

HP OpenView Performance Insight

Stratacom Preprocessor and Stratacom Datapipes User Guide

Software Version: 3.0

Reporting and Network Solutions 7.0



November 2004

© Copyright 2004 Hewlett-Packard Development Company, L.P.

Legal Notices

Warranty

Hewlett-Packard makes no warranty of any kind with regard to this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be held liable for errors contained herein or direct, indirect, special, incidental or consequential damages in connection with the furnishing, performance, or use of this material.

A copy of the specific warranty terms applicable to your Hewlett-Packard product can be obtained from your local Sales and Service Office.

Restricted Rights Legend

Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause in DFARS 252.227-7013.

Hewlett-Packard Company
United States of America

Rights for non-DOD U.S. Government Departments and Agencies are as set forth in FAR 52.227-19(c)(1,2).

Copyright Notices

© Copyright 2002-2004 Hewlett-Packard Development Company, L.P., all rights reserved.

No part of this document may be copied, reproduced, or translated into another language without the prior written consent of Hewlett-Packard Company. The information contained in this material is subject to change without notice.

Trademark Notices

OpenView is a U.S. registered trademark of Hewlett-Packard Development Company, L.P.

Java™ is a U.S. trademark of Sun Microsystems, Inc.

Oracle® is a registered U.S. trademark of Oracle Corporation, Redwood City, California.

UNIX® is a registered trademark of The Open Group.

Windows® and Windows NT® are U.S. registered trademarks of Microsoft Corporation.

Support

Please visit the HP OpenView web site at:

<http://www.managementsoftware.hp.com/>

This site provides contact information and details about the products, services, and support that HP OpenView offers. To reach the Support site, click **Support**. The Support site provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valuable support customer, you can benefit by using the support site to:

- Search for documents of interest
- Submit and track progress on support cases
- Manage a support contract
- Look up HP support contacts
- Review information about available services
- Join online discussions with other software customers
- Research and register for software training

Most of the support areas require you to register as an HP Passport user and log in. You may also require a support contract.

To find more information about access levels, go to the following URL:

http://support.openview.hp.com/access_level.jsp

To register for an HP Passport ID, go to:

<http://passport.hp.com/hpp2/newuser.do>

contents

- Chapter 1 Overview** 7
 - Moving Data from Stratacom Devices to OVPI 7
 - Tasks for the User..... 8
 - Sources for Additional Information..... 8

- Chapter 2 Installing the Preprocessor** 9
 - Installation Prerequisites 9
 - Package Contents 9
 - Directory Structure 10
 - Defining the Environment Variable 10
 - Creating the Stratacom Environment Variable on NT 10
 - Installing the Stratacom Preprocessor 11
 - Testing for Proper Installation 12
 - Testing the .Pro File 12
 - The Output Directory 12
 - Package Removal 12

- Chapter 3 Installing Stratacom Datapipes** 15
 - Guidelines for a Smooth Install..... 15
 - Software Prerequisites 15
 - Distributed Environments 16
 - Installing Stratacom Datapipes..... 16
 - Package Contents 17
 - Input Filenames 17
 - TEEL Files and Directives..... 17
 - SourceDirectory..... 17
 - SourceDisposition 18
 - Datapipe Removal 18

- Chapter 4 Editing Config Files** 19
 - Configuration File Format 19
 - Sample Configuration File 19

- Index** 21

Overview

If you are planning to use the Frame Relay Report Pack or the ATM Report Pack to monitor Stratacom devices, you must install the Stratacom Preprocessor. The Stratacom Preprocessor performs an intermediary reformatting and filtering role between OVPI datapipes and the utilities that retrieve data from Stratacom devices. One such utility is the Cisco Statistics Collection Manager.

While reformatting is a mandatory step, filtering is usually optional. Reformatting produces a file that OVPI is able to import and process, while the purpose of filtering is to eliminate unnecessary data and reduce the processing load on the OVPI server.

This manual explains how to install and configure the Stratacom Preprocessor. It also explains how to install any Stratacom datapipe that uses the Stratacom Preprocessor. The Stratacom Preprocessor and the Stratacom datapipes are separate packages and you can install both packages at the same time, if desired.

