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Operation

TEAM 2011 for UNIX

Version 1.0.0

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Preface

Scope

This manual describes how to operate the Team 2011 Network Manager. It assumes familiarity with HP OpenView. The Team 2011 software is an HP OpenView application that employs the Simple Network Management Protocol (SNMP) to configure and control the operation of GDC 2011 SCUs. The SCUs support DTE interface functions and provide capability on the network.

Organization

This manual has five chapters. The information is arranged as follows:

- *Chapter 1 - System Description* describes the product and its features.
- *Chapter 2 - Operation* provides directions for accessing the smaller individual applications that are responsible for the Team 2011 functions. It describes how to access the functions from a shelf map window menu bar, and from the Select menu of a DSU front panel display. The chapter provides full descriptions of the Team 2011 applications that display read-only windows. It provides access information for the applications that display read/write windows and require greater operator interaction.
- *Chapter 3 - Configuration* provides instructions for accessing the Configuration application and using it to set operating parameters in a selected DSU. The chapter covers how to save configuration changes to the unit or as templates at the controller workstation, and defines the parameters you can set.
- *Chapter 4 - Maintenance* provides instructions for accessing the Maintenance application and using it to control functions of the DSU.
- *Chapter 5 - Diagnostics* provides instructions for accessing the Diagnostics application window and using it to perform test procedures.

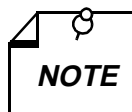
The *Index* contains topics on the Team 2011 with page numbers.

Document Conventions

Level 1 paragraph headers introduce major topics.

Level 2 paragraph headers introduce subsections of major topics.

Level 3 paragraph headers introduce subsections of secondary topics.



Notes present special instructions, helpful hints or general rules.

GDC publication numbers are used to track and order technical manuals. Publication numbers use the following format:

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NNN	identifies the product family
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Glossary of Terms

Agent

A device or process running on a device or computer that responds to SNMP requests and sends SNMP Traps.

GUI

Graphical User Interface.

HP OpenView

HP based user interface for managing network applications and devices.

MAP

A named collection of objects and their associated topology

MIB

Management Information Base. The collection of object definitions that can be accessed through a network management protocol.

SCM

Shelf Controller Module.

SNMP

Simple Network Management Protocol.

UAS

Universal Access System.

Chapter 1 System Description

Overview

This manual covers the TEAM 2011 Unix Application for HP OpenView. You should be familiar with HP OpenView and with the operation of SpectraComm Units (SCU) to use this manual effectively.

The TEAM 2011 Application is actually a collection of integrated applications for the HP OpenView Network Management Platform. The applications use the Simple Network Management Protocol (SNMP) to manage GDC 2011 SCUs.

TEAM 2011 applications permit you to:

- Configure 2011 SCUs.
- Monitor the operation of the SCUs through displays of alarms and DTE interface states, and through a front panel display that shows LED indicators as they appear on the front panel of the physical unit.
- Diagnose suspected problems using local and remote loops (with or without an internally generated test pattern).

Basic Design

The SpectraComm 2011 is designed as a flexible and versatile connection to a sub-rate service. Referred to as the master unit, the 2011 is a SpectraComm product installed in the SpectraComm shelf, accommodating only one remote unit. Up to 15 Team 2011-managed units can be handled in a single shelf, or up to 31 of them in a dual shelf. The 2011 products are fully network-managed by the shelf resident, SpectraComm Manager (SCM) and an associated SNMP manager.

Theory of Operation

The TEAM application components are your gateway to the TEAM system which carries out each task while being user-friendly. All of the TEAM controller application interfaces use the HP OpenView APIs (Application Programmer Interfaces) to integrate with HP OpenView Windows and other network management applications. You can pull down the menus from the appropriate OpenView submap or you can activate them from the front panel button. The TEAM Controller GUI screens meet HP OpenView premier partner requirements.

2011 Unit Capabilities

The DATX 2011 is a master-end data set that can operate with a remote standalone DATX 2010. (Note that two DATX 2011 units do not work together since they transmit and receive on the same band and are FSK unit types.)

Furthermore, the DATX 2011 data set can transmit both voice and data at the same time. DATX is an acronym for data-over-voice and operates over two-wire lines at 14.4 and 19.2 Kbps, and has 1.2, 2.4, 4.8, 7.2, 9.6, 14.4, and 19.2 Kbps synchronous rates.

SpectraComm Manager Card and 2011-Managed Unit

The SpectraComm 2011-managed units work with the GDC SpectraComm Manager (SCM) card to give you comprehensive network management using the Simple Network Management Protocol (SNMP). The SCM acts as the SNMP agent where TEAM management applications communicate with the 2011-managed units and other compatible equipment.

All management communications are directed to the SCM card Internet Protocol (IP) address. The SCM card relays commands and responses between management applications and hardware components, using a slot addressing scheme to communicate over the SpectraComm shelf backplane with the other components. The SCM is transparent to the applications, which operate as though they were communicating directly with the hardware units. The SCM card is managed by the TEAM Core application, which is also responsible for the Discovery and Mapping functions by which HP OpenView keeps track of the managed devices.

Accessing Team 2011

The applications that make up the Team 2011 manager are grouped on menus under the headings Performance, Configuration, Fault, and Misc (Miscellaneous). Application menus are accessible by either of two ways:

- The menu bar of the HPOV Map window, when you choose the 2011-managed unit in the window, or
- The **Select** button on the 2011 Front Panel display.

