Network Operations Software

8920 Network Trouble Patterning | Release 13.4

BB-GUI User's Guide

190-405-572R13.4

Issue 1 | January 2012

Alcatel·Lucent

Contents

About this document

Purpose

This book tells how to use the Network Trouble Patterning (NTP) software Browser-Based Graphical User Interface (BB-GUI).

Documents

List of documents

The documents are as follows:

Document	Audience	Explains how to...
BB-GUI User's Guide , 190-405-572R13.4	Network analysts	Use the browser-based graphical user interface (BB-GUI).
System Administration Guide , 190-405-573R13.4	System administrator and O&M personnel	Administer users and databases; perform application backup and recovery; start and stop the application.
Installation Guide , 190-405-575R13.4	Installation personnel	Install NTP on a *Sun* machine.

About documents

- *Comments* . If you have comments or suggestions about the NTP documents, contact your NTP support organization.
- *Ordering* . Follow your company's procedures to order additional copies of documents.
- *Media* . Documents are available in PDF (Portable Document Format) on CD-ROM. Also, the BB-GUI offers all documents in PDF and HTML format. You can print from PDF.

To access PDF files, you need *Adobe* Acrobat Reader software. See the section "Install Acrobat Reader" in the chapter "Add or Delete Users" in the *System Administration Guide* .

- *Other* . See vendor documents for vendor-specific information, including *Sun* hardware, and TCP/IP.

Software Release Notes and Third Party Software License Information

Location of Release Notes

For a comprehensive listing of new features and enhancements made to the NTP software for the most current generic, see the NTP Release Notes.

To access the Release Notes, direct your Web browser to the following URL:

`http://<machine_and_domain>:4618/info/release_notes.pdf`

where:

`<Machine_and_domain>` is the path you normally use to access the NTP launch page. For example:

- a machine name, such as hpn42.cb.lucent.com
- an IP address, such as 135.7.59.47.

`4618` is the apache port number.

Third Party Software License Information

NTP makes use of various third party software packages. A complete listing of those packages and their associated copyright and/or license information is available in this document, immediately following the document Table of Contents, and on the NTP BB-GUI.

Access this information on the BB-GUI by:

1. Clicking on the Additional Help Topics icon, found in the upper-right corner of the Launch Page,
2. Selecting "Copyright" from the drop down menu,
3. Clicking on the "Third Party Software" link at the bottom of the Copyright page.

Customer Support

Obtaining support for NTP

You can obtain customer support for NTP in several ways:

- Call 1-866-LUCENT8 (1-866-582-3688) and select prompt 5.
- If you have registered with the Customer or BusinessPartner Center (i.e., you have a CARES login), you can create a request for a priority 3 or 4 AR online via the Customer Assistance Request Entry System (CARES) web site at https://cares.support.lucent.com.
- Access the Alcatel-Lucent Customer Support web site at http://www.lucent.com/support/ to register for online customer support.

How to comment

To comment on this document, go to the Online Comment Form (http://infodoc.alcatel-lucent.com/comments/) or e-mail your comments to the Comments Hotline (comments@alcatel-lucent.com).

1 System Description

Overview

Purpose

Voice and data networks produce far too many messages to understand without the help of an automated system.

NTP software solves the problem this way.

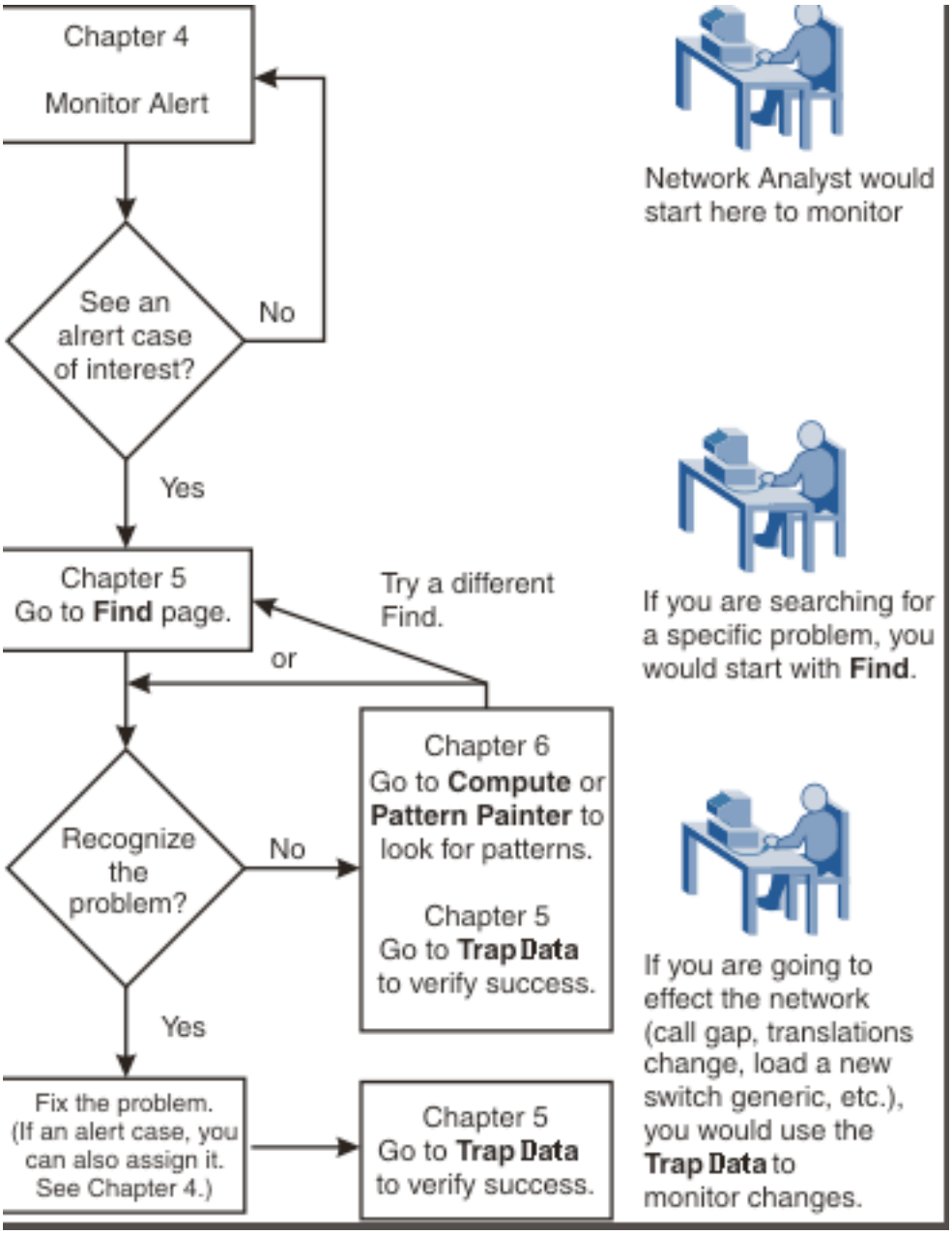
- *Standardization*. We translate different messages (we call these CIMs—call or session information messages) into common formats (we call these CFIMs—common format information messages). On-line helps explain each field of each message. (Outputs: CIM, Find Page, Trap Data.) **Note:** In this guide every use of 'CFIM' refers to all chronological source tables.
- *Retrieval*. We store messages (CFIMs), and let you retrieve them by any criteria you want, such as network element, date, and time. We also keep the CIM version of each CFIM, if you want to look at raw data. (Outputs: CIMs, Find Page.)
- *Automatic alerting*. If the flow of messages varies from normal, we alert you. To do this, we automatically set millions of thresholds, and adjust them continually. (Outputs: Alert Cases (including Mass Call Alerts output), Trap Alerts.)
- *Analysis*. Whether you retrieve a group of messages (CFIMs) by criteria, or by selecting a group of messages on which we alerted, you can quickly format that data into tables, charts, or graphs to look for patterns. (Outputs: Compute CFIM, Pattern Painter.)
- *Visual Geo-Location Analysis*. If purchased, this feature enables you to see the graphical display of mobile call density maps. The maps include cell site locations, antenna orientation, roads, and other geographic landmarks. (Output: Geo-Location page. See Chapter 8, “Geo-Location Page”.)

Contents

Workflow

Workflow, NTP-alone

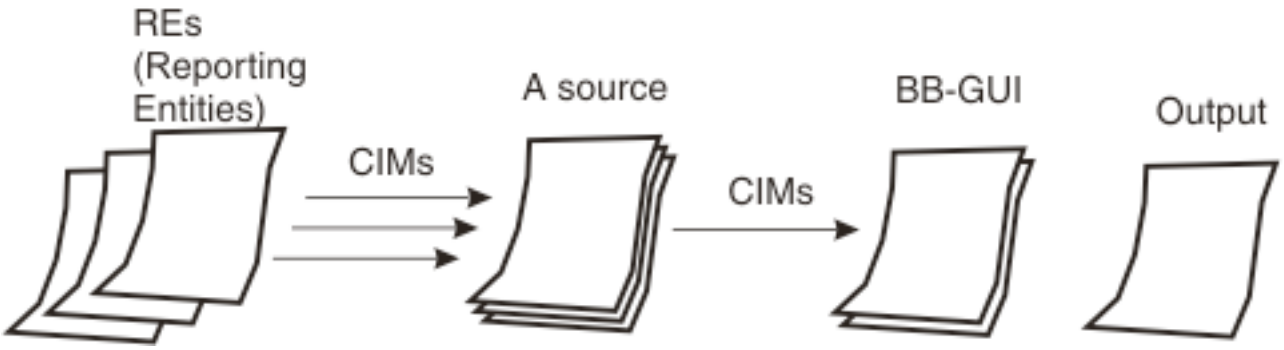
This diagram illustrates typical workflow. Outputs (bold) are explained throughout this guide.



Dataflow to NTP

Data flow illustration

Here is a simplest-case data flow illustration. Terms in this illustration are explained in the next table.



Data flow terminology

Here is an overview of data flow. Terms unique to our system are introduced in *bold italic*.

- *REs* (Reporting entities) are network elements (such as switches, IP gateways, routers, etc.) that generate *CIMs* (call or session information messages).
- REs forward their CIMs to a *source* that passes the CIMs to us.
  Source can be none (direct), an element management system (EMS) such as 8925 Integrated Service Assurance software, or a mediation system, such as *GeoProbe*. This is important because knowing the source gives insights for interpreting data.
- Outputs vary but are often based on:
  CFIMS. For ease of use, we translate each CIM into a CFIM (common format information message, see "cfim Table" (p. A-12)). Translation includes populating the following important CFIM fields.
  - *Fdc*. For categorizing CFIMs, we fill in each CFIM's FDC (final disposition code).
  - *RE*. (Reporting Entity.) The network element that originated the CIM.
  - *DE*. (Distant Entity.) Another network element involved. Often the network element the RE was trying to reach.
  - *Related*. Another network element involved, if known.

  Alert Cases. We use CFIM counts to automatically update millions of thresholds, indicating the normal state of the network. If a threshold is crossed, we report it as an Alert Case.

Important! Typically, an EMS can affect the RE (for example, to change sampling rates at the RE), while a mediation system just monitors. For our purposes, it does not matter. We never affect REs.

Thresholding

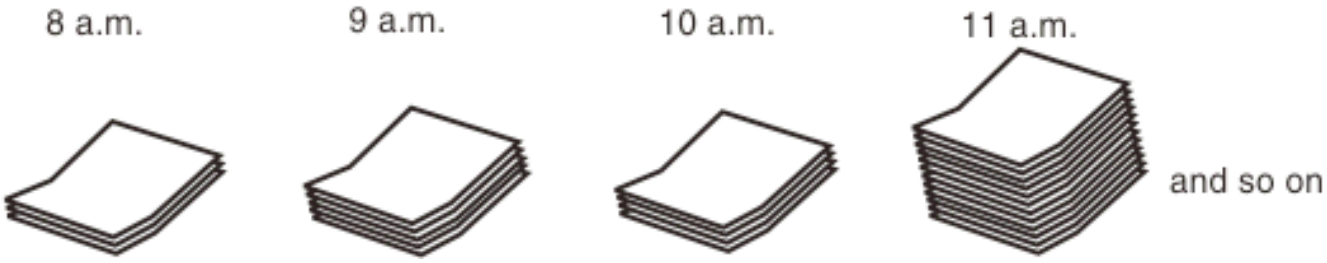
Purpose

Thresholding creates alert cases, seen on outputs listed at "Threshold outputs" (p. 1-9).

