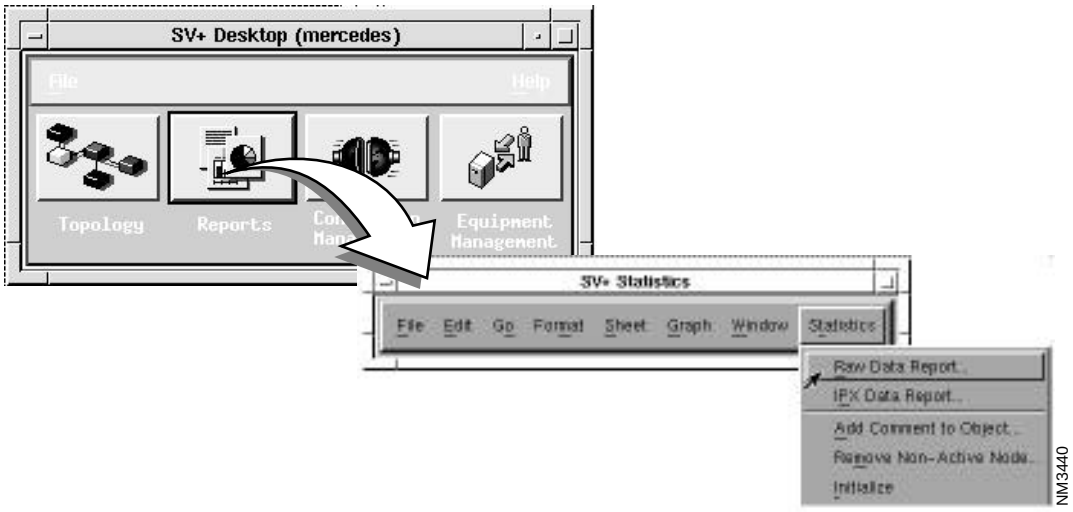
CHAPTER 6

Reports: SV+ Statistics

The SV+ Statistics Menu

The SV+ Statistics menu provides tools to present data reports, edit object linkage, and deactivate statistics generation on non-existent nodes. This chapter describes how to select, configure, and display statistics by using the Raw and IPX Data Report functions of the Statistics menu. Menu items File through Window are described in the *Wingz™ Reference Manual*.

Figure 6-1 SV+ Statistics Reports



SV+ Statistics - Statistics Menu

Use this menu to access the Raw and IPX Data Report menus.

Raw Data Report	Provides graphical reports of data filtered according to the choices provided in the menu.
IPX Data Report	Provides graphical reports of data similar to the IPX histograms and TOD reports provided prior to IPX Software Release 6.0.
Add Comment to Object	Allows a user comment or name for an object to be linked to the object for database applications.
Remove non-active node	Removes statistics for nodes that are no longer in use.
Initialize	Resets the Statistics pull-down windows.

Note Timestamps on the statistics buckets collected by StrataView Plus are synchronized with BPX/IPX network time.

Raw Data Reports

The Raw Data Report menu presents the Raw Data Report window, which provides options to enable customization of your reports. By using the Raw Data Reports function, you can generate reports for Connections, Service Lines, Trunks, and Ports. Once you select one of these objects types in the Raw Data Report form, associated parameter fields appear on the form.

You use the same procedure to configure any type of Raw Data Report.

Step 1 Select a node.

Step 2 Select an object and a subset.

Step 3 See if stats are currently enabled for the selected object.

Step 4 Define the type of information to include in your statistics.

