



5620 SAM R12.0 Fundamentals

Exercise_Questions

TOS36033_V4.0-EQ Edition 1

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Welcome to 5620 SAM

R12.0 Fundamentals

1. Product Overview
 1. 5620 SAM Overview Lab
 2. 5620 SAM Modularity Lab
2. System Overview
 1. System Architecture Lab
 2. Launch the SAM GUI Client Lab
 3. SAM GUI Client Components Lab
 4. SAM GUI Client Windows and Forms Components and Management Lab
 5. Finding Information in SAM GUI Client Lab
 6. SAM GUI Client Workspaces Lab
3. Network Management
 1. Node Preparation for SAM Discovery Lab
 2. Network Element Discovery Lab
 3. Equipment Management Lab
 4. Equipment Inventory Lab
 5. Topology Map Components and Management Lab
 6. Topology Map Info Tables Lab
 7. Flat Maps Lab
 8. User Activity Lab
4. Fault Management
 1. Alarm Status and Severity Lab
 2. Dynamic Alarm List Lab
 3. Alarm Information Form Lab
 4. Alarm Correlation, Affecting and Aggregated Alarms Lab
 5. Alarm Management tools Lab
 6. Object Life Cycle State Lab
 7. Historical Alarms Lab
 8. Fault Management Web Application Overview Lab
5. Performance Management
 1. Scheduled Performance Statistics Lab
 2. On-Demand Performance Statistics Lab



5620 SAM

R12.0 Fundamentals

Upon completion of this course, you should be able to:

- List the 5620 SAM functions and main features
- Identify the components of the 5620 SAM management system
- Identify the elements 5620 SAM GUI
- Identify the 5620 SAM Web Applications and their function
- Use the 5620 SAM navigation tree views to perform equipment management operations
- Discover network element (NE) devices on 5620 SAM
- Use 5620 SAM topology maps to manage the network and display the status of network devices and services
- Generate file inventory lists for a managed device or for the entire network
- Use the 5620 SAM to identify alarms rose against equipment and services, alarm types, severity, status and correlation details
- Manage the User activity logs to view information about the actions performed by each 5620 SAM clients
- Use the dynamic alarm list to filter and search for alarms, display correlated alarms, view alarm history and open alarm information details
- Identify the views available in the Fault Managment Web Application and their function
- Identify the 5620 SAM statistics collection capabilities
- Use the 5620 SAM to collect, display, and save to a file scheduled and on-demand performance statistics in tabular or graphical forms for selected objects

Your feedback is appreciated!
Please feel free to Email your comments to:

training.feedback@alcatel-lucent.com

Please include the following training reference in your email:
TOS36033_V4.0-EQ Edition 1

Thank you!



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Section 1
Product Overview

Module 1

5620 SAM Overview Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 1.1 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
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4.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this lab module, you should be able to:

- Log in to the classroom terminals
- Launch the 5620 SAM client GUI
- Find and open the 5620 user documentation
- Search for information in the 5620 SAM user documentation

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	Page
1 5620 SAM Overview Labs	7
1.1 Login to a Classroom Terminal	8
1.2 Launch the 5620 SAM Client GUI	9
1.3 Open the 5620 SAM User Documentation	10
1.4 Open a Parameter Description from User Guide	12
1.5 Search info in the 5620 SAM User Documentation	13

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1 5620 SAM Overview Labs

1.1 Login to a Classroom Terminal

Lab Exercise Objective:

In order for students to become familiar with the process of login to the classroom terminals and launch the 5620 SAM GUI, over the course of this lab exercise students will:

- Receive and record the classroom terminal login user and password
- Login to the classroom terminal
- Receive and record the login name and password required to launch 5620 SAM GUI
- Launch the 5620 SAM client GUI on the classroom terminal

Instructions:

Follow your instructor's directions to log in to the classroom terminal. Your instructor might provide you with a user and password to login to classroom terminal. Use the table below to record this information which will be relevant for the rest of this training.

Classroom Terminal Login Information

User:

Password:

Follow your instructor's directions to open the 5620 SAM client. Your instructor might provide you with with the 5620 SAM Server address, a login name and password. Use the table below to store this information which will be relevant for the rest of this training.

5620 SAM Login Information

Server address:

Login name:

Password:



Note

The courseware created for this training course includes multiple technical references to the corresponding procedures in the 5620 SAM User Documentation.

In addition, the Lab Modules created for this courseware include summaries of the steps recommended to achieve the objective for each lab exercise. Such summaries may contain a subset of steps from the User Documentation procedure, visual aids (GUI screen captures) providing details on the location items in the GUI, details on any configuration specifically required to achieve the exercise's objective, and/or instructions to apply default values for procedure's portions not critical to achieve the exercise's objective on this training.

Follow your instructor's directions to execute the lab exercises, and if required refer to the User Documentation for additional information.

1.2 Launch the 5620 SAM Client GUI

1 Double-click the 5620 SAM Client App icon

2 Enter Login Name and Password

Default Login
Login Name: admin
Password: 5620Sam!

3 Click on the Login button

ALCATEL-LUCENT 5620
SERVICE AWARE MANAGER (SAM)

ALCATEL-LUCENT 5650
CONTROL PLANE ASSURANCE MANAGER (CPAM)

Alcatel-Lucent

5620 SAM Release 12.0 - 5650 CPAM Release 8.0 Build R1 Patch 0

Server: 5620sam:192.168.193.7

Login Name:

Password:

Login Cancel

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1 • 1 • 9
Product Overview - 5620 SAM Overview Lab
5620 SAM - R12.0 Fundamentals

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Lab Exercise Objective:

In order for students to access the 5620 SAM User Documentation typically installed with the 5620 SAM system, over the course of this lab exercise students will start a SAM GUI Client session (the next lab exercise describes the steps to open the documentation from a SAM GUI client).

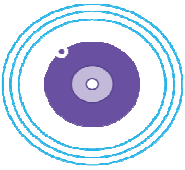
Lab Exercise Objective:

In preparation for this lab exercise provide students with a valid SAM user Login Name and Password



Note

This lab provides instructions to launch the SAM GUI client using a desktop icon. A GUI client session will be used for the subsequent labs. A separate module in this course describes the different methods to launch a GUI client, and a lab module details the steps recommended to start the 5620 SAM client GUI from a Solaris or RHEL machine using a CLI, and to start the 5620 SAM client GUI using a web browser. Follow your instructors directions to launch a GUI client session.



Technical Reference

For more information on the steps to start the 5620 SAM client GUI see Alcatel-Lucent 5620 SAM 12.0 User Guide - 5620 SAM GUI start up procedures.

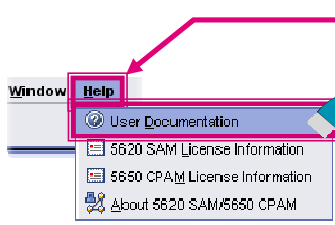
Instructions:

The following lines and the images above summarize the steps recommended to **start the 5620 SAM client GUI using a desktop icon**:

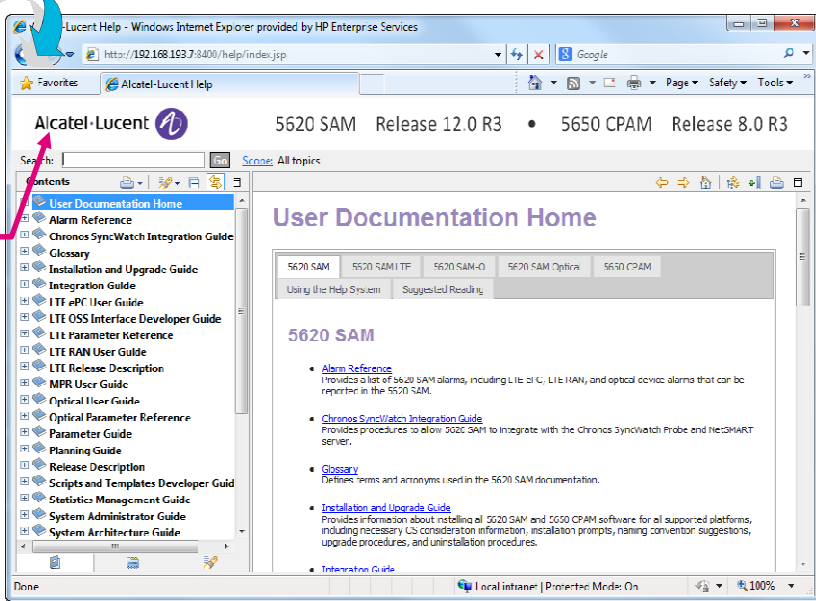
1. Double-click on the shortcut icon that was created on your desktop when the software was installed. In any case and regardless of the method used to launch the SAM GUI client, the 5620 SAM login window (shown above) appears.
2. Enter the appropriate **Login Name** and **Password**,
3. Click on the **Login** button. The 5620 SAM client GUI opens.

1.3 Open the 5620 SAM User Documentation

1 Choose Help → User Documentation from the 5620 SAM client GUI main menu



2 Help - User Documentation page opens



1 • 1 • 10

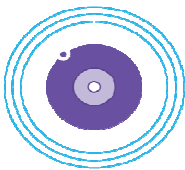
Product Overview - 5620 SAM Overview Lab
5620 SAM - R12.0 Fundamentals

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Lab Exercise Objective:

In order for students to become familiar with the location of the 5620 SAM user documentation, over the course of this lab exercise students will open the 5620 SAM user documentation from the client GUI



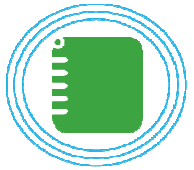
Technical Reference

The 5620 SAM Release 12.0 user documentation is delivered in HTML and PDF format with the 5620 SAM Release 12.0 software installation.

The 5620 SAM customer documentation is available for download in PDF format from the Alcatel-Lucent Customer Support Center:

<http://www.alcatel-lucent.com/myaccess>.

If you are a new user and require access to this service, please contact your Alcatel-Lucent support representative.



Note

The user documentation is typically installed on the default location in the SAM server during the installation process. Should the 5620 SAM user documentation for this course is installed in a different location other than the default location, follow your instructor's directions to access it.

Instructions:

The following lines and the images above summarize the steps recommended to open the 5620 SAM user documentation from the client GUI for this lab.

1. Choose **Help** → **User Documentation** from the 5620 SAM client GUI main menu
2. The help system opens on a web browser displaying the **User Documentation Index** which provides a summary of and links to all 5620 SAM customer documents, as shown in the image above.

1.3 Open the 5620 SAM User Documentation [cont.]

The screenshot shows the Alcatel-Lucent 5620 SAM User Documentation Home page. The page has a header with the Alcatel-Lucent logo, the text '5620 SAM Release 12.0 R3', and '5650 CPAM Release 8.0 R3'. Below the header is a search bar labeled 'Search:' and a 'Scope: All topics' dropdown. The main content area is divided into two sections: 'Contents' on the left and 'User Documentation Home' on the right. The 'Contents' section is a list of documents with expandable/collapsible icons. The 'User Documentation Home' section contains a table of links for '5620 SAM', '5620 SAM LTE', '5620 SAM-O', '5620 SAM Optical', and '5650 CPAM'. Below the table are tabs for 'Using the Help System' and 'Suggested Reading'. The 'Suggested Reading' tab is active, showing a list of documents with brief descriptions. Annotations with pink boxes and arrows point to various parts of the page: 'Search field' points to the search bar; 'Contents frame' points to the 'Contents' list; 'PDF library index' points to the 'Contents' list; 'Search results' points to the 'Suggested Reading' tab; and 'User Documentation page main frame' points to the main content area.

Search field

Contents frame

PDF library index

Search results

User Documentation page main frame

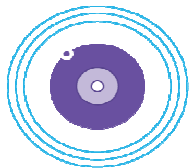
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1 • 1 • 11

Product Overview - 5620 SAM Overview Lab
5620 SAM - R12.0 Fundamentals

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The **User Documentation Index** displayed in the main frame presents a description of each document of the 5620 SAM documentation suite. The documentation suite describes the 5620 SAM and the associated network management of its supported devices.



Technical Reference

For more information about the 5620 SAM Documentation suite, a list of the documents in the 5620 SAM documentation suite for release 12.0, and a description for each document, see the **Alcatel-Lucent 5620 SAM 12.0 User Guide - Prefix** and/or the **Prefix** of most 5620 SAM 12.0 guide documents.

The **Contents Frame** lists the documents included on the User Documentation Suite for the SAM release installed in the Server. From the **Contents Frame**, click on a document name from the list to open it on the main frame in HTML format. Click on the plus sign (+) next to a list entry to expand the view to the lower hierarchy level(s) contained for that entry.

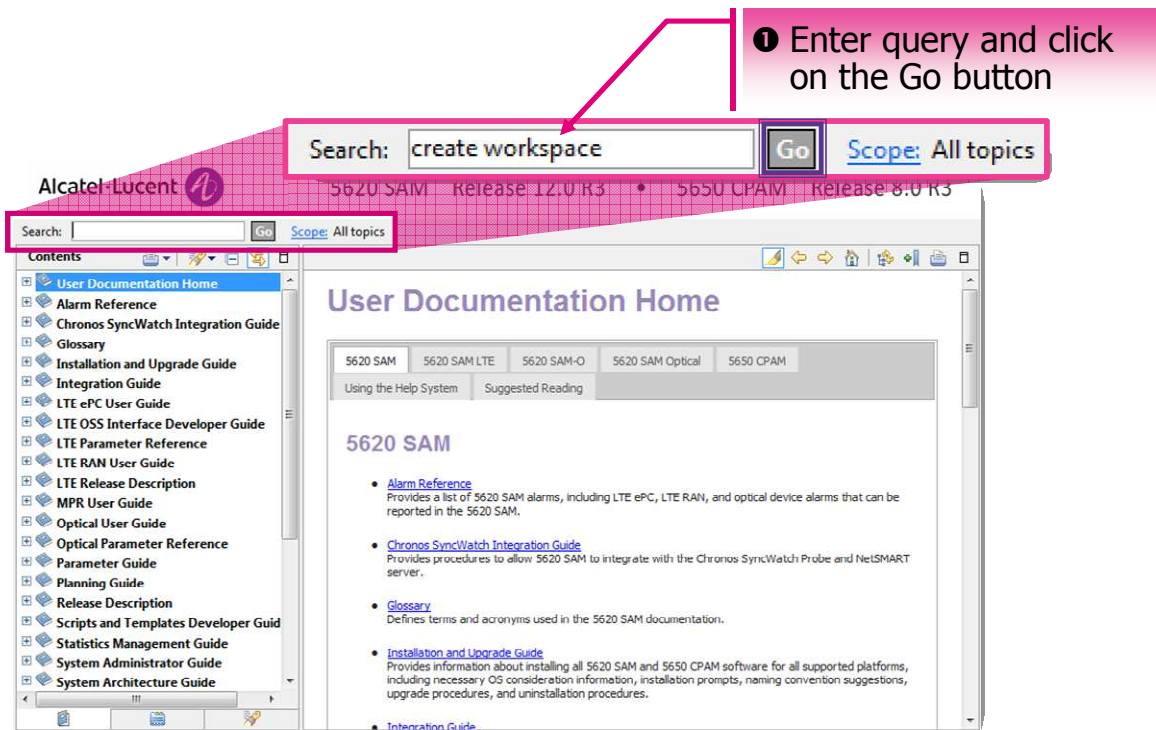
Clicking in **PDF Library Index** tab will display a list a list of PDF documents on the left frame. From the **PDF Library Index**, click on a document name to open it on the main frame on PDF format.



Note

Users of Mozilla browsers may receive an error message when using the User Documentation Index page (index.html) to open the PDF files in the 5620 SAM documentation suite. The offline storage and default cache values used by the browsers are the cause of the error message. Alcatel-Lucent recommends changing the offline storage (Mozilla Firefox) or cache (Mozilla 1.7) values to 100 Mbytes to eliminate the error message.

1.5 Search info in the 5620 SAM User Documentation



Lab Exercise Objective:

In order for students to become familiar with the process of finding information in the 5620 SAM user documentation suite, over the course of this lab exercise students will search for a topic in the 5620 SAM user documentation suite using the Help system - User documentation navigation window



Note

In order to perform a search using the Help navigation window, the user documentation suite must have been installed on the default location in the SAM server during the SAM installation process.

Should the 5620 SAM user documentation for this course is installed in a different location other than the default location, follow your instructor's directions to access it to perform a search.

Instructions:

The following lines and the images above summarize the steps recommended to search for a topic using the Help - User documentation navigation window for this lab.

Open the help system choosing **Help** → **User Documentation** from the 5620 SAM client GUI main menu. The **help system** will open on a web browser.

1. From the **Help system - User Documentation** window, enter a query in the **Search** field. To narrow the search query using search terms and Boolean operators. Click on the **Go** button.

1.5 Search info in the 5620 SAM User Documentation [cont.]

Search results displayed

Alcatel-Lucent 5620 SAM Release 12.0 R3 • 5650 CPAM Release 8.0 R3

Search: create workspace

Search Results

17 matches in All topics: [Change scope](#)

4.1 Manage Workspaces parameters

4.1 Manage Workspaces parameters This chapter describes the parameters on the workspace form. Description The Description parameter on the ...

5.1 5620 SAM custom workspaces overview 5.2 Workflow to administer 5620 SAM custom workspaces 5.3 Workflow to customize 5620 SAM workspaces 5.4 Workflow to share workspaces...

2.1 5620 SAM user security tasks 2.1 5620 SAM user security overview 2.2 User account and group management 2.3 User activity logging 2.4 Sample span rule configuration 2.5 Sample 5620 SAM user authenticati...

A. Scope of command roles and permissions

A.1 Predefined scope of command profiles and roles A.2 Permissions assignable to 5620 SAM scope of

Overwrite User Name

When enabled, the Overwrite User Name parameter specifies that the username of the currently logged-in user is assigned to the imported workspace. When the parameter is disabled, the username associated with the saved workspace is retained. The options are:

- Enabled
- Disabled (default)

Scope

The Scope parameter on the Workspace form indicates the ownership of the custom workspace. The options are:

- Private
- Public

A private workspace is visible only to the user who created it.

A public workspace is visible to all users.

2 Click on a search result to open the relevant SAM user document containing the searched topic

The Help system - User Documentation window refreshes displaying the search results on the left panel.

- Click on a search result to open the relevant SAM user document containing the searched information. The main frame will display the appropriate user document section with the searched item highlighted.

Note



*In addition of using search terms and Boolean operators to narrow the search query, the help system allows to limit the scope of a search by clicking in the **Scope** button to select only the documents and/or the sections in documents that the operator is interested in.*



End of module
5620 SAM Overview Lab

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1 · 1 · 14

Product Overview · 5620 SAM Overview Lab
5620 SAM · R12.0 Fundamentals

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Section 1
Product Overview

Module 2

5620 SAM Modularity Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 1.2 Edition 4

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1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
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3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)
4.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this lab module, you should be able to:

- View the SAM license information containing details about:
 - customer name and active license key value
 - host name and IP address of the main server
 - number of supported operator positions
 - supported 5620 SAM modules and packages
 - redundancy configuration information for redundant Solaris installations
- Save to file 5620 SAM License Information
- Launch the 5620 SAM Web Applications

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	Page
1 5620 SAM Modularity Labs	7
1.1 View the 5620 SAM License Information	8
1.2 Save to a File 5620 SAM License Information	10
2 - 5620 SAM Workspaces Overview Labs	11
2.1 Launch Web Applications Lab	12

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1 5620 SAM Modularity Labs

1.1 View the 5620 SAM License Information

❶ Choose Help → 5620 SAM License Information

The screenshot shows the '5620 SAM License [Edit]' window with the 'General' tab selected. The following fields are highlighted with pink boxes and labeled with callouts:

- 5620 SAM Release:** 12.0, Build: R1, Patch: 0
- Customer Name:** ALCATEL-LUCENT CANADA
- License Creation Date:** 2014-02-08 21:19:25:38
- Licensed System IDs:** 32816814
- Application Key Type:** Timed, **Server Operating System:** Linux
- 5620 SAM Operator Positions:** 20, **5620 SAM Supervision Client Positions:** 20
- Primary IP Address:** 192.168.193.7, **Primary Host Name:** alpha7
- Standby IP Address:** 0.0.0.0, **Standby Host Name:** N/A
- License expiry date:** 2014/12/31 00:00:00 000 EST
- 5620 SAM Modules and Packages Licensed:**
 - 5620 SAM Element Manager (SAM-E): ☒
 - 5620 SAM Assurance (SAM-A): ☒
 - Mobile Services Package: ☒
 - 5620 SAM Provisioning (SAM-P): ☒
 - 5620 SAM Open Interface (SAM-O): ☒

Buttons at the bottom: Export License information to file, User Activity, Close.

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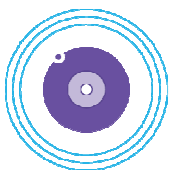
Job Aid Objective:

In order for students to obtain information about the installed 5620 SAM software release and license capacity, instructions in this lab exercise will guide students to view the 5620 SAM License Information

Instructions:

This lab exercise provide instructions to view the 5620 SAM software license information including:

- customer name and active license key value
- host name and IP address of the main server
- number of supported operator positions
- supported 5620 SAM modules and packages
- redundancy configuration information for redundant Solaris installations



Technical Reference

For more information on the steps to view the 5620 SAM License Information see Alcatel-Lucent **5620 SAM 12.0 User Guide - Software configuration procedures - Procedure To view the 5620 SAM software release and system information.**

The following lines and the images above summarize the steps recommended to view the 5620 SAM License Information for this lab exercise.

1. Choose **Help** → **5620 SAM License Information** form the 5620 SAM main menu. The **5620 SAM License (Edit)** form opens with the **General** tab displayed.

1.1 View the 5620 SAM License Information [cont.]

2 Click on the Devices and Quantities Licensed tab button

Licensed products information:

- Licensed
- Consumed
- Remaining

Licensed Product	Licensed	Consumed	Remaining	Exceeded	Alarm Status	Aggregated Alarm Status
10K GNI Card	50	0	50		N/A	N/A
10K XNI Card	50	0	50		N/A	N/A
1830 PSS Optical Amp...	50	0	50		N/A	N/A
1830 PSS Optical Tran...	50	0	50		N/A	N/A
1830 PSS Optical Tran...	50	0	50		N/A	N/A
1830 PSS Optical Tran...	50	0	50		N/A	N/A
1830 PSS Other Licen...	50	0	50		N/A	N/A
1830 PSS Raman Pum...	50	0	50		N/A	N/A
1830 PSS WS 44 Cha...	50	0	50		N/A	N/A
1830 PSS WS 88 Cha...	50	0	50		N/A	N/A
1830 PSS WS Colored...	50	0	50		N/A	N/A
1830 PSS-1 Chassis	50	0	50		N/A	N/A
5780 DSC Card	50	0	50		N/A	N/A
6250 AOS Chassis	50	0	50		N/A	N/A
6400 AOS Chassis	50	0	50		N/A	N/A
6850/6850E AOS Cha...	50	0	50		N/A	N/A
6855 AOS Chassis	50	0	50		N/A	N/A
8900 X20 AOS Chassis	50	0	50		N/A	N/A
8900 X40 AOS Chassis	50	0	50		N/A	N/A
7210 MDA	50	0	50		N/A	N/A
7210 SAS-D-6F-4TET...	50	0	50		N/A	N/A
7210 SAS-E Chassis	50	0	50		N/A	N/A
7210 SAS-M-24F Cha...	50	0	50		N/A	N/A
7210 SAS-M-24F-2XF...	50	0	50		N/A	N/A
7210 SAS-X-24F-2XF...	50	0	50		N/A	N/A
7250 SAS Chassis	50	0	50		N/A	N/A

Export License information to file User Activity Close

1 • 2 • 9

Product Overview - 5620 SAM Modularity Lab
5620 SAM - R12.0 Fundamentals

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2. On The **5620 SAM License (Edit)** form, click on the **Devices and Quantities Licensed** tab button. Review the software license information, which includes the following:
 - device information that includes the following:
 - quantity licensed
 - quantity consumed
 - quantity remaining

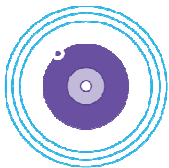


In order for students to obtain information about the installed 5620 SAM software release and license capacity, instructions in this lab exercise will guide students to save to file 5620 SAM License Information

The following lines and the images above summarize the steps recommended to save to a file the 5620 SAM License Information for this lab exercise.

- 

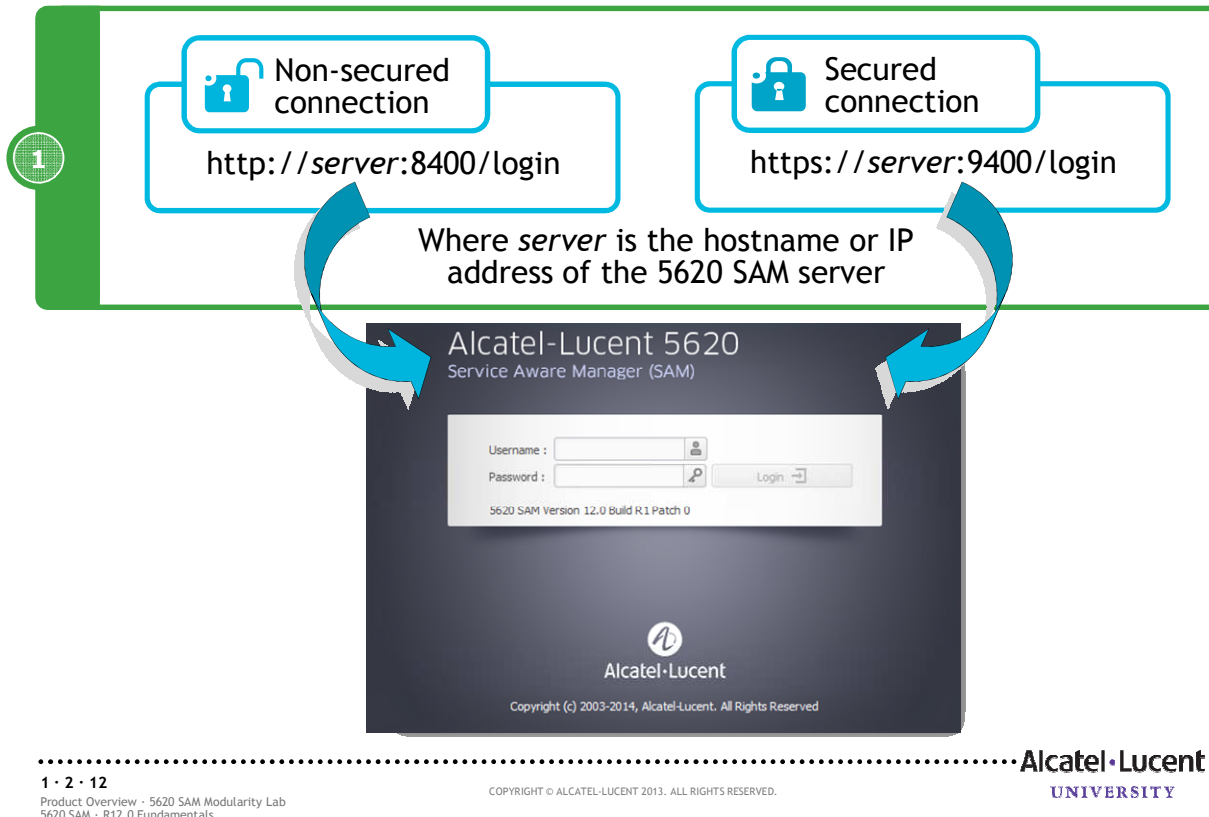
License key files can be saved in HTML or text format.



For more information on the steps to save to a file the 5620 SAM License Information see Alcatel-Lucent 5620 SAM 11.0 User Guide - 6.2 Software configuration procedures - Procedure 6-2 To export license information to a file.

2 - 5620 SAM Workspaces Overview Labs

2.1 Launch Web Applications Lab



Lab Exercise Objective:

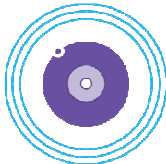
In order for students to become familiar with the process to launch the 5620 SAM Web Applications, instructions in this lab exercise will guide students to access the Web application launch panel.

Instructor Preparation:

In preparation for this lab exercise provide students with the 5620 SAM Server address, a username name and password of a 5620 SAM user that has access to the Web Applications. Note that the default admin user group can access all 5620 SAM web applications.

Ensure the terminal has connectivity with the 5620 SAM Server, and the terminal's web browser is compatible with the 5620 Web Apps.

Provide students with information about whether secured connection (SSL) is enabled or disabled in the 5620 SAM server.



Technical Reference

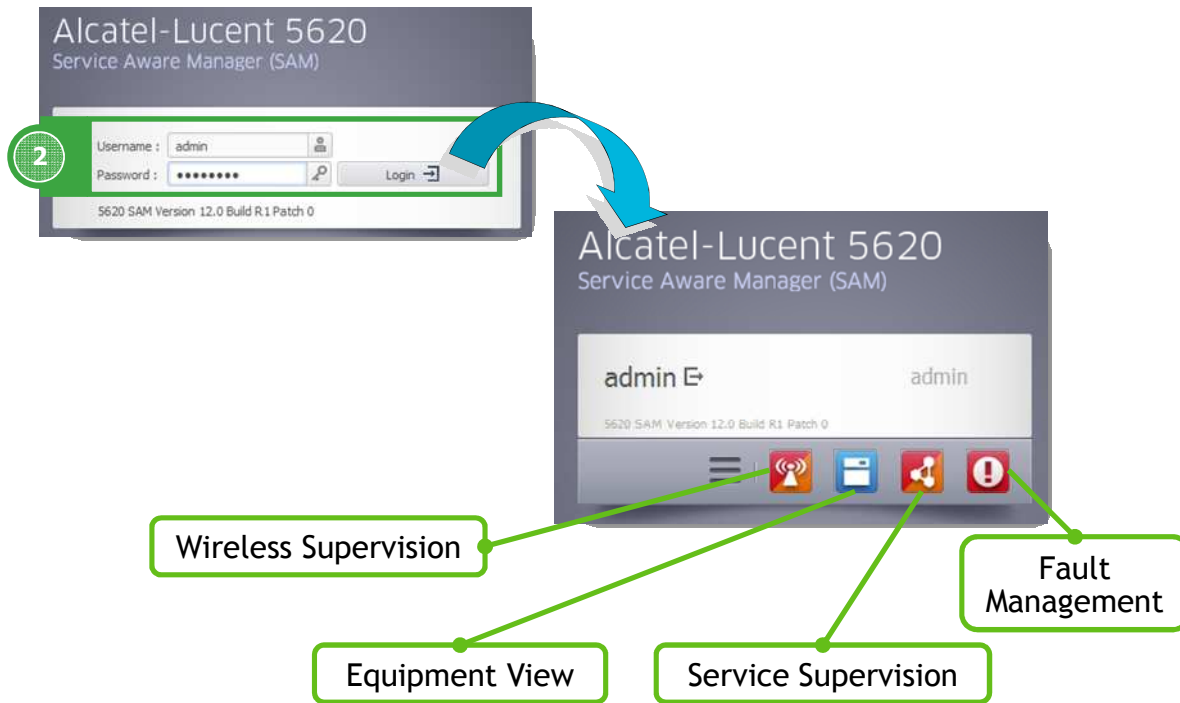
For more information on the steps to access the 5620 SAM Web Applications (including browser compatibility requirements) see *Alcatel-Lucent 5620 SAM User Guide - 5620 SAM web applications* section.

Instructions:

The following lines and the images above summarize the steps recommended to launch the 5620 SAM Web App using a web browser for this lab exercise.

1. Open a web browser window and Navigate to one of the following URLs:
http://server:8400/login for a non-secured connection (SSL not enabled on the 5620 SAM Server) or
https://server:9400/login for a secured connection (SSL enabled on the 5620 SAM Server)
 where *server* is the IP address or hostname of the 5620 SAM main server
 The web browser opens the 5620 SAM Web Applications login page shown in the figure above.

2.1 Launch Web Applications Lab [cont.]



1 • 2 • 13

Product Overview - 5620 SAM Modularity Lab
5620 SAM - R12.0 Fundamentals

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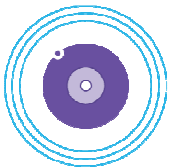
2. In the 5620 SAM Web Applications login page, enter the provided username and password and click on the Login button. The 5620 SAM Web Application launch panel appears. As shown on the image above
3. Click on a Web Application icon to launch the web application.



Note

Each 5620 SAM Web Applications can also be launched using a direct URL. For instance, use one of the following URLs to launch the Wireless Supervision Web App:

- For a non-secured connection:
<http://server:8400/WirelessSupervision>
- For a secured connection:
<https://server:9400/WirelessSupervision>



Technical Reference

For more details on direct URLs for launching other 5620 SAM Web Applications see *Alcatel-Lucent 5620 SAM User Guide - 5620 SAM web applications* section.

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End of module
5620 SAM Modularity Lab

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1 · 2 · 15

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5620 SAM · R12.0 Fundamentals

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Section 2 System Overview

Module 1 System Architecture Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 2.1 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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Document History			
Edition	Date	Author	Remarks
1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
1.1	2011-10-28	GARCIA LOZANO, René	TOS36033_V1.5 – SAM 9.0 (R5 update)
2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)
4.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this module, you should be able to:

- View information about the installed 5620 SAM system configuration, including 5620 SAM main server and database redundancy information

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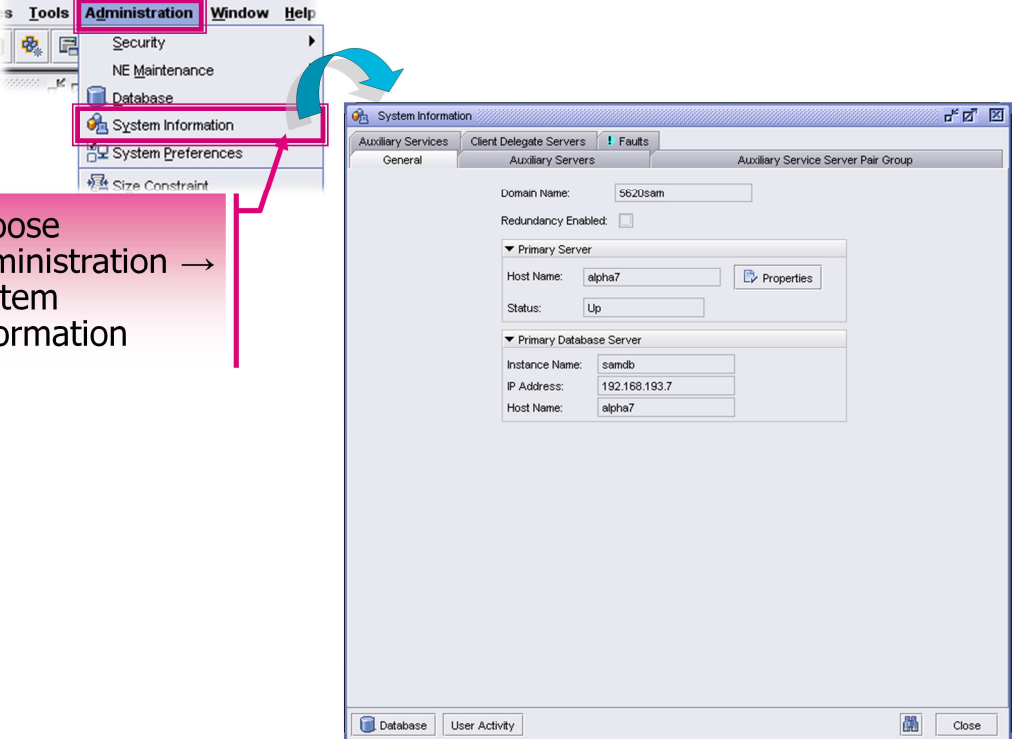


	Page
1 View System Architecture	7
1.1 View 5620 SAM Installed System Configuration	8
1.1.1 View 5620 SAM Database Information	11
1.1.1 View 5620 SAM Database Information	12

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1 View System Architecture

1.1 View 5620 SAM Installed System Configuration



The image shows the 5620 SAM Administration menu on the left and the System Information window on the right. The menu has options: Tools, Administration, Window, and Help. Under Administration, there are Security, NE Maintenance, Database, System Information, System Preferences, and Size Constraint. A red box highlights 'Administration' and 'System Information', with a red arrow pointing from 'System Information' to the System Information window. A blue arrow points from the 'System Information' menu item to the 'System Information' window. The System Information window has tabs: Auxiliary Services, Client Delegate Servers, Faults, and Auxiliary Servers. The 'General' tab is selected, showing fields for Domain Name (5620sam), Redundancy Enabled (unchecked), Primary Server (Host Name: alpha7, Status: Up), and Primary Database Server (Instance Name: samdb, IP Address: 192.168.193.7, Host Name: alpha7). At the bottom of the window are buttons for Database, User Activity, and Close.

1 Choose Administration → System Information

2 • 1 • 8
System Overview • System Architecture Lab
5620 SAM • R12.0 Fundamentals

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Job Aid Objective:

In order for students to view information about the installed 5620 SAM system configuration, instructions in this job aid will guide students to display the 5620 SAM main server and database redundancy information (if applicable) including:

- whether redundancy is enabled in the 5620 SAM management domain
- the IP addresses, host names, and statuses of the 5620 SAM main servers
- the IP addresses, host names, database names, and instance names of the 5620 SAM databases



Technical Reference

For more information on the steps to view the 5620 SAM system configuration see Alcatel-Lucent 5620 SAM 12.0 User Guide - Software configuration procedures - Procedure - To view the 5620 SAM software release and system information.

Instructions:

The following lines and the images above summarize the steps recommended to display the 5620 SAM installed system configuration.

1. Choose **Administration** → **System information** form the 5620 SAM main menu. The **System Information** form opens with the **General** tab displayed.

1.1 View 5620 SAM Installed System Configuration [cont.]

Whether redundancy is enabled

host name, and status of the 5620 SAM server

Primary Database Server

② Click on the Database button

System Information

Auxiliary Services Client Delegate Servers Faults

General Auxiliary Servers Auxiliary Service Server Pair Group

Domain Name: 5620sam

Redundancy Enabled: ☐

Primary Server

Host Name: alpha7 Properties

Status: Up

Primary Database Server

Instance Name: samdb

IP Address: 192.168.193.7

Host Name: alpha7

Database User Activity Close

2 • 1 • 9

System Overview - System Architecture Lab
5620 SAM - R12.0 Fundamentals

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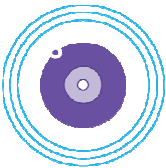
On the **System Information** form **General** tab, view information about:

- whether redundancy is enabled in the 5620 SAM management domain, including:
 - **Domain Name**, the 5620 SAM domain name specified at installation
 - **Redundancy Enabled**, selected if redundancy is enabled
- the host names, and status of the 5620 SAM primary server.
If required, click on the **Properties** button to display additional information about the primary 5620 SAM
- server. The **Main Server** properties form opens displaying main server information.
- the instance name, IP address, host name, and status of the 5620 SAM database servers

1.1 View 5620 SAM Installed System Configuration [cont.]

In addition, click to open the respective tab for viewing information about:

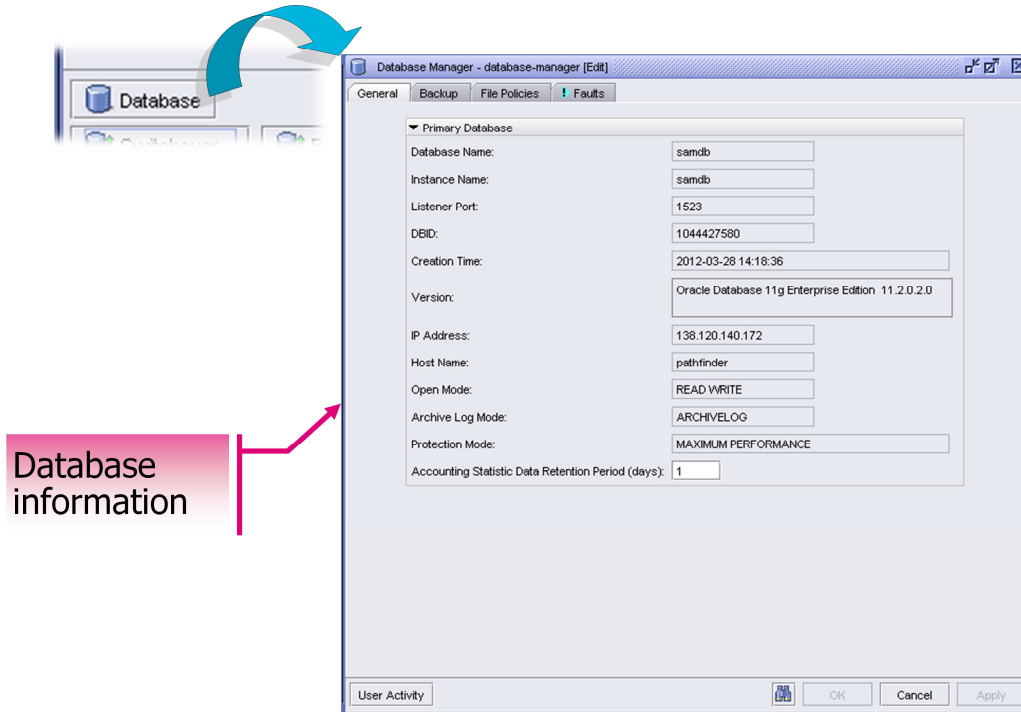
- **Auxiliary Servers**, including:
 - **Host Name**, the host name of the auxiliary server
 - **Port Number**, identifies the port that the auxiliary server uses to communicate with each main server and database
 - **Auxiliary Server Type**, Reserved or Preferred
 - **Server Status**, Unknown, Down, Up or Unused
 - **Resource Managed**, selected if the auxiliary server is included in 5620 SAM resource management
 - **Public IP address**, the IP address that the main servers use to reach the auxiliary server
 - **Private IP address**, displayed if NAT is used between the main servers and the auxiliary server
 - **Auxiliary Service Server Pair Group**, displaying information about the assignment of eNodeBs to call-trace auxiliary-server pair. It allows operator to manage which eNodeBs are assigned to which call-trace auxiliary-server pairs.
 - **Auxiliary Services**, including:
 - **Service Name**, the type of service, for example, statistics collection
 - **Selected**, indicates whether this auxiliary server is currently used by a main server to process requests
 - **IP Address**, the IP address that each main server uses to reach the auxiliary server
 - **Host Name**, the host name of this auxiliary server
 - **Auxiliary Server Type**, Reserved or Preferred
 - **Client Delegate Servers**, displays a list of client delegate servers allowing operators to configure the **Maximum UI Sessions** parameter to determine the number of allowed client sessions for a client delegate server
2. To view information about the installed 5620 SAM database, from the **System Information** form click on the **Database** button. The **Database Manager (Edit)** form opens with the General tab displayed.



Technical Reference

*For more information on the steps to view the 5620 SAM system configuration see **Alcatel-Lucent 5620 SAM 12.0 User Guide - 5620 SAM system redundancy procedures- Procedure - To view the 5620 SAM main server and database status.***

1.1.1 View 5620 SAM Database Information



The **Database Manager (Edit)** form **General** tab displays database information that includes the following:

- **Database Name**, created during 5620 SAM installation; the default is samdb
- **Instance Name**, created during 5620 SAM installation; the default is samdb
- **Listener Port**, the port on the server used for database communication
- **DBID**, the Oracle database ID, sometimes referred to as the SID
- **Creation Time**, the database creation time
- **Version**, the Oracle version identifier, for example, Oracle Database 11g Enterprise Edition 11.2.0.2.0
- **IP Address**, the IP address that the server uses as the destination address for communicating with the database
- **Host Name**, the host name of the database station
- **Open Mode**, specifies the type of database access, either READ or READ WRITE
- **Archive Log Mode**, specifies whether to archive the database log files; this is configured during database installation
- **Protection Mode**, the database protection mode, which is set by default during installation to MAXIMUM PERFORMANCE

3. Close the **Database Manager (Edit)** form. Close the **System Information** form



End of module
System Architecture Lab

2 • 1 • 12

System Overview • System Architecture Lab
5620 SAM • R12.0 Fundamentals

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Section 2 System Overview

Module 2 Launch the SAM GUI Client Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 2.2 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
1.1	2011-10-28	GARCIA LOZANO, René	TOS36033_V1.5 – SAM 9.0 (R5 update)
2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)
4.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this lab module, you should be able to:

- Start the 5620 SAM client GUI using:
 - a desktop icon
 - a web browser
 - a CLI from a Windows machine
 - a CLI from a Solaris machine

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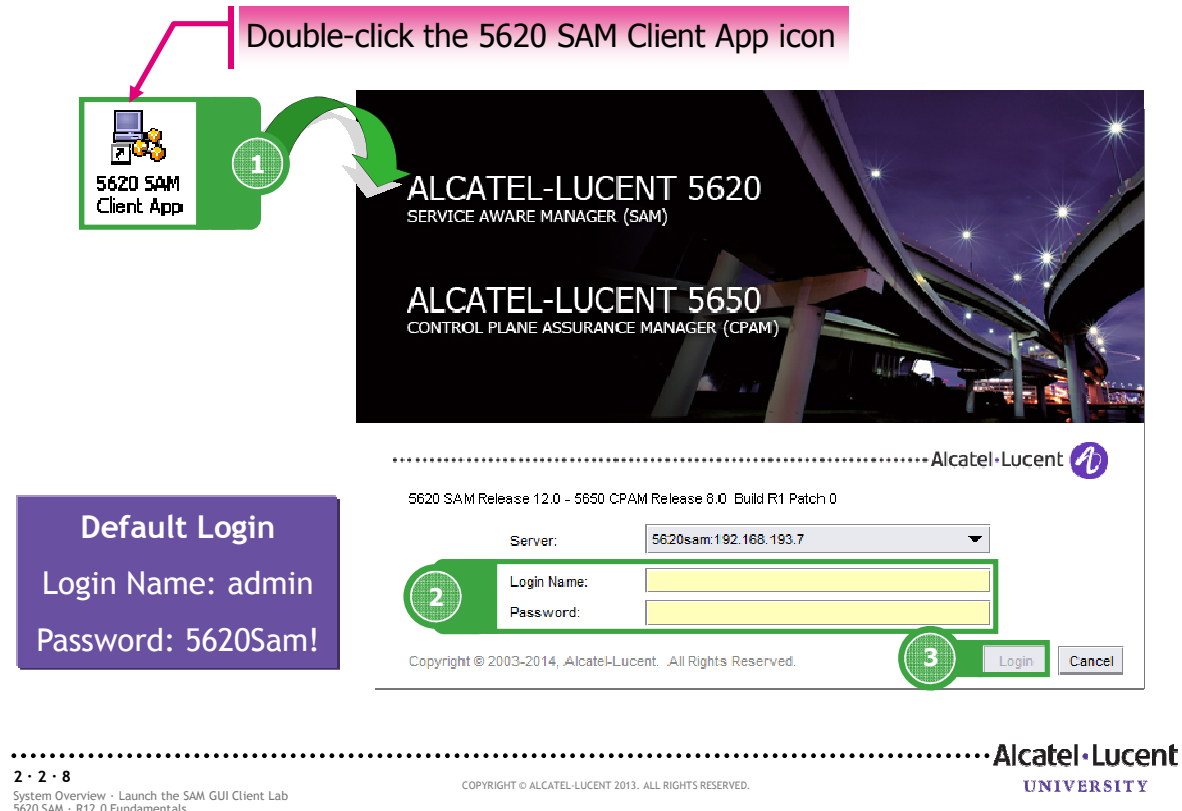
	Page
1 Launch the 5620 SAM GUI Labs	7
1.1 Launch Using a Desktop Icon	8
1.2 Launch Using a Web Browser	9
1.3 Launch from a Windows Machine Using a CLI	11
1.4 Launch from a RHEL or Solaris Machine Using a CLI	13

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1 Launch the 5620 SAM GUI Labs

1.1 Launch Using a Desktop Icon

Double-click the 5620 SAM Client App icon



Default Login
Login Name: admin
Password: 5620Sam!

ALCATEL-LUCENT 5620
SERVICE AWARE MANAGER (SAM)

ALCATEL-LUCENT 5650
CONTROL PLANE ASSURANCE MANAGER (CPAM)

Alcatel-Lucent

5620 SAM Release 12.0 - 5650 CPAM Release 6.0 Build R1 Patch 0

Server: 5620sam:192.168.193.7

Login Name:

Password:

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Login Cancel

2 • 2 • 8
System Overview - Launch the SAM GUI Client Lab
5620 SAM - R12.0 Fundamentals

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Lab Exercise Objective:

In order for students to become familiar with the process to launch the 5620 SAM GUI, instructions in this lab exercise will guide students to start the 5620 SAM GUI client using a desktop icon.

Instructor Preparation:

In preparation for this lab exercise provide students with the 5620 SAM Server address, a login name and password.



Technical Reference

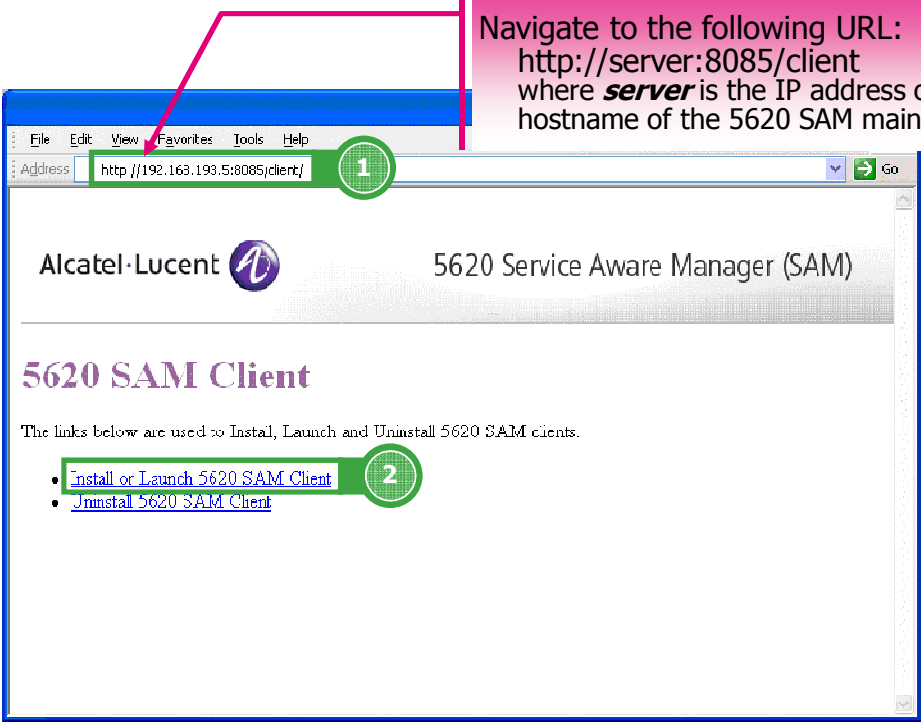
For more information on the steps to start the 5620 SAM client GUI see Alcatel-Lucent 5620 SAM 12.0 User Guide - 5620 SAM GUI start up procedures - Procedure - To start the 5620 SAM client GUI on a Windows single-user client station

Instructions:

The following lines and the images above summarize the steps recommended to start the 5620 SAM client GUI using a desktop icon for this lab exercise.

1. Double-click on the shortcut icon that was created on your desktop when the software was installed. The 5620 SAM login window appears. Should there be more than one SAM servers available, verify the Server address correspond to the SAM system you are attempting to access.
2. Enter the appropriate **Login Name** and **Password**.
3. Click on the **Login** button. The 5620 SAM client GUI opens.

1.2 Launch Using a Web Browser



Navigate to the following URL:
<http://server:8085/client>
 where **server** is the IP address or
 hostname of the 5620 SAM main server

Alcatel-Lucent 5620 Service Aware Manager (SAM)

5620 SAM Client

The links below are used to Install, Launch and Uninstall 5620 SAM clients.

- [Install or Launch 5620 SAM Client](#)
- [Uninstall 5620 SAM Client](#)

2 • 2 • 9
 System Overview - Launch the SAM GUI Client Lab
 5620 SAM - R12.0 Fundamentals

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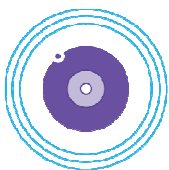
Lab Exercise Objective:

In order for students to become familiar with the process to launch the 5620 SAM GUI, instructions in this lab exercise will guide students to start the 5620 SAM GUI client using a desktop icon.

Instructor Preparation:

In preparation for this lab exercise provide students with the 5620 SAM Server address, a login name and password.

Ensure the terminal's web browser has connectivity with the 5620 SAM Server.



Technical Reference

For more information on the steps to start the 5620 SAM client GUI see *Alcatel-Lucent 5620 SAM 12.0 User Guide - 5620 SAM GUI start up procedures - Procedure - To start the 5620 SAM client GUI on a Windows single-user client station*

Instructions:

The following lines and the images above summarize the steps recommended to start the 5620 SAM client GUI using a web browser for this lab exercise.

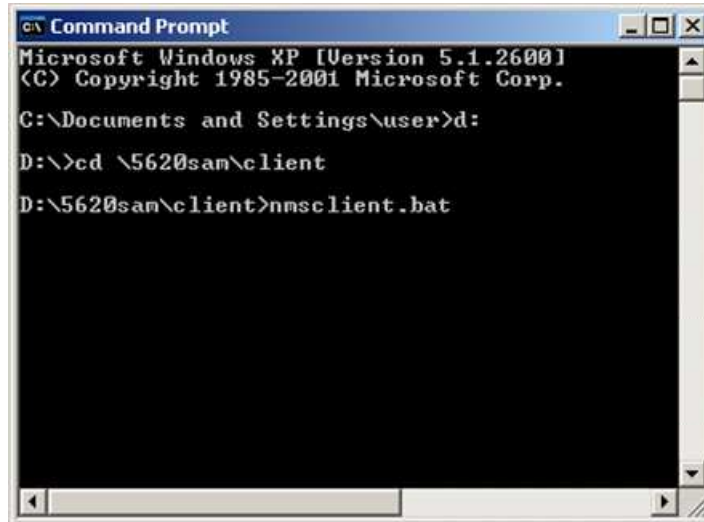
1. Open a web browser window and Navigate to the following URL:
<http://server:8085/client>
 where **server** is the IP address or hostname of the 5620 SAM main server
 The web browser opens the 5620 SAM Client welcome page shown in the figure above.
2. Click on the **Install or Launch 5620 SAM Client** link.

1.2 Launch Using a Web Browser [cont.]

3. If you did not use a web browser to install the client, a form opens and prompts you for the client installation location. Use the form to specify the client installation directory, for example, C:\5620sam\client.
4. The 5620 SAM login window appears. Enter your **Login Name** and **Password**, and click on the **Login** button.

The 5620 SAM client GUI opens.

1.3 Launch from a Windows Machine Using a CLI



```

C:\> Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\user>d:

D:\>cd \5620sam\client

D:\5620sam\client>nmsclient.bat
  
```

CLI allows operators to specify one or more client startup options
 See Alcatel-Lucent 5620 SAM User Guide - 5620 SAM GUI startup procedures
 for a listing of startup options

Lab Exercise Objective:

In order for students to become familiar with the process to launch the 5620 SAM GUI, instructions in this lab exercise will guide students to start the 5620 SAM GUI client from a Windows machine using a CLI.

Instructor Preparation:

In preparation for this lab exercise provide students with the 5620 SAM Server address, a login name and password.

Provide students with instructions on any client startup 5620 SAM client startup options for Windows to be used in this lab exercise.



Technical Reference

For more information on the steps to start the 5620 SAM client GUI see Alcatel-Lucent 5620 SAM 12.0 R3 User Guide - 3.4 5620 SAM GUI start up procedures - Procedure 3-1 To start the 5620 SAM client GUI on a Windows single-user client station

Instructions:

The following lines and the images above summarize the steps recommended to start the 5620 SAM client GUI from a Windows machine using a CLI for this lab exercise.

Using a CLI to start the client GUI allows operators to specify one or more client startup options.

1. Open a command window. At the CLI prompt navigate to the 5620 SAM client installation drive and directory, entering the commands:

<drive id> ↵

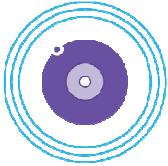
cd /<sam client directory>/nms/bin ↵

where: **<drive id>** is the drive on which the 5620 SAM client is installed, for example, D:

<sam client directory> is the 5620 SAM client installation location, typically **\5620sam\client**

1.3 Launch from a Windows Machine Using a CLI [cont.]

- At the CLI prompt, start the 5620 SAM client by typing **nmsclient.bat** ↵ . The 5620 SAM login window appears.
Alternatively, following your instructor's directions at the CLI prompt you can start the 5620 SAM client using one or more startup options.
For example, to force a client update, enter: **nmsclient.bat update** ↵

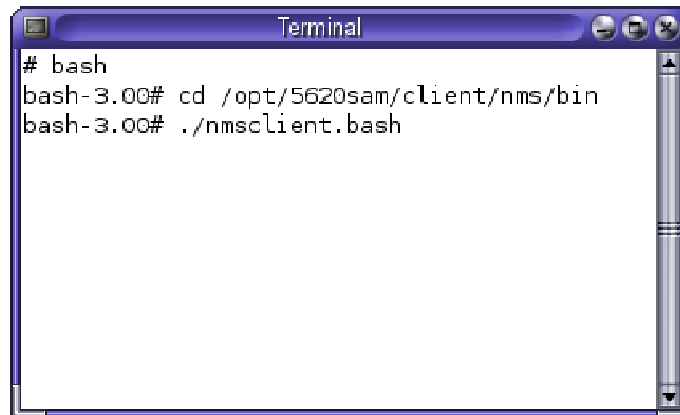


Technical Reference

See Alcatel-Lucent **5620 SAM User Guide - 5620 SAM GUI startup procedures** for a complete listing of **5620 SAM client startup options for Windows**

- On the 5620 SAM login window, enter your **Login Name** and **Password**, and click on the **Login** button.
The 5620 SAM client GUI opens.

1.4 Launch from a RHEL or Solaris Machine Using a CLI



```

Terminal
# bash
bash-3.00# cd /opt/5620sam/client/nms/bin
bash-3.00# ./nmsclient.bash
  
```

CLI allows operators to specify one or more client startup options
 See Alcatel-Lucent 5620 SAM User Guide - 5620 SAM GUI startup procedures
 for a listing of startup options

Lab Exercise Objective:

In order for students to become familiar with the process to launch the 5620 SAM GUI, instructions in this lab exercise will guide students to start the 5620 SAM GUI client from a Solaris machine using a CLI.

Instructor Preparation:

In preparation for this lab exercise provide students with the 5620 SAM Server address, a login name, password, and if applicable instructions to access the Solaris machine and launch a terminal window.

Provide students with instructions on any client startup 5620 SAM client startup options for Windows to be used in this lab exercise.



Technical Reference

For more information on the steps to start the 5620 SAM client GUI see Alcatel-Lucent 5620 SAM 12.0 R3 User Guide - 3.4 5620 SAM GUI start up procedures - Procedure 3.2 Procedure 3-2 To start the 5620 SAM client GUI on a RHEL or Solaris single-user client station and Procedure 3-3 To start the 5620 SAM client GUI through a client delegate server

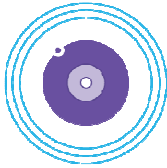
Instructions:

The following lines and the images above summarize the steps recommended to start the 5620 SAM client GUI from a Solaris machine using a CLI for this lab exercise.

1. Open a bash console window on the client station. At the CLI prompt to navigate to the 5620 SAM client installation directory, entering the command: `/<sam client directory>/nms/bin` ↵
 where: **<sam client directory>** is the 5620 SAM client installation location, typically `/opt/5620sam/client`

1.4 Launch from a RHEL or Solaris Machine Using a CLI [cont.]

2. Start the 5620 SAM client by typing `./nmsclient.bash` ↵ . The 5620 SAM login window appears. Alternatively, following your instructor's directions at the CLI prompt you can start the 5620 SAM client using one or more startup options.



Technical Reference

See **Alcatel-Lucent 5620 SAM User Guide - 5620 SAM GUI startup procedures** for a complete listing of **5620 SAM client startup options for Solaris**

3. On the 5620 SAM login window, enter your Login Name and Password, and click on the Login button.
The 5620 SAM client GUI opens.

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End of module
Launch the SAM GUI Client Lab

2 • 2 • 16

System Overview - Launch the SAM GUI Client Lab
5620 SAM - R12.0 Fundamentals

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Section 2
System Overview

Module 3 SAM GUI Client Components Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 2.3 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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Edition	Date	Author	Remarks
1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
1.1	2011-10-28	GARCIA LOZANO, René	TOS36033_V1.5 – SAM 9.0 (R5 update)
2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)
4.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this lab module, you should be able to:

- Identify the SAM GUI Client components
- Send a text message to another 5620 SAM user

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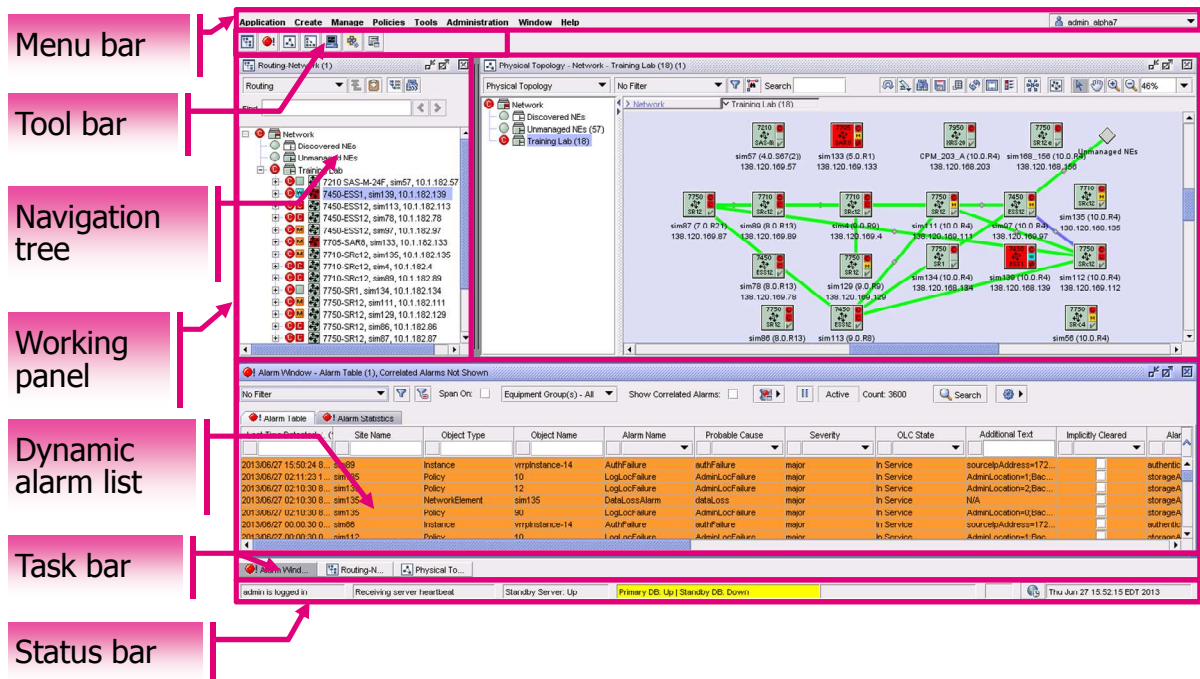


	Page
1 GUI Client Components Labs	7
1.1 Identify GUI Components	8
1.4 Send a text Message	9

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1 GUI Client Components Labs

1.1 Identify GUI Components



Lab Exercise Objective:

In order for students to become familiar with the 5620 SAM GUI Client, over the course of this lab exercise students will identify components to the 5620 SAM GUI.

Instructions:

Follow your instructor's directions to open 5620 SAM GUI toolbar. Take a moment to identify the seven (7) basic components to the 5620 SAM GUI which are:

- **Menu Bar** - used to execute 5620 SAM tasks
- **Tool Bar** - provides shortcuts for Menu functions
- **Navigation Tree Window** - displays all 5650 CPAM managed equipment, services, and protocols including OSPF and IS-IS
- **Working Window Pane** - displays drawings and configuration forms
- **Dynamic Alarms List** - displays incoming events and alarms
- **Task Bar** - used to track all currently opened windows of the client session.
- **Status Bar** - displays user account, date, redundancy, alarm-related object, propagation, and connection status information.

Using the Menus, the Toolbar, or Shortcuts:

- From the drop down submenu options under each top-level menu. An applicable shortcut icon for that menu function is shown next to the options text.
- From the menu equivalent in the Toolbar. Scrolling over the icons will display their function.
- By typing the appropriate ALT+Key shortcut. For example, ALT+P opens the policies menu.
- The underlined letter indicates the shortcut action.

1.4 Send a text Message

❶ Choose Application → Text Message



❷ Type the text message

2 • 3 • 9

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5620 SAM - R12.0 Fundamentals

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Lab Exercise Objective:

In order to communicate with another 5620 SAM user, with multiple users, or with all active users logged in to the 5620 SAM Server, over the course of this lab exercise students will send text message to another 5620 SAM user.

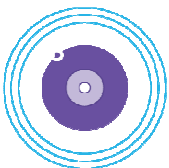
Instructor Preparation:

Ensure each student is logged in using a different user name.

Alternatively, if all students are logged using the same user name ask each students to identify the unique session number each has been assign by choosing **Help → About 5620 SAM/5650 CPAM** form the 5620 SAM client GUI main menu. A window will open, look for the session number.

Instructions:

Follow your instructor's directions to send text messages to another 5620 SAM user or to all active users logged into the 5620 SAM.

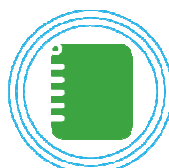


Technical Reference

For more information on the steps to generate an inventory and save to a file listed data see *Alcatel-Lucent 5620 SAM 12.0 R5 User Guide -3.7 Basic 5620 SAM GUI operation procedures - Procedure 3-23 : To send a text message to another 5620 SAM user*

The following lines and the images above summarize the steps recommended to open the 5620 SAM user documentation from the client GUI for this lab.

1. Choose **Application → Text Message** from the 5620 SAM main menu. The Text Message window opens.
2. Type the text message in the text area.