Note: You may encounter the terms thresholding and alerting used interchangeably.

Threshold example

This is a simplified view of thresholding.



- Imagine each CFIM arriving on a separate sheet of paper. Each hour, you collect all CFIMs from (for example) one RE (that is, one network element) and put those CFIMs into a separate pile. You might see, for example, a short pile for 8 a.m., a tall pile for 11 a.m., and so on.
- Do this every day for two weeks, and then figure out the average pile height for each hour of the week. Each hour's average is its threshold.
- Then, if a pile grows higher than its threshold, you know the RE has encountered something unusual.

Important! Note that:

- *RE* — shows thresholds by RE.
- *Tally intervals* — shows counts tallied hourly.
- *Periods* — shows different sets of thresholds for each hour of the week.

CFIMs to Alert cases

When a "pile" of CFIM's crosses a threshold, it becomes an alert case, and:

1. When a threshold is crossed, we take the "pile" of CFIMs, summarize it into an "alert case", and put it (as one line) on Alert Case output.
2. Each time the alert case is again above threshold, we add the new over-threshold pile of CFIM's to the same alert case.
3. If an alert case stays below threshold for 4 hours (2 hours if CFIM count is low), we take the alert case off Alert Case output.

Manual thresholds

You may have millions of thresholds, so we automatically create and update them for you. But, you can have your system administrators manually override specific thresholds.

Additional Types of Thresholding

Additional types of thresholding are:

- *System day thresholding*. Takes all thresholds for FDCs you pick and thresholds on them daily. Does not affect default thresholding.This is most appropriate with operator trouble report (OTR) type CFIMs.
- *Enhanced Mass call alerts thresholding*. Automatically used to put mass call (MC) alerts on the Alert Cases and Trap Alerts screens.

Tally intervals (alert case "at" field)

Thresholding tallies 5-minute and hourly thresholding into up to three alert cases — one for each interval type.

- To see an alert case's alert interval type, see its "at" (alert interval type) field.
- For one problem, there may be up to three alert cases (one for each interval type), all with the same tn.
- On output you see one of the (up to) three—the one that last crossed the threshold.
- On the Alerts page, if you "search" to see just one "at", instead you see all that share the same value in the tn field.

More About Thresholding

This table discusses more about thresholding.

Important! In this table, "Output" refers to the Alerts, Trap Alerts, and Find Acase pages.

For this...	Thresholding does this...
Threshold periods	Uses different sets of thresholds for each of 24 weekday hours, and 24 weekend hours. (Your system administrators can re-defined these—for example to emulate LSPs)
Ne versus RE and DE	Output shows the RE and DE fields.
Tally intervals	Output shows 5-minute and hourly (and possibly other) tallies in separate alert cases. An "at" (alert interval type) field indicates 5-minute or hourly (or other).

For this...	Thresholding does this...
Tally fields	Alert case tally fields (along with "at" field, above) are: • alerts • asev • cai • count
Tables used	Records are in the acase, alert, and trapalert tables.
CFIM Fields thresholded	Any, but default is NE (for Call Volume Alerts). The set of fields thresholded is called an FQ (fundamental quantity). See "FQs" (p. 1-8).
Map an alert case to its CFIMs	Look for CFIMs with field values matching the alert case's FQ fields (such as RE for Call Volume alert cases). In practice, to see CFIMs in an alert case, select the Find button below output.

FQs

Thresholding can potentially threshold on any CFIM field value or set of field values. This set of fields is called an FQ (fundamental quantity). The default FQ is the RE field alone, used for the Call Volume Alerts.

Consultants can be contracted to create additional FQs for any set of CFIM fields. Such FQs are not documented in this book.

Alert Case Overview

Threshold outputs

Thresholding creates alert cases, seen on these outputs:

- "Alert Cases Page" (p. 4-2). Shows open alert cases only. Updates every 5 min.
- "Trap Alerts Page" (p. 4-9). Shows only the first alert (5-minute interval) in an alert case. Most alert case fields are omitted. Updates in real time.
- "Find Page" (p. 5-3). Shows both open and closed alert cases. No updating.

Important! Note that:

- *Alerts table*. In addition, the "alert Table" (p. A-10) shows tallies for each interval in an alert case.
- *Alerts*. Technically (in error and help messages), an "alert" is one interval in an alert case.

Introduction to alert cases

About alert cases:

- CFIM summary. An alert case is a one-line summary of hundreds, even thousands, of CFIMs.
- Modify. You can modify alert cases, for example, to close, comment, or assign them. These modifications are seen by all users. See "Modifying Alert Cases" (p. 4-6).
- Mass Call Alerts. This output shows mass call events in the form of MC alerts displayed on the Alert Cases page.
- Map an Alert Case to its CFIMs. To see how CFIMs are assigned to alert cases, see "Thresholding" (p. 1-6).

Outputs

Browser

Our browser-based graphical user interface (BB-GUI) can be either of the following browsers:

- *Microsoft* Internet Explorer version 7, 8 and *Mozilla* Firefox 3.6.x

In the remainder of this book, we do not show the browser framing our GUI. For how to use your browser, see browser references.

Outputs

This table compares BB-GUI outputs.

Output	Auto update?	Shows
"Alert Cases Page" (p. 4-2) including "Enhanced Mass Call Alerting" (p. 4-12)	**Yes**. Every 5 minutes.	Each line is one alert case, and each may summarize thousands of CFIMs. Mass call events also show up on Alert Cases as MC alerts.
"Trap Alerts Page" (p. 4-9)	**Yes**. Real-time.	Each line is a newly generated alert case. Each moves to Alert Cases at the end of the 5-minute period.
"Find Page" (p. 5-3)	**No**. A database retrieval.	Shows Any database table you want to see. With Find on CFIMs, each line is a CFIM, typically, each reporting a failed call. Shows CFIMs; in an alert case, or matching criteria you give. With Find on other tables, each line is some other record.
"Trap Data Page" (p. 5-26)	**Yes**. Real-time.	Shows new CFIMs as they arrive; for an alert case, or matching criteria you give. Each line is one report of a failed call.
"CIMs Page" (p. 5-29)	**No**. A database retrieval.	The top line is a CFIM. The lines below are the CIM from which the CFIM was created.
"Compute" (p. 6-4) "Pattern Painter" (p. 6-21)	**No**. Analyzes a database retrieval.	Shows Patterns in a Find (most often Find on the CFIM table). Compute graphically represents a Find, such as a Find CFIM (for example, a Find CFIM for all CFIMs in an alert case). Pattern Painter is used for analysis. It is equivalent to multiple computes.

Output	Auto update?	Shows
Chapter 8, "Geo-Location Page"	**No**. A database retrieval.	Enables you to see the graphical display of mobile call density maps. The maps include cell site locations, antenna orientation, roads, and other geographic landmarks.

Network Elements

Network elements on CFIMs and alert cases

Network elements are what CFIMs and Alert Cases are about. We refer to network elements as REs, DEs and Relateds, as follows.

	RE (reporting entity)	DE (distant entity)	Related (entity)
Definition	Complaining network element	Element complained about, if any	Second element complained about, if any
Fields on CFIMs	RE	DE	Related
Fields on Alert Cases	NE, if Type field is RE	NE, if Type field is DE	Not on Alert Cases

CFIM point of view

Read CFIMs from the RE's point of view. For details, see "CFIM point-of-view exercises" (p. 5-11).

Two flavors of CFIMs

CFIMs usually report call failures, but can also report successful calls. This table compares Call Failure CFIMs and Summary CFIMs:

Compare	Call failure CFIMs	Summary CFIMs
CFIM's billtype field	"-"	NOT "-"
CFIM point of view	CFIM is from RE's point of view.	Use RE's point of view, but it may be arbitrary. (See "CFIM point-of-view exercises" (p. 5-11).)

Compare	Call failure CFIMs	Summary CFIMs
FDCs	Many codes.	About a dozen codes.
Usually came from these conversions	Many codes.	Four codes.
On Ascreen	Different types of failures, by element reporting them.	Overall number of messages reports from or about an element.
System administrator can re-process late CIMs into CFIMs?	No.	Yes.

Compare RE, DE, and Related

This table gives further comparison of network elements:

	RE (reporting entity)	DE (distant entity)	Related (entity)
Thresholded?	Yes, with Fdc.	Yes, with Fdc.	No.
What can be one		Any switch type can be a DE or Related. Some non-switches can also appear as a DE or Related.	
Defined in	Rearch table.	Swarch, or other "arch" tables.	
Element type is given in this CFIM field	Retype.	Detype.	Not given.
Call direction, relative to RE, given in this CFIM field	Not applicable.	D	R

What can be DE's

Any switch type can be a DE or Related. Some non-switches can also appear as a DE or Related, as follows.

Non-switch DE	Note
SCP	Signal control points.
ECOS area	This is a concept used by one customer only.
Adjunct switch role	This is a concept used by one customer only.
Location register	For AUTOPLEX.

Non-switch DE	Note
Cell base station	For AUTOPLEX and DMS MTX.
Others	Non-failure type CFIM's have other non-switch DE's.

BB-GUI Online Help

How to get on-line help in the BB-GUI

- *Documents*. For on-line documents, left click Library.
- *Tables*.
  - "How to get Table Name online help" (p. 5-15).
  - "Viewing Table and Field Descriptions" (p. A-4)
- *Columns and FDCs*. For on-line help while viewing output, see:
  - "How to get field help" (p. 2-24)
  - "How to get FDC help" (p. 2-25)
- *Output*. Go to an output's page and left click Description, to see:
  - "Alert Cases Page" (p. 4-2)
  - "Trap Alerts Page" (p. 4-9)
  - "Find Page" (p. 5-3)
  - "Trap Data Page" (p. 5-26)
  - Chapter 8, "Geo-Location Page"
- *Terms*. For terms, left click Library, then Glossary, for:
  - Appendix A, "Surveillance and Summary Database Tables"
  - "Index" on page I-1
- *Library*. The grey Library button takes you to the library, where you see buttons for:
  - Search
  - What's New
  - About the Library
  - Library Legal
  - Comments (Same as Support on the Launch Page)
  - How to Print
  - Library Help.

2 Getting Started

Overview

Purpose

This section explains how to access the BB-GUI, how to navigate BB-GUI screens, and how to modify output.

Contents

Before You Begin

Purpose

Depending on your environment, you may have to perform the following tasks before accessing the NTP software host machine.

Set up Proxy Exception

NTP does not work with proxies. If you are in a proxy environment, you must set up a proxy exception using a domain name or IP address (domain name is preferred).

To set up proxies on this browser type...	Do this...
Internet Explorer	Go to Tools > Internet Options > Connections > Local Area Network (LAN) Settings. If Proxy Server is checked, select the Advanced button. In the Exceptions area, add domain names and IP addresses, separated by a semicolon. Wildcard characters are allowed. (Example: *.alcatel-lucent.com; 135.7.20.47.)
Mozilla Firefox	Go to Edit > Preferences > Advanced > Proxies In the No Proxies For.... area, add domain names and IP addresses, separated by a comma. Wildcard characters are allowed. (Example:*.alcatel-lucent.com, 135.7.20.47.)

Edit Hosts File

If your domain name server does not recognize the NTP host machine name, it must be set up locally. This is done by performing the following steps:

1 Access the *hosts* file on your local machine

C:/<WINNT>/system32/drivers/etc/hosts

Where *<WINNT>* may vary depending on the installation of the machine.