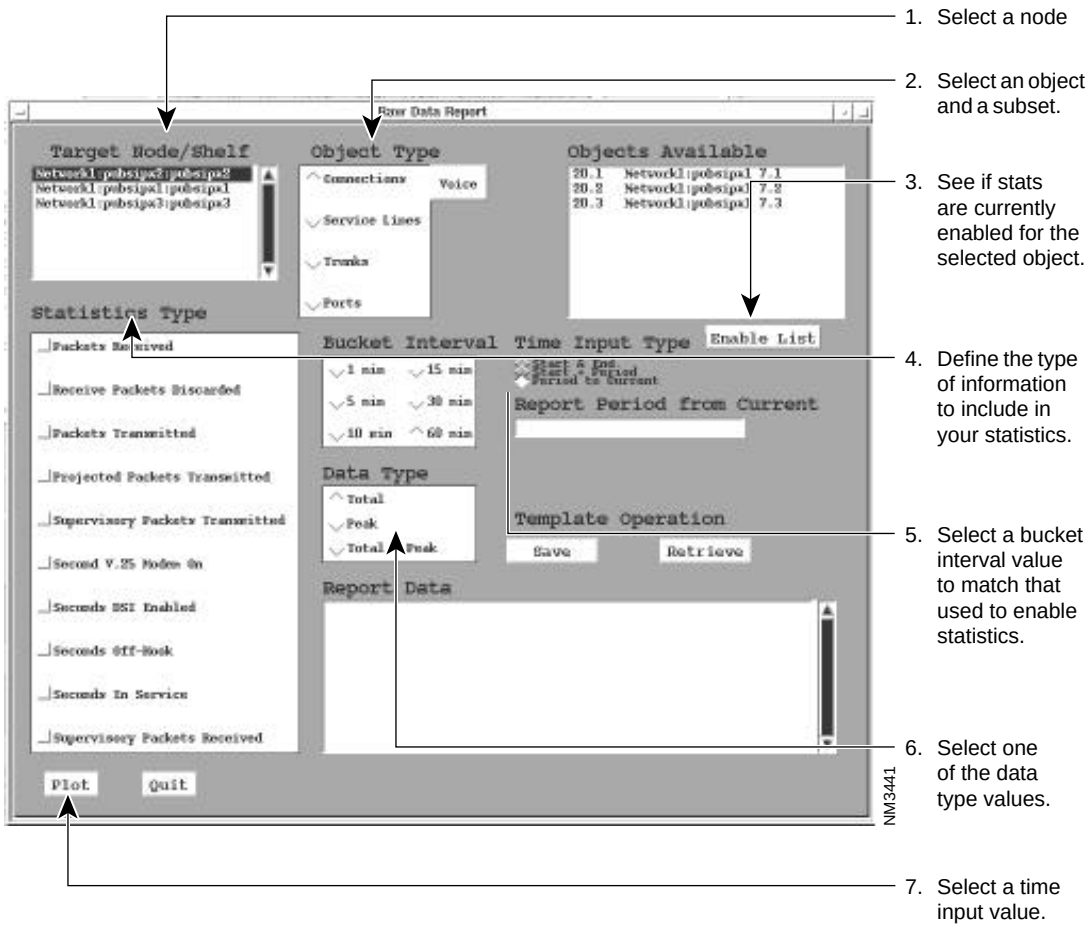
Step 5 Select a bucket interval value to match that used to enable statistics.

Step 6 Select one of the data type values.

Step 7 Select a time input value.

Step 8 Select Plot

Figure 6-2 Raw Data Report Configuration

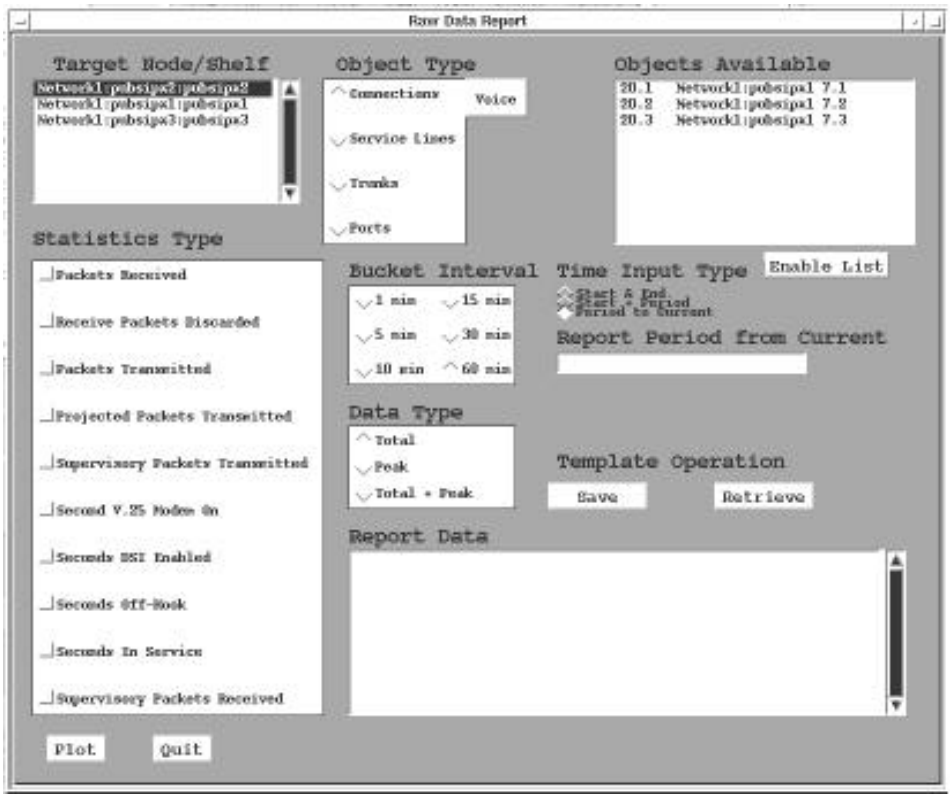


Time Input Type	Description
Start & End	Use this parameter to define statistics spanning a starting date and time to an ending date and time.
Start + Period	Use this parameter to define statistics beginning at a starting date and time and spanning a specified period or minutes (m), days (d), and/or hours(h). Example: To indicate a single value for one day and two hours and 10 minutes, type *1d 2h 10m.*
Period to Current (default)	Use this parameter to define statistics from the present backwards, within values of minutes (m), hours (h), or days (d). Type the number of m, h, or d into the Report Period field. Example: To indicate a value for 24 hours, type *24 h.*

Step 9 After you define a time value, select an object name in the Objects Available field. This results in presentation of the selected statistics in the Report Data field.