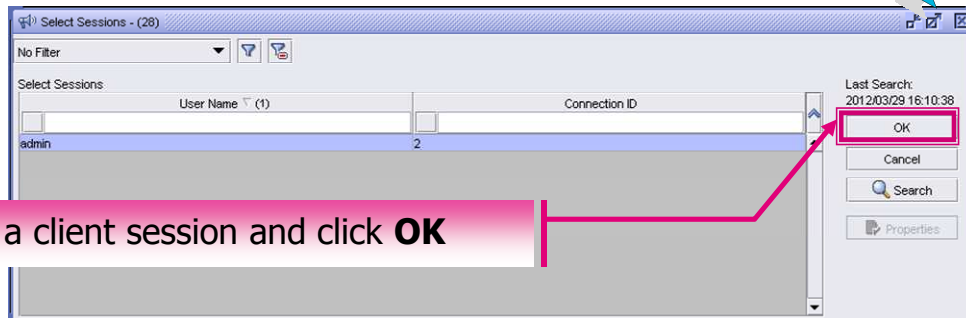
Note

Alternatively, press CTRL+V to paste information from the clipboard into the text area. For example, pasting a window link identifier creates a link that the recipient can click to launch the window.

1.4 Send a text Message [cont.]



③ Click on the **Send To...** Button



④ Choose a client session and click **OK**

3. Click on the **Send To...** button. The Select Session window opens.
4. Select a client session from the list, to select multiple client sessions as message recipients hold the Ctrl button and click on the client sessions from the list.
 Click on the **OK** button to send the message.
 The text message is sent to the selected client(s). Messages are uniquely identified with the Client ID number of the sender. You can reply back to the sender by clicking on the Reply button.

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End of module
SAM GUI Client Components Lab

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2 · 3 · 12

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Section 2
System Overview

Module 4 SAM GUI Client Windows and Forms Components and Management Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 2.4 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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Document History			
Edition	Date	Author	Remarks
1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
1.1	2011-10-28	GARCIA LOZANO, René	TOS36033_V1.5 – SAM 9.0 (R5 update)
2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
2.4	2013-06-20	GARCIA LOZANO, René	TOS36033_V2.4 – SAM 10.0 (revision)



Upon completion of this lab module, you should be able to:

- Detach a GUI window to an external window and manage external windows
- Send a link to a SAM window on a GUI text message
- Generate an inventory of listed data and save to a file information from a 5620 SAM list form
- Manage the collapsible panels state (expanded or collapsed) when properties forms and configuration forms open
- Manage the tabs displayed (or hidden) on 5620 SAM forms

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	Page
1 SAM GUI Client Windows Management Labs	7
1.1 Detach a GUI Window to an External Window	8
1.2 Send a link to a SAM Window on Text Message	10
2 Managing Lists on 5620 SAM Windows and Forms Labs	12
2.1 Modify Columns Displayed in a List Form	13
2.2 Generate an Inventory and Save to a File Listed Data	15
3 Manage Collapsible Panels State on Windows and Forms Labs	17
3.1 Collapse All Collapsible Panels	18
3.2 Expand All Collapsible Panels	20
4 Manage Tabs on 5620 SAM Forms	21
4.1 Tabs on 5620 SAM Forms Overview	22
4.2 Custom Tab Display	23

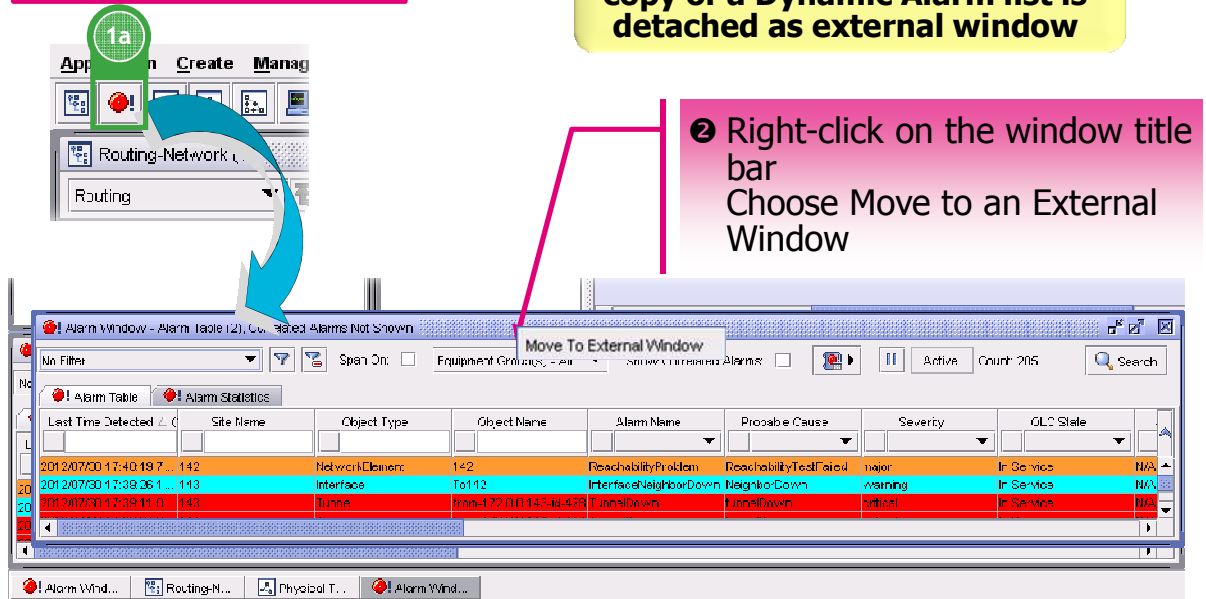
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1 SAM GUI Client Windows Management Labs

1.1 Detach a GUI Window to an External Window

1 Select a GUI window

For this lab exercise, a second copy of a Dynamic Alarm list is detached as external window



2 • 4 • 8

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5620 SAM - R12.0 Fundamentals

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Lab Exercise Objective:

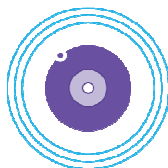
In order to become familiar with the procedure to detach and manage external windows, instructions in this lab exercise will guide students to detach a GUI window to an external window.

Instructor Preparation:

In preparation for this lab exercise identify a GUI window to be detached as external window.

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to detach a GUI window to an external window:



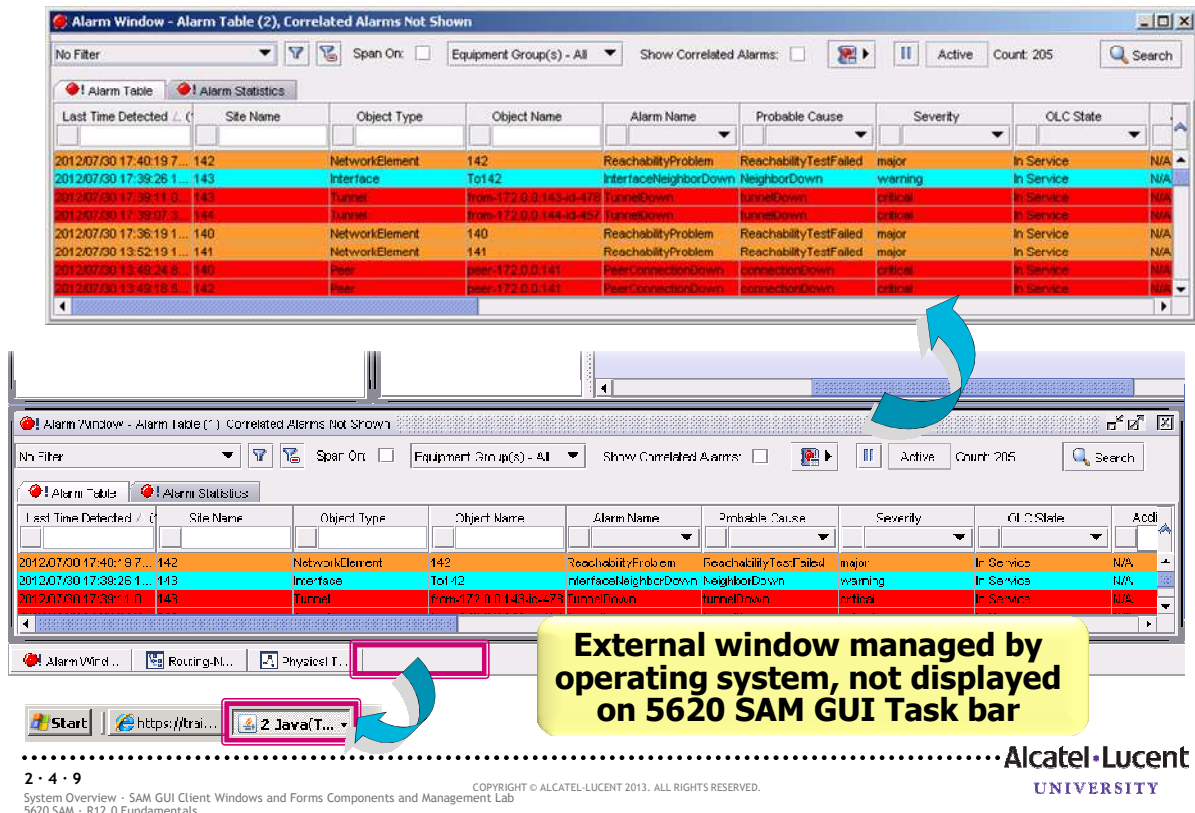
Technical Reference

For more information on the steps to filter listed information and/or search for data on 5620 SAM list forms see *Alcatel-Lucent 5620 SAM 10.0 R5 User Guide - 3.7 5620 SAM GUI search procedures - Procedure 3.26 To perform a simple search using column headings.*

The following lines and the images above summarize the steps recommended to detach a (second copy of the) Dynamic Alarm List as an external window.

1. Select a GUI window.
 - a. For this lab exercise example, click on the “Alarm Window” shortcut icon on the Tool Bar. A second copy of the Dynamic Alarm window opens in the GUI Work Pane.
 - b. Select, or keep selected the newly opened second copy of the Dynamic Alarm window.
2. Right-click on the window title bar and choose **Move to an External Window** from the menu that is displayed. Alternatively with the window selected, Choose **Window** → **Move to an External Window** from the 5620 SAM main menu. The selected window opens as an external window.

1.1 Detach a GUI Window to an External Window [cont.]

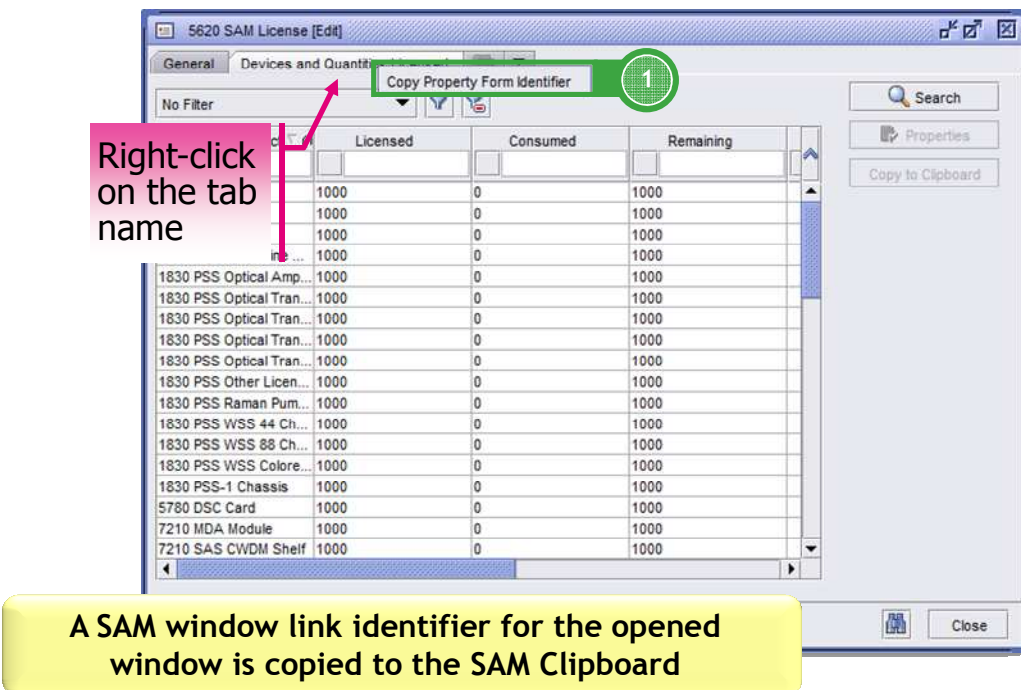


The selected window is detached as an external window. For this lab exercise example, the second copy of the Dynamic Alarm list form is detached as an external window.

Note the following about the Dynamic Alarm List detached as external window:

- 5620 SAM GUI task bar does not display anymore the copy of the Dynamic Alarm List which has been detached as external window
- The detached external window is now managed by the operating system rather than the 5620 SAM GUI. External windows are placed into a group of open 5620 SAM windows on the operating system task bar [as shown in the figure above]
- Alarms in the detached Dynamic Alarm List are still being updated. That is because, any information displayed and/or configuration changes performed on an external window are still related to the SAM Server in the same manner as before the window was detached from the GUI.
- In multiple monitors display systems, an external windows can be moved and/or maximized on a separate monitor. For instance, allowing operators to have the SAM GUI opened on one screen and the detached Dynamic Alarm List on a separate screen.
- Any windows launched from an external window appear as separate external windows. For instance, any alarm opened by double-clicking on a line on this detached Dynamic Alarm List will open as a separate external window.
- From the 5620 SAM GUI:
 - External windows can be viewed and brought to the front using **Window** menu in the Menu Bar.
 - The Window menu contains an option to **Close All External SAM Windows**
- An external window cannot be moved back into the 5620 SAM GUI. The operator must close the external window and re-open it in the SAM GUI.

1.2 Send a link to a SAM Window on Text Message



Lab Exercise Objective:

In order to share with another SAM user a link to the SAM window currently opened on the GUI, instructions in this lab exercise will guide students to send a link to a SAM window on a GUI text message.

Lab Exercise preparation:

In preparation for this lab exercise open a SAM window for which a link will be send.

Ensure another user is logged in using a unique SAM user name. Alternatively, if all users are logged in using the same user name, use the Connection ID to identify the message addressee.

Instructions:

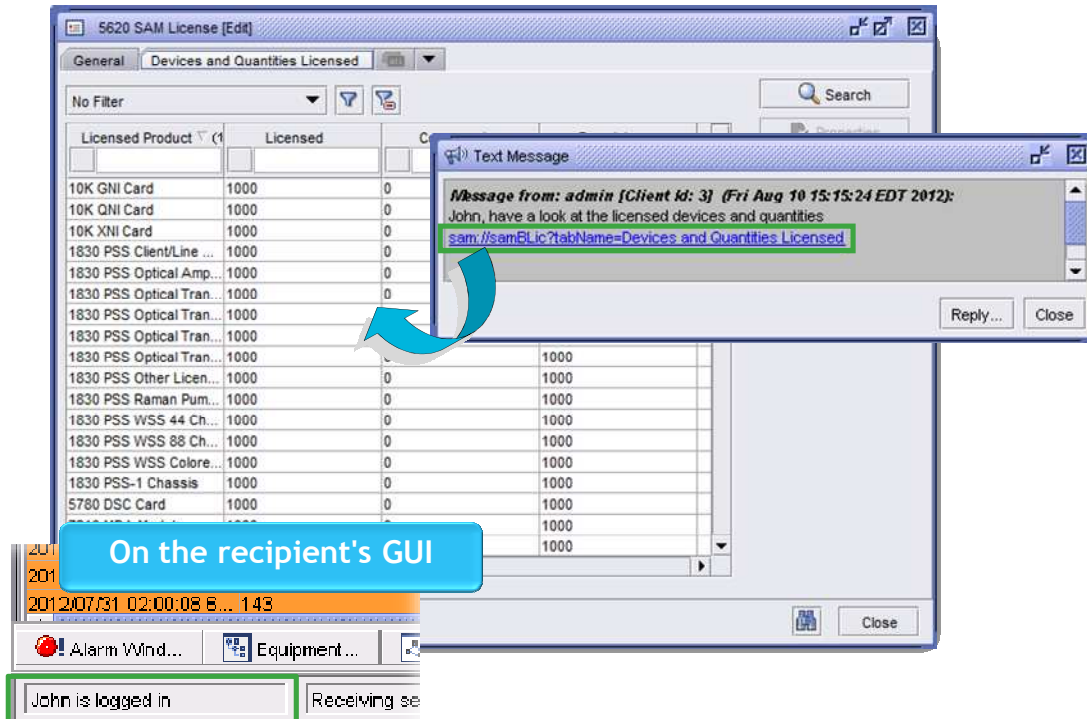
The following lines and the images above summarize the steps recommended send a link to the **5620 SAM License - Device and Quantities Licensed** list form.

Open a SAM window to be shared with another SAM user. If the a window contain multiple tabs, make sure to open the tab of interest to be shared, as the link sent will point the tab of interest in a window.

For this lab exercise example, open the **5620 SAM license - Device and Quantities Licensed** list form, choosing **Help → 5620 SAM License Information** form the 5620 SAM main menu. The **5620 SAM License (Edit)** form opens with the **General** tab displayed. Click on the **Devices and Quantities Licensed** tab button.

1. Right-click on a tab name that is to be sent on a text message, and choose the **Copy Property Form Identifier** function. The tab on the form identifefier link is copied to the clipboard.
Alternatively: With the SAM window to be shared opened in the foreground, choose **Application → Save Window To Clipboard** from the 5620 SAM main menu. The SAM window link identifier for the opened window is copied to the SAM Clipboard.

1.2 Send a link to a SAM Window on Text Message [cont.]



2 • 4 • 11

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5620 SAM - R12.0 Fundamentals

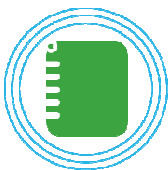
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On the recipient's GUI.

A Text Message window appears when a text message is received. The text message may include a window link identifier which the recipient can click on to launch the window, the linked SAM window will open. If the SAM window contains multiple tabs, the window will open the tab displayed the sender's GUI when the window link identifier was created by saving the window to the clipboard.

For this lab example, the figures above show a text message a SAM user logged in as John received. The text message includes a window link identifier to the **5620 SAM License** form with the **Device and Quantities Licensed** tab displayed.



Note

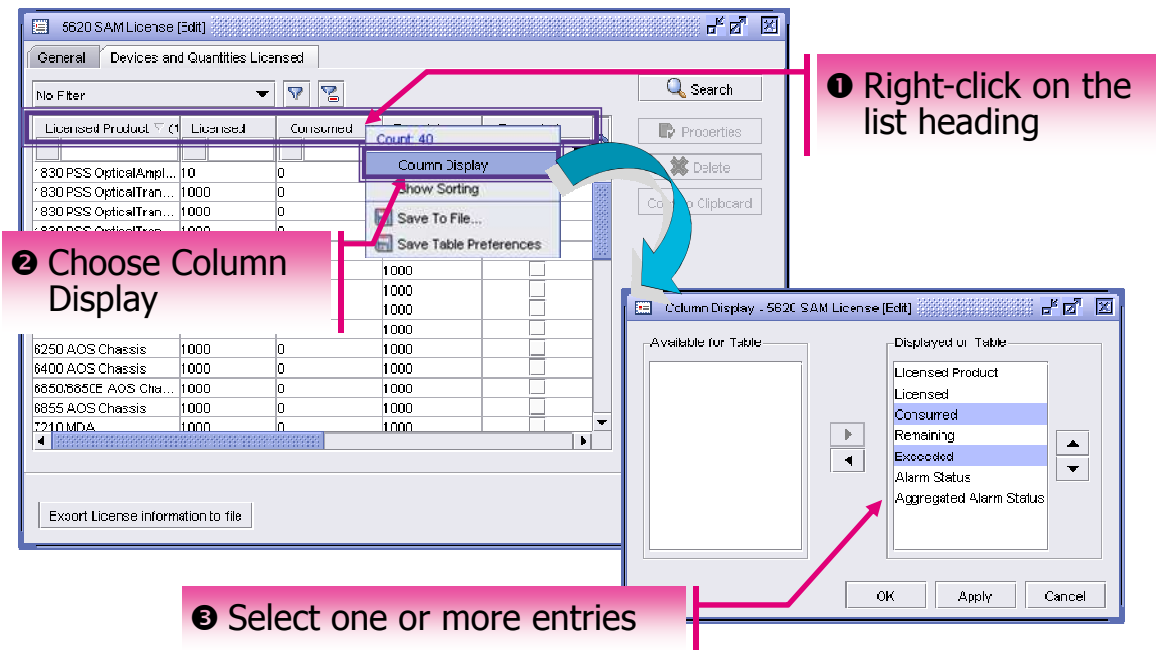
Please note that when a SAM window form opened using a window link identifier received on a text message contains configurable parameters and/or lists of elements, the SAM window will display only the configurable parameter values and list elements that have been committed to the SAM Server at the time of opening the window link.

Changes to configurable parameters and/or elements to a list are committed to the SAM Server either by clicking on the OK or Apply button on the SAM window form.

Most lists on SAM window forms can be refreshed by clicking on the Search button.

2 Managing Lists on 5620 SAM Windows and Forms Labs

2.1 Modify Columns Displayed in a List Form



Lab Exercise Objective:

In order for students to become familiar with the procedure to modify the columns that are displayed in a 5620 SAM list form, instructions in this lab exercise will guide students to hide, show and sort columns that are displayed in a list form.

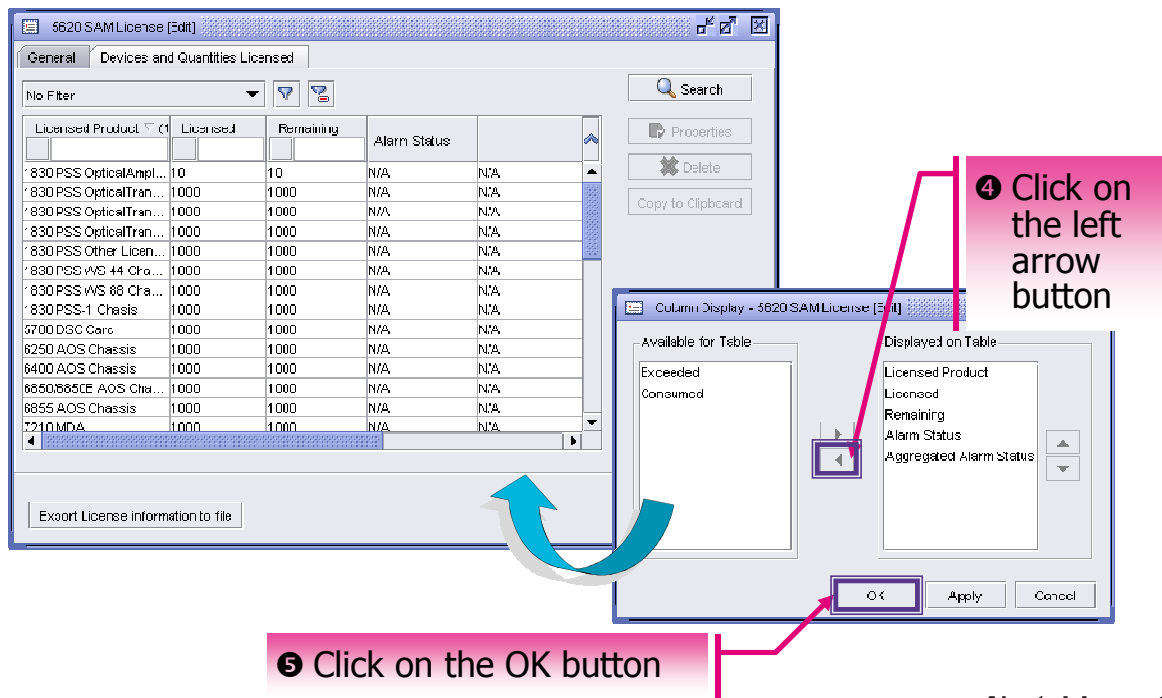
Instructions:

In order to exemplify the procedure, the following lines and the images above summarize the steps recommended to hide on the **5620 SAM license - Device and Quantities Licensed** list form the **Consumed** and **Exceeded** columns for this lab exercise.

To open the **5620 SAM license - Device and Quantities Licensed** list form, choose **Help → 5620 SAM License Information** form the 5620 SAM main menu. The **5620 SAM License (Edit)** form opens with the **General** tab displayed. Click on the **Devices and Quantities Licensed** tab button.

1. Right-click on the list heading to generate an inventory of data, a contextual inventory menu appears.
2. Choose **Column Display** from the contextual menu. The **Column Display** form opens with the names of all displayed columns in the **Displayed on Table** list.
3. Select one or more column name entries form the **Displayed on Table** list (to select multiple entries press and hold down the **Ctrl** key and click on the entries).

2.1 Modify Columns Displayed in a List Form [cont.]



2 • 4 • 14

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5620 SAM - R12.0 Fundamentals

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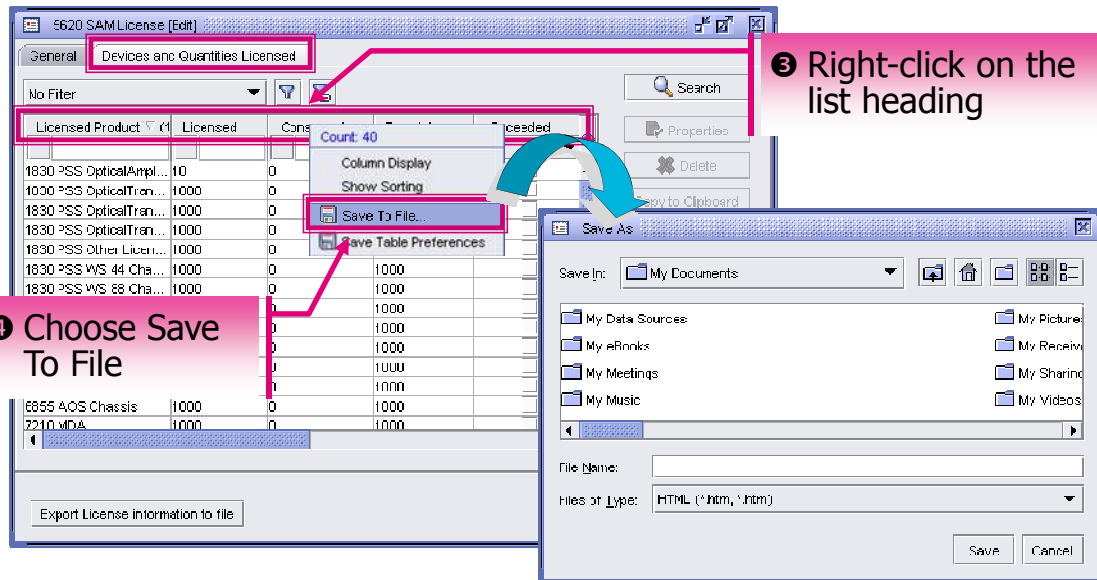
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4. Click on the **left arrow** button. The selected column names move to the **Available for Table** list panel. If required, reorganize the order in which columns appear in the list by selecting a column name from the **Displayed on Table** list and using the **up arrow** and **down arrow** buttons.
5. Click on the **OK** button. The **Column Display** form closes, and the list reappears with the modifications applied to the columns displayed in the list.

2.2 Generate an Inventory and Save to a File Listed Data

❶ Choose **Help** → **5620 SAM License Information**

❷ Click on the **Devices and Quantities Licensed** tab button



2 • 4 • 15

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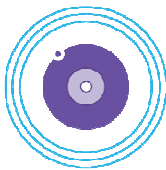
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Job aid Objective:

In order for students to become familiar with the procedure to generate an inventory and save to a file the data available on most 5620 SAM list forms, instructions in this lab exercise will guide students to generate an inventory of listed data and save listed information to a file

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to generate an inventory and save to a file the data available on a 5620 SAM list form:



Technical Reference

For more information on the steps to generate an inventory and save to a file listed data see Alcatel-Lucent 5620 SAM 10.0 R5 User Guide - 3.8 5620 SAM GUI search procedures - Procedure 3-37 To view and manage listed information and Procedure 3-38 To save listed information to a file.

The following lines and the images above summarize the steps recommended to generate an inventory and save to a file the data listed on the 5620 SAM licensed devices information form.

1. Choose **Help** → **5620 SAM License Information** form the 5620 SAM main menu. The **5620 SAM License (Edit)** form opens with the **General** tab displayed.
2. Click on the **Devices and Quantities Licensed** tab button.
3. Right-click on the list heading to generate an inventory of data, a contextual inventory menu appears. The **Count** indicates the number of objects in the list.
4. Choose **Save To File** from the contextual menu. The **Save As** form opens.

2.2 Generate an Inventory and Save to a File Listed Data [cont.]



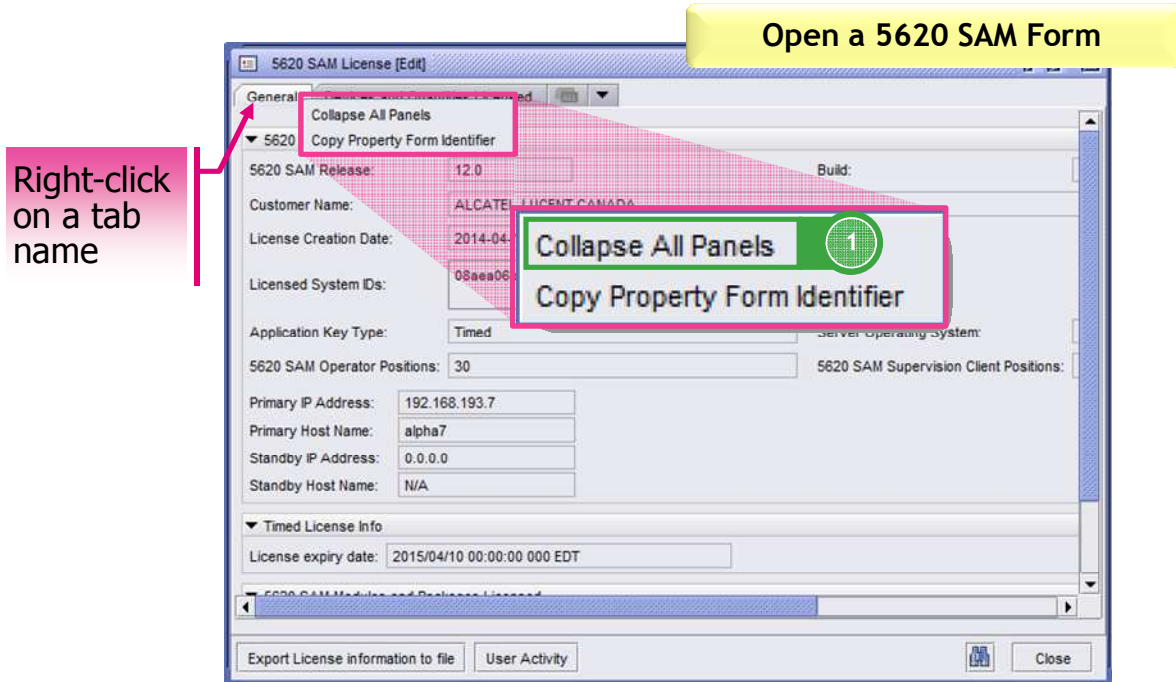
Note

*On the **Save As** form, the 5620 SAM uses the user home directory as the default location for saved files.*

5. Use the **Save As** form to specify the name and location of the file that is to contain the listed information. The information can be saved in the following formats:
 - plain text
 - HTML
 - CSV
6. Click on the **Save** button. The information is saved as specified and the **Save as** form closes.

3 Manage Collapsible Panels State on Windows and Forms Labs

3.1 Collapse All Collapsible Panels



2 • 4 • 18

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Lab Exercise Objective:

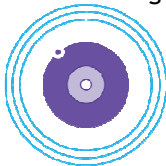
In order for students to become familiar with the procedure manage the state (collapsed or expanded) of collapsible panels of a form when it opens, instructions in this lab exercise will guide students collapse all panels on a form and close the form, collapsible panels state will be saved.

Instructor Preparation:

In preparation for this lab exercise identify a GUI window for which collapsible panel state will be changed. Ensure each student is logged in using an unique SAM user, as preferences for collapsible panels will be saved on a per user basis.

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to perform a search on a list form using the column headings:



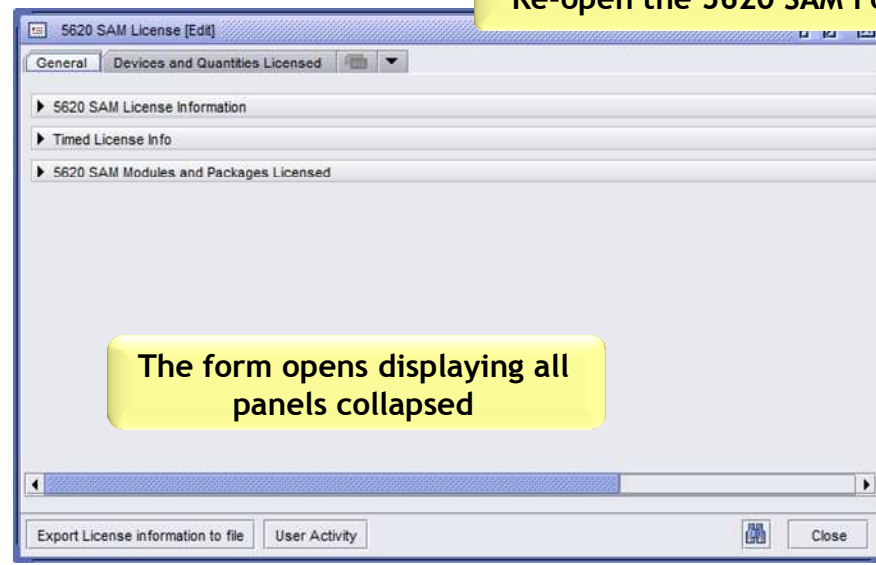
Technical Reference

For more information on the use of collapsible panels see *Alcatel-Lucent 5620 SAM 12.0 R3 User Guide - 4.1 5620 SAM GUI overview*.

The following lines and the images above summarize the steps recommended to collapse all panels in the 5620 SAM License Information form.

1. Open a 5620 SAM form.
For this lab exercise example to open the 5620 SAM License information form, choose **Help** → **5620 SAM License Information** form the 5620 SAM main menu. The **5620 SAM License (Edit)** form opens with the **General** tab displayed.
Right-click on a tab name and choose the **Collapse All Panels** function. All panels in the form are collapsed.

3.1 Collapse All Collapsible Panels [cont.]



2 • 4 • 19

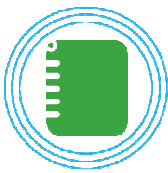
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2. Close the 5620 SAM form. The current state of all collapsible panels in the form is saved for this form. For this lab exercise example to close the 5620 SAM License information form.
3. Re-open the form. Note that the last saved state of all collapsible panels is displayed.

The user may choose to leave selected collapsible panels opened and other panels collapsed. The collapsible panels state for this form is saved when the form is closed.

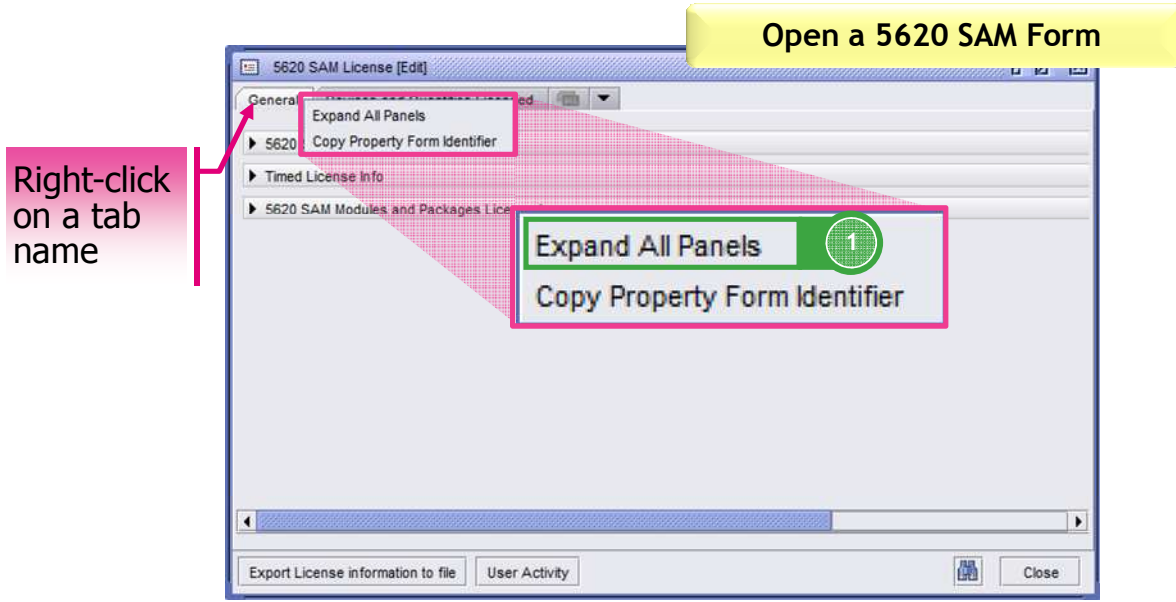


Note

The collapse panel functions are only available on form tabs containing at least one collapsible panel.

The **Collapse All Panels** function is not displayed, when all panels in the form are already collapsed.

3.2 Expand All Collapsible Panels



2 • 4 • 20

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Lab Exercise Objective:

In order for students to become familiar with the procedure manage the state (collapsed or expanded) of collapsible panels of a form when it opens, instructions in this lab exercise will guide students expand all panels on a form and close the form, collapsible panels state will be saved.

Instructor Preparation:

In preparation for this lab exercise identify a GUI window for which collapsible panel state will be changed. Ensure each student is logged in using an unique SAM user, as preferences for collapsible panels will be saved on a per user basis.

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to perform a search on a list form using the column headings:

The following lines and the images above summarize the steps recommended to expand all panels in the 5620 SAM License Information form.

1. Open a 5620 SAM form.

For this lab exercise example to open the 5620 SAM License information form used in the previous lab exercise, or a form for which different panels states (some collapsed and some expanded) has been previously saved.

Right-click on a tab name and choose the **Expand All Panels** function. All panels in the form are expanded.

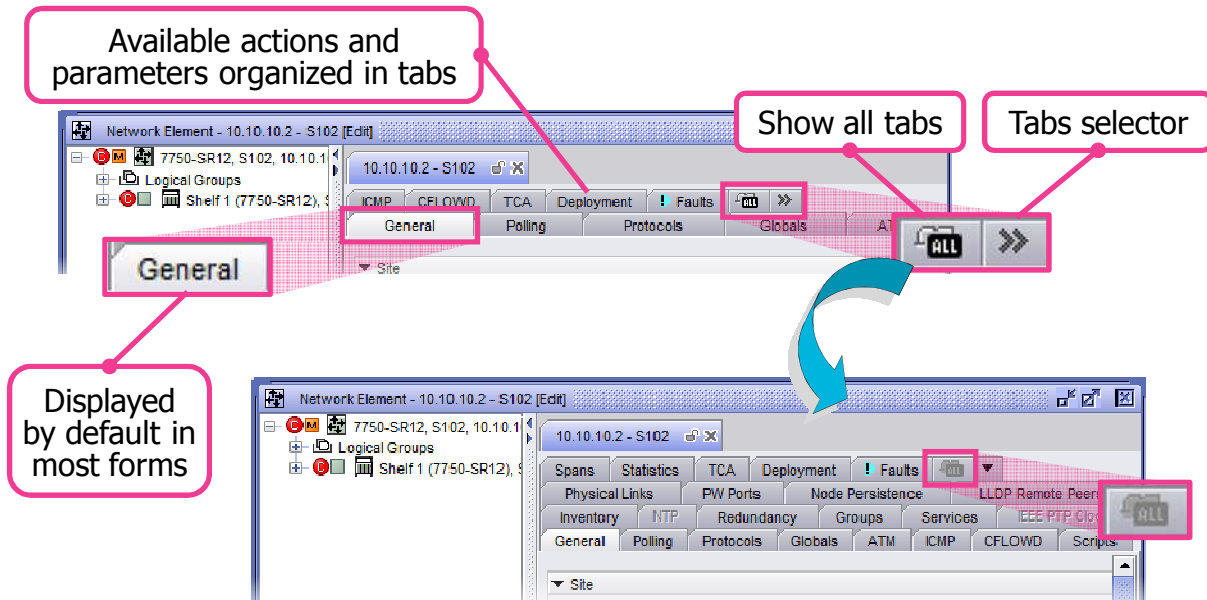


Note

In order for the **Expand All Panels** function to be available, at least one panel on the form must be collapsed.

4 Manage Tabs on 5620 SAM Forms

4.1 Tabs on 5620 SAM Forms Overview



Tabs displayed using the Show All Tabs button are hidden again when form reopens

2 • 4 • 22

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In properties forms, configuration forms and other windows and forms in the SAM GUI, all possible actions and parameters available using the form are organized in different tabs. As a result, some forms may contain multiple tabs depending on the complexity of the object the form represents.

In most multiple tab forms, the General tab is displayed by default.

In order to simplify the 5620 SAM GUI view, some forms open by default with hidden tabs. Operators can display selected hidden tabs or all tabs while the form is open by clicking on the tab selector or the **Show All Tabs** button.

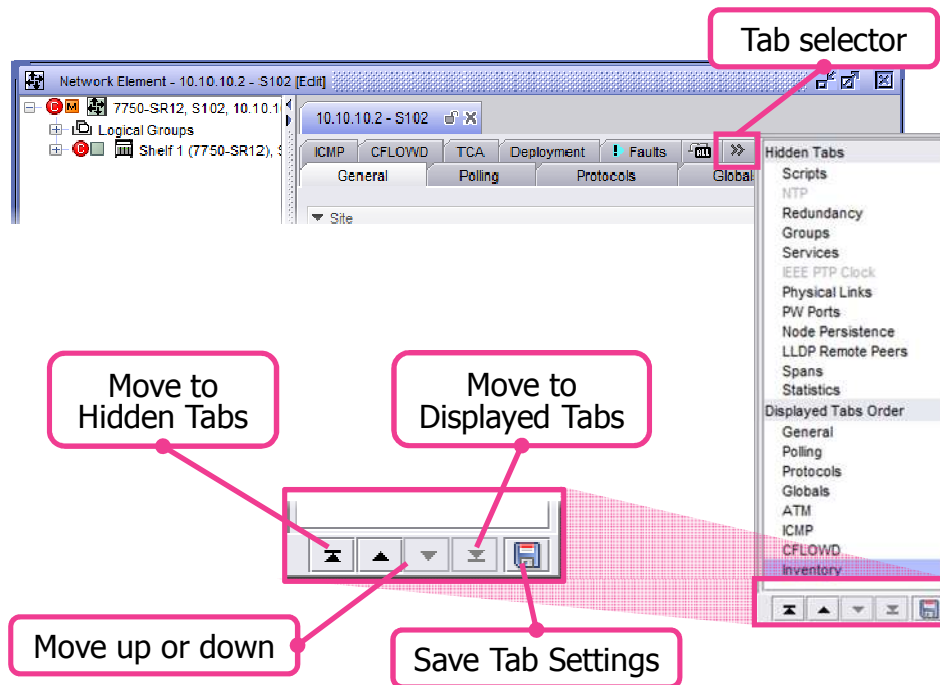
To temporarily display all hidden tabs, click on the **Show All Tabs** button on the right side of the form. The form displays all available tabs. In this case, as well as in cases where there are no available tabs hidden in the form, the Show All Tabs button is disabled.



Note

Tabs that are displayed this way are hidden again when the form is closed and reopened.

4.2 Custom Tab Display



2 • 4 • 23

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Using the Tab selector button, operators can customize the display of tabs on configuration forms, and save the tab display preferences.

Each 5620 SAM operator can display, hide, or arrange the sequence of tabs on a configuration form to customize which tabs are visible for a specific object type according to their operational requirements.

Custom settings for tabs on configuration forms are saved as user preferences. These preferences are not affected by a change of workspaces.

Note

A system administrator can configure the default behavior for custom tab configuration from the System Preferences form. See the 5620 SAM System Administrator Guide for more details.



End of module
SAM GUI Client Windows and Forms Components and Management Lab

2 · 4 · 24

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Section 2 System Overview

Module 5 Finding Information in SAM GUI Client Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 2.5 Edition 1

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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Document History			
Edition	Date	Author	Remarks
1.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this lab module, you should be able to:

- Perform a search on a 5620 SAM list form using column headings
- Save filters for future use on a list form
- Find attributes in a configuration form

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	Page
1 Finding Information in Windows and Forms Labs	7
1.1 Perform a List Search Using Column Headings	8
1.2 Save Filters for Future Use on a List Form	10
1.3 Locating Attributes on Configuration Forms	12

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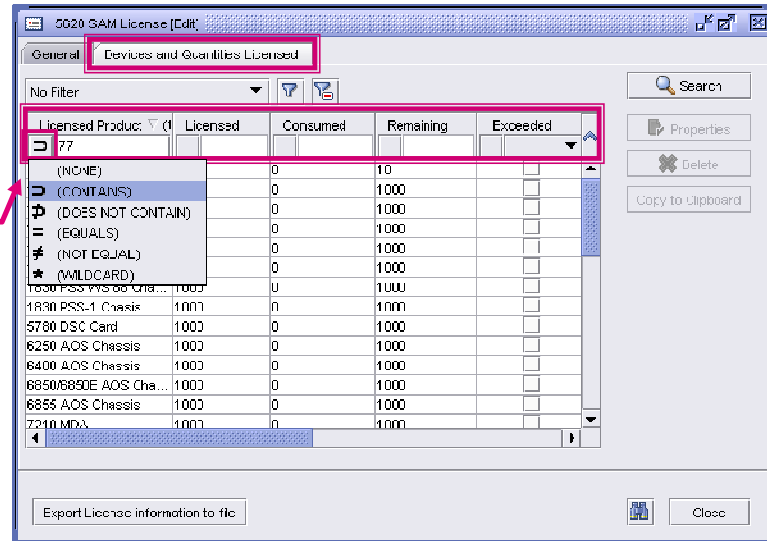
1 Finding Information in Windows and Forms Labs

1.1 Perform a List Search Using Column Headings

❶ Choose Help → 5620 SAM License Information

❷ Click on the Devices and Quantities Licensed tab button

❸ Use the filter area of any column heading to configure the filter criteria



2 • 5 • 8

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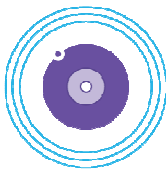
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Lab Exercise Objective:

In order for students to become familiar with the procedure to search for data on 5620 SAM list forms, instructions in this lab exercise will guide students to perform a search on a 5620 SAM list form using column headings.

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to perform a search on a list form using the column headings:



Technical Reference

For more information on the steps to view the 5620 SAM License Information see *Alcatel-Lucent 5620 SAM 10.0 R5 User Guide - 3.8 5620 SAM GUI search procedures - Procedure 3.30 To perform a simple search using column headings.*

The following lines and the images above summarize the steps recommended to perform a search for 7705, 7750 and 7710 licensed devices data from the 5620 SAM License Information.

1. Choose **Help** → **5620 SAM License Information** form the 5620 SAM main menu. The **5620 SAM License (Edit)** form opens with the **General** tab displayed.
2. Click on the **Devices and Quantities Licensed** tab button.
3. Configure the filter criteria using the filter area of any column heading. If required, specify an operation from an operation drop-down menu.

1.1 Perform a List Search Using Column Headings [cont.]

2 · 5 · 9

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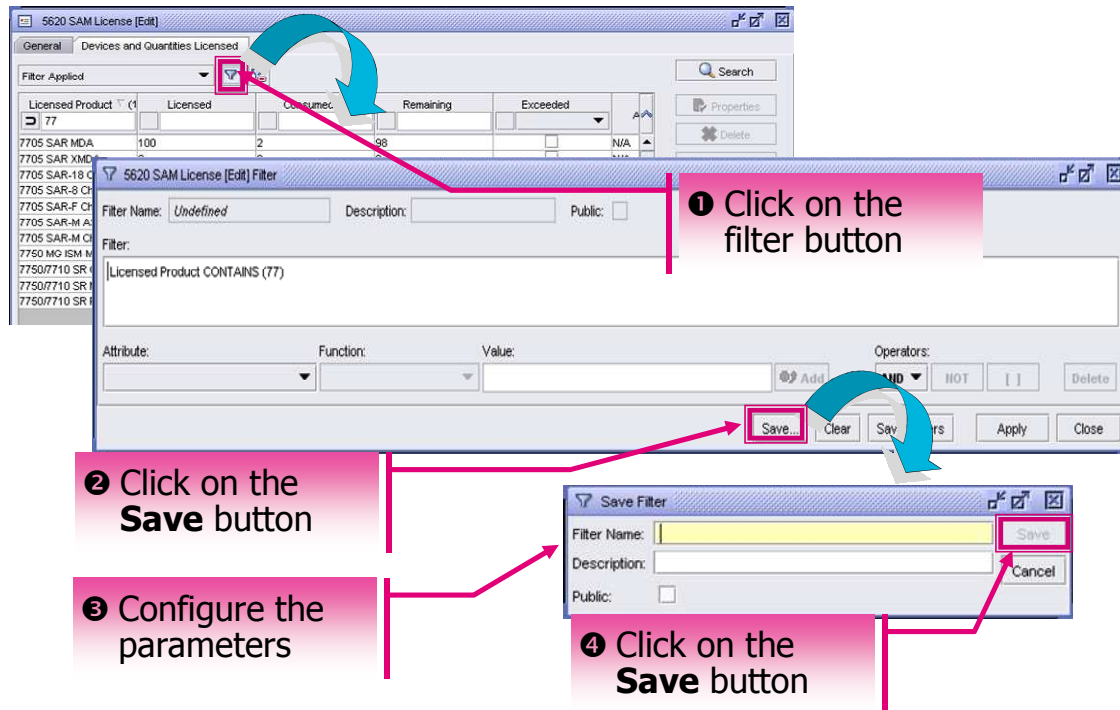


Notes for the use of search operators

- Entering a value into a filter area of a column heading without specifying an operation from an operation drop-down menu causes a default operation to be automatically selected.
- Selecting NONE in an operation drop-down menu clears the filter area of the associated column heading.
- Clicking on the Toggle Quick Filter button toggles the visibility of the filter areas on or off.
- The filter areas of the column headings are disabled if a filter was applied using the filter window, if the filter window is open, or if a saved filter was loaded using the saved filter drop-down list.

4. Click on the **Search** button. The results list is displayed based on the filter.
5. To refresh the search results using the currently defined filter, click on the **Search** button. If applied, the current filter is used even when the filter areas are hidden or closed.
6. Close the List Form.

1.2 Save Filters for Future Use on a List Form



2 · 5 · 10

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Lab Exercise Objective:

In order to save a filter criteria for future use on a list form, over the course of this lab exercise students will save a list form filter.

Instructor Preparation:

In preparation for this lab exercise identify a list form for which a filter will be saved, and the filter criteria to be used.

Instructions:

The following lines and the images above summarize the steps recommended to save a filter for future use on a list form.

1. Click on the **filter** button : the edit filter form opens. Define the filter properties as described in the procedure (previous page)
2. Click on the **Save...** button. The Save Filter form opens.
3. Configure the parameters:
 - **Filter Name**
 - **Description**
 - **Public**, enabling the Public parameter makes the saved filter visible to all users accessing the list on the SAM server

1.2 Save Filters for Future Use on a List Form [cont.]

4. Click on the **Save** button. The Save Filter form closes. The defined filter is saved for a future search on a similar object type and the configured parameters are populated in the filter window.
 5. Click on the **Apply** button or the OK button to use the filter. The results list is displayed based on the filter.
 6. If the filter window is open, click on the **Close** button. The filter window closes.
- Close** the List Form.

1.3 Locating Attributes on Configuration Forms

1 Select a port in the list and right click to open the contextual menu

2 Choose properties in the list

Find attribute function helps locating specific attributes on a configuration form

2 • 5 • 12

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Lab Exercise Objective:

In order to identify the location of an attribute within a configuration form, instructions in this lab exercise will guide students to use the Find button located in the bottom right of a configuration form to open the tab where the attribute resides appears and highlight the attribute name.

Instructor Preparation:

Provide students with instructions on a configuration form in which an attribute should be found in this lab.

Instructions:

Follow your instructor's directions to find an attribute on a configuration form.

In order to exemplify the procedure, the following lines and the figures above summarize the steps recommended to find the MTU attribute in a Physical Port properties form for this lab exercise.

1. Select a port from **Equipment** view in the navigation tree. Right-click to open the port's contextual menu.
2. Choose **Properties** from the port's contextual menu. The **Physical Port properties** form opens with the **General** tab displayed.

1.3 Locating Attributes on Configuration Forms [cont.]

4 Configure the filter criteria and click on the Search button

3 Click on the Find button

Attribute Title	Displayed On	Location
MTU	Tab	
802.1x Port	Tab	
802.1x Port Authenticator	Tab	
802.3ah	Tab	> Ethernet
Access Egress Queue Group	Tab	> Ethernet
Access Ingress Queue Group	Tab	> Ethernet
Actual Speed (kbps)	Label	> General
Administrative State	Label	> States
Administrative State Label	Label	> Ethernet > 802.3ah

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- Click on the **Find** button located in the bottom right of the configuration form, or press CTRL+F. The Find Attribute in list form opens and displays the attributes on the configuration form.
- Configure the filter criteria and click on the **Search** button. A list of attributes is displayed. For this lab exercise example, enter “MTU” on the Attribute Title column filter, and click on the **Search** button

1.3 Locating Attributes on Configuration Forms [cont.]

⑥ The parameter in the corresponding tab is highlighted

⑤ Choose an attribute and click on the Show on Form button

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5. Choose an attribute from the list and click on the Show on Form button.
Alternatively, double-click on the attribute row, or select an entry in the list and press Enter.
6. On the configuration form, the selected name of the tab, panel, or field is highlighted and the associated tab is displayed.



End of module Finding Information in SAM GUI Client Lab

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Section 2
System Overview

Module 6 SAM GUI Client Workspaces Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 2.6 Edition 2

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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Document History			
Edition	Date	Author	Remarks
1.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)
2.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this lab module, you should be able to:

- Customize the menus, toolbars, tree labels, topology icon labels and window layout selections on the 5620 SAM GUI by creating and customizing workspaces
- Allow the selection of a preconfigured workspace by adding a workspace to the workspace selector and changing the current workspace
- Set the workspace that appears by default each time the 5620 SAM client opens

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	Page
1 Create and Customize a Workspace	7
1.1 Create a Workspace	8
1.2 Customize a Workspace	12
2 Change the Current Workspace	15
2.1 Add Workspace to Workspace Selector	16
2.2 Change the Current Workspace	18
2.3 Set the Default Workspace	20

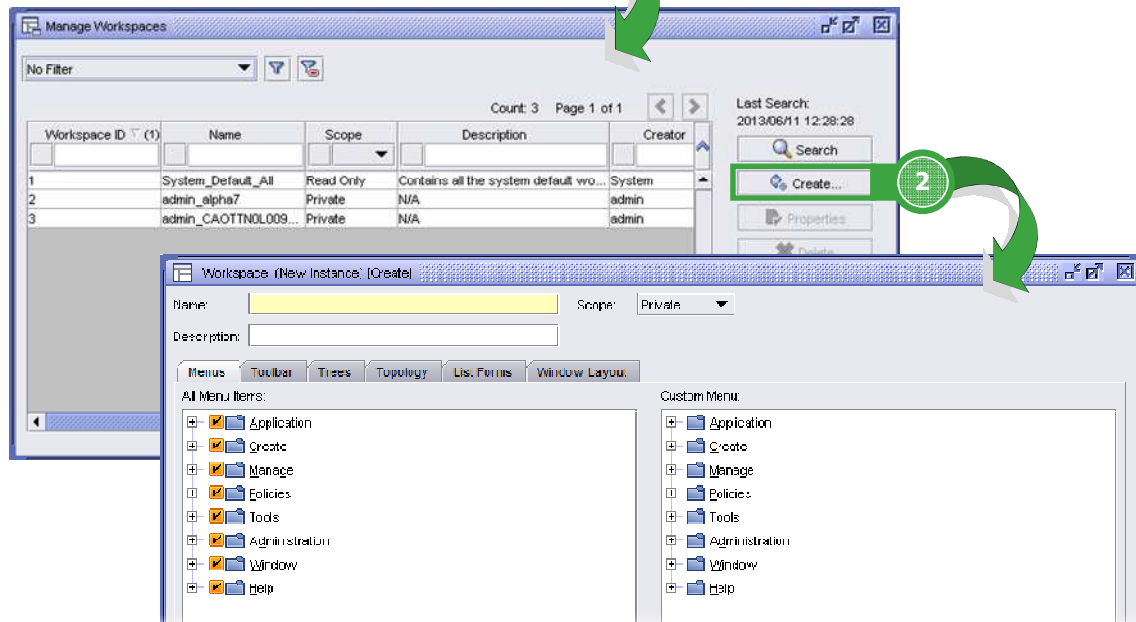
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1 Create and Customize a Workspace

1.1 Create a Workspace



Application → Manage Workspaces



2 • 6 • 8

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Lab Exercise Objective:

In order to customize menus, toolbars, tree labels, topology icon labels, list and window layout selections on the 5620 SAM GUI, over the course of this lab exercise students will create a SAM GUI Workspace.



Note

The creation of Public SAM GUI Workspaces is not typically a SAM Operator task, but rather a SAM System Administrator task. However, all SAM users have the ability to create, edit, and delete private workspaces. Therefore this lab exercise has been included in this SAM Fundamentals course to provide a broader picture of the workspace customization capabilities through the creation of a customized workspace for this training. In addition with the required scope of command users can create public workspaces. Should workspaces have been pre-provisioned in advance for this course, you instructor may demo the process and/or ask you to skip this lab exercise.

Instructor preparation:

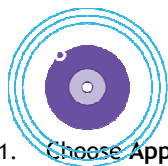
Provide each student with instructions for the menu bar, toolbar, tree labels, topology icon labels and window layout preferences that will be customized on the workspace created for this lab exercise.

Instructions:

Follow your instructor's directions to create a workspace. The following lines and the figures above summarize the steps recommended to create a workspace for this lab:

Technical Reference

For more information on the steps to create and customize a workspace see Alcatel-Lucent 5620 SAM, Release 12.0 User Guide - 5620 SAM GUI workspace customization procedures.

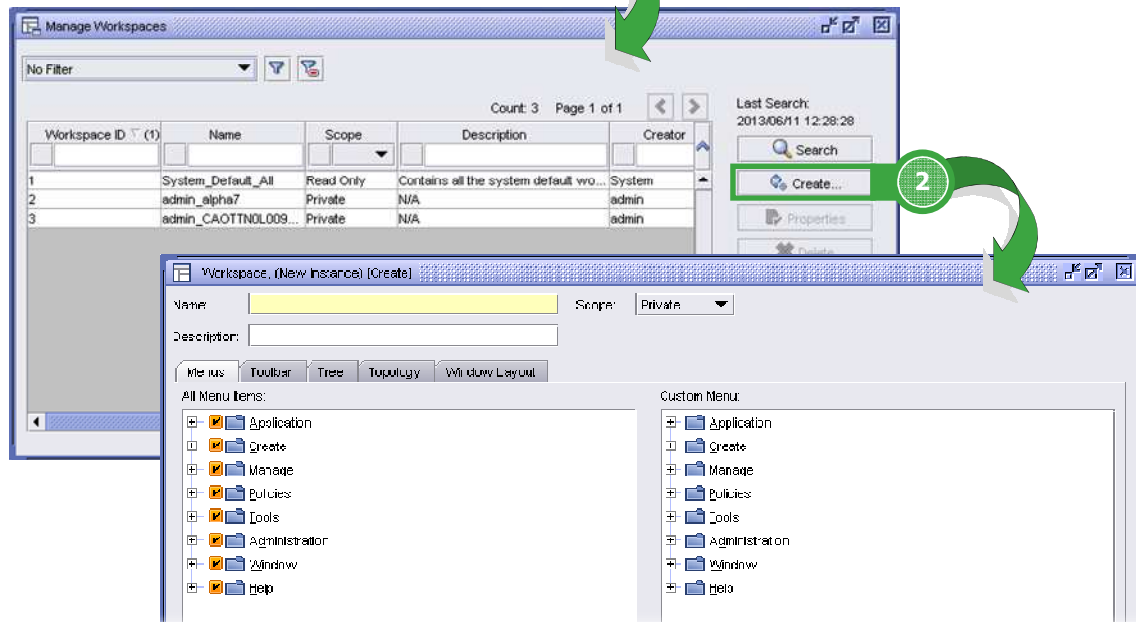


1. Choose **Application → Manage Workspaces** from the 5620 SAM main menu. The **Manage Workspaces** form opens.
2. Click on the **Create** button to create a workspace. The **Workspace (New Instance) (Create)** form opens with the **Menus** tab displayed.

1.1 Create a Workspace



Application → Manage Workspaces



2 • 6 • 9

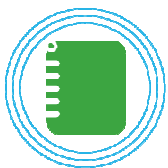
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Lab Exercise Objective:

In order to customize menus, toolbars, tree labels, topology icon labels, list and window layout selections on the 5620 SAM GUI, over the course of this lab exercise students will create a SAM GUI Workspace.



Note

The creation of Public SAM GUI Workspaces is not typically a SAM Operator task, but rather a SAM System Administrator task. However, all SAM users have the ability to create, edit, and delete private workspaces. Therefore this lab exercise has been included in this SAM Fundamentals course to provide a broader picture of the workspace customization capabilities through the creation of a customized workspace for this training. In addition with the required scope of command users can create public workspaces. Should workspaces have been pre-provisioned in advance for this course, you instructor may demo the process and/or ask you to skip this lab exercise.

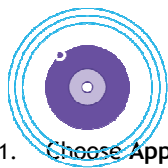
Instructor preparation:

Provide each student with instructions for the menu bar, toolbar, tree labels, topology icon labels and window layout preferences that will be customized on the workspace created for this lab exercise.

Instructions:

Follow your instructor's directions to create a workspace. The following lines and the figures above summarize the steps recommended to create a workspace for this lab:

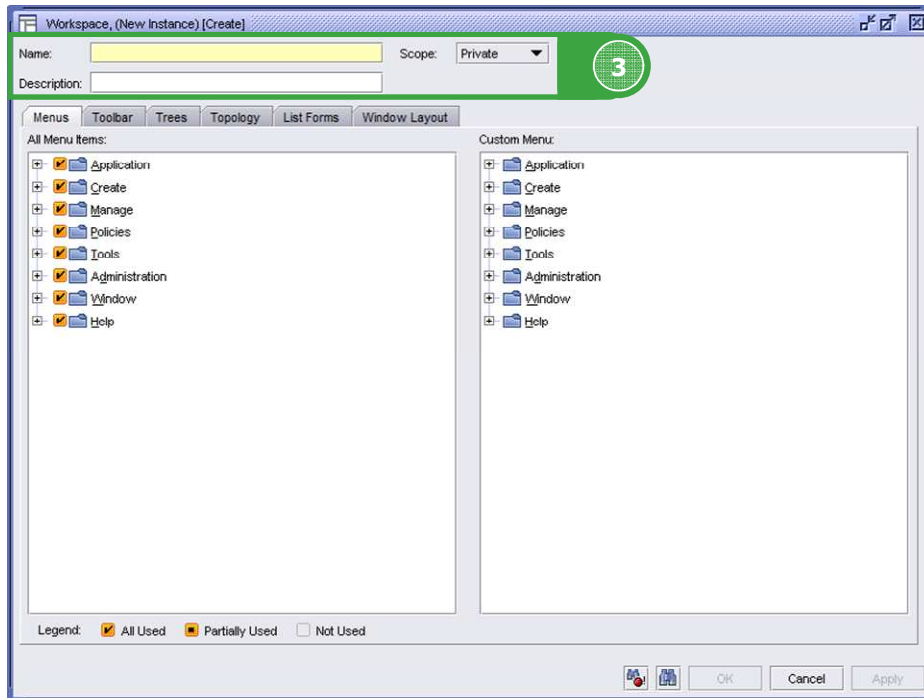
Technical Reference



For more information on the steps to create and customize a workspace see Alcatel-Lucent 5620 SAM, Release 12.0 User Guide - 5620 SAM GUI workspace customization procedures.

1. Choose **Application → Manage Workspaces** from the 5620 SAM main menu. The **Manage Workspaces** form opens.
2. Click on the **Create** button to create a workspace. The **Workspace (New Instance) (Create)** form opens with the **Menus** tab displayed.

1.1 Create a Workspace [Cont.]



2 • 6 • 10

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3. Following your instructor's directions configure the parameters:

- **Name** specifies a user defined name for the workspace with a range of 1 to 80 characters.
- **Description** specifies the description of the customized workspace with a range of 1 to 80 characters.
- **Scope** indicates the ownership of the customized form. The options are:
 - **Private**
 - **Public**

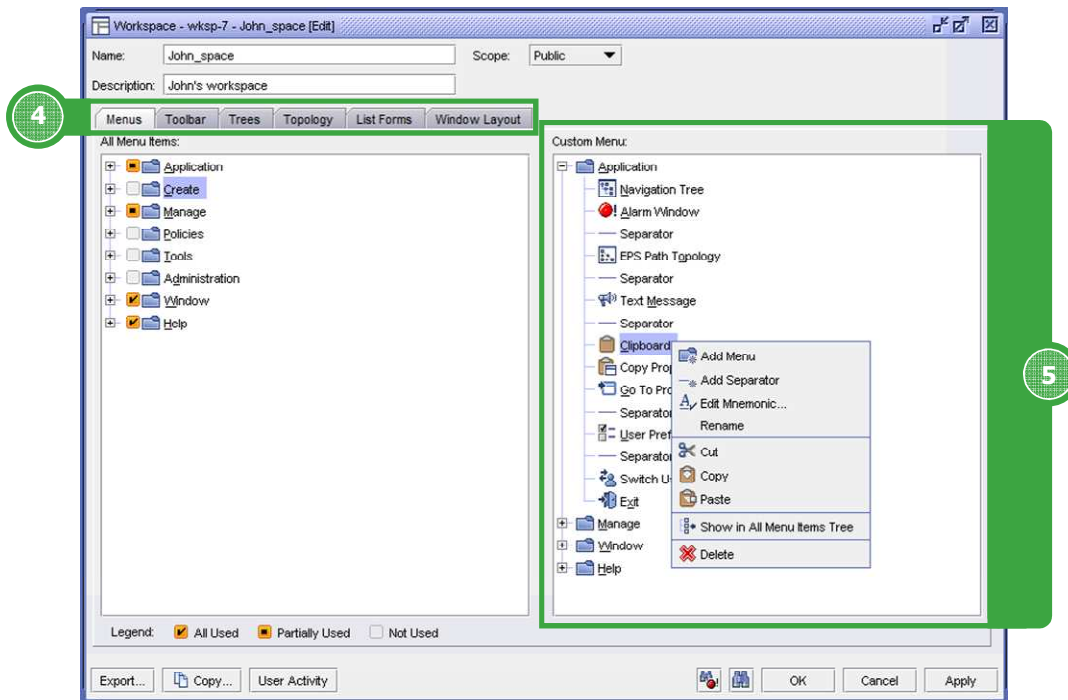
The private workspace is visible only to users that have created the workspace.