2 Edit the *hosts* file to add the network address and NTP host machine name in the following format:

```
127.0.0.1 localhost
```

END OF STEPS

Log In to the BB-GUI

How to log in

Use this procedure to log in to the BB-GUI.

1 If you have not already done so, see your system administrator for:

- A BB-GUI User ID and Password.
- The BB-GUI location (http) on your internal or external web.

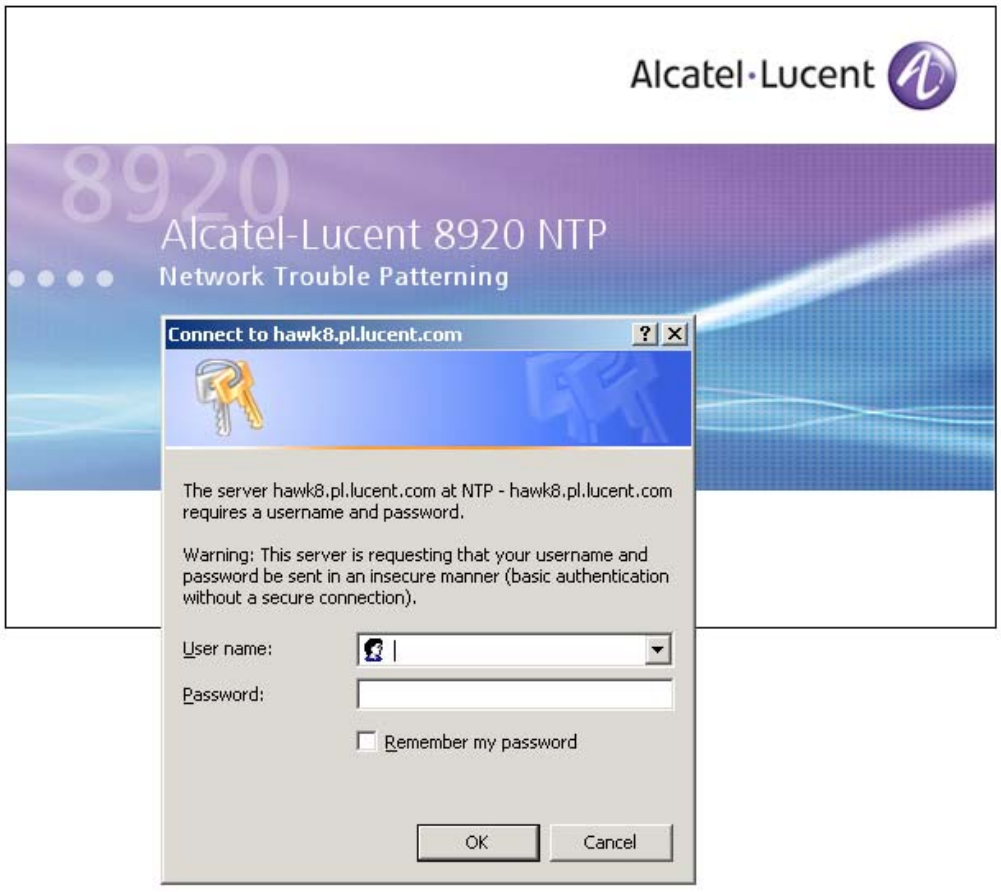
2 Start up your browser and navigate to the BB-GUI location.

If your site uses Secure Socket Layer protocol (available with NTP as an optional feature), you will have to view and/or install a certificate to proceed. SSL protocol, is used for authenticating and encrypting data passed over the Web. It's use is denoted by the https identifier (instead of http).

If you choose to view the certificate and not install it, you will be prompted again the next time you log in. If you choose to view AND install the certificate, you will not be prompted again.

Important! When using Internet Explorer, it is best to open NTP in its own process or browser window. This is especially important if you are working in an environment where multiple versions of *Java* are used.

3 The initial NTP screen appears.



Enter your User ID and Password and left-click OK. You will go to the Launch Page. See "Launch Page" (p. 2-8).

Important! If you access NTP via a bookmark in your browser, you will bypass the initial NTP screen and proceed directly to the bookmarked page.

END OF STEPS

Exit the BB-GUI

How to exit

When we say "exit the BB-GUI", we mean either of two actions:

Select either:	When to do this:
File > Close on every browser window displaying a BB-GUI page.	• Anytime, to routinely exit the BB-GUI.
File > Close (Internet Explorer) or **File > Exit** (Mozilla Firefox) on any browser window to exit the browser entirely.	• At the end of each workday, to ensure browser clean-up. • If you have *Java* problems, do this to kill the session.

Launch Page

Launch page example

This picture is an example of the launch page that appears when you login to the NTP BB-GUI.

Launch page parts

Launch page parts are as follows:

Part	Purpose
A	Highlighted Tab indicates current Page title. Select other tabs to proceed to the desired Page: • Alert Cases — Lists alert cases, the worst at the top, updated every 5 min. (See "Alert Cases Page" (p. 4-2).) • Trap Alerts — Shows new alert cases as they are generated (in real time). (See "Trap Alerts Page" (p. 4-9).) • Find — Allows you to retrieve a set of CFIMs from the database, using search criteria. (See "Find Page" (p. 5-3).) • Trap Data — Enables you to see CFIMs as soon as they arrive. (See "Trap Data Page" (p. 5-26).) • Layouts — Table Layouts — Used to add, modify, and delete table layouts for different outputs. (See "Table Layouts Page" (p. 2-32).) • Admin — Administration — Used to administer BB-GUI users. (See "Web User Information Page" (p. 7-2) and "Web User Administration Page" (p. 7-8).) • Install — (Client Installation) — Installs software on your client enabling you to run NTP and its subsystems. See your system administrator for how to use this page. This tab is only available on the Launch Page. • GeoLoc — Visual Geo-Location Analysis — Enables you to see the graphical display of mobile call density maps. The maps include cell site locations, antenna orientation, roads, and other geographic landmarks. (See Chapter 8, "Geo-Location Page".)
B 	Select this icon to access the user documentation on the Library Page. (See "Library Page" (p. 2-10).)
C 	Select this icon to access additional help: • Help — Provides a list of common user tasks. Select a task to access associated online documentation. • Description — Describes the page you are currently on. On the launch page, gives the system description. • Support — Tells how to get NTP product support. • Copyright — Links to copyright notice.

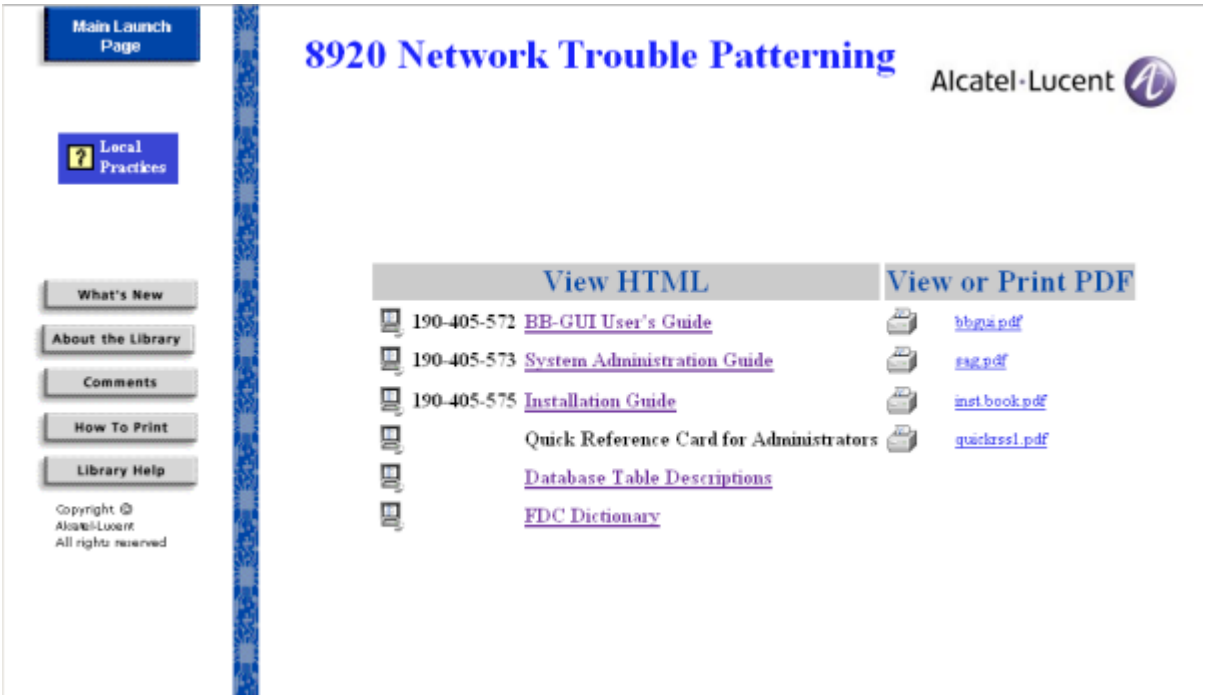
Library Page

Purpose

If you select the Library icon (on the Launch page or an output page) you go to the NTP library page, which contains user documentation for the product.

Library page example

This picture is an example of the library page.



Library page parts

Library page parts are as follows:

Part	Purpose
Document List	
View HTML	Select a book to view HTML files via your browser. If you select an HTML document, you get the following additional buttons. • Book Map — Table of contents for the selected book. • Glossary — Terms in the selected book.

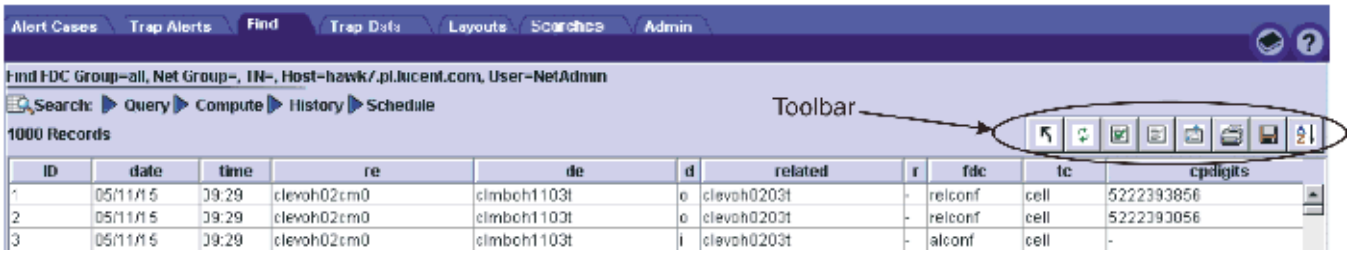
Part	Purpose
View or Print PDF	Select a book to view or print via Adobe Acrobat Reader.
Database Table Descriptions	This link presents you with a listing of all tables found on your system. Select a table and you are presented with output detailing the valid fields for the selected table.
FDC Dictionary	This link presents you with a listing of all FDCs (Final Disposition Codes) found on your system. Select an FDC and you are presented with the selected FDC description.
Blue Buttons	
Main Launch Page	Return to the main launch page.
Local Practices	Local practices gives documentation (if any) added by your company. See the *System Administration Guide* for how to add local practices.
Grey Buttons	
Search	Calls up a search window.
What's New	Takes you to the change memo for the latest release.
About the Library	Explains the library.
Library Legal	Trademark and support information.
Comments	Tells how to comment on documentation.
How to Print	Tells how to print documents.
Library Help	Tells how to get additional help for: • Navigation • Search Capabilities • How to Print • Making Comments • Getting Additional Help • Obtaining Software and Plug-Ins • Local Practices
Copyright ©	Link to documentation copyright page.

Toolbar

Purpose

The toolbar is shown on most pages, and offers tasks you commonly perform.

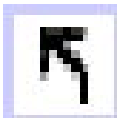
Picture



Important! Put your cursor on an icon to see a tooltip telling what the icon does.

