# OPNET Export Datapipe

Software Version: 2.10

HP Performance Insight 5.40

## User Guide

February 2009

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# 1 Overview

The OPNET Export Datapipe functions as a data feed to OPNET products. The OPNET Export Datapipe performs the following tasks:

- Reads data stored in Interface Reporting rate tables
- Produces an ASCII flat file containing all of yesterday's data
- Exports this file to the local file system

When required, OPNET applications read this file and then remove it. The Interface Reporting Report Pack is a prerequisite for the OPNET Export Datapipe.

## Configurable Options

The following options govern how the OPNET Export Datapipe operates:

- Run interval (hourly or daily)
- File naming
- Logging level
- Export file name
- Export directory

These options can be modified. For details, see Chapter 3, Setting Export Options.

## Recent Enhancements

| Version | Enhancements and Defect Fixes |
|---|---|
| 1.00 | N/A |
| 2.00 | Upgrade package:<br>• UPGRADE_IR_OPNET_Export_Datapipe_to_2.0<br>Defect fix:<br>• QXCR1000385912<br>— Changing the default datetime format breaks the datapipe. |
| 2.10 | Upgrade package:<br>• IR_OPNET_Export_Datapipe_Upgrade_to_21 |

# Sources for Additional Information

The following documents are related to this manual:

- *Interface Reporting Report Pack User Guide*
- *Interface Reporting Report Pack Release Statement*
- *PI Report Packs, CD-ROM Release Notes, February 2009*

User guides for HP Performance Insight (PI), and user guides for the reporting solutions that run on PI, are posted to the following web site:

**http://h20230.www2.hp.com/selfsolve/manuals**

The user guides for PI are listed under **Performance Insight**. The user guides for report packs and datapipes are listed under **Performance Insight Reporting Solutions**. The entry for a manual indicates the month and year it was posted to the web. If a manual is revised and reposted, the date will change. Since revised manuals are reposted from time to time, be sure to compare your PDF to the web edition and download the web edition if it is newer.

# 2 Installing the OPNET Export Datapipe

This chapter covers the following topics:

- Guidelines for a smooth installation
- Using Package Manager to install the OPNET Export Datapipe
- Removing the OPNET Export Datapipe

## Guidelines for a Smooth Installation

The report pack CD-ROM contains the latest report packs and datapipes. When you insert the CD in the CD-ROM drive and start the package extraction program, the install script extracts every package from the CD and copies the results to the Packages directory on your system. When the extract finishes, the install script prompts you to launch PI and start Package Manager. Before running Package Manager, review the following guidelines.

### Prerequisites

The following software must be in place before installing the OPNET Export Datapipe:

- PI 5.40 or higher
- All available service packs for the version of PI you are running
- Common Property Tables 3.90 or higher
- Interface Reporting Report Pack 5.50 or higher

### Distributed Environments

The OPNET Export Datapipe reads collected data stored in rate tables maintained by the Interface Reporting package. If you are running Interface Reporting in a distributed environment, install the OPNET Export Datapipe on every server that polls. If the central server is not polling, do not install the OPNET Export Datapipe on the central server.

## Installing the OPNET Export Datapipe

Perform the following tasks to install the OPNET Export Datapipe.

- Task 1: Extract packages from the report pack CD
- Task 2: Install the OPNET Export Datapipe 2.20

### Task 1: Stop OVPI Timer and extract packages from the CD

1. Log in to the system. On UNIX systems, log in as root.
2. Stop OVPI Timer and wait for processes to terminate.

   On Windows, do the following:

   a. From the Control Panel, select **Administrative Tools > Services**.

   b. Select OVPI Timer from the list of services.

   c. From the Action menu, select **Stop**.

   On UNIX, as root, do one of the following:

   HP-UX: **`sh /sbin/init.d/ovpi_timer stop`**

   Sun: **`sh /etc/init.d/ovpi_timer stop`**
3. Insert the report pack CD in the CD-ROM drive. On Windows, a Main Menu displays automatically; on UNIX, mount the CD, navigate to the top level directory on the CD, and run the **`./setup`** command.
4. Type **1** in the choice field and press **Enter**. The install script displays a percentage complete bar. When the copy is complete, the install script starts the Package Manager installation wizard. The Package Manager welcome window opens.

After the copy to the Packages directory is complete, you can navigate to the Packages directory. Among many other folders, this directory contains:

- A folder for Interface Reporting
- A folder for the OPNET Export Datapipe

### Task 2: Install OPNET Export Datapipe 2.20

1. From the Management Console, select **Tools > Package Manager**. The Package Manager welcome window opens.
2. Click **Next**. The Package Location window opens.
3. Click **Install**. Approve the default installation directory or select a different directory if necessary.
4. Click **Next**. The Report Deployment window opens. Disable the default for Deploy Reports; accept the defaults for application server name and port; type your user name and password for the PI Application Server.
5. Click **Next**. The Package Selection window opens.
6. If you are currently running version 2.00, click the check box next to the upgrade package:

   *IR_OPNET_Export_Datapipe_Upgrade_to_21*
7. If you are installing this datapipe for the first time, click the check box next to:

   *IR_OPNET_Export_Datapipe 2.00*
8. Click **Next.** The Type Discovery window opens. Disable the default.
9. Click **Next**. The Selection Summary window opens.
10. Click **Install.** The Installation Progress window opens. When the install finishes, a package installation complete message appears.
11. Click **Done**.