The 2011 front panel shows you current status information on the 2011-managed unit by presenting the states of the LED indicators on the front panel of the unit. The managed-unit has **Select** button menus where you can access all other functions of the TEAM 2011 manager. You can select the front panel from the **Performance** menu in the HPOV Map window menu bar. You can also launch the front panel display from that window by double-clicking on the shelf icon of the unit or the device you need to work with.

The following TEAM 2011 applications appear on both the Map window and **Select** button menus:

- **Performance:**
 - Alarms – furnishes detailed information about alarm state changes.
 - Status – presents information on the status of signals in the DTE interface.

- Configuration:
 - Configure – lets you configure when you select the 2011 unit.
 - Maintenance – lets you set device specific attributes not set as configuration options.
- Fault:
 - Diagnose – lets you run diagnostic tests on the 2011 unit
- Misc:
 - Information –gives you revision level information on the TEAM 2011 software

The Misc menu in the Map window menu bar offers you two selections that do not appear in the front panel Select button menu:

Front Panel Poll Rate – allows you to set a default polling interval to be in effect each time the front panel display is opened.

Note Pad – opens a shell tool on the workstation running the TEAM software. You can use the shell tool to run a text editor, mail tool, or any other software that resides on the workstation. The note pad application is useful for keeping system records.

Chapter 2 Operations

Introduction

The Team 2011 operates by giving you easy access to its fundamental tools when you run the application. You can see how it constantly gives you feedback on status and alarms, allows you freedom to configure and maintain the application, and advises you of immediate testing results.

Accessing 2011 Application

The Team 2011 controller application consists of a group of smaller applications, each devoted to a specific aspect of controlling or monitoring the 2011 unit. As mentioned in *Chapter 1*, you can access the Team 2011 applications by:

- the map window menu bar, or
- the front panel window `Select` button menus.

This chapter describes both ways.

Performance

There are three performance applications described in this chapter:

- `Alarms` gives you alarm information in a read-only window.
- `Status` gives you the status of signals in the DTE interface.
- `Front Panel` displays the front panel of an unit.

Configuration

`Configuration` has two parts: `Configure` and `Maintenance`. Each supports read/write windows so that you can review and change unit operating parameters. This chapter describes how to access `Configure` and `Maintenance`. Separate chapters are devoted to showing you how these applications work.

Fault

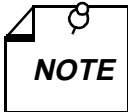
The `Fault` menu lets you access `Diagnose`. With the `Diagnose` application you can command the test functions of the unit and see the test results. This chapter describes how to access the `Diagnose` application. A later chapter shows you how to use `Diagnose`.

Misc

Three items appear under the menu Misc (miscellaneous): Information, Front Panel Poll Rate, and Note Pad. Only Information appears on the Select button menu of the front panel display.

Map Window Menu Bar Access

The table below illustrates how the Team 2011 application functions are arranged on the menu bar at the top of the HPOV Map window and shows only the menu selections for the Team 2011 applications. The map window menus include selections besides those that apply to Team 2011 since the window also lets you access other applications. You must select the unit before you open the intended menu. Select the unit by clicking the mouse once on its icon in the shelf slot.



The menu item Agent Templates, which appears under Misc in the menu listing, does not apply to SCM-based applications such as Team 2011. The use of that function is therefore not documented in this manual.

Menu Bar	Menu Selections
Performance	Front Panel... Alarms... Status...
Configuration	Configure... Maintenance...
Fault	Diagnose...
Misc	Information... Front Panel Poll Rate... Note Pad...

The Performance menu Front Panel selection opens the front panel display window. The Select button menus in the front panel display window include the selections that appear above, except Front Panel under Performance, and Front Panel Poll Rate and Note Pad under Misc.

2011 Front Panel

The 2011 front panel display windows provide a graphical interface to a selected SCU. To launch a front panel, choose the unit with in the HPOV Map window. Then, either

- Select `Front Panel` from the Performance menu for that window, or
- Double click the mouse on the icon for the unit if no remote unit has been added.

The application responds by displaying a window that depicts the front panel of the unit 2011 (See [Figure 2-1](#)).



Figure 2-1 2011 Front Panel

LEDs of the Front Panel

The LEDs shown in a front panel display reflect the states of the actual indicators on the physical unit:

LED	LED Indicates:
ON	Power on, when illuminated.
SD	Send Data, data is transmitted.
RD	Receive Data, data is received.
CS	CTS interface signal is on, when illuminated.
CO	Detection of carrier, when illuminated.
ST	Generation of a diagnostic self-test pattern, when illuminated.
RDL	Performance of a Remote Digital Loopback, when illuminated.
TM	Test Mode is red if the unit is running a diagnostic test.
ALM	Unit has an active alarm condition.
LL	Line Loopback

The application polls the unit to keep the states of the LEDs in the front panel display current. The time of the most recent poll appears in the bottom left corner of the front panel display and is displayed in white when `Auto Poll` is enabled and in yellow when it is disabled. LEDs are displayed as ON (bright green or bright red), or as OFF (dark green or dark red). If there are any errors or you get no response, all LEDs are displayed in the off-state and you get an error message in the footer.