Toolbar icons

This table lists common toolbar icons. Icons that are specific to a certain page are discussed in the section for that particular page (e.g., Compute, Web User Administration).

Icon	Purpose
	Select this to Resubmit the current search to obtain updated results. This icon appears on the Find page.
	Select this to Refresh a table. You must do this to populate an added column (see "How to add a column" (p. 2-21)). (This does not un-sort output or return table layout to default. To do that, select a navigation button to call up output in a new window, and close the old window.) This icon does not appear on all pages.
	To stop auto update on the Alert Cases, Trap Alerts, or Trap Data page, press the red stop light. To start, press green.
	Select this to display output in projection mode. This changes the appearance of the screen so it can be more easily read from a projection.

Icon	Purpose
	Select this to print to printer or postscript file. See "How to print to printer or postscript file" (p. 2-14).
	Select this to save output to a file. See "How to save output to a file" (p. 2-15).
	Select this to sort. See "Sort" (p. 2-17).
	Select this to add a table layout from scratch. For where used, see "Table Layouts Page" (p. 2-32).
	Select this to select all rows in a table.
	Select this to deselect all rows in a table.
	Navigate a directory. For where used, see "How to save output to a file" (p. 2-15).

How to print to printer or postscript file

Purpose

Important! Your browser's Print icon may not work on certain pages.

Do this to print output to a printer or to a postscript file.

1 If the output is:

- `Compute` — Go to "How to get Compute output" (p. 6-6).
- `Pattern Painter` — Go to "How to get Pattern Painter output" (p. 6-23).
- `Other` — Go to the next step.

2 On any output page, left-click an output's printer icon.

3 Change magnification or orientation, if you want. You can choose a magnification percentage from the triangle or type in a number.

4 Left-click **Print**.

5 Select **Printer** or (postscript) **File**, fill in fields as needed, and left-click **Print**. (If you select **File**, output is saved to a postscript file in your home directory.)

END OF STEPS

How to save output to a file

Purpose

Use this procedure to save an output to a file.

1 If you are on:

- Compute output, go to the next step.
- Other output, and want to save just some records, select them now, so they are highlighted in reverse video. (Hold down the Control key to select multiple rows.)

2 On the output page, left-click the save-to-file icon. A Save window appears.

3 Do you see the "Data to Save" radio buttons at the top of Save window? (You see these unless you are on a Compute output.)

- If NO, go to Step 6.
- If YES, continue with the next step.

4 If you would like header information (dates, column titles, etc.) saved with your output, check the "Save Header Line?" box. If not, leave the box unchecked.

5 Select one of the following "Data to Save" radio buttons:

- Entire Table — Save all records in the table.
- Selected — Save highlighted records.
- Entire Data Set — Save all records that match the executed query, including those not yet retrieved.

6 Use the dialog window to navigate to the folder where you want to save the file.

7 Select or type in a file name in the "File name" box.

If you are on:

- Compute output, name the file with a .jpg or .png suffix.
- Other output, name the file with a .txt suffix.

8 Left-click **Save**.

- The file is saved outside NTP. So:
  - Use another application to view or edit the file.
  - Use tools to copy, move, or delete the file.
- A .txt file can be input to *Microsoft Excel* or similar applications for spreadsheet, databases, etc.

END OF STEPS

Sort

Scope

Re-sorting affects your login only, and only in the current browser window. You can resort most outputs, as well as the Tables Layout and Administrative pages.

Reference: See "How to save a new sort for Alert Cases page" (p. 4-5).

Arrows

After sorting, arrows in columns headings mean the following:

- Up arrow—sorted ascending.
- Down arrow—sorted descending.

Arrow colors mean the following:

- Dark arrow—primary sort.
- Dark grey arrow—secondary sort.
- Light grey arrow—tertiary sort.

How to sort/unsort

Use this procedure to re-sort an output, one column at a time:

To sort:

1. Left click the column heading to sort on it ascending. Click again to reverse sort order. (Do not move the cursor when you click.)
2. Repeat on other columns, to further re-sort.

You can also left-click the toolbar's sort icon to call up the sort window shown and use it to re-sort.

To unsort:

1. On any output page, left-click the toolbar's sort icon. A Sort window appears.
2. Left click the "Revert to default sort order" box and then left-click OK

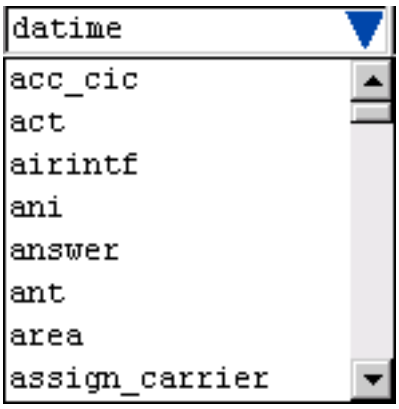
Drop Down Lists

Scope

Many input fields in NTP contain drop-down lists of items from which to select. This allows for easy selection of available options.

How to use a drop down list

A drop down list looks like this:



You can select from this list in two ways:

- by using the scrollbar and your mouse to make a selection.
- by beginning to type your selection. As you type, the system will begin to match characters, highlighting selections as you type.

Example: Using the above list, if you begin to type "answer", the system matches on the first selection that starts with "a" (in this case, acc_cic), then matches the first selection with "an" (ani) and finally the selection of "answer". You can then press the Enter key to make the selection.

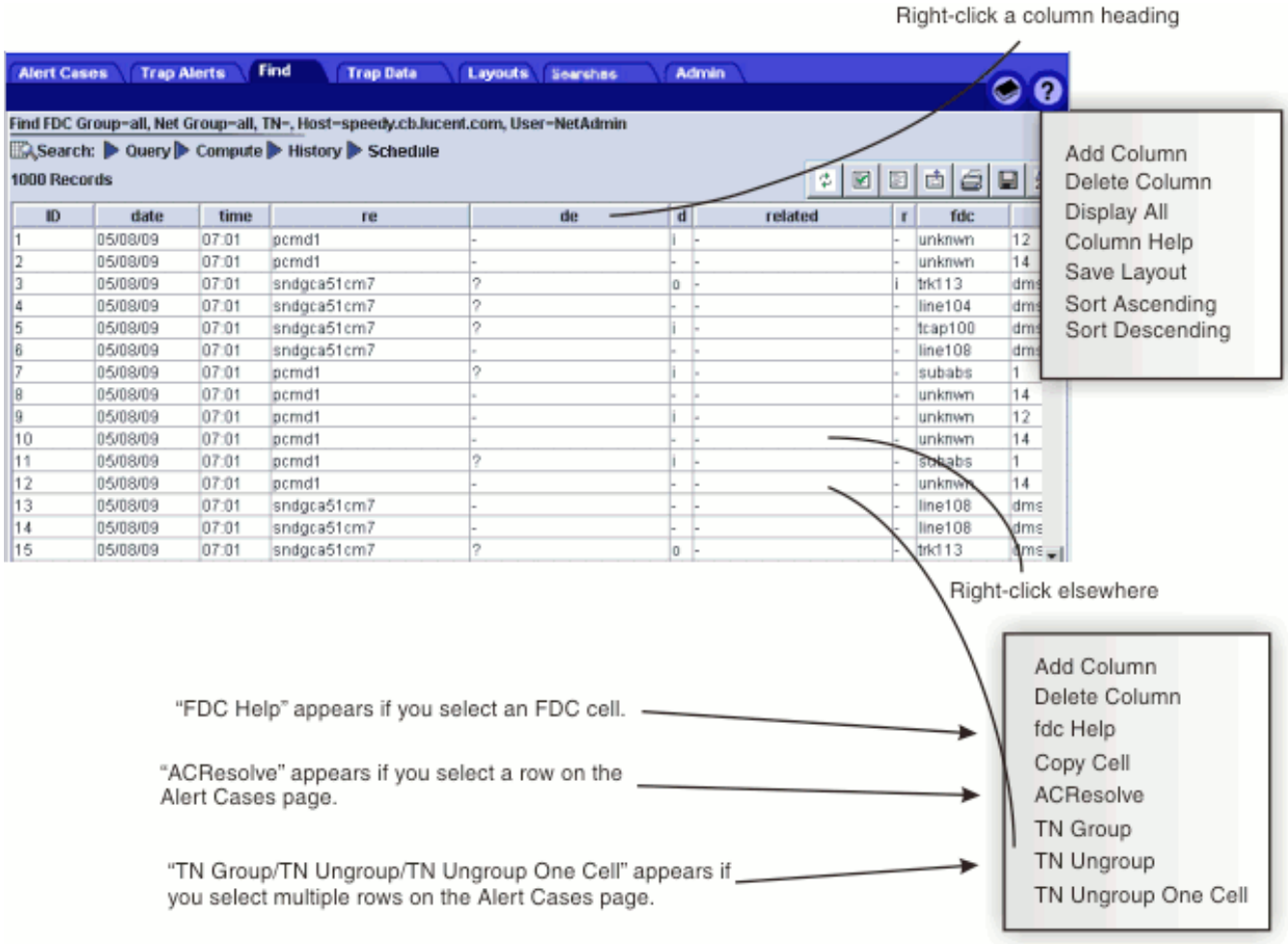
Right-Click Menus

Purpose

Right-click menus enable you to modify output, get help, and so on. Right click menus discussed here appear on outputs. Shorter menus appear on some other pages, such as Tables Layout and Administrative pages.

Example

The following picture shows the examples of right-click menus.



Undo

To undo temporary changes you made to the table from a right-click menu (except when using TN Group/Ungroup), close the output window, and call it up again in a new window.

How to select rows, cells, FDCs, and columns

What items appear on a right-click menu depends on whether you previously selected a row or cell.

Here is how you select and un-select:

- *Select a column*. Right-click the column header to call up a menu. (The column does NOT appear in reverse video.)
- *Unselect a column*. Right or left click elsewhere. The menu is gone.
- *Select a row*. Left click in the row. It appears in reverse video.
- *Unselect a row*. Select another row. Or, hold down the control key and left-click it again.
- *Select a cell*. Left click in the cell. It is framed in yellow (it "has focus").
- *Unselect a cell*. Select another cell.
- *Select (unselect) an fdc*. Select, or unselect, it's cell (above).

Right-click menu items

Items in the column menu are detailed in the sections that follow with one exception: for information on ACResolve, see “Modifying Alert Cases” (p. 4-6).

How to get table help

See “How to get Table Name online help” (p. 5-15).

How to add a column

Purpose

This procedure adds a column to output.

1 Right-click the column heading—to the right of which you want to add a column. The column menu appears.

2 On the column menu, left-click **Add Column**. An Add Column window appears.

3 In the window, left-click to highlight the item you want to add (hold down the shift key if you want to left-click to highlight multiple items), and then left-click **OK**.

4 Left click the Refresh icon to populate the new column or columns.

5 If you want to save this table layout, see "How to save an output's layout" (p. 2-27).

END OF STEPS

How to delete a column

Purpose

This procedure deletes a column from output.

1 Right-click the heading of the column you want to delete. The column menu appears.

2 On the column menu, left-click **Delete Column**.

3 If you want to save this table layout, see "How to save an output's layout" (p. 2-27).

END OF STEPS

How to display all columns

Purpose

This procedure displays all columns (all fields) for an output.

1 Right-click any column heading. The column menu appears.

2 On the column menu, left-click **Display All**.

3 If you want to save this layout, see "How to save an output's layout" (p. 2-27).

END OF STEPS

How to get field help

Purpose

This procedure shows what a column heading means.

1 Right-click the column heading you want help on. The column menu appears.

2 On the column menu, left-click **Column Help**. A help window appears.

3 To dismiss the help window, left-click its **OK** button.

END OF STEPS

How to get FDC help

Getting FDC help

There are two ways to view descriptions of FDC Help. You can do it by:

- right-clicking an FDC,
- clicking the FDC Dictionary link available on the BB-GUI Library Page.

Procedure

This procedure shows what an FDC means.

1 Right-click the FDC to call up a special right-click menu.

OR

Select multiple FDCs using the left-click button while holding the Ctrl key. Then right-click to call up a right-click menu.