Moving Data from Stratacom Devices to OVPI

The performance data you see in the Frame Relay Report Pack or the ATM Report Pack resides in base tables. The following steps describe the flow of performance data from a Stratacom device to base tables in the report pack.

- 1 Stratacom devices compile statistical data.
- 2 A utility retrieves statistical data from the devices and creates binary formatted files.
- 3 The Stratacom Preprocessor decodes binary formatted files retrieved from the utility.
- 4 The Stratacom Preprocessor reformats each file, filters out irrelevant data, and produces ASCII CSV files compatible with `ee_collect`.
- 5 `ee_collect` reads files created by the Preprocessor and populates datapipe feeder tables.
- 6 `trendmapper` populates the report base tables using data in the datapipe feeder tables.

Output from the Stratacom Preprocessor can be used by multiple datapipes. If multiple datapipes are running, these steps are repeated for each datapipe.

Tasks for the User

Your tasks are as follows:

- Install the Stratacom Preprocessor.
- Verify that the installation was successful.
- Verify that the procedure file calls the script correctly.
- Install at least one Stratacom Datapipe.
- Copy the config files in the datapipe directory to the Stratacom Preprocessor directory.
- If necessary, edit the config files.



Under normal circumstances, editing config files is not necessary.

Sources for Additional Information

The following documents are related to this manual:

- *Stratacom Preprocessor 3.0 Release Statement*
- *Frame Relay Report Pack 4.0 User Guide*
- *ATM Report Pack 3.0 User Guide*

Manuals for the core product, OVPI, and manuals for the reporting solutions that run on OVPI are posted to the following website:

<http://www.hp.com/managementsoftware>

Select **Support > Product Manuals** to reach the **Product Manuals Search** page. The user guides for the core product are listed under **Performance Insight**. The user guides for report packs, datapipes, NNM SPIs, and NNM event correlators are listed under **Reporting and Network Solutions**.

The manuals listed under **Reporting and Network Solutions** indicate the month and year of publication. If a user guide is revised and reposted, the date of publication will change even if the software version number does not change. Because we post updated user guides on a regular basis, you should search this site for updates before using an older PDF that may not be the latest PDF available.

Installing the Preprocessor

This section covers the following topics:

- Installation prerequisites
- Installing the Stratacom Preprocessor
- Testing for proper installation
- Package removal

All references to environment variables have the following syntax: `{VARIABLE}`

Installation Prerequisites

The Stratacom Preprocessor does not require a particular version of OVPI. However, the following item is a prerequisite:

- Perl 5.x

The ATM Report Pack and the Frame Relay Report Pack are not prerequisites for the Stratacom Preprocessor. You may install one or both of those report packs now, when you install the Stratacom Preprocessor, or you may install them later.

If your OVPI system is distributed, the report packs need to be installed on the central server and on each satellite server. The Stratacom Preprocessor needs to be installed on the central server only; however, other configurations are possible.

Package Contents

The Stratacom Preprocessor package contains:

- Perl script
- Example configuration files
- A procedure file (.pro) that controls the Stratacom Preprocessor

When you install the package, the Perl script gets copied to the bin directory; the procedure file, which calls the Perl script, gets copied to the scripts directory.

Directory Structure

The Stratacom Preprocessor cannot operate unless several files and directories are identified. See the following table for details.

Directory	Function	Default
Save	Retains a copy of the input data	{STRATACOM}/save
Config	Contains configuration files for the Stratacom Preprocessor	{STRATACOM}/config
Out	Output directory for the Stratacom Preprocessor	{STRATACOM}/out
In	Location of statistics file retrieved from Stratacom devices	{STRATACOM}/in
Work	Contains output from the Stratacom Preprocessor	{STRATACOM}/work
trend.log	Records process start and stop times	{STRATACOM}/tmp/trend.log

Defining the Environment Variable

Default locations for these directories are based on an environment variable called *{STRATACOM}*. To use the default locations, this variable must be defined for the trendadm user. Follow these steps.

- 1 Navigate to {DPIPE_HOME}/lib/Cshrc
- 2 Add this line: **setenv STRATACOM <directory>**
- 3 Restart OVPI Timer.

If you do not want to use the defaults, you must edit the .pro file, entering values you want to use.