Buttons and Select Menu

The `Select` button, at the bottom of the front panel displays, lets you access menus for the rest of the Team 2011 application functions. The following table, differing somewhat from the arrangement on the shelf map window menu bar, shows the arrangement of the `Select` button menus.

Select Menu Items	Menu Selections
Performance	Alarms... Status...
Configuration	Configure... Maintenance...
Fault	Diagnose...
Misc	Information...

Select Menu Items	Menu Selections
Demand Poll	Polling status to update front panel
Auto Poll (Displays Off or poll interval)	15 seconds 30 seconds 60 seconds Off
Exit	Closes front panel application
Help	Displays help information

Button Images on the Front Panel

Button images on the front panel are for display only.

Button	Indication
ST	Physical front panel Self Test
LL	Physical front panel Line Loopback Test
RDL	Physical front panel Remote Loopback test
GDC icon	Executes an information screen about the application

Polling

Two poll selections in the *Select* button menu determine (for the current session) when the application is to collect new information from the unit to update the front panel window:

- Demand Poll which gives you an immediate display
- Auto Poll which enables you to select updates at 15, 30, or 60-second intervals or disables automatic polling.

If you select `Disable`, the front panel window displays a static snapshot of the LED states as of their last poll: at the time the window was launched or a subsequent demand poll.

Each time the front panel display is opened, its initial polling rate is determined by the front panel Poll Rate selection of the HPOV map window `Misc` menu.

Exit

The menu selection `Exit` dismisses the front panel window when you click on it.

All the front panel button applications are also available through HPOV pull-down menus on the Team 2011 Shelf submap.

GDC Logo

The GDC logo on the front panel is actually a push-button which opens an informational screen containing Team 2011 Controller version information.

Common Window Features

Each Team 2011 application you select opens an on-screen window in which to operate. A number of features are common to many of the windows:

Triangle button	Found in the title bar, which reduces the window to an icon when you click on it and select <code>Close</code> . Double-clicking on icon restores the window. This button appears on the top level window for each application.
Title bar	Identifies the specific Team 2011 application running in the window. For example: Team 2011 Main Configuration or Team 2011 Diagnostics
Menu bar	Always contains the selections <code>File</code> , on the far left, and <code>Help</code> , on the far right. <code>File</code> menu always contains the selection <code>Exit</code> , where you can dismiss the window. Some window <code>File</code> menus contain selections particular for a window. <code>Help</code> menu gives you information concerning the window. Some windows have additional Menu bar selections. The Menu bar appears on the top level window for each application. A Menu bar appears in the Main Configuration window, for example, but not in the windows that you access from Main Configuration.
Name field	Identifies the 2011 the application that is currently connected to by displaying the user-configured shelf name, followed by the DSU slot number, and the user-configured device name.

Descriptions in this manual of the individual Team 2011 applications identify window features that are specific to the applications, such as selections in the Menu bar and menus, and buttons.

Performance Functions

The 2011 application produces desired results with minimum expenditure of internal energy, time, or resources.

Alarms

You can launch the Team 2011 Alarms application from the Performance menu of the HPOV Map window menu bar or by the front panel display `Select` button menu. This application displays the read-only `Alarm Detail` window for the unit Team 2011 (See [Figure 2-2](#)) unit. The Team 2011 application gets alarm indications from the unit in two ways:

- Receiving traps sent automatically in response to alarm conditions at the unit or,
- Initially, polling the unit for alarm conditions.



Figure 2-2 Alarm Detail Window

The following identifies the alarm attributes for the 2011 product.

Alarm	Alarm Definitions
DCD Loss	Indicates absence of Data Carrier Detect
No External Clock	Indicates that the DTE supplied transmit data clock has not been detected (or has been lost). This alarm is valid when optioned for external transmit clock timing.
Power Up	Occurs each time power is cycled or a reset is performed at the unit. Warning Alarm: on=bright green, off=dark green.

Selectable Alarm Detail Window Items

The Alarm Detail window has selections `File` and `Help` in its menu bar, with the `File` menu containing only one choice, `Exit`, which you click to dismiss the window.

Status

Status will be launched from the HPOV Map `Performance->Status` or from the Front Panel menu. See [Figure 2-3](#), next, with definitions to follow. The application is comprised of one main window.

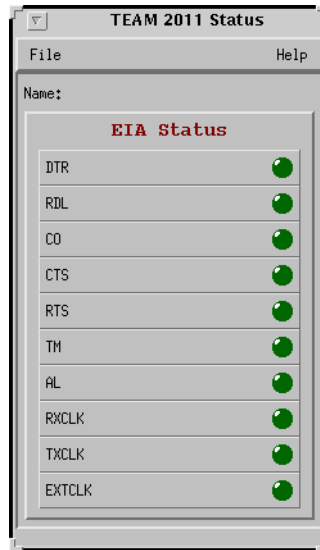


Figure 2-3 Team 2011 Status Window

Here is the breakdown for the Team 2011 SStatus Window.

EIA Signal Status	EIA Signal Status Definitions
DTR	Data Terminal Ready
DSR	Data Set Ready
RTS	Request to Send
CTS	Clear to Send
CO	Carrier Detect
RDL	Remote Digital Loopback
TM	Test Mode
AL	Analoop
RXCLK	Receive Clock Signal
TXCLK	Transmit Clock Signal
EXTCLK	External

Configuration Functions

You can conveniently conform or recast the 2011 unit as desired.

