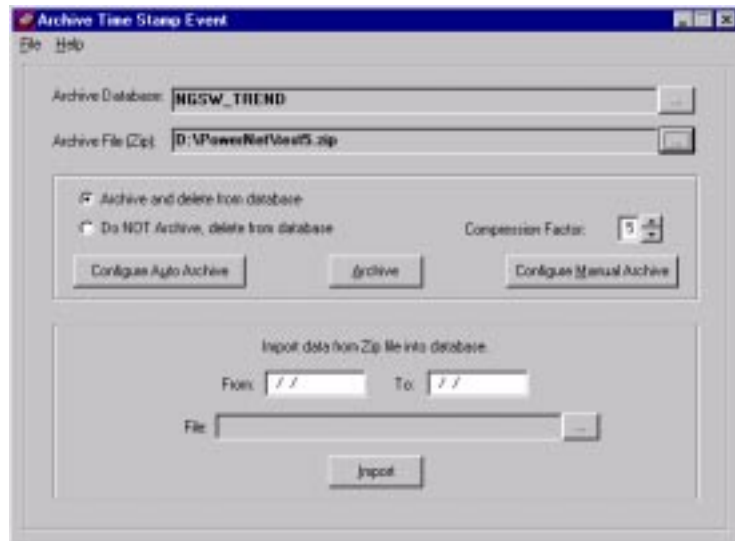
A confirm dialog box displays, verifying the request to configure and informing you that scheduling will be disabled.



3. Click Yes.

The Archive dialog box for that tab displays.

If you have archived data before, some of the details show in the information fields.



4. Click ... (browse) next to the Archive Database field.  
The Select Archive Database dialog box displays.
5. Select the database file into which you want to import the zip file.
6. Click OK.  
The Archive dialog box updates the Archive Database field.
7. Click ... (browse) next to the Archive File (zip) field.  
The Select Archive File dialog box displays.
8. Select the zip file you want to import.
9. Click OK.  
The Archive dialog box updates the Archive File (Zip) field.
10. Click ... (browse) next to the File field.  
The Select File dialog box displays.
11. Select the files from which you want to import data. The displayed files reside in the zip file you selected in step 8.
12. Click OK.  
The Archive dialog box updates the File field.
13. In the From field, type the beginning date of the time period from which you want to restore data.
14. In the To field, type the ending date of the time period from which you want to restore data.
15. Click Import.

The Import data progress box displays, and NetPower Tools imports the data to the database.

16. To exit the Archive dialog box, choose Exit from the File menu.

A confirm dialog box displays, verifying the request to exit.

17. Click Yes.

The Archive dialog box closes.

## Scheduling Archiving

After you have set up and completed one archive, NetPower Tools can automatically perform that archive using the periodic interval that you specify.

To schedule an archive, do the following:

1. On the NetPower Tools main window, click the tab for which you want to schedule an archive.
2. In the Initial Start Time field of the Archive Schedule section, type the initial start time, in 24-hour time, for the archive. The initial start time you enter is the time when NetPower Tools first runs the selected archive.
3. In the Frequency field of the Archive Schedule section, type the frequency in days, hours, and minutes, for when you want the archive to run. The frequency you enter is how often the archive will run after the initial merge.

NetPower Tools runs the archive when the initial start time occurs, then runs the archive at the frequency you selected.

### Important

NetPower Tools must be running in order for the archive to run automatically.

## E-Log Settings

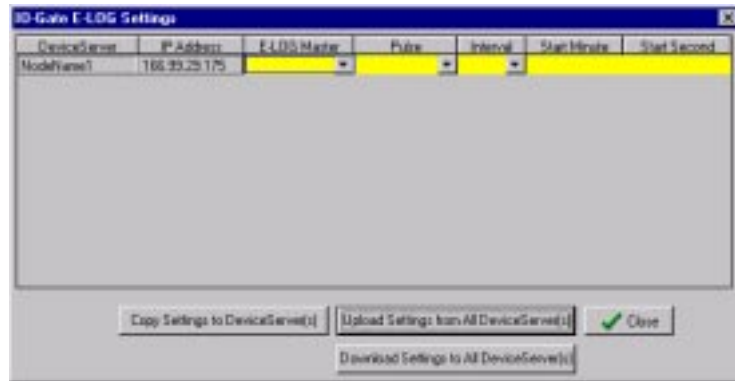
Energy logging allows you to track energy usage and demand usage on a power system. The data gathered by Energy Logging can be used for billing purposes or to perform detailed energy utilization analysis.

You must configure the Energy Logging settings in NetPower Tools. This configuration specifies the logging interval, the source of log timing, and which NetPower DeviceServer is your Energy Logging master.

To configure the E-Log settings, do the following:

1. From the System menu on the NetPower Tools main window, choose E-Log Settings.

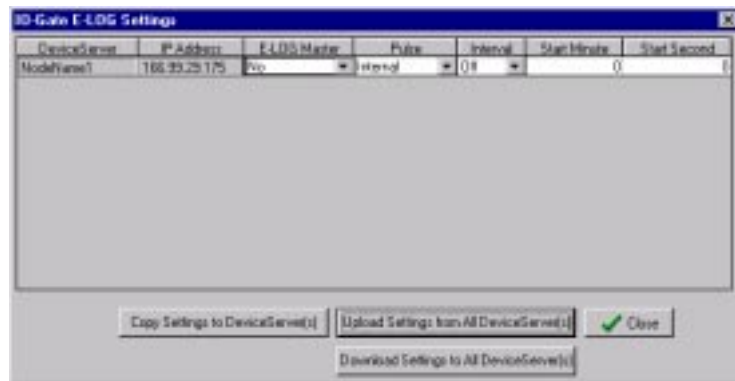
The NetPower DeviceServer E-Log Settings dialog box displays.



The NetPower DeviceServers with which NetPower Tools can communicate are listed in the left-hand column.

2. Click Upload Settings from All DeviceServer(s).

NetPower Tools uploads the current E-log settings from the connected NetPower DeviceServers.



**Note**

If the drop-down arrows are not displayed in the E-Log Master, Pulse, and Interval fields, double-click on one of these fields.

3. From the E-Log Master drop-down list, select Yes if you want this NetPower DeviceServer to be the E-Log Master.

**OR**

From the E-Log Master drop-down list, select No if you do not want this NetPower DeviceServer to be the E-Log master.

4. From the Pulse drop-down list, specify the source of the synchronization for the timing intervals. The internal option uses your computer's internal clock for timing logging intervals. The external option is not currently supported.

5. From the Interval drop-down list, choose a logging interval. This is the amount of time between successive logs. The logging intervals are minute values.
6. In the Start Minute field, type the minute value for when you want E-Log to start to log information.
7. In the Start Second, type the second value for when you want E-Log to start to log information.
8. Repeat steps 3-7 for all connected NetPower DeviceServers.
9. If you want to copy one NetPower DeviceServer's settings to all the other NetPower DeviceServers, select the NetPower DeviceServer whose settings you want to copy and click Copy Settings to NetPower DeviceServer(s).
10. Once you have configured the E-Log settings for all connected NetPower DeviceServers, click Download Settings to All DeviceServer(s).

NetPower Tools downloads the E-Log settings to the connected NetPower DeviceServers.