Note

Based on the SAM user's assigned scope of command role and permissions, an operator can configure the Scope. Otherwise, Private will be set by default and cannot be modified.

1.1 Create a Workspace [Cont.]



2 • 6 • 11

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4. Click on the **Menus**, **Toolbar**, **Tree**, **Topology**, and/or **Window Layout**, to customize the workspace that is being created.
5. Follow your instructor's directions to customize the parameters specific to the selected tab.



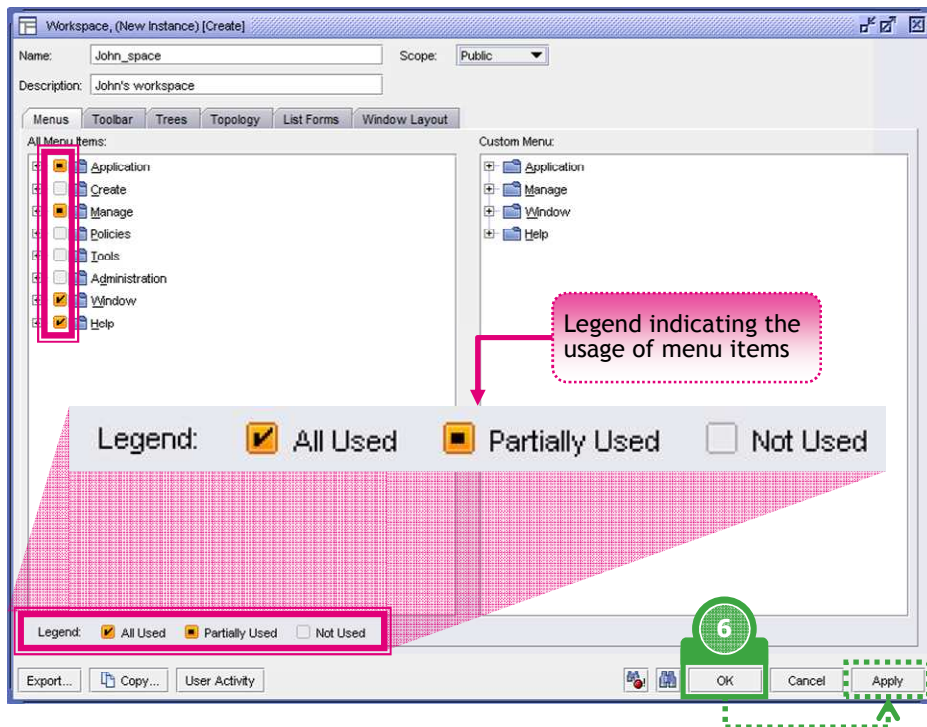
Technical Reference

For more information on the steps to customize the menu bar, toolbar, tree labels, topology icon labels, and window layout, of a workspace see Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI workspace customization procedures

For this lab exercise example, the images above and the following step describe the customization of the **Menu** for the creation of a customized workspace. The **All Menu Items** panel displays the default menu items and the **Custom Menu** panel displays the selected menu items. Follow your instructor's directions to customize the **Menu** for the workspace that is being created, perform one of the following actions:

- a. To remove a menu or menu item from the workspace, select a menu or menu item on the **Custom Menu** panel and right-click on a and choose an **Delete** from the contextual menu.
- b. To add a menu or menu item to the workspace:
 - i. Drag and drop the menu or menu item from the **All Menu Items** panel into the **Custom Menu** panel, or
 - ii. Select a menu or menu item on the **All Menu Items** panel and press **CTRL+C**, or right-click and choose an **Copy** from the contextual menu. Select the location where the menu or menu item will be added on the **Custom Menu** panel and press **CTRL+V**, or right-click and choose an **Paste** from the contextual menu. (Note that menu items can only be pasted in an existing menu, and not as menus itself)
- c. To rename a menu or menu item in the workspace, in the **Custom Menu** panel right-click on a menu or menu item and choose **Rename** from the contextual. Type a name for the menu or menu item and press Enter.

1.1 Create a Workspace [Cont.]



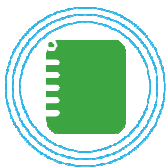
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- d. To add a menu to the workspace, in the **Custom Menu** panel, if required, expand the menus up to the menu or menu item where the menu will be added. Right-click on the empty space or on the menu or menu item and choose **Add Menu**. The menu is added under the selected menu item or as the last element inside the selected menu. Type a name for the menu and press Enter.
- e. To customize a mnemonic for the workspace, in the **Custom Menu** panel right-click on the menu or menu item in the Custom Menu panel and select **Edit Mnemonic**.



Note 1

The Legend at the bottom of the **Menus** tab indicates the usage of menu items from the **All Menu Items** panel in the **Custom Menu** panel, as shown in the image above.

Note 2

When customizing the **Menu** of a workspace, the following items must be included in the menu bar:

- **Application**→**User Preferences**
- **Application**→**Manage Workspaces**

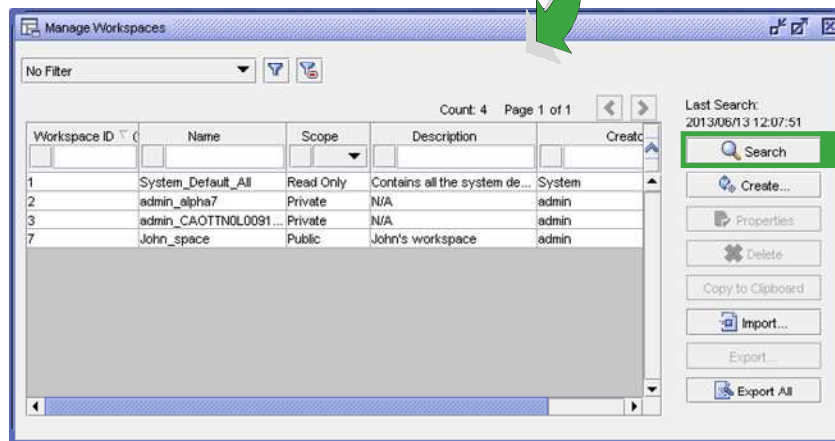
If any of these menu items were deleted from the Menu, an error message will appear when trying to save the changes indicating the missing menu item. Changes to the workspace will not be saved until the identified missing mandatory menu item or items are added to the Custom Menu panel.

6. Follow your instructor's directions to customize other elements (such as toolbars, tree labels, topology icon labels and window layout selections) for this lab. Click on the **OK** or **Apply** button. A dialog box appears. Click on the **Yes** button to save the changes and close the dialog box. The **Workspace (New Instance) (Create)** form closes.
7. Click on the **Search** button on the **Manage Workspaces** form to refresh the workspaces list. Confirm the newly created workspace appears on the list.

1.2 Customize a Workspace



Application→Manage Workspaces



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Lab Exercise Objective:

In order to modify the customization of menus, toolbars, tree labels, topology icon labels and window layout selections on the 5620 SAM GUI, over the course of this lab exercise students will customize a SAM GUI Workspace.



Note

The SAM GUI Workspace customization is not typically a SAM Operator task, but rather a SAM System Administrator task. This lab exercise has been included in this SAM Fundamentals course to provide a broader picture of the workspace customization capabilities through the customization of an existing workspace for this training. Should workspaces have been pre-provisioned in advance for this course, you instructor may demo the process and/or ask you to skip this lab exercise.

Instructor preparation:

Provide each student with instructions for the modifications to the customized menu bar, toolbar, tree labels, topology icon labels and window layout preferences that will be applied to an existing workspace.

Instructions:

Follow your instructor's directions to customize a workspace. The following lines and the figures above summarize the steps recommended to customize the window layout of a simple workspace for this lab:

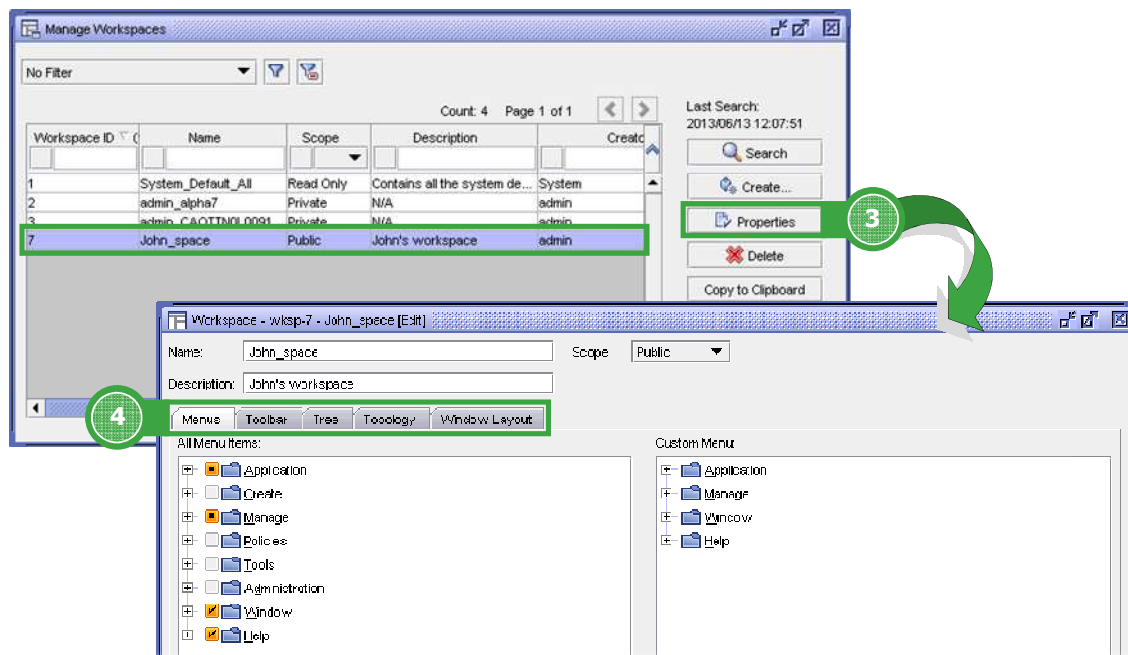


Technical Reference

For more information on the steps to create and customize a workspace see Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI workspace customization procedures.

1. Choose **Application→Manage Workspaces** from the 5620 SAM main menu. The **Manage Workspaces** form opens.
2. Click on the **Search** button to update the workspace list.

1.2 Customize a Workspace [Cont.]



2 • 6 • 14

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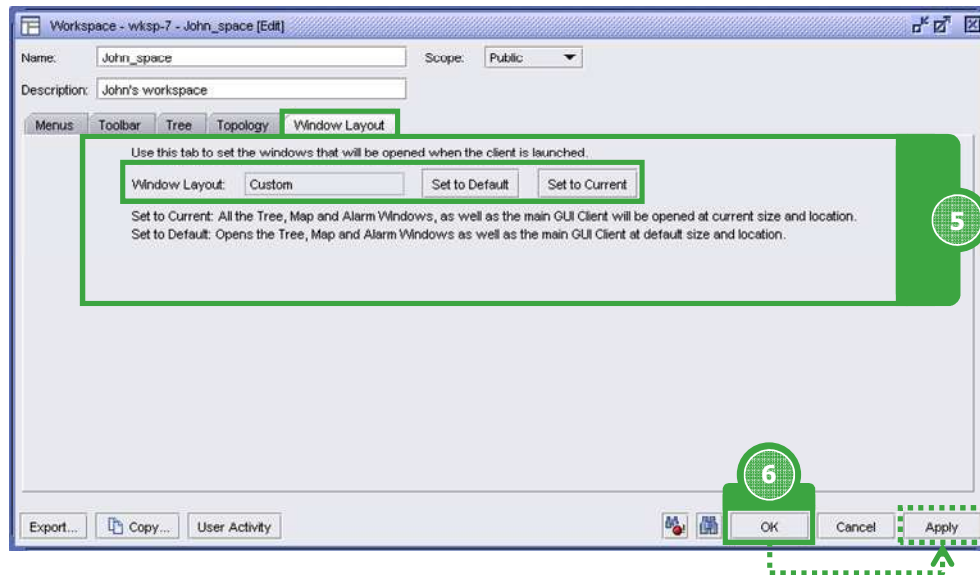
3. Select a workspace from the list, and click on the **Properties** button. The **Workspace (Name) [Edit]** form opens with the **Menus** tab displayed.
4. Click on the **Menus**, **Toolbar**, **Tree**, **Topology**, and/or **Window Layout**, to customize the workspace.



Technical Reference

For more information on the steps to customize the menu bar, toolbar, tree labels, topology icon labels, and window layout, of a workspace see Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI workspace customization procedures

1.2 Customize a Workspace [Cont.]



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5. Follow your instructor's directions to customize the parameters specific to the selected tab. For this lab exercise example, the images above and the following steps describe the customization of the window layout of an existing workspace.
 - a. Click on the **Window Layout** tab.
 - b. Follow your instructor's directions to modify the size and location of the Tree, Map, and Alarm window in the GUI Client.
 - c. Set the **Window Layout** to **Set to Current (Custom)** in order for all the currently opened Tree, Map, Alarm window in the main GUI client will open at their current size and location



Note

*By setting the Window Layout to **Set to Default (Default)**, the Tree, Map, Alarm window in the main GUI client will open at the default size and location.*

6. Click on the **OK** button. A dialog box appears. Click on the **Yes** button to save the changes and close the dialog box. The **Workspace (Name) [Edit]** form closes.
7. Close the **Manage Workspaces** form.

2 Change the Current Workspace

2.1 Add Workspace to Workspace Selector



Application→User Preferences



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Lab Exercise Objective:

In order to allow users the selection of a preconfigured workspace to change the current workspace, over the course of this lab exercise students will add a workspace to the workspace selector.

Instructor preparation:

In preparation for this lab, ensure at least one customized workspace has been configured and is available for all SAM users (configured as public).

It is recommended that individual SAM users have been created for each student, as there is a limitation of maximum eight workspaces that can be added to the workspace selector per user. For the execution of this lab exercise the instructor may ask each student to log in using their own SAM user.

In order to allow the successful addition of workspaces in this lab, ensure the parameter **Allow Mandatory Workspaces Only** is disabled in the user group's preferences to which the SAM user belongs to.

Provide each student with instructions on the workspace to be added to the workspace selector for the user currently logged in for this lab exercise.

Instructions:

Follow your instructor's directions to add a workspace to the workspace selector. The following lines and the figures above summarize the steps recommended to add a public workspace to the workspace selector for this lab:

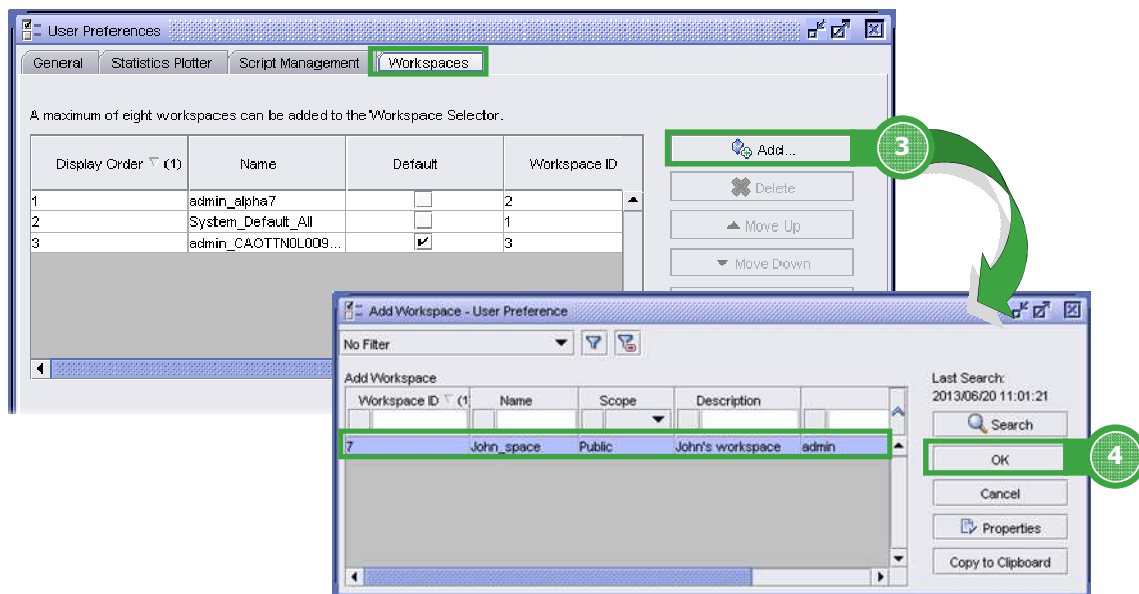


Technical Reference

For more information on the steps to create and customize a workspace see Alcatel-Lucent 5620 SAM, Release 12.0 User Guide -5620 SAM GUI workspace customization procedures.

1. Choose **Application→User Preferences** from the 5620 SAM main menu. The User Preferences form opens with the **General** tab displayed.
2. Click on the **Workspaces** tab.

2.1 Add Workspace to Workspace Selector [Cont.]



2 • 6 • 18

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3. Click on the **Add** button. The **Add Workspace - User Preference** form opens.



Note

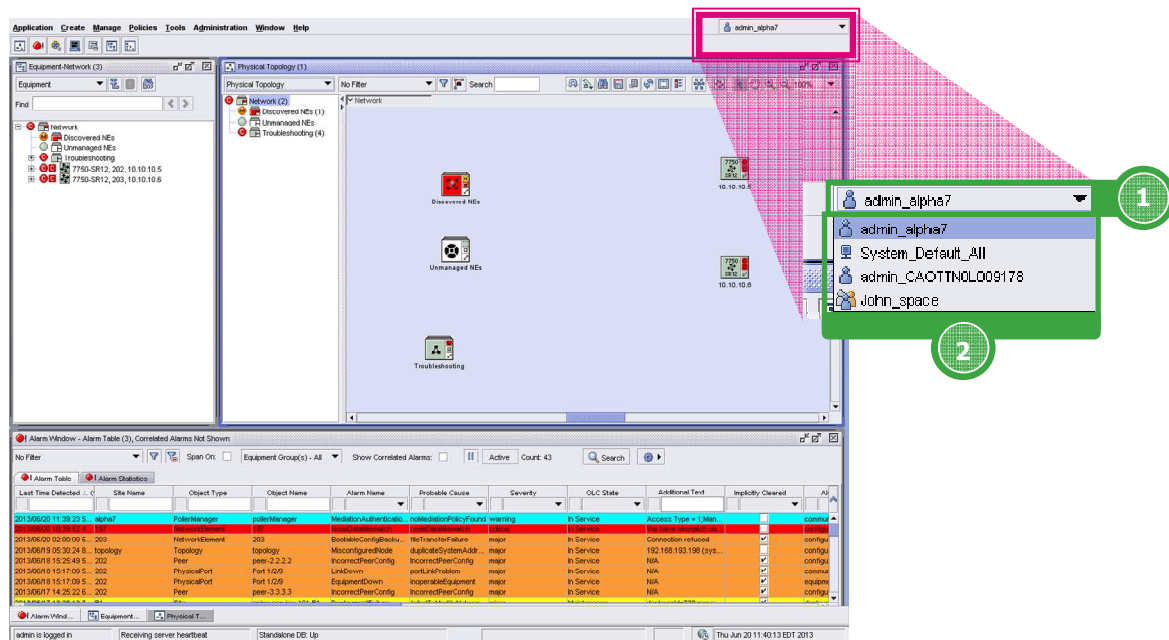
The **Add** button is disabled and the user cannot change the list of workspaces on their **User Preferences** form if the **Allow Mandatory Workspaces Only** is enabled (checkbox selected) during user group configuration for the group the user currently logged in belongs to.

Note 2

Up to a maximum of eight workspaces can be added.

4. Choose a workspace from the list. Click on the **OK** button. The **Add Workspace** form closes and the workspace is displayed in the list in the **Workspaces** tab of the **User Preferences** form.
5. To change the sequence of the workspaces that appear in the workspace drop-down selector, select a workspace and click on the **Move Up** or **Move Down** buttons.
6. Click on the **OK** button. A dialog box appears. Click on the **Yes** button to save the changes and close the dialog box. The **User Preferences** form closes.
7. Verify that the newly added workspace is displayed in the workspace selector drop-down in the top right corner of the menu bar.

2.2 Change the Current Workspace



2 • 6 • 19

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Lab Exercise Objective:

In order to display a customized view of menus, toolbars, tree labels, topology icon labels and window layout selections on the 5620 SAM GUI, over the course of this lab exercise students will change the current workspace.

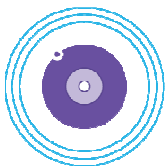
Instructor preparation:

In preparation for this lab, ensure the workspace to be applied has been added to the workspace selector.

Provide each student with instructions on the workspace to be applied for the user currently logged in for this lab exercise.

Instructions:

Follow your instructor's directions to change the current workspace. The following lines and the figures above summarize the steps recommended for this lab:

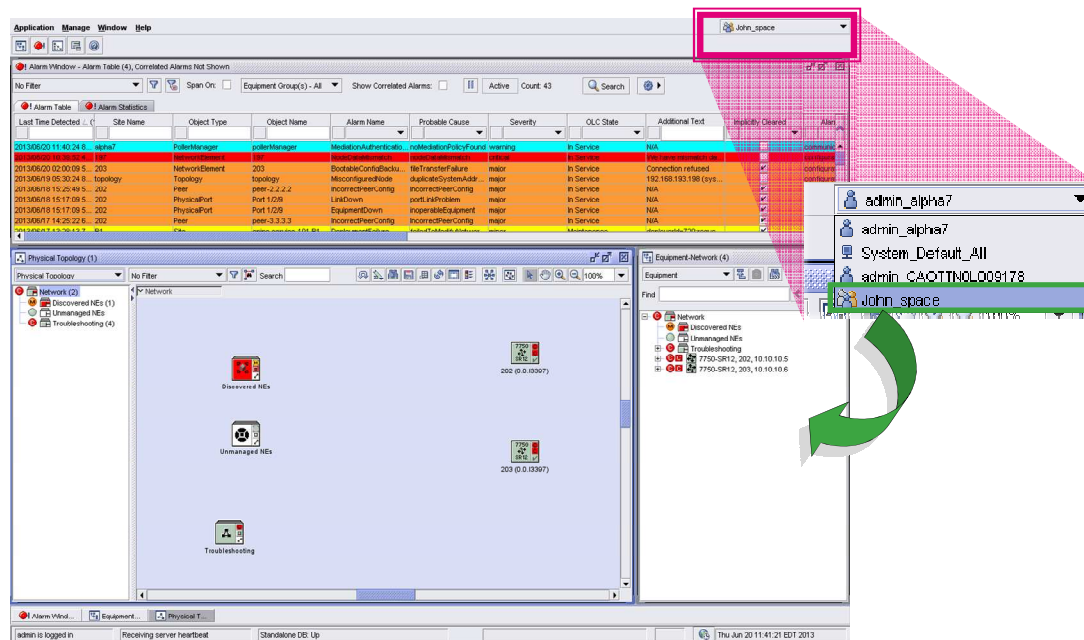


Technical Reference

For more information on the steps to create and customize a workspace see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI workspace customization procedures. Procedure 3-33 To change the current workspace*

1. Click on the **workspace selector** drop-down on the top right corner of the menu bar.
2. Choose a workspace.

2.2 Change the Current Workspace [Cont.]



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System Overview - SAM GUI Client Workspaces Lab
5620 SAM - R12.0 Fundamentals
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Upon choosing a workspace from the workspace selector, the 5620 SAM redraws the menu bar, toolbar, closes all alarm, tree, map windows and opens the alarm, tree, and map windows from the new workspace layout.

The workspace selector displays the workspace currently in use.



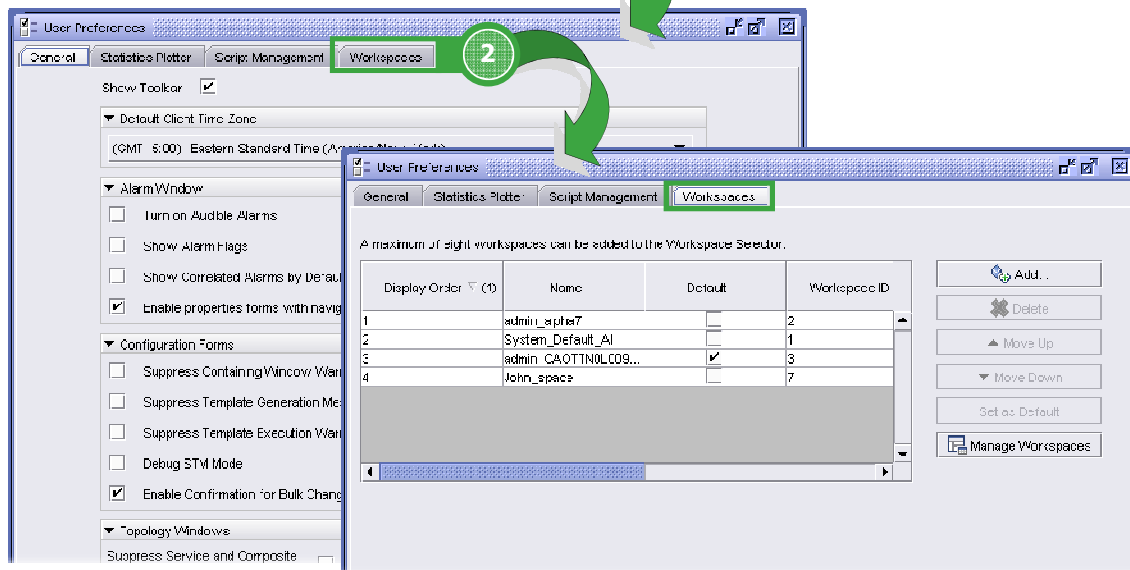
Note

*If the workspace selector displays **.Workspace Out of Sync.** this indicates that the current workspace has been modified or deleted.*

2.3 Set the Default Workspace



Application→User Preferences



2 • 6 • 21

System Overview - SAM GUI Client Workspaces Lab
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Lab Exercise Objective:

In order to set the customized view of menus, toolbars, tree labels, topology icon labels and window layout selections on the 5620 SAM GUI that appears by default each time the 5620 SAM client opens, over the course of this lab exercise students will set the default workspace.

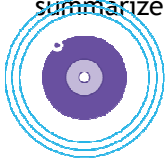
Instructor preparation:

In preparation for this lab, ensure that the workspace to be set as default has been added to the workspace selector.

Provide each student with instructions on the workspace to be set as default for the user currently logged in for this lab exercise.

Instructions:

Follow your instructor's directions to set the default workspace. The following lines and the figures above summarize the steps recommended for this lab:

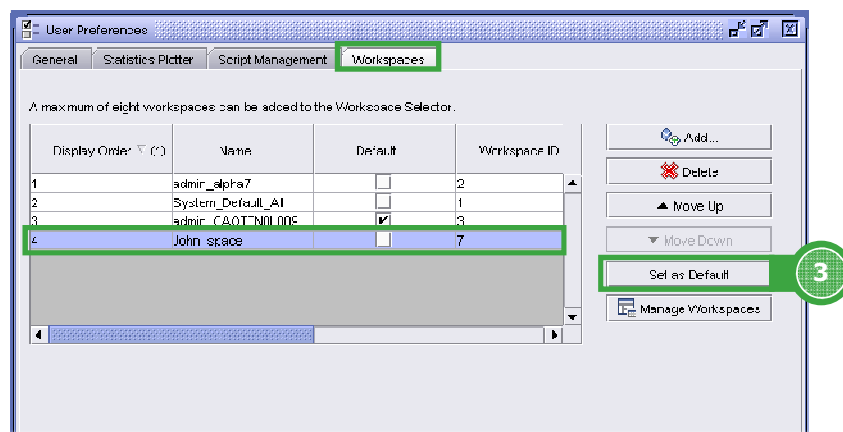


Technical Reference

For more information on the steps to create and customize a workspace see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI workspace customization procedures*.

1. Choose **Application→User Preferences** from the 5620 SAM main menu. The **User Preferences** form opens with the **General** tab displayed.
2. Click on the **Workspaces** tab.

2.3 Set the Default Workspace [Cont.]



2 • 6 • 22

System Overview - SAM GUI Client Workspaces Lab
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3. Choose the workspace in the list, and Click on the **Set as Default** button. Verify that the check mark in the Default column in the list is now on the workspace set as default.
4. Click on the **OK** button. A dialog box appears. Click on the **Yes** button to save the changes and close the dialog box. The **User Preferences** form closes.



This lab module presented exercises to:

- Create and customize workspaces to customize the menus, toolbars, tree labels, topology icon labels and window layout selections on the 5620 SAM GUI
- Add a workspace to the workspace selector and to change the current workspace allowing the selection of a preconfigured workspace
- Set the workspace that appears by default each time the 5620 SAM client opens

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End of module
SAM GUI Client Workspaces Lab

2 • 6 • 25

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Section 3
Network Management

Module 1

Node Preparation for SAM Discovery Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 3.1 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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Document History			
Edition	Date	Author	Remarks
1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
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2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)
4.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this lab module, you should be able to:

- Provide the basic configuration to the lab's network SR-OS based devices to enable the 5620 SAM to discover and manage them

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	Page
1 Node Preparation for SAM Discovery Labs	7
1.1 Convention Format for CLI Commands	8
1.2 Basic Network Device Configuration Lab	9

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1 Node Preparation for SAM Discovery Labs

1.1 Convention Format for CLI Commands

**Note**

The following information explains the convention format for CLI commands used in this Job Aid and is for information purposes only. Actual Job Aid instructions begin on the next page.

The CLI system prompt is shown in bolded text followed by # or \$:

NODE_X#

or **NODE_X>config>system>security#**

or **NODE_XXXX>config>system>security>mgt-access-filter>entry\$**

The CLI command string is shown in unbolded text.

NODE_X# show time ↵

The ↵ symbol indicates that the Enter key should be pressed.

As shown above, system commands such configure, show, security, etc. are shown as unbolded. These commands can be typed in or partially typed in and completed by pressing the Tab key. Text that must be manually entered is shown delimited by the < and > symbols.

NODE_X# admin set-time <YYYY/MM/DD hh:mm> ↵

This example indicates that the year, month, day, and time must be entered manually.

1.2 Basic Network Device Configuration Lab

Lab Exercise Objective:

In order for the 5620 SAM to discover and manage the lab's network devices, over the course of this lab exercise students will perform the following actions to provide devices with the basic configuration or verify the equipments configuration:

- Configure the network device's boot parameters including:
 - Verify, and if required re-configure, the Internet address of the Ethernet interface
 - Set persistence on
 - Define a location for the primary configuration file
- Configure the network device's ID (system address)
- Configure and enable the SNMP protocol parameters (community string and packet size)

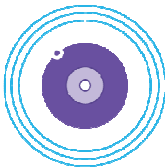
Instructor Preparation:

Provide students with information to initiate a CLI session with network element and information about the IP address and SNMP information required for the 5620 SAM to discover it.

Instructions:

Initiate a CLI session with the appropriate network element device.

Technical Reference



For more information about the steps to commission these equipments see Alcatel-Lucent 5620 SAM, Release 11.0 User Guide - Section 13.4 Alcatel-Lucent and Telco device commissioning procedures - Procedure 13-1 To commission a 7210 SAS-E, 7210 SAS-M24F, 7210 SAS-M24F2XFP, 7210 SAS-M24F2XFP [ETR], 7210 SAS-X24F2XFP, 7450 ESS, 7705 SAR, 7710 SR, or 7750 SR for 5620 SAM management.

The following lines summarize the steps recommended to perform the basic network device configuration to a 7210, 7450, 7705, 7710 or 7750 for 5620 SAM management using SNMPv2 for this lab.

Follow your instructor's directions or see the appropriate device documentation for other equipments commissioning.

1. Use the table below to register the router's basic boot and SNMP parameters provided by your instructor:

Lab's router Basic Boot Parameters

Ethernet Interface IP Address / Network Mask:

System IP Address / Network Mask:

SNMP Community string:

2. Verify the current configured boot parameters on the bof file:

```
NODE_X# bof ↵
NODE_X>bof# show bof ↵
```

If the Internet address of the Ethernet interface is not configured or does not match the address provided by your instructor enter the following command:

```
NODE_X>bof# address <IP address/subnet> ↵
```

3. Set persistence on

```
NODE_X>bof# persist on ↵
```


1.2 Basic Network Device Configuration Lab [cont.]

4. Define a location to save the configuration file

```
NODE_X>bof# primary-config <file location:/file path/filename.cfg> ↵
```

5. Save the boot parameters changes

```
NODE_X>bof# save ↵  
NODE_X>bof# exit all ↵
```

6. Define the router's ID (System Address)

```
NODE_X# configure router interface system address <IP address/32> ↵
```

7. Configure SNMP Security

```
NODE_X# configure system security snmp ↵  
NODE_X>config>system>security>snmp# community <community string> rwa version both ↵  
NODE_X>config>system>security>snmp# exit all ↵
```

8. Enable SNMP

```
NODE_X# configure system snmp ↵  
NODE_X>config>system>snmp# packet-size 9216 ↵  
NODE_X>config>system>snmp# no shutdown ↵  
NODE_X>config>system>snmp# exit all ↵
```

9. Confirm changes

```
NODE_X# show bof ↵  
NODE_X# show router interface ↵  
NODE_X# configure system security snmp ↵  
NODE_X>config>system>security>snmp# info ↵  
NODE_X>config>system>security>snmp# exit all ↵  
NODE_X# show system security communities ↵  
NODE_X# configure system snmp ↵  
NODE_X>config>system>snmp# info ↵  
NODE_X>config>system>snmp# exit all ↵
```

10. Save the network device's configuration

```
NODE_X# admin save ↵
```

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End of module
Node Preparation for SAM Discovery Lab

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3 · 1 · 12

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Section 3

Network Management

Module 2

Network Element Discovery Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 3.2 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)
4.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this lab module, you should be able to:

- Configure a Mediation Policy to discover network devices
- Create a Discovery Rule to discover network devices on 5620 SAM
- Verify that network devices are discovered and are managed by the 5620 SAM
- Perform manual reconciliation of network devices

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	Page
1 Network Element Discovery Labs	7
1.1 Mediation Policy Configuration	8
1.2 Discovery Rule Configuration	13
1.3 Verify NE Discovery	15
1.4 Initiate a Manual Reconciliation	16

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1 Network Element Discovery Labs

1.1 Mediation Policy Configuration

1 Choose Administration → Mediation

2 Configure the parameters:

- Polling Synchronization Time
- Polling Admin State
- Discovery Rule Scan Interval

3 • 2 • 8

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5620 SAM • R12.0 Fundamentals

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Lab Exercise Objective:

In order to define the interval and ratio used by 5620 SAM to poll the network devices for SNMP MIB configuration changes, and the access security parameters for the 5620 SAM to discover and manage network devices, instructions in this lab exercise will guide students to configure a mediation policy

Instructor Preparation:

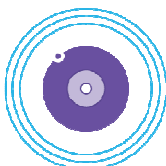
Provide students with NE access information for CLI and file transfer (FTP or SSH) user names and passwords, and SNMP configuration.

If required, provide students with instructions on any MIB entry policies that should be enabled and the polling interval for each MIB entry policy.

Instructions:

Follow the appropriate procedure's instructions to configure a mediation policy

Technical Reference



For more information on the steps to configure a mediation policy see *Alcatel-Lucent 5620 SAM, Release 12.0 R3 User Guide - Section 14.8 Device discovery procedures - Procedure 14-4 To configure NE mediation.*

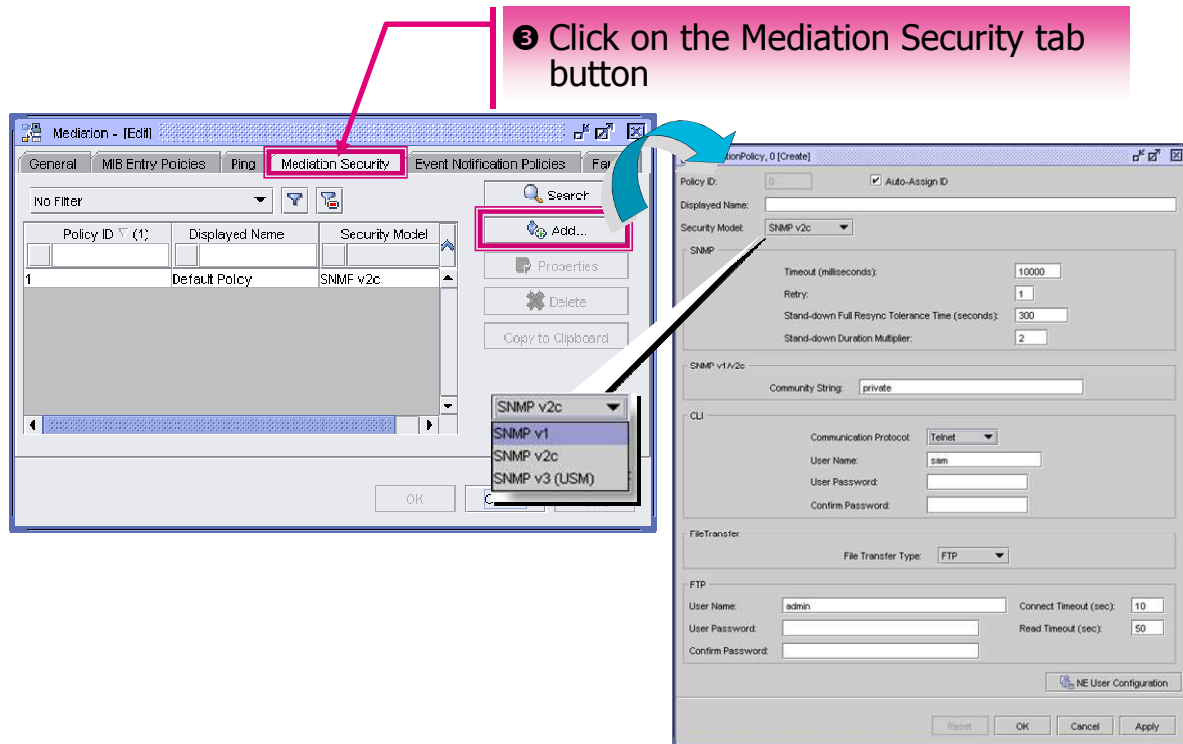
The following lines and the figures above summarize the steps recommended to configure a Mediation Policy (using SNMPv2) for this lab:

1. Choose **Administration → Mediation** from the main menu. The **Mediation (Edit)** form opens with the **General** tab displayed.

1.1 Mediation Policy Configuration [cont.]

2. Configure as required the parameters:
 - **Polling Synchronization Time** is the reference time for all polling intervals, which are typically defined in a given policy.
 - **Polling Admin State** (Up or Down)
 - **Discovery Rule Scan Interval** specifies how often 5620 SAM database rescans the network according to discovery rules that are enabled.

1.1 Mediation Policy Configuration [cont.]



3 • 2 • 10

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3. Click on the **Mediation Security** tab button.
 - i. Click on the **Add** button to create a new SNMP mediation security policy, or select an existing policy and click on the **Properties** button to modify the policy. The **Mediation Policy** form opens.
 - ii. Configure the **Display Name** and the **Security Model** from the general mediation parameters. For this job aid example, select **SNMPv2c** from the **Security Model** drop-down list.
 - iii. In the **SNMP v1/v2c** panel, configure the **Community String** parameter. The Community String value must match the SNMP community string value on the managed device, as configured on the Basic Network Device Configuration job aid.
 - iv. Configure the parameters in the **CLI** and **File Transfer** panels. Set the **User Name** and **User Password** as required. Ensure that the user and password are already configured on the network devices to which this mediation security policy will be associated. Register the values on the table below.

Lab's Network Device CLI Parameters

User Name:

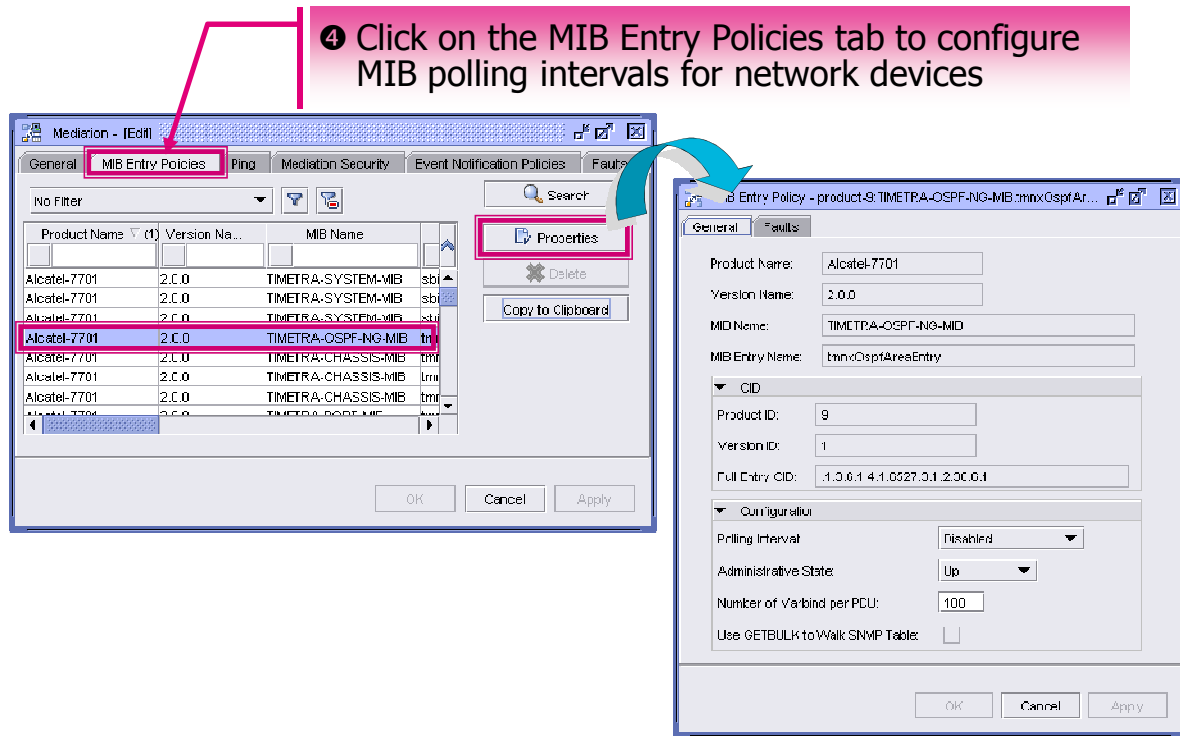
User Password:

Lab's Network Device File Transfer Parameters

User Name:

User Password:

1.1 Mediation Policy Configuration [cont.]



3 • 2 • 11

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4. If required, click on the **MIB Entry Policies** tab to configure MIB polling intervals for specific network devices.
 - i. The **MIB Entry Policies** tab window displays a list of MIBs organized by the product name of the device that supports the MIB.
 - ii. Configure the search filter to look for the NE specific MIBs and click on the **Search** button. The **Mediation (Edit)** form displays the MIB entry policies for the NE.
 - iii. Select one or more MIBs from the list.
 - iv. Click on the **Properties** button. The **MIB Entry Policy (Edit)** form opens.
 - v. Configure the parameters:
 - **Polling Interval** specifies how often MIB elements of discovered and managed devices are polled for changes to their MIBs. When changes are detected, the 5620 SAM rereads the MIB element and updates the database. The default is 15 minutes. When this parameter is disabled, synchronization between network elements and the database do not occur.
 - **Administrative State** (Up or Down)
 - vi. Click on the **OK** button.
 - vii. Confirm the action. The **MIB Entry Policy (Edit)** form closes and the **Mediation (Edit)** form reappears.
 - viii. Click on the **Apply** button on the **Mediation (Edit)** form to save the changes, if required.

1.1 Mediation Policy Configuration [cont.]

5. Click on the **OK** button. A dialog box appears.
6. Click on the **OK** button. The **Mediation Security** form closes and the **Mediation (Edit)** form reappears.
7. Close the **Mediation (Edit)** form.

1.2 Discovery Rule Configuration

Lab Exercise Objective:

In order for the 5620 SAM to discover and manage network devices, instructions in this lab exercise will guide students to perform the following actions for specifying the way devices are scanned and verifying 5620 SAM has discovered and is managing the devices:

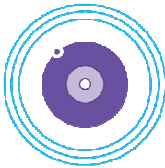
- Create a discovery rule to discover network devices
- Discover Network Elements
- Verify the network devices are discovered and managed by the 5620 SAM

Instructor Preparation:

Provide students with information about the IP address, addresses or IP address ranges to scan the network for devices according to the created discovery rule

Instructions:

Follow your instructor's directions to create a discovery rule to discover network device(s).



Technical Reference

For more information on the steps to create discovery rules see Alcatel-Lucent 5620 SAM, Release 12.0 R3 User Guide - Section 14.8 Device discovery procedures - Procedure 14-5 To discover devices.

The following lines summarize the steps recommended to create a discovery rule for this lab:

1. Choose **Administration → Discovery Manager** from the 5620 SAM main menu. The **Discovery Manager (Edit)** form opens with the **Discovery Rules** tab displayed.
 - i. Click on the **Add** button. The **Create Discovery Rule - Specify General Attributes** form opens.
 - ii. Specify a **Description** for the discovery rule that is up to 80 characters. Specify the **Administrative State**. When the administrative state is set to Up, the network is scanned according to the discovery rule when the discovery rule is saved. The network is also scanned according to the discovery rule as specified by the Discovery Rule Scan Interval parameter in the Mediation window. If the administrative state is set to Down, the network is not scanned as specified by these conditions.
 - iii. Click on the **Next** button. The **Add Rule Elements** form opens.
 - iv. Click on the **Add** button. The **TopologyDiscoveryRuleElement (Create)** form opens.
 - v. Configure the network device's parameters **IP Address** and **Mask Bits**. Enter the parameters previously used to configure the network device during the **Basic Network Device Configuration Lab**.
 - vi. Click on the **OK** button. The **TopologyDiscoveryRuleElement (Create)** form closes. The discovery rule is saved.
 - vii. Add more rule elements as required by performing substeps iv to vi.
 - viii. Click on the **Next** button. The **Configure Mediation Security** form opens.
 - ix. Specify the mediation policies for **Read Access**, **Write Access**, and **SNMP Trap Access**. Click on the **Select** button and choose the mediation policy created on the Network Device Discovery - Configure Mediation Policy Lab.
 - x. Click on the **Finish** button to complete creation of the Discovery Rule using default values. The **Create Discovery Rule - Configure Mediation Security** form closes and a warning dialog box opens.
 - xi. Click on the **OK** button on the warning dialog box to close it. The **Discovery Manager** form reappears.

1.2 Discovery Rule Configuration [cont.]

2. Click on the **Apply** button on the **Discovery Manager** form to discover the network devices by scanning the network as specified on the created discovery rule.

The 5620 SAM discovers devices by scanning the network as specified by the discovery rules. After a device is discovered, the 5620 SAM sets the device in a managed state and reconciles the device elements into its database.

Discovery rules that are disabled or shut down are not applied.

1.3 Verify NE Discovery

The following lines summarize the steps recommended to verify the specified NEs are discovered and managed by the 5620 SAM:

1. Open the **Discovery Manager** form and click on the **Managed State** tab button. A list of managed devices opens.
 - i. Verify the newly discovered network device is on the managed devices list.
 - ii. Verify the management state of the network device displayed in the **Site State** column. **Managed** is the default state. If the device is unmanaged, select the device from the list and click on the **Manage** button.
2. Perform a management IP address ping to ensure connectivity to the network managed device. From the **Managed State** tab
 - i. Click on the managed network device in the list.
 - ii. Click on the appropriate ping button.
 - iii. Review the ping information to verify connectivity.
3. Verify the network device configuration has been reconciled with the 5620 SAM database by clicking on the **Resync Status** tab button. The status is displayed in the **Resync Status** column.
4. Close the Discovery Manager form.
5. Move the discovered network device icon into a group on the topology map. All newly discovered network devices should be listed in the **Discovered NEs** group.
 - i. Double-click on the **Discovered NEs** group icon. The Discovered NEs window opens with the list of discovered nodes.
 - ii. Select the discovered network node(s) from the list and drag-and-drop the listing into the appropriate group.
 - iii. The network node icon will appear in that group.
6. The network devices that have been successfully reconciled appear in the **5620 SAM navigation tree** and the **Equipment Manager** form.

1.4 Initiate a Manual Reconciliation

Follow your instructor's directions, and if required initiate a device's manual reconciliation. The following lines summarize the steps recommended to initiate a manual reconciliation of a network device for this lab:

1. Open the **Discovery Manager** form and click on the **Managed State** tab button. A list of managed devices opens.
2. Click on the **Resync Status** tab button. The status is displayed in the **Resync Status** column.
3. Follow your instructor's directions, if a manual reconciliation of the network device is required:
 - i. Choose the network device or devices from the list
 - ii. Click on the **Resync** button.
4. Close the Discovery Manager form.

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End of module
Network Element Discovery Lab

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3 · 2 · 18

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Section 3

Network Management

Module 3

Equipment Management Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 3.3 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)



Upon completion of this lab module, you should be able to:

- Find specific objects in the navigation tree
- Simplify the view in densely populated in the navigation trees by making an object root in the navigation tree or in a new navigation tree

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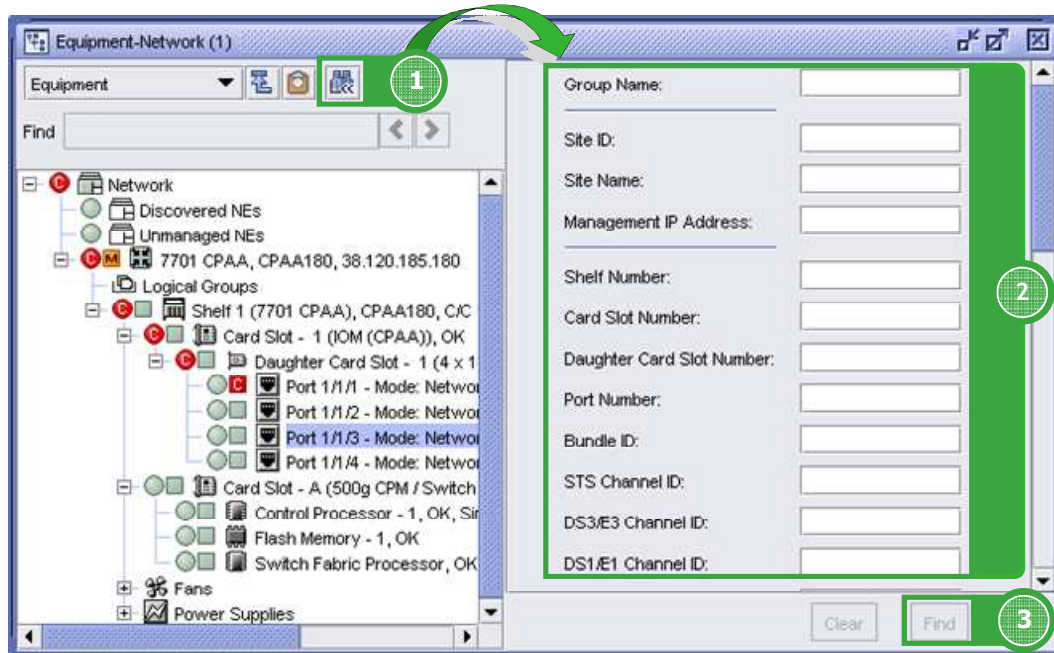


	Page
1 Equipment Management Labs	7
1.1 Find an Object in the Navigation Tree	8
1.2 Customizing the Navigation Tree Labels	11
1.3 Make an Object Root in the Navigation Tree	14
1.4 Compare Equipment Configuration Side by Side	16

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1 Equipment Management Labs

1.1 Find an Object in the Navigation Tree



3 • 3 • 8

Network Management - Equipment Management Lab
5620 SAM - R12.0 Fundamentals

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Lab Exercise Objective:

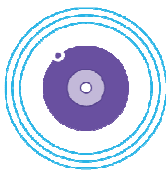
In order to find specific objects in the navigation tree, instructions in this lab exercise will guide students to perform a search using the navigation tree.

Instructor Preparation:

Provide students with instructions on the specific object that should be found using the navigation tree for this lab exercise.

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to search in the navigation tree for objects, such as nodes, shelves, ports and other objects.





Technical Reference

For more information on the steps to find specific objects in the navigation tree see Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI search procedures - Procedure 3-32 To perform a search using the navigation tree.

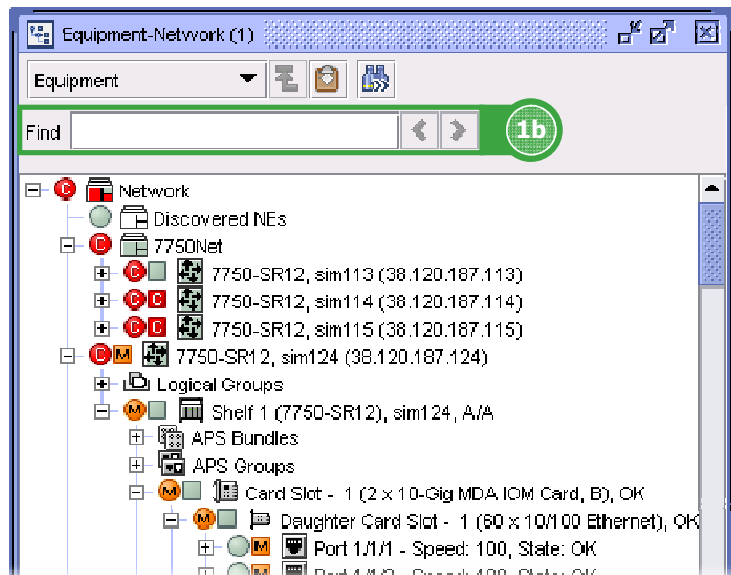
The following lines and the figures above summarize the steps recommended to find a node performing a search by site name:

1. Click on the **Find...** button on the navigation tree or press **CTRL+F**. The Find panel opens.
2. Configure the parameters as necessary. The parameters that are available for configuration vary depending on the view that has been selected.
3. Click on the **Find** button or press **Enter**. The first matching object is selected and expanded in the navigation tree.

1.1 Find an Object in the Navigation Tree [cont.]

4. To find additional matching objects, click on the **Next** button  or press **F3**. The next matching object is selected and expanded in the navigation tree.
5. To return to the previous matching object in the navigation tree, click on the **Previous** button  or press **Shift+F3**.
6. If required, click on the **Clear** button to clear all parameters configured in step 2.
7. Click on the **Find...** button or press **CTRL+F** to close the Find panel.

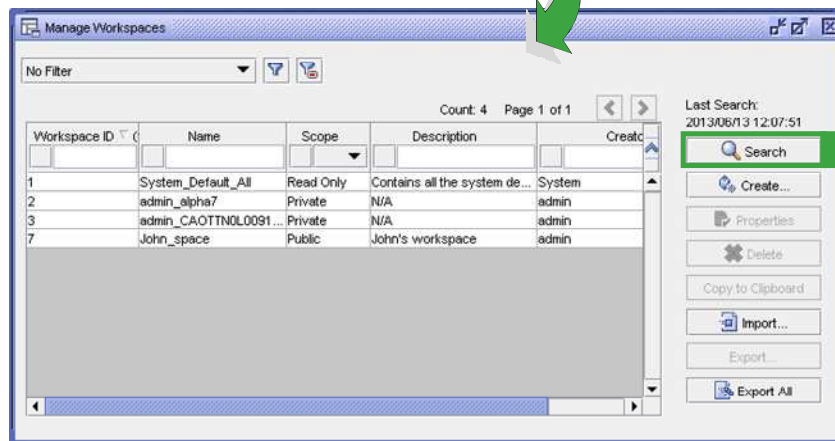
1.1 Find an Object in the Navigation Tree [cont.]



- 1b. Alternatively, use the Quick Find field in the Equipment view of the Navigation Tree, configure the parameters and press Enter

1.2 Customizing the Navigation Tree Labels

Application→Manage Workspaces



Lab Exercise Objective:

In order to customize the tree labels in the navigation tree, over the course of this lab exercise students will create a new SAM GUI Workspace, or modify an existing a SAM GUI Workspace.

Instructor preparation:

Provide each student with instructions for the modifications to the customized tree labels preferences that will be applied to a workspace.

Instructions:

Follow your instructor's directions to create a new workspace or customize an existing workspace.

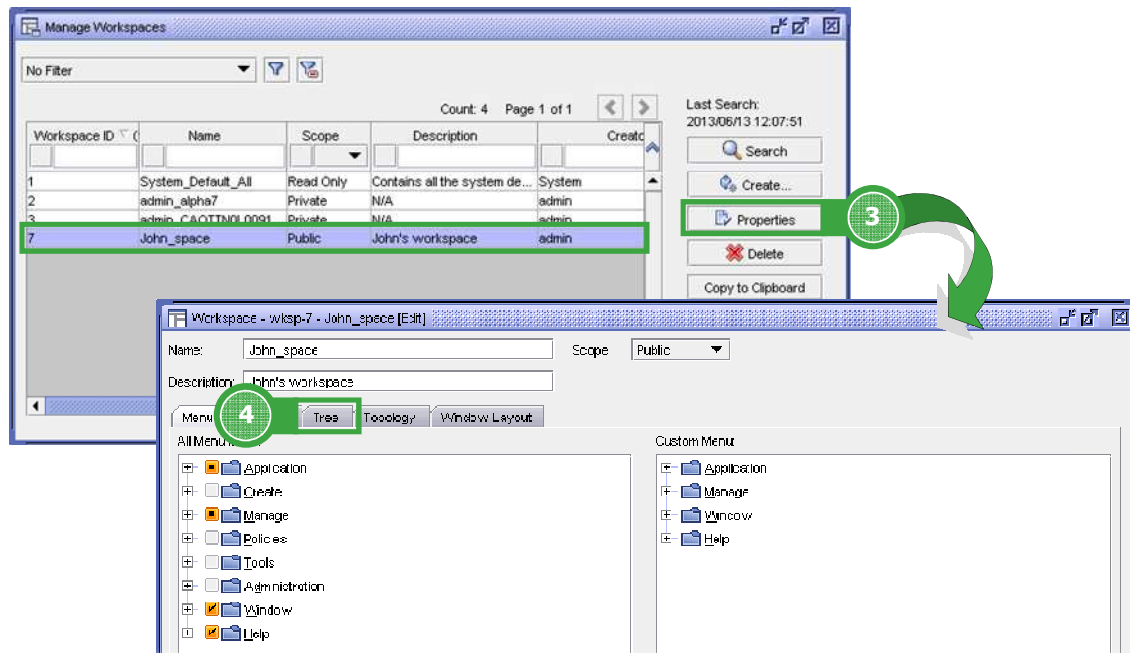
The following lines and the figures above summarize the steps recommended to customize the tree labels of a workspace for this lab:



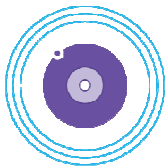
Technical Reference

For more information on the steps to create and customize a workspace see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI workspace customization procedures*.

1. Choose **Application→Manage Workspaces** from the 5620 SAM main menu. The **Manage Workspaces** form opens.
2. Click on the **Search** button to update the workspace list.



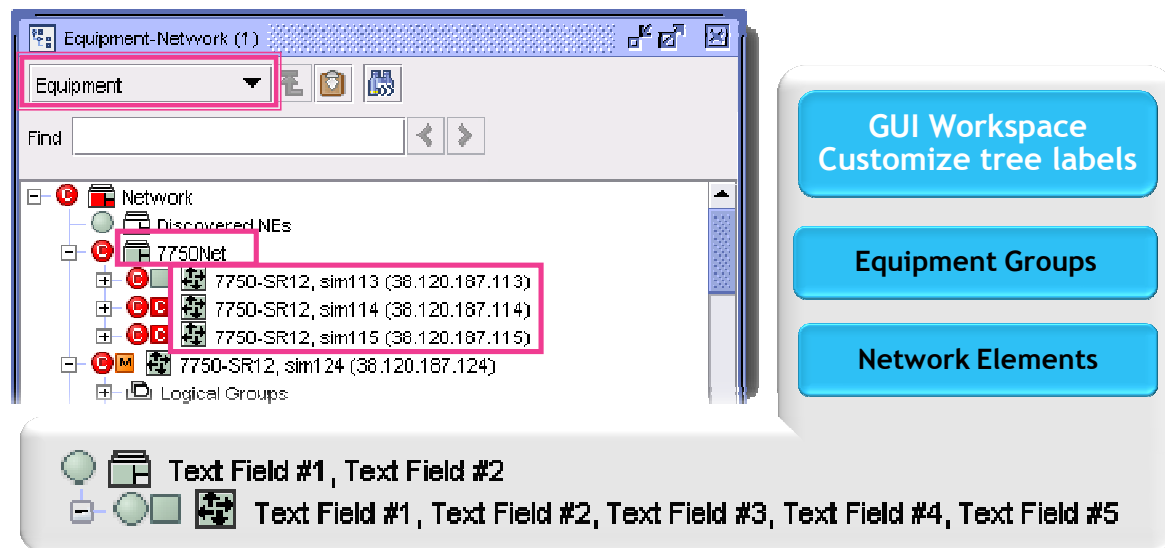
3. Select a workspace from the list, and click on the **Properties** button. The **Workspace (Name) [Edit]** form opens with the **Menus** tab displayed.
4. Click on the **Tree** tab to customize the tree labels of the workspace.



Technical Reference

For more information on the steps to customize the menu bar, toolbar, tree labels, topology icon labels, and window layout, of a workspace see Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI workspace customization procedures

1.2 Customizing the Navigation Tree Labels [cont.]



Manage Workspaces form's Tree tab allows restoring label text to default values

3 • 3 • 13

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5. Choose the tree type from the drop-down menu.
6. As shown in the figure above for Equipment Group labels, up to two field texts can be customized. And for Network Element labels, up to five field texts (if applicable) can be customized.

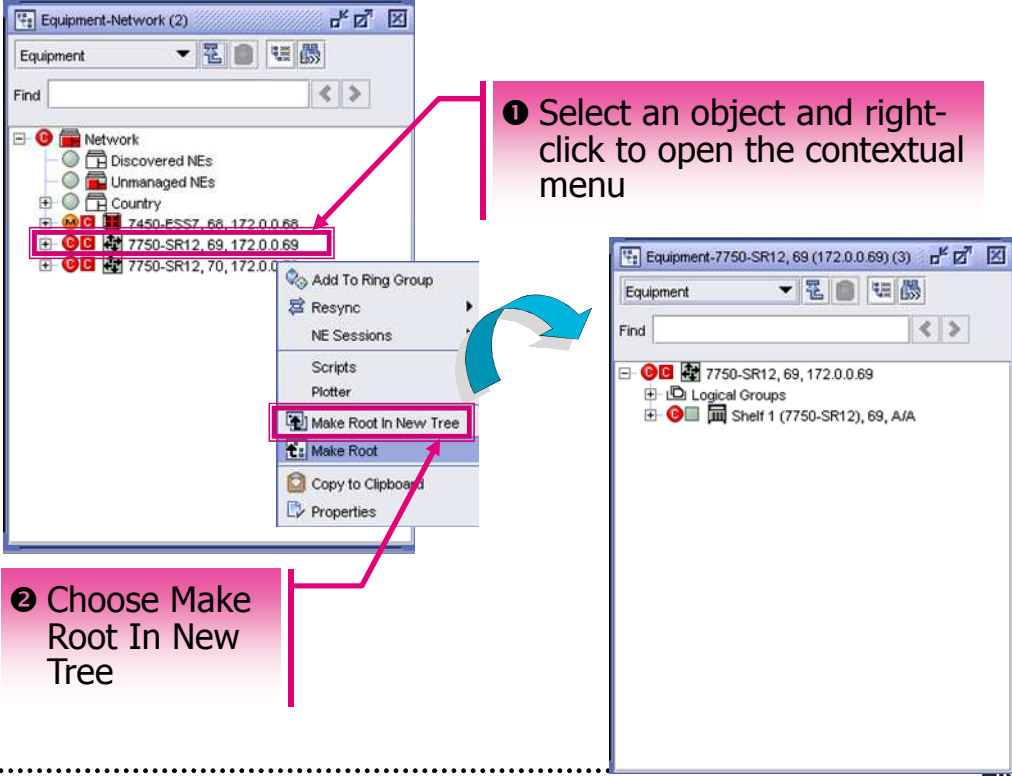


Note

Customized labels cannot be specified for the Unmanaged NEs, the Discovered NEs, or the Network groups.

7. Click on the **OK** button. A dialog box appears.
8. Click on the **Yes** button to save the changes and close the dialog box.
9. Close the **Manage Workspaces** form.

1.3 Make an Object Root in the Navigation Tree



1 Select an object and right-click to open the contextual menu

2 Choose Make Root In New Tree

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Lab Exercise Objective:

In order to help users simplify the equipment view in densely populated in the navigation trees, instructions in this lab exercise will guide students to make an object root in the navigation tree or in a new navigation tree.

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to make an object root in the navigation tree or in a new navigation tree.