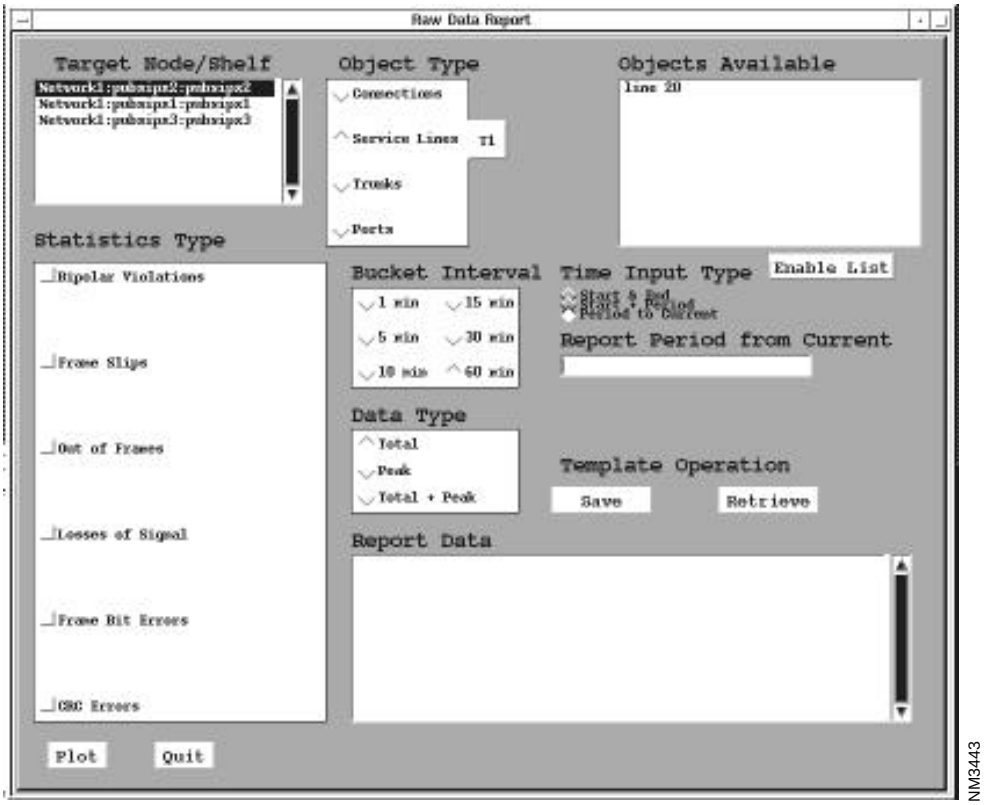
Step 10 Click the Plot button to start the query. A Querying database dialog window appears for each statistic retrieved during the search process. If no statistics are found, the dialog window reports "No data available." If statistics are enabled and collected, a Select Graph type box is presented.

Figure 6-3 Raw Data Report - Connections Menu



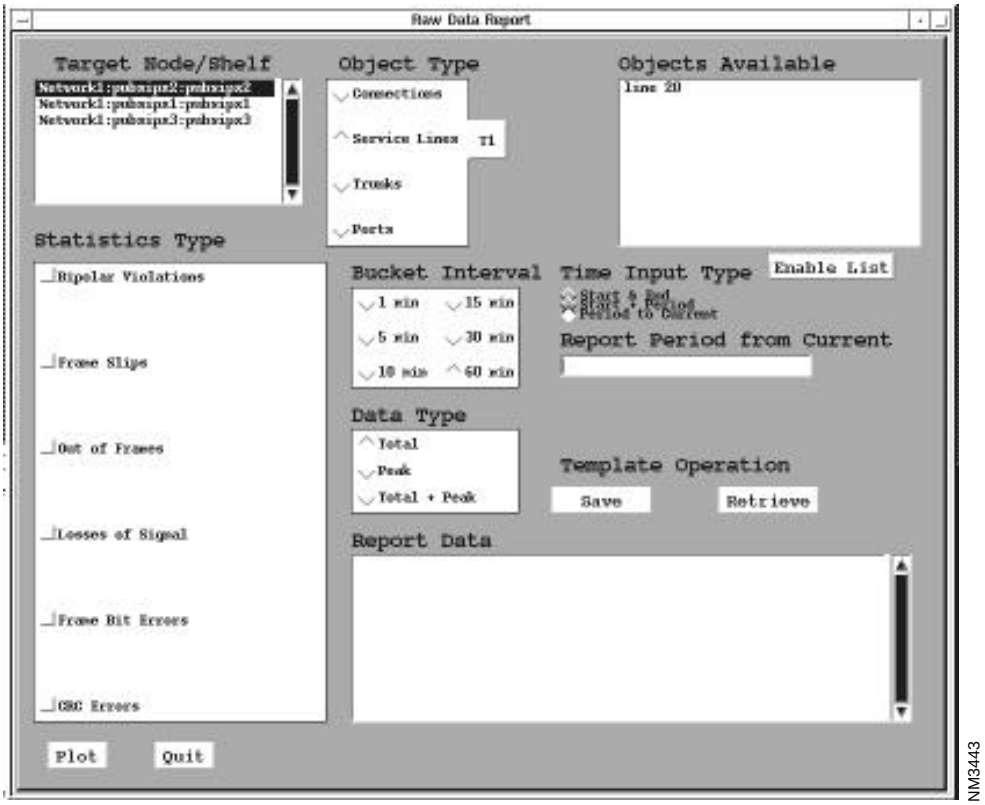
Connections Select from range: Voice, Data, Frame Relay, FastPAD, or ATM.