12 Restart OVPI Timer.

On Windows, do the following:

a From the Control Panel, select **Administrative Tools > Services**.

b Select OVPI Timer from the list of services.

c From the Action menu, select **Start**.

On UNIX, as root, do one of the following:

HP-UX: **`sh /sbin/init.d/ovpi_timer start`**

Sun: **`sh /etc/init.d/ovpi_timer start`**

By default, the OPNET Export Datapipe will create its first export files at 1:00 a.m. tomorrow. If you want to modify the default, see Chapter 3, Setting Export Options.

# Package Removal

If you remove a package, the associated tables will be deleted but not the directory structure of the package itself. Removing this datapipe will cause exports to stop. However, files that have already been exported will not be removed.

Follow these steps to remove the OPNET Export Datapipe:

1 Log in to the system. On UNIX systems log in as root.

2 Stop OVPI Timer and wait for processes to terminate.

On Windows, do the following:

a From the Control Panel, select **Administrative Tools > Services**.

b Select OVPI Timer from the list of services.

c From the Action menu, select **Stop**.

On UNIX, as root, do one of the following:

HP-UX: **`sh /sbin/init.d/ovpi_timer stop`**

Sun: **`sh /etc/init.d/ovpi_timer stop`**

3 Start Package Manager. The Package Manager welcome window opens.

4 Click **Next**. The Package Location window opens.

5 Click **Uninstall.**

6 Click **Next**. The Report Undeployment window opens.

7 If the forms or reports were deployed from this server, accept the defaults for Undeploy Reports, Application Server Name, and Port. If the forms or reports were not deployed from this server, go to step 9.

8 Type your username and password for the PI Application Server.

9 Click **Next**. The Package Selection window opens.

10 Click the check box next to this package:

*IR_OPNET_Export_Datapipe 2.00*

11 Click **Uninstall**. The Progress window opens and the removal process begins. When the removal finishes, a package removal complete message appears.

12 Click **Done**.

13 Restart OVPI Timer.

On Windows, do the following:

a From the Control Panel, select **Administrative Tools > Services**.

b Select OVPI Timer from the list of services.

c From the Action menu, select **Start**.

On UNIX, as root, do one of the following:

HP-UX: **`sh /sbin/init.d/ovpi_timer start`**

Sun: **`sh /etc/init.d/ovpi_timer start`**

# 3 Setting Export Options

The OPNET Export Datapipe exports yesterday's MIB-II data to a predefined directory beneath the directory for the datapipe in the Packages directory. The exported file uses this naming convention:

`OPNET_file_`*`yyyymmddhhmm`*`.gbu2`

where *yyyymmddhhmm* is a timestamp. The export takes place at 1:00 a.m. each day.

There are five export options. If you are running PI 4.50, you will set these options using a Perl script supplied with the package. If you are running PI 4.60, 5.00, 5.10, 5.20, or 5.40, you have access to the OPNET Export Admin form.

## Using a Perl Script to Set Options

The Perl script is run from the command line and can be found in the Scripts directory under the home directory for PI. To start the script, type this command:

```
perl $DPIPE_HOME/scripts/IR_OPNET_Export.pl -m
```

This is the same script that performs the export routine. However, starting the script with the **-m** parameter invokes the command line interface menu. From the command line interface menu you will be able to configure the following options:

- Run interval
- File naming
- Logging level
- Export file name
- Export directory

To invoke the help window, use the **-h** parameter, as follows:

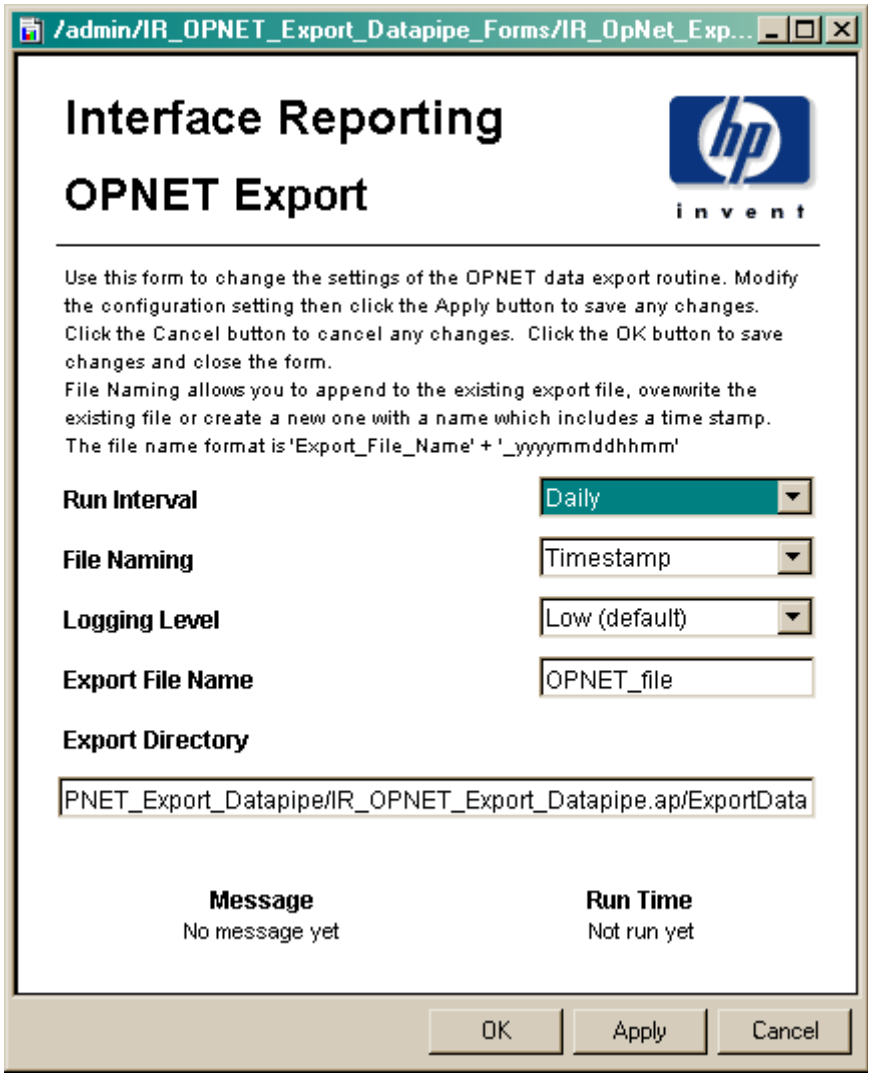
```
perl $DPIPE_HOME/scripts/IR_OPNET_Export.pl -h
```

## Using the Admin Form to Set Options

Follow these steps to open the OPNET Export Admin form.

1. Start the Management Console.
2. Click **Objects.** The admin form is listed under **General Tasks.**

3 Double-click the name of the form. The form opens.




## Run Interval

The run interval determines how frequently the export takes place. The options are hourly or daily. The default is daily. If the run interval is daily, each morning at 1:00 a.m. the routine will generate an export file containing all the MIB-II data that was collected between 12:00 a.m. and midnight yesterday.

Setting the run interval to hourly will cause the export to take place every hour at 10 minutes after the hour. The exported data will relate to the previous hour. If an export is missed, the data for that hour will be lost and the next export will create one file only.

## File Naming

The file naming option allows you to configure how the file is exported from the system. There are three options:

- Append — the system will add exported rows to the existing file, or create a new file if none exists.
- Overwrite — the system will overwrite the existing file with the newly exported data.
- Timestamp — the default; the system creates a new file for each export, with a name consisting of the export file name and a timestamp in the form *yyyymmddhhmm*.

Here is a sample file name:

```
OPNET_file_200503151310.gbu2
```

This file was exported on 15 March 2005 at 1:10 p.m.

## Logging Level

The logging level determines how much output is sent to the screen when the export routine is run from the command line. The options are low, medium, and high. This package does not create a log file, nor will logging information be visible in any report. The only sign that the routine is functioning is the appearance of new export files in the export directory and a time-stamped message on the form.

## Export File Name

This name is used by the routine when creating new files in the export directory. If the Append or Overwrite option is used, the file will be named exactly as it is displayed on the form (assuming that the operating system allows the name provided). If the timestamp option is used, the file name will have a timestamp added to it, separated by an underscore.

## Export Directory

The directory where the routine will attempt to place exported files. If the directory does not exist, the system will attempt to create it. If the system fails to create the directory, messages will display, in the script as well as in the form. Given the advanced permissions settings available on UNIX and Windows machines, make sure that your target directories meet your security requirements by creating these directories manually.

# 4 Format of the Export File

Each file exported by the OPNET Export Datapipe has the following characteristics:

- Flat ASCII tabular
- Columns separated by tabs
- A single first row containing the word “Links”
- No footer rows
- File extension: `.gbu2`

An interface with zero throughput will not be represented in the file. See the table below for a description of each column.

| Column | Description |
|---|---|
| DeviceName.InterfaceName | Device name and Interface name separated by a period (.). The InterfaceName is the unique identifier; the options are ifIndex, ifDescr, ifName, and ifAlias, depending on which re-indexing policy is in use for the device. |
| Collection Time | The timestamp from PI for the beginning of the collection in Sybase time format. Example: February 7 2004 3:00PM |
| Throughput | The throughput for this time period in bits per second. |
| Average Packet Size | The average packet size for this interface during the time period. |
| In/Out | Indicates whether the data in the row refers to ingress or egress traffic. Allowed values are **In** and **Out**. |

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