Configure

You can launch the Team 2011 Configure application from the HPOV Map Configuration Menu or from the front panel menu. When you launch the application, it initially displays the Team 2011 Configuration window, which has a File menu and a Navigate menu in its menu bar.

The **File** menu contains the selections:

- **Refresh**, which discards all unsaved changes and restores all options in the displayed configuration windows to the values they are assigned by the current operating configuration
- **Save to Unit**, which puts the new configuration into use by the unit
- **Load Template**, where you can recall a stored configuration template that you can then save to the unit either with or without modifications
- **Save to Template**, where you can store the current configuration on the workstation for future use as a template
- **Compare to Template**, where you can identify differences between the configuration displayed on-screen and a selected template
- **Exit**, where you can dismiss the window

The **Navigate** menu allows you to access the read/write windows where you can configure various aspects of the DSU operation:

- **Unit Configuration**
- **Alarms Reported**
- **All Screens**

The Team 2011 configure application is fully described in *Chapter 3, Configuration*.

Maintenance

You can launch the Team 2011 Maintenance application from the HPOV Map Configuration Menu or from the front panel menu. The application displays one read/write window where you can control some aspects of operation that fall outside the scope of the **Configure** function. The Team 2011 Maintenance application is fully described in *Chapter 4, Maintenance*.

Fault

Routine diagnostics of the 2011 unit is essential for continued dependable and reliable service.

Diagnostics

You can launch the Team 2011 Diagnostics application from the Shelf Map Fault Menu or from the front panel display **Select** button menu. The application displays one read/write window by which you can control a variety of test functions on a selected DSU. The Team 2011 Diagnostics application is fully described in *Chapter 5, Diagnostics*.

Miscellaneous Functions

In addition to giving you the version level of the TEAM 2011 application, assorted data functions keep you up-to-date about what the 2011 unit is accomplishing while running.

Information

You can launch the Team 2011 Information window by clicking on the GDC logo in a front panel display (*Figure 2-4*). Information displays one read-only window that contains the name of the application, software revision level information, and copyright information. The `File` menu in the menu bar contains only the selection `Exit`, where you can dismiss the window.

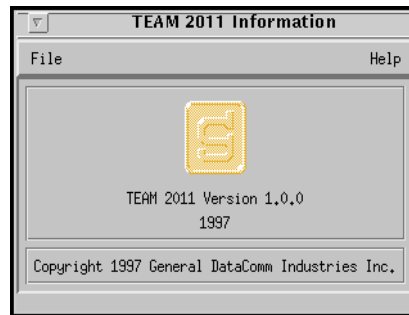


Figure 2-4 Team 2011 Information Window

Front Panel Poll Rate

You can open the `Front Panel Poll Rate` window (*See Figure 2-5*) from the shelf submap `Misc Menu`. The setting you select in this window determines the initial polling rate for front panel displays each time they are opened.

The rate selection is a global function. It selects initial polling rate for all front panel displays linked to a Team Core application, regardless of which individual application you access it from.

There are four selections, each accompanied by a check-box:

- Slow (60 seconds)
- Normal (30 seconds)
- Fast (15 seconds)
- Demand Poll Only (Disable)

The `File` menu in the menu bar contains two selections: `Save to File` and `Exit`.

To set the desired polling rate, first click on the appropriate check-box and then select `Save to File` from the `File` menu. Saving to file means that you are setting aside polling instructions or data for future use. The precise polling frequency that results from a setting of `Slow`, `Normal`, or `Fast` depends on a number of factors. The higher the rate, the more communication and processor capacity is devoted to maintaining the display.

The polling rate for an individual front panel display can be changed for the duration of a session by means of the `Auto Poll` selection in the `Select` button menu. Changes you make with that menu selection are not retained when the display is closed.

To dismiss the window, select `Exit` from the `File` menu.

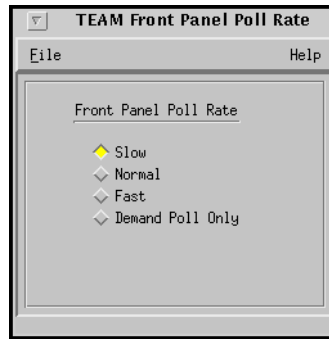


Figure 2-5 Front Panel Poll Rate Window

Note Pad

You can launch the Note Pad application from the shelf submap Misc Menu. The application opens a shell tool on the workstation running the Team software. You can use the shell tool to run a text editor, mail tool, or any other software that resides on the workstation. The Note Pad application provides this access for keeping records on the system.

Chapter 3 2011 Configuration

Introduction

The Team 2011 Configuration application enables you to set all the options in an 2011 unit through a convenient group of configuration windows.

You can start the Team 2011 Configuration application by either of two methods:

- Select a unit symbol on the shelf submap in OpenView, then select the `Configure` option from the `Configuration` menu.
- Click on the `Select` button of the Front Panel display, then click on `Configuration` and select `Configure` from the resulting menu.

Templates

You can store configuration settings as templates on the workstation that runs the Team 2011 application. A template stores a configuration for the unit options, and you can store as many templates as you need.