2 Right-click the menu's **fdc Help** item to call up a window explaining the FDC or multiple FDCs.

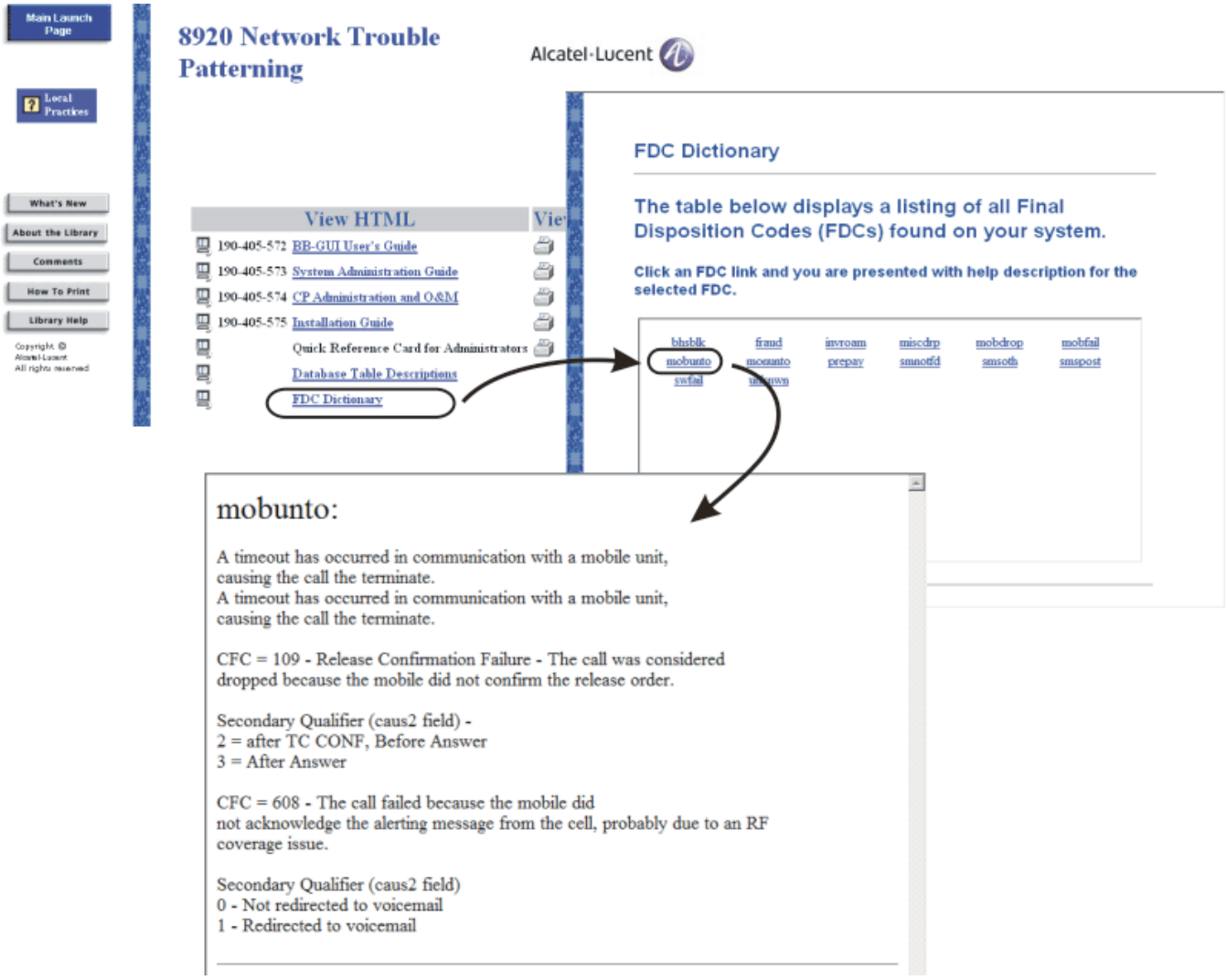
3 To dismiss the window, left-click its **OK** button.

END OF STEPS

FDC Dictionary

You can view all FDCs found on your system and their descriptions by clicking the FDC Dictionary link, which is accessed from the Library Page. Select an FDC and you are presented with help description for it.

The following images show how to use the FDC Dictionary.



How to save an output's layout

Purpose

Use this procedure if you added or deleted output columns on an output page and you want to save your output's format to use again later.

1 Modify output.

Hint: Use a procedure listed at "How to "right-size" columns" (p. 2-31).

2 Right-click any column heading. The column menu appears.

3 Left-click **Save Layout**. The Save Table Layout window appears.

4 Type in a name for the layout, and left-click **Submit**.

Result: Now the table layout is available at:

- Output's **Table Layouts** field, illustrated at "Saved area example" (p. 3-9).
- "Table Layouts Page" (p. 2-32).

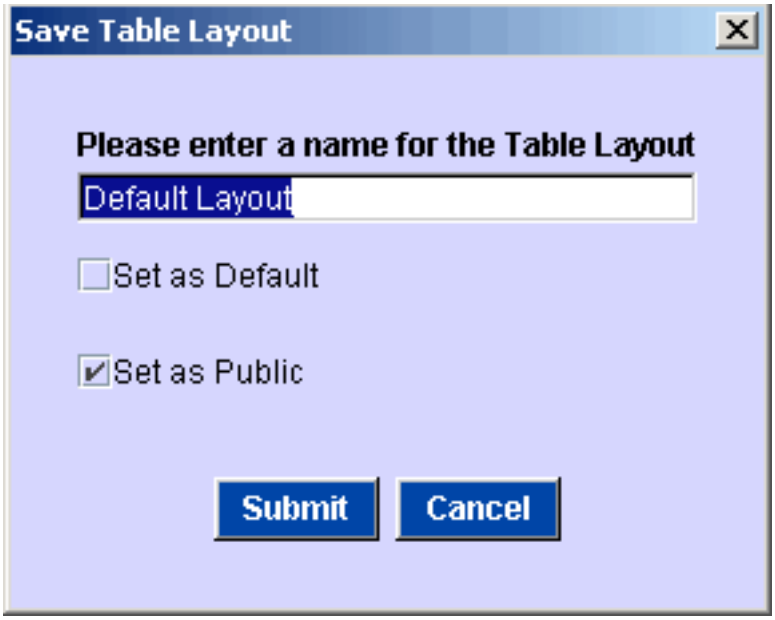
END OF STEPS

Saving Find Page table layouts as public/private

When saving Find page table layouts, a user or administrator may specify them as either private (for use only by the creator), or public (for use by all users).

The picture below shows the Save Table Layout dialog window as used on the Find Page:

The checkbox is initially set for administrators, or initially cleared for regular users.



If a table layout is not specified as either public or private, then:

- for administrators the default is public
- for regular users the default is private.

Saved table layouts are available on the Table Layouts page.

Administrators can see all layouts, both public and private, for all users.

Regular users can see all layouts specified as public, as well as those which are specified as private by the current user.

Hint: Also see "How to add, modify, delete, or copy table layouts" (p. 2-34).

How to copy from an output cell

Purpose

Use this procedure to copy from an output cell.

1 Left-click the cell you want to copy from. It becomes framed in yellow.

2 Right-click anywhere on output (except in the cell heading) to call up the right-click menu.

3 Left-click **Copy cell**. Now you can paste it in NTP or in other applications.

END OF STEPS

Modify Output

Purpose

Use these procedures to modify output. These modifications affect your login only, and only in the current browser window.

To save a modified output as a table layout, see "How to save an output's layout" (p. 2-27).

How to move a column

Although you could use right-click menus to move a column, by deleting and re-adding the column, you can also left-click-and-hold the heading of the column you want to move. Then drag the column to its new position and release.

How to change a column's width

To change a column's width, in the column heading, left-click-and-hold on the right border of a column. Your cursor changes to this: →| Drag the border and release.

How to Group/Ungroup by Trouble Number

On the Alert Cases page, you can group rows by Trouble Number (TN). This allows you to transfer to other pages with all related alerts.

To group rows by TN, select two or more rows using the CTRL key while highlighting rows with the mouse. Select TN Group from the right-click menu. After these rows have been grouped:

- they are assigned the same TN
- when one of the grouped rows is selected, all rows in the group are highlighted.

To ungroup the rows, highlight one of the grouped rows and select TN Ungroup from the right-click menu. When rows are ungrouped, they revert to unique TNs.

To ungroup one TN from the grouped rows, use the yellow anchor frame to highlight the TN you want to ungroup. Right-click and select TN Ungroup One Cell from the menu. The selected TN is ungrouped.

How to "right-size" columns

Purpose

This procedure resizes column widths to that of the longest text element in the column.

1 Left-click any standard data column heading while pressing the <Shift> key. That column is resized.

- If the table you are in does not allow you to Save Table Layout, the change is temporary and the table will revert to it's previous layout the next time you access it.
- If the table you are in allows you to Save Table Layout, continue with Step 2.

2 Right-click a column heading. The column menu appears.

3 On the column menu, left-click **Save Layout**. The Save Table Layout window appears.

4 Type in a name for the layout, and left-click **Submit**.

Result: Now the table layout is available at:

- Output's **Table Layouts** field, illustrated at "Saved area example" (p. 3-9).
- "Table Layouts Page" (p. 2-32).

5 If you want to save this layout, see "How to save an output's layout" (p. 2-27).

END OF STEPS

Table Layouts Page

Table Layout's page Purpose

The Table Layouts page enables you to add, modify and delete table layouts for different outputs.

Once a table layout has been created, each output's table layout are offered in the output's Table Layouts field, illustrated at “Saved area example” (p. 3-9).

Table Layouts page example

This picture is an example of the Table Layouts page.

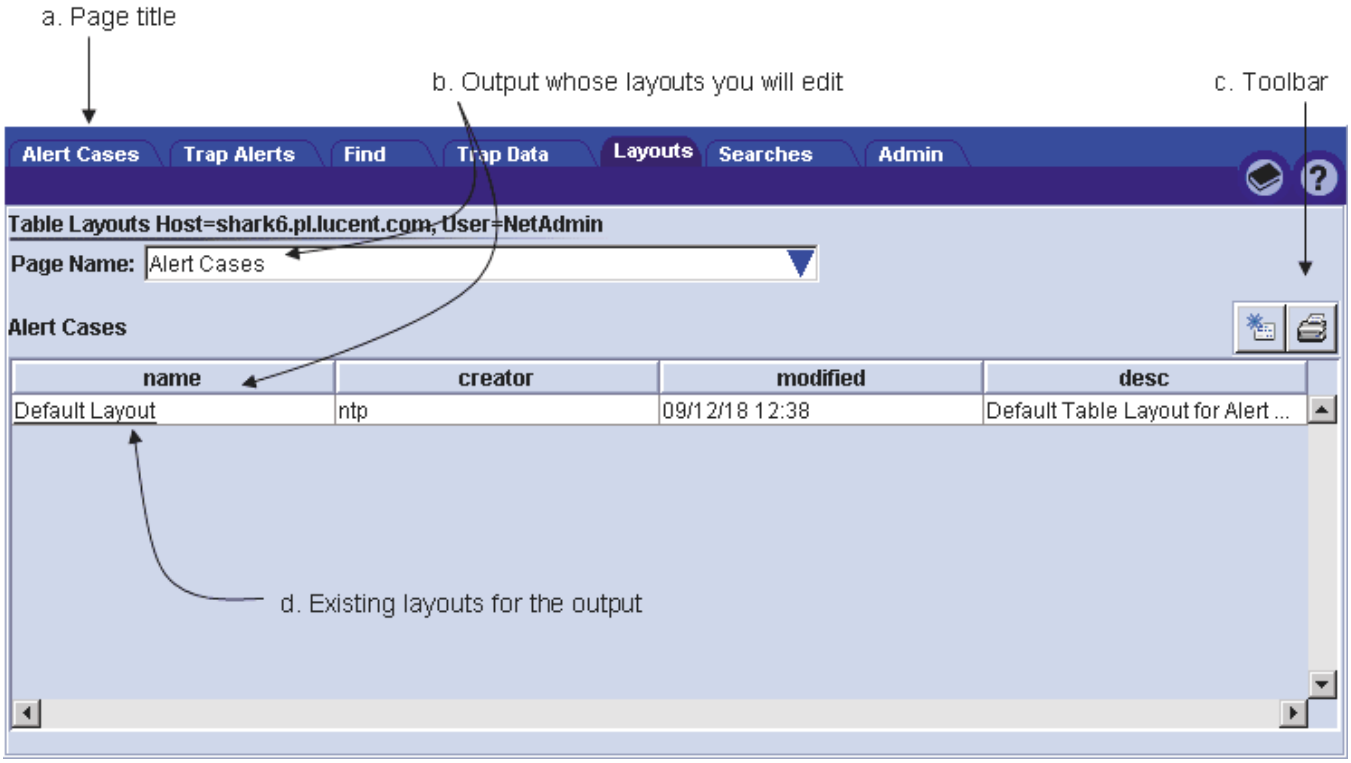


Table Layouts page parts

Table Layouts page parts are:

Part	Purpose
a	Page title. Identifies the page you are on.