Creating the Stratacom Environment Variable on NT

Follow these steps to add or change the values of environment variables

- 1 Click **Settings > Control Panel**, and then double-click **System**.
- 2 On the Advanced tab, click **Environment Variables**, then click the name of the user variable or system variable you want to change, as follows:
 - Click **New** to add a new variable name and value.
 - Click **Edit** to change a current variable name and value.
 - Click **Delete** to remove a variable name and value.



If you are not logged on as administrator to the local computer, the only environment variables you can change are user variables.

- ▶ Windows 2000 saves changes in the registry; the next time you start your computer, they are available automatically. You may have to close and reopen running programs for the new settings to take effect.
- ▶ To display these steps on your PC, select **Start > Help**; do a search for *environment* and then select *adding*.

Installing the Stratacom Preprocessor

If you have not extracted packages from the RNS 7.0 CD to the Packages directory on your system, insert the RNS 7.0 CD and follow the on-screen directions for extracting OVPI report packs. On Windows, the on-screen directions display automatically. On UNIX systems, mount the CD (if mounting a CD is necessary), navigate to the top level directory for the CD, and then run the following command:

```
./setup
```

After OVPI packages have been extracted to the Packages directory, the install script prompts you to launch Performance Insight and start Package Manager. If you just extracted packages from the CD and Package Manager is running, begin this procedure at Step 4.

- 1 Log in to the system. On UNIX systems, log in as root.
- 2 Stop OVPI Timer and wait for processes to terminate
 - Windows NT*: Select **Settings > Control Panel > Administrative Tools > Services**
 - HP-UX*: **sh /sbin/ovpi_timer stop**
 - Solaris*: **sh /etc/init.d/ovpi_timer stop.**
- 3 Launch Performance Insight and start Package Manager. The Package Manager welcome window opens.
- 4 Click **Next**. The Package Location window opens.
- 5 Click **Install**. Approve the default installation directory, or if necessary, use the browse feature to select a different directory.
- 6 Click **Next**. The Report Deployment window opens. Disable the default for Deploy Reports; accept the defaults for application server name and port. (If you are also installing a report pack, for example, Frame Relay or ATM, keep the default for Deploy Reports.)
- 7 Type your username and password for the OVPI Application Server.
- 8 Click **Next**. The Package Selection window opens.
- 9 Click the check box next to *Stratacom Preprocessor*.
- 10 Click **Next**. The Type Discovery window opens. To run Discover immediately after package installation, accept the default.
- 11 Click **Next**. The Selection Summary window opens.
- 12 Click **Install**. The Installation Progress window opens and the install begins. When the install finishes, a package install complete message appears.
- 13 Click **Done**.
- 14 Restart OVPI Timer.

Windows NT: Select **Settings > Control Panel > Administrative Tools > Services**

HP-UX: **sh /sbin/ovpi_timer start**

Solaris: **sh /etc/init.d/ovpi_timer start**

Testing for Proper Installation

To verify that the Stratacom Preprocessor was properly installed, bring up a command prompt in the DPIPE_HOME directory and type the following command:

```
perl bin/stratacom_preprocessor.pl -h
```

If the package installed correctly, a help window will open.

Testing the .Pro File

To test that the procedure file calls the script correctly, do this:

- 1 Make sure that there are no files in the source directory.
- 2 Type the following command from a command prompt in the DPIPE_HOME directory:

```
trend_proc -f scripts/StratacomPreprocessor.pro
```

- 3 Navigate to the trend log and verify that entries to the log indicate that the script was started and stopped.

The Output Directory

Installing the Stratacom Preprocessor creates an output directory. The output directory for the Stratacom Preprocessor serves as the SourceDirectory for Stratacom datapipes. The path to the output directory is:

```
{DPIPE_HOME}/data/ImportData/Stratacom
```

The location of the output directory is fixed. Do not change it.

Package Removal

Follow these steps to uninstall the Stratacom Preprocessor:

- 1 Stop OVPI Timer and let processes terminate.

Windows NT: Select **Settings > Control Panel > Administrative Tools > Services**

HP-UX: **sh /sbin/ovpi_timer stop**

Solaris: **sh /etc/init.d/ovpi_timer stop.**

- 2 Start Package Manager. The Package Manager welcome window opens.
- 3 Click **Next**. The Package Location window opens.
- 4 Click **Uninstall** and follow the on-screen directions. When prompted to select a package for removal, select *Stratacom Preprocessor*.