Technical Reference

For more information on the steps to make an equipment view's object root in the navigation tree, and to restore the default in the navigation tree see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 4.2 Basic Navigation tree procedures - Procedure 4-1 To make a selected object the root of the navigation tree, Procedure 4-2 To make a selected object the root of another navigation tree and Procedure 4-3 To restore the default navigation tree root.*

The following lines and the figures above summarize the steps recommended to to make a selected object the root of another navigation tree:

1. On the **Equipment** view of the navigation tree, select the object you want to make root and right-click on the object to open the contextual menu.



Note

The *Make Root* option and the *Make Root In New Tree* option are only available in the *Equipment* view. See *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - section 4.1 Navigation tree overview* for information about the navigation tree objects that support the menu option.

1.3 Make an Object Root in the Navigation Tree [cont.]

2. Choose **Make Root In New Tree** from the contextual menu. Another navigation tree window appears with the selected object as the root of the tree.



Note

Up to seven navigation tree windows can be open at the same time and each tree must have a different root when it is first created.

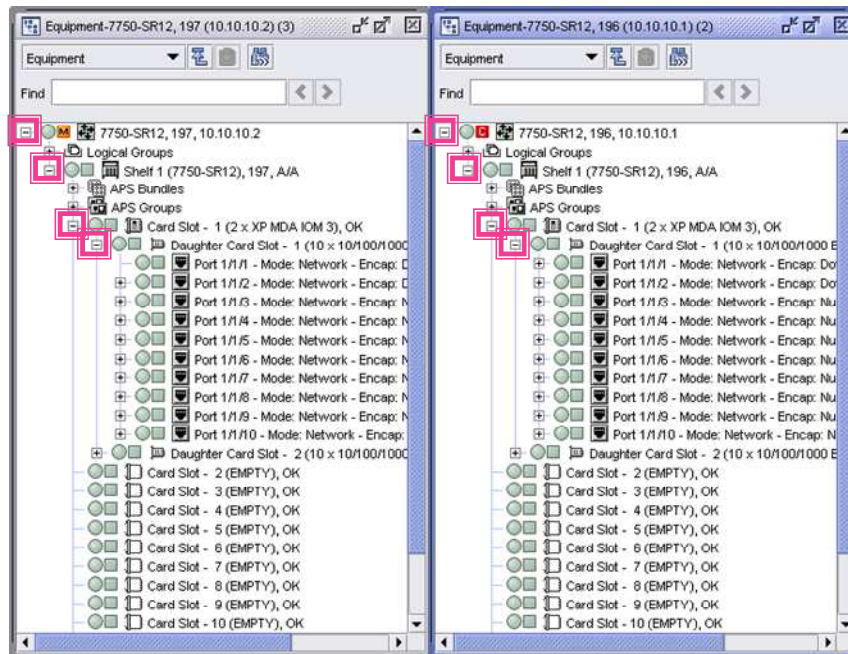
To restore the default navigation tree root

When the root is not the network object, the Make Root At Top Level button in the navigation tool's tool bar is enabled.

Click on the Make Root At Top Level button in the navigation tree toolbar to restore the default root of the tree.

1.4 Compare Equipment Configuration Side by Side

Make Root In New Tree option redefine the root of the tree



Allows comparing equipment configuration side by side

Expand to view child objects configuration

3 • 3 • 16

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The Make Root In New Tree contextual menu option allow operators to redefine the root of the tree. This option is available in the Equipment view of the Navigation tree.

For instance, by making two different NEs root in a new tree operators can compare side by side the equipment configuration of the two NEs. Each new tree allows expanding the NEs objects to reveal the child objects configuration.

After the comparison, operators may close the new navigation tree windows opened, or use the Make Root At Top Level button to restore the navigation tree to the default root, which is the network.

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End of module
Equipment Management Lab

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3 · 3 · 18

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Section 3

Network Management

Module 4

Equipment Inventory Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 3.4 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
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2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)



Upon completion of this module, you should be able to:

- Generate and save an inventory list for a device
- Generate and save an inventory list for the entire network

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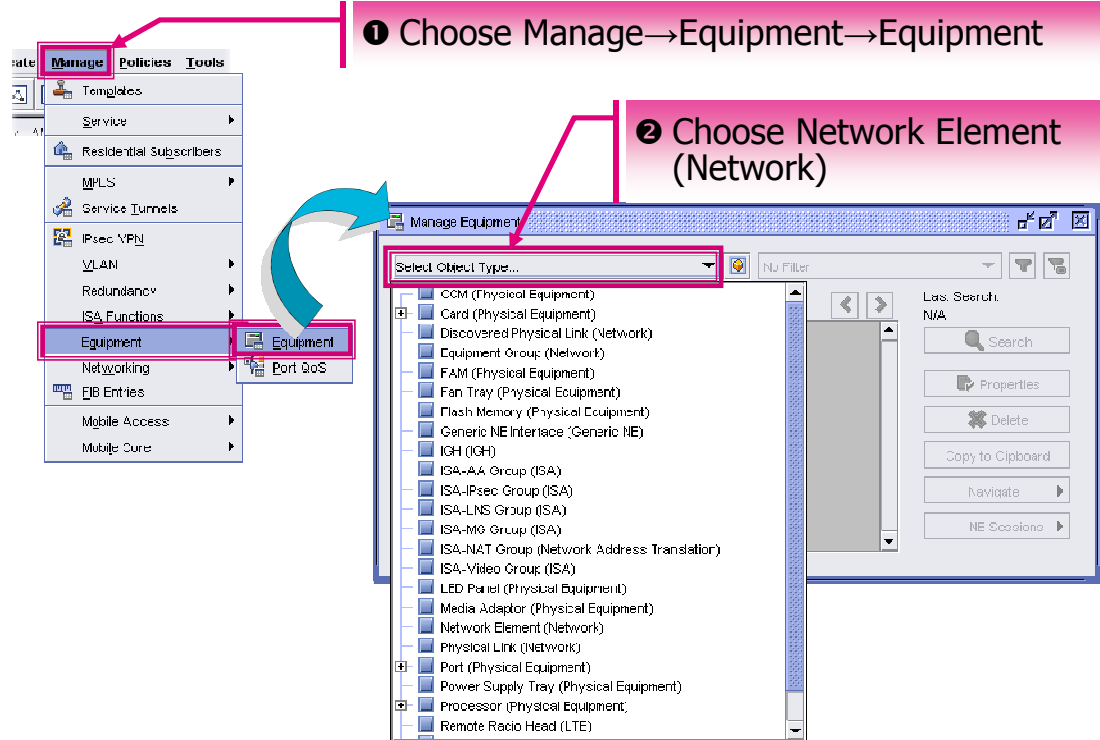


	Page
1 Inventories for a Device Labs	7
1.1 Create an Inventory for a Device - Port Types Example	8
1.2 Save an Inventory for a Device	11
2 Inventories for the Entire Network Labs	12
2.1 Create an Inventory for the Entire Network	13
2.2 Save an Inventory for the Entire Network	15
2.2 Save an Inventory for the Entire Network	16

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1 Inventories for a Device Labs

1.1 Create an Inventory for a Device - Port Types Example



3 • 4 • 8

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Lab Exercise Objective:

In order to gather inventory data about port types for a managed device using the 5620 SAM client GUI and save the data in a file format for further processing on another platform, instructions in this lab exercise will guide students to generate and save an inventory list of port types for a managed device.

Instructor Preparation:

Point out to each student a managed device for which an inventory list of port types will be generated.

Instructions:

Follow the appropriate procedure for detailed instructions on all available options to list and sort inventory data



Technical Reference

For more information on the steps to perform inventory of port types for management device see Alcatel-Lucent 5620 SAM, Release 11.0 User Guide - Section 22.4 Inventory management procedures - Procedure 22.1 To list and sort inventory data, Procedure 22-7 To inventory port types for a managed device, Procedure 22-2 To save inventory output in HTML format and Procedure 22-3 To save inventory output in CSV format.

In order to exemplify the procedure, the following lines and the figures above summarize the steps recommended to generate an inventory data list for all port types in a managed device and save it to a CSV file for this lab exercise:

1. Choose **Manage**→**Equipment**→**Equipment** from the 5620 SAM main menu. The **Manage Equipment** form opens.
2. Choose **Network Element (Network)** from the object drop-down list.

1.1 Create an Inventory for a Device - Port Types Example [cont.]

3 Click on the Search button

Press "Search" to populate list.

Site ID ()	Site Name	Name	System Description	System ID (Loopback IP Address)	Active M
172.0.0.137	137	137	N/A	172.0.0.137	192.168.1.1
172.0.0.138	138	138	N/A	172.0.0.138	192.168.1.2
172.0.0.139	139	139	N/A	172.0.0.139	192.168.1.3
172.0.0.140	140	140	N/A	172.0.0.140	192.168.1.4
172.0.0.141	141	141	N/A	172.0.0.141	192.168.1.5
172.0.0.142	142	142	N/A	172.0.0.142	192.168.1.6

4 Choose an NE and click on the Properties button

3 • 4 • 9

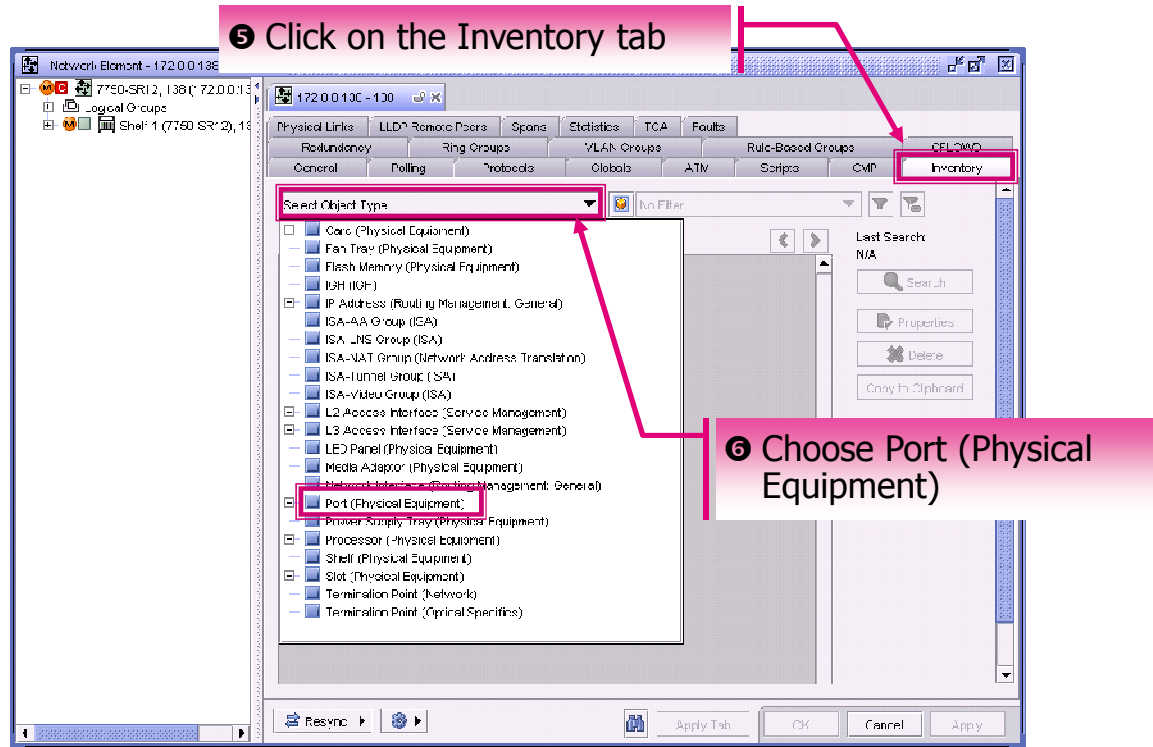
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3. Click on the **Search** button. The list form displays the results of the inventory search.
4. Choose an NE from the list and click on the **Properties** button. The **Network Element (Edit)** form opens.

1.1 Create an Inventory for a Device - Port Types Example [cont.]



3 • 4 • 10

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5. On the **Network Element (Edit)** form click on the **Inventory** tab button
6. Choose **Port (Physical Equipment)** from the object drop-down list. The list form displays the results of the inventory search.

1.2 Save an Inventory for a Device

1 Right-click on the list heading and choose Save to File

2 Choose a directory, create a file name and choose a file type. Click on the Save button

3 • 4 • 11

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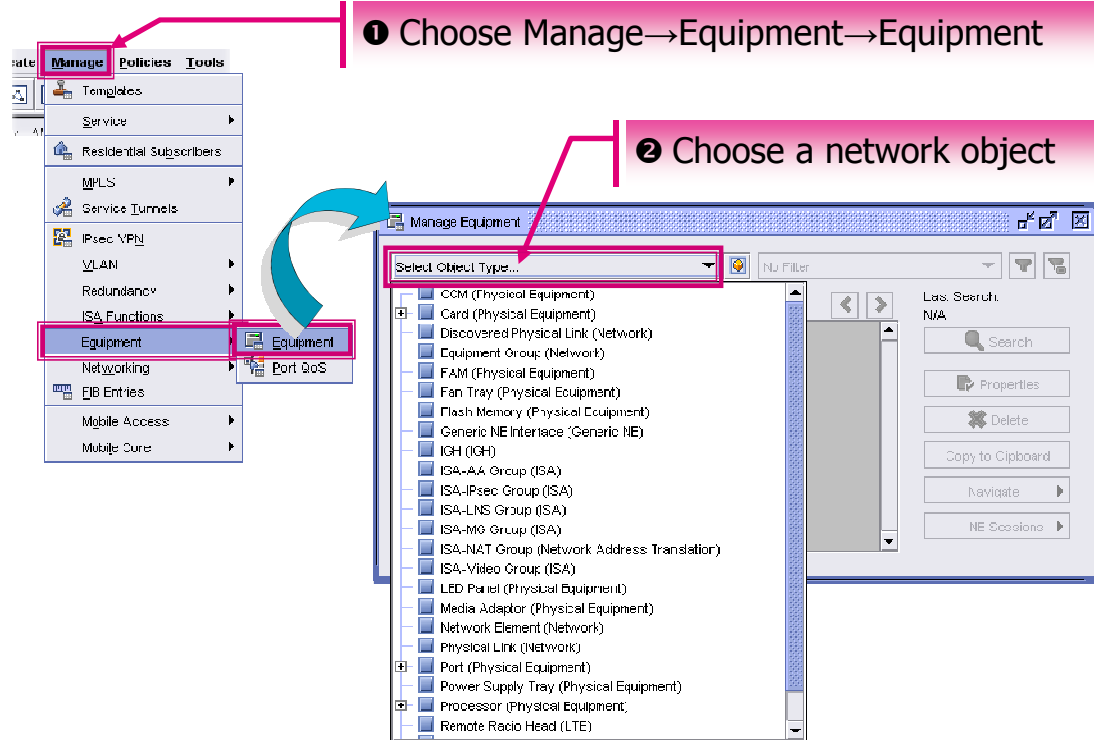
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To save the inventory list of port types for a managed device:

1. Right-click on the list heading, the contextual inventory menu opens. The **Count** shows the number of objects in the list. Choose **Save to File** from the contextual inventory menu. The **Save** form opens.
2. On the **Save** form, use the **Save In** parameter to choose a directory in which to save the listed information. Use the **File Name** parameter to assign a file name. Choose a file type to save from the **Files of Type** drop-down menu, the options are HTML or CSV.
For this lab exercise example choose HTML.
Click on the **Save** button.
The results list of the inventory of port types for a managed device for this lab are saved to the specified HTML file.
3. Close the **Save** form.
4. Close the **Equipment Window Filter** form.

2 Inventories for the Entire Network Labs

2.1 Create an Inventory for the Entire Network



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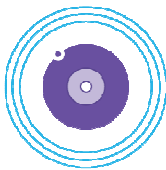
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Lab Exercise Objective:

In order to gather an inventory data list about the entire network using the 5620 SAM client GUI and save the list in a file format for further processing on another platform, instructions in this lab exercise will guide students to generate and save an inventory list for the entire network.

Instructions:

Follow the appropriate procedure for detailed instructions on all available options to generate and save an inventory list for the entire network.



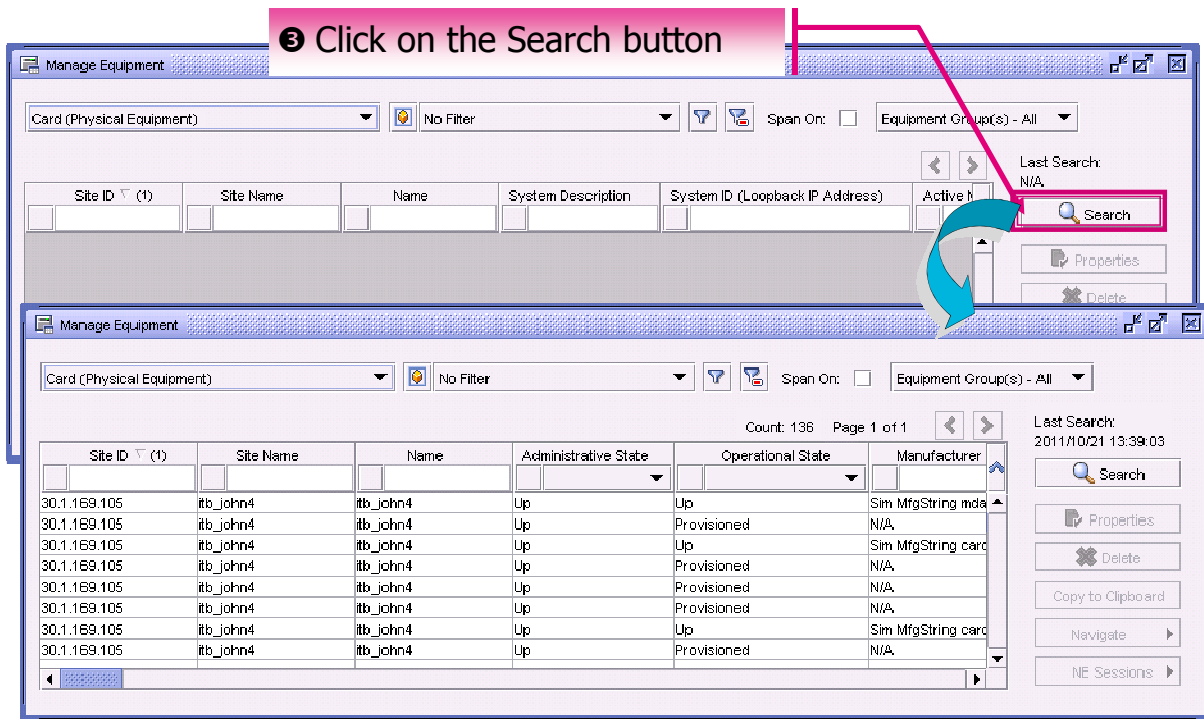
Technical Reference

For more information on the steps to perform inventory management task on a device see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 22.4 Inventory management procedures - Procedure 22-1 To list and sort inventory data, Procedure 22-2 To save inventory output in HTML format and Procedure 22-3 To save inventory output in CSV format.*

In order to exemplify the procedure, the following lines and the figures above summarize the steps recommended to generate an inventory data list for all cards (physical element) in the entire network and to save the list to a HTML file for this lab exercise:

1. Choose **Manage→Equipment→Equipment** from the 5620 SAM main menu. The Manage Equipment form opens.
2. Choose a network object from the **Object Type** drop-down list.
If required configure the filter criteria. You can click on the **Search** button without creating additional filters. In order to generate for this lab example an inventory data list for all cards (physical equipment) in the entire network, choose **Card (Physical Equipment)** from the drop-down list.

2.1 Create an Inventory for the Entire Network [cont.]



3 • 4 • 14

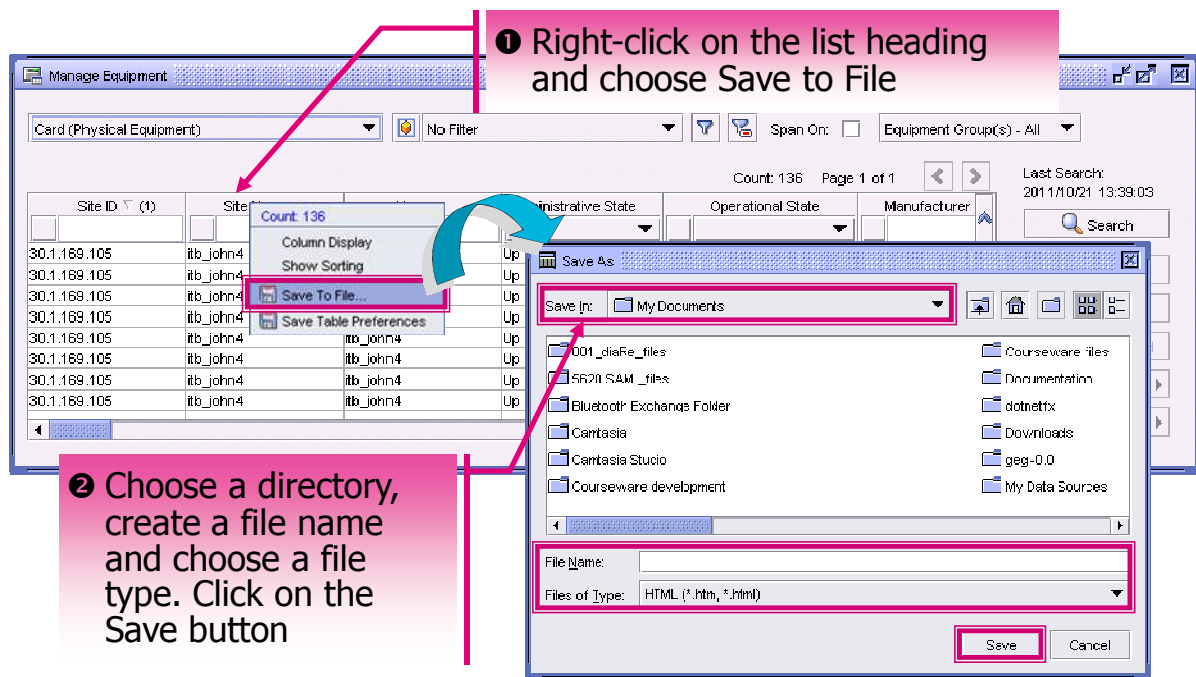
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3. Click on the **Search** button. The list form displays the inventory list for all Cards data in the entire network including: site ID and name of the device the card is installed on, card's part number and serial number, slot ID and Name, shelf type, number of daughter card slots, number of installed daughter cards, software version. If required, do one of the following:
 - a. Sort in ascending or descending order by clicking on a column heading. The arrow direction changes to indicate the order in which the data is sorted.
 - b. Move a column by clicking on the column, dragging the column to the right or left, and dropping the column in its new location.
4. Right-click on the list heading, the **contextual inventory menu** opens. The **Count** shows the number of objects in the list. If required, do one of the following:
 - a. Remove a column by deselecting the column name in the contextual inventory menu. The column disappears from the display.
 - b. Sort multiple columns by choosing **Show Sorting** from the contextual inventory menu. The **Show Sorting** form opens. Choose the property or properties from the **Available for Sorting** panel and click on the right arrow button. The property or properties appear in the **Used for Sorting** panel. Click on the **Sort Ascending** or **Sort Descending** button, as required.

2.2 Save an Inventory for the Entire Network



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To save the inventory output list to a HTML file:

1. Right-click on the list heading, the **contextual inventory menu** opens. The **Count** shows the number of objects in the list. Choose **Save to File** from the contextual inventory menu. The **Save** form opens. Alternatively if required, use the contextual inventory menu to do one of the following:
 - a. Remove a column by deselecting the column name in the contextual inventory menu. The column disappears from the display.
 - b. Sort multiple columns by choosing **Show Sorting** from the contextual inventory menu. The **Show Sorting** form opens. Choose the property or properties from the **Available for Sorting** panel and click on the right arrow button. The property or properties appear in the **Used for Sorting** panel. Click on the **Sort Ascending** or **Sort Descending** button, as required.
2. To save the inventory output list to a HTML file, choose **Save to File** from the contextual inventory menu. The **Save** form opens.
3. On the **Save** form, use the **Save In** parameter to choose a directory in which to save the listed information. Use the **File Name** parameter to create a filename. Choose **CSV Only** from the **Files of Type** drop-down menu.
4. Click on the **Save** button. The results of the inventory search are saved to the specified HTML file.
5. Close the **Save** form.
6. Close the **Equipment Window Filter** form.



End of module
Equipment Inventory Lab

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3 · 4 · 16

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Section 3
Network Management

Module 5

Topology Map Components and Management Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 3.5 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)



Upon completion of this lab module, you should be able to:

- Create topology groups in order to organize the physical topology map into a hierarchical structure
- Populate a topology group
- Select and apply a map background image over which the map objects can be overlaid in the topology maps

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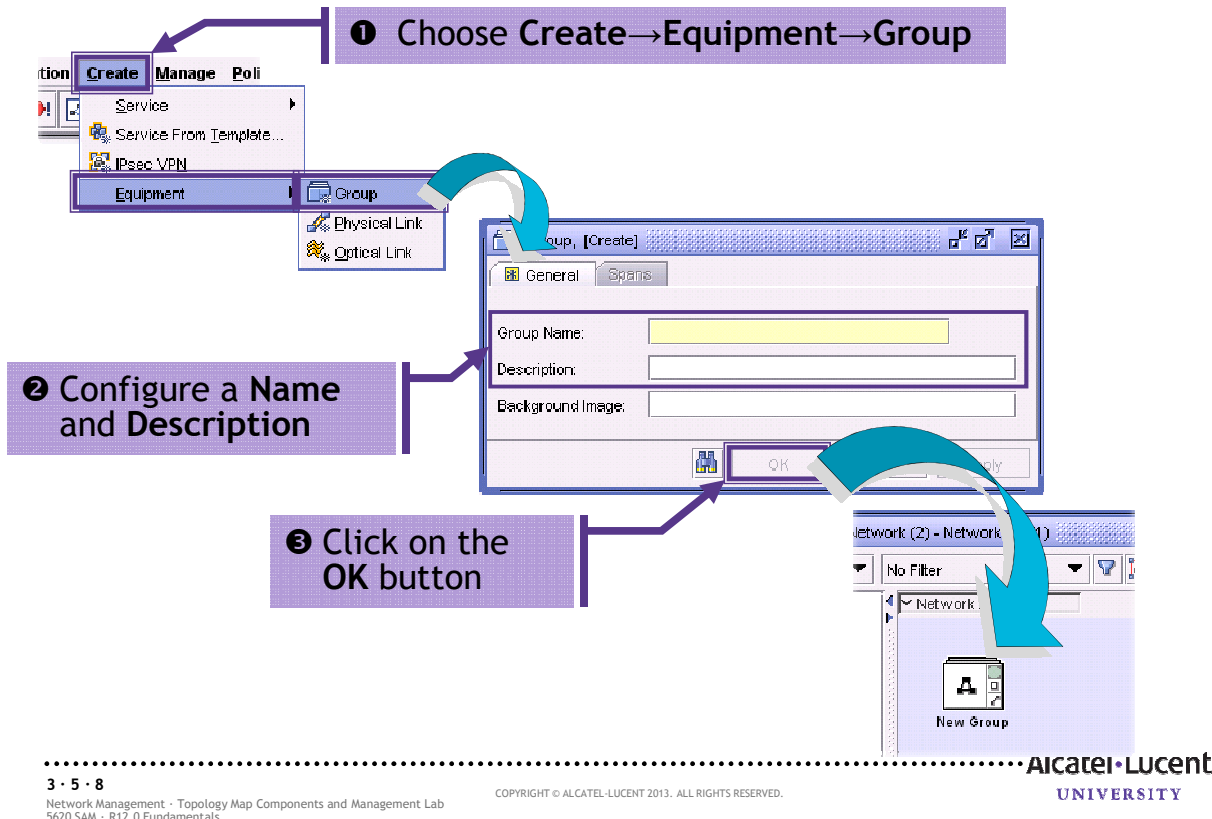


	Page
1 Topology Map Components Labs	7
1.1 Create Topology Groups	8
1.2 Populate a Topology Group	10
1.3 Apply a Map Background Image	11
1.4 Customizing the Topology Map Icon Labels	14

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1 Topology Map Components Labs

1.1 Create Topology Groups



Lab Exercise Objective:

In order to create a hierarchical structure in the physical topology map, instructions in this lab exercise will guide students to create a topology group.

Instructions:

Follow the appropriate procedure for detailed instructions on all available options to create topology groups.



Technical Reference

For more information on the steps to configure create a topology group see Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - 5.7 5620 SAM map management procedures - Procedure 5-29 To create a topology group

The following lines and the figures above summarize the steps recommended to create a topology group in the physical topology map:

1. Open the **Group (Create)** form by choosing **Create→Equipment→Group** from the 5620 SAM main menu. Alternatively you could right-click on the Network icon in the equipment view of the navigation tree and choose **Equipment→Create Group** from the contextual menu.
2. Configure the parameters:
 - Name
 - Description
3. Click on the **OK** button to confirm the action.
After the topology group is created, an object for the topology group is displayed in the equipment navigation tree, and on the physical topology map.

1.1 Create Topology Groups [cont.]

Alternatively, if Spans have been configured in the 5620 SAM, you could apply one or more Spans to the group. To do this click on the **Apply** button.

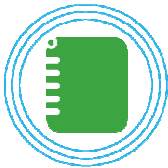
4. Click on the **Spans** tab button.
5. Click on the **Add** button. The **Select Span(s) - Equipment Group** form opens with a list of available spans.
6. Select one or more spans to apply to the topology group.
7. Click on the **OK** button. The **Select Span(s) - Equipment Group** form closes and a dialog box appears.
8. Click on the **OK** button to confirm the action.

1.2 Populate a Topology Group

To populate a newly created topology group

Click on a map object in the map panel, for example, a router or router group, and drag the object onto the newly created topology group icon in the map or the newly created topology name in the map navigation tree. The map object becomes a descendant object of the newly created topology group.

Alternatively, in the map navigation tree select a topology object name and drag the object onto the newly created group object in the map navigation tree. The topology group object becomes a descendant object of the newly created group object.



Note

Although there is no limit to the number of topology groups, Alcatel-Lucent recommends a maximum of 10 000 topology groups per system for optimal performance. Each topology group can contain a maximum of 500 objects

1.3 Apply a Map Background Image

5620 SAM provides map background image examples

- Image examples are installed on the SAM server by default under
/5620sam/server/nms/images/map/background

5620 SAM allows you to add your own map image to the directory, ensure that:

- the image file type is GIF
- the size is a maximum of 2000 × 2000 pixels

Map background images available in the server are copied to the client during the client installation and/or client upgrade process

- Image examples in the client machine are located by default under
/5620sam/client/nms/images/map/background

Browse this folder to select the map image file name you would like to apply as background

Lab Exercise Objective:

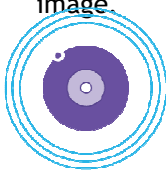
In order to use a map background image over which the map objects can be overlaid in the topology maps, instructions in this lab exercise will guide students to select and apply a map background image.

Lab Exercise Preparation:

In preparation for this lab exercise find the file name for the image you want to use as map background by browsing the folder that contains the example images. Typically
/5620sam/client/nms/images/map/background

Instructions:

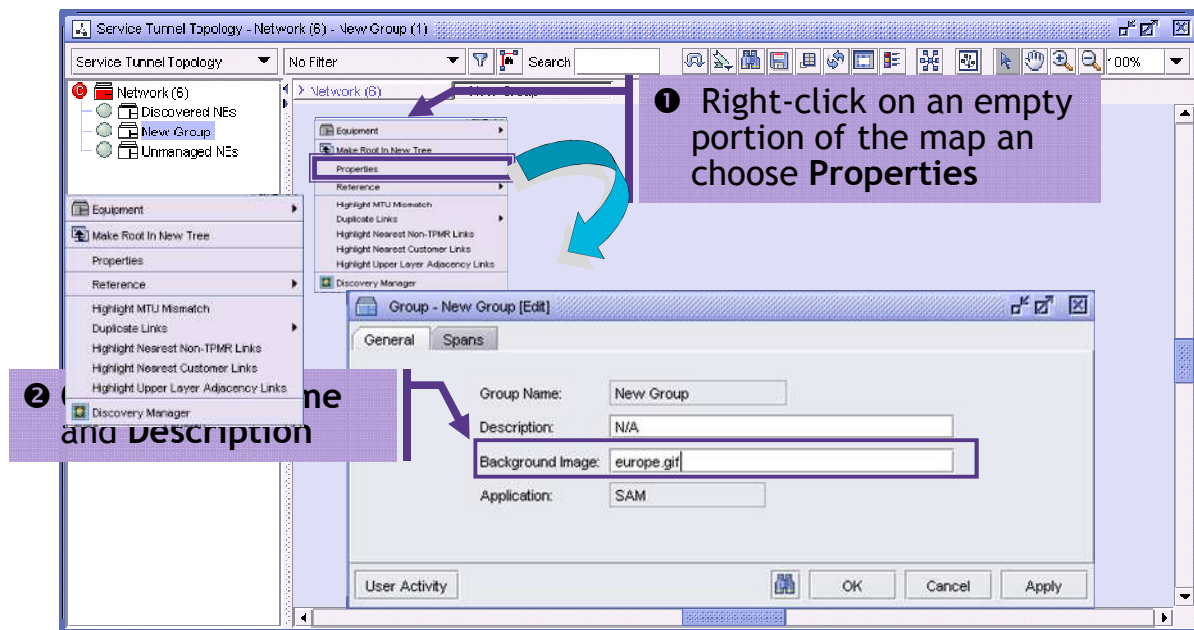
Follow the appropriate procedure for detailed instructions on all available options to apply a map background image



Technical Reference

For more information on the steps to configure create a topology group see Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - 5.6 5620 SAM map configuration procedures - Procedure 5-27 To change the map background image

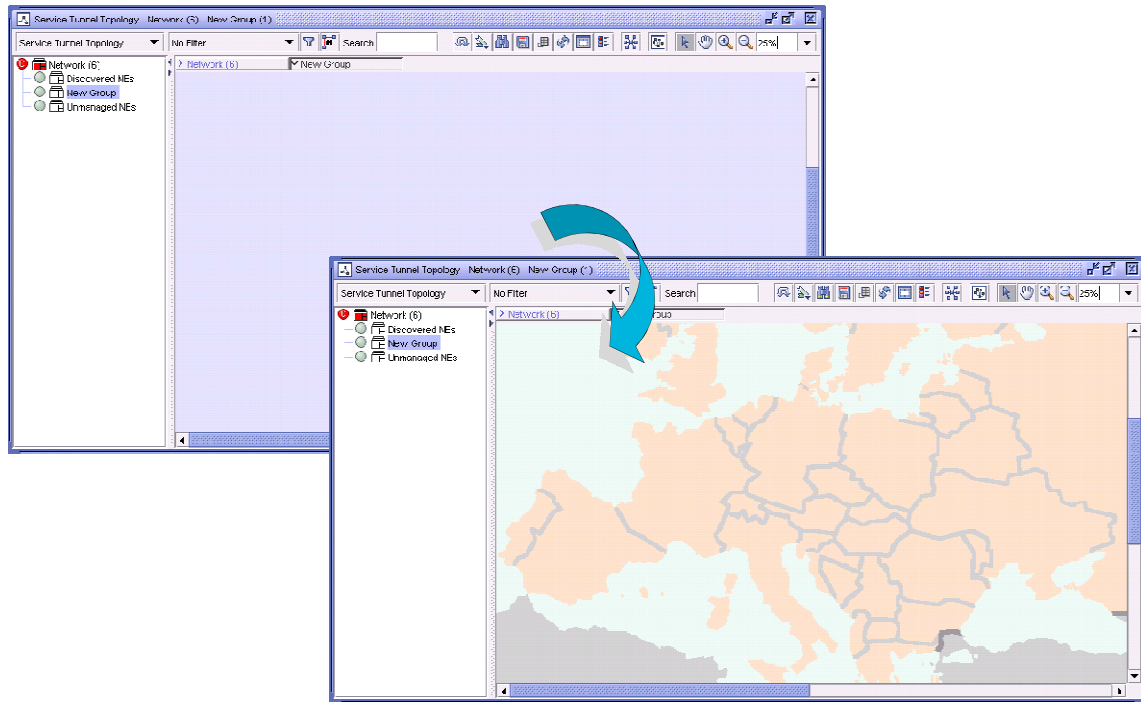
1.3 Apply a Map Background Image [cont.]



The following lines and the figures above summarize the steps recommended to apply a map background using the Europe map image example provided by the 5620 SAM for this lab exercise:

1. Open the **Group (Edit)** form by right clicking on an empty portion of the map to which you want to apply the background image and choose **Properties** from the contextual menu.
 Alternatively you could open the **Group (Edit)** form using one of the following methods:
 - a. From the map navigation tree, right click on a group name and choose **Properties** from the contextual menu.
 - b. Right click on a Group icon on the map and choose **Properties** from the contextual menu.
2. On the **Group (Edit)** form modify the **Background Image** parameter to specify a new map image file.
 For this lab exercise example, europe.gif
3. Click on the **OK** button. A dialog box appears. Click on the **Yes** button to proceed.

1.3 Apply a Map Background Image [cont.]



3 • 5 • 13

Network Management - Topology Map Components and Management Lab
5620 SAM - R12.0 Fundamentals

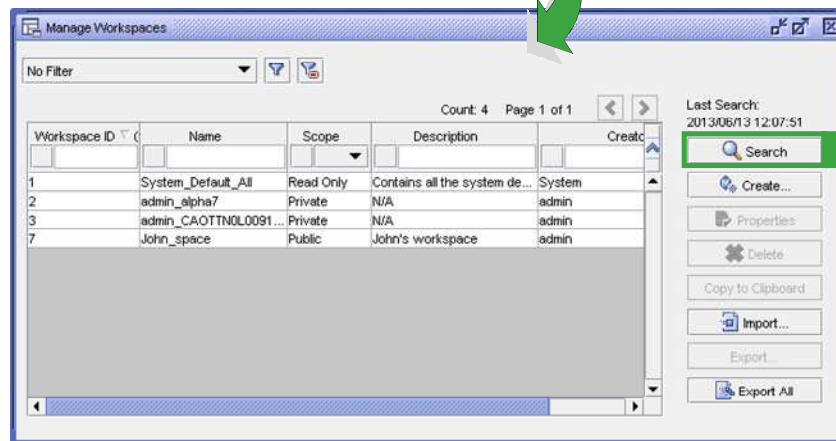
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The topology map group refreshes displaying the selected example image as map background. The images above show the Europe map applied as background for the topology group.

1.4 Customizing the Topology Map Icon Labels

Application→Manage Workspaces



3 • 5 • 14

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5620 SAM • R12.0 Fundamentals

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Lab Exercise Objective:

In order to customize the topology map icon labels, over the course of this lab exercise students will create a new SAM GUI Workspace, or modify an existing a SAM GUI Workspace.

Instructor preparation:

Provide each student with instructions for the modifications to the customized topology map icon labels preferences that will be applied to a workspace.

Instructions:

Follow your instructor's directions to create a new workspace or customize an existing workspace.

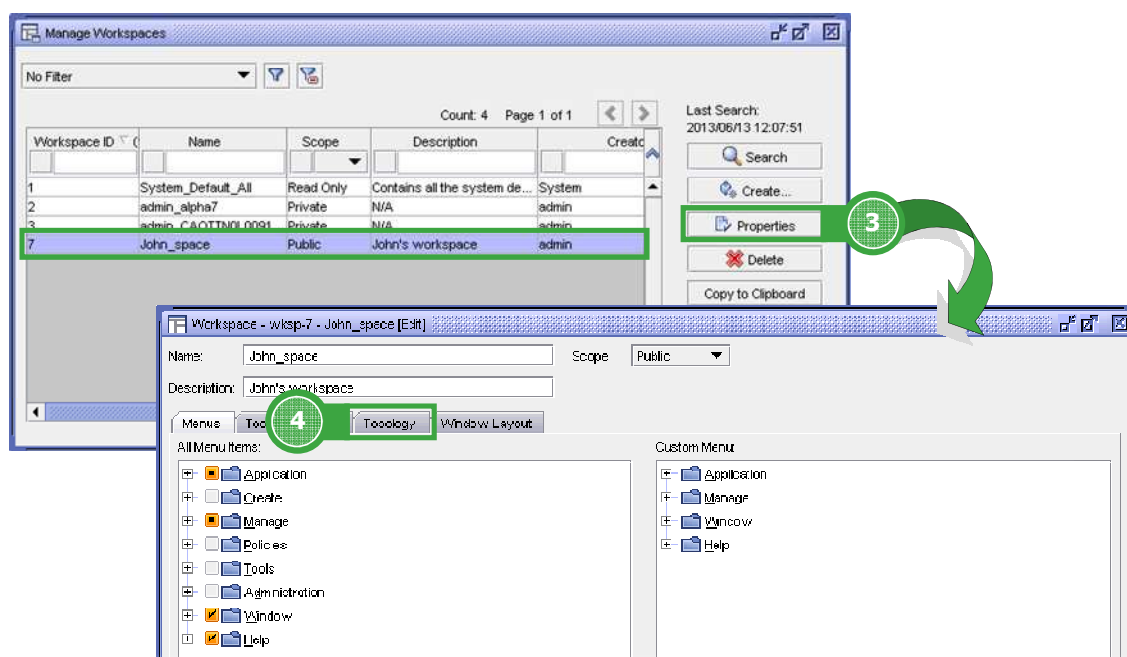
The following lines and the figures above summarize the steps recommended to customize the topology map icon labels of a workspace for this lab:



Technical Reference

For more information on the steps to create and customize a workspace see Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI workspace customization procedures.

1. Choose **Application→Manage Workspaces** from the 5620 SAM main menu. The **Manage Workspaces** form opens.
2. Click on the **Search** button to update the workspace list.



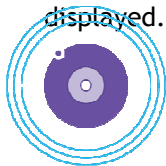
3 • 5 • 15

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3. Select a workspace from the list, and click on the **Properties** button. The **Workspace (Name) [Edit]** form opens with the **Menus** tab displayed.
4. Click on the **Topology** tab to customize the tree labels of the workspace. A list of topology map icons is displayed.




Technical Reference


For more information on the steps to customize the menu bar, toolbar, tree labels, topology icon labels, and window layout, of a workspace see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 3.8 5620 SAM GUI workspace customization procedures*

1.4 Customizing the Topology Map Icon Labels [cont.]


Customize topology map labels




Network Element




CPAM Routers




Service Site




CPAM Subnets




Service Access Point




CPAM Simulated Routers



Subscriber Interface



CPAM Simulated Subnets



xxxxxxxxxxxxxx - Text Field #1
xxxxxxxxxxxxxx - Text Field #2

Icon label customization supported for:

Manage Workspaces form's Topology tab allows restoring icon label to default values

3 • 5 • 16

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3. Select a topology map icon. The figure above displays the topology icons for which the label can be customized.
4. Customize Text Field #1 and Text Field #2 to identify the information to display in each map icon label.



Note

The available options for label customization vary depending on the object type selected.

5. Click on the OK button. A dialog box appears.
6. Click on the Yes button to save the changes and close the dialog box.
7. Close the Manage Workspaces form.



Note

The Manage Workspaces form's Topology tab also allows restoring all topology map icon labels to the default values by choosing the Default option using the Text Field #1 drop-down menu.

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End of module
Topology Map Components and Management Lab

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3 · 5 · 18

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Section 3
Network Management

Module 6
Topology Map Info Tables Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 3.6 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
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2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)



Upon completion of this lab module, you should be able to:

- configure a network element information (info) table to display in the map additional information values for NEs
- enable or disable the display of Info Tables
- enable the display of Info Tables on mouse over
- enable or disable the display Info Tables on selected network elements
- modify an info table configuration to use an existing info table for hiding or displaying in the map additional information values
- enable the display of Info Tables for links on mouse over

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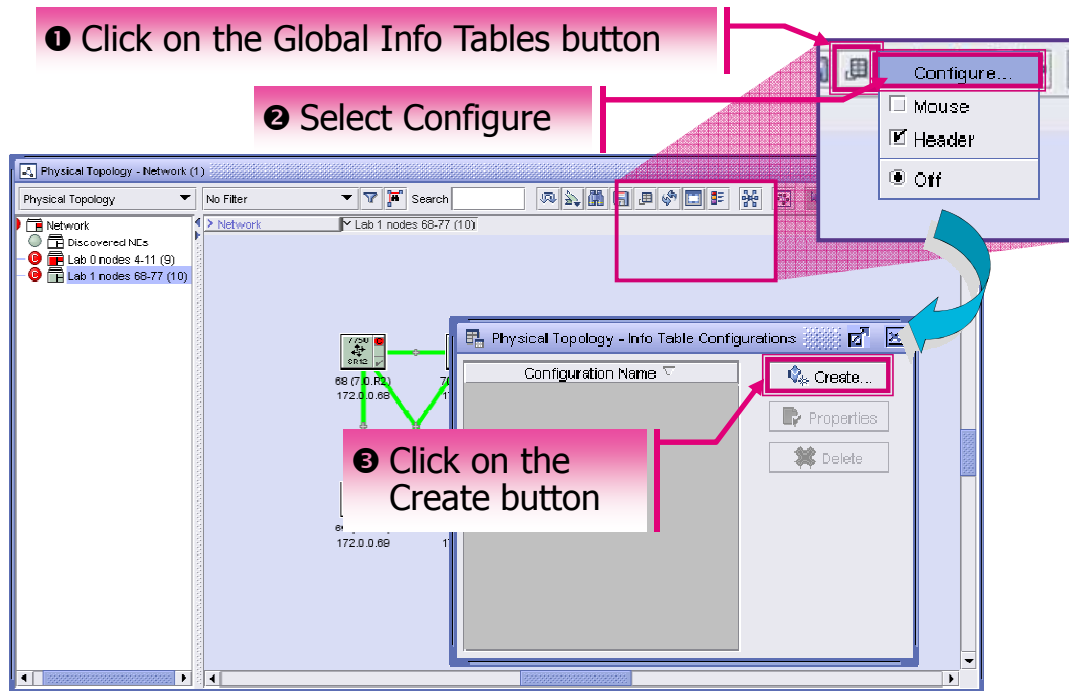


	Page
1 Info Tables Configuration Labs	7
1.1 Configure Info Tables - Network Element	8
1.2 Modify Info Table Configuration – Link	10
2 Display Info Tables Labs	12
2.1 Display Info Tables - Network Element	13
2.2 Display Info Tables - Mouse Over Network Element	14
2.3 Display Info Tables - Selected Network Element	15
2.4 Display Info Tables – Mouse Over Link	16

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1 Info Tables Configuration Labs

1.1 Configure Info Tables - Network Element



3 • 6 • 8
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Lab Exercise Objective:

In order to display in the map additional information values for NEs, instructions in this lab exercise will guide students to configure a network element information (info) table.

Instructor Preparation:

Provide students with instructions on the values for network elements that will be displayed in info tables on the map.

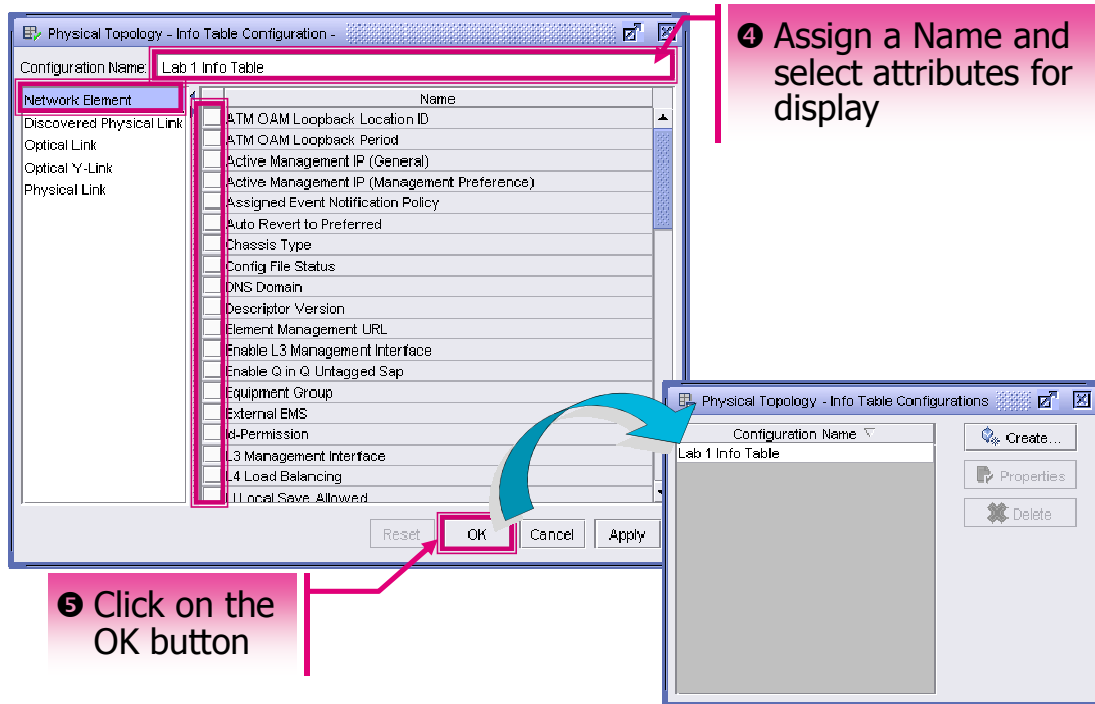
Instructions:

The following lines and the figures above summarize the steps recommended to configure an info table for the physical topology map for this lab exercise which displays the following information for NEs:

- active management IP
- chassis type
- last resync end and start time
- Object Life Cycle (OLC) state

1. Click on the **Global Info Tables** button. A drop-down menu opens with the information table configurations displayed.
2. Select the **Configure** menu item. The **Physical Topology - Info Table Configurations** form opens.
3. Click on the **Create** button. The **Physical Topology - Info Table Configuration** form opens.

1.1 Configure Info Tables - Network Element [cont.]



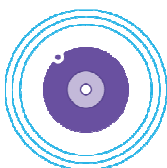
3 • 6 • 9

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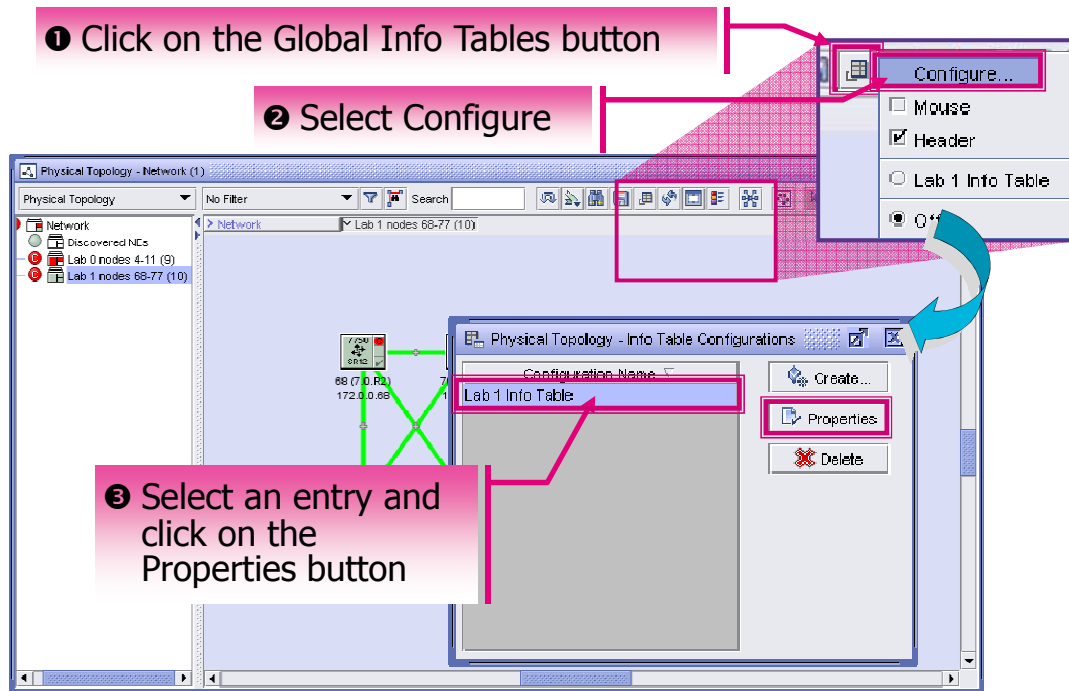
4. Assign a name by configuring the **Configuration Name** parameter. Choose **Network Element** object type and click on the associated check box to select the attribute for display in the information table.
For this lab exercise example select:
 - **Active Management IP (General)**
 - **Chassis Type**
 - **Last Resync End Time**
 - **Last Resync Start Time**
 - **OLC state**
5. Click on the **OK** button. The **Physical Topology - Info Table Configuration** form closes, and the new configuration is listed on the **Physical Topology - Info Table Configurations** form.
6. Close the **Physical Topology - Info Table Configurations** form.



Technical Reference

For more information on the steps to configure an info table and to apply the info table to NEs on the map see Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 5.6 5620 SAM map configuration procedures - Procedure 5.15 To create an information table configuration and Procedure 5.16 To enable or disable a global information table.

1.2 Modify Info Table Configuration – Link



3 • 6 • 10
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Lab Exercise Objective:

In order to use an existing info table for displaying in the map additional information values for links, instructions in this lab exercise will guide students to modify the info table configuration adding link information attributes.

Instructor Preparation:

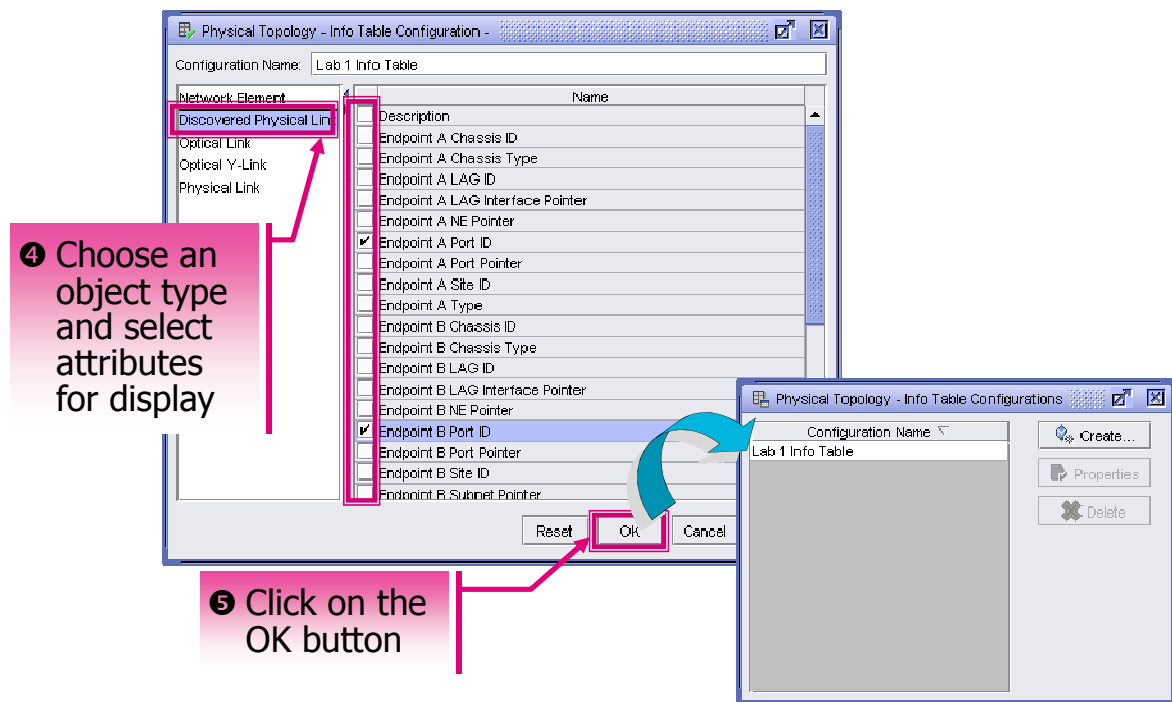
In preparation for this lab exercise identify the values to hide or add to an existing info table.

Instructions:

The following lines and the images above summarize the steps recommended to modify the info table configuration for the physical topology map for this lab exercise which displays the following information for discovered physical links:

- endpoint A and B port pointer
 - Link discovered from
 - Link operational state
 - Referenced
1. Click on the **Global Info Tables** button. A drop-down menu opens with the information table configurations displayed.
 2. Select the **Configure** menu item. The **Physical Topology - Info Table Configurations** form opens.
 3. Choose an entry from the list and click on the **Properties** button. The **Physical Topology - Info Table Configuration** form opens.
For this lab exercise example, the images above show the steps to modify the info table configured for the previous lab exercises.

1.2 Modify Info Table Configuration – Link [cont.]



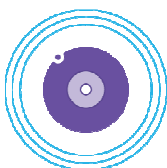
3 • 6 • 11

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4. Choose an object type and click on the associated check box to select the attribute for display in the information table.
For this lab exercise example choose **Discovered Physical Link** and select:
 - **Endpoint A Port Pointer**
 - **Endpoint B Port Pointer**
 - **Link Discovered From**
 - **Link Operational State**
 - **Link Referenced**
5. Click on the **OK** button. The **Physical Topology - Info Table Configuration** form closes, and the modified configuration is listed on the **Physical Topology - Info Table Configurations** form.
6. Close the **Physical Topology - Info Table Configurations** form.



Technical Reference

For more information on the steps to configure an info table and to apply the info table to links on the map see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 5.6 5620 SAM map configuration procedures - Procedure 5-15 To create an information table configuration and Procedure 5-16 To enable or disable a global information table*

2 Display Info Tables Labs

2.1 Display Info Tables - Network Element

① Click on the Global Info Tables button

② Choose info table

Lab 1 Info Table	Lab 1 Info Table	Lab 1 Info Table
Active Management IP	Active Management IP	Active Management IP (General)
Chassis Type	Chassis Type	Chassis Type
Last Resync End Time	Last Resync End Time	Last Resync End Time
Last Resync Start Time	Last Resync Start Time	Last Resync Start Time
OLC State	OLC State	OLC State

Lab 1 Info Table	Lab 1 Info Table	Lab 1 Info Table
Active Management IP	Active Management IP (General)	192.168.193.72
Chassis Type	Chassis Type	7750-SR12
Last Resync End Time	Last Resync End Time	2011/05/02 18:38:04 EDT
Last Resync Start Time	Last Resync Start Time	2011/05/02 18:38:52 EDT
OLC State	OLC State	In Service

Lab 1 Info Table	Lab 1 Info Table	Lab 1 Info Table
Active Management IP	Active Management IP (General)	192.168.193.71
Chassis Type	Chassis Type	7750-SR12
Last Resync End Time	Last Resync End Time	2011/05/02 18:37:04 EDT
Last Resync Start Time	Last Resync Start Time	2011/05/02 18:38:53 EDT
OLC State	OLC State	In Service

3 • 6 • 13

Network Management - Topology Map Info Tables Lab
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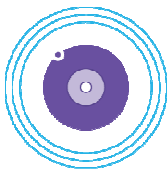
Lab Exercise Objective:

In order to display in the map the configured additional information values for all NEs, instructions in this lab exercise will guide students to enable the display of Info Tables for NEs.

Instructions:

The following lines and the figures above summarize the steps recommended to display the previously configured info tables on the physical topology map.

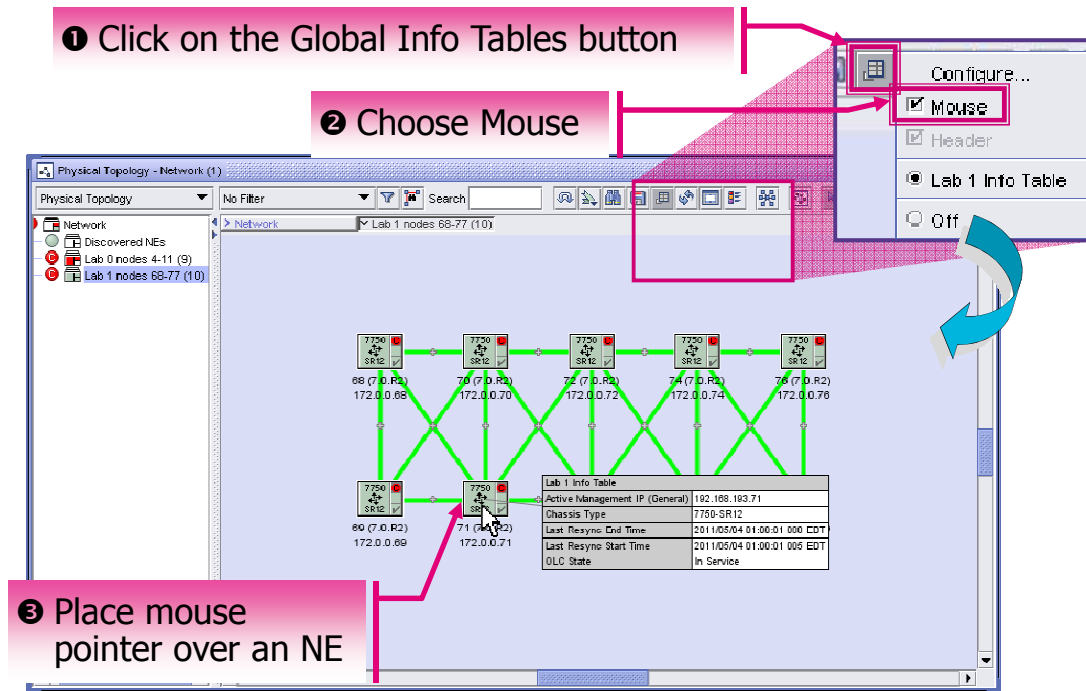
1. Click on the **Global Info Tables** button. A drop-down menu opens with the information table configurations displayed.
2. Select a radio button to apply an existing global information table configuration.
For this lab exercise example, select the radio button for the previously configured info table.
The map is refreshed displaying info tables with the corresponding information.



Technical Reference

For more information on the steps to apply the info table to NEs on the map see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 5.6 5620 SAM map configuration procedures - Procedure 5-16 To enable or disable a global information table*

2.2 Display Info Tables - Mouse Over Network Element



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Lab Exercise Objective:

In order to display in the map the configured additional information values for a pointed NEs, instructions in this lab exercise will guide students to enable the display of Info Tables for NEs on mouse over.

Instructions:

The following lines and the figures above summarize the steps recommended to display an info table when placing the mouse pointer over a network element on the physical topology map.

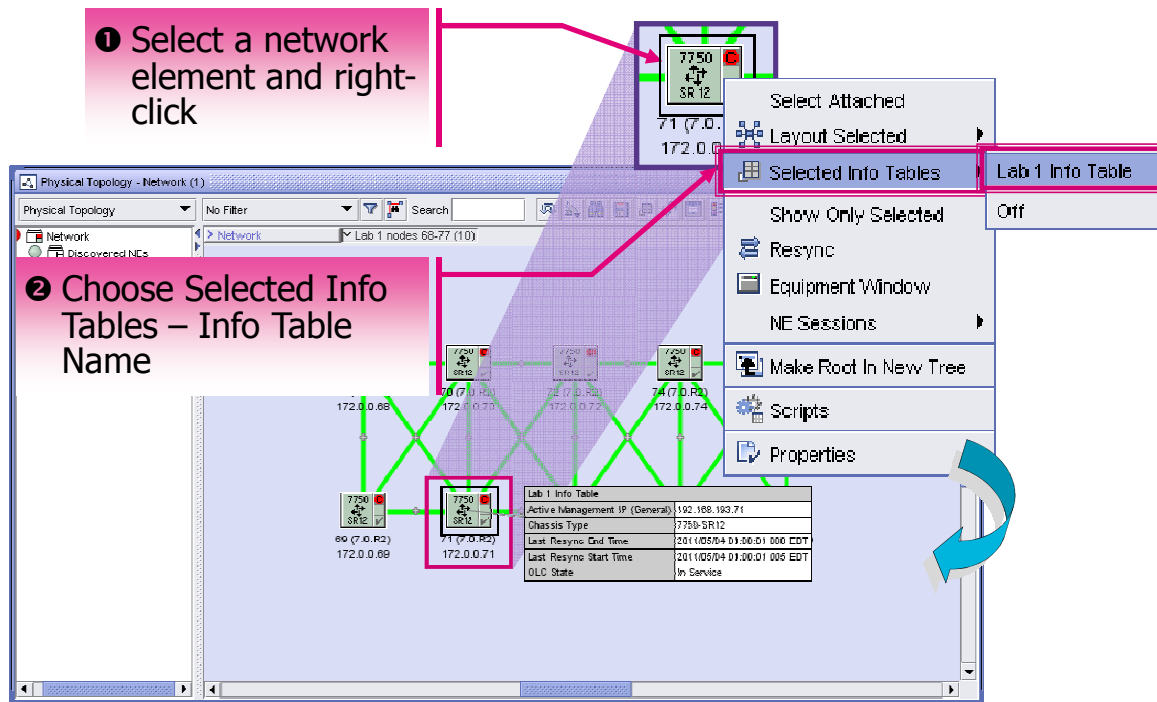
On a topology map displaying information tables.

1. Click on the **Global Info Tables** button. A drop-down menu opens with the information table configurations displayed.
2. Choose the **Mouse** checkbox
The map is refreshed with info tables not displayed in the map.
3. Place the mouse pointer over a network element, the info table for the network element is displayed with the corresponding information.

To Disable the Display of Info Tables

1. Click on the **Global Info Tables** button. A drop-down menu opens with the information table configurations displayed.
2. Select the **Off** radio button to disable global information tables display.

2.3 Display Info Tables - Selected Network Element



3 • 6 • 15

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Lab Exercise Objective:

In order to display in the map the configured additional information values for a selected NEs, instructions in this lab exercise will guide students to enable the display of Info Tables on selected NEs.

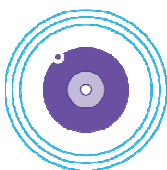
Instructions:

The following lines and the figures above summarize the steps recommended to display the info table for a selected network element on the physical topology map.

1. Select a network element and right-click to open the contextual menu.
2. Choose the **Selected Info Tables - Info Table Name**
The map is refreshed with the info table for the selected network element displayed in the map.