Part	Purpose
b	How to select a layout to edit: Use the blue triangle to select the page whose layouts you want to edit. Then, in the output area, select the layout to edit.
c	See "Toolbar" (p. 2-12).
d	Lists existing table layouts.

Default Table Layouts

The BB-GUI tables provide a default system table layout for the following pages:

- Alert Cases Page
- Trap Alerts Page
- Trap Data Page
- Find Page

The default page layouts cannot be removed from the system but can be modified by the netadmin and web user administrator.

Important! Any default system table layout that is provided in the product can be updated in each release. Therefore, the best practice is to create your own default layouts with a new name, for example: Default Layout 1. System provided layouts should remain unchanged.

How to add, modify, delete, or copy table layouts

Purpose

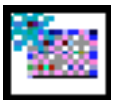
Use this procedure to add, modify, delete, or copy a table layout.

1 Go to any page that has a **Table Layout** button and left click the button. You see the Table Layout screen. (See "Table Layouts Page" (p. 2-32).)

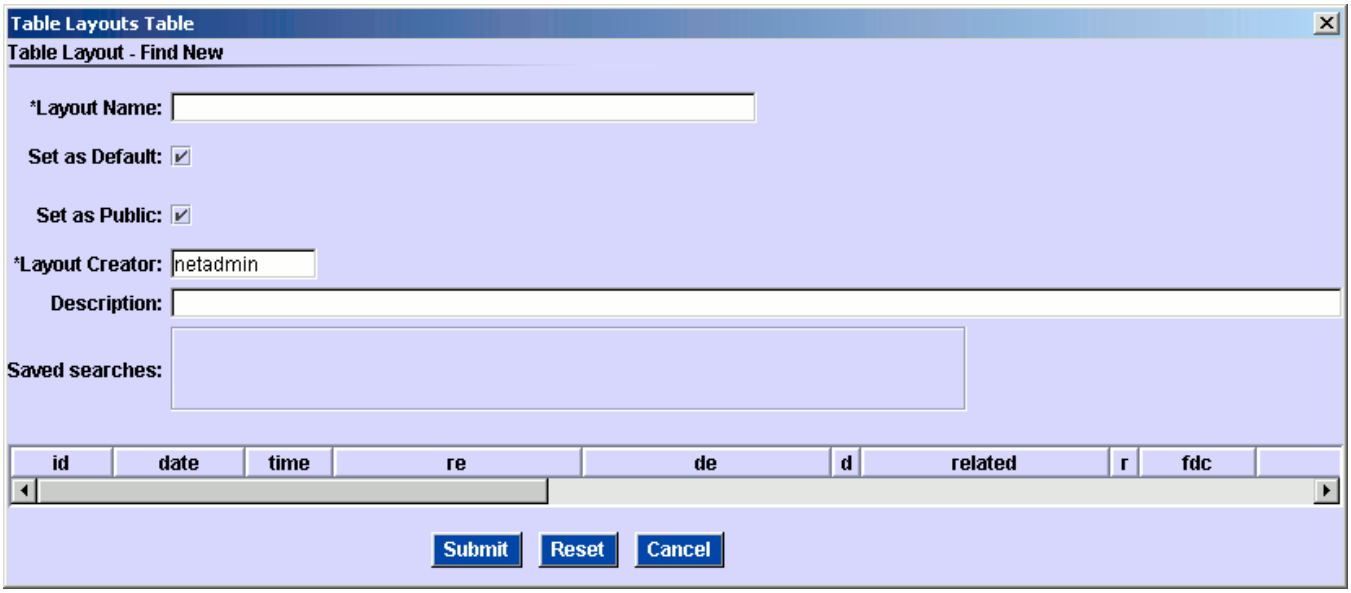
2 In the **Page Name** field, left-click the blue triangle to select the type of output whose layout you want to add, modify, or delete.

3 Do you want to Add?

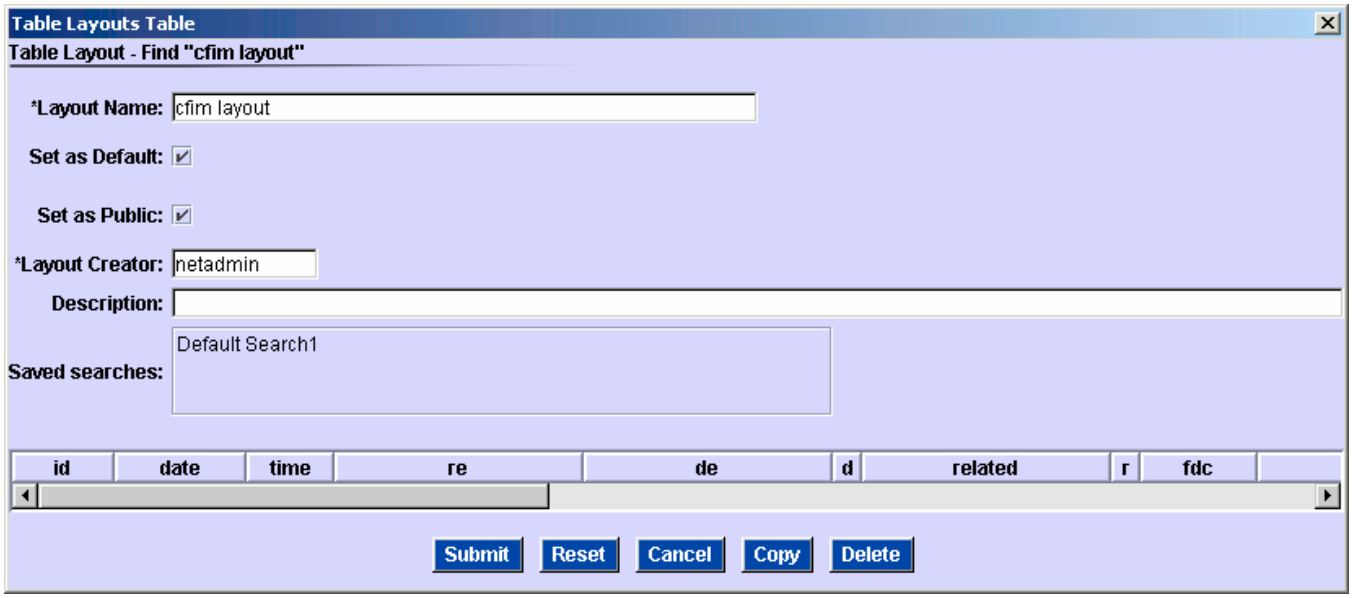
- If no, go to the next step.
- If yes, left click the Add Table Layout icon shown here:



A window similar to the following appears. Fill in Layout Name and Description, and skip to *Step 6*,



4 Double click the **Layout Name** you want to modify or delete. A window similar to this appears.



5 Do you want to delete?

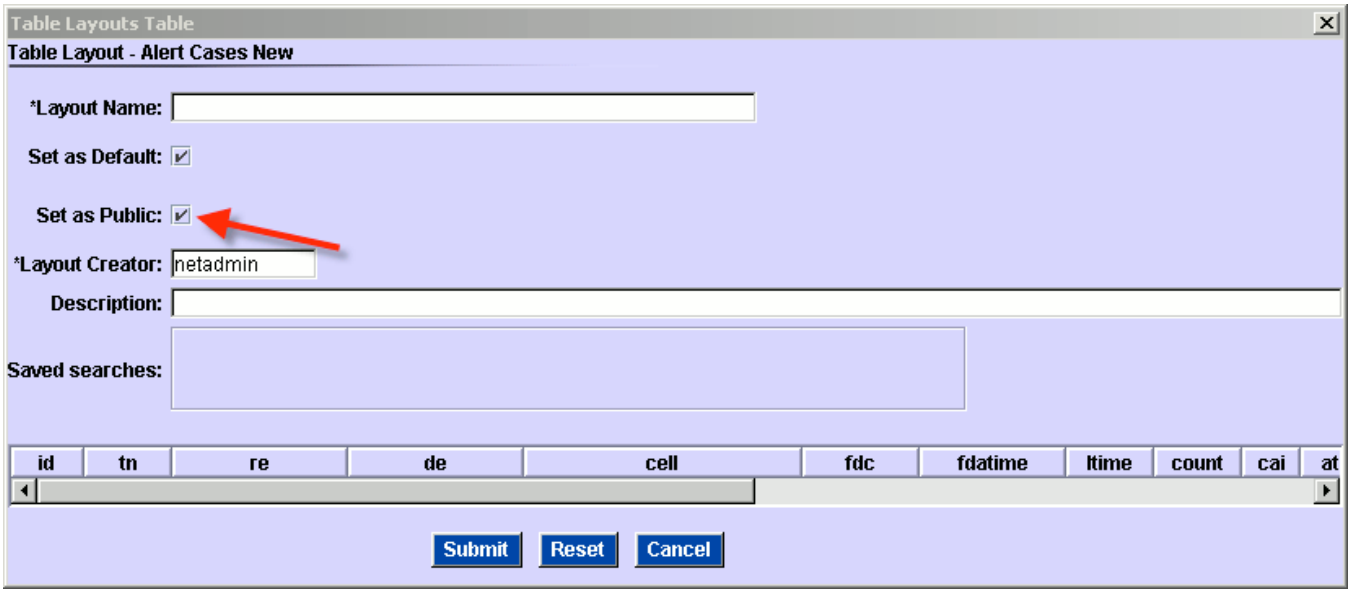
- If yes, left click the **Delete** button. You are done.
- If no, go to the next step.

  Important! You can delete only those layouts with your ID in the **Table Creator** window.

6 Modify output.

Hint: The Set as Default checkbox allows you to set this layout as the default for the specified page (only one output can be selected). In the example below, selecting the Set as Default check box would mean that this Layout Name would be the default for Table Layout - Trap Alert. This overrides any existing defaults.

Table layout for the Find Page has an additional checkbox 'Set as Public' that allows the user to specify whether the layout is public or private (checked for administrators, unchecked for regular users). See picture below:



7 Right-click in the column area to call up a menu to modify layout.

8 If you are:

- adding, modifying, or deleting, left-click **Submit**, you can modify and "Submit" only those layouts with your ID in the Table Creator window.
- copying a table
  - Left click the **Copy** button instead of **Submit**.
  - Type a new name in the **Layout Name** field.
  - Type in a new **Description** (optional).

  Important! You can save any layout as your own copy.

  Note: The Table Layouts Table window contains a read-only list of the saved searches which use the currently edited layout.

END OF STEPS

3 Search

Overview

Purpose

This chapter tells how to call up NTP software outputs from the Search button.

Outputs called up from the Search button are:

- Alert Cases
- Trap Alerts
- Find Page
- Trap DATA

This chapter also tells how to use search expressions (see "What is a search expression?" (p. 3-23)).