- 5 Click **Next**. The Selection Summary window opens.
- 6 Click **Uninstall**. The Progress window opens and the removal begins. When the removal finishes, a package removal complete message appears.
- 7 Click **Done**.
- 8 Restart OVPI Timer.

Windows NT: Select **Settings > Control Panel > Administrative Tools > Services**

HP-UX: **sh /sbin/ovpi_timer start**

Solaris: **sh /etc/init.d/ovpi_timer start**

Installing Stratacom Datapipes

This chapter covers the following topics:

- Guidelines for a smooth installation
- Installing Stratacom datapipes
- Package contents
- Input filenames
- TEEL files and default directives
- Datapipe removal

Guidelines for a Smooth Install

The RNS 7.0 CD contains NNM components as well as OVPI report packs and datapipes. When you select OVPI packages for installation, the install script on the CD extracts every OVPI 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 Performance Insight and start the Package Manager install wizard.

If you have already installed any of the OVPI packages on the RNS 7.0 CD, then every package related to OVPI is already on your system and available for installation. Before starting Package Manager and installing a Stratacom datapipe, review the following guidelines.

Software Prerequisites

Stratacom datapipes have the following prerequisites:

- OVPI 5.0
- All the service pack available for OVPI 5.0
- Stratacom Preprocessor 3.0
- Frame Relay Report Pack 4.0 *or* ATM Report Pack 3.0

Datapipes cannot be upgraded. If you are running an older version of a Stratacom datapipe, your first step is to remove the older version.

Distributed Environments

If your OVPI system is distributed, the installation process is more complicated. You will need to install a Stratacom datapipe on every server that performs polling. Typically, the central server in a distributed system does not poll.

Installing Stratacom Datapipes

Insert the RNS 7.0 CD and follow the on-screen directions for extracting OVPI report packs. On Windows, a Main Menu for package extraction opens automatically; on UNIX, you must log in as root, mount the CD (if the CD does not mount automatically), navigate to the top level of the CD directory, and then run the `./setup` command.

After the OVPI packages have been extracted and copied to your system, the install script launches Performance Insight and starts Package Manager. If you just extracted packages from the CD and Package Manager is running, start this procedure at step 4; otherwise begin at step 1.

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

Windows NT: Select **Settings > Control Panel > Administrative Tools > Services**

UNIX: As root, do one of the following:

HP-UX: `sh /sbin/ovpi_timer stop`

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

- 3 From the Management Console, start Package Manager. The Package Manager welcome window opens.
- 4 Click **Next**. The Package Location window opens.
- 5 Click **Install**. Approve the default destination directory or browse to a different directory if necessary.
- 6 Click **Next**. The Report Deployment window opens. Type your username and password for the OVPI Application Server.
- 7 Click **Next**. The Package Selection window opens. Click the check box for one or both of these packages:

ATM_Stratacom_Datapipe

FrameRelay_Stratacom_Datapipe

- 8 Click **Next**. The Type Discovery window opens. Clear the default.
- 9 Click **Next**. The Selection Summary window opens.
- 10 Click **Install**. The Installation Progress window opens and the install begins. When the install finishes, a package installation complete message appears.
- 11 Click **Done**.
- 12 Restart OVPI Timer.

Windows NT: Select **Settings > Control Panel > Administrative Tools > Services**

UNIX: As root, type one of the following:


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

Package Contents

A Stratacom datapipe package contains:

- TEEL files that define table and file formats
- A procedure (.pro) file that controls calls to ee_collect and trendmapper
- Rex files that format key data
- Rotation files that step data into the report pack
- Configuration files for the Stratacom Preprocessor

After the package is installed, the procedure file resides in the scripts directory and the rex files reside in the bin directory.

Input Filenames

The Stratacom Preprocessor creates ASCII CSV files suitable for ee_collect. The filenames use the original switch file name and the Stratacom object identifier. Here's an example of an output file name produced for use with the Stratacom ATM datapipe:

- *filename.0.7* contains rate ATM port data

TEEL Files and Directives

TEEL files need to be modified to reflect the operating environment. Certain directives are specific to a platform, while others are specific to a customer or a site. The file itself will indicate whether the directive is platform, customer, or site-specific.