Figure 6-4 Raw Data Report - Service Line Menu



Service Lines Select from T1, E1/J1, or ASI

Figure 6-5 Raw Data Report - Trunk Menu



Trunks Select from IPX/AXIS Narrowb, IPX/AXIS ATM, or BPX ATM

Figure 6-6 Raw Data Report - Port Menu

Ports Leads to Statistics Selection screen

A displayed Raw Data Report can be printed from Wingz by first clicking on “File” at the far left of the SV+ Statistics Menu Bar, and then selecting either the **Page Preview** or **Print** commands from the displayed pull-down menu.

Figure 6-7 Wingz Report

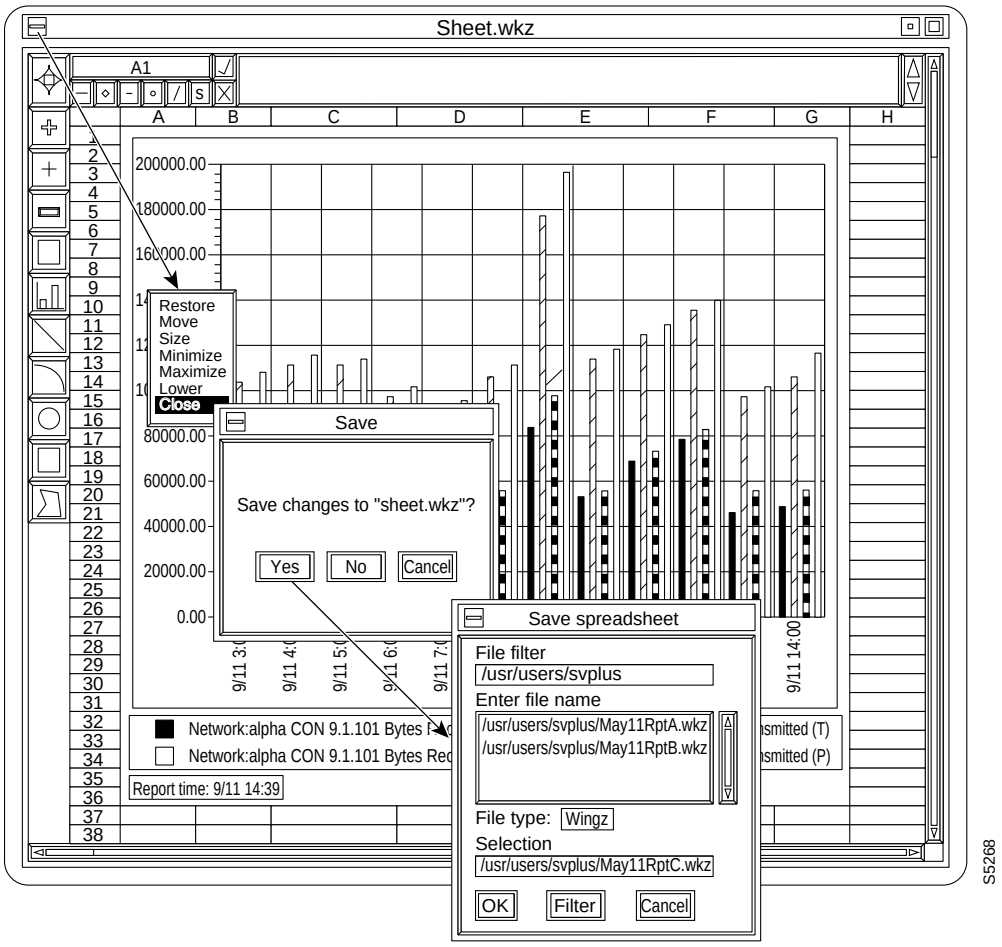
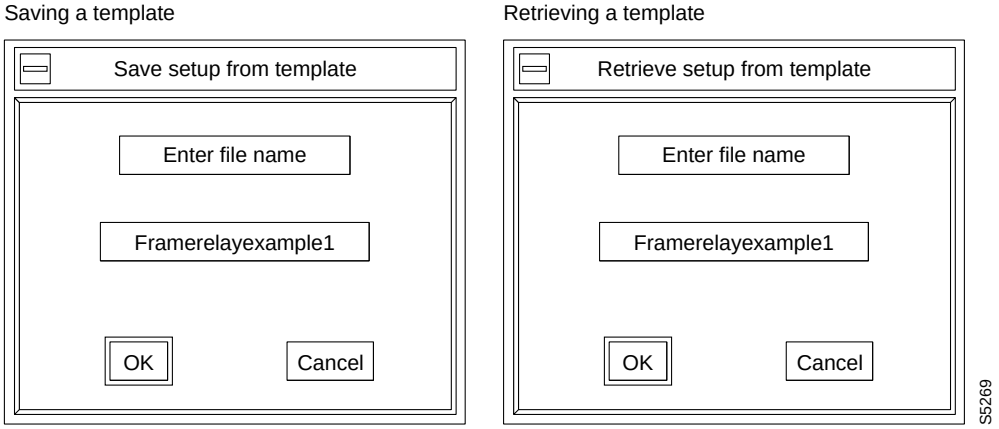