To load configuration settings from a template into the unit, you must do the following steps:

1. Select `Load Template` from the `File` menu and select the template from the resulting dialog window. The application retrieves the configuration settings of the selected template.
2. Select `Save to Unit` from the `File` menu. The application makes the template configuration settings the current operating configuration for the unit.

Configuration Procedure

The following steps describe how to use the configuration application, and illustrate the functions of the `Main Configuration` window menus.

1. Access the `Main Configuration` window, either from the submap or from the front panel display. The application reads the current main configuration from the unit when you open the main window.

You can select to base your configuration changes on either the current configuration or a stored configuration template. In either case, the unit continues to operate using its unchanged current configuration.

The `Refresh` selection on the main window `File` menu causes the application to read the current configuration from the unit. All changes to all configuration windows that have not previously been saved to the unit or to a template are lost when you select `Refresh`.

2. To edit the current configuration of the unit, proceed directly to the `Navigate` menu as described below.

To edit a template, select `Load Template` from the `File` menu and select a template from the resulting list.

3. Click on the `Navigate` button to display a menu of the configuration windows, and select the one in which you intend to make changes.
4. Make changes as needed in the configuration window. When you click on the input field for an option, a window opens to display all the values the field can be set to. Click the mouse on the value you select. When you change the value or setting of an option, the application displays the option name and the new value in white, rather than black, type. They remain white until you either save the changes to the unit or a template by means of the `Main` window `File` menu, or restore the option to its last stored value or setting.

You can discard changes to a configuration window and return all its fields to their stored values in two ways:

- Click on the `Reset` button to discard changes while keeping the window open
- Click on the `Cancel` button to discard changes and close the window.

You can close a configuration window without losing changes by clicking on either the `OK` button or the push-pin glyph, which is located in the upper left corner of the window.

You can keep multiple configuration windows open on-screen and move between them by clicking the mouse on the one in which you intend to operate. The main configuration window remains on-screen throughout the configuration process.

5. When you have accessed all the configuration windows that you need to and made all of your changes, click on the `File` menu button of the `Main Configuration` window. From that menu you can select `Save to Unit` to save the new configuration in the unit, or select `Save to Template` to save it as a template in the workstation.
6. When you select `Save to Unit`, the changed configuration becomes the current configuration for the unit you are configuring.
7. When you select `Save to Template`, a window appears containing a list of existing templates and a field for entering a new template name. You can select an existing template to be overwritten with the new configuration, or enter a name to create a new template. A stored template is available to be loaded by the application and then saved, with or without further modification, to any unit of the same type.

Configuration Option Values

When you click the mouse on the entry field for a configuration item, a window opens containing all the values that are permitted for that configuration item. Hold down the mouse button until the highlight is on the value you intend to configure, then release the button. The newly selected value appears in the entry field for the configuration item.

Main Configuration Window

The `Main Configuration` window (*Figure 3-1*) has two pull down menus, `File` and `Navigate`, that are the means by which you carry out the actual process of configuring the selected unit. From the `Navigate` menu you select the individual configuration windows to make the changes. The `File` menu commands the storage and retrieval of configuration settings. The contents of the two menus appears below.

The Main Configuration window title bar displays the application name, Team 2011 Configuration. The main body of the window has items that point out the selected unit and furnish information about its operations. Below, we have the TEAM 2011 Configuration main window (*Figure 3-1*) which is launched from the HPOV Shelf Map Configuration Menu. The application is made up of one main window and a set of transient windows giving you unit optioning, described below.

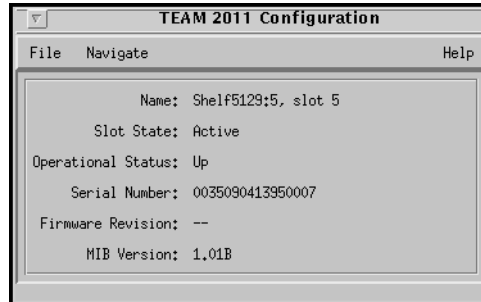


Figure 3-1 Main Configuration Window for the 2011 Unit

Specifically, this main window has four areas:

- Title bar, providing application name
- Menu bar, providing file operations, navigation through subordinate screens, and basic help
- Main body, providing administrative read-only fields
- Status messages, footer area, providing application data on activity and unit interaction

Details of this window (*Figure 3-1*) follow.

Menu Buttons	Menu Selections	Description or Displays	Further Selections
File	Refresh	All options are read from the unit and outstanding edits are lost.	
	Save to Unit	All outstanding edits are sent to the unit.	
	Load Template	Allows you to select an existing 2011 template to be applied as edits to the current application. Your next File-->Save to Unit implements the template changes.	dialog window
	Save to Template	Configuration data is saved as a specific template.	dialog window
	Compare to Template	You can select an existing 2011 template to be compared with the screen display.	dialog window
	Exit	Terminates application with outstanding edits discarded first.*	

*Note: If the configuration application is exited while pending edits exist on the configuration screens, you are prompted that Pending edits exist, do you want to save or exit without saving the changes?

Menu Buttons	Menu Selections	Description or Displays	Further Selections
Navigate			
	Transmission Options...	Transmission Options window.	
	EIA Options	EIA Options window.	
	System Options	System Options window.	
	Alarms Reported...	Displays the Team 2011 Alarms Reported window.	
	All Screens...	Displays all subordinate windows of the application.	
Help	Displays Help screen.		