SourceDirectory

The SourceDirectory for Stratacom datapipes is the default output directory for the Stratacom Preprocessor. The default SourceDirectory for Stratacom datapipes is:

```
{DPIPE_HOME}/data/ImportData/Stratacom
```

In addition to verifying that the output directory is correct, make sure that the environment variable {STRATACOM} is set up correctly for the *trendadm* user. See “Directory Structure” in Chapter 2 for default directory information.

SourceDisposition

The TEEL files contain the following default SourceDisposition:

```
{STRATACOM}/eecollected
```

If you wish to use a different disposition or file location, you must alter the TEEL files. If you are using the {STRATACOM} environment variable in the SourceDisposition, make sure that it is set up correctly for the *trendadm* user.

Datapipe Removal

Follow these steps to uninstall a Stratacom datapipe.

- 1 Log in to the system. On UNIX systems, log in as root.
- 2 Stop OVPI Timer and wait for processes to terminate.
- 3 From the Management Console, start Package Manager. The Package Manager welcome window opens.
- 4 Follow the on-screen directions for package removal. When the uninstall is complete, a package removal complete message appears.
- 5 Click **Done**.
- 6 Restart OVPI Timer.

Editing Config Files

You can configure the Stratacom Preprocessor to output many different kinds of statistics. The configuration files, supplied with the datapipes, determine which kinds of statistics the Preprocessor will output.

The datapipe will not operate correctly unless you copy the configuration files that come with the datapipe to the configuration directory used by the Stratacom Preprocessor. For details about this directory, see “Directory Structure” on page 10.

If you are installing a customized datapipe, you will need customized configuration files.

Configuration File Format

A configuration file is an ASCII text file. The name of the configuration file is determined by the Stratacom class in question. For example, Frame Relay Interface statistics are defined in a file called `stratacom.3`.

A configuration file can contain comments on any line. A hash symbol (“#”) indicates the start of a comment. To indicate that a statistic is required, enter its Stratacom identification number on a line. Enter just one statistic number on each line.

`CLASSNAME=<name>` is supported. If this directive is found in the configuration file, then `<name>` instead of class number is used to identify the output files.

For more information about the statistics that are available and how they are numbered, refer to Stratacom documentation available from Cisco.

Sample Configuration File

```
#####
#
# Version @(#) stratacom.0.2 /main/1 teggers Thu Apr 23 22:47:53 2003 @(#)
# Solutions Engineering Group
# Copyright 2003, Hewlett-Packard Company
# Package: Stratacom FrameRelay
#
#####
```

```
# This file is used to configure which Stratacom statistics the preprocessor should output.
# The order of the statistics below is preserved in the output file.
# The name of this file should indicate which particular object type we are configuring.
# Filename is objectnum.subobjectnum, eg 0.2 is for frame relay connections.
# Each stat number mentioned causes two columns to be output, one for total and one for peak.
# If peaks are not enabled then nulls are produced.
# If a stat mentioned below is not found in the file nulls are output.
#
#-----
#number# Stratacom name                # maps to column
#      #                                #
16     # seconds in service             # AvailableSeconds
21     # DE frames received             # InAmberFrames
24     # DE bytes received              # InAmberOctets
1      # Rx Frames discarded            # InDiscards
30     # IWF frames Rx with EFCI set    # InFECNFrames
0      # Frames Rx                      # InFrames
9      # Bytes RX                       # InOctets
22     # DE Frames                     # OutAmberFrames
28     # Bytes TX in xs CIR             # OutAmberOctets
18     # Frames Tx with BECN           # OutBECNFrames
17     # Frames Tx with FECN           # OutFECNFrames
2      # Frames Tx                      # OutFrames
11     # Bytes Tx                       # OutOctets
```

C

calls to ee_collect, **17**
calls to trendmapper, **17**

D

default SourceDirectory, **17**
default SourceDisposition, **18**
directory structure, **10**
distributed systems, **9**

E

environment variable, **10**

O

output directory, **12**

P

package removal, **12**
procedure file, **17**
Product Manuals Search, **8**

R

rex files, **17**
rotation files, **17**

S

stratacom_preprocessor.pl, **12**
StratacomPreprocessor.pro, **12**