Figure 6-8 Report Template Menus



IPX Data Reports

The following paragraphs describe how to display IPX data reports for three types of defined IPX Network objects: connections, circuit lines, and packet lines. The IPX Data Report menu provides preconfigured histograms including TOD reports.

The IPX Data Report option provides five types of reports. These are listed in Table 6-1. The right hand column, Bucket Type Enable Required, shows the bucket type that has to be enabled in order to get the listed type of report. For example, to collect 1 minute [10 (1 min)] and 10 minute [6 (10 min)] reports, the 1 minute and 10 minute buckets, respectively, must have been enabled for the selected statistic.

The first four types, which are sometimes referred to as history reports, show either an accumulated total for the indicated interval or a percentage depending on the statistic type. The fifth type, referred to as a TOD report, spans the 24 hours in a day and shows either the highest total quantity or highest percentage to date for each hour of the day. It also shows the highest peak to date (usually, minute peak) for each hour of the day

Figure 6-9 IPX Data Reports - Connections Menu

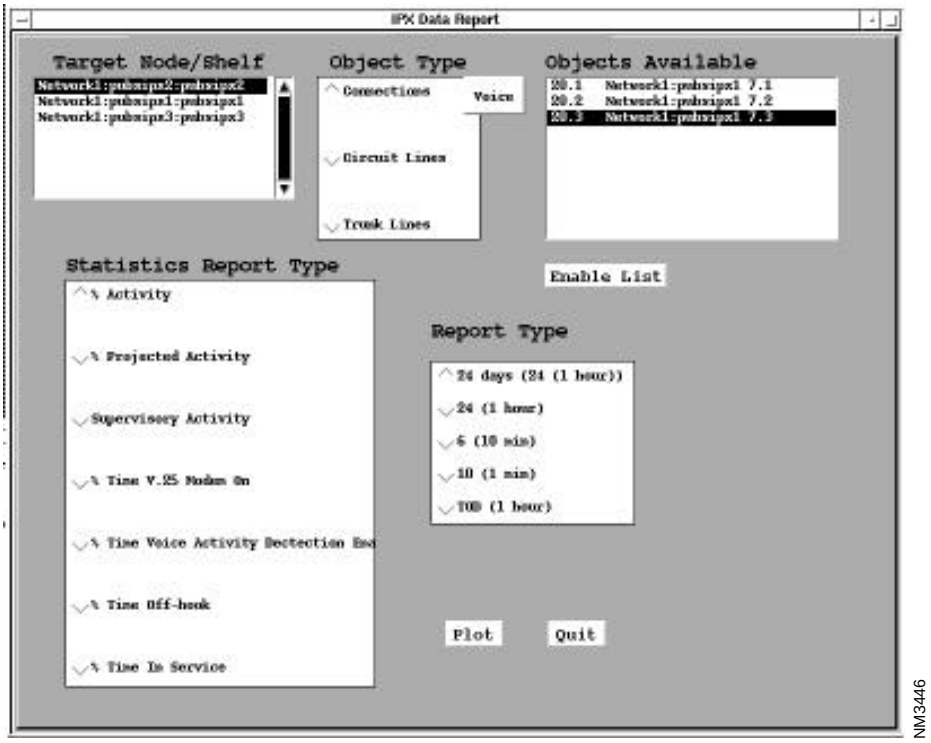


Figure 6-10 IPX Data Reports - Circuit Lines Menu

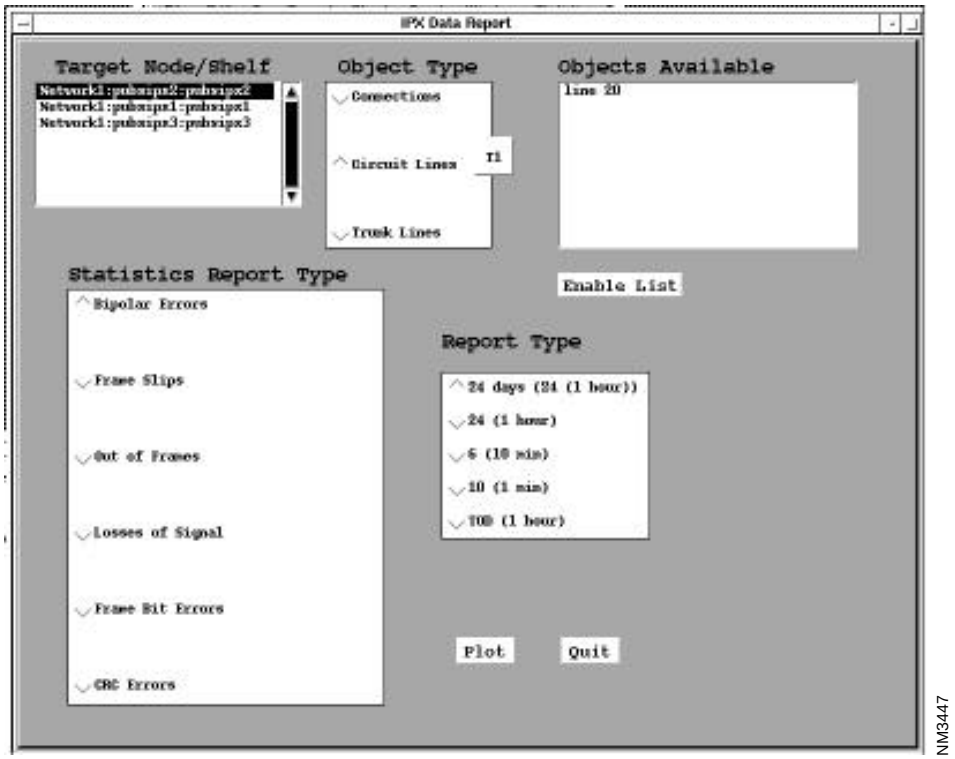


Figure 6-11 IPX Data Reports - Trunk Lines Menu

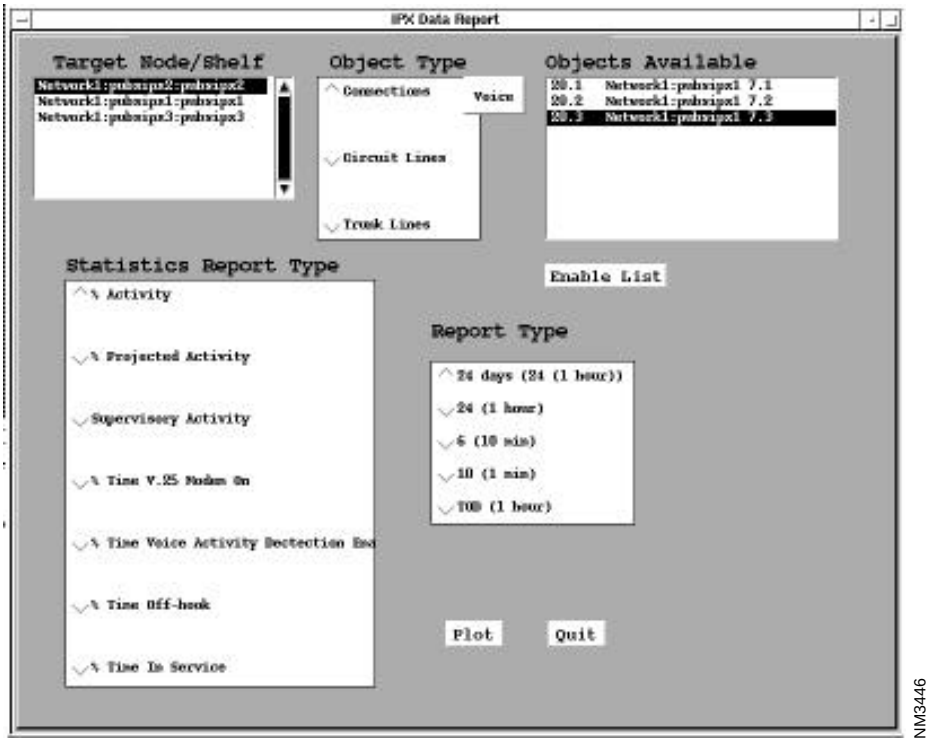


Table 6-1 Reports: IPX Data Report Types

Report Type	Display Granularity	Total Time Span of Display	Units	Bucket Type Enable Required
History Report Type				
24 days (24 (1 hour)	1 day	24 days	total quantity or percentage	60 min
24 (1 hour)	1 hr	24 hrs	total quantity or percentage	60 min
6 (10 min)	10 min	60 min	total quantity or percentage	10 min
1 (10 min)	1 min	10 min	total quantity or percentage	1 min
Time of Day Report Types				
TOD	1 hr	24 hrs	average and peak quantities or percentage that has occurred over an interval of N days.	60 min

Wingz Printing of the IPX Data Report

A displayed IPX Data Report can be printed from Wingz by first clicking on the File pull-down menu at the far left of the SV+ Statistics Menu Bar, and then selecting either the **Page Preview** or **Print** commands from the displayed pull-down menu.