Menu Buttons	Menu Selections	Description
Fields (Read-Only)		
	Name	This is the shelf name, identified by slot number and symbol label.
	Slot State	Gives you the state of the shelf slot, either as Active or Inactive.
	Operational Status	Shows you the state of the current unit, either as Up or Down.
	Serial Number	Presents the serial number of the unit.
	Firmware Revision	Shows latest firmware revision on the unit.
	MIB Version	Shows MIB version of the unit.

Note: The Team 2011 application relies on the 2011 unit to indicate when a configuration problem has caused an SNMP set error.

Transmission Options

The Team 2011 Transmission Options window (*Figure 3-2*) lets you define unit interface characteristics for the unit. This screen is presented when you choose Navigate-->Transmission Options on the 2011 configuration main window.

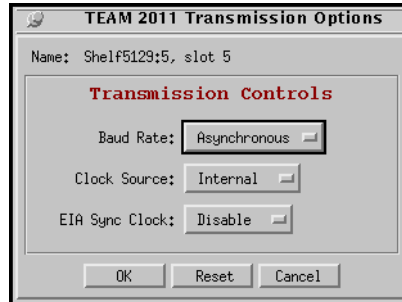


Figure 3-2 Transmission Options or Transmission Controls Window for the 2011

The table for *Figure 3-2* is given to you below.

2011 Transmission Options	Description
Baud Rate	Selects the mode of transmission and the data rate, if applicable, for the unit. Choice of Asynchronous or Synchronous baud rates are 1200, 2400, 4800, 7200, 9600, 14400, and 19200.
Clock Source	Designates a timing source: Internal, External, or Slave.
EIA Sync Clock	Enables or Disables the EIA synchronous clock. In effect, this corresponds to the connecting or disconnecting of the timing signals on EIA Pins 15 and 17 to the terminal in sync mode.
Action Buttons	
OK	Dismisses the windows with edits retained. Same function as the mouse click-on, pin-pull.
Reset	Undoes pending edits since last the File-->Save to Unit.
Cancel	Same as Reset, it dismisses the screen.

EIA Options

The Team 2011 EIA Options window (*Figure 3-3*) lets you define unit interface characteristics for the unit. This screen is presented when you choose `Navigate-->EIA Options` on the 2011 configuration main window.



Figure 3-3 EIA Options or EIA Control Window for the 2011

The table for *Figure 3-3* is shown below.

2011 EIA Options	Description
Carrier Control	Allows the EIA to control carrier. If you select RTS, you can let the request-to-send control the carrier. Otherwise, the DTR lets the data-terminal-ready control the transit carrier. Normally, RTS controls the transmit carrier (when dual signaling is not used).
RTS Mode	Selects whether RTS is Real or Forced for a unit.
RTS/CTS Delay	Selects an RTS/CTS delay: 8 mSec or 75 mSec
RDL Control	Permits or prohibits remote digital loopback. Options are Enabled or Disabled.
DSR in Analoop	Controls the state of Data Set Ready during an analoop test. During an analoop test, you can select Off which prevents the unit from receiving a control signal, or you can choose On which lets the unit receive a control signal.
Analoop Control	Permits (Enabled) or prohibits (Disabled) the analoop.

Action Buttons	
OK	Dismisses the windows with edits retained. Same function as the mouse click-on, pin-pull.
Reset	Undoes pending edits since last the <code>File-->Save to Unit</code> .
Cancel	Same as Reset, it dismisses the screen.

System Options

The Team 2011 System Options window (*Figure 3-4*) lets you define unit interface characteristics for the unit. This screen is presented when you choose `Navigate-->System Options` on the 2011 configuration main window.

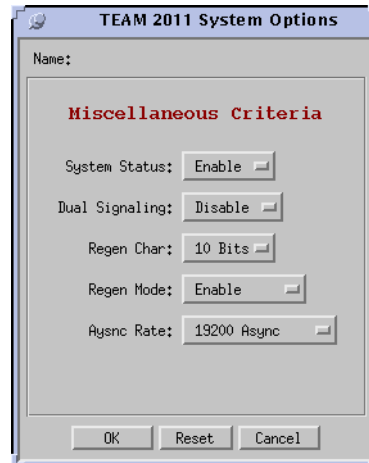


Figure 3-4 System Options or Miscellaneous Criteria Window for the 2011

The table for *Figure 3-4* is displayed below.

2011 System Options	Description
System Status	After receiving a carrier drop tone from a remote, the master drops CTS and sends a carrier drop tone to the remote if this option is enabled or continues to send data if this option is disabled.
Dual Signaling	Allows RTS (request-to-send) from the EIA to control carrier drop tone. A carrier drop tone is placed on each channel band when the RTS signal is dropped. This lets the control signal (RTS) pass through the channel without dropping energy. Options are Disable, 3 Seconds, 1 Second, or Immediate.
Regen Char	Regen stands for regeneration. Determines the asynchronous character length of data. Your bit choices are 8, 9, 10, or 11, which applies only in the Regen mode.
Regen Mode	Regeneration of data to remove bit distortion when the EIAs of the unit are connected from one master to another. Choose Enabled or Disabled. Note that Regen Char and data rate options are used with this preference.
Async Rate	Selects Asynchronous data rate: 4800, 7200, 9600, 14400, or 19200.