To Disable the Display Info Tables on Selected Network Elements

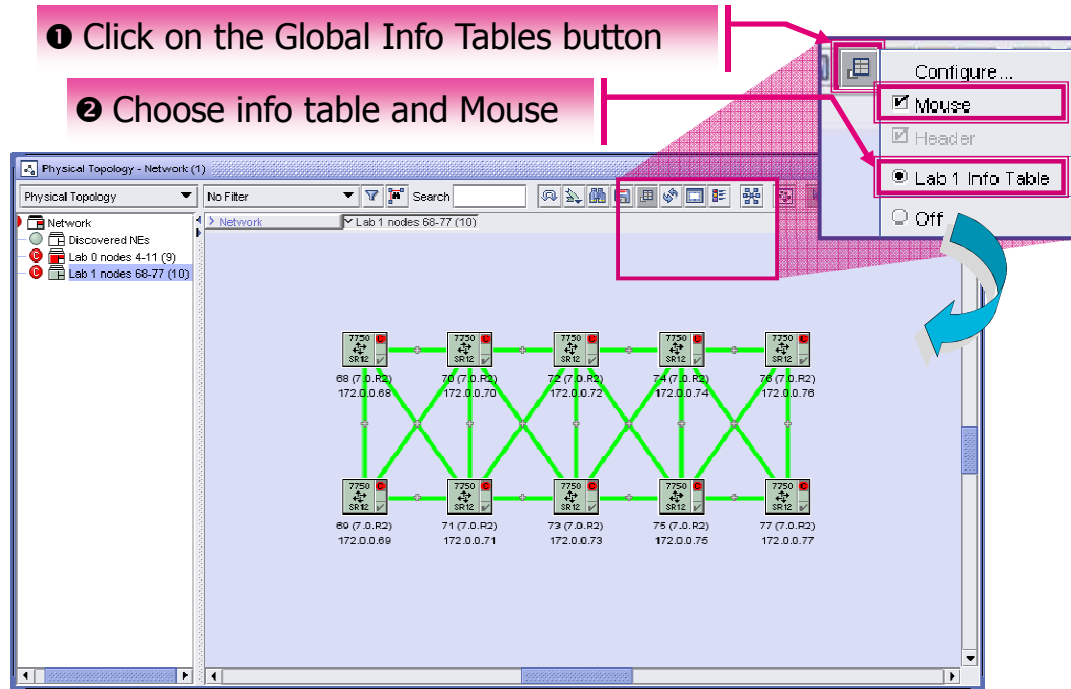
1. Select a network element and right-click to open the contextual menu.
2. Choose the **Selected Info Tables - Off**
The map is refreshed with the info table not displayed in the map for the selected element.



Technical Reference

For more information on the steps to apply the info table to selected NEs on the map see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 5.6 5620 SAM map configuration procedures - Procedure 5.17 To enable or disable a selected information table*

2.4 Display Info Tables – Mouse Over Link



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Lab Exercise Objective:

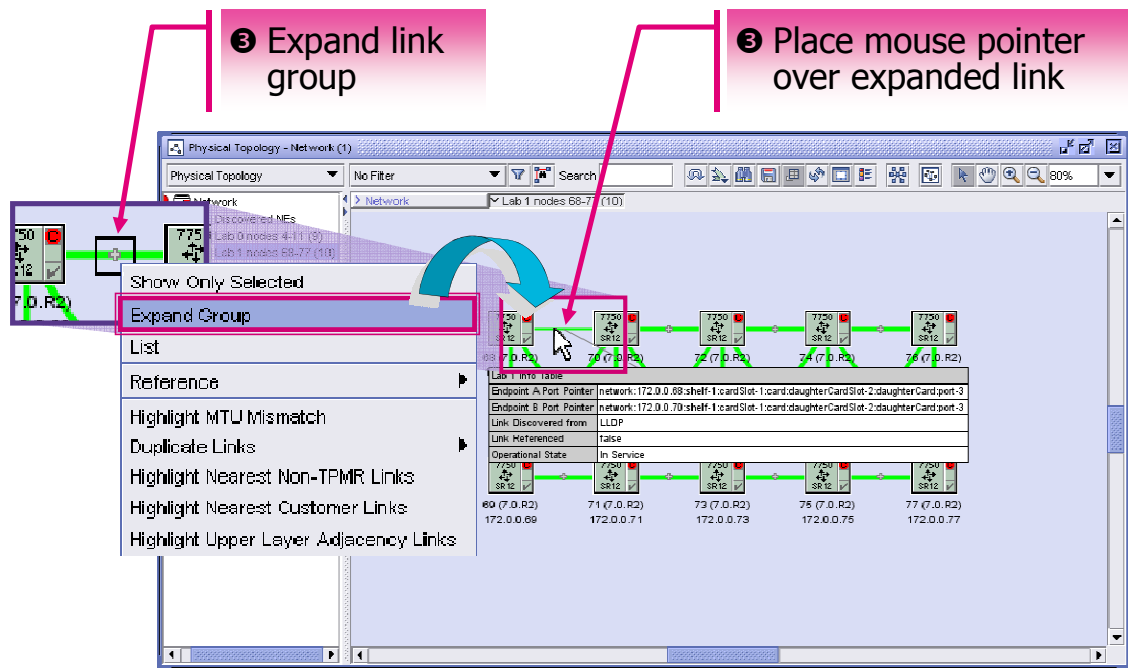
In order to display in the map the configured additional information values for a pointed links, instructions in this lab exercise will guide students to enable the display of Info Tables for links on mouse over.

Instructions:

The following lines and the figures above summarize the steps recommended to enable the display of info table when placing the mouse pointer over a link on the physical topology map.

1. Click on the **Global Info Tables** button. A drop-down menu opens with the information table configurations displayed.
2. Select a radio button to apply an existing global information table configuration.
For this lab exercise example, select the radio button for the info table configuration modified in the previous lab exercise.
If the info table is configured for network elements, the map is refreshed displaying info tables with the corresponding information for network elements.
Choose the **Mouse** checkbox.
The map is refreshed with info tables not displayed in the map.

2.4 Display Info Tables – Mouse Over Link [cont.]



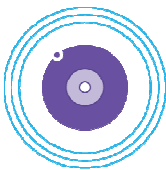
3 • 6 • 17

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- Right-click on the plus sign of a link group and choose **Expand Group** from the contextual menu. The map is refreshed with the link group expanded. As shown in the images above, if a link group contains only one link, when the link group is expanded the link line on the map will display thinner with no plus sign in it.
- Place the mouse pointer over an expanded link group, the info table for the link group is displayed with the corresponding information.



Technical Reference

For more information on the steps to apply the info table to links on the map see *Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - Section 5.6 5620 SAM map configuration procedures - Procedure 5-16 To enable or disable a global information table*



End of module
Topology Map Info Tables Lab

3 • 6 • 18

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Section 3
Network Management
Module 7
Flat Maps Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 3.7 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)



Upon completion of this lab module, you should be able to:

- open a flat map topology view to have a complete network view without topology groups
- Identify the characteristics of flat maps objects
- Identify the functions available from flat maps

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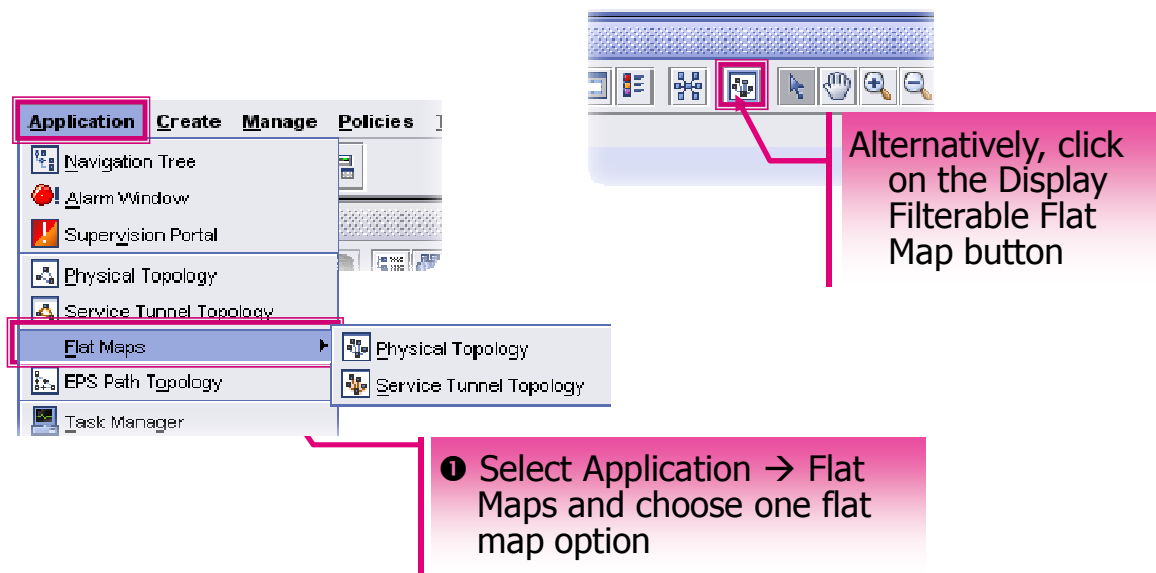


	Page
1 Flat Maps Labs	7
1.1 Open a Flat Map Topology View	8
1.2 Identify the Functions and Characteristics of a Flat Map	10

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1 Flat Maps Labs

1.1 Open a Flat Map Topology View



Lab Exercise Objective:

In order to have a complete network view without topology groups, instructions in this lab exercise will guide students to open a flat map topology view.

Instructor Preparation:

In preparation for this lab exercise provide students with instructions on the network elements, physical links, discovered physical links, and/or optical links to be included in the flat map.

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to open a flat map



Technical Reference

See Alcatel-Lucent 5620 SAM, Release 11.0 R3 User Guide - 5.5 Basic 5620 SAM map procedures - Procedure 5-5 To open a flat map for more details on the procedure.

The following lines and the images above summarize the steps recommended to open a flat physical topology map for this lab exercise:

1. Choose **Application**→**Flat Maps**→**Physical Topology** from the 5620 SAM main menu. The **Topology Filter - Physical Topology - Flat** filter form opens.
 Alternatively, click on the **Display Filterable Flat Map** button located in the map window tool bar to display a flat map of the current topology map view.

1.1 Open a Flat Map Topology View [cont.]

2 Choose one or more object filters and click on the "+" icon.

3 Configure a filter criteria and click on Add button to create the filter

4 Click on the Apply button

3 • 7 • 9

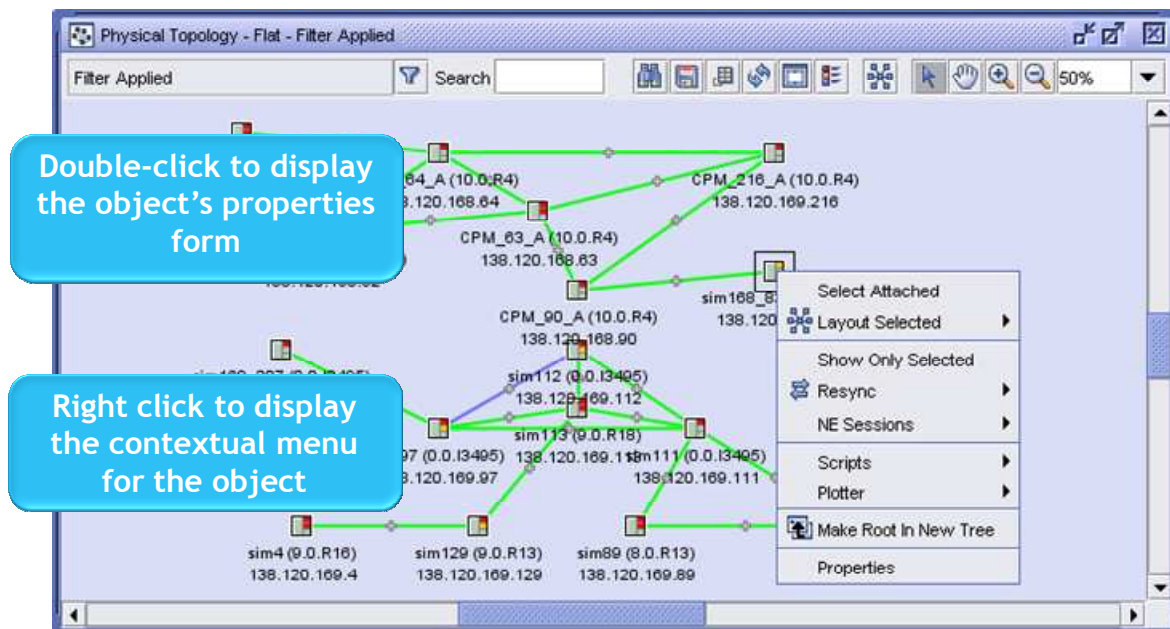
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2. Use the **Topology Filter - Physical Topology - Flat** filter form to choose one or more of the object filters and click on the "+" icon to create the filter. A filter window for each of the selected object types will open. For this lab exercise example, use the **Object Filters to Add** drop-down menu to choose the object types filters to include in the flat map. The available options are:
 - Discovered Physical Link
 - Network Element
 - Optical Link
 - Physical Link
3. Configure a filter criteria for each of the object type filters selecting an **Attribute** and **Function** using the corresponding drop-down menu, and typing a **Value**, as required. Click on the **Add Object Filter** button. The selected object filter is displayed in the corresponding object filter panel.
4. Click on the **Apply** button to apply the filter. The **Physical Topology - Flat** map view is refreshed displaying only the map objects defined in the filter.

1.2 Identify the Functions and Characteristics of a Flat Map



3 • 7 • 10

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5620 SAM - R12.0 Fundamentals

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On the **Physical Topology - Flat** map view, note that:

- object icons in a flat map are displayed at a reduced size
- link lines are thinner
- and object information is not displayed

From a flat map, the operator can:

- double-click on a NE in the flat map to display the object properties. For example, by double-clicking on an NE, a property form opens, from which allows operators to view or configure the NE parameters.
- right-click on an object in the flat map to display the contextual menu for the object.

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End of module
Flat Maps Lab

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3 · 7 · 12

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Section 3 Network Management **Module 8** **User Activity Lab**

TOS36033_V4.0-EQ-R12.0-Ed1 Module 3.8 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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2.0	2013-06-20	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)



Upon completion of this lab module, you should be able to:

- list the sessions on the 5620 SAM
- list user activities on the 5620 SAM
- Filter logged activities performed during a session
- Filter all logged activities performed by a user
- Navigate from "session" to "activity"
- Navigate from "activity" to "session"
- Navigate from "activity" to "object"
- Navigate from "object" to "activity"
- Navigate from "task" to "activity"

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	Page
Lab Module Objectives	7
1 User Activity Logs	8
1.1 User Activity - Session	9
1.2 User Activity - Activity	11
1.3 Filter Logged Activities Performed During a Session	13
1.4 Filter Logged Activities Performed by an User	14
2 Navigate Using User Activity Logs	16
2.1 Navigation from "Session" to "Activity"	17
2.2 Navigation from "Activity" to "Session"	19
2.3 Navigation from "Activity" to "Object"	20
2.4 Navigation from "Object" to "Activity"	21
2.5 Navigation from Task manager to User Activity	22

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Lab Module Objectives

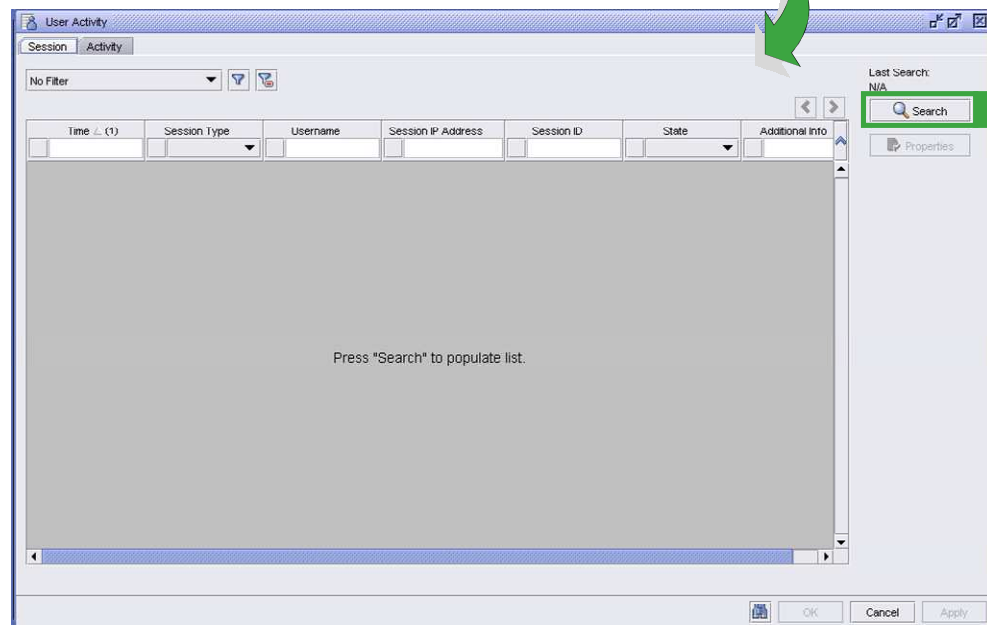
Upon completion of this lab module, you will be able to:

- list the sessions on the 5620 SAM
- list user activities on the 5620 SAM
- Filter logged activities performed during a session
- Filter all logged activities performed by a user
- Navigate from “session” to “activity”
- Navigate from “activity” to “session”
- Navigate from “activity” to “object”
- Navigate from “object” to “activity”
- Navigate from “task” to “activity”

1 User Activity Logs

1.1 User Activity - Session

Administration → Security → User Activity



3 • 8 • 9

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Lab Exercise Objective:

Each 5620 SAM GUI client, 5620 SAM-O JMS client, or XML API request creates a 5620 SAM client session. In order to view a list of 5620 SAM client sessions, over the course of this lab exercise students will use the 5620 SAM GUI client to open a list of session activity records on the 5620 SAM.

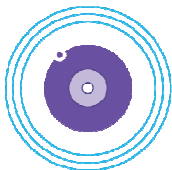
Instructor preparation:

Ensure each student is logged in using an user account with the appropriate scope of command rights to see the 5620 SAM User Security - Security Management form.

Instructions:

The following lines and the figures above summarize the steps recommended to list all sessions:

1. Choose **Administration -> Security -> User Activity** from the 5620 SAM main menu. The 5620 SAM User Activity form opens with the Session tab displayed.
2. Click on the **Search** button, a list of session activity records is displayed.



Technical Reference

For more information *Alcatel-Lucent 5620 SAM 11.0 R3 User Guide - 9.7 Workflow to manage 5620 SAM user and group security- Procedure 9-28 To view the user activity log and Procedure 9-25 To view and manage the active 5620 SAM client sessions*

1.1 User Activity - Session [cont.]

The screenshot displays the 'User Activity' window with a table of session records. The columns are labeled as follows:

- 1. Session Time
- 2. Session Type
- 3. User Name
- 4. Session IP Address
- 5. Session ID
- 6. Session State
- 7. Additional Info.

The table contains the following data:

Time (1)	Session Type (2)	Username (3)	Session IP Address (4)	Session ID (5)	State (6)	Additional Info (7)
2012/04/04 08:19:20 CEST	5620 SAM Client	admin	135.117.150.215	0	Connected	Session Connected
2012/04/04 02:38:03 CEST	5620 SAM Client	admin	138.120.133.143	7	Connected	Session Connected
2012/04/04 02:37:56 CEST	5620 SAM Server	admin	138.120.140.172	0	Access Violation	Login Failure
2012/04/03 21:32:29 CEST	5620 SAM Client	admin	138.120.140.172	5	Disconnected	Session Disconnected
2012/04/03 21:19:35 CEST	5620 SAM Client	admin	138.120.142.84	6	Connected	Session Connected
2012/04/03 20:16:26 CEST	5620 SAM Client	admin	138.120.140.172	6	Connected	Session Connected
2012/04/03 19:41:36 CEST	5620 SAM Client	admin	138.120.140.172	4	Disconnected	Client Closed by the User
2012/04/03 19:32:18 CEST	5620 SAM Client	admin	138.120.140.172	4	Connected	Session Connected
2012/04/03 19:05:46 CEST	5620 SAM Client	admin	138.120.143.126	3	Connected	Session Connected
2012/04/03 18:27:26 CEST	5620 SAM Client	admin	138.120.140.172	2	Disconnected	Client Closed by the User
2012/04/03 16:07:17 CEST	5620 SAM Client	admin	138.120.140.172	2	Connected	Session Connected
2012/04/03 15:57:20 CEST	5620 SAM Client	admin	138.120.140.172	1	Connected	Session Connected
2012/04/03 15:57:20 CEST	5620 SAM Client	admin	138.120.140.172	0	Server Startup	5620SAM Server was started
2012/04/03 15:57:20 CEST	5620 SAM Client	admin	138.120.143.126	7	Disconnected	Session Disconnected
2012/04/03 15:57:20 CEST	5620 SAM Client	admin	138.120.140.172	8	Connected	Session Connected
2012/04/03 15:57:20 CEST	5620 SAM Client	admin	138.120.142.84	4	Disconnected	Client closed by the User due to client-server commun...
2012/04/02 18:00:00 CEST	5620 SAM Client	admin	138.120.143.126	6	Connected	Session Connected
2012/04/02 18:00:00 CEST	5620 SAM Client	admin	138.120.143.126	6	Disconnected	Session Disconnected
2012/04/02 18:00:00 CEST	5620 SAM Client	admin	138.120.143.126	6	Connected	Session Connected
2012/04/02 18:00:00 CEST	5620 SAM Client	admin	138.120.143.126	3	Disconnected	Session Disconnected
2012/04/02 18:00:00 CEST	5620 SAM Client	admin	138.120.132.88	5	Disconnected	Client Closed by the User
2012/04/02 15:42:38 CEST	5620 SAM Client	admin	138.120.132.88	5	Connected	Session Connected
2012/04/02 15:42:38 CEST	5620 SAM Client	admin	138.120.142.84	4	Connected	Session Connected
2012/04/02 15:42:38 CEST	5620 SAM Client	admin	138.120.143.126	3	Connected	Session Connected
2012/04/02 15:42:38 CEST	5620 SAM Client	admin	138.120.140.172	2	Connected	Session Connected
2012/04/02 15:42:38 CEST	5620 SAM Client	admin	138.120.140.172	4	Connected	Session Connected

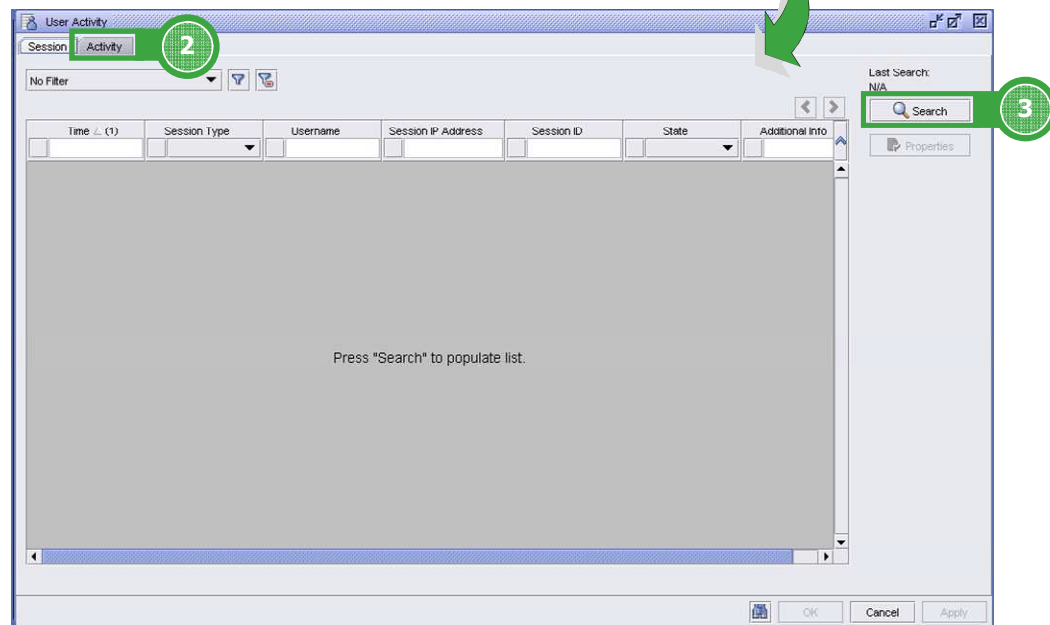
User Activity form refreshes displaying a list of session records on the 5620 SAM.

The image above shows an example of the display and identifies the listed session parameters:

1. Session Time (User login time and date)
2. Session Type (such as GUI, JMS and OSS)
3. Associated Username (example : admin,....)
4. Session IP address (Client IP Address)
5. Session ID : Unique identifier of the session
6. Session state (Connected, Disconnected, access violation, Server startup...)
7. Additional Information (Session connected, login failure)

1.2 User Activity - Activity

Administration → Security → User Activity



3 • 8 • 11

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Lab Exercise Objective

In order to view logged recent user activity entries, over the course of this lab exercise students will use the 5620 SAM GUI client to open a filterable list of activities logged (except read-only activities) on the 5620 SAM.

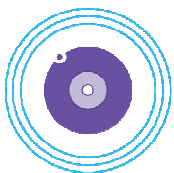
Instructor preparation

Ensure each student is logged in using an user account with the appropriate scope of command rights to see the 5620 SAM User Security - Security Management form.

Instructions

The following lines and the figures above summarize the steps recommended to list all sessions:

1. Choose **Administration -> Security -> User Activity** from the 5620 SAM main menu. The 5620 SAM User Activity form opens with the Session tab displayed.
2. Click on the **Activity** tab.
3. Click on the **Search** button.



Technical Reference

For more information *Alcatel-Lucent 5620 SAM 11.0 R3 User Guide - 9.7 Workflow to manage 5620 SAM user and group security- Procedure 9-28 To view the user activity log and Procedure 9-25 To view and manage the active 5620 SAM client sessions*

1.2 User Activity - Activity [cont.]

The screenshot displays the 'User Activity' window in the NetScout system. The window contains a table of user activities with the following columns: Time, Session Type, Username, Type, Sub Type, Site Name, Site ID, Object Name, and Object ID. The table lists multiple entries for 'admin' users performing 'Save' and 'Deletion' actions on various objects. Annotations with numbered boxes identify the following fields:

- 1. Timestamp (Time column)
- 2. Session Type (Session Type column)
- 3. Username (Username column)
- 4. Activity Type (Type column)
- 5. Sub-type (Sub Type column)
- 6. Site Name (Site Name column)
- 7. Site ID (Site ID column)
- 8. Object Name (Object Name column)
- 9. Object ID (Object ID column)

The table data includes columns for Time, Session Type, Username, Type, Sub Type, Site Name, Site ID, Object Name, and Object ID. The data rows show activities for 'admin' users, with 'Save' and 'Deletion' actions on various objects. The table is filtered by 'No Filter' and 'Activity'.

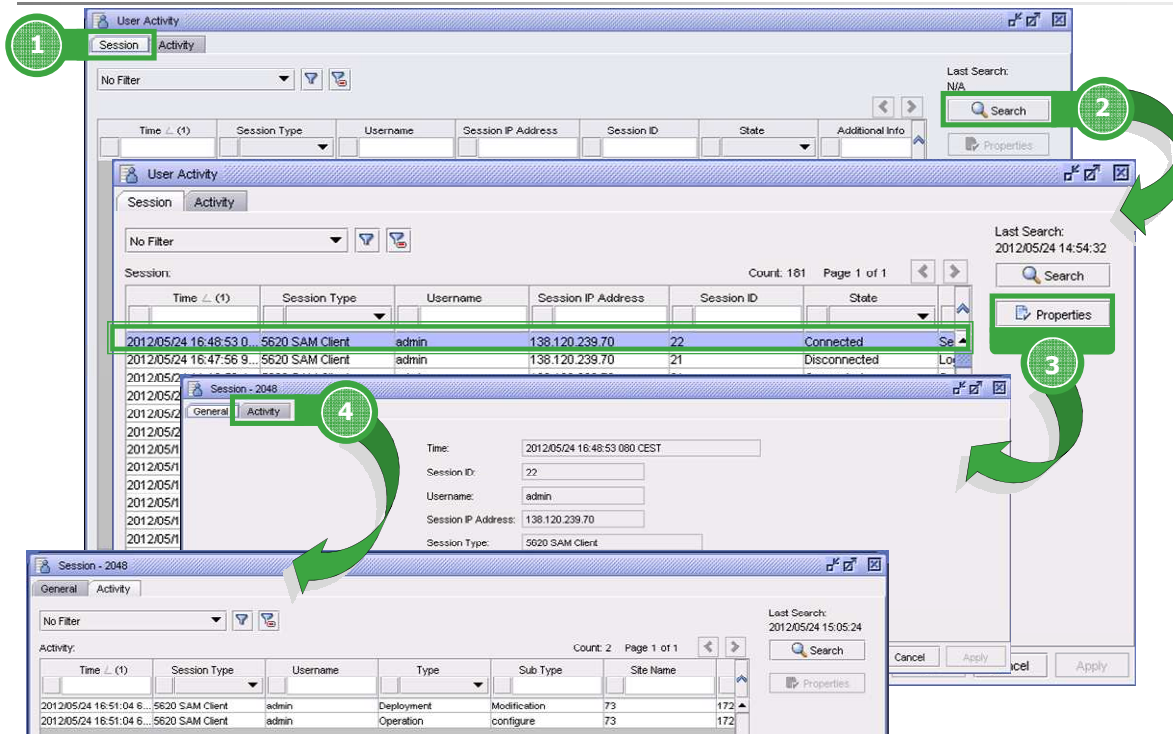
User Activity form Activities tab refreshes displaying a list of session activity records on the 5620 SAM.

The image above shows an example of the display and identifies the listed activity parameters:

1. Timestamp : The time at which the activity occurs
 2. Session type: such as GUI, JMS, or OSS
 3. Username (example : Admin)
 4. Activity Type : Operation , Save , Deployment
 - Operation : configuration, modification, deletion
 - Save : if the result of the operation is a database changing
 - Deployment : if a network deployment is a consequence of the activity
 5. Activity Subtype : additional details on the activity (example for operation, this parameter specifies if the operation is creation, modification, or deletion)
 6. Site Name (information about the site)
 7. Site ID (information about the site)
 8. Object Name : if the operation is related to an object (example of activity on an object: Port Shutdown)
 9. Object ID : if the operation is related to an object (example of activity on an object: Port Shutdown)
- Other parameters (not displayed on this picture)

- Object Type (example Test Manager), State (Success...), Session ID, Session IP address, Session Time, Request ID

1.3 Filter Logged Activities Performed During a Session



Lab Exercise Objective:

In order to view a list of activities performed during a user session, over the course of this lab exercise students will use the 5620 SAM GUI client to create list filter for displaying activities performed during a selected session.

Instructor preparation:

Ensure each student is logged in using an user account with the appropriate scope of command rights to see the 5620 SAM User Security - Security Management form.

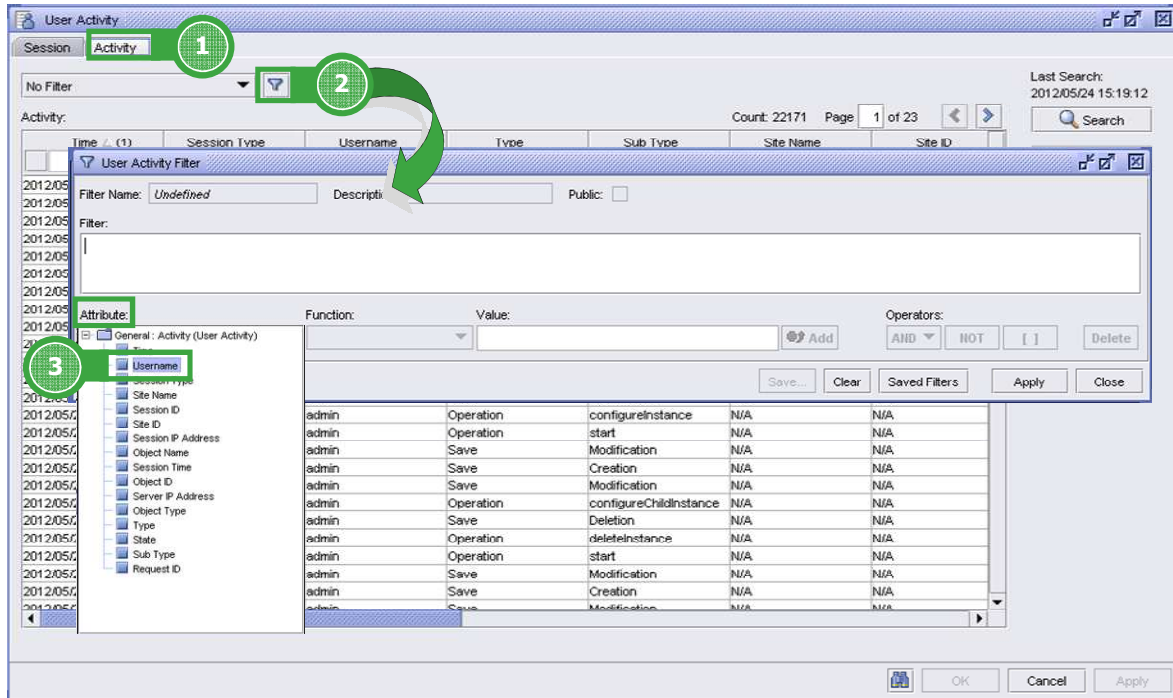
Provide each student with instructions of a session for which logged actions will be filtered for this lab.

Instructions:

The following lines and the figures above summarize the steps recommended to filter all logged activities performed during a session

1. On **User Activity** form, click on **Session** tab.
2. Click on the **Search** button. The list refreshes displaying a list of session records on the 5620 SAM.
3. Following your instructors directions. Select a session from the list and click on the **Properties** button, alternatively double-click on a session from the list. A **Session [Identifier]** form opens with the **General** tab displayed.
4. On the **Session [Identifier]** form click on the **Activity** tab.
5. Click on the **Search** button. The **Activity** tab displays all the activities performed during the selected session.

1.4 Filter Logged Activities Performed by an User



3 • 8 • 14

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Lab Exercise Objective:

In order to view a list of activities performed by an user, over the course of this lab exercise students will use the 5620 SAM GUI client to create list filter for displaying activities performed by a selected used.

Instructor preparation:

Ensure each student is logged in using an user account with the appropriate scope of command rights to see the 5620 SAM User Security - Security Management form.

Provide each student with instructions of a user for which logged actions will be filtered for this lab.

Instructions:

1. On **User Activity** form, click on **Activity** tab.
2. Click on the **Filter** icon. The User Activity Filter form opens.
3. Select “username” as **Attribute**.

1.4 Filter Logged Activities Performed by an User [cont.]

User Activity Filter

Filter Name: Description: Public: ☐

Filter:

Attribute: Function: Value: Add

User Activity

Session

Activity: Count: 1 Page 1 of 1

Time (1)	Session Type	Username	Type	Sub Type	Site Name	Site ID
2012/05/24 17:10:40 7...	5620 SAM Client	lannion	Operation	login	N/A	N/A

Last Search: 2012/05/24 15:23:41

- Following your instructor's directions enter the username for which logged actions will be filtered for this lab. The example above shows a filter specified for a username that contains "lannion".
- Click on the **Apply** button. The User Activity form Activity tab's list refreshes displaying logged activities performed by the selected user.

2 Navigate Using User Activity Logs

2.1 Navigation from “Session” to “Activity”

1 Click on a GUI session record

2 Click on the Activity tab

Time (1)	Session Type	Username	Session IP Address	Session ID	State	Additional Info
2012/04/04 09:19:20 657 CEST	5620 SAM Client	admin	135.117.150.215	8	Connected	Session Connected
2012/04/04 02:38:03 696 CEST	5620 SAM Client	admin				
2012/04/04 02:37:56 361 CEST	5620 SAM Server	admin				
2012/04/03 21:32:29 898 CEST	5620 SAM Client	admin				
2012/04/03 21:19:35 958 CEST	5620 SAM Client	admin				
2012/04/03 20:16:26 183 CEST	5620 SAM Client	admin				
2012/04/03 19:41:36 500 CEST	5620 SAM Client	admin				
2012/04/03 19:34:10 601 CEST	5620 SAM Client	admin				
2012/04/03 19:05:46 959 CEST	5620 SAM Client	admin				
2012/04/03 18:27:26 003 CEST	5620 SAM Client	admin				
2012/04/03 16:07:17 224 CEST	5620 SAM Client	admin				
2012/04/03 15:57:38 528 CEST	5620 SAM Client	admin				
2012/04/03 15:53:15 124 CEST	5620 SAM Server	admin				
2012/04/03 15:37:39 107 CEST	5620 SAM Client	admin				
2012/04/03 00:09:20 804 CEST	5620 SAM Client	admin				
2012/04/02 18:34:46 648 CEST	5620 SAM Client	admin				
2012/04/02 18:00:00 083 CEST	5620 SAM Client	admin				
2012/04/02 17:58:55 697 CEST	5620 SAM Client	admin				
2012/04/02 17:44:53 395 CEST	5620 SAM Client	admin				
2012/04/02 17:41:32 225 CEST	5620 SAM Client	admin				
2012/04/02 16:22:14 752 CEST	5620 SAM Client	admin				
2012/04/02 15:42:38 684 CEST	5620 SAM Client	admin				
2012/03/29 19:58:47 662 CEST	5620 SAM Client	admin				
2012/03/29 17:47:00 003 CEST	5620 SAM Client	admin				
2012/03/29 17:46:37 653 CEST	5620 SAM Client	admin				
2012/03/29 17:46:27 652 CEST	5620 SAM Client	admin				

Time: 2012/04/03 19:05:46 959 CEST
 Session ID: 3
 Username: admin
 Session IP Address: 135.120.143.126
 Session Type: 5620 SAM Client
 State: Connected
 Additional Info: Session Connected

3 • 8 • 17

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Lab Exercise Objective:

In order to trace down activities performed during a client session using logged user activity, over the course of this lab exercise students will use the GUI client to navigate from a “session” to the related “activities”.

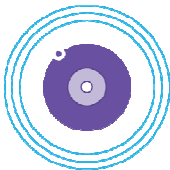
Instructor Preparation:

Provide students with instructions on a client session for which activities will be viewed.

Instructions:

The following lines and the figures above summarize the steps recommended to navigate from a “session” to the related “activities” for this lab:

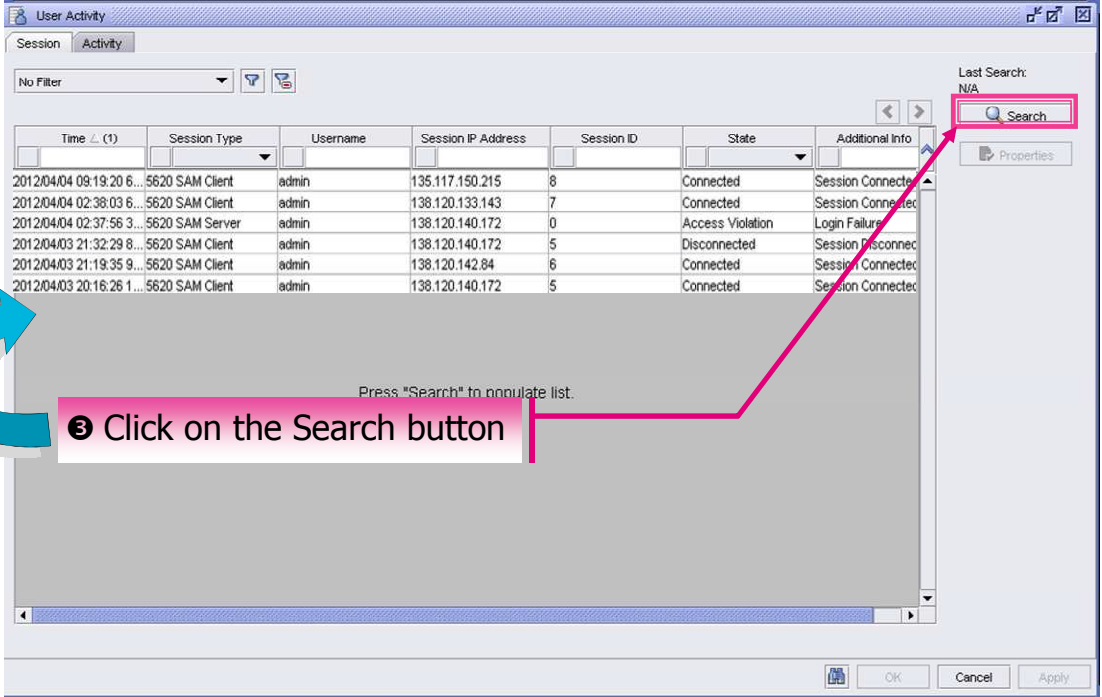
1. On the User Activity form, select a GUI Session from the session list.
2. Click on the **Activity** tab.



Technical Reference

For more information Alcatel-Lucent 5620 SAM 11.0 R3 Troubleshooting guide - Chapter 8 – Troubleshooting using the 5620 SAM user activity log

2.1 Navigation from “Session” to “Activity” [cont.]



Press "Search" to populate list.

3 Click on the Search button

Time (1)	Session Type	Username	Session IP Address	Session ID	State	Additional Info
2012/04/04 09:19:20 6...	5620 SAM Client	admin	135.117.150.215	8	Connected	Session Connected
2012/04/04 02:38:03 6...	5620 SAM Client	admin	138.120.133.143	7	Connected	Session Connected
2012/04/04 02:37:56 3...	5620 SAM Server	admin	138.120.140.172	0	Access Violation	Login Failure
2012/04/03 21:32:29 8...	5620 SAM Client	admin	138.120.140.172	5	Disconnected	Session Disconnected
2012/04/03 21:19:35 9...	5620 SAM Client	admin	138.120.142.84	6	Connected	Session Connected
2012/04/03 20:16:26 1...	5620 SAM Client	admin	138.120.140.172	5	Connected	Session Connected

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3 • 8 • 18
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3. Click on the **Search** button. The form lists all activities associated with the session.

2.2 Navigation from “Activity” to “Session”

1 Click on an activity

2 Click on the Session tab

3 • 8 • 19

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Lab Exercise Objective:

In order to trace down the client session during which a selected activity was performed using logged user activity, over the course of this lab exercise students will use the GUI client to navigate from an “activity” to the related “session”

Instructor Preparation:

Provide students with instructions on an activity or activities for which the client session will be viewed.

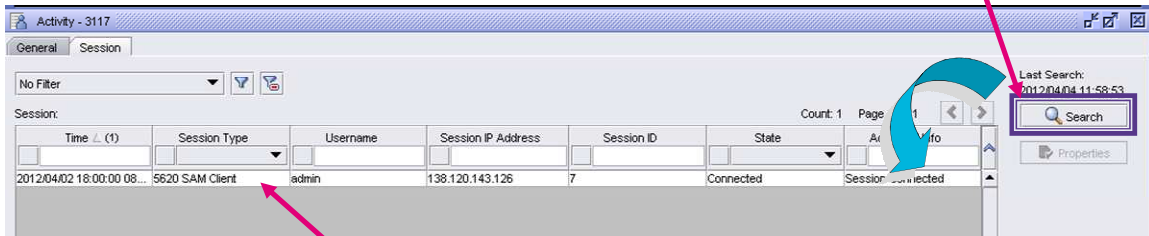
Instructions:

The following lines and the figures above summarize the steps recommended to navigate from an “activity” to the related “session” for this lab:

1. On the User Activity form, click on the Activity tab and double-click on an activity from the list. Alternatively, select an activity from the list and click on the Properties button. The Activity form opens.
2. On the Activity form, click on the Session tab.

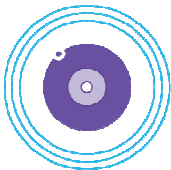
2.2 Navigation from “Activity” to “Session” [cont.]

③ Click on the Search button



④ The associated session is listed

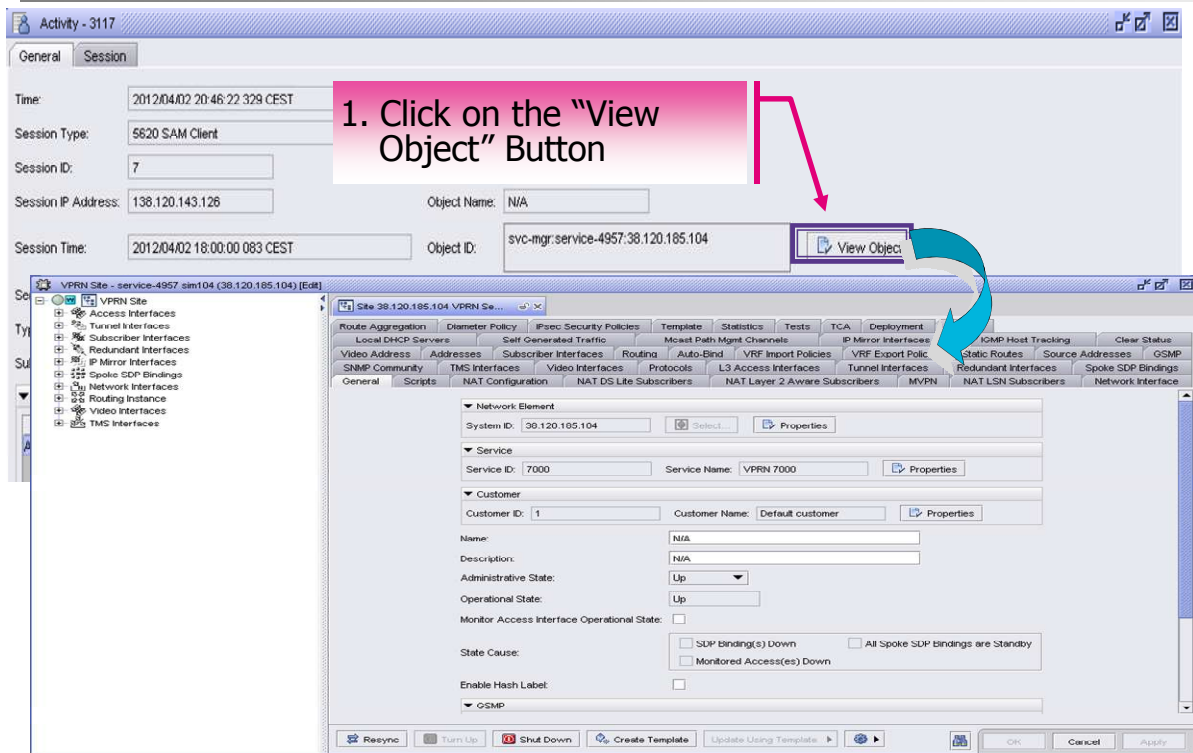
3. Click on the “search” button
4. The session linked to the activity is displayed



Technical Reference

For more information Alcatel-Lucent 5620 SAM 11.0 R3 Troubleshooting guide - Chapter 8 – Troubleshooting using the 5620 SAM user activity log

2.3 Navigation from “Activity” to “Object”



3 · 8 · 21

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Lab Exercise Objective:

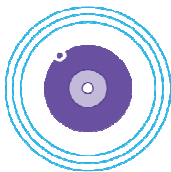
In order to trace down the object related to a selected logged user activity, over the course of this lab exercise students will use the GUI client to navigate from an “activity” to the related “object” properties window.

Instructor Preparation:

Provide students with instructions on an activity or activities for which the object properties window will be viewed.

Instructions:

Follow your instructor’s directions to navigate from an “activity” to the related “object” properties window for this lab.



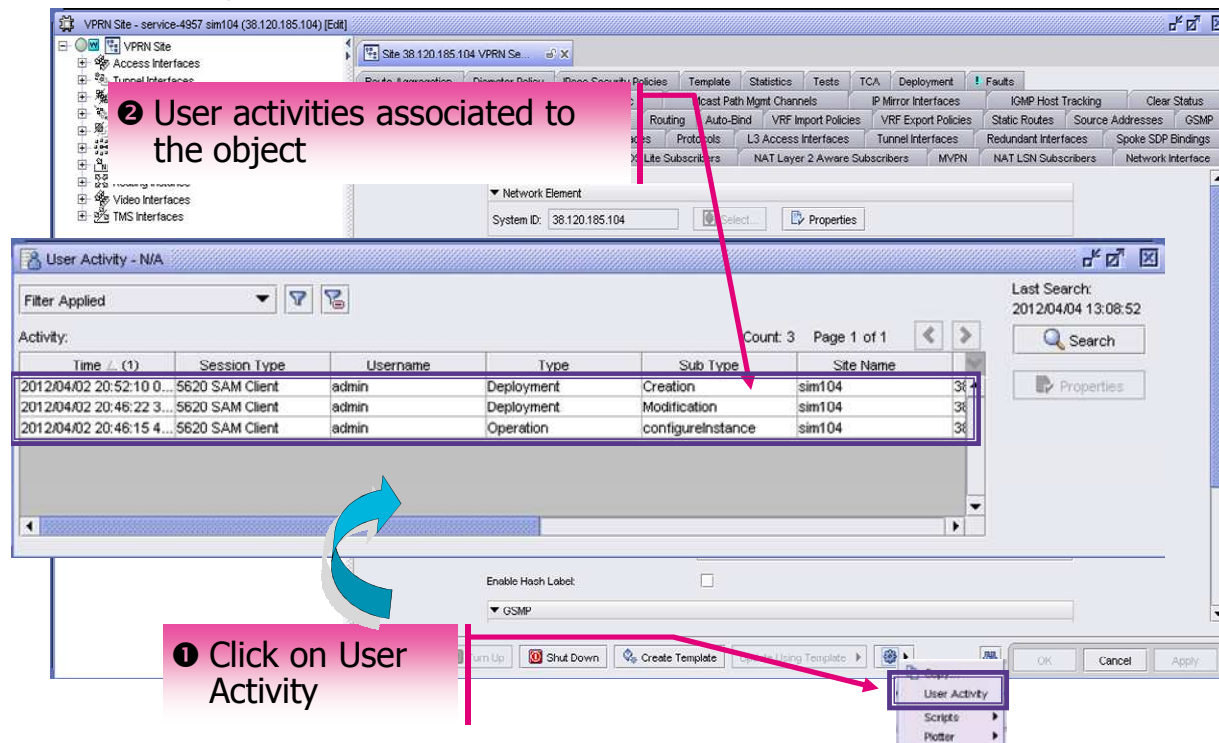
Technical Reference

For more information *Alcatel-Lucent 5620 SAM 11.0 R3 Troubleshooting guide - Chapter 8 – Troubleshooting using the 5620 SAM user activity log*

In order to exemplify the procedure, the following lines and the figures above summarize the steps recommended to navigate from a port shutdown “activity” to the related port “object” properties window:

1. Open the Activity window. Click on the View Object button besides the “Object ID” parameter to navigate to the affected object’s properties form.
The object’s Properties form opens.

2.4 Navigation from “Object” to “Activity”



3 • 8 • 22

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Lab Exercise Objective:

In order to trace down recent activities performed for a selected object using the logged user activity, over the course of this lab exercise students will use the GUI client to navigate from an “object” properties window to the related user “activity”.

Instructor Preparation:

Provide students with instructions on an object for which related logged activities will be viewed.

Instructions:

Follow your instructor’s directions to navigate from an “object” properties form to the related user “activity” for this lab.

In order to exemplify the procedure, the following lines and the figures above summarize the steps recommended to navigate from a port “object” properties form to the related user “activities”:

1. Open an object’s properties form. Select the User activity in the bottom left corner of the properties form. Should the properties form has been resized click on the More Actions button and select User Activity from the contextual menu, as shown in the image above.
2. The User Activity form opens with a filter applied to display all associated activities logged for the selected object.

2.5 Navigation from Task manager to User Activity

1 Choose one port and open the properties form

2 Modify the description parameter

3 • 8 • 23
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5620 SAM - R12.0 Fundamentals

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TOS36033_V4.0-EQ-R12.0-Ed1 Module 3.8 Edition 4
Section 3 • Module 8 • Page 23

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Lab Exercise Objective:

In order to trace down the activity related to a 5620 SAM task, over the course of this lab exercise students will use the GUI client to navigate from a “task” on the task manager to the related “activity”.

Instructor Preparation:

Provide students with instructions on a task to be performed for which the associated activity will be viewed.

Instructions:

Follow your instructor’s directions to navigate from a “task” to the related user “activity” for this lab.

In order to exemplify the procedure, the following lines and the figures above summarize the steps recommended to navigate from a “task” perform on a port in the task manager to the related “activity” for this lab:

1. Open an object’s properties form for which a task will be performed.
For this lab example, a port is selected on the Navigation Tree and its **Properties** form is opened.
2. Following your instructors perform a task.
For this lab example, the images above show the steps to modify the **Description** parameter.

2.5 Navigation from Task manager to User Activity [cont.]

3 Choose Application → Task Manager

4 Click on a task

Task (Task Management):

Server Start Time	Elapsed Time	Request ID
2012/04/04 13:31:30.1	00:00:00.029	976
2012/04/04 13:24:12.8	00:00:00.997	925

Task Name: Physical Port - Port 1/1/1, 38.120.185.195 - CPAA_195 [Edit]

Client ID: 8

Request ID: 976

User: admin

Stage: Top Level

Status: Succeeded

Server Start Time: 2012/04/04 13:31:30.172 CEST

Elapsed Time: 00:00:00.029

Identifier: 38.120.185.195

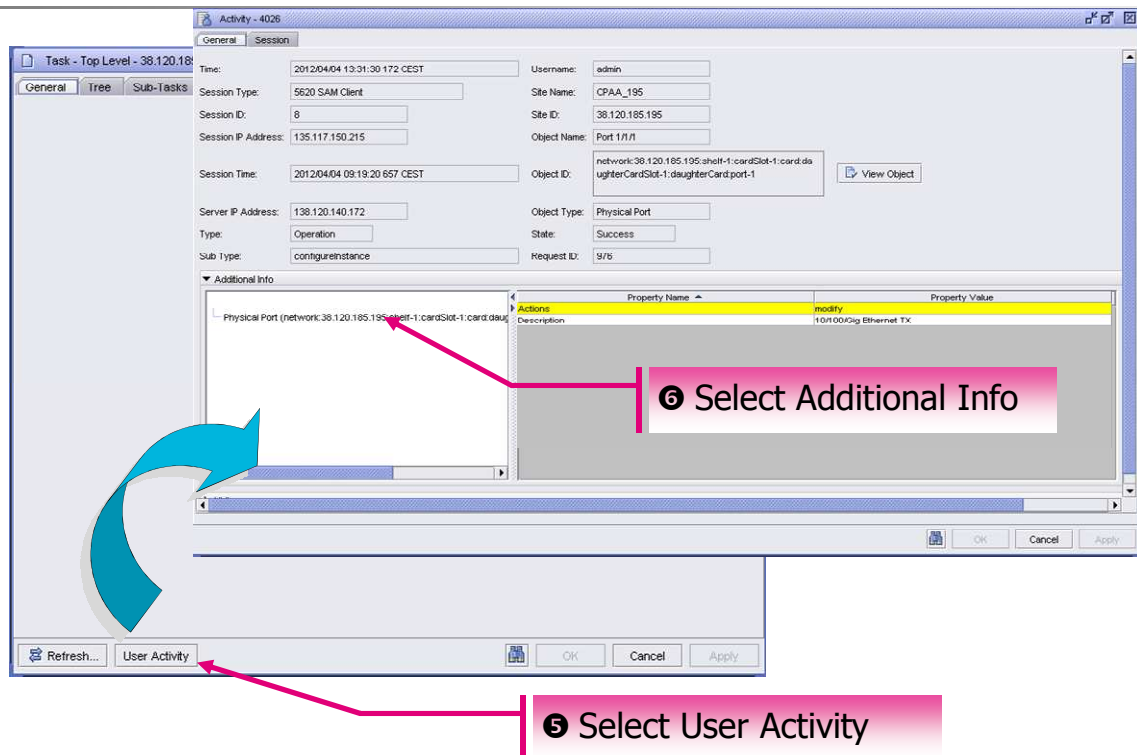
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3 · 8 · 24
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- Open the Task Manager. Choose **Application -> Task Manager** from the main menu. The Task manager form opens.
- Double-click on the performed task from the Task Manager list. The Task form opens.

2.5 Navigation from Task manager to User Activity [cont.]



3 • 8 • 25

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5. On the Task form click on **User Activity** button
6. The activity form opens.
If required, click on **Additional Info**.



End of module
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Section 4 Fault Management **Module 1** **Alarm Status and Severity Lab**

TOS36033_V4.0-EQ-R12.0-Ed1 Module 4.1 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
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2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
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Upon completion of this lab module, you should be able to:

- Use the topology map for viewing object alarm status, severity and opening alarm information
- Use the navigation tree for viewing object alarm status and severity, aggregated alarm status and severity for parent objects, and for opening alarm information

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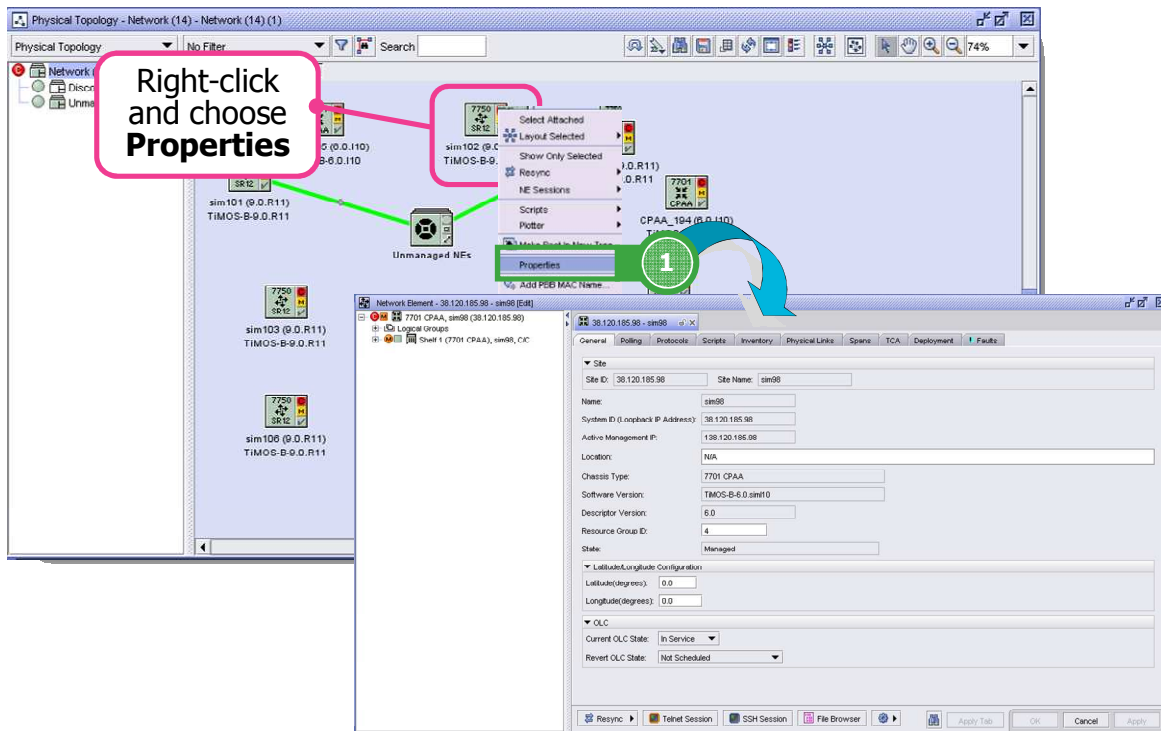


	Page
1 View Alarm Information – Status and Severity Labs	7
1.1 View Alarm Information – Using Topology Maps	8
1.2 View Alarm Information – Using Navigation Tree	10

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1 View Alarm Information - Status and Severity Labs

1.1 View Alarm Information – Using Topology Maps



4 • 1 • 8

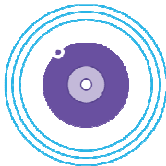
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Lab Exercise Objective:

In order to use the topology map for viewing alarm information about objects represented on the map, instructions in this lab exercise will guide students to view object alarm status and severity for an NE using the topology map, and to open alarm information.



Technical Reference

For more information on procedures to perform alarm management tasks see *Alcatel-Lucent 5620 SAM User Guide - Alarm management procedures section*.

Instructor Preparation:

In preparation for this lab exercise ensure there is at least one alarmed map object, or if required insert a fault condition to an object.

Provide students with details on the topology map object for which alarm information (object alarm status, severity and alarm details) will be accessed in this exercise.

Instructions:

The following lines and the images above summarize the steps recommended to view object alarm status of a NE using the topology map and open alarm information for this lab exercise:

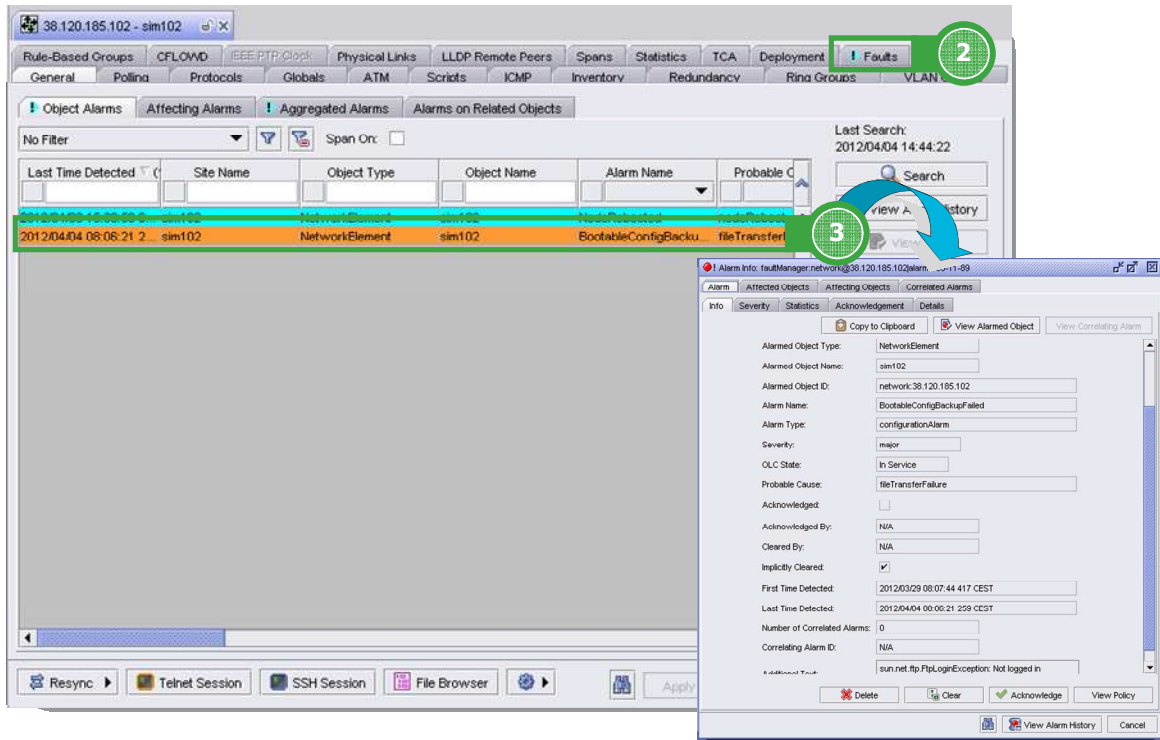
1. On the topology map, right click on the NE and choose **Properties** from the contextual menu. The **Properties** form appears with the **General** tab displayed.



Note

When one or more alarms are raised against a specific object or related object, an indicator appears on the **Faults** tab of the object properties form. As shown in the image above. The indicator does not represent the severity of the alarm, only that an alarm exists.

1.1 View Alarm Information – Using Topology Maps [cont.]



4 • 1 • 9

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2. Click on the **Faults** tab. The **Fault** tab opens with the **Object Alarms** tab displayed.



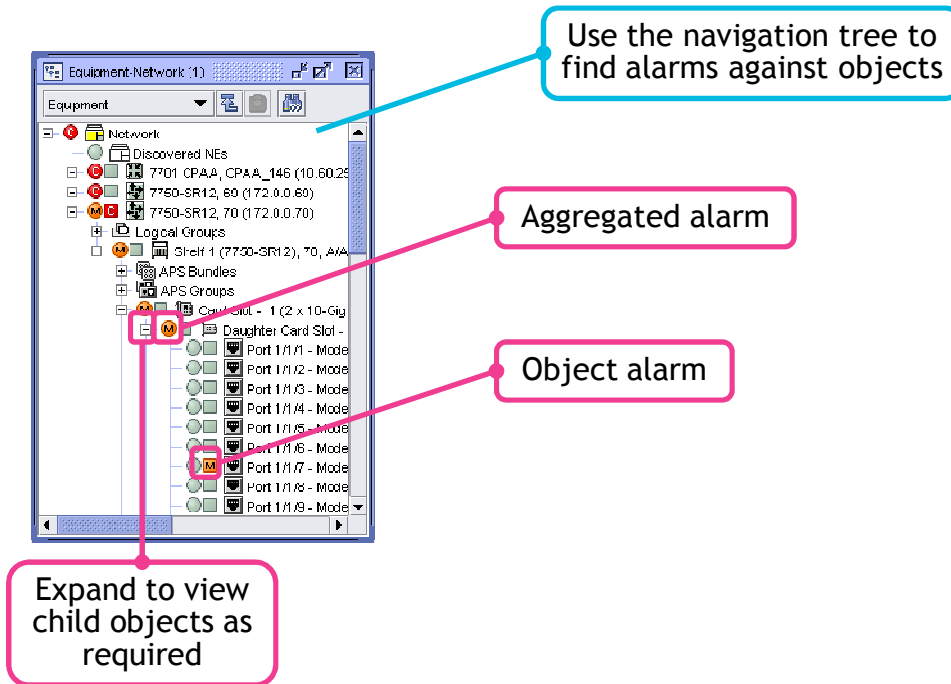
Note

An indicator appears on the **Object Alarms**, **Affecting Alarms**, **Aggregated Alarms**, and/or **Alarms on Related Objects** tabs of the object **Properties** form - **Faults** tab, when one or more alarms for each of this types are raised against a specific object or related object.

In each of these tabs, alarms are displayed in the list indicating status and color-coded by severity.

3. To view a specific alarm, double-click on the line or choose an alarm from the list and click on the **View Alarm** button to open. The **Alarm Info** form appears with the **Alarm** tab displayed.