Statistics Selections Required for IPX Data Reports

The percentage statistics are a measure of the ratio of occurrence of a value over time compared to the maximum quantity that could occur. For example, if a modem was on an average of 12 minutes in each hour, then its percentage activity would be: 12/60 x 100% = 20%. The statistics interval must be the same as the report interval selected (see Reports table beginning on next page).

Table 6-2 Statistics Selections Required for IPX Data Reports

Statistics	Notes
Connections	
Voice Connections Report Type	Statistics Requiring Enabling
% Activity	Packets Transmitted
% Projected Activity	Projected Packets
% Supervisory Activity	Supervisory Packets
% Time V.25 Modem On	Seconds V.25 Modem On
% Time Voice Activity Detection Enabled	Seconds DSI Enabled
% Time Off-Hook	Seconds Off-Hook
% Time In Service	Seconds in Service
Data Connections Report Type	Statistics Requiring Enabling
% Activity	Packets Transmitted
% Projected Activity	Projected Packets
% Supervisory Activity	Supervisory Packets
% Time in Service	Seconds in Service
Frame Relay Connections Report Type	Statistics Requiring Enabling
% Offered Frames	Frames Received
% Frame Activity	Frames Received
% Dropped Frames	Xmt. & Rcv. Frames Discarded
% Offered Data	Bytes Received
% Activity	Bytes Received
% Dropped Data	Receive Bytes Discarded
% Time in Service	Seconds in Service
Circuit Lines	
T1 Circuit Lines Report Type	Statistics Requiring Enabling
Bipolar Errors	Bipolar Violations
Frame Slips	[1]

Statistics	Notes
Out of Frames	1
Losses of Signal	1
Frame Bit Errors	1
CRC Errors	1

E1 Trunk Report Type	Statistics Requiring Enabling
Out of Frames	1
Losses of Signal	1
Frame Bit Errors	1
CRC Errors	1
Out of Multi-Frames	1
All Ones in Timeslot 16	1
Trunks	
T1 Trunk Report Type	Statistics Requiring Enabling
Bipolar Errors	Bipolar Violations
Frame Slips	1
Out of Frames	1
Losses of Signal	1
Frame Bit Errors	1
CRC Errors	1
Packet Out of Frames	1
Packet Errors	Packet CRC Errors
Voice Packets Dropped	1
TS Packets Dropped	1
Non-TS Packets Dropped	1
PCC Packets Dropped	1
BData Packets Dropped	1
Mcst Packets Dropped	Bdata B Packets Dropped
T1 Trunk Report Type (continued)	Statistics Requiring Enabling
Offered Multicast Bandwidth	BData B Packets Transmitted
Line Activity & Minute Peaks	Total Packets Transmitted

E1 Trunk Report Type	Statistics Requiring Enabling
Out of Frames	1
Losses of Signal	1
Frame Bit Errors	1
CRC Errors	1
Packet Out of Frames	1
Packet Errors	Packet CRC Errors

Statistics	Notes
Voice Packets Dropped	1
TS Packets Dropped	1
Non-TS Packets Dropped	1
PCC Packets Dropped	1
BData Packets Dropped	1
Mcst Packets Dropped	BData B Packets Dropped
Offered Multicast Bandwidth	BData B Packets Transmitted
Line Activity & Minute Peaks	Total Packets Transmitted

Subrate Trunks	Statistics Requiring Enabling
Losses of Signal	1
Packet Out of Frames	1
Packet Errors	Packet CRC Errors
Bad Clock Errors	1
Voice Packets Dropped	1
TS Packets Dropped	1
Non-TS Packets Dropped	1
PCC Packets Dropped	1
BData Packets Dropped	1
Mcst Packets Dropped	BData B Packets Dropped
Offered Multicast Bandwidth	B Data Packets Transmitted
Line Activity & Minute Peaks	Total Packets Transmitted

1. Most circuit line and trunk reports have the same name as the selected statistics. The statistics listed in this table are the exception to the rule.