Action Buttons	
OK	Dismisses the windows with edits retained. Same function as the mouse click-on, pin-pull.
Reset	Undoes pending edits since last the <code>File-->Save to Unit</code> .
Cancel	Same as Reset, it dismisses the screen.

Alarms Reported

The Team 2011 Alarms Reported window (*Figure 3-5*) lets you designate the alarms that are to be masked (not reported) or unmasked (reported). This screen is shown when `Navigate->Alarms Reported` is selected on the 2011 Configuration main window. This screen lets you configure alarm reporting. But note that unit default values for all alarm masks are not reported. Following *Figure 3-5* is a table that describes each feature in the window.



Figure 3-5 Alarms Reported Window for the 2011 Unit

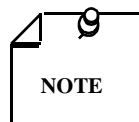
2011 Alarms	Description
No External Clock	When in synchronous mode, this means a loss of external clock.
DCD Loss	Indicates the absence of Data Carrier Detect.

Action Buttons	
Report All	Selects all alarms for reporting.
Report None	De-selects all alarms, no alarms reported.
OK	Dismisses the windows with edits retained. Same function as the mouse click-on, pin-pull.
Reset	Undoes pending edits since last the <code>File-->Save to Unit</code> .
Cancel	Same as <code>Reset</code> , it dismisses the screen.

Chapter 4 Maintenance

Introduction

The Team 2011 Maintenance application provides a group of functions for controlling the operation of a 2011 DSU.



The TEAM 2011 Controller Maintenance application is a GUI screen which provides selections for options that are considered transitional and are not included in the configuration screen.

You can start the Team 2011 Maintenance application by either of two methods:

- Select a DSU symbol on the shelf submap in OpenView, then select the Maintenance option from the Configuration menu. Or,
- Click on the Select button of the Front Panel display, then click on Configuration and select Maintenance from the resulting menu.

Maintenance Window Buttons

The Maintenance window for maintenance options (*Figure 4-1*) has two action buttons on the figure below.

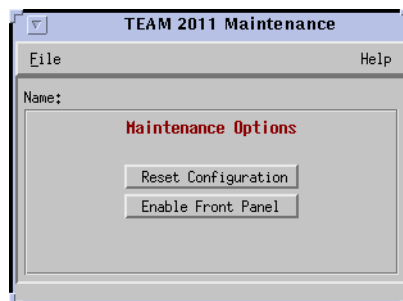


Figure 4-1 Maintenance Window

Menu Buttons	Menu Selections	Description
File		
	Exit	Terminates application with outstanding edits discarded first.*

Menu	
Action Buttons	Description
Reset Configuration	Initiates a reset to default configuration parameters.
Inhibit/Enable Front Panel	Inhibits or activates front panel push-buttons.

Chapter 5 Diagnostics

Diagnostics Overview

The `Diagnose` menu provides access to the Team 2011 Diagnostic screen, which provides the command and results display functions for all tests you can perform on the DSU by means of the `TEAM` application. The diagnostics window displays the results of the most recent test until you begin another one. 2011 Diagnostics is launched from the Shelf Map Fault Menu. The application is made up of one main window and a transient window, giving you testing history, which is called the `Diagnostics History` screen. It is accessible from the main `Diagnostics` window and displays the results of all tests performed during the current session.

The tests you can do from the `Diagnostics` window divided in two categories: `Master Tests` and `Master-Remote Tests`. When using the diagnostic functions you should have the *2011 DSU Installation and Operation Manual* available as a reference.

Diagnostics Window

The `Diagnostics` window (*Figure 5-1*) is broken down into different areas. The menu has file operations, navigation through subordinate screens, and basic help, identified as `File`, `Navigate`, and `Help`. The only selection in the file menu is `Exit` for dismissing the application. The only selection in the `Navigate` menu is `History`, which causes the application to display the `Diagnostics History` window (*Figure 5-1*) holding the results of all tests done during the current session.

Diagnostic test fields, test control buttons, graphic displays (test diagrams), test results, and status messages make up the main part of the window. Status reports or messages give the viewer up-to-date data on the application.



The Self Test pattern internal to the 2011 unit is always a 2^{15} pattern.

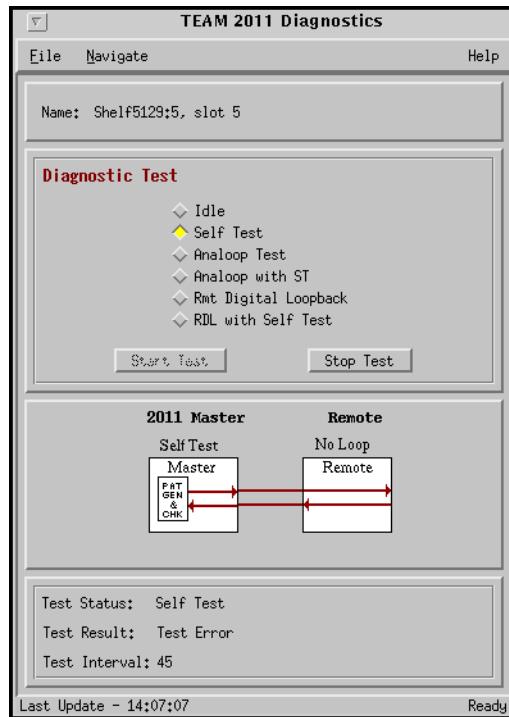


Figure 5-1 Team 2011 Diagnostics Window

Menu Buttons	Menu Selections	Description
File	Exit	Terminates application.
	Navigate	History...
Help		Displays Help screen.