Contents

How to Get Output

Road map to outputs

This tells how to get each output.

To get this output	Do this
Alert Cases (including call volume alert cases and mass call (mc) alerts)	Use the procedure after this table ("How to get output, starting from the launch page" (p. 3-4)).
Trap Alerts	
Find	
Trap Data	
CIMs	Once you get Find or Trap Data, you can get CIM output. See "CIMs Page" (p. 5-29).
Compute	See "How to print Compute output" (p. 6-20).
Pattern Painter	See "How to get Pattern Painter output" (p. 6-23).

How to get output, starting from the launch page

Before you begin

Please note that:

- To go to output from a shortcut button on another output page, see"Output Shortcut Buttons" (p. 3-6)
- Where ever you are, to go to the launch page, left click the blue Launch Page icon.

Procedure

Use this procedure to get output, starting from the launch page:

1 First, look at the table, "Road map to outputs" (p. 3-3), to see if you use this procedure for the output you want.

2 On the launch page, if you want to go to:

- Alert Cases (including call volume and Mass Call alert cases) left click the Alert Cases tab. Go to Step 6.
- Find page, left click the Find tab. Go to Step 3.
- Trap Alerts, Trap Data: First, click any tab above. Then go to Step 4.

3 To pick a table for Find; on the Find page, left click the Query blue triangle to open its area. In the **Table Name** field, select the table you want to Find. Go to Step 6.

4 For Trap Alerts or Trap Data: Left click its "Road map to outputs" (p. 3-3).

5 Look at the page's current search criteria. To do this, left click the blue arrow beside **Edit**, and scroll down to the "Search Exp" field. (If the field is blank, it means "show all".)

6 Do you want to use the page's current search parameters?

- If YES, go to the next step.
- If NO, left click the blue triangle beside either:
  - To re-use a search you saved. See "How to use Search/Query" (p. 3-21).
  - To execute, modify, or save a search. See "How to use Search/Query" (p. 3-21).
  - To re-use one of your last 25 searches, see "How to use Search/History" (p. 3-15).

7 Left click Search.

END OF STEPS

Output Shortcut Buttons

Example: Output shortcuts

Various outputs offer shortcut buttons. Shortcut buttons differ depending on your system's functionality.

How to use shortcuts to output

To use a shortcut button:

- Select the row or rows you want to map to the new output.
- Left-click the shortcut button.

Search Triangles

Purpose

Uncollapse one of the blue search triangles to open a search area where you:

- Specify what to see on an output.
- Select the Search button to see output.

You can also select the Search button to get "Default search" (p. 3-8).

At any point, if you wish to return to the default set of conditions (with the saved searches displayed) then select the browser refresh/reload button.

Search triangles illustrations

There are two different sets of the blue search triangles, depending on the page you are currently viewing.

- The following picture shows the blue search triangles for the **Alert Cases**, **Trap Alerts** pages. Here, they are all collapsed, so you see no search areas or Search button.

Search criteria on the **Find** page differ from those on other page types.

- The following picture shows the blue search triangles for the **Find** page.

- The **Trap Data** page contains only Query and History triangles.

Search triangles list

The following tables show the criteria in the search area and briefly describe their function.

On the **Alert Cases**, **Trap Alerts**, and **Trap Data** (Query and History only) pages:

Triangle	Function
Saved	Reuse a saved (named) search expression.
Edit	Create a search expression, or edit an existing one, to execute now, or to save to execute later.
History	Reuse a previously used search expression.

On the **Find** page:

Triangle	Function
Query	Create a search expression or edit an existing one, to execute now, or to save to execute later. Query combines the saved search and edit capability found on other pages
Compute	Takes you directly to a screen where you can graphically analyze the retrieved information using Compute or Pattern Painter. This triangle's area enables you to select a saved search; (or use search criteria from Query or History, and brought here by picking the Compute BUTTON—NOT the triangle), and then: • Call up records • Whether or not you call up the records, compute on them. • Whether or not you call up the records, use Pattern Painter on them.
History	Reuse a previously used search expression.
Schedule	The optional Scheduled Data Distribution feature enables you to: • schedule re-execution of the Find page, and • receive output via electronic mail and/or a file-based report.

Default search

Default search with the History blue triangle repeats the previous search. With other blue triangles, default search is as follows:

- *Alert Cases, Trap Alerts, Trap Data* — No restrictions. You see each record as it arrives. (These are auto-updating outputs.)
- *Find*. No restrictions, except data retrieval stops at either (whichever comes first):
  - 1,000 records. (But see "Search/Edit parts" (p. 3-17) and "Web User Information page parts" (p. 7-3).)
  - Records dated in the last 10 minutes (if the records are chronological, such as CFIMs). (But see "Search/Edit parts" (p. 3-17). Also, if you enter a date or time in the search parameters, it overrides this.)

Search/Saved

Purpose

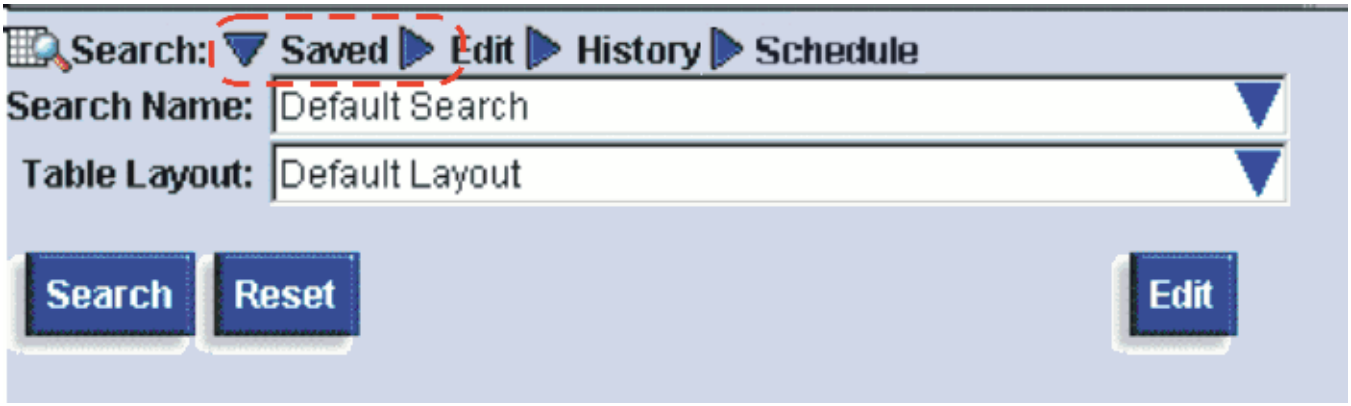
Saved enables you to re-use search expressions and table layouts previously saved.

Things to remember

Important! Searches are saved (named) either by the system administrator (all users see these), or by you on the Edit page (only you see these). On the Find page there is no Saved triangle. Instead, select the Query triangle, and use Step 5 and Step 6 in the procedure "How to use Search/Query" (p. 3-21).

Saved area example

This is the Saved area. Notice the Saved triangle is un-collapsed.



Saved parts

These parts appear when you un-collapse Saved:

Part	Purpose
Search Name	Left-click the arrow to pull down a list of searches previously saved. Then left-click a search to select it. A list of searches is alphabetically sorted in the following case-sensitive order (uppercase searches are listed first): 1. Default search 2. System administrator public searches 3. Searches owned by the user 4. Public searches owned by other users **Note:** The sorted list of searches is displayed in different shades of gray. For the Find Page, if the search item has a table layout associated with it, and the layout is owned by the user or is specified as public, then this table layout is selected. For more information on public/private table layouts, see "Public/Private Find Page Layouts" (p. 5-3).

Part	Purpose
Table Layout	Left-click the arrow to pull down a list of output formats previously saved. Then click a format to select it. For the Find Page, a list consists of all regular user's layouts specified as public, all administrator's layouts specified as public, and all administrator's layouts without specification. The user's default layout or the system default layout is at the top of the list. If the search has a table layout associated with it, and the layout is owned by the user or is specified as public, then this table layout is selected. For more information on public/private table layouts, see "Public/Private Find Page Layouts" (p. 5-3). **Note:** A list of table layouts is alphabetically sorted in the following case-sensitive order (uppercase searches are listed first): 1. Default table layout 2. System administrator table layouts 3. Table layouts owned by the user 4. Table layouts owned by other users The sorted list of table layouts is displayed in different shades of gray.
Search	Execute the search, using the search parameters named in the Search Name field, and output layout named in Table Layout.
Reset	Return to previous parameters.
Edit	Go to Search/Edit, to edit the search named in the Search Name field. See "Search/Edit" (p. 3-16) **Note:** If you left-click the edit **triangle**, you also go to Search/Edit, but to edit **default** search.

How to use Search/Saved

Purpose

Use this procedure to execute a search previously saved.

1 Go to a page with a Saved triangle (Alert Cases, Trap Alerts, Find, or Trap Data).

2 Un-collapse the Saved triangle to see the Saved area. See "Saved area example" (p. 3-9).

3 Left-click the triangle beside Search Name to call up a list of saved searches. Then left-click the named search you want to use, so it appears beside Search Name.

Note: A list of searches is alphabetically sorted in the following case-sensitive order (uppercase searches are listed first):

1. Default search
2. System administrator public searches
3. Searches owned by the user
4. Public searches owned by other users

The sorted list of searches is displayed in different shades of gray.

4 If you want to use a table layout other than default, repeat the previous step, but with the Table Layout field.

You cannot create or modify a table layouts here. To do that, left-click the Table Layout blue navigation button. See "How to save an output's layout" (p. 2-27).

5 If you want to:

- Start over, left-click the **Reset** button.
- Edit the search named in the "Search Name" field (either to modify and execute now, or modify and save), left-click **Edit** and go to "How to use Search/Query" (p. 3-21)).
- Execute the search, left-click the **Search** button.

END OF STEPS

Search/History

Purpose

History enables you to re-use search expressions you used earlier.

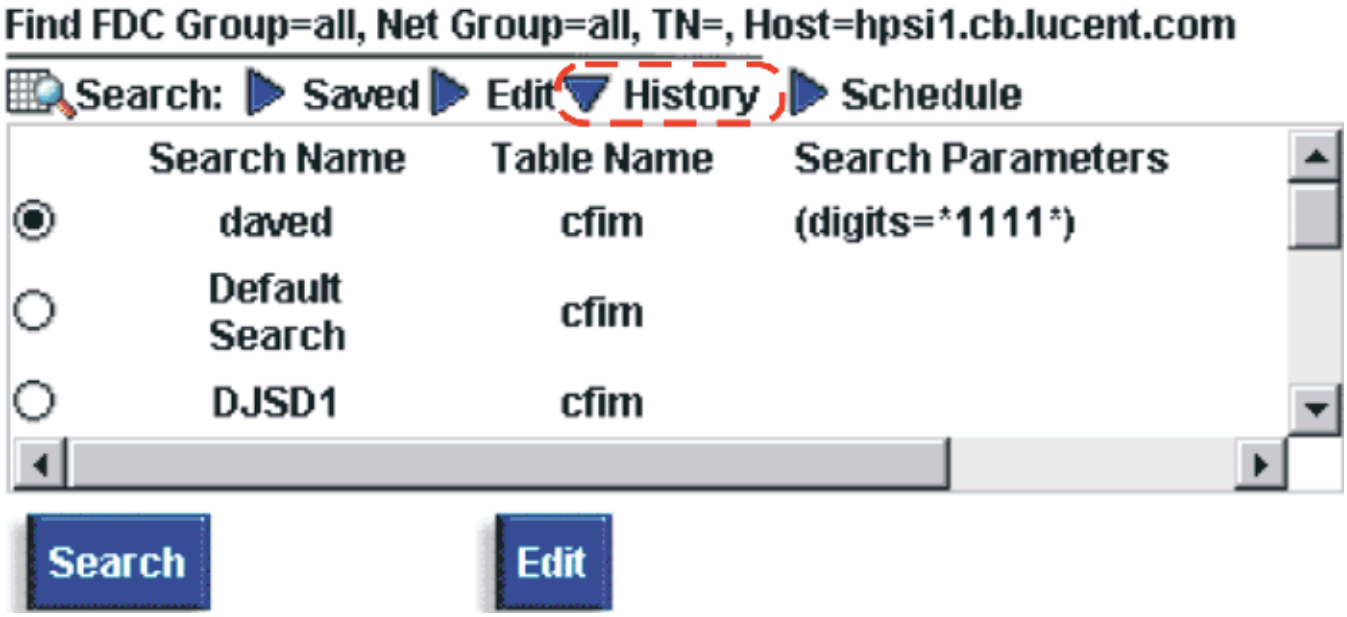
The History area lists your last 25 search expressions for the output page. For example: Your last 25 search expressions for Alert Cases.