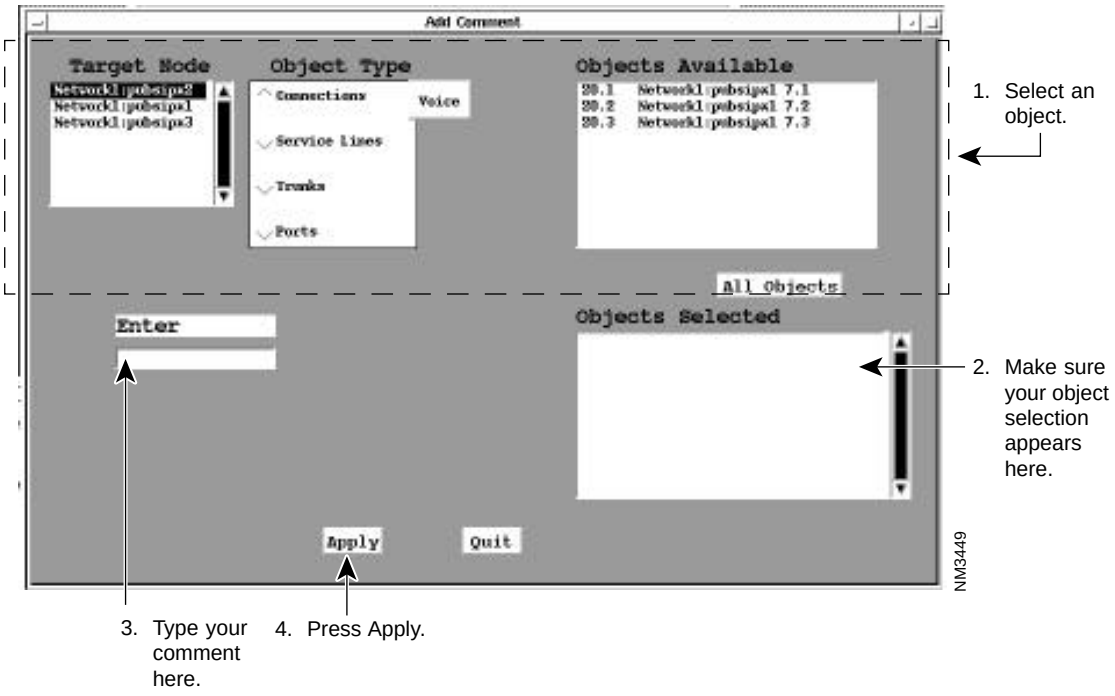
Ensure that the bucket interval matches the granularity of the data report. For example, a 60-minute % activity report requires that "packets transmitted" be enabled for 60-minute buckets. The minimum bucket interval for frame relay statistics is 5 minutes.

Add Comment to Object

Select the Add Comment to Object option from the Statistics pull-down menu to present the Add Comment screen. An object-specific comment you type and apply in this screen is linked to the object for database applications. The comment is not displayed by StrataView Plus.

This menu presents the Add Comment window.

Figure 6-12 Statistics - Add Comment to Object Menu



After you press apply, a confirmation dialog appears. Press OK to finish the Add Comment operation.

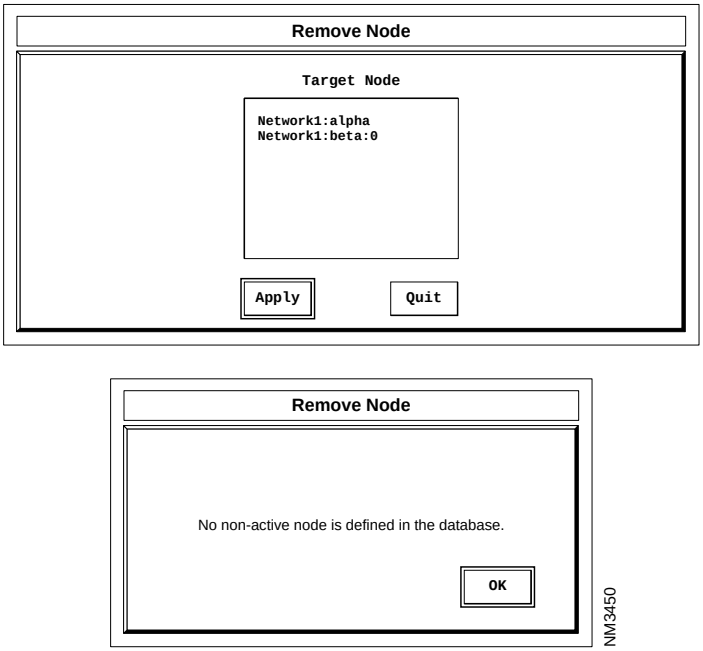
Remove Non-Active Nodes

Select the Remove Non-Active Nodes option from the Statistics pull-down menu to display the Remove Node Menu. In the Target Node box, select the nodes you want to delete, then click on the Apply button. If there are no non-active nodes, a dialog box displays the message “No non-active node is defined in the database”.

Statistics - Remove Non-Active Nodes Menu

This menu presents the Remove Node dialog boxes. Select a node from the Target Node list and click the apply button to delete a node. If all nodes are active, an information dialog appears. Active nodes cannot be removed from the system with this operation.

Figure 6-13 Statistics: Removing Nodes



Initialize

Reset the Statistics pulldown window by clicking on the Initialize option.

Delete Statistical Records

Use this function (**delstrecs**) to delete statistical records associated with an object database that no longer exists.

To start a delete statistics operation, type **delstrecs** on the StrataView Plus console command line. You are asked to indicate a retention period in days. Records older than the specified number of days will be deleted. More recent records will be retained.

To delete all records not associated with an active object, and to delete all unmatched records regardless of age, type a zero (0) when prompted for retention period. You should perform this operation periodically to clean out the statistics database.