Menu Buttons	Menu Selections	Description
Fields	Name	This is the shelf name, identified by slot number and symbol label (read-only).
	Diagnostic Test	
	Idle	No testing is being done.

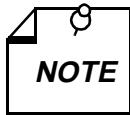
Menu Buttons	Menu Selections	Description
	Self Test	Self Test generates and checks a test pattern within the DTX 2011. During the test, the unit is disconnected from the DTE and the output of its transmitter sends a test pattern to the remote unit. The test pattern, if generated at the remote and received at the master, is checked for errors. The Self Test pattern to the 2011 unit is a 511 data pattern.
	Analoop Loopback	Line Loopback (Analoop) checks the performance of the DTX 2011 and the DTE. During this test, the unit is disconnected from the communications line and the output of its transmitter is connected to the input of its receiver; thus, anything sent from the DTE is looped back to that DTE by the unit. If the data received is different from the data sent, a problem may exist in the DTX or the DTE.
	Analoop Loopback with Self Test	Line Loopback (Analoop) with Self-Test generates and checks a test pattern within the DTX 2011. During the test, the unit is disconnected from the DTE and the output of its transmitter sends a test pattern to the remote unit. The test pattern, if generated at the remote and received at the master, is checked for errors.
	Rmt Digital Loopback	Remote Digital Loopback checks the performance of the communications line and DTXs at each end of the line. During the test, the remote unit is disconnected from the DTE, and the output of its receiver is connected to the input of its transmitter. Thus, anything sent over the communications line by the master DTE is looped over the communications line back to the master DTE. If data received at the master DTE is different from the data sent, a problem may exist in the communications line, the DTXs, or the master DTE.
	RDL with Self Test	Remote Digital Loopback Self-Test checks for the performance of the communications line and SpectraComm DTXs at each end of the line. During the test, the remote unit is disconnected from the DTE, and the output of its receiver is connected to the input of its transmitter. Thus, the test pattern is sent over the communications line by the master DTX and is looped over the communications line back to the master DTX and checked for errors. If frequent errors occur, a problem may exist in the communications line, or SpectraComm DTXs.

Test Buttons	Description
Start Test	Pressing this button starts the test selected in the menus.
Stop Test	Pressing the button sends commands to stop all tests running in the unit.

Graphical Display Area	This area contains a graphical representation of the selected 2011 and its interface to the shelf and network. Arrows show the current data paths and are changed to show the loopback paths selected for each test.
-------------------------------	--

Test Status	Displays the status of the diagnostic test. Any of the following are displayed:
Idle	Self Test Analoop Loopback Analoop Loopback with ST Rmt Digital Loopback RDL with Self Test

Test Buttons	Description
Test Results	Displays the test results in bit errors. Only displayed for tests when the Pattern Generator is on.
Test Interval	This is the test duration, which displays the duration of a test in progress.



The Team 2011 application polls the SCU every 35 seconds while the Diagnostics window is open. To reduce unnecessary LAN traffic, you should close the Diagnostics window when it is not in use.

Test Instructions

Do the following steps to carry out test:

1. Select the test to be done by clicking on the check box to the left of its name.
2. Click on the Start Test button. The data path display panel exhibits the path for the test you have selected, the Test Status field changes from Idle to the test name.
3. If you are running a Self Test, the Reset Bit Errors button is available while the test runs. The reset button returns the error count to zero. The Stop Test button is available during any test.

While running a test, the application displays the results in the Test Results window area.

2011 Diagnostics History

The diagnostics history application, read-only, is used to log test information after the test is terminated. You see the diagnostics history when you choose Navigate->History on the 2011 Diagnostics main window. Results of diagnostics tests for a current session are shown to you ([Figure 5-2](#)).

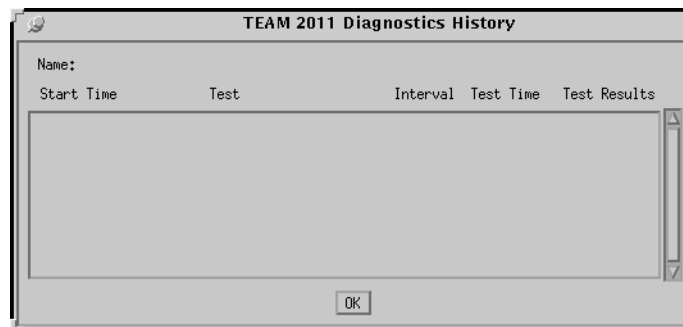


Figure 5-2 Team 2011 Diagnostics Window

Fields (Read-Only)	Description
Name	Shelf name
Start Time	Date and time the test started
Test	The specific test done
Interval	Test pattern selected (511, 2047, or 1 in 4)
Test Time	Total time elapsed since the test started: hours:minutes:seconds format
Test Results	OK: for a test that does not involve Selftest, or for a test with Selftest where no errors occurred. Bit Errors: followed by a bit error number for a test with Selftest where errors were found.

Action Buttons	
OK	Dismisses the screen.

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