1.2 View Alarm Information – Using Navigation Tree



Lab Exercise Objective:

In order to use the navigation tree for viewing object alarm information, instructions in this job aid will guide students to view object alarm status, aggregated alarm status for parent objects, and to open alarm information using the navigation tree



Technical Reference

For more information on procedures to perform alarm management tasks see *Alcatel-Lucent 5620 SAM User Guide - Alarm management procedures section*.

Instructor Preparation:

In preparation for this lab exercise ensure there is at least one alarmed object in the navigation tree, or if required insert a fault condition to an object.

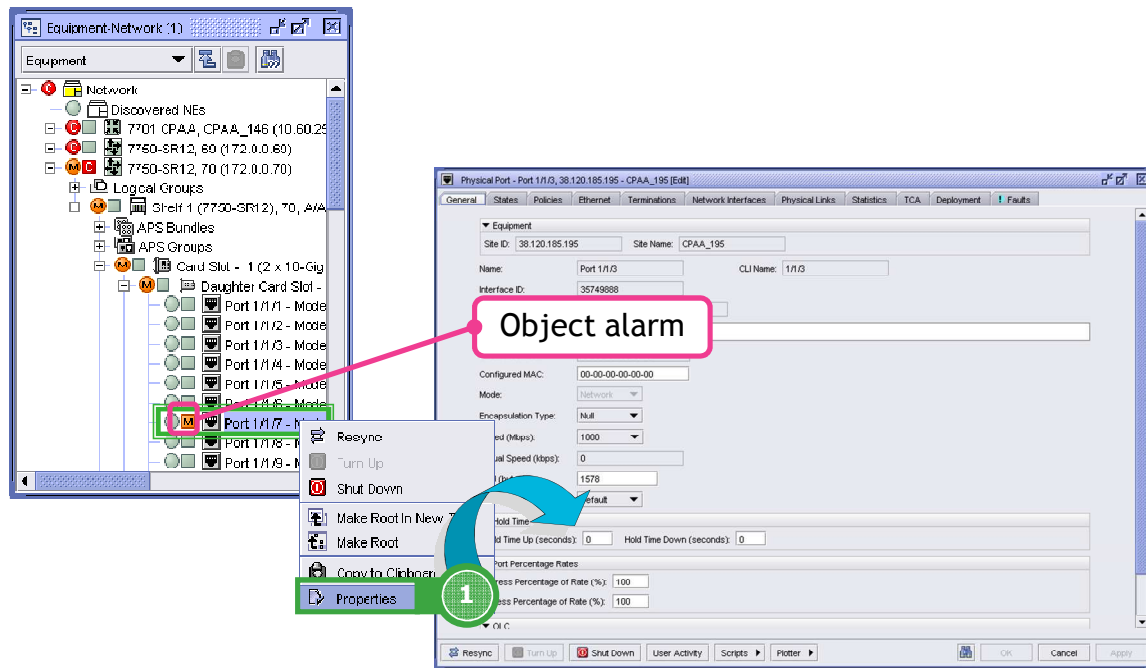
Provide students with details on the navigation tree object for which alarm information (object alarm status, severity and alarm details) will be accessed in this exercise.

Instructions:

The following lines and the images above summarize the steps recommended to view object alarm status, aggregated alarm status for parent objects and open alarm information on a port using the navigation tree for this job aid:

Use the navigation tree to view alarms against objects. Alarms in circles represent aggregated alarms. Alarms in squares represent object alarms (as shown in the image above).

1.2 View Alarm Information – Using Navigation Tree [cont.]



4 • 1 • 11

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When an aggregated alarm is indicated, and no object alarm is seen for any child object, change the view of the equipment tree.

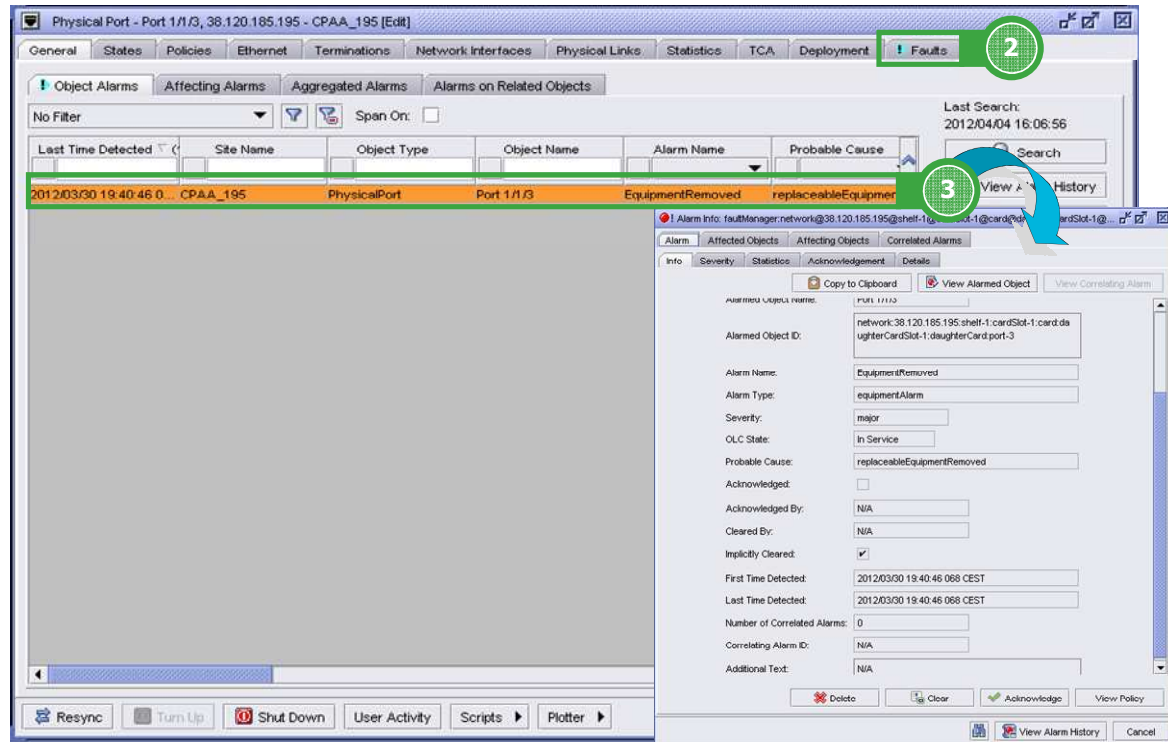
An aggregated alarm may not appear in the selected view from the navigation tree. For example, with the Equipment drop-down menu selected, a critical alarm aggregated against the device object may appear. However, no object below the device object has a critical alarm. That is because the critical alarm is aggregated from the network view of the router. The alarm is based on the entire object, but the equipment view shows a subset of the entire object.

1. Identify and select an object in the navigation tree displaying the object alarm identifier (Alarm in square). Right click on the object in the navigation tree and choose **Properties** from the contextual menu. The **Properties** form appears with the **General** tab displayed.

**Note**

When one or more alarms are raised against a specific object or related object, an indicator appears on the **Faults** tab of the object properties form. As shown in the image above. The indicator does not represent the severity of the alarm, only that an alarm exists.

1.2 View Alarm Information – Using Navigation Tree [cont.]



4 • 1 • 12

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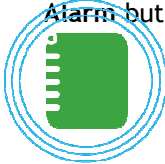
2. Click on the **Faults** tab. The **Fault** tab opens with the **Object Alarms** tab displayed.

Note

An indicator appears on the **Object Alarms**, **Affecting Alarms**, **Aggregated Alarms**, and/or **Alarms on Related Objects** tabs of the object **Properties** form - **Faults** tab, when one or more alarms for each of this types are raised against a specific object or related object.

In each of these tabs, alarms are displayed in the list indicating status and color-coded by severity.

4. To view a specific alarm, double-click on the line or choose an alarm from the list and click on the **View Alarm** button to open. The **Alarm Info** form appears with the **Alarm** tab displayed.



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End of module
Alarm Status and Severity Lab

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4 · 1 · 14

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Section 4 Fault Management **Module 2** **Dynamic Alarm List Lab**

TOS36033_V4.0-EQ-R12.0-Ed1 Module 4.2 Edition 4

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R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
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2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
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2.4	2013-06-20	GARCIA LOZANO, René	TOS36033_V2.4 – SAM 10.0 (revision)



Upon completion of this lab module, you should be able to:

- Modify the order in which columns are displayed in the 5620 SAM Dynamic Alarm list form
- Display alarm flags with the number of alarms color-coded by severity
- Limit the number of alarms displayed in the dynamic alarms window according to a user configured criteria

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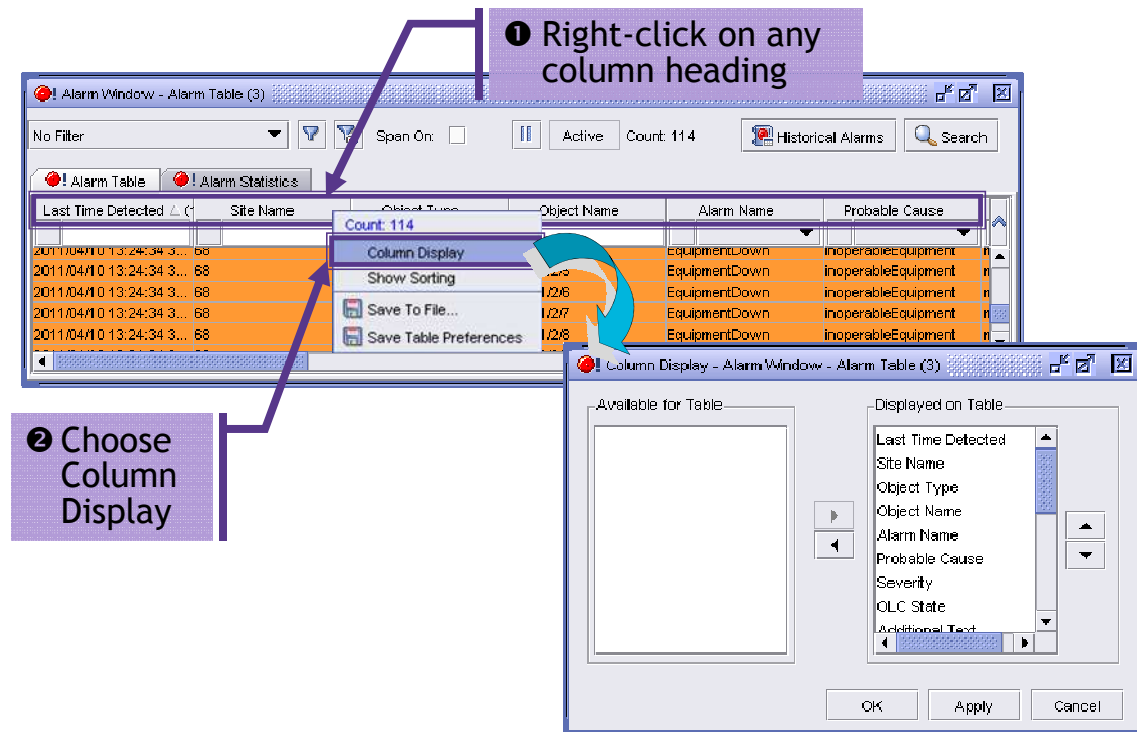


	Page
1 Level1 title	7
1.1 Name of level 2	8
1.1.1 Name of level 3	9
1.1.1.1 Name of level 4	10
No level	11
Numbered lists	13
Unnumbered list	14
Symbols mentioned	15
Text boxes (samples)	16
Table (sample)	17
Animation sequence complete	18
Text and graphic (Sample)	19
Annotations (sample)	20
Oversized screen snapshots (sample)	21
(1) Detail 1	22
(2) Detail 2	23
Colors optimized for presentation	24
Notes page only (standard notes text field extended)	25
Notes page only (active X word text field)	26
How to do it - new master slide	27
How to do it	28
Discover	29
Answer the questions	30
Exercise	31
Module summary	32
Discussion or question	33
Abbreviations and acronyms	34
Glossary	36
References	38
End of module	39



Page

Dynamic Alarm List - Information Columns Displayed



4 • 2 • 7

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5620 SAM - R12.0 Fundamentals

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Job Aid Objective:

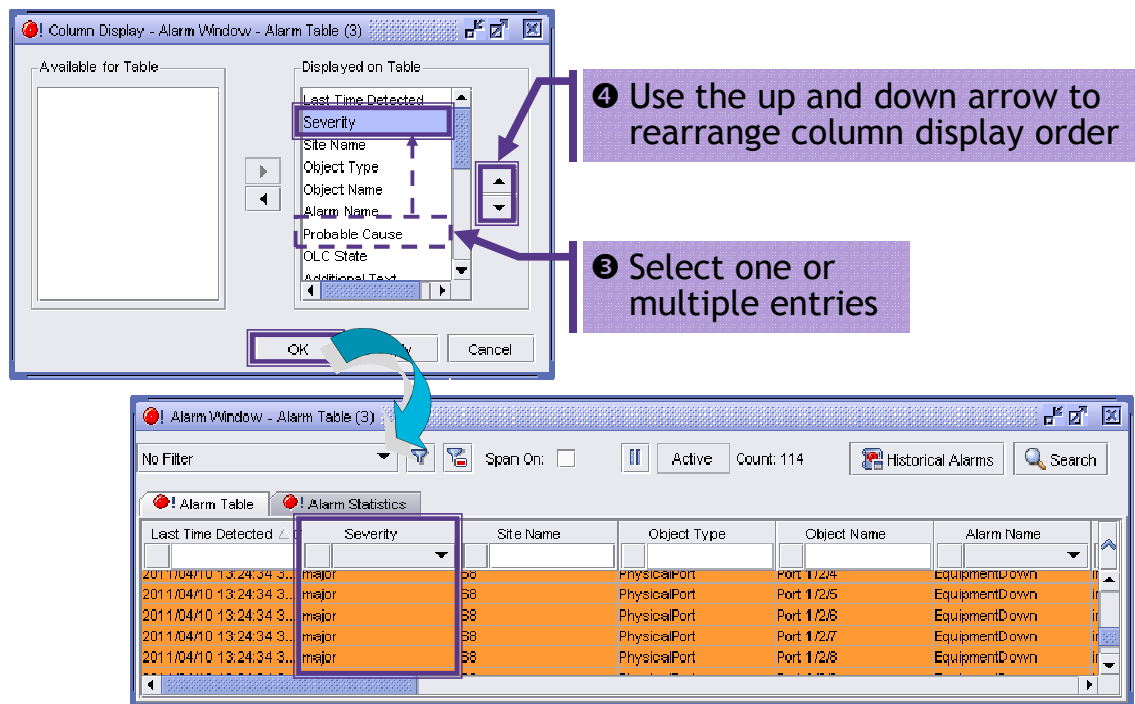
In order to modify the order in which columns are displayed in the 5620 SAM Dynamic Alarm list form, instructions in this job aid will guide students to hide, show and sort columns that are displayed in the dynamic alarm list form.

Instructions:

The following lines and the images above summarize the steps recommended to display the **Severity** column as the second column shown in the Dynamic Alarm Window.

1. From the Dynamic Alarm Window, right-click on the list heading the contextual inventory menu appears.
2. Choose **Column Display** from the contextual menu. The **Column Display - Alarm Window** form opens with the names of all displayed columns in the **Displayed on Table** list.

Dynamic Alarm List - Information Columns Displayed [Cont.]



4 • 2 • 8

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3. Select one or more column name entries from the **Displayed on Table** list (to select multiple entries press and hold down the **Ctrl** key and click on the entries).
For this job aid example, the images above show the steps to select the **Severity** column.
4. Click on **up arrow** and **down arrow** buttons to rearrange the order in which the selected columns are displayed.
For this lab example, use the **up arrow** button to move the **Severity** column to the second position.

Alternatively, to stop displaying one or multiple columns on the Dynamic Alarm List select the column names from the **Displayed on Table** list and use the **left arrow** button to move the selected columns to the **Available for Table** list panel.

The columns listed in the **Available for Table** list will not be displayed in the Dynamic Alarm List form.

5. Click on the **OK** button. The **Column Display - Alarm Window** form closes, and the Dynamic Alarm window list reappears with the modifications applied to the columns displayed in the list.

Dynamic Alarm List - Configure Alarm Flags

1 Choose Application→User Preferences

The screenshot shows the 'User Preferences' dialog box with the 'General' tab selected. A purple box highlights the 'Show Alarm Flags' checkbox, which is checked. A purple arrow points from this box to a callout box labeled '2 Configure the Show Alarm Flags parameter'. Another purple arrow points from the 'OK' button to a callout box labeled '3 Click on the OK button'. The 'Alarms' window is visible in the background, showing a table of alarms.

Object Type	Object Name	Alarm Name	Probable
sicalPort	Port 1/2/4	EquipmentDown	InoperableEx
sicalPort	Port 1/2/5	EquipmentDown	InoperableEx
sicalPort	Port 1/2/6	EquipmentDown	InoperableEx
sicalPort	Port 1/2/7	EquipmentDown	InoperableEx
sicalPort	Port 1/2/8	EquipmentDown	InoperableEx
sicalPort	Port 1/2/9	EquipmentDown	InoperableEx
sicalPort	Port 1/2/10	EquipmentDown	InoperableEx

4 • 2 • 9

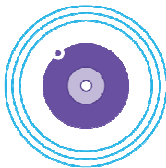
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Job Aid Objective:

In order to display in the dynamic alarm list the number of alarms, color-coded by severity, that have been detected since the flag was reset, instructions in this job aid will guide students to configure alarm flags.



Technical Reference:

See *Alcatel-Lucent 5620 SAM, Release 10.0 R5 User Guide - 37.3 Alarm management procedures - Procedure 37-6 To configure alarm flags* for the procedure specify whether alarm flags are displayed in the alarm list.

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to show or hide the monitoring flag panel in the dynamic alarm list.

The following lines and the images above summarize the steps recommended to display the monitoring alarm flags panel in the dynamic alarm for job aid example:

1. Choose **Application→User Preferences** from the 5620 SAM main menu. The **User Preferences** form opens with the **General** tab displayed.
2. Configure the **Show Alarm Flags** parameter.
3. Click on the **OK** button. The **User Preferences** form closes, and the **Monitoring Flag** panel appears in the dynamic alarm list Alarm Window.

Note

The time the last alarm for that severity was detected is also displayed.



Dynamic Alarm List – Filter

1 Click on the filter icon

2 Configure a first filter on "Node Name"

3 Click on Add

4 • 2 • 10

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Job Aid Objective:

In order to limit the number of alarms displayed in the dynamic alarms window according to a user configured criteria, instructions in this job aid will guide students to create a filter to display only selected alarms.

Instructions:

The following lines and the images above summarize the steps recommended to create filter to display only alarms for a severity type on a selected group of nodes for this job aid example:

1. Click on the Filter icon beside the filter drop-down list. The **Alarm Window** filter form opens.
2. Configure the filter criteria: first filter on, Node name
3. Click on the **Add** button

Dynamic alarm List – filter (Cont.)

Annotation 1: Click on the Apply button

Annotation 2: Configure a second filter on “Severity”

Annotation 3: Click on Add

Last Time Detected	Site Name	Object Type	Object Name	Alarm Name	Probable Cause	Severity	OLC State	Addit
2012/02/17 08:59:30.2...	PGW_LAN_OpenLab	NetworkElement	PGW_LAN_OpenLab	ReachabilityProblem	ReachabilityTestFailed	major	In Service	N/A
2012/02/16 17:25:15.4...	PGW_LAN_OpenLab	AccountingStatsRetrie...	PGW_LAN_OpenLab	StatsRetrieveFailed	fileTransferFailure	major	In Service	N/A
2012/02/16 16:18:45.1...	PGW_LAN_OpenLab	NetworkElement	PGW_LAN_OpenLab	DataLossAlarm	dataLoss	major	In Service	N/A
2012/02/16 16:07:07.7...	PGW_LAN_OpenLab	OsPeer	eps-peer-2-172.25.22...	ACWMDiameterPeerDo...	EPSPeerDown	major	In Service	N/A
2012/02/07 11:27:27.6...	PGW_LAN_OpenLab	Policy	30	LogLocFailure	AdminLocFailure	major	In Service	AdminLoc
2011/12/19 14:13:14.2...	PGW_LAN_OpenLab	FlashMemory	flashMemory-S/Q	EquipmentRemoved	replaceableEquipment...	major	In Service	N/A
2011/12/19 14:13:14.2...	PGW_LAN_OpenLab	FlashMemory	flashMemory-S/I	EquipmentRemoved	replaceableEquipment...	major	In Service	N/A

4 • 2 • 11

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4. Configure a second filter with “severity”

5. Click on Add

6 **Apply** the filter on the Dynamic Alarm List. The Alarm window refreshes displaying in the Dynamic Alarm list only alarms for the selected severity type declared against the selected group of nodes.



End of module
Dynamic Alarm List Lab

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4 · 2 · 12

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Section 4 Fault Management **Module 3** **Alarm Information Form Lab**

TOS36033_V4.0-EQ-R12.0-Ed1 Module 4.3 Edition 4

5620 SAM
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TOS36033_V4.0-EQ Edition 1

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2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
2.4	2013-06-20	GARCIA LOZANO, René	TOS36033_V2.4 – SAM 10.0 (revision)



Upon completion of this lab module, you should be able to:

- View detailed information about an alarm using the Alarm Info
- Identify the alarm information details contained on each of the Alarm Info form tabs
- View additional information details about an alarm by open the corresponding alarm description in the 5620 SAM Alarm Reference list documentation

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	Page
View Alarm Information Details – Info Form	7
View Alarm Information Details – Info Form [Cont.]	8
View Alarm Information Details – Info Form [Cont.]	9
View Alarm Information Details – Info Form [Cont.]	10
View Alarm Information Details – Info Form [Cont.]	11
View Alarm Information Details – Info Form [Cont.]	12
View Alarm Information Details – Info Form [Cont.]	13
View Alarm Information Details – Info Form [Cont.]	14
View Alarm's Description in Reference Documentation	15
View Alarm's Description in Reference Documentation [Cont.]	16
View Alarm's Description in Reference Documentation [Cont.]	17
View Alarm's Description in Reference Documentation [Cont.]	18

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View Alarm Information Details – Info Form

1 Open the Alarm Info form

Double-click

or select and right-click on the selected alarm(s)

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4 • 3 • 7
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Job Aid Objective:

In order to obtain detailed information about an alarm, instructions in this job aid will guide students to open the alarm info form and view alarm's detailed information.

Job Aid Preparation:

In preparation for this job aid identify an alarm to view its detailed information.

Instructions:

Follow the appropriate procedure's for detailed instructions on all available options to view alarm information.



Technical Reference

See Alcatel-Lucent 5620 SAM, Release 10.0 R5 User Guide - 37.3 Alarm management procedures - Procedure 37-9 To view alarm information for more details.

The following lines and the images above summarize the steps recommended to open the alarm info form and view alarm's detailed information:

1. Open the Alarm info form for the alarm of interest from:
 - the **Dynamic Alarm List**, the **Faults** tab of an object properties form, or the **Current and Historical Alarm Snapshot** list by double-clicking on an entry, or by right-clicking and choosing **Show Alarm** from the contextual menu.
 - the **Faults** tab of an object properties form, or the **Current and Historical Alarm Snapshot** list by choosing an alarm from the list and clicking on the **View Alarm** button.

The Alarm Info form opens with the Alarm tab displayed.

View Alarm Information Details – Info Form [Cont.]

② View alarm details in the Alarm Info form tabs

Alarm Info: faultManager:svc-mgr@service-15@10.1.182.134alarm-442-16-347

Alarm Affected Objects Affecting Objects Correlated Alarms

Info Severity Statistics Acknowledgement Details

Copy to Clipboard View Alarmed Object View Correlating Alarm

Domain: VPRN

Site ID: 10.1.182.134

Site Name: sim134

Alarmed Object Type: Site

Alarmed Object Name: VPRN service-64 sim134 (10.1.182.134)

Alarmed Object ID: svc-mgr:service-15:10.1.182.134

Alarm Name: CommunityMisconfiguration

Alarm Policy: vprn.CommunityMisconfiguration

Alarm Type: serviceAlarm

Severity: major

OLC State: Maintenance

Probable Cause: CommunityMisconfiguration

Delete Clear Acknowledge View Policy

View Alarm History Cancel

Info tab

Domain, Site ID and Name

Alarmed Object type, name and ID

Alarm name, type and policy

Severity and Probable cause

OLC state

Acknowledged and Cleared status

First and Last time detected

4 • 3 • 8

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2. Use the **Alarm Info** form tabs to view information details about the alarm.

Use the **Alarm - Info** tab to view the following details:

- Domain, Site ID and name
- Alarmed Object type, name and ID
- Alarm name, type and related policy
- Severity
- OLC State
- Probable cause
- Acknowledge status
- Cleared status
- First and last time detected
- Number of correlated alarms and correlated alarm ID
- Additional text

The Alarm Info tab also contains buttons to:

- Copy alarm information to the SAM clipboard
- View the alarm object properties form
- View the related alarm policy
- View alarm history
- Acknowledge, clear or delete the alarm

View Alarm Information Details – Info Form [Cont.]

The screenshot shows a web-based interface for viewing alarm details. The title bar reads "Alarm Info: faultManager:svc-mgr@service-15@10.1.182.134alarm-442-16-347". The interface has several tabs: "Alarm", "Affected Objects", "Affecting Objects", "Correlated Alarms", "Info", "Severity" (which is selected and highlighted with a red box), "Statistics", "Acknowledgement", and "Details".

Under the "Severity" tab, the following fields are displayed:

- Current Severity: major
- Previous Severity: indeterminate
- Original Severity: major
- Highest Severity: major

Below these fields is a section titled "(Client Time) Last Time Records" with a dropdown arrow. It contains the following fields, all showing "N/A":

- Last Time Severity Changed: N/A
- Last Time Cleared: N/A
- Last Time Promoted: N/A
- Last Time Demoted: N/A
- Last Time Escalated: N/A
- Last Time De-escalated: N/A

Below this section is a button labeled "(NE Time) Last Time Records".

At the bottom of the form are several buttons: "Delete" (with a red X icon), "Clear" (with a trash icon), "Acknowledge" (with a green checkmark icon), "View Policy", "View Alarm History" (with a magnifying glass icon), and "Cancel".

Severity tab

Current, previous, original and highest severity

(Client time) Last time records

(NE time) Last time records

4 • 3 • 9

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Use the **Alarm - Severity** tab to view detailed information about alarm severity, and alarm severity alterations. The **Alarm - Severity** tab display the following parameters:

- Current Severity
- Previous Severity
- Original Severity
- Highest Severity
- (Client time) and (NE Time) Last Time Records panels show details about the time at which the last instance for the following operations occurred:
 - Severity Changed
 - Cleared
 - Promoted
 - Demoted
 - Escalated
 - De-escalated

View Alarm Information Details – Info Form [Cont.]

The screenshot shows a web-based interface for viewing alarm information. The title bar reads "Alarm Info: faultManager.svc-mgr@service-15@10.1.182.134alarm-442-16-347". The interface has several tabs: "Alarm", "Affected Objects", "Affecting Objects", "Correlated Alarms", "Info", "Severity", "Statistics" (which is highlighted with a red box), "Acknowledgement", and "Details". The "Statistics" tab displays four statistics with input fields: "Frequency:" (0), "Number Of Occurrences:" (4), "Number Of Occurrences Since Clear:" (4), and "Number Of Occurrences Since Acknowledged:" (0). At the bottom, there are buttons for "Delete", "Clear", "Acknowledge", "View Policy", "View Alarm History", and "Cancel".

Severity tab

Current, previous, original and highest severity

(Client time) Last time records

(NE time) Last time records

4 • 3 • 10

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Use the **Alarm - Statistics** tab to view details about how often the alarm has been raised, based on the specified scenarios. As each new instance of the alarm is raised, the number of occurrences statistic increases. The **Alarm - Statistics** tab displays the following parameters:

- Frequency
- Number of occurrences
- Number of occurrences since acknowledged
- Number of occurrences since cleared

View Alarm Information Details – Info Form [Cont.]

The screenshot shows a web-based interface for viewing alarm information. The title bar reads "Alarm Info: faultManager.svc-mgr@service-15@10.1.182.134alarm-442-16-347". The interface has a tabbed menu at the top with "Alarm", "Affected Objects", "Affecting Objects", and "Correlated Alarms". Below this is a sub-menu with "Info", "Severity", "Statistics", "Acknowledgement" (which is highlighted with a purple box), and "Details". Under the "Acknowledgement" tab, there are two sub-tabs: "Acknowledgement Info" and "Notes". The "Acknowledgement Info" sub-tab is active, displaying the following fields: "Acknowledged:" with a checkbox, "Acknowledged By:" with a text box containing "N/A", "Last Time Acknowledged:" with a text box containing "N/A", "Previously Acknowledged:" with a checkbox, "Urgency:" with a text box containing "Indeterminate", and "Urgency Assigned By:" with a text box containing "N/A". At the bottom of the form, there are buttons for "Delete", "Clear", "Acknowledge", and "View Policy". Below these buttons are icons for "View Alarm History" and a "Cancel" button.

Acknowledgement tab

Acknowledgement Info

Urgency

Acknowledgement Notes

4 • 3 • 11

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Use the **Alarm - Acknowledgement** tab to view details about when the alarm was acknowledged, the user that acknowledged the alarm, and the user that set the urgency. The **Alarm - Acknowledgement** tab displays the following parameters:

- Acknowledgement Info
 - Acknowledged by
 - Last Time Acknowledged
 - Previously Acknowledged
- Urgency
- Acknowledgement Notes

View Alarm Information Details – Info Form [Cont.]

Alarm info: faultManager:svc-mgr@service-15@10.1.182.134alarm-442-16-347

Alarm Affected Objects Affecting Objects Correlated Alarms

Info Severity Statistics Acknowledgement Details

Description: The alarm is raised when the 5620 SAM detects a community misconfiguration on a service site.

Raising Condition:

Clearing Condition:

Remedial Action: Configure the SNMP community String on the VPRN service site

View Alarm History Cancel

Details

Description

Raising condition

Clearing condition

Remedial action

4 • 3 • 12

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Use the **Alarm - Details** tab to view details about the description of the alarm, raising condition and clearing condition for the alarm, and action to be taken to clear the alarm. The **Alarm - Details** tab displays the following parameters:

- Alarm description. If the description information is more than 250 characters, click on the ...button to view the entire description.
- Raising condition
- Clearing condition
- Remedial action. If the remedial action information is more than 250 characters, click on the ...button to view the entire description.

View Alarm Information Details – Info Form [Cont.]

Alarm info: faultManager:svc-mgr@service-15@10.1.182.134alarm-442-16-347

Alarm Affected Objects Affecting Objects Correlated Alarms

Info Severity Statistics Acknowledgement Details

Description: The alarm is raised when the 5620 SAM detects a community misconfiguration on a service site.

Raising Condition:

Clearing Condition:

Remedial Action: Configure the SNMP community String on the VPRN service site

View Alarm History Cancel

Details

Description

Raising condition

Clearing condition

Remedial action

4 • 3 • 13

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Use the **Alarm - Details** tab to view details about the description of the alarm, raising condition and clearing condition for the alarm, and action to be taken to clear the alarm. The **Alarm - Details** tab displays the following parameters:

- Alarm description. If the description information is more than 250 characters, click on the ...button to view the entire description.
- Raising condition
- Clearing condition
- Remedial action. If the remedial action information is more than 250 characters, click on the ...button to view the entire description.

View Alarm Information Details – Info Form [Cont.]

The screenshot shows a web-based interface for viewing alarm details. The title bar indicates the alarm ID is 442-16-347. The 'Affected Objects' tab is selected, showing a list of objects affected by the alarm. The objects are listed in a table with columns for Domain, Site ID, Site Name, Alarmed Object Type, Alarmed Object Name, Alarmed Object ID, and Alarm Name.

Domain	Site ID	Site Name	Alarmed Object Type	Alarmed Object Name	Alarmed Object ID	Alarm Name
VPRN	10.1.182.134	sim134	Site	VPRN service-64 sim134 (10.1.182.134)	svc-mgr:service-15:10.1.182.134	CommunityMisconfiguration

4 • 3 • 14

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Use the following tabs to view more alarm details:

- **Affected Objects tab:** contains a list of objects that are affected by the alarm. All alarms list the affected objects, even when correlation alarm suppression is enabled.
- **Affecting Objects tab:** contains a list of objects that directly affect the object in alarm.
- **Correlated Alarms tab:** contains a list of correlated alarms. Correlated alarms are raised against other objects that are dependent on the alarmed object.

View Alarm's Description in Reference Documentation

1 Open the Alarm Info form

2 Copy the Alarm Name

3 Enter the Alarm Name in the Search field of the User Documentation Index. And click on the Go button

Search results are displayed in the User Documentation's left panel

4 • 3 • 15

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Job Aid Objective:

In order to obtain more details about an alarm information, instructions in this job aid will guide students to open the corresponding description for the alarm in the 5620 SAM Alarm Reference list documentation.

Job Aid Preparation:

In preparation for this job aid:

- identify an alarm for which more details are required
- ensure having access to 5620 SAM on-product customer documentation (typically installed on the 5620 SAM Server during the SAM installation process)
- open the 5620 SAM on-product customer documentation help system by choosing **Help** → **User Documentation** from the 5620 SAM client GUI main menu. The help system opens on a web browser displaying the **User Documentation Index**

Instructions:

The following lines and the images above summarize the steps recommended to open the description in the 5620 SAM Alarm Reference list documentation for an “Equipment Administratively Down” alarm for this job aid example.

1. Identify an alarm of interest and open the Alarm Info form.
For this job aid example, the images above show the Alarm info form for an equipment administratively down alarm. This type alarm could have been generated by shutting down a port on a managed equipment, for instance during a maintenance procedure.

View Alarm's Description in Reference Documentation [Cont.]

2. Look for the **Alarm Name** parameter in the **Alarm Info** form **Alarm - Info** tab. Copy the alarm name to the clipboard (typically by selecting the alarm name and clicking Control+"C"), or take note of the alarm name.
For this job aid example, the alarm name is "EquipmentAdministrativelyDown"
3. Bring to the foreground the 5620 on-product customer documentation help system opened on a web browser in preparation for this job aid.
Enter the **Alarm Name** in the **Search** field of the **User Documentation Index**, by inserting the alarm name previously copied to the clipboard (typically by clicking Control+"V"), or by typing the alarm name. And click on the **Go** button.
The **Help system - User Documentation** window refreshes displaying the search results on the left panel.



Note

In the **5620 SAM Alarm Reference** list documentation, alarms are organized in chapters by device type. An alarm that applies to multiple devices has multiple entries in this guide; each entry for such an alarm varies only by the applicable major NE release information, which depends on the device type.

4. Click on the search results entry for the Alarm Reference corresponding to the type of device against which the alarm has been raised.
For this job aid example, click on the 7750 SR alarms.
The **Help system - User Documentation** window refreshes displaying in main frame the appropriate user document section with the searched item highlighted.
For this job aid example, the main frame displays the **EquipmentAdministrativelyDown** description in the **7750 SR alarms** section of the **5620 SAM Alarm Reference** document. The alarm name **EquipmentAdministrativelyDown** text is highlighted
5. View the Alarm Reference entry table corresponding to the alarm name.
For this job aid example, the alarm reference entry table for the **EquipmentAdministrativelyDown** alarm.

View Alarm's Description in Reference Documentation [Cont.]

The screenshot shows the Alcatel-Lucent XML 5620 SAM interface. On the left, a search results list is displayed. A purple box highlights the entry '15 - Alcatel-Lucent 7750 SR alarms'. A purple arrow points from this entry to a larger purple box on the right, which contains the details for 'Table 15-58 ContainingEquipmentAdministrativelyDown'. This box is labeled '5 View the alarm entry'. Below this, another purple box labeled '4 Click on the search result entry corresponding to the type of device' points to the search results list.

Table 15-58 ContainingEquipmentAdministrativelyDown

Alarm	Attributes	Applicable major NE releases
Name: ContainingEquipmentAdministrativelyDown (466) Type: equipmentAlarm (3) Package: equipment Raised on class: equipment.Port	Severity: minor Implicitly cleared: true Default probable cause: ContainingEquipmentAdministrativelyDown (330)	<ul style="list-style-type: none">10.07.08.09.0
Description: The alarm is raised when the compositeEquipmentState attribute has a value of ContainingEquipmentAdministrativelyDown.		
Raising condition: ((Status' EQUAL 'Parent Admin Down') AND ('isTerminatable' EQUAL 'true'))		
Clearing condition: ((Status' NOT EQUAL 'Parent Admin Down') OR ('isTerminatable' NOT EQUAL 'true'))		
Remedial action: Informational - no corrective action required.		

Table 15-59 ContainingEquipmentMismatch

Alarm	Attributes	Applicable major NE releases
-------	------------	------------------------------

4 • 3 • 17

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The table title for an alarm entry is the alarm name. When the same alarm name is found in multiple packages, the table title includes the package name in parentheses. Each alarm entry contains the following information:

- Name – the alarm name, and the alarm name ID in parentheses
- Type – the alarm type, and the type ID in parentheses
- Package – the containing package of the alarm, which maps to a package in the *5620 SAM-O XML Reference*
- Raised on class – the package and object class in *package.class* format
- Severity – the alarm default severity level
- Implicitly cleared – whether the alarm automatically clears when the clearing alarm condition is true
- Default probable cause – the typical probable cause of the alarm, and the probable cause ID in parentheses
- Applicable major NE releases – the major device releases against which the alarm can be raised; the releases are applicable to the device specified in the chapter title
- Description – the alarm description
- Raising condition – a logical statement that describes the internal 5620 SAM parameter values that initiate the raising of the alarm
- Clearing condition – a logical statement that describes the internal 5620 SAM parameter values that initiate the clearing of the alarm
- Remedial action – a statement or series of steps recommended by Alcatel-Lucent as the fault clearance procedure for the alarm



End of module
Alarm Information Form Lab

4 • 3 • 18

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Section 4
Fault Management

Module 4

Alarm Correlation, Affecting and Aggregated Alarms Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 4.4 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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Document History			
Edition	Date	Author	Remarks
1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
1.1	2011-10-28	GARCIA LOZANO, René	TOS36033_V1.5 – SAM 9.0 (R5 update)
2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
2.4	2013-06-20	GARCIA LOZANO, René	TOS36033_V2.4 – SAM 10.0 (revision)



Upon completion of this lab module, you should be able to:

- Enable or disable the display of correlated alarms in the dynamic alarm list

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Page



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Disable the Display of Correlated Alarms

1 Select Application→User Preferences

2 Configure the Show Correlated Alarms parameter

3 Click on the OK button

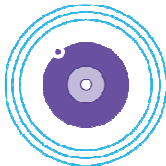
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4 • 4 • 7
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Job Aid Objective:

In order to specify whether the dynamic alarm list displays correlated alarms, instructions in this job aid will guide students to enable or disable the display of correlated alarms in the dynamic alarm list.



Technical Reference

See *Alcatel-Lucent 5620 SAM, Release 10.0 R5 User Guide - 37.3 Alarm management procedures - Procedure 37-7 To enable or disable the display of correlated alarms for the procedure to specify whether correlated alarms are displayed in the alarm list*



Note

The display of correlated alarms may slow GUI performance while the 5620 SAM adds the alarms to the dynamic alarm list.

Instructions:

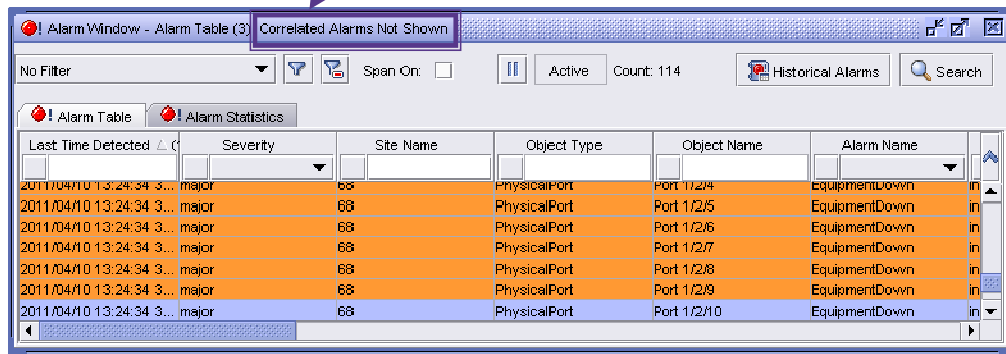
Follow the appropriate procedure's instructions to specify whether the dynamic alarm list displays correlated alarms.

The following lines and the images above summarize the steps recommended to disable the display of correlated alarms in the dynamic alarm list:

1. Choose **Application→User Preferences** from the 5620 SAM main menu. The **User Preferences** form opens with the **General** tab displayed.
2. Configure the **Show Correlated Alarms** parameter, uncheck the box to disable the display of correlated alarms.
3. Click on the **OK** button. The **User Preferences** form closes and alarm option is applied.

Disable the Display of Correlated Alarms [Cont.]

④ Verify the Alarm Window title bar displays **Correlated Alarms Not Shown**



4 • 4 • 8

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4. Verify the Alarm Window title bar displays **Correlated Alarms Not Shown**.



Note

*When the operator disables the display of correlated alarms in the dynamic alarm list, the correlated alarms are still listed in the **Correlated Alarms** tab of the **Alarm Info** form.*

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End of module
Alarm Correlation, Affecting and Aggregated Alarms Lab

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4 · 4 · 10

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Section 4 Fault Management **Module 5** **Alarm Management tools Lab**

TOS36033_V4.0-EQ-R12.0-Ed1 Module 4.5 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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Document History			
Edition	Date	Author	Remarks
1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
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2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
2.4	2013-06-20	GARCIA LOZANO, René	TOS36033_V2.4 – SAM 10.0 (revision)



Upon completion of this lab module, you should be able to:

- Configure the alarm window settings (such as specifying whether new incoming alarms generate an audible sound, show alarm flags, show correlated alarms by default)
- View the alarm severity alteration configuration, and to enable or disable the severity alterable functionality
- Acknowledge alarms to indicate to other SAM operators that a problem is under investigation thus providing records to avoid duplicate resources are applied to the same problem

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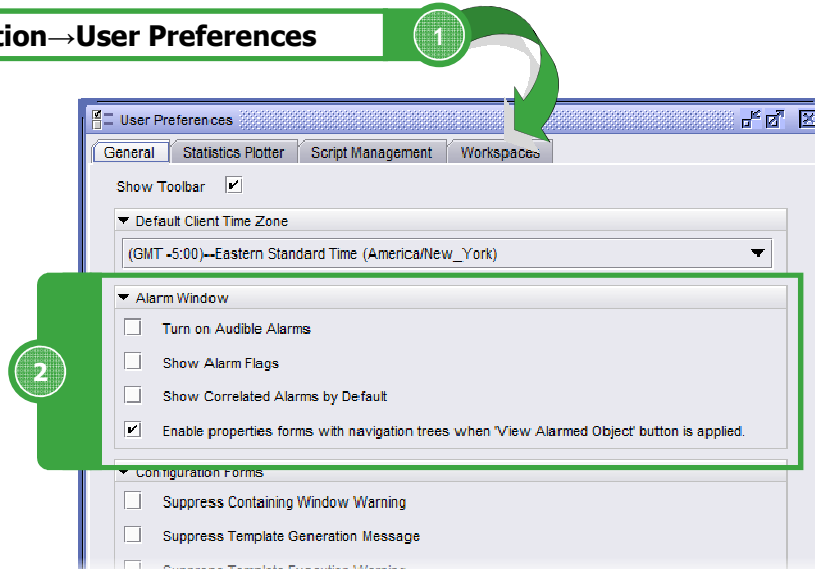
	Page
Alarm Management Tools – Severity Alterations	7
Configure Audible Alarms	9

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1 - Alarm Management Tools Labs

1.1 Configure Alarm Window Settings

Application→User Preferences



4 • 5 • 8

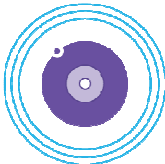
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Job Aid Objective:

In order to specify whether new incoming alarms generate an audible sound, show alarm flags, show correlated alarms by default, instructions in this job aid will guide students configure the alarm window settings.



Technical Reference

See *Alcatel-Lucent 5620 SAM, Release 12.0 User Guide - Alarm management procedures* - for more details on the procedure to configure alarm window settings.

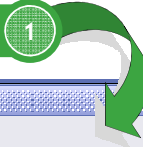
Instructions:

The following lines and the images above summarize the steps recommended to modify the alarm window settings by turning off 5620 SAM GUI client's audible alarms for this job aid:

1. Choose **Application→User Preferences** from the 5620 SAM main menu. The **User Preferences** form opens with the **General** tab displayed.
2. Configure the **Turn on Audible Alarms** parameter, disable audible alarms by unchecking the box.
3. Click on the **OK** button. The **User Preferences** form closes, and the turn off audible alarm option is applied.

1.2 Severity Alterations

Administration → Alarm Settings



4 • 5 • 9

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Job Aid Objective:

In order to manage alarms using the severity alterations tool, instructions in this job aid will guide students to view the alarm severity alteration configuration, and to enable or disable the severity alterable functionality.

Job Aid Preparation:

In preparation for this job aid, in order to enable or disable the severity alterable functionality log in as an admin user, or a user who is assigned an account with either the administrator scope of command role or a scope of command role with write access permissions to the fm.GlobalPolicy class

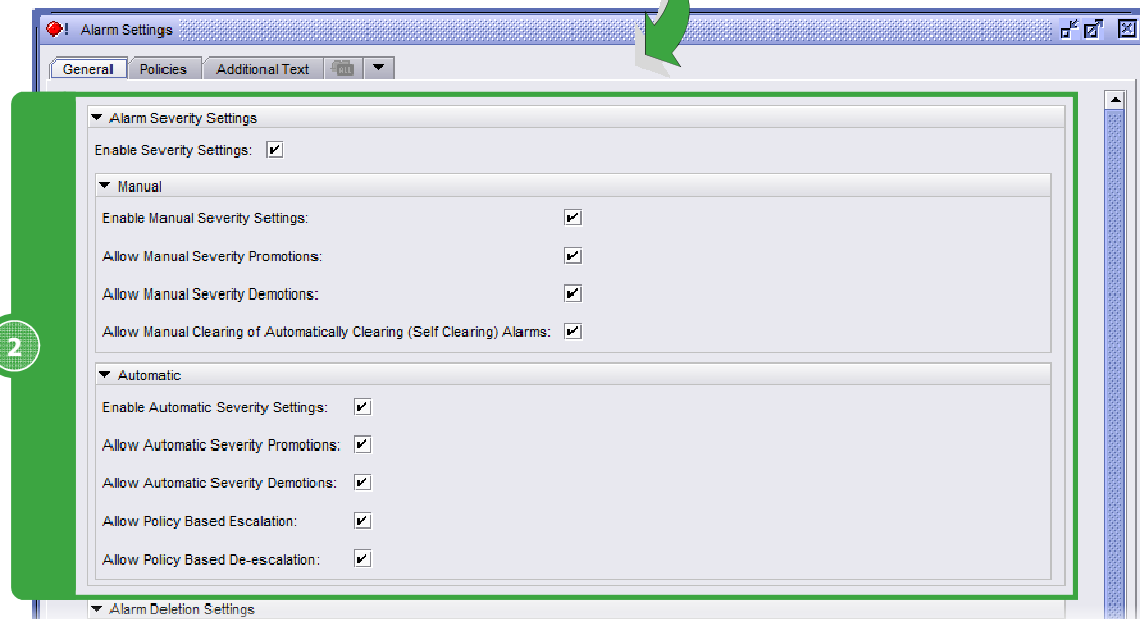
Instructions:

The following lines and the images above summarize the steps recommended to view the alarm severity alteration configuration, and to enable or disable the severity alterable functionality:

1. Choose **Administration → Alarm Settings** from the 5620 SAM main menu. The **Alarm Settings** form opens with the **General** tab displayed. Administratively

1.2 Severity Alterations [cont.]

Administration → Alarm Settings



4 • 5 • 10

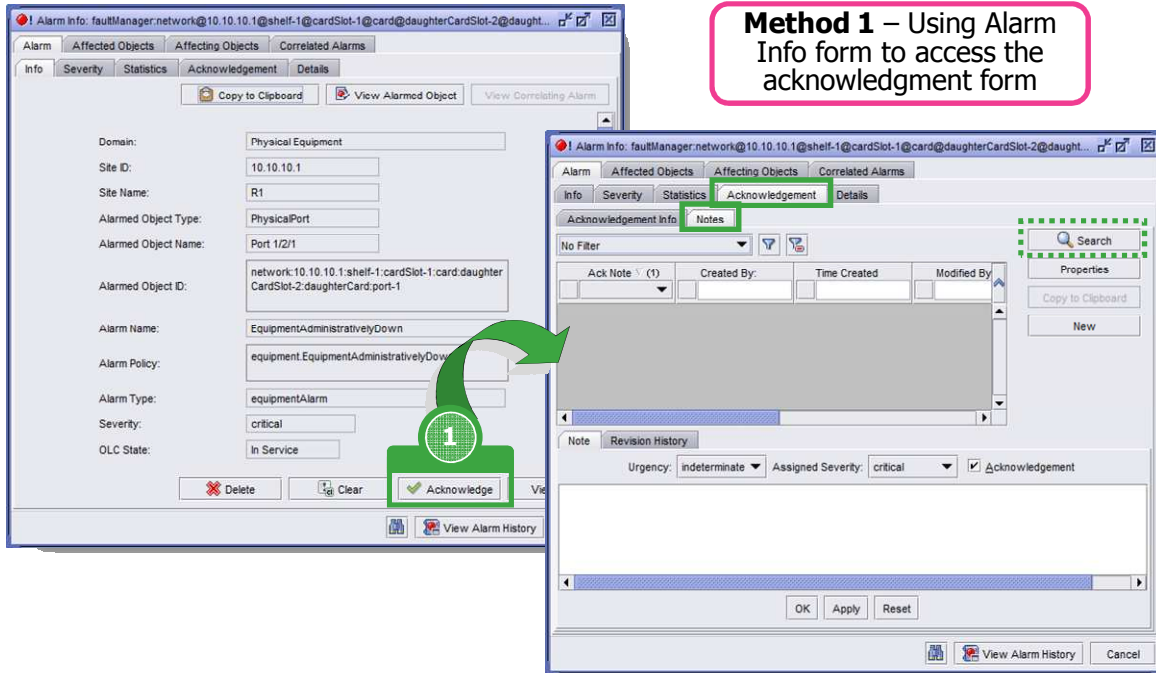
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2. Use the Severity tab parameters to view, enable or disable the alarm severity alteration configuration:
 - **Enable Severity Settings:** When this parameter is enabled, operators can specify whether to allow automatic changes to severity based on individual alarm policies or manual changes to severity based on operator actions.
 - Use the **Manual** panel to view and/or modify the manual changes to severity allowed based on operator actions:
 - **Enable Manual Severity Settings:** specifies whether operators can manually change the severity of alarm
 - **Allow Manual Severity promotion:** to allow an operator to increase the severity of an alarm
 - **Allow Manual Severity demotion:** to allow an operator to decrease the severity of an alarm
 - **Allow Manual Clearing of Automatically Clearing (Self Clearing) Alarms:** to allow an operator to clear an alarm if the alarm is self-clearing. A self-clearing alarm is cleared when an alarm-clearing condition occurs
 - Use the **Automatic** panel to view and/or modify whether to allow automatic changes to severity based on individual alarm policies
 - **Enable Automatic Severity Settings:** specifies whether to enable automatic severity changes for alarms based on specific alarm policies
 - **Allow Automatic Severity Promotions:** specifies whether to automatically promote the severity of the alarm based on the specific alarm policy
 - **Allow Automatic Severity Demotions:** specifies whether to automatically demote the severity of the alarm based on the specific alarm policy
 - **Allow Policy Based Escalation:** specifies whether to automatically de-escalate the severity of an alarm based on the specific alarm policy
 - **Allow Policy Based De-escalation:** specifies whether to automatically de-escalate the severity of an alarm based on the specific alarm policy

1.3 Alarm Acknowledgement



4 • 5 • 11

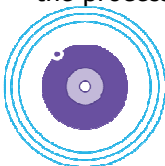
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Job Aid Objective:

In order to indicate to other SAM operators that a problem is under investigation thus providing records to avoid duplicate resources are applied to the same problem, instructions in this job aid will guide students through the process of acknowledging an alarm.



Technical Reference

See Alcatel-Lucent 5620 SAM, Release 12.0 User Guide - Alarm management procedures - for more details on the procedures to manage alarms.

Job Aid Preparation:

In preparation for this job aid, ensure there is at least one alarm in the system to be investigated and that therefore will be acknowledged.

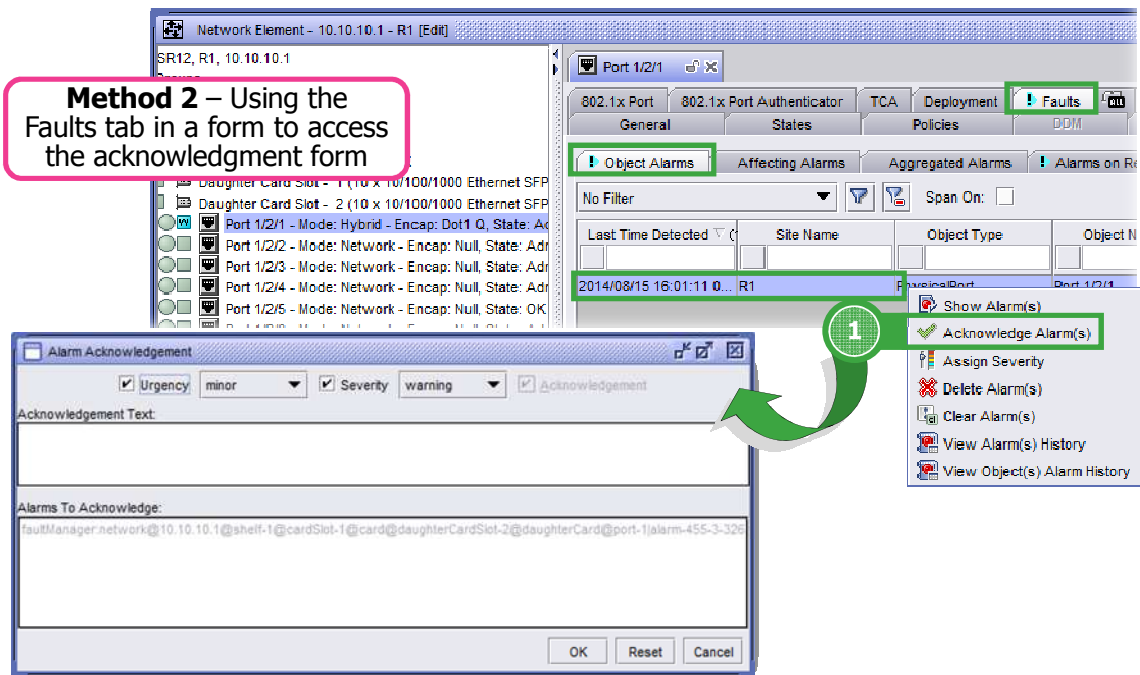
In order to successfully modify the Assign Severity parameter log in as an admin user, or an user who is assigned an account with either the administrator scope of command role or a scope of command role with write access permissions to the fm.GlobalPolicy class. And the ensure the **Enable Severity Settings**, **Enable Manual Severity Settings**, **Allow Manual Severity Demotions**, and **Allow Manual Severity Promotions** parameters are appropriately configured.

Instructions:

The following lines and the images above summarize the steps recommended to acknowledge an alarm, Method 1 - How to open the acknowledgement form using an Alarm Info form:

1. Open the **Alarm Info** form for the alarm that is being investigated, and click on the **Acknowledge** button. The form refreshes with the **Acknowledgement** tab and **Notes** sub-tab displayed. Alternatively, operators can click on the **Acknowledgement** tab and the **Notes** sub-tab to access the same form view. If required, click on the **Search** button to refresh the list and see any previous acknowledgement notes for the alarm.

1.3 Alarm Acknowledgement [cont.]



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The following lines and the images above summarize the steps recommended to acknowledge an alarm, Method 2 - How to open the acknowledgement form using the Faults tab on an object properties form:



Note

This method allows to acknowledge at the same time multiple alarms declared against the same object.

An indicator appears on the Faults tab of the object properties form when one or more alarms are raised against a specific object or related object. The indicator does not represent the severity of the alarm, only that an alarm exists.

1. Click on the **Faults** tab on the **Properties** form of an object to see a list of more alarms are raised against a specific object or related object, select one or more alarms from the list, right-click and choose **Acknowledge Alarm(s)** from the contextual menu. The **Alarm Acknowledgement** form opens.

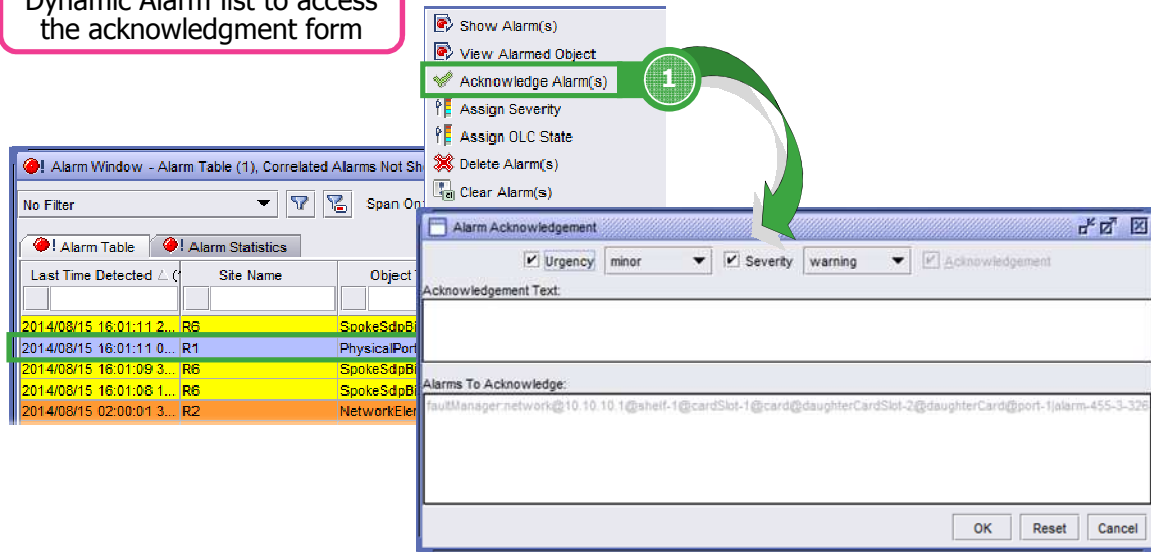


Note

*The **Alarms to be Acknowledge** field in the form displays a summary of the alarms that are to be acknowledge using the form.*

1.3 Alarm Acknowledgement [cont.]

Method 3 – Using the Dynamic Alarm list to access the acknowledgment form



4 • 5 • 13

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The following lines and the images above summarize the steps recommended to acknowledge an alarm, Method 3
- How to open the acknowledgement form using the Dynamic Alarm List:



Note

This method allows to acknowledge at the same time multiple alarms. The alarms to be acknowledged using this method could be declared against a single object or against different objects.

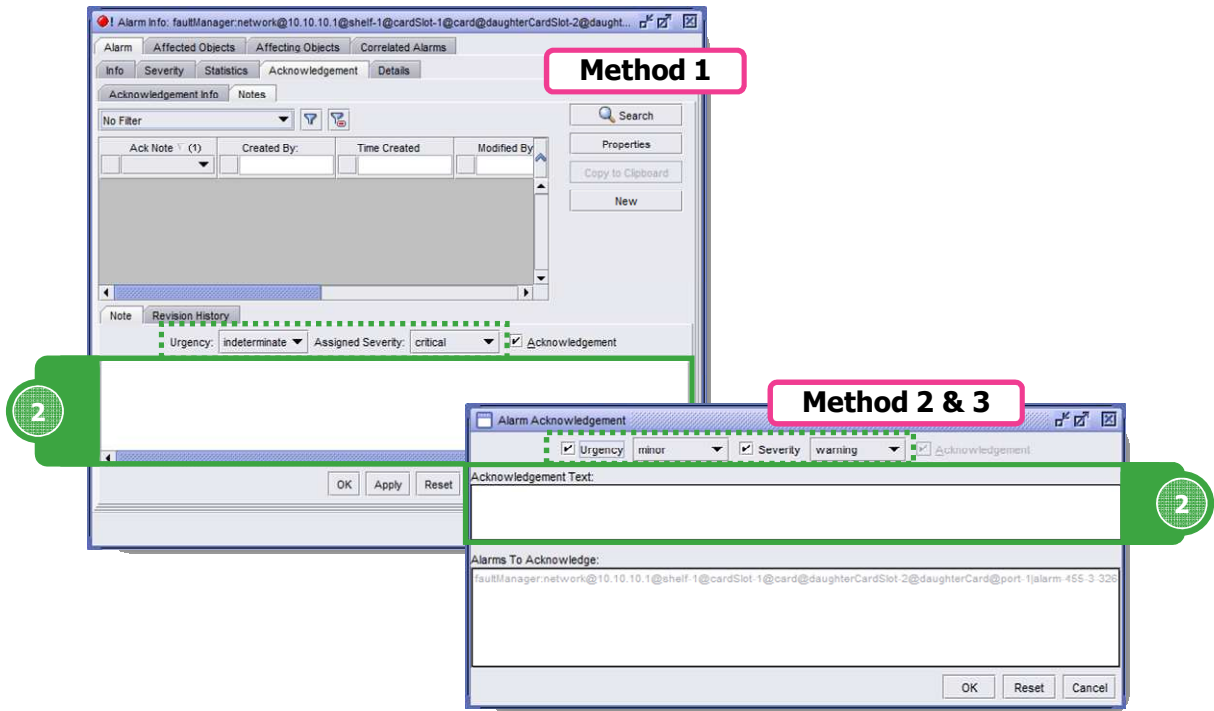
1. From the dynamic alarm list, select one or more alarms right-click and choose **Acknowledge Alarm(s)** from the contextual menu. The **Alarm Acknowledgement** form opens.



Note

*The **Alarms to be Acknowledge** field in the form displays a summary of the alarms that are to be acknowledge using the form.*

1.3 Alarm Acknowledgement [cont.]



4 • 5 • 14

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2. Use the **Notes** field in the **Alarm Info** form the **Acknowledgement** tab and **Notes** sub-tab (for Method 1), or the **Acknowledgement** text box in the **The Alarm Acknowledgement** form (for Methods 2 & 3), the enter data about the alarm acknowledgement as required and according to the SAM operator's company alarm policies.

If required, use the **Urgency** parameter to specifies the user-defined urgency for managing the alarm. The options are: Indeterminate (default); Minor; Major; and, Critical

**Note**

*The **Urgency** parameter is a user-defined informative parameter for managing the alarm, and it is not linked to changes in alarm severity.*

Also if required, operators with the required span of control can use the **Assigned Severity** parameter to change the severity level of an alarm. The options are:

- Cleared
- Indeterminate
- Info
- Condition
- Warning
- Minor

**Note**

*The **Assigned Severity** parameter is configurable when the **Enable Severity Settings**, **Enable Manual Severity Settings**, **Allow Manual Severity Demotions**, and **Allow Manual Severity Promotions** parameters are appropriately configured.*

1.3 Alarm Acknowledgement [cont.]

3. Click on the OK button. A dialog box appears.
4. Click on the OK button to continue.



Note

*For each of the acknowledged alarms, a check mark appears under the **Acknowledge** column in both, the Dynamic Alarm List, and in the alarms list in the Faults tab of the object's properties form.*

This allows users to use the Acknowledgement criteria for filtering the alarm lists to display only not-acknowledged alarms, or in other words alarms that have not been taking care of by any other SAM operator.



End of module
Alarm Management tools Lab

4 • 5 • 16

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Section 4 Fault Management **Module 6** **Object Life Cycle State Lab**

TOS36033_V4.0-EQ-R12.0-Ed1 Module 4.6 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
2.4	2013-06-20	GARCIA LOZANO, René	TOS36033_V2.4 – SAM 10.0 (revision)



Upon completion of this lab module, you should be able to:

- Configure the system preference for OLC parameters and alarm behavior
 - Schedule OLC state revert
 - Configure the creation of an OLC alarm prior to the OLC revert
- Set the OLC state of an object
 - Using the object's Properties form
 - Using the SAM GUI client main menu
 - Using the Dynamic Alarm window
- Monitor the scheduling of OLC state change
- Filter alarms in the Dynamic Alarm window based on the OLC state

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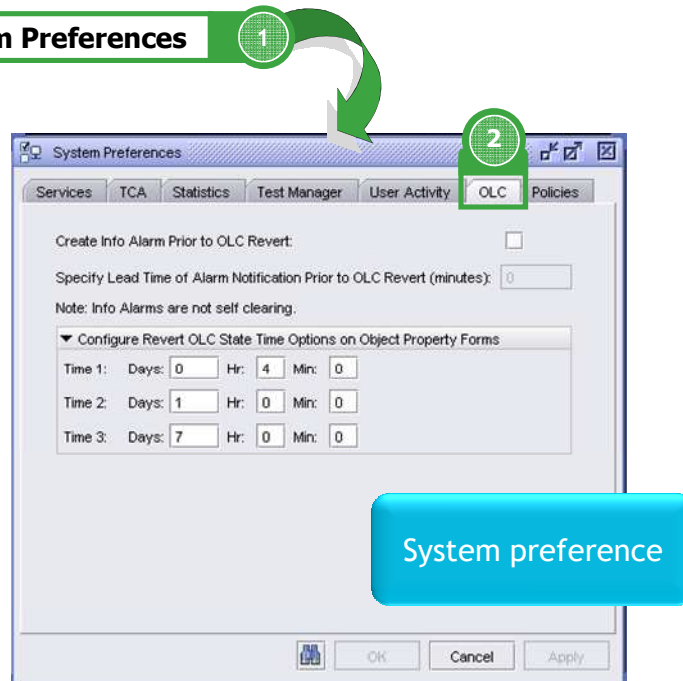


	Page
System Preferences - OLC Parameters and Alarm Behavior	7
Configure OLC from an Object's Properties Form	9
Configure OLC from the 5620 SAM Main Menu	10
Configure the OLC State from the Alarm Window	12
Monitor the Scheduling of OLC State Change	13
Filter Alarms Based on the OLC State	14

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System Preferences - OLC Parameters and Alarm Behavior

Administration → System Preferences



4 · 6 · 7

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Lab Objective:

In order to set the 5620 SAM system preferences for OLC parameters and behavior, over the course of this lab exercise students will :

- schedule an OLC revert
- configure the creation of an OLC alarm prior to the OLC revert

Instructor Preparation:

In preparation for this lab provide students with the schedule that should be used for changing the OLC state, and decide whether an alarm should be raised prior to the OLC revert.

Instructions:

The following lines and the figures above summarize the steps recommended to configure the system preference for OLC parameters and alarm behavior for this lab:

1. Choose **Administration → System Preferences** from the 5620 SAM main menu. The **System Preferences** form opens with the **Services** tab displayed.
2. Click on the **OLC** tab button.

System Preferences - OLC Parameters and Alarm Behavior

System Preferences

Services TCA Statistics Test Manager User Activity OLC Policies

Create Info Alarm Prior to OLC Revert: ☒

Specify Lead Time of Alarm Notification Prior to OLC Revert (minutes): 0

Note: Info Alarms are not self clearing.

▼ Configure Revert OLC State Time Options on Object Property Forms

Time 1:	Days: 0	Hr: 0	Min: 5
Time 2:	Days: 1	Hr: 0	Min: 0
Time 3:	Days: 7	Hr: 0	Min: 0

4 · 6 · 8

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3. On the **System Preferences** form with the **OLC** tab displayed, configure the parameters:

- **Create Info Alarm Prior to OLC Revert** specifies whether the 5620 SAM raises an alarm before the OLC state of an object reverts to the opposite state
- **Specify Lead Time of Alarm Notification Prior to OLC Revert (minutes)** specifies how many minutes before the OLC state of an object reverts to the opposite state that the 5620 SAM raises a notification alarm

4. Configure the parameters in the **Configure Revert OLC State Time Options on Object Property Forms** panel:

- **Time 1** : the default value is 4 hours - For the exercise change the default value : 5 minutes
- You can specify the menu options that appear for the Revert OLC State parameter on object properties forms, other than the default values

Click on the **OK** button. A dialog box appears.

Click on the **Yes** button. The **System Preferences** form closes.

Configure OLC from an Object's Properties Form

Open an NE Properties Form 1

OLC state on object's Properties form

Network Element - 172.0.0.197 - 197 [Edit]

7750-SR12, 197, 172.0.0.197

Logical Groups

Shell 1 (7750-SR12), 197, A/A

Rule-Based Groups CFLOWD Physical Links LLDP Remote Peers Spans Statistics

General Polling Protocols Globals ATM Scripts ICMP Invent

Site ID: 172.0.0.197 Site Name: 197

Name: 197

System ID (Loopback IP Address): 172.0.0.197

Active Management IP: 192.168.193.197

Location: N/A

Chassis Type: 7750-SR12

Software Version: TMOS-B-9.0.R3

Descriptor Version: 9.0

Resource Group ID: 2

Template Based Configuration: ☐

State: Managed

Latitude/Longitude Configuration

Latitude(degrees): 0.0

Longitude(degrees): 0.0

OLC

Current OLC State: In Service

Revert OLC State: Not Scheduled

Not Scheduled

In 5 mins

In 1 day

In 7 days

Resync

Apply Tab OK Cancel Apply

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Lab Objective:

In order to set the OLC state of an object, over the course of this lab exercise students will configure the OLC state using the object's Properties form

Instructor Preparation:

In preparation for this lab identify an NE or object to change the OLC state.

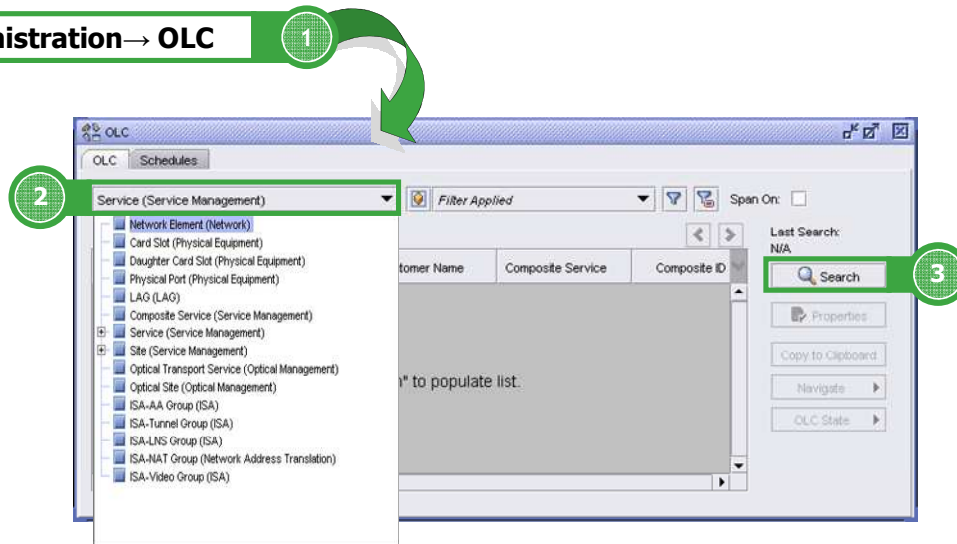
Instructions:

The following lines and the figures above summarize the steps recommended to use an object's Properties form for setting the OLC state for this lab:

1. Open an NE Properties form.
2. On the NE Properties form with the General tab displayed, check the **Current OLC State** in the **OLC panel**. Use the **Current OLC State** parameter to specify whether the object is **In Service** or in **Maintenance** mode.
3. If required, schedule to revert the OLC state. The **Revert OLC State** parameter allows to specify whether the service object reverts back to either the **In Service** mode or the **Maintenance** mode after the selected time, depending on the current "**Current OLC State**".

Configure OLC from the 5620 SAM Main Menu

Administration → OLC



OLC state from
5620 Main menu

4 • 6 • 10

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Lab Objective:

In order to set the OLC state of one or more objects, over the course of this lab exercise students will configure the OLC state from the main menu.

Instructor Preparation:

In preparation for this lab identify one or more NEs or objects to change the OLC state.

Instructions:

The following lines and the figures above summarize the steps recommended from the main menu to use the OLC form for changing the OLC state of one or more objects.



Caution

Changing the OLC state of multiple objects can affect 5620 SAM performance and can take several minutes to complete. Changing the OLC state of a parent object changes the OLC state of the child objects.

1. Choose **Administration - OLC** from the 5620 SAM main menu. The **OLC** form appears with the **OLC** tab displayed.
2. Select **Network Element** from the object drop-down menu. If required, configure the filter criteria, as required. (For this exercise, choose **No Filter**)
3. Click on the **Search** button. A list of objects appears based on the type of object selected, and the filter criteria.

Configure OLC from the 5620 SAM Main Menu [Cont.]

OLC Schedules

Network Element (Network) No Filter Span On: ☐

Count: 10 Page 1 of 1

Last Search: 2012/05/25 08:34:36

Search Properties Copy to Clipboard Navigate

OLC State Maintenance In Service

OLC Schedules

Network Element (Network) Filter Applied Span On: ☐

Count: 1 Page 1 of 1

Last Search: 2012/05/25 08:41:22

Search Properties

Current OLC State Maintenance

Current OLC State	Site ID	Site Name	Name	System Description	System ID (Loopback)
In Service	172.0.0.77	77	77	N/A	172.0.0.77
In Service	172.0.0.71	71	71	N/A	172.0.0.71
In Service	172.0.0.75	75	75	N/A	172.0.0.75
In Service	172.0.0.76	76	76	N/A	172.0.0.76
In Service	172.0.0.73	73	73	N/A	172.0.0.73
In Service	172.0.0.68	68	68	N/A	172.0.0.68
In Service	172.0.0.70	70	70	N/A	172.0.0.70
In Service	172.0.0.69	69	69	N/A	172.0.0.69

Maintenance

Maintenance

4 • 6 • 11

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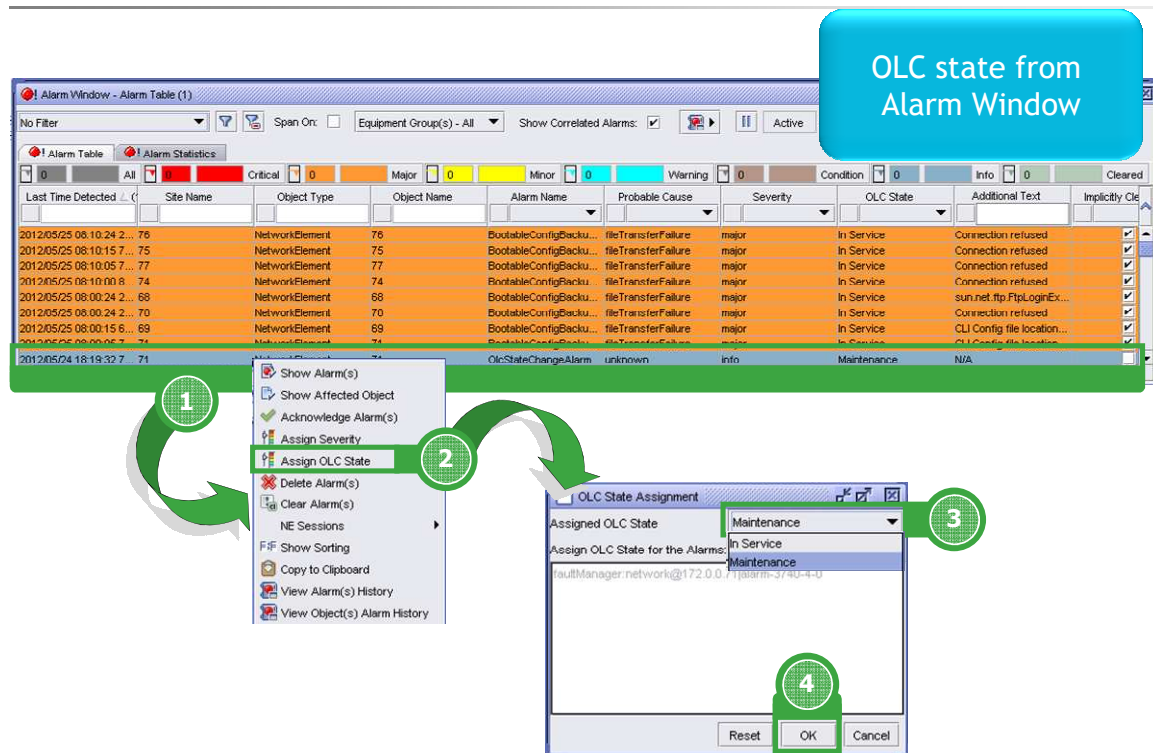
4. Select one entry or multiple entries from the list.
5. Click on the OLC State button, and choose Maintenance or In Service from the drop-down menu.
6. The OLC state of the object changes in the filtered list panel.



Note

Operators can configure the **Revert OLC State** parameter on the properties form for the object. The Revert OLC State parameter allows to specify that the object automatically reverts to either the In Service mode or the Maintenance mode after a selected time, depending on the current OLC state of the object.

Configure the OLC State from the Alarm Window



4 • 6 • 12

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Lab Objective:

In order to set the OLC state of an alarmed objects, over the course of this lab exercise students will configure the OLC state from the alarm window.

Instructor Preparation:

In preparation for this lab identify an alarmed object to change the OLC state.

Instructions:

The following lines and the figures above summarize the steps recommended to use the alarm window for changing the OLC state of an alarmed object.

On the Alarm Window with the **Alarm Table** tab open, the dynamic alarm list incoming network alarms.

1. Select an alarm from the list. You can select multiple alarms.
2. Right-click on the alarm and choose **Assign OLC State** from the contextual menu. The OLC State Assignment window opens.
3. Choose **Maintenance** or **In service** from the Assigned OLC State drop-down menu.
4. Click on the **OK** button. Click on the **Yes** button.

Monitor the Scheduling of OLC State Change

Administration → OLC

1

2

The screenshot shows the 'OLC Schedules' form in a web application. At the top, there are tabs for 'OLC' and 'Schedules', with 'Schedules' being the active tab. Below the tabs, there is a 'No Filter' button and a search icon. The main area contains a table with the following columns: 'Object ID (1)', 'Object Name', 'OLC State Will Revert To', 'Revert OLC Time', and 'Revert OLC State'. A single row is visible with the following data: 'etwork:172.0.0.197', '197', 'Maintenance', '2012/09/19 13:06:08 851', and 'In 5 mins'. To the right of the table, there is a 'Count 1 Page 1 of 1' indicator and a 'Properties' button. Below the table, there are four pink callout boxes with arrows pointing to specific columns: 'Object information (ID and name)' points to the first two columns, 'OLC state after the revert time' points to the third column, 'Revert OLC Time' points to the fourth column, and 'Revert OLC state' points to the fifth column.

Object ID (1)	Object Name	OLC State Will Revert To	Revert OLC Time	Revert OLC State
etwork:172.0.0.197	197	Maintenance	2012/09/19 13:06:08 851	In 5 mins

Object information
(ID and name)

OLC state after the
revert time

Revert OLC Time

Revert OLC state

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Lab Objective:

In order to monitor the scheduling of OLC state changes, instructions in this job aid will guide students on the steps to view the scheduling of OLC state changes of network equipment or a service using the OLC - Schedules form.

Instructor Preparation:

In preparation for this lab schedule to revert the OLC state of an NE or object.

Instructions:

The following lines and the figures above summarize the steps recommended to use the OLC - Schedules form for viewing the scheduling of OLC state changes of network equipment or a service.

1. Choose Administration OLC from the 5620 SAM main menu. The OLC form opens with the OLC tab displayed.
2. Click on the **Schedules** tab. A list of scheduled OLC state changes appears.
Configure the filter criteria, if required.
View the following information:
 - object ID and name
 - current OLC state
 - OLC state to which the object reverts at the scheduled time
 - time when the OLC state reverts

To open the object properties form, select an entry and click on the Properties button.

Filter Alarms Based on the OLC State

The top screenshot shows the 'Alarm Window - Alarm Table (2)' with a filter applied for 'Maintenance' OLC state. The 'Filter Applied' dropdown is set to 'Maintenance'. The 'Count' is 6. The bottom screenshot shows the same window with 'No Filter' applied. The 'Count' is 178. A green arrow points from the 'Maintenance' filter in the top screenshot to the 'Maintenance' filter in the bottom screenshot. A green circle with the number 1 is next to the 'Alarm Table' tab in the bottom screenshot. A green circle with the number 2 is next to the 'OLC State' dropdown menu in the bottom screenshot. A green circle with the number 3 is next to the 'Search' button in the bottom screenshot.

Lab Objective:

In order to reduce to use the OLC state to reduce the number of alarms listed in the Dynamic Alarm list, instructions in this job aid will guide students on the steps to filter alarms based in the alarm window based on OLC state.

Instructor Preparation:

In preparation for this lab set to Maintenance mode the OLC state of one or more NEs or objects, as required.

Instructions:

The following lines and the figures above summarize the steps recommended to create a filter in the alarm window, to display only alarms declared against objects set to Maintenance OLC mode.

1. Click on the **Alarm Table** tab in the alarm window
2. Configure the **OLC state** heading filter on the alarm list and choose **Maintenance** from the drop-down menu.
3. Click on the **Search** button. The Alarm window refreshes with a filter applied, displaying only alarms declared against objects set to **Maintenance** OLC mode.

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End of module
Object Life Cycle State Lab

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Section 4

Fault Management

Module 7

Historical Alarms Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 4.7 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-07-19	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)



Upon completion of this lab module, you should be able to:

- View logged alarm history records in an alarm log database
- Identify the information contain on an Alarm History Object form

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	Page
1 Historical Alarms Labs	7
1.1 View Historical Alarm Records	8
1.1.1 Historical Alarm Info	9
1.1.2 Historical Alarm Severity	10
1.1.3 Historical Alarm Statistics	11
1.1.4 Historical Alarm Acknowledgement	12
1.2 Opening Historical Alarm Records	13

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1 Historical Alarms Labs

1.1 View Historical Alarm Records

The screenshot shows the 'Historical Alarms' window in the 5620 SAM software. On the left, the 'Tools' menu is open, and 'Historical Alarms' is highlighted (1). The main window shows a search interface with a 'Search' button (2) and a table of alarm records. The table has columns: Time Logged, Last Time Detected, Site Name, Object Type, Object Name, and Alarm Name. The first row is highlighted (3).

Time Logged	Last Time Detected	Site Name	Object Type	Object Name	Alarm Name
2012/03/28 20:52:31.4	2012/03/28 20:52:20.9	sim102	netw.NetworkElement	sim102	BootParametersMisco...
2012/03/28 20:52:32.1	2012/03/28 20:52:20.9	sim104	netw.NetworkElement	sim104	BootParametersMisco...
2012/03/28 20:52:32.3	2012/03/28 20:52:20.4	7750-100	netw.NetworkElement	7750-100	BootParametersMisco...
2012/03/28 20:52:38.5	2012/03/28 20:52:19.7	sim104	netw.NetworkElement	sim104	BootParametersMisco...
2012/03/28 20:53:00.8	2012/03/28 20:52:23.5	sim107	netw.NetworkElement	sim107	BootParametersMisco...
2012/03/28 20:53:00.8	2012/03/28 20:52:23.5	sim109	netw.NetworkElement	sim109	BootParametersMisco...
2012/03/28 20:53:00.9	2012/03/28 20:52:23.5	sim103	netw.NetworkElement	sim103	BootParametersMisco...
2012/03/28 20:53:00.9	2012/03/28 20:52:23.5	sim106	netw.NetworkElement	sim106	BootParametersMisco...
2012/03/28 20:53:02.1	2012/03/28 20:52:23.5	sim108	netw.NetworkElement	sim108	BootParametersMisco...

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4 • 7 • 8

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Lab Exercise Objective:

In order to keep track of what has transpired in their network and the frequency to which things occur, instructions in this lab exercise will guide students to view logged alarm history records in an alarm log database.

Instructor Preparation:

Provide students with instructions on an alarm to view its history record.

In preparation for this lab exercise the instructor may have performed, or may ask students to perform one or all of the following: severity alterations, alarm acknowledgements, raised and clear the alarms multiple times to create statistical record entries for the alarm.

Instructions:

The following lines and the figures above summarize the steps recommended to view logged alarm history records

1. From the 5620 SAM main menu, choose **Tools** → **Historical Alarms**, The Historical Alarms form opens.
2. If required, specify a filter to narrow the range of historical alarms displayed. Click on the **Search** button. The list of historical alarm records appears based on the filtering criteria.

Note

When sorting alarms, sorting more than 50 000 outstanding or logged alarms may slow GUI performance. Use filters to return a reasonable number of alarms.

3. Double-click on an alarm history record from the list. Alternatively, select an alarm history record entry from the list, and click in the **Properties** button. The Alarm History Object form for the selected record opens with the **Info** tab displayed.

1.1.1 Historical Alarm Info

Alarm information

Alarm Status

Cleared by

Time Logged

View Alarmed Object

4 • 7 • 9

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Use the Alarm History Object form's **Info** tab to view information about the alarmed object, type of alarm, severity, probable cause, first and last time detected.

The Alarm History Object form's **Info** tab also displays the following parameters:

- Alarm Status describing the reason the alarm was logged to the historical alarm database
- Cleared By displaying the name of SAM user that cleared the alarm
- Time Logged with the timestamp when alarm was moved to the historical alarm database

The **Info** tab contains a **View Alarmed Object** button which allows to open the properties form for the alarmed object.

1.1.2 Historical Alarm Severity

fmAlarmHistoryObject.-3

Info **Severity** Statistics Acknowledgement

Current Severity: cleared

Previous Severity: critical

Original Severity: critical

Highest Severity: critical

Last Time Severity Changed: 2012/03/28 20:52:32 345 CEST

Last Time Cleared: 2012/03/28 20:52:32 345 CEST

Last Time Promoted: N/A

Last Time Demoted: 2012/03/28 20:52:32 345 CEST

Last Time Escalated: N/A

Last Time De-escalated: N/A

View Policy OK Cancel Apply

Highest Severity**Last Time Records**

Use the **Alarm History Object** form's **Severity** tab to view information pertaining to the severity of the alarm and any changes that may have occurred as a result of escalation and/ or demotion. This also includes the time that the alarm was declared and at which any changes occurred.

The severity tab includes parameters such as:

- Highest Severity indicating the most severe status assigned to the alarm. Alarm severity can change due to escalation.
- Last time records for severity changed, time cleared, promoted, demoted, escalated and de-escalated according to the both the client time and the NE time

1.1.3 Historical Alarm Statistics

fm.AlarmHistoryObject.-3

Info Severity **Statistics** Acknowledgement

Frequency: 0

Number Of Occurrences: 1

Number Of Occurrences Since Clear: 0

Number Of Occurrences Since Acknowledged: 0

View Policy OK Cancel Apply

Frequency**Number of Occurrences****Number of Occurrences
since Clear****Number of Occurrences
since Acknowledged**

Use the **Alarm History Object** form's **Statistics** tab to view information pertaining to the frequency at which the alarm has occurred including:

- Frequency
- Number of Occurrences indicating how often the alarm was raised
- Number of Occurrences since Clear
- Number of Occurrences since Acknowledged

1.1.4 Historical Alarm Acknowledgement

fm.AlarmHistoryObject.-3

Info Severity Statistics **Acknowledgement**

Acknowledged: ☐

Acknowledged By: N/A

Last Time Acknowledged: N/A

Previously Acknowledged: ☐

Urgency: indeterminate

Urgency Assigned By: N/A

View Policy OK Cancel Apply

Acknowledged

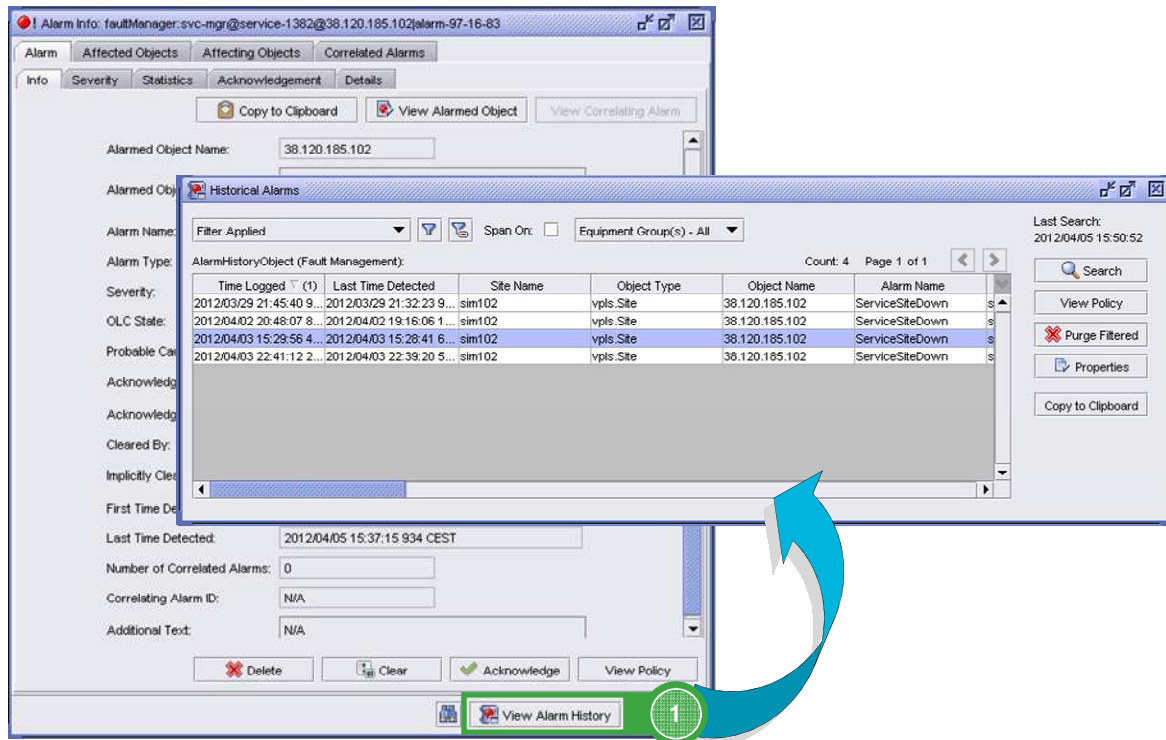
Previously Acknowledged

Urgency

Use the **Alarm History Object** form's **Acknowledgement** tab to view information about when the alarm was acknowledged, the user that acknowledged the alarm, and the user that set the urgency.

- Acknowledged parameter specifies that the alarm has been acknowledged. Details about the last time the alarm was acknowledged appear under the Last Time Acknowledged and Acknowledge by parameters.
- Previously Acknowledged parameter specifies that the alarm had been previously acknowledged.
- Urgency details the user assigned urgency information for the alarm. And the Urgency Assigned by displays the name of SAM user that assigned urgency information for the alarm.

1.2 Opening Historical Alarm Records



4 • 7 • 13

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Alternatively, the Historical Alarms form can also be opened:

- Selecting one or more alarms on the **Alarm Window**, and using the **View Alarm(s) History** contextual menu. Note that the View Alarm(s) History and View Object(s) Alarm History menu options are unavailable when more than 20 alarms are selected from the list.
- From the **Alarm Info** form, clicking on the **View Alarm History** button. See image above.
- From an object **Properties** form **Faults** tab, clicking on the **View Alarm History** button.



End of module
Historical Alarms Lab

.....
4 · 7 · 14

Fault Management · Historical Alarms Lab
5620 SAM · R12.0 Fundamentals

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Section 4 Fault Management

Module 8

Fault Management Web Application Overview Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 4.8 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1

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Document History			
Edition	Date	Author	Remarks
1.0	2014-07-17	GARCIA LOZANO, René	TOS36033_V4.0 – SAM 12.0 (update)



Upon completion of this lab module, you should be able to:

- Launch the Fault Management web application using :
 - the Web Application launch panel
 - a direct URL
- Identify browser compatibility issues and to refer to the appropriate documentation to troubleshoot the issue

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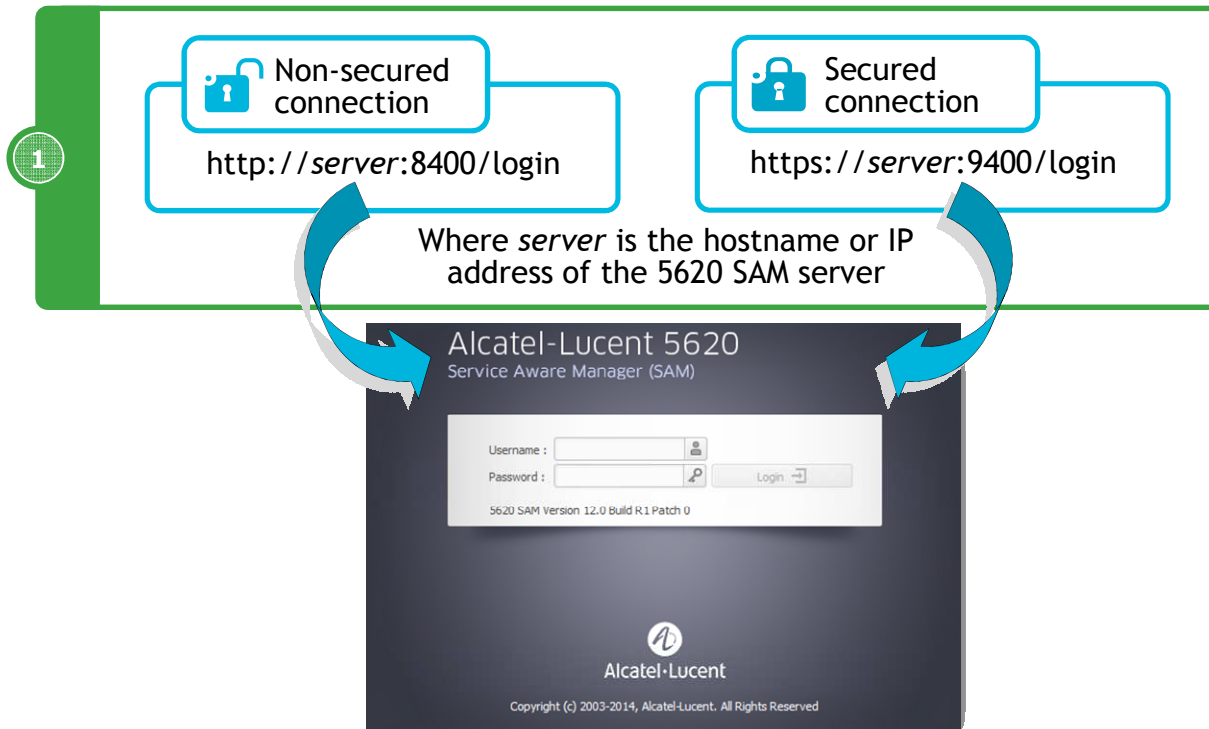


	Page
1 Launch the Fault Management Web Application	7
1.1 Launch the FM Web App Lab	8
1.2 Launch the FM Web App – Direct URL Lab	10
1.3 FM Web App – Browser Compatibility Troubleshooting	12

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1 Launch the Fault Management Web Application

1.1 Launch the FM Web App Lab



4 • 8 • 8

Fault Management • Fault Management Web Application Overview Lab
5620 SAM • R12.0 Fundamentals

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Lab Exercise Objective:

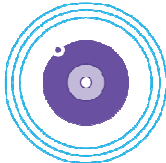
In order for students to become familiar with the process to access the 5620 SAM Fault Management web application, instructions in this lab exercise will guide students to launch the Fault Management web application using the Web Application launch panel.

Instructor Preparation:

In preparation for this lab exercise provide students with the 5620 SAM Server address, a username name and password of a 5620 SAM user that has access to the Web Applications. Note that the default admin user group can access all 5620 SAM web applications.

Ensure the terminal has connectivity with the 5620 SAM Server, and the terminal's web browser is compatible with the 5620 Web Apps.

Provide students with information about whether secured connection (SSL) is enabled or disabled in the 5620 SAM server.



Technical Reference

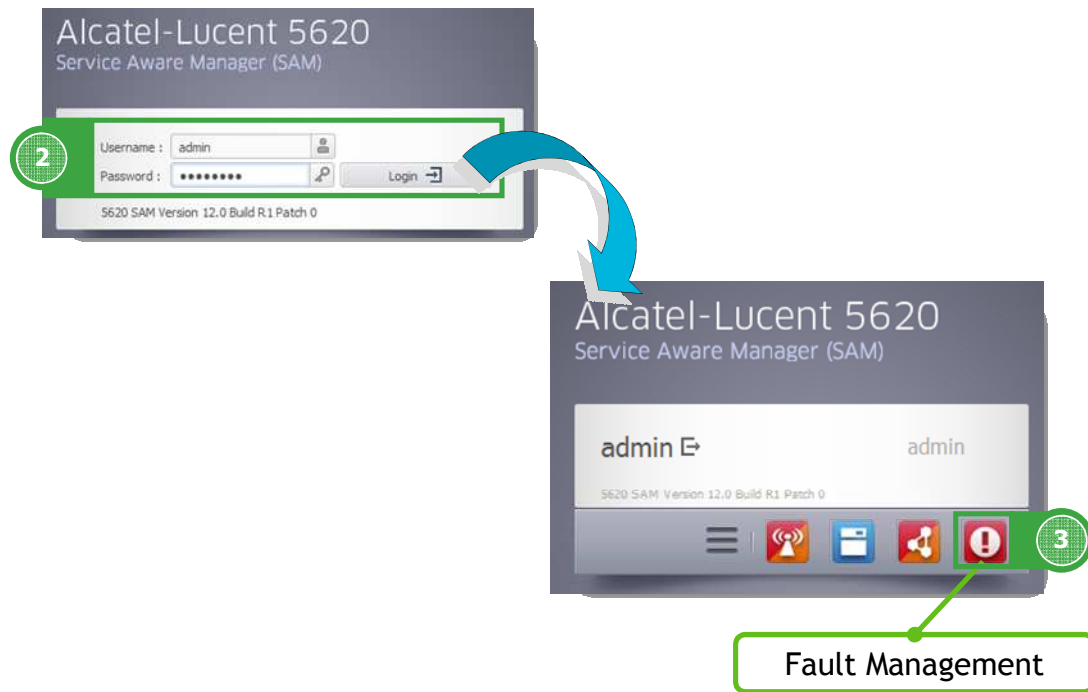
For more information on the steps to access the 5620 SAM Web Applications (including browser compatibility requirements) see *Alcatel-Lucent 5620 SAM User Guide - 5620 SAM web applications* section.

Instructions:

The following lines and the images above summarize the steps recommended to launch the 5620 SAM Web App using a web browser for this lab exercise.

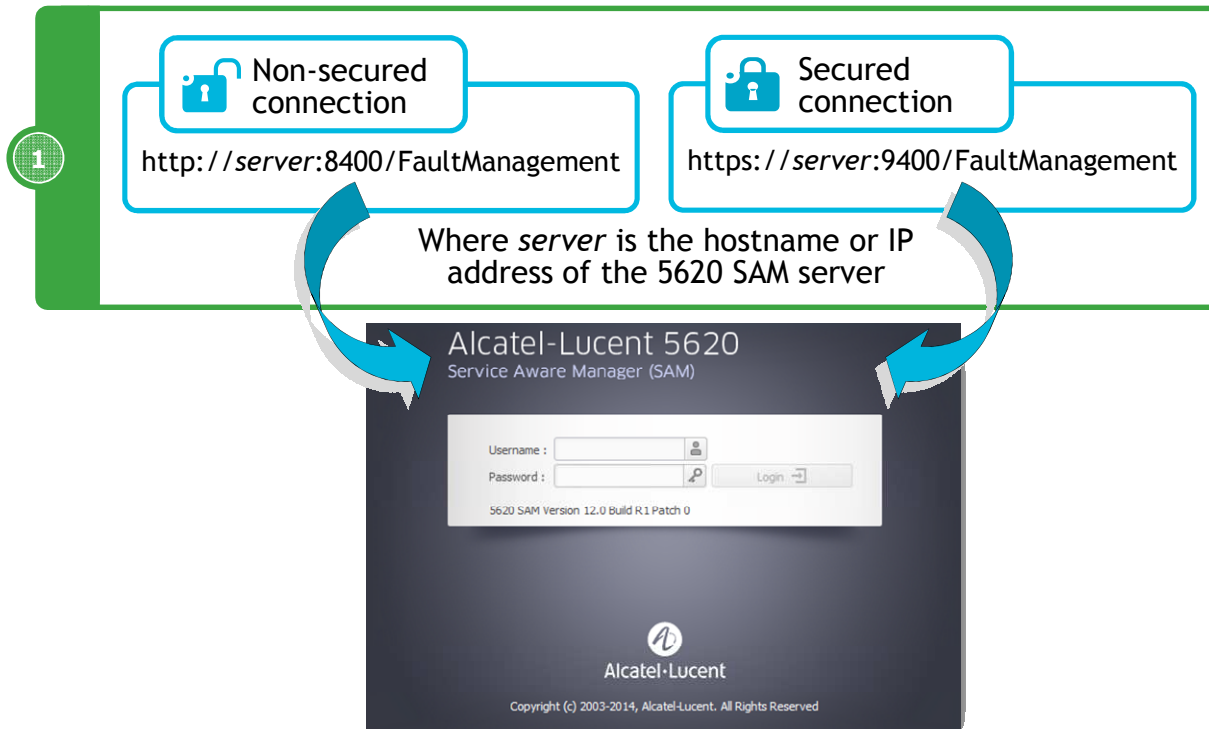
1. Open a web browser window and Navigate to the following URL:
http://server:8400/client for a non-secured connection (SSL not enabled on the 5620 SAM Server) or
http://server:9400/client for a secured connection (SSL enabled on the 5620 SAM Server)
 where *server* is the IP address or hostname of the 5620 SAM main server
 The web browser opens the 5620 SAM Web Applications login page (shown in the figure above).

1.1 Launch the FM Web App Lab [cont.]



2. In the 5620 SAM Web Applications login page, enter the provided username and password and click on the Login button. The 5620 SAM Web Application launch panel appears. As shown on the image above
3. Click on the Fault Management Web Application icon (red icon with an exclamation mark, shown in the image above) to launch the FM web app. The Fault management Web App launches with the Top Unhealthy NEs View displayed.

1.2 Launch the FM Web App – Direct URL Lab



4 • 8 • 10

Fault Management • Fault Management Web Application Overview Lab
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Lab Exercise Objective:

In order for students to become familiar with the process to access the 5620 SAM Fault Management web application, instructions in this lab exercise will guide students to launch the Fault Management web application using a direct URL.

Instructor Preparation:

In preparation for this lab exercise provide students with the 5620 SAM Server address, a username name and password of a 5620 SAM user that has access to the Web Applications. Note that the default admin user group can access all 5620 SAM web applications.

Ensure the terminal has connectivity with the 5620 SAM Server, and the terminal's web browser is compatible with the 5620 Web Apps.

Provide students with information about whether secured connection (SSL) is enabled or disabled in the 5620 SAM server.



Technical Reference

For more information on browser compatibility requirements see *Alcatel-Lucent 5620 SAM User Guide - 5620 SAM web applications* section.

Instructions:

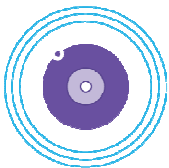
The following lines and the images above summarize the steps recommended to launch the 5620 SAM Web App using a web browser for this lab exercise.

1. Open a web browser window and Navigate to one of the following direct URLs:
http://server:8400/FaultManagement for a non-secured connection (SSL not enabled on the 5620 SAM Server), or
https://server:9400/FaultManagement for a secured connection (SSL enabled on the 5620 SAM Server)
 where **server** is the IP address or hostname of the 5620 SAM main server
 The web browser opens the 5620 SAM Web Applications login page (shown in the figure above).

1.2 Launch the FM Web App – Direct URL Lab [cont.]



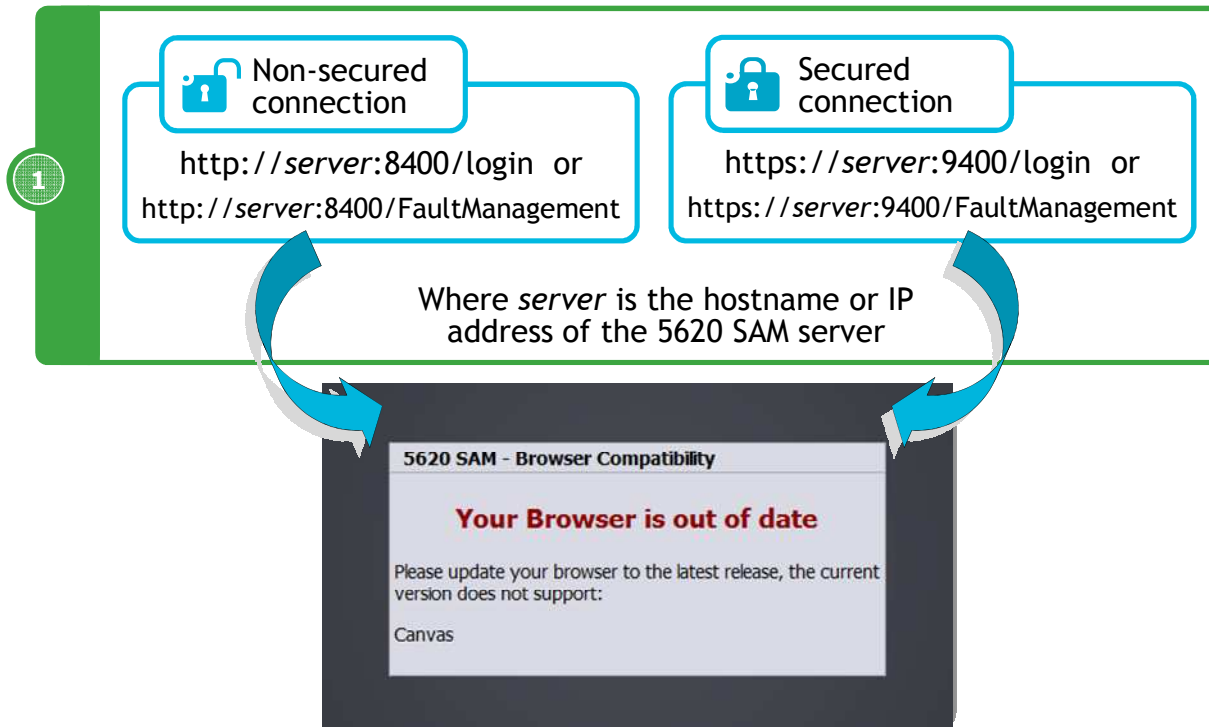
- In the 5620 SAM Web Applications login page, enter the provided username and password and click on the Login button. The 5620 SAM Fault management Web App launches with the Top Unhealthy NEs View displayed.



Technical Reference

For more details on direct URLs for launching other 5620 SAM Web Applications see *Alcatel-Lucent 5620 SAM User Guide - 5620 SAM web applications* section.

1.3 FM Web App – Browser Compatibility Troubleshooting



4 • 8 • 12

Fault Management • Fault Management Web Application Overview Lab
5620 SAM • R12.0 Fundamentals

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Lab Exercise Objective:

In order for students to become familiar with the process to troubleshoot browser compatibility issues with the 5620 SAM Fault Management web application, instructions in this lab exercise will guide students to identify browser compatibility issues and to refer to the appropriate documentation for browser compatibility requirements.



Note

This lab has been designed in case browser compatibility issues with the 5620 SAM Web Applications are encountered during course delivery.

In case it is not needed, it may be skipped or shown as demo using the images above, as required.

Instructor Preparation:

In preparation for this lab exercise identify a terminal with an installed non-compatible browser with web applications.

Provide students with the 5620 SAM Server address, a username name and password of a 5620 SAM user that has access to the Web Applications. Note that the default admin user group can access all 5620 SAM web applications.

Ensure the terminal has connectivity with the 5620 SAM Server, and the terminal's web browser is compatible with the 5620 Web Apps.

Provide students with information about whether secured connection (SSL) is enabled or disabled in the 5620 SAM server.

Instructions:

The following lines and the images above summarize the steps recommended to identify and troubleshoot browser compatibility issues with the 5620 SAM Web Apps for this lab exercise.

1. Open a non-compatible web browser window and navigate to the one of the URLs to launch the FM Web App. The web browser opens a Browser Compatibility error page (E.g. shown in the figure above).

1.3 FM Web App – Browser Compatibility Troubleshooting [cont.]

2. Refer to the *Alcatel-Lucent 5620 SAM User Guide - 5620 SAM web applications section* for information on browser compatibility requirements.

Perform one of the following:

- a. Open a compatible web browser, or
- b. Install or update a browser to meet the minimum compatibility requirements.



End of module
Fault Management Web Application Overview Lab

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4 • 8 • 14

Fault Management • Fault Management Web Application Overview Lab
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Section 5
Performance Management

Module 1
Scheduled Performance Statistics Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 5.1 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1



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Document History			
Edition	Date	Author	Remarks
1.0	2011-04-20	GARCIA LOZANO, René	TOS36033_V1.0 – SAM 9.0 (R1 update)
1.1	2011-10-28	GARCIA LOZANO, René	TOS36033_V1.5 – SAM 9.0 (R5 update)
2.0	2012-03-30	LOLLIERIC, Pascal	TOS36033_V2.0 – SAM 10.0 (R1 update)
2.1	2012-08-18	GARCIA LOZANO, René	TOS36033_V2.1 – SAM 10.0 (R1 vILT conversion)
2.2	2012-10-08	LOLLIERIC, Pascal	TOS36033_V2.2 – SAM 10.0 (R5 update)
2.3	2012-10-30	GARCIA LOZANO, René	TOS36033_V2.3 – SAM 10.0 (MyPLE and WBT)
3.0	2013-07-19	GARCIA LOZANO, René	TOS36033_V3.0 – SAM 11.0 (update)



Upon completion of this lab module, you should be able to:

- Create an NE MIB statistics policy to schedule performance statistics collection
- Apply an NE MIB statistics policy to selected managed devices by assigning sites to the collection policy
- Configure the polling interval for a MIB Statistics class on an NE MIB statistics policy
- Modify, enable or disable collection of performance statistics by creating a specific MIB statistics collection policy
- Configure the polling interval for a MIB Statistics class on a specific NE MIB statistics collection policy
- Apply a specific MIB statistics policy to selected managed devices by assigning sites to the collection policy
- Display and save to file scheduled performance statistics records for a selected object and for a set of objects
- Create a historical performance statistics data graph
- Save to a file historical performance statistics graphical results and tabular results

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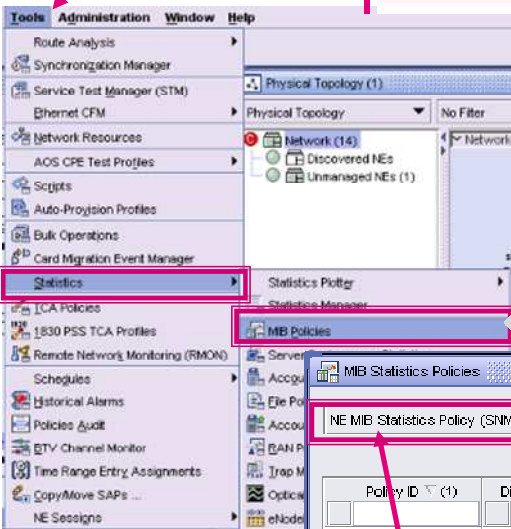
	Page
1 NE MIB Performance Statistics Configuration Labs	7
1.1 Create an NE MIB Performance Statistics Policy	8
1.1.1 Configure Polling for MIB Statistics Class	10
1.1.2 Assign Sites to an NE MIB Statistics Policy	14
2 Specific MIB Performance Statistics Configuration Labs	16
2.1 Create a Specific MIB Statistics Collection Policy	17
2.1.1 Configure Polling for a Specific MIB Statistics Class	21
2.1.2 Assign Sites to a Specific NE MIB Statistics Policy	24
3 Viewing and Saving Scheduled Performance Statistic Records Labs	26
3.1 Viewing Records for an Object	27
3.2 Saving to a File Records for an Object	30
3.3 Viewing Records for a Set of Objects	31
3.4 Saving to a File Records for a Set of Objects	34
3.5 Create a Historical Performance Statistics Data Graph	35
3.6 Save the Historical Performance Statistics Graph Results	39
3.7 Save the Historical Performance Statistics Table Results	40

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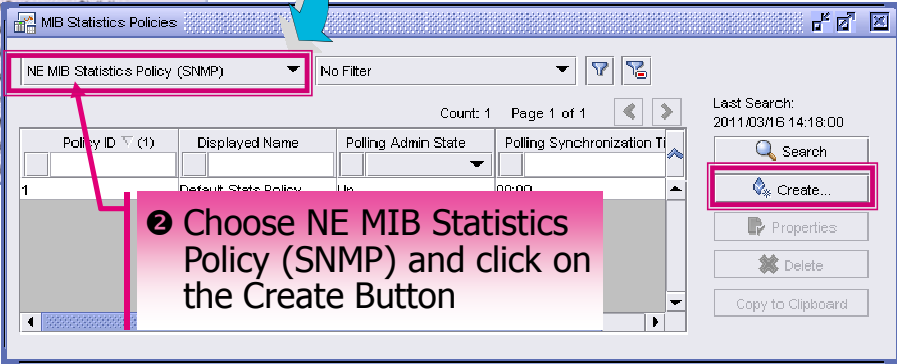
1 NE MIB Performance Statistics Configuration Labs

1.1 Create an NE MIB Performance Statistics Policy

① Choose Tools→Statistics→MIB Policies



② Choose NE MIB Statistics Policy (SNMP) and click on the Create Button



5 • 1 • 8
Performance Management • Scheduled Performance Statistics Lab
5620 SAM • R12.0 Fundamentals

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Lab Exercise Objective:

In order to regularly gather performance statistics information about physical equipment, routing, and other NE properties for monitoring and troubleshooting purposes, over the course of this lab exercise students will create an NE MIB statistics policy to schedule performance statistics collection.

Instructor Preparation:

Provide students with instructions on the naming convention to be used for the policy, and the polling synchronization time (which is critical to synchronize with an specific MIB policy).

Instructions:

Follow your instructor's directions to create an NE MIB statistics Policy on 5620 SAM in order to schedule MIB performance statistics collection on one or more NEs.



Technical Reference

For more information on the steps to create an NE performance statistics policy see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 3.3 Performance statistics collection procedures - Procedure 3-1 To create or modify an NE MIB statistics policy using a top-down method

The following lines and the images above summarize the steps recommended to create an NE MIB performance statistics collection policy for this lab.

1. Choose **Tools→Statistics→MIB Policies** from the 5620 SAM main menu. The **MIB Statistics Policies** form opens.
2. Choose **NE MIB Statistics Policy (SNMP)** from the object drop-down list, and click on the **Create** button. The **NE MIB Statistics Policy (Create)** form opens.

1.1 Create an NE MIB Performance Statistics Policy [cont.]

3 Configure the parameters:

- Auto-Assign ID / Policy ID
- Displayed Name
- Polling Synchronization time
- Polling Admin State

4 Click on the OK Button

The screenshot shows the 'NE MIB Statistics Policy, 0 [Create]' form with fields for Policy ID (0), Displayed Name, Polling Synchronization Time (16:20), and Polling Admin State (Up). The 'Auto-Assign ID' checkbox is checked. Below the form is a table of existing policies:

Policy ID	Displayed Name	Polling Admin State	Polling Synchronization Time
1	Default Stats Policy	Up	00:00
100	Stats Policy 100 - Eve...	Down	00:00

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5 • 1 • 9
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5620 SAM • R12.0 Fundamentals

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3. On the NE MIB Statistics Policy (Create) form, configure the parameters:

- **Auto-Assign ID** specifies whether the 5620 SAM automatically assigns a unique ID to the created object. This parameter is enabled by default.
- **Policy ID** specifies a unique ID number for the policy. The range is 1 to 65 535. To manually assign a Policy ID number the operator must disable the Auto-Assign ID parameter.
- **Displayed Name** specifies a unique name for the created policy object. The range is 0 to 80 characters.
- **Polling Synchronization Time** specifies the polling synchronization start time from which the polling intervals are calculated in hh:mm format based on a 24-hour clock. When the server restarts, the next appropriate collection interval is calculated and polling restarts. By default, this parameter is populated with the server time when the window was opened, it may be modified as required.
- **Polling Admin State** specifies whether the polling of managed devices is enabled (up). The options are:
 - Up (default)
 - Down

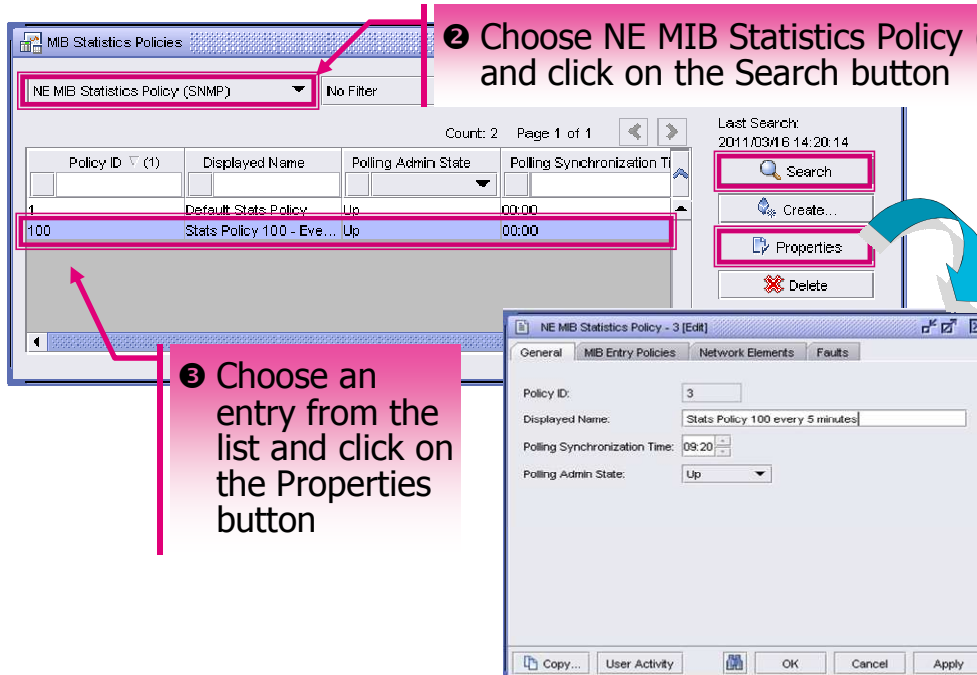
4. Click on the OK button. The NE MIB Statistics Policy (Edit) form closes and the MIB Statistics Policies form refreshes with the newly configured policy in the list.

Alternatively:

Click on the **Apply** button on the NE MIB Statistics Policy (Edit), the form refreshes to display additional tab buttons.

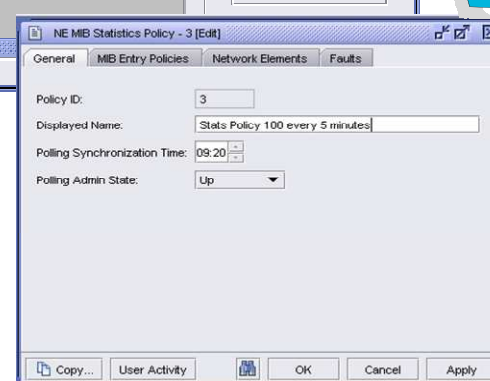
1.1.1 Configure Polling for MIB Statistics Class

❶ Choose Tools→Statistics→MIB Policies



❷ Choose NE MIB Statistics Policy (SNMP) and click on the Search button

❸ Choose an entry from the list and click on the Properties button



5 • 1 • 10

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Lab Exercise Objective:

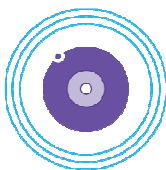
In order to configure the collection criteria for an NE performance statistics collection policy, over the course of this lab exercise students will configure the polling interval for a MIB Statistics class on an NE performance statistics collection policy.

Instructor Preparation:

Provide students with instructions on the MIB statistics class(es) to be configured in the policy. This may include port statistics, routing protocol statistics, among others.

Instructions:

Follow your instructor's directions to modify the polling interval for a MIB Statistics class on an NE performance statistics collection policy.



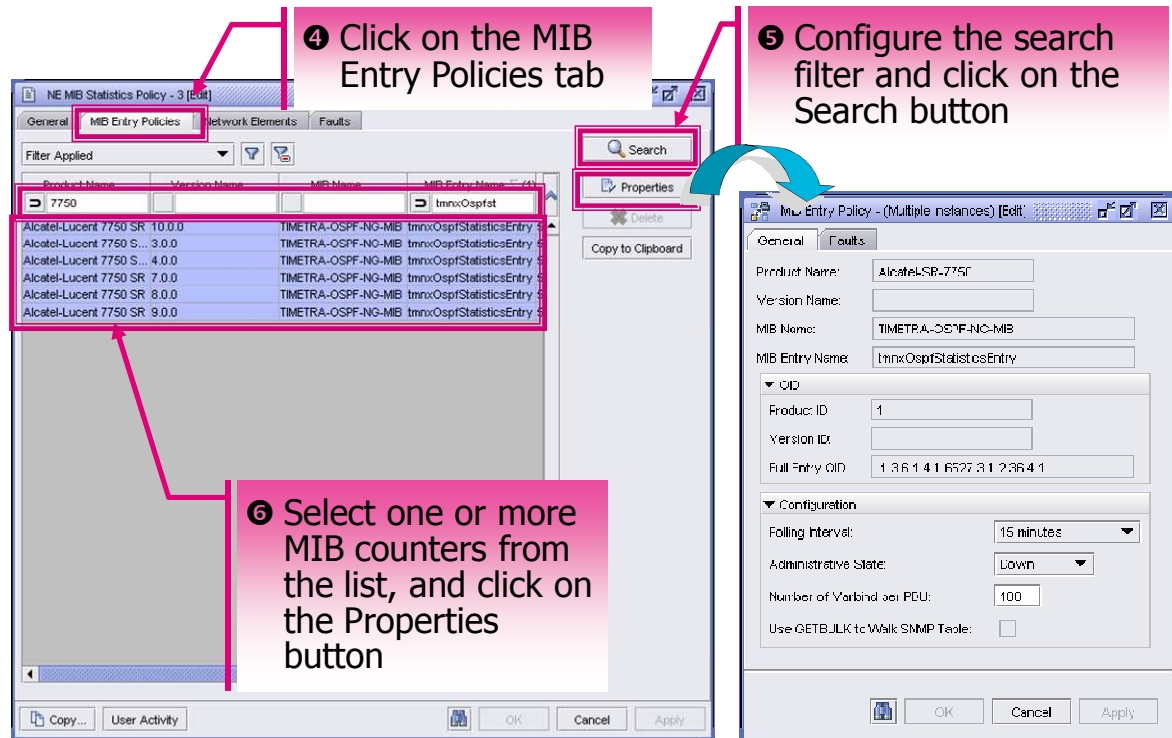
Technical Reference

For more information on the steps to modify the polling interval for a MIB Statistics class see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 3.3 Performance statistics collection procedures - Procedure 3-5 To configure polling for a MIB statistics class and Alcatel-Lucent 5620 SAM 11.0 R3 User Guide - Section 14.8 Device discovery procedures - Procedure 14-4 To configure NE mediation

In order to exemplify the procedure, the following lines and the images above summarize the steps recommended to modify the previously created NE performance statistics collection policy configuring the polling interval to collect every 5 minutes OSPF site performance statistics from 7750 managed devices for this lab using.

1. Choose **Tools→Statistics→MIB Policies** from the 5620 SAM main menu. The **MIB Statistics Policies** form opens.
2. Choose **NE MIB Statistics Policy (SNMP)** from the object drop-down list. Click on the **Search** button. The list form displays the configured NE MIB statistics policies.

1.1.1 Configure Polling for MIB Statistics Class [cont.]



5 • 1 • 11

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5620 SAM • R12.0 Fundamentals

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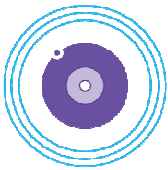
- Choose an entry from the list and click on the **Properties** button. The **NE MIB Statistics Policy - (Edit)** form opens with the **General** tab displayed.
- On the **NE MIB Statistics Policy - (Edit)** form, click on the **MIB Entry Policies** tab button. A list of MIB statistics classes appears organized by the product name of the device that supports the MIB.
- If required, configure the search filter and click on the **Search** button. Follow your instructor's directions to search for the appropriate MIB statistics class for this lab. The list form displays the MIB policies that match the search criteria.
For this lab example, in order to limit the number of listed MIBs to OSPF site performance statistics counters for 7750 managed devices, the images above show the steps to configure the search filter with the following criteria: **Product Name** containing **7750**, **MIB Name** containing **OSPF**, **MIB Entry Name** containing **tmnxOspfSt**.

- Select one or more MIBs from the list, and click on the **Properties** button. The **MIB Entry Policy (Edit)** form opens.
Follow your instructor's directions to select the appropriate MIB statistics class for configuring the polling interval for this lab.
This lab example, in order to configure the polling interval to collect OSPF site performance statistics from 7750 managed devices, the images above show the steps to select the MIB counters for 7750 versions 7.0, 8.0 and 9.0.

1.1.1 Configure Polling for MIB Statistics Class [cont.]

The MIB entry counter **TIMETRA-OSPF-NG-MIB-tmnxOspfStatisticsEntry** selected for this lab example collects OSPF site information which includes counts for the number of:

- times an attempt to add a route to, delete a route from, and modify a route in the Route Table Manager (RTM) failed for this OSPF instance
- CSPF requests and dropped CSPF requests made to the OSPF protocol
- paths found and paths not found for the requests made to OSPF protocol
- times the system was in the overflow state and times the system was overloaded
- new link-state advertisements that have been originated
- link-state advertisements received determined to be new instantiations
- times an attempt to run SPF has failed because SPF runs have been stopped as a result of insufficient memory resources

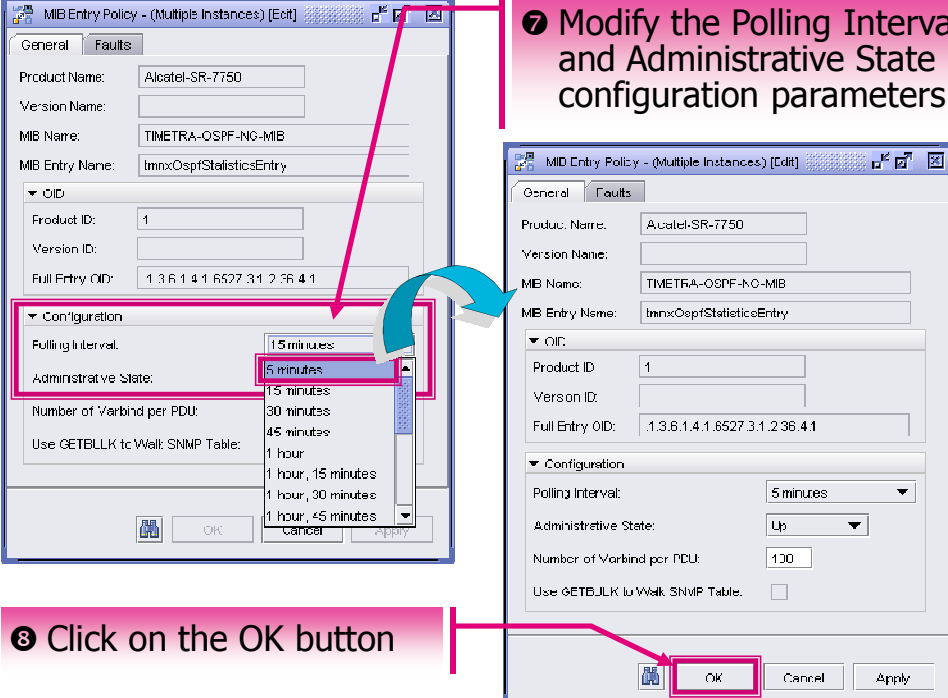


Technical Reference

*In order to find the appropriate MIB entry counter, see the **Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Appendices** for lists in tabular form of the MIB-based performance statistics counters that the 5620 SAM supports per device and release. See the **Alcatel-Lucent 5620 SAM 11.0 R3 LTE User Guide - Appendices** for lists of the MIB-based performance statistics counters that the 5620 SAM LTE supports.*

For MIB-based performance statistics counters supported by other release versions of the 5620 SAM, refer to the corresponding 5620 SAM release documentation

1.1.1 Configure Polling for MIB Statistics Class [cont.]



7 Modify the Polling Interval and Administrative State configuration parameters

8 Click on the OK button

6. On the **MIB Entry Policy (Edit)** form, modify as required the **Polling Interval** and **Administrative State** configuration parameters:

- **Polling Interval** specifies how often MIB elements of discovered and managed devices are polled for changes. When changes are detected, the 5620 SAM rereads the MIB element and updates the database. For this lab example, in order to collect statistics every 5 minutes, select **5 minutes** from the **Polling Interval** drop-down menu.
- **Administrative State** specifies whether an performance statistics log policy is administratively enabled. For this lab example, in order to enable collection of performance statistics for this MIB counter, select **Up** from the **Administrative State** drop-down menu.

**Caution**

Changing the **Number of Varbind per PDU** parameter value may affect the time required for subsequent NE resynchronizations and degrade 5620 SAM server performance. Do not configure the parameter without contacting Alcatel-Lucent technical support.

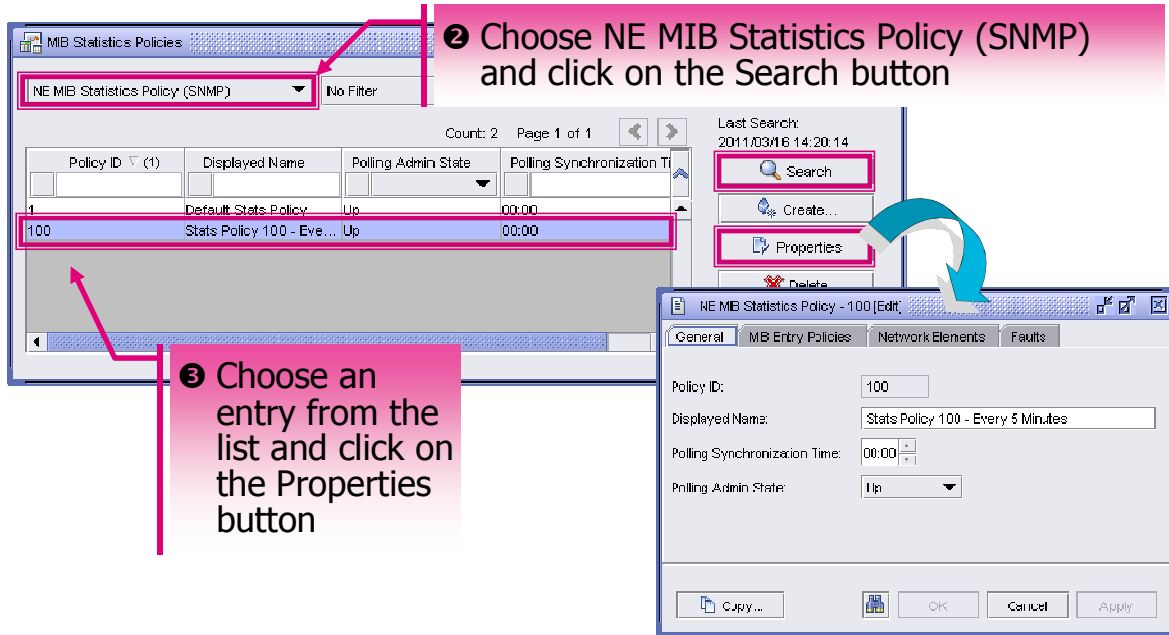
The **Number of Varbind per PDU** parameter specifies the maximum number of variable bindings, or varbinds, in the SNMP PDUs associated with the MIB entry policy. The parameter is used to adjust the PDU size with respect to the network MTU size. The range is 20 to 200. The default is 100.

7. Click on the **OK** button to confirm the action. The **MIB Entry Policy (Edit)** form closes and the **MIB Entry Policy (Edit)** form reappears.
8. On the **MIB Entry Policy (Edit)** form, click on the **OK** or **Apply** button to save the changes, if required.

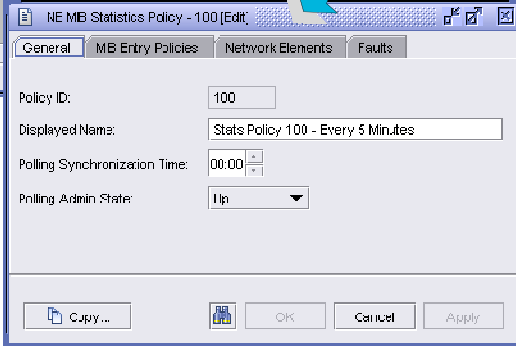
1.1.2 Assign Sites to an NE MIB Statistics Policy

① Choose Tools→Statistics→MIB Policies

② Choose NE MIB Statistics Policy (SNMP) and click on the Search button



③ Choose an entry from the list and click on the Properties button



5 • 1 • 14

Performance Management - Scheduled Performance Statistics Lab
5620 SAM - R12.0 Fundamentals

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Alcatel-Lucent
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In order to apply the NE performance statistics collection policy to selected managed devices, over the course of this lab exercise students will assign sites to an NE performance statistics collection policy.

Instructions:

Follow your instructor's directions to assign sites to the previously created NE performance statistics collection policy.

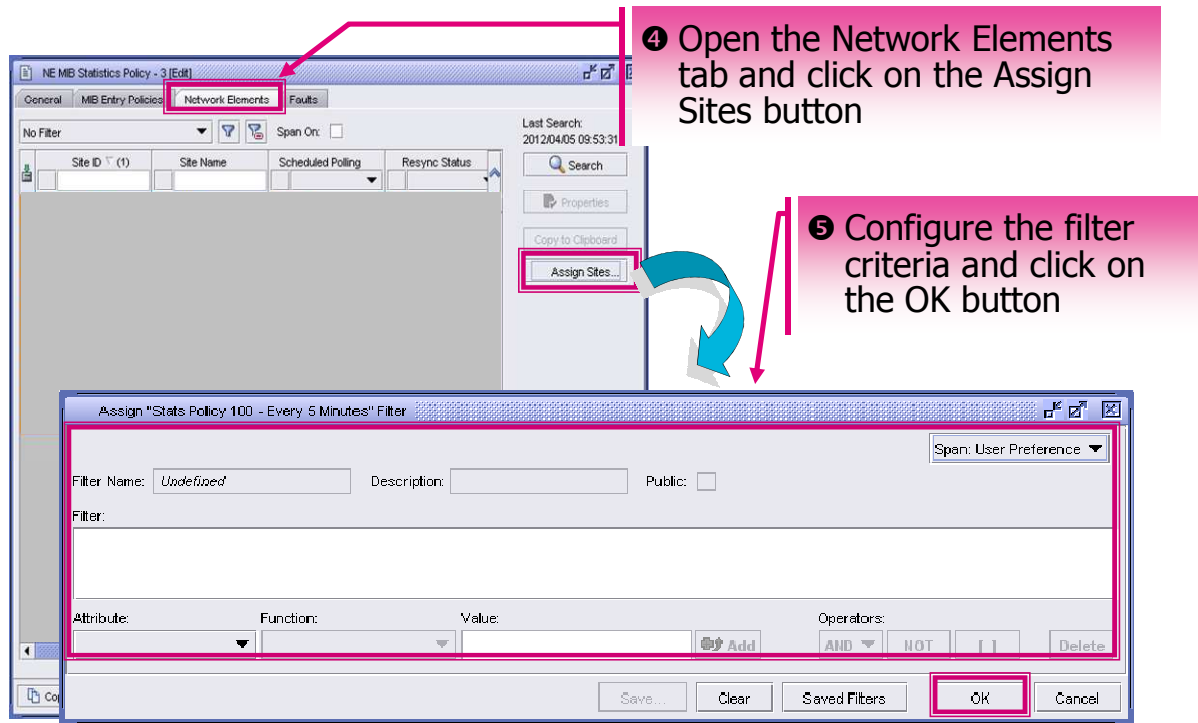
**Technical Reference**

For more information on the steps to modify the polling interval for a MIB Statistics class see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 3.3 Performance statistics collection procedures - Procedure 3-5 To configure polling for a MIB statistics class and Alcatel-Lucent 5620 SAM 10 R5 User Guide - Section 14.8 Device discovery procedures - Procedure 14-4 To configure NE mediation

The following lines and the images above summarize the steps recommended to assign sites to the previously created NE performance statistics collection policy for this lab using.

1. Choose **Tools→Statistics→MIB Policies** from the 5620 SAM main menu. The **MIB Statistics Policies** form opens.
2. Choose **NE MIB Statistics Policy (SNMP)** from the object drop-down list. Click on the **Search** button. The list form displays the configured NE MIB statistics policies.
3. Choose an entry from the list and click on the **Properties** button. The **NE MIB Statistics Policy - (Edit)** form opens with the **General** tab displayed.

1.1.2 Assign Sites to an NE MIB Statistics Policy [cont.]



4. Click on the **Network Elements** tab button. On the Network Elements tab click on the **Assign Sites** button. The **Assign *policy_name*** Filter form opens.
5. Configure the filter criteria as required, and click on the **OK** button. To list all managed NEs, leave the filter parameters empty and click on the **OK** button. The **Assign *policy_name*** form opens with a list of NEs displayed.

2 Specific MIB Performance Statistics Configuration Labs

2.1 Create a Specific MIB Statistics Collection Policy

Lab Exercise Objective:

In order to modify, enable or disable collection for specific NE MIB objects, over the course of this lab exercise students will configure a policy for performance statistics collection on a specific NE MIB object.



Note

For performance reasons, Alcatel-Lucent recommends using NE MIB policies to collect statistics from all instances of an object on an NE, and specific policies to enable or disable collection for specific NE MIB objects.

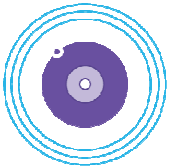
Instructor Preparation:

Provide students with instructions on:

- the naming convention to be used for the policy
- the polling synchronization time (which is critical to synchronize with an NE MIB policy).
- the MIB statistics class(es) to be configured in the policy. This may include port statistics, routing protocol statistics, among others.

Instructions:

Follow your instructor's directions to configure a policy for performance statistics collection on a specific NE MIB object.

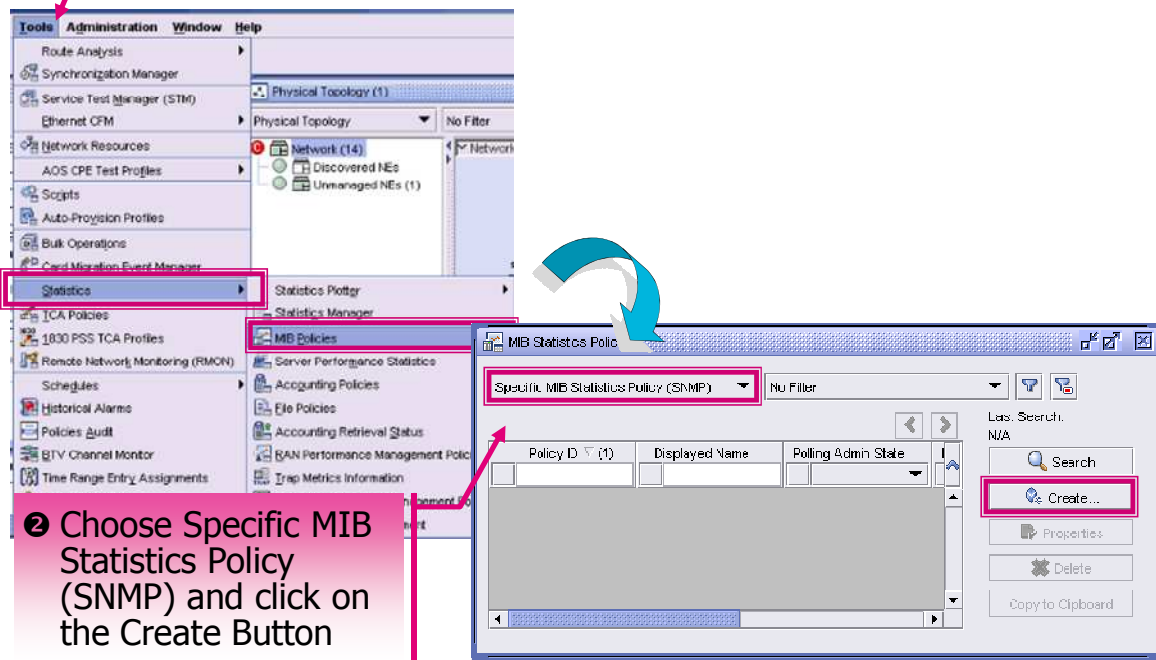


Technical Reference

For more information on the steps to create a specific NE MIB object statistics collection policy see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 3.3 Performance statistics collection procedures - Procedure 3-3 To create or modify a specific MIB statistics policy using a top-down method

2.1 Create a Specific MIB Statistics Collection Policy [cont.]

❶ Choose Tools→Statistics→MIB Policies



❷ Choose Specific MIB Statistics Policy (SNMP) and click on the Create Button

5 • 1 • 18

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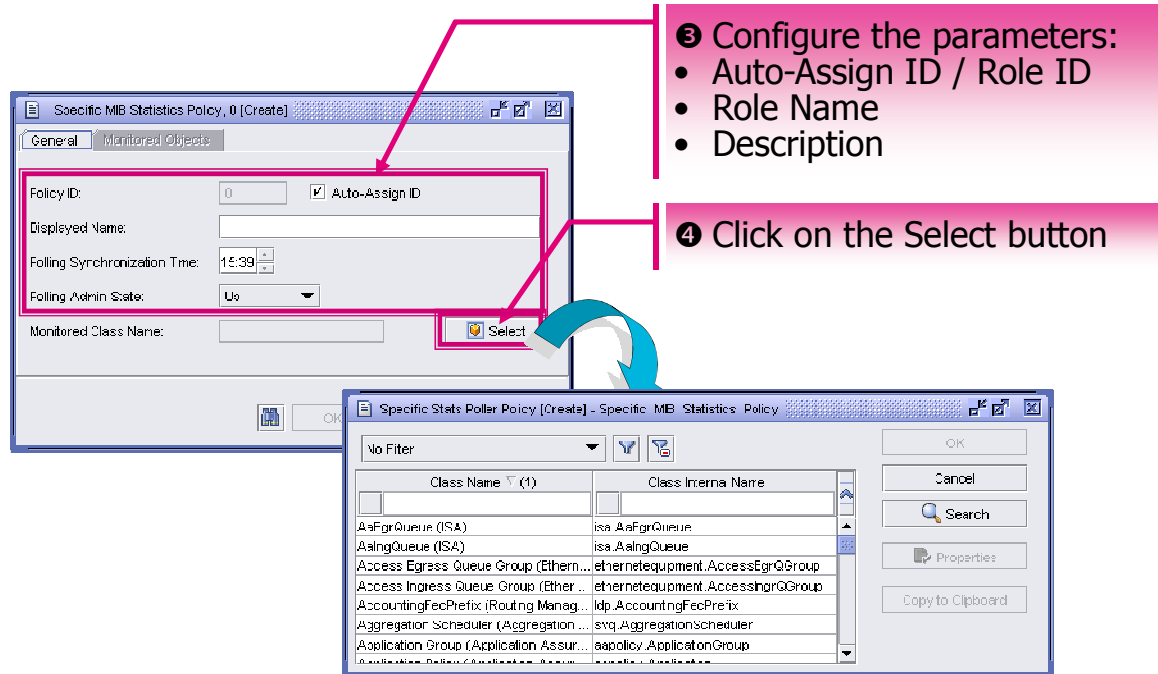
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In order to exemplify the procedure, the following lines and the images above summarize the steps recommended to configure a specific MIB performance statistics collection policy to modify the collection of OSPF site statistics for this lab.

1. Choose **Tools→Statistics→MIB Policies** from the 5620 SAM main menu. The **MIB Statistics Policies** form opens.
2. Choose **Specific MIB Statistics Policy (SNMP)** from the object drop-down list. Click on the **Create** button to create a MIB statistics policy. The **Specific MIB Statistics Policy (Create)** form opens.

2.1 Create a Specific MIB Statistics Collection Policy [cont.]



5 • 1 • 19

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- On the **Specific MIB Statistics Policy (Create)** form, configure the parameters:
 - Auto-Assign ID** specifies whether the 5620 SAM automatically assigns a unique ID to the created object. This parameter is enabled by default.
 - Policy ID** specifies a unique ID number for the policy. The range is 1 to 65 535. To manually assign a Policy ID number the operator must disable the Auto-Assign ID parameter.
 - Displayed Name** specifies a unique name for the created policy object. The range is 0 to 80 characters.
 - Polling Synchronization Time** specifies the polling synchronization start time from which the polling intervals are calculated in hh:mm format based on a 24-hour clock. When the server restarts, the next appropriate collection interval is calculated and polling restarts. By default, this parameter is populated with the server time when the window was opened, it may be modified as required.
 - Polling Admin State** specifies whether the polling of managed devices is enabled (up). The options are:
 - Up (default)
 - Down
- Click on the **Select** button. The **Specific Stats Poller Policy** form opens.

2.1 Create a Specific MIB Statistics Collection Policy [cont.]

5 Choose an object type from the list and click on the OK button

6 Click on the Apply button to display additional tab buttons

5 • 1 • 20

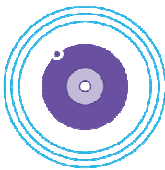
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Using the **Specific Stats Poller Policy** form, follow your instructor's directions to choose a monitored class object type from the list.

For this lab example in order to enable the collection of OSPF statistics at a different polling rate from selected sites, select the **OSPF Site (Routing Management: OSPF)** monitored class. This monitored class applies to 7701, 7705, 7210, 7450, 7710 and 7750 devices.



Technical Reference

See the *Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Appendices* for lists of the MIB-based performance statistics that the 5620 SAM supports.

See the *Alcatel-Lucent 5620 SAM 11.0 R3 LTE User Guide - Appendices* for lists of the MIB-based performance statistics that the 5620 SAM LTE supports.

For MIB-based performance statistics supported by other release versions of the 5620 SAM, refer to the corresponding 5620 SAM release documentation.

Click on the **OK** button.

The **Specific Stats Poller Policy** form closes and the **Specific MIB Statistics Policy** form reappears with the object type displayed in the **Monitored Class Name** field.

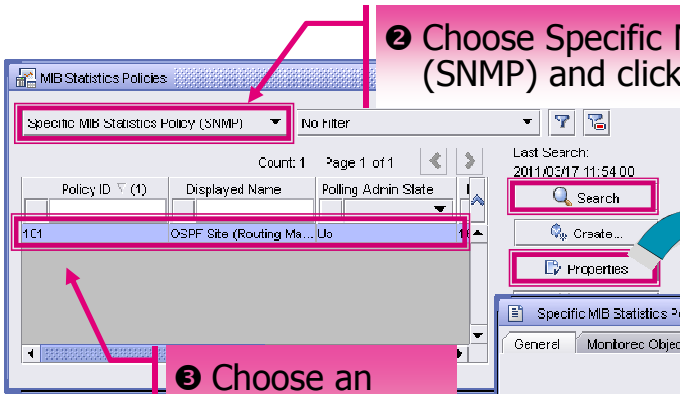
5. Click on the **Apply** button. The **Specific MIB Statistics Policy** form refreshes to display additional tab buttons.

6. Close the **MIB Statistics Policies** form.

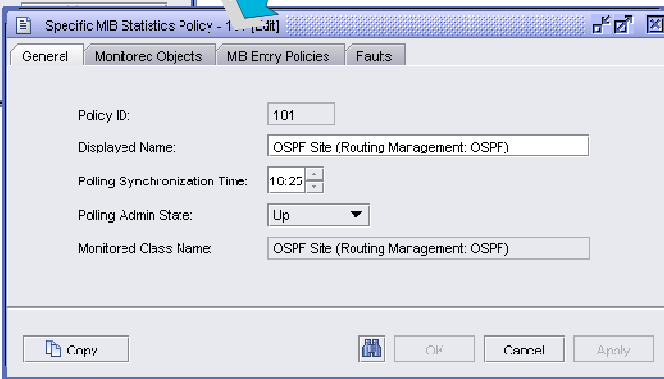
2.1.1 Configure Polling for a Specific MIB Statistics Class

① Choose Tools→Statistics→MIB Policies

② Choose Specific MIB Statistics Policy (SNMP) and click on the Search button



③ Choose an entry from the list and click on the Properties button



5 • 1 • 21

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Lab Exercise Objective:

In order to modify the collection criteria for a specific NE MIB statistic class on selected devices, over the course of this lab exercise students will configure the polling interval for a MIB Statistics class on a specific NE MIB statistics collection policy.

Instructions:

Follow your instructor's directions to modify the polling interval for a MIB Statistics class on a specific NE MIB statistics collection policy.



Technical Reference

For more information on the steps to modify the polling interval for a MIB Statistics class see *Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 3.3 Performance statistics collection procedures - Procedure 3-5 To configure polling for a MIB statistics class* and *Alcatel-Lucent 5620 SAM 10 R5 User Guide - Section 14.8 Device discovery procedures - Procedure 14.4 To configure NE mediation*

In order to exemplify the procedure, the following lines and the images above summarize the steps recommended to modify the previously configured specific MIB performance statistics collection policy in order to collect of OSPF site statistics from 7750 managed devices every 15 minutes for this lab.

1. Choose **Tools→Statistics→MIB Policies** from the 5620 SAM main menu. The **MIB Statistics Policies** form opens.
2. Choose **Specific MIB Statistics Policy (SNMP)** from the object drop-down list. Click on the **Search** button. The list form displays the configured specific MIB statistics policies MIB statistics policies.
3. Choose an entry from the list and click on the **Properties** button. The **Specific MIB Statistics Policy - (Edit)** form opens with the **General** tab displayed.

2.1.1 Configure Polling for a Specific MIB Statistics Class [cont.]

4 Click on the MIB Entry Policies tab

5 Select one or more MIBs from the list, and click on the Properties button

5 • 1 • 22

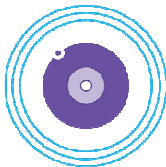
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4. On the **Specific MIB Statistics Policy - (Edit)** form, click on the **MIB Entry Policies** tab button. A list of MIBs for the selected Specific MIB Statistics Policy appears, organized by the product name of the device that supports the MIB.

If required, configure the search filter and click on the **Search** button. The list form displays the MIB entry policies that match the search criteria.



Technical Reference

See the *Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Appendices* for lists in tabular form of the statistics counters that the 5620 SAM supports per device and release.

See the *Alcatel-Lucent 5620 SAM 11.0 R3 LTE User Guide - Appendices* for lists of the MIB-based performance statistics that the 5620 SAM LTE supports.

For MIB-based performance statistics supported by other release versions of the 5620 SAM, refer to the corresponding 5620 SAM release documentation.

5. Select one or more MIBs from the list, and click on the **Properties** button. The **MIB Entry Policy (Edit)** form opens.
- For this lab example the images above show the steps to modify the 7750 MIB entry policies for versions 7.0, 8.0 and 9.0 for the previously configured Specific MIB Statistics Policy for the OSPF Site (Routing Management: OSPF) monitored class.

2.1.1 Configure Polling for a Specific MIB Statistics Class [cont.]

⑥ Modify the configuration parameters

⑦ Click on the OK button

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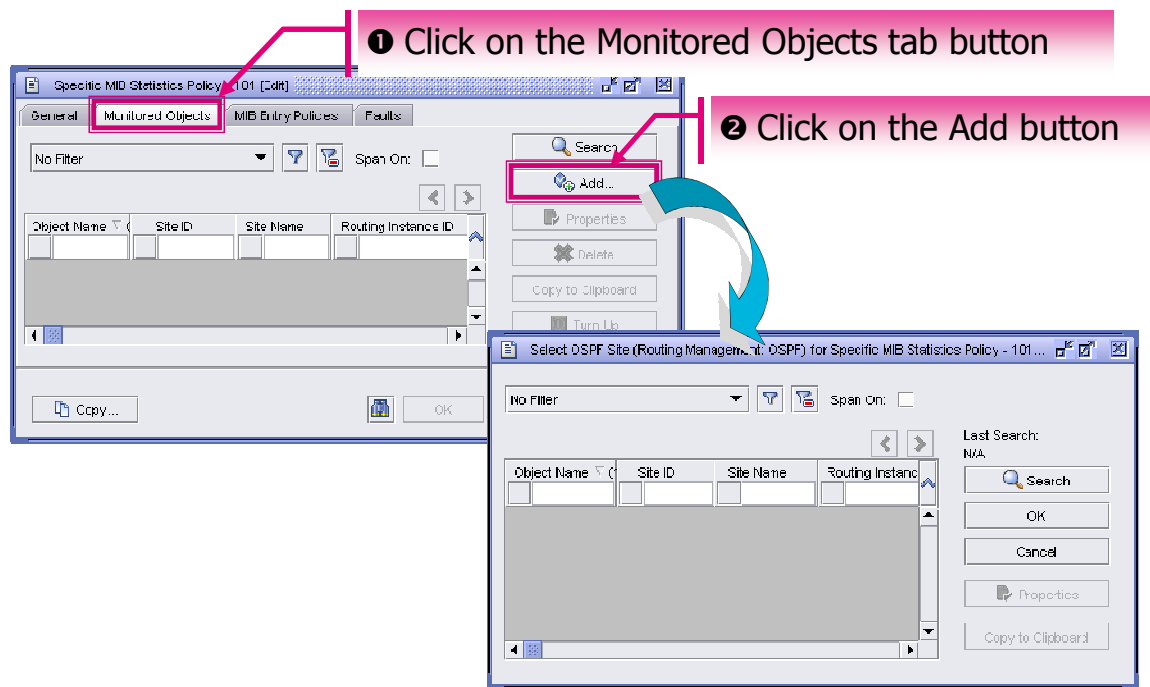
6. On the **MIB Entry Policy (Edit)** form, modify as required the configuration parameters:
 - **Polling Interval** specifies how often MIB elements of discovered and managed devices are polled for changes. When changes are detected, the 5620 SAM rereads the MIB element and updates the database. For this lab example, in order to collect statistics every 15 minutes, select **15 minutes** from the **Polling Interval** drop-down menu.
 - **Administrative State** specifies whether an performance statistics log policy is administratively enabled. For this lab example, in order to enable collection of performance statistics for this MIB counter, select **Up** from the **Administrative State** drop-down menu.
 - **Number of Varbind per PDU** specifies the maximum number of variable bindings, or varbinds, in the SNMP PDUs associated with the MIB entry policy. The parameter is used to adjust the PDU size with respect to the network MTU size. The range is 20 to 200. The default is 100.

**Caution**

Changing the **Number of Varbind per PDU** parameter value may affect the time required for subsequent NE resynchronizations and degrade 5620 SAM server performance. Do not configure the parameter without contacting Alcatel-Lucent technical support.

7. Click on the **OK** button.
Confirm the action.
The **MIB Entry Policy (Edit)** form closes and the **MIB Entry Policy (Edit)** form reappears.
8. On the **MIB Entry Policy (Edit)** form, click on the **Apply** button to save the changes, if required.

2.1.2 Assign Sites to a Specific NE MIB Statistics Policy



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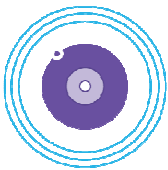
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Lab Exercise Objective:

In order to apply the specific MIB statistics policy only to selected managed devices, over the course of this lab exercise students will assign sites to a specific NE MIB statistics collection policy.

Instructions:

Follow your instructor's directions to assign sites to the previously created specific NE MIB statistics collection policy.



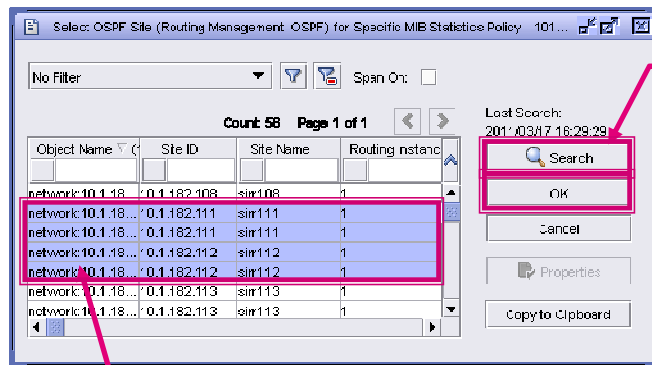
Technical Reference

For more information on the steps to modify a specific NE MIB object statistics collection policy see *Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 3.3 Performance statistics collection procedures - Procedure 3-3 To create or modify a specific MIB statistics policy using a top-down method.*

The following lines and the images above summarize the steps recommended to assign sites to the previously created specific MIB performance statistics collection policy for this lab.

1. On the **Specific MIB Statistics Policy - (Edit)** form, click on the **Monitored Objects** tab button.
2. Click on the **Add** button. The **Select *monitored_object* for Specific MIB Statistics Policy** form opens.

2.1.2 Assign Sites to a Specific NE MIB Statistics Policy [con



3 Click on the Search button

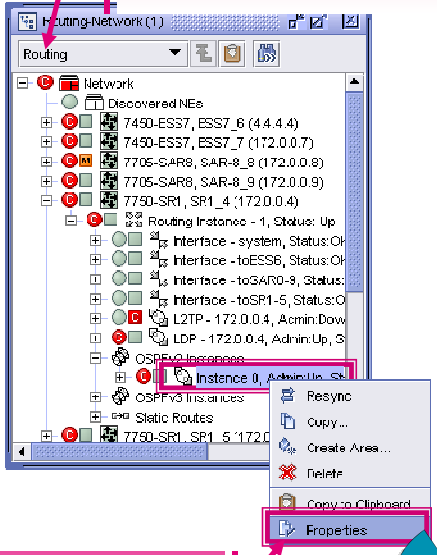
4 Select one or more objects in the list and click on the OK button

- Configure the filter criteria and click on the **Search** button. A list of monitored objects is displayed.
- Select one or more objects in the list and click on the **OK** button. The **Select monitored_object for Specific MIB Statistics Policy** form closes and the **Specific MIB Statistics Policy** form reappears with the selected objects listed.
- Click on the **OK** button to save the changes. The **Specific MIB Statistics Policy** form closes and the **MIB Statistics Policies** form reappears.
- Close the **MIB Statistics Policies** form..

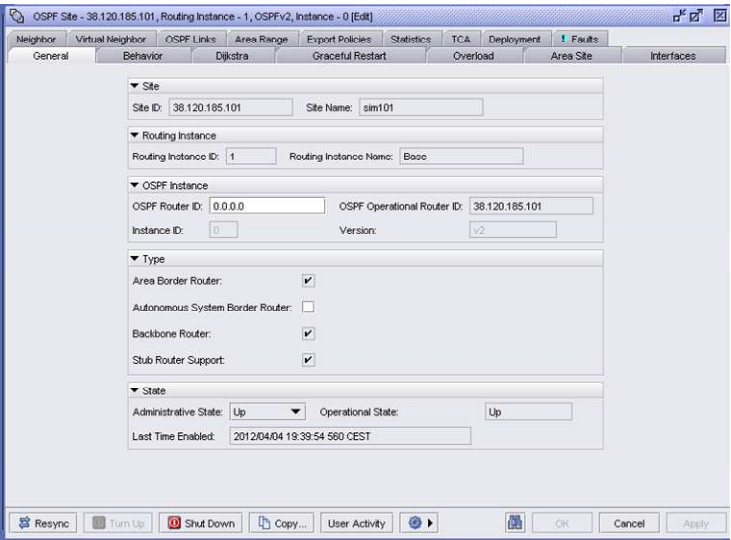
3 Viewing and Saving Scheduled Performance Statistic Records Labs

3.1 Viewing Records for an Object

1 Select an object and right-click to open the contextual menu



2 Choose Properties



5 • 1 • 27
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5620 SAM - R12.0 Fundamentals

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Lab Exercise Objective:

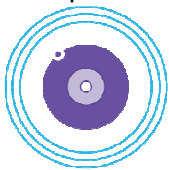
In order to view the scheduled performance statistics data records for a monitored object, over the course of this lab exercise students will open in an object the list of statistical data collected from the MIB counters as specified in an NE MIB statistics policy or a specific NE MIB statistics collection policy.

Instructor Preparation:

Provide students with instructions on an object for which scheduled performance statistics collection has been configured in advance to this lab.

Instructions:

Follow your instructor's directions to select an object which has been monitored by an NE MIB statistics policy or a specific NE MIB statistics collection policy and open the list of statistical data collected.



Technical Reference

For more information on the steps to display the statistics values in a current statistics record for an object see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 7.3 Viewing statistics procedures - Procedure 7-4 To view performance statistics.

In order to exemplify the procedure, the following lines and the images above summarize the steps recommended to open in a OSPF instance the list of statistical data collected according to the schedule of previously configured NE MIB statistics policy or specific MIB performance statistics collection policy for this lab.

1. Select on the Navigation Tree an object that has been assigned to an NE MIB statistics policy or a specific MIB performance statistics collection policy and right-click to open the contextual menu
For this lab example, using the **Routing** view on the navigation tree, navigate to the OSPF instance for which you want to view statistics choosing **Router**→**Routing Instance**→**OSPFv2**, as shown in the images below. Select a site that has been assigned to the previously configured NE MIB statistics policy or specific MIB performance statistics collection policy.
2. Choose **Properties** from the contextual menu. The **Object Properties** form opens with the **General** tab displayed.

3.1 Viewing Records for an Object [cont.]

4 Choose a statistics class

3 Click on the Statistics tab button

Time Captured	Record Type	Monitored Object	Monitored Object Name	Add Route Failed	Add Route Failed
2012/04/05 10:05:01 0...	Scheduled	network: 38.120.185.1...	OSPFv2	0	0
2012/04/05 10:00:01 0...	Scheduled	network: 38.120.185.1...	OSPFv2	0	0
2012/04/05 09:55:01 0...	Scheduled	network: 38.120.185.1...	OSPFv2	0	0
2012/04/05 09:50:01 0...	Scheduled	network: 38.120.185.1...	OSPFv2	0	0
2012/04/05 09:45:01 0...	Scheduled	network: 38.120.185.1...	OSPFv2	0	0
2012/04/05 09:40:01 0...	Scheduled	network: 38.120.185.1...	OSPFv2	0	0
2012/04/05 09:35:01 0...	Scheduled	network: 38.120.185.1...	OSPFv2	0	0
2012/04/05 09:30:01 0...	Scheduled	network: 38.120.185.1...	OSPFv2	0	0
2012/04/05 09:25:02 4...	Scheduled	network: 38.120.185.1...	OSPFv2	0	0

5 • 1 • 28

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4. Choose a statistics class from the object drop-down list.

The statistics records for the selected class are displayed in a list.

For this lab example the images above show the steps to choose “**SiteStats (Routing Management OSPF)**”, the list shows the performance statistics records for the OSPF Site collected using the previously configured NE MIB statistics policy or specific MIB performance statistics collection policy.



Note

Notice that for statistics records generated by a policy the **Record Type** is shown as **Scheduled**. The time interval between record should be equal to the polling interval as configured on the policy assigned for this object.

3.1 Viewing Records for an Object [cont.]

- 5 Select a statistics record and click on the Properties button

The screenshot shows the 'SiteStats (Routing Management: OSPF)' table with columns: Time Captured, Monitored Object, Monitored Object Name, Add Route Failed, and Delete Route Failed. A row for '2012/04/05 09:55:01 0...network:38.120.185.1... OSPFv2' is highlighted. A red arrow points from this row to the 'Statistics Record - SiteStats [75]' form on the right. The form displays various statistics for the selected record, including Time Captured, Record Type, Suspect, Monitored Object, Monitored Object Name, Site Name, Site ID, Periodic Time, Add Route Failed, Cspfl Dropped Requests, Cspfl Paths Found, Cspfl Paths Not Found, Cspfl Requests, Delete Route Failed, In Overflow Count, In Overload Count, Modify Route Failed, New Losses Originated, and New Losses Received.

5 · 1 · 29

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5. To view the statistics counter values for the statistics record, scroll horizontally to view all the statistics counter columns in the list.
Alternatively, select the statistics record and click on the **Properties** button. The **Statistics Record** form opens displaying the statistics counter values for the statistics record
6. On the **Statistics Record** form, click on the **Close** button to close the form.
7. Close the **Object Properties** form.

3.2 Saving to a File Records for an Object

To save the collected scheduled statistics data to a file format

1 Right-click on the list heading

2 choose Save to File

Time Captured	Monitored Object	Monitored Object Name	Add Row	Count	Periodic	Cspt Dro
2012/04/05 10:20:01 0...	network:38.120.185.1...	OSPFv2	0	12	0	0
2012/04/05 10:15:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 10:10:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 10:05:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 10:00:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 09:55:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 09:50:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 09:45:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 09:40:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 09:35:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 09:30:01 0...	network:38.120.185.1...	OSPFv2	0	0	0	0
2012/04/05 09:25:02 4...	network:38.120.185.1...	OSPFv2	0	0	0	0

To save the collected scheduled statistics data to a file format.

1. On the **Properties** form opens with the **Statistics** tab displayed, identify the scheduled statistics records to view from the list form. If required configure the filter criteria and click on the **Search** button. Right-click on the list heading, the contextual inventory menu opens.
2. To save the listed statistics record data to a file, choose **Save to File** from the contextual inventory menu. The **Save** form opens.
3. On the **Save** form, use the **Save In** parameter to choose a directory in which to save the listed information. Use the **File Name** parameter to create a filename. Choose a file format from the **Files of Type** drop-down menu.
4. Click on the **Save** button. The results of the inventory search are saved to the specified file.
5. Close the **Save** form.
6. Close the **Properties** form.

3.3 Viewing Records for a Set of Objects

❶ Choose Tools → Statistics → Statistics Manager

❷ Choose a statistics class

The screenshot shows the 5620 SAM main menu with the 'Tools' menu open. The path 'Tools' → 'Statistics' → 'Statistics Manager' is highlighted. In the 'Statistics Manager' window, the 'Statistics Type' is set to 'Current Data'. The 'Select Object Type' dropdown is open, showing a list of statistics classes. 'SiteStats (Routing Management: OSPF)' is selected and highlighted with a red box. The bottom of the window shows the Alcatel-Lucent logo and version information: 5.1.31, Performance Management - Scheduled Performance Statistics Lab, 5620 SAM - R12.0 Fundamentals. Copyright © Alcatel-Lucent 2013, All Rights Reserved.

Lab Exercise Objective:

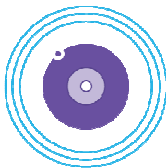
In order to view the scheduled performance statistics data records for a set of object, over the course of this lab exercise students will display the statistics data records for an statistics class in one or more objects.

Instructor Preparation:

Provide students with instructions on a set of objects for which scheduled performance statistics collection has been configured in advance to this lab.

Instructions:

Follow your instructor's directions to select a statistic class which has been monitored by an NE MIB statistics policy or a specific NE MIB statistics collection policy and open the list of statistical data collected.



Technical Reference

For more information on the steps to display the statistics values in a current statistics record for an object see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 7.3 Viewing statistics procedures - Procedure 7-2 To view statistics for a set of objects.

In order to exemplify the procedure, the following lines and the images above summarize the steps recommended to display a list of OSPF site statistical data records collected according to the schedule of previously configured NE MIB statistics policy or specific MIB performance statistics collection policy for this lab.

1. Choose **Tools** → **Statistics** → **Statistics Manager** from the 5620 SAM main menu. The Browse Statistics form opens.
2. Configure the **Statistic Type** parameter.
3. Choose a statistics class from the object drop-down tree.
Alternatively, you may choose a statistics class by clicking on the Filter button for Object Type.

3.3 Viewing Records for a Set of Objects [cont.]

The first screenshot shows the 'Statistics Manager' window with the 'Statistics Type' dropdown set to 'Statistics Record'. A red box highlights the 'Statistics Record' option. A red arrow points to the 'Search' button. A red box highlights the 'No Filter' dropdown. A red arrow points to the 'No Filter' dropdown. A red box highlights the 'No Filter' dropdown. A red arrow points to the 'No Filter' dropdown.

4 Choose a Statistics Type view

3 Click on the Search button

5 Choose a time filter criteria

The second screenshot shows the 'Statistics Manager' window with the 'Statistics Type' dropdown set to 'Statistics Record'. A red box highlights the 'No Filter' dropdown. A red arrow points to the 'No Filter' dropdown. A red box highlights the 'No Filter' dropdown. A red arrow points to the 'No Filter' dropdown. A red box highlights the 'No Filter' dropdown. A red arrow points to the 'No Filter' dropdown.

5 • 1 • 32

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- Click on the **Search** button. The **Browse Statistics** form refreshes with a list of statistics records entries displayed.

By default the **Statistics Type** view is **Current Data**, as a result the list will only display the most recent available statistics record entries for the selected statistics class.

- Choose a **Statistics Type** view from the object drop-down menu.
- If required, choose a time filter criteria.

The images above show the steps to open all available records for the OSPF site statistics class collected according to the schedule of previously configured NE MIB statistics policy or specific MIB performance statistics collection policy by choosing **Statistics Record** on the **Statistics Type** view and **No filter** in the time filter criteria.

3.3 Viewing Records for a Set of Objects [cont.]

The screenshot shows the 'Statistics Manager' window. At the top, 'Statistics Type' is set to 'Statistics Record'. Below, 'SiteStats (Routing Management: OSPF)' is displayed. A table lists statistics records with columns: Time Captured, Monitored Object, Monitored Object Name, Add Route Failed, Add Route Failed Periodic, and Cspfl Dropt. One record is highlighted: '2012/04/05 10:45:01 0... network:38.120.185.1... OS'. A pink arrow points from a text box to this record. To the right, a pink box contains the text: '5 Select a statistics record and click on the Properties button'. A blue arrow points from the 'Properties' button to the 'Properties' form. The form displays details for the selected record, including Time Captured, Record Type, Suspect, Monitored Object, and various performance counters.

Statistics Manager

Statistics Type: Statistics Record

SiteStats (Routing Management: OSPF)

SiteStats (Routing Management: OSPF):

Count: 186 Page 1 of 1

Time Captured: (1) Monitored Object Monitored Object Name Add Route Failed Add Route Failed Periodic Cspfl Dropt

2012/04/05 10:45:01 0... network:38.120.185.1... OS

2012/04/05 10:45:01 0... network:38.120.185.1... OS

2012/04/05 10:45:01 0... network:38.120.185.1... OS

Properties

Statistics Record - SiteStats [186]

Time Captured: 2012/04/05 10:45:01 025 CEST

Record Type: Scheduled

Suspect:

Monitored Object: network:38.120.185.105:router-1-ospf-v2

Monitored Object Name: OSPFv2

Site Name: sim105

Site ID: 38.120.185.105

Periodic Time: 00:05:00 005

Add Route Failed: 0

Add Route Failed Periodic: 0

Cspfl Dropped Requests: 0

Cspfl Dropped Requests Periodic: 0

Cspfl Paths Found: 62

Cspfl Paths Not Found: 62

Cspfl Requests: 124

Cspfl Requests Periodic: 0

Delete Route Failed: 0

Delete Route Failed Periodic: 0

In Overflow Count: 0

In Overflow Count Periodic: 0

In Overload Count: 0

In Overload Count Periodic: 0

Modify Route Failed: 0

Modify Route Failed Periodic: 0

New Loss Originated: 15200

New Loss Originated Periodic: 79

Statistics Policy

Close

5 • 1 • 33

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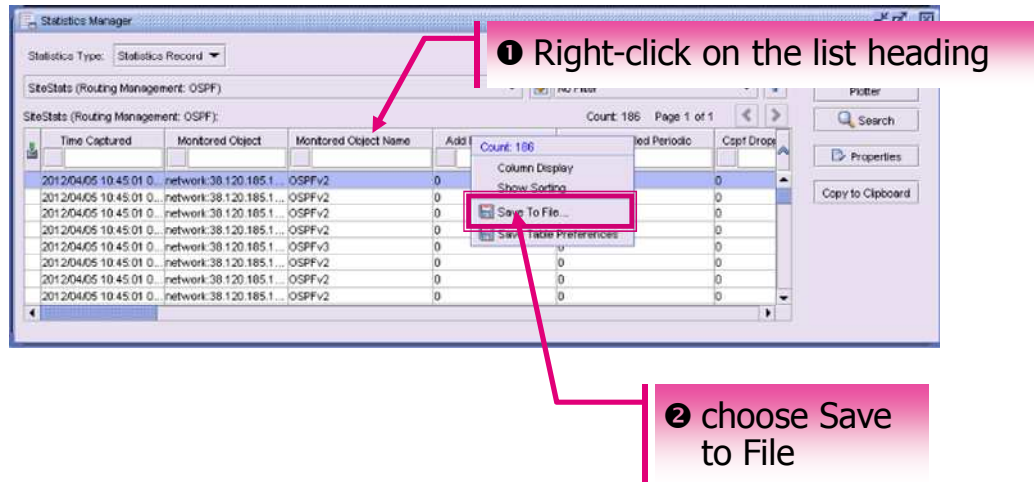
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6. To view the statistics counter values for the statistics record, scroll horizontally to view all the statistics counter columns in the list.
Alternatively, select the statistics record and click on the **Properties** button. The **Statistics Record** form opens displaying the statistics counter values for the statistics record
7. On the **Statistics Record** form, click on the **Close** button to close the form.

3.4 Saving to a File Records for a Set of Objects

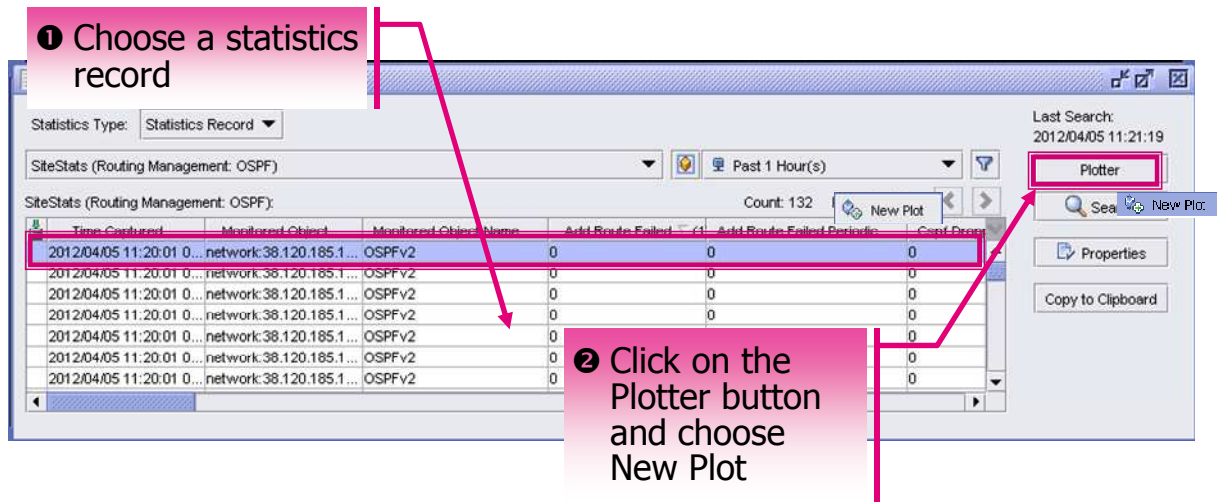
To save the listed scheduled statistics data to a file format



To save to a file format the scheduled performance statistics data records for a set of object.

1. On the **Properties** form opens with the **Statistics** tab displayed, identify the on-demand statistics record to view from the list form. If required configure the filter criteria and click on the **Search** button. Right-click on the list heading, the contextual inventory menu opens.
2. To save the listed statistics record data to a file, choose **Save to File** from the contextual inventory menu. The **Save** form opens.
3. On the **Save** form, use the **Save In** parameter to choose a directory in which to save the listed information. Use the **File Name** parameter to create a filename. Choose a file format from the **Files of Type** drop-down menu.
4. Click on the **Save** button. The results of the inventory search are saved to the specified file.
5. Close the **Save** form.
6. Close the **Properties** form.

3.5 Create a Historical Performance Statistics Data Graph



Lab Exercise Objective:

In order to graphically plot historical performance statistics on the 5620 SAM GUI, over the course of this lab exercise students will create a historical performance statistics data graph.

Instructor Preparation:

Provide students with instructions on the statistics counters on an object which scheduled performance statistics collection has been configured in advance to this lab.

Instructions:

Follow your instructor's directions to create a historical performance statistics data graph.



Technical Reference

For more information on the steps to graphically plot statistics on the 5620 SAM GUI see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 8.3 Graphing statistics procedures - Procedure 8-2 To configure and plot a statistics graph

In order to exemplify the procedure, the following lines and the images above summarize the steps recommended to create a graph for historical OSPF site performance statistics data records collected according to the schedule of previously configured NE MIB statistics policy or specific MIB performance statistics collection policy for this lab.

1. Choose a statistics record.
The images above show the steps to select a statistics entry record listed in the Browser Statistics form.
2. Click on the **Plotter** button and choose **New Plot** from the drop-down menu. The **Statistics Plotter** form opens.

Section 5
Performance Management

Module 2

On-Demand Performance Statistics Lab

TOS36033_V4.0-EQ-R12.0-Ed1 Module 5.2 Edition 4

5620 SAM
R12.0 Fundamentals
TOS36033_V4.0-EQ Edition 1



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Upon completion of this lab module, you should be able to:

- Collect, display and save to file on-demand performance statistics records for a selected object
- Create a real-time performance statistics graph
- Save to a file real-time performance statistics graphical results and tabular results
- Launch a Statistics Plot Template from the navigation tree

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	Page
1 On-Demand Performance Statistics Labs	7
1.1 Collect On-Demand Performance Statistics	8
1.2 View On-Demand Performance Statistics	10
1.3 Save to file On-Demand Performance Statistics	11
1.4 Create a Real-Time Performance Statistics Graph	12
1.5 Save the Real-Time Performance Statistics Graph Results	15
1.6 Save the Real-Time Performance Statistics Table Results	16
1.7 Launch a Statistics Plot from the Navigation Tree	17
1.7 Launch a Statistics Plot from the Navigation Tree	18

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1 On-Demand Performance Statistics Labs

1.1 Collect On-Demand Performance Statistics

❶ Select an object and right-click to open the contextual menu

❷ Choose Properties

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5 • 2 • 8
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Lab Exercise Objective:

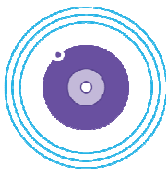
In order to collect current statistics records for an object, over the course of this lab exercise students will collect on-demand performance statistics for a selected object.

Instructor Preparation:

Provide students with instructions on an object for which on-demand performance statistics will be collected.

Instructions:

Follow your instructor's directions to collect and on-demand performance statistics for an object.



Technical Reference

For more information on the steps to collect and display on-demand performance statistics see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 7.3 Viewing statistics procedures - Procedure 7-1 To view on-demand statistics.

In order to exemplify the procedure, the following lines and the images above summarize the steps recommended to collect on-demand FIB Next-Hop performance statistics for a card slot for this lab.

1. Select an object on the Navigation Tree and right-click to open the contextual menu.
For this lab example the images above show the contextual menu for a card slot.
2. Choose **Properties** from the contextual menu. The **Properties** form opens with the **General** tab displayed.



- The statistics records are displayed in a list.

1.2 View On-Demand Performance Statistics

1 Identify and select the on-demand statistics record

2 Click on the Properties button

Statistics Record - FIB Next-Hop Stats [1]

Time Captured: 2012/04/05 13:16:43 CEST
 Record Type: On-Demand
 Suspect: ☐
 Monitored Object: network:38.120.185.103:shelf-1:cardSlot-1:card
 Monitored Object Name: Card - 1
 Site Name: sim103
 Site ID: 38.120.185.103
 Periodic Time: 00:00:00.000
 Ip Active: 6
 Ip Active Periodic: 0
 Ip Available: 16383
 Ip Available Periodic: 0
 Tunnel Active: 0
 Tunnel Active Periodic: 0
 Tunnel Available: 262143
 Tunnel Available Periodic: 0

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Lab Exercise Objective:

In order to display the statistics values in a current stats statistics record and save the data in a file format, over the course of this lab exercise students will view and save to file on-demand performance statistics.

Instructions:

Follow your instructor's directions to display on-demand performance statistics for an object and save the tabular data in a file format.



Technical Reference

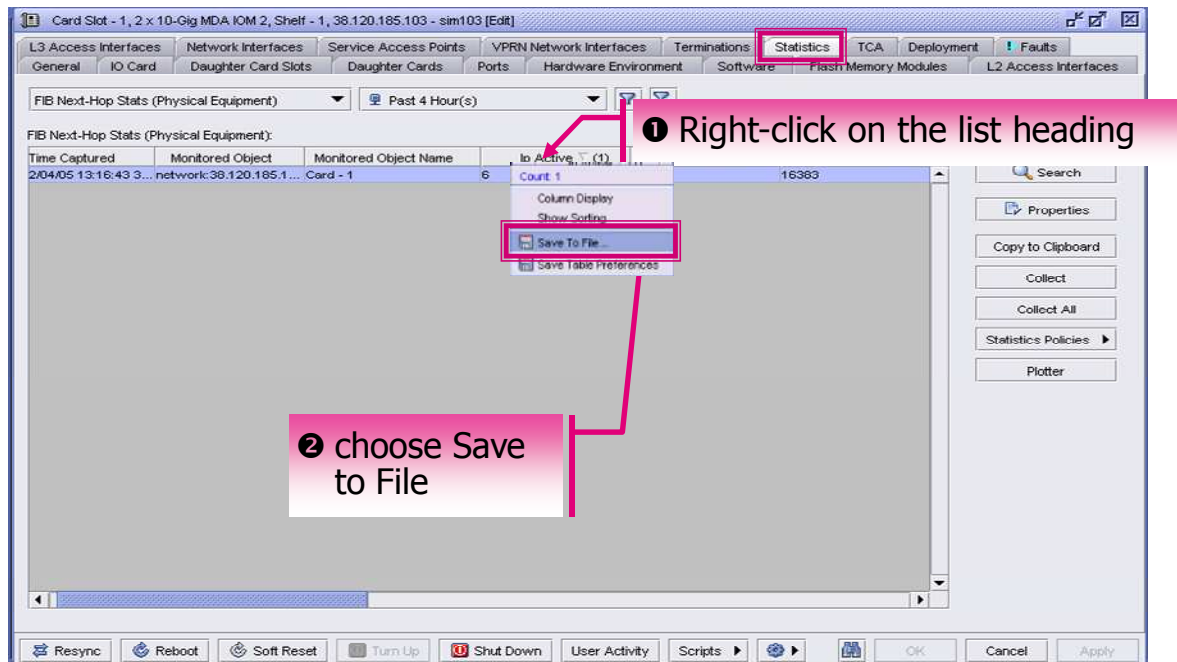
For more information on the steps to display on-demand performance statistics see *Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 7.3 Viewing statistics procedures - Procedure 7-1 To view on-demand statistics*

The following lines and the images above summarize the steps recommended to display the collected on-demand statistics for a card slot for this lab and save the data to a file format.

1. On the **Properties** form opens with the **Statistics** tab displayed, identify the on-demand statistics record to view from the list form.
2. To view collected on-demand the statistics perform one of the following:
 - a. Scroll horizontally to view the statistics counter values for the statistics record.
 - b. Open the statistics record to view it.
 - i. Select the statistics record and click on the **Properties** button. The **Statistics Record** form opens.
 - ii. View the statistics record.
 - iii. Click on the Close button to close the Statistics Record form.

1.3 Save to file On-Demand Performance Statistics

To save the collected on-demand statistics data to a file format



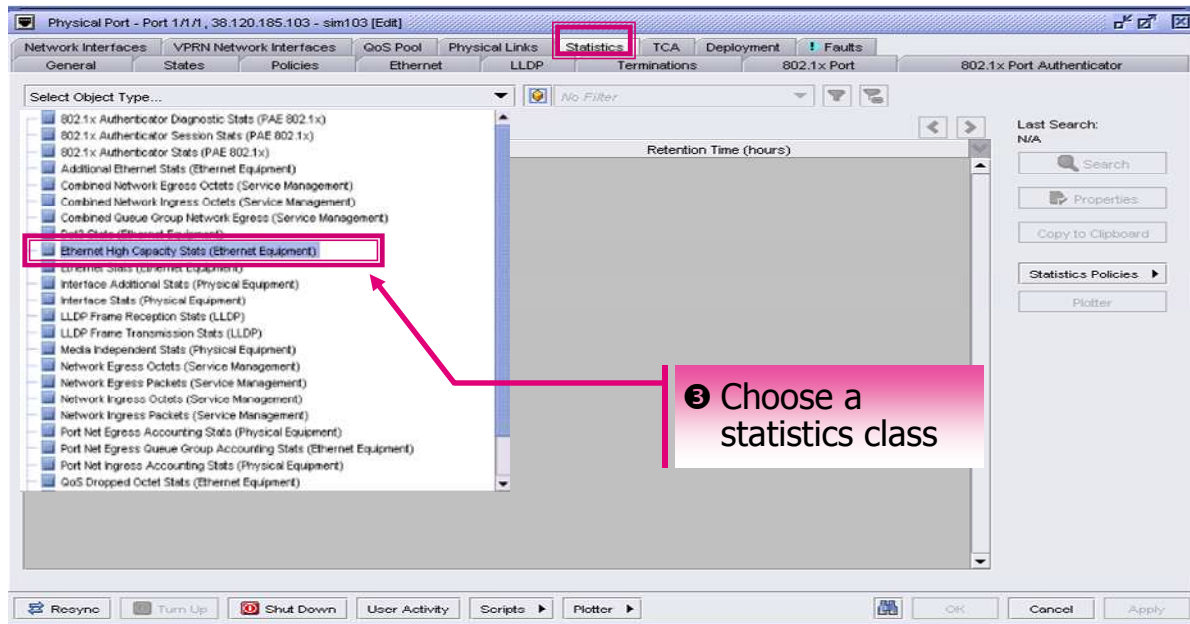
To save the collected on-demand statistics data to a file format.

1. On the **Properties** form opens with the **Statistics** tab displayed, identify the on-demand statistics record to view from the list form. If required configure the filter criteria and click on the **Search** button. Right-click on the list heading, the contextual inventory menu opens.
2. To save the listed statistics record data to a file, choose **Save to File** from the contextual inventory menu. The **Save** form opens.
3. On the **Save** form, use the **Save In** parameter to choose a directory in which to save the listed information. Use the **File Name** parameter to create a filename. Choose a file format from the **Files of Type** drop-down menu.
4. Click on the **Save** button. The results of the inventory search are saved to the specified file.
5. Close the **Save** form.
6. Close the **Properties** form.

1.4 Create a Real-Time Performance Statistics Graph

❶ Right-click on an object in the navigation tree and choose Properties

❷ Click on the Statistics tab button



5 • 2 • 12

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Lab Exercise Objective:

In order to graphically plot real-time performance statistics on the 5620 SAM GUI, over the course of this lab exercise students will create a real-time performance statistics graph.

Instructor Preparation:

Provide students with instructions on an object for which real-time performance statistics will be collected.

Instructions:

Follow your instructor's directions to create a real-time performance statistics graph.



Technical Reference

For more information on the steps to graphically plot statistics on the 5620 SAM GUI see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 8.3 Graphing statistics procedures - Procedure 8-2 To configure and plot a statistics graph

The following lines and the images above summarize the steps recommended to create a graph for real-time Ethernet performance statistics on a physical port for this lab.

1. Right-click on an object in the navigation tree and choose **Properties** from the contextual menu. The **Properties** form for the object opens with the **General** tab displayed.
2. On the **Properties** form, click on the **Statistics** tab button.
3. Choose a statistics class from the object drop-down list

1.4 Create a Real-Time Performance Statistics Graph [cont.]

4 Click on the Plotter button and choose New Plot

5 Choose a Statistics Group and a Statistics counter

5 • 2 • 13

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4. Click on the **Plotter** button and choose **New Plot** from the drop-down menu. The **Statistics Plotter** form opens.
5. Click on a plot in the **Statistics Group** column of the configuration panel and choose a statistics group from the drop-down list.
Additional configurable columns may appear in the configuration panel if the selected statistics group has filterable attributes. The columns allow you to filter the statistics. Perform the following actions to configure a filter, as required.
 - Click on an up or down arrow in a column heading to specify an enumerated entry such as a queue ID.
 - Double-click in a text-based column heading and type in a value.

**Note**

The 5620 SAM does not validate a typed entry. You must type an entire entry correctly to generate the expected filter output.

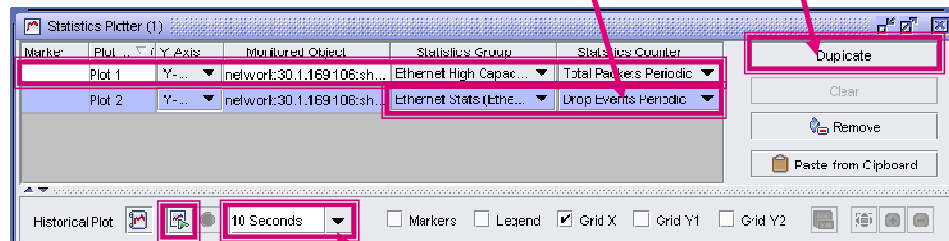
Click on a plot in the **Statistics Counter** column of the configuration panel and choose a statistics counter from the drop-down list.

For this lab example the images above show the steps to choose the statistics group and statistics counter plot the total Ethernet packets for the selected period.

1.4 Create a Real-Time Performance Statistics Graph [cont.]

⑥ To add a plot choose an object in the list and click on the Duplicate button

⑦ Choose a Statistics Group and a Statistics counter



⑦ To start the real-time statistics graph choose a polling interval and click on the Real-time Plot button

5 • 2 • 14

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To Add a plot to the statistics plotter. The existing object can be duplicated to choose a new object. If the same object is used, the statistics counter must be unique. If a different object is used, the same statistics counter can be used for each object.

To add a plot using an object in the list:

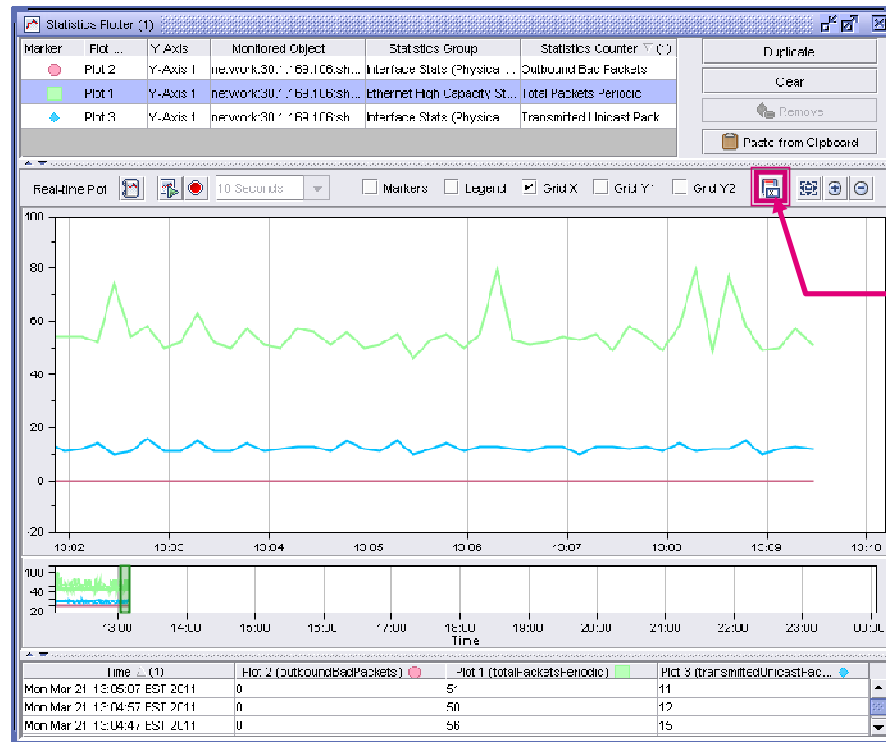
6. Choose an object from the list and click on the Duplicate button. The plot is duplicated in the list.
7. Click on the new plot in the Statistics Group column and choose a statistics group from the drop-down list. Click on the new plot in the Statistics Counter column and choose a statistics counter from the drop-down list. The counter must be unique.

To add another plot to the plotter, repeat steps 6 and 7. Up to four plots can be created on a graph.

8. To start the real-time statistics graph:
 - i. Choose a polling interval from the Real-time Polling Interval drop-down menu, or enter a value between 10 and 3600.
 - ii. Click on the Real-time Plot button. The detail panel displays the plotted statistics using the configured polling interval.

Click on a plot in the **Statistics Counter** column of the configuration panel and choose a statistics counter from the drop-down list.

1.5 Save the Real-Time Performance Statistics Graph Result



① Click on the Save current view button

5 • 2 • 15

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Lab Exercise Objective:

In order to save to a file the current view of a real-time performance statistics graph, over the course of this lab exercise students will save a real-time performance statistics graphical result.

Instructions:

Follow your instructor's directions to save to a file a real-time performance statistics plot in a graphical format.



Technical Reference

For more information on the steps to save the statistics graph results see Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 8.3 Graphing statistics procedures - Procedure 8-2 To configure and plot a statistics graph

The following lines and the images above summarize the steps recommended to save to a file the statistics graph results for this lab.

1. Click on the **Save Current View** button. The **Save as** form appears.
2. Specify a directory in which to save the statistics graph using the **Save In** parameter. The **Save In** form opens.
3. Enter a filename in the **File Name** field.
4. Choose **JPG** or **PNG** from the **Type of File** drop-down menu.
5. Click on the **Save** button. The **Save as** form closes and the graph is saved in the specified JPG or PNG file.

1.6 Save the Real-Time Performance Statistics Table Results

1 Right-click on the table header

2 Select Save to File to save tabular data

Data panel

Time (1)	Plot 2 (outbound)	Count: 535	PacketsPeriodic	Plot 3 (transmittedUnicastPac...
Mon Mar 21 17:13:50 EST 2011	0		12	
Mon Mar 21 17:13:40 EST 2011	0		11	
Mon Mar 21 17:13:30 EST 2011	0		13	
Mon Mar 21 17:13:20 EST 2011	0		13	
Mon Mar 21 17:13:10 EST 2011	0		11	

5 • 2 • 16

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Lab Exercise Objective:

In order to save to a file a table of the collected statistics values, over the course of this lab exercise students will save a real-time performance statistics table results.

Instructions:

Follow your instructor's directions to save to a file a a table of the real-time performance statistics collected values.



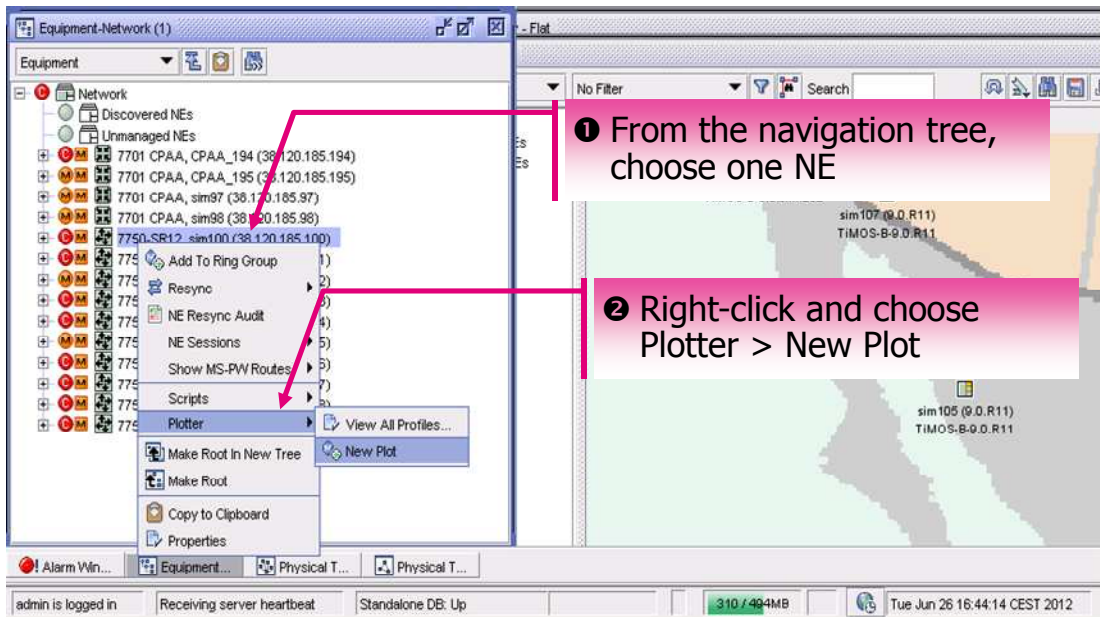
Technical Reference

For more information on the steps to save the statistics table results see *Alcatel-Lucent 5620 SAM 11.0 R3 Statistics Management Guide - Section 8.3 Graphing statistics procedures - Procedure 8-2 To configure and plot a statistics graph*

The following lines and the images above summarize the steps recommended to save to a file the statistics table results for this lab.

1. Right-click on the plot value list heading, the contextual inventory menu opens.
2. Choose **Save To File** from the contextual menu. The **Save** form opens.
3. Specify a directory in which to save the statistics table using the **Save In** parameter. The **Save In** form opens.
4. Enter a filename in the **File Name** field.
5. Choose **HTML** or **CSV** from the **Type of File** drop-down menu.
6. Click on the **Save** button. The **Save** form closes and the contents of the plot value list are saved in the specified file.

1.7 Launch a Statistics Plot from the Navigation Tree



5 · 2 · 17

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Lab Exercise Objective:

In order to graphically plot real-time performance statistics on the 5620 SAM GUI for an object in the navigation tree, over the course of this lab exercise students will launch a real-time performance statistics graph from the navigation tree.

Instructor Preparation:

Provide students with instructions on an object for which real-time performance statistics will be collected.

Instructions:

1. Open the navigation tree and choose one NE
2. Right click and choose **Plotter > New Plot**

End of module
On-Demand Performance Statistics Lab

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5 · 2 · 18

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Thank you!

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