It lists search expressions for your login only.

If you have never called up output, History is empty.

History area example

This is the History area with Find. Notice the History triangle is un-collapsed.



History parts

These parts appear when you un-collapse History.

Part	Purpose
Radio Button	Left-click it to select a search expression you used earlier.

Part	Purpose
Search Name	Identifies search expressions you used earlier. You see either: • "Default Search" (see “Default search” (p. 3-8)). • A search expression name. (See “Search Expressions” (p. 3-23).) • Nothing, if the search expression was neither default nor named.
Table Name	The table from which records were retrieved.
Search Parameters	Shows the actual search expression. Blank if default (see “Default search” (p. 3-8)).
Search	Execute the search that has a selected radio button.
Edit	Go to Search/Edit to edit the Selected search. See “Search/Edit” (p. 3-16). If instead you left click the Edit triangle, you also go to Search/Edit, but to edit the default search (once there, you could choose a search there to edit).

How to use Search/History

Purpose

Use this procedure to execute a search from the history file.

1 Go to Alert Cases, Trap Alerts, Find, or Trap Data.

2 Un-collapse the History triangle to see the history area, listing the last 25 searches. See "Default search" (p. 3-8).

3 Left-click a radio button to select a search.

4 If you want to:

- Re-execute the search, left-click the Search button.
- Edit the selected search left-click Edit and go to "How to use Search/Query" (p. 3-21). You can then save the modified search, execute it, or both.

END OF STEPS

Search/Edit

Purpose

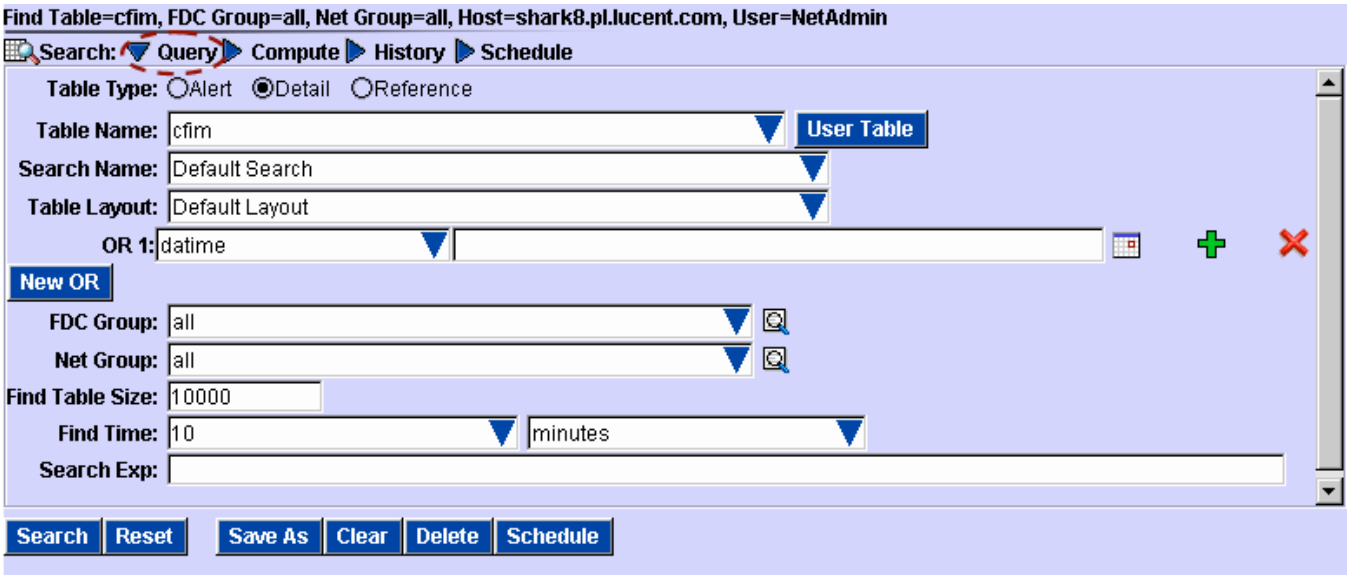
Edit enables you to create a new search expression, or take an existing one, and:

- Execute it as it is (by selecting the Search button).
- Before executing it, modify it.
- Before or after executing a modified search, save it to a new or existing name.

Query (on the Find page) is similar to **Edit** on other pages. The main difference is that **Query** on Find Page has the Schedule button.

Query area example

This is the Query area, in this case, on the Find page. Notice the Query arrow is uncollapsed.



Search/Edit parts

These parts appear when you un-collapse Edit.

Part	Purpose
Table Type (applies to the "Find Page" (p. 5-3) only)	This object is a radio button that allows you to view the list of tables (available in Table Name: dropdown) based on the table type selected. **Note:** Table types depend on particular features enabled in the system. The choices for the table type are: • Alert (Table Name displays acase, acasesum, alert case summary tables), • Detail (Table Name displays CFIMs, all summary tables), • Reference (Table Name displays all reference data in the system). This table type is always available.
Table Name	The name of the database table for which you want to find data. Default is CFIM (for output, see "Find Page" (p. 5-3)). Left-click the triangle to select another table.
User Table	Accesses User Table. User Table allows you to save an entire data set retrieved for a given search. The data set can then be used for Compute. Users can view only their saved search results. Administrators can view User Tables for all users. See "Using the User Table with Find" (p. 5-8) and Web Admin for more information.
Search Name	The name of a search, to use, edit, or delete. Left-click the triangle to select a different name. Leave blank for default (see "Default search" (p. 3-8)). A search name identifies a search expression, which limits output as explained at "Search Expressions" (p. 3-23). **Note:** A list of searches is alphabetically sorted in the following case-sensitive order (uppercase searches are listed first): 1. Default search 2. System administrator public searches 3. Searches owned by the user 4. Public searches owned by other users The sorted list of searches is displayed in different shades of gray.

Part	Purpose
Table Layout	Left-click the triangle to pull down a list of output formats you previously saved. Then click a layout to select it. For maintaining table layouts, see "Table Layouts Page" (p. 2-32). **Note:** A list of table layouts is alphabetically sorted in the following case-sensitive order (uppercase searches are listed first): 1. Default table layout 2. System administrator table layouts 3. Table layouts owned by the user 4. Table layouts owned by other users The sorted list of table layouts is displayed in different shades of gray.
OR Group	An OR group. A set of logical conditions that are Boolean OR'd with other OR groups, if any.
OR 1	A Boolean OR group (here "OR 1" means OR group 1).
fdc !wsn	A Boolean AND term in a Boolean OR group, limiting output by the column label you put in first field, and the values and operators you put in the second.
Plus Sign. Add-restriction (add OR field) button	Add a line. (You need to select this only if you have already entered restrictions in all lines already displayed for an OR group.)
Minus Sign. Delete-restriction (delete OR field) button	Delete this line. (Nothing is affected if you delete a line not used--that is, any line with nothing in the right-hand field.)
Red X. Delete-restrictions (delete OR group) button	Delete the OR group.
Refine button (magnifying glass icon)	This button is offered by a field if we have a list of values for that field. It enables you to select from the list. See "How to refine (magnifying glass)" (p. 3-30).
New OR	Start a new OR group (for example, OR 2).
FDC Group	See "How to use Search/Query" (p. 3-21).
Net Group	See "How to use Search/Query" (p. 3-21).

Part	Purpose
Find Table Size	How to change Find Table Size for one Find Find Table Size is how many records you can Find. Type a value to override default, which is (initially) 1,000. Please note that: • This overrides default, for this Find only (and, for any saved copy of this search). • To *change* default for all Finds (initially 1,000), see "Web User Information page example" (p. 7-2). • This cannot exceed max table size. To change max table size (initially 10,000), see "Web User Information page parts" (p. 7-3). • If a table is chronological (tables listed at Appendix A, "Surveillance and Summary Database Tables"), then Find Time also applies. That is, Find stops at Find Table Size (initial default 500) or Find Time (default 10 minutes), whichever is smaller. (But remember, Find Time is overridden by anything you put in a date or time field.)
Find Time This appears only if you are doing a Find on a chronological table (CFIM and other tables listed at *"Introduction"* (A-3)).	How to change Find Time for one Find Find Time is how far back you will Find records if you do not use a date or time field. Depending on the table you are specifying, the default will be either 10 or 60 minutes. You cannot change the default, but you can override it (for this Find and for any saved copy of this search) by: • selecting a value to override the default, which, depending on the table, is either 10 or 60 minutes. • specifying a new value for Find Time • specifying a date, time, or datime value. Find Table Size also applies. That is, Find stops at Find Table Size (initial default 500) or Find Time (default 10 minutes), whichever is smaller. (But remember, Find Time is overridden by anything you put in a date or time field.) Please note that you cannot override the **findtime** parameter by using **start-datime** or **end-datime** values.
Search Expression	The Boolean expression derived from values you put in the OR groups. You can edit this expression directly. For example, here you could backspace over wsn and type in vca. But, the edit takes affect only when you left-click on the blue "update" arrow.
Search	Execute the search, including any changes you made.
Reset	Reset to the previous search expression.

Part	Purpose
Delta Triangle	A "delta" (triangle) means you changed the search. To save changes, use the Save As button.
Save As	How to save (to name) a search expression Left-click to call up the Save As window, enabling you to save your changes to a new or existing "Search Name".
Clear	Erase all terms in all OR groups.
Delete	Deletes a saved search. How to delete a saved (named) search • Go to the output whose saved search you want to delete: Alert Cases, Trap Alerts, Find, or Trap Data. • Un-collapse the Query triangle to see its area. • Left-click the Search Name triangle to select the search you want to delete. • Select the Delete button. • You can delete only searches you created. (For how to create a search, see "How to use Search/Query" (p. 3-21).)
Schedule	You see the Schedule button only on the Find page. It enables you to schedule the Find page to be re-executed at future points in time and allows you to get e-mail and file-based report output. For more information on how to use the Schedule button see "Schedule Button" (p. 5-17)

How to use Search/Query

Purpose

Use this procedure to execute, modify, or save a search (or a combination of those actions). This is valid only for the Find page. "Edit" is on other pages.

1 Go to Alert Cases, Trap Alerts, Find, or Trap Data.

2 Un-collapse the Query triangle to see its area.

If you want to use all defaults to retrieve data, skip to Step 10.

3 On Find only, select a table type and a table name (on Trap Data page also).

4 If you want, left-click the FDC Group triangle, Net Group triangle, or both, to select from groups defined by your system administrator. Or, skip to the next step to use default (default is typically the unrestricted "all").

5 If you want, left-click the Table Layout triangle to select a layout other than default.

6 If you want, left-click the Search Name triangle to select an existing search. Or, skip to the next step, which means you are on the default search (see "Default search" (p. 3-8)).

- A search name identifies a search expression. A search expression limits output by ORs, explained in *Step 8*.
- If you want to delete the named search, select the Delete blue button. You are done.

7 Take the search expression named in the previous step and either:

- Use it, with no modification. To do this, skip to *Step 9*.
- Edit it directly. To do this, use "Edit the Search Exp field directly" (p. 3-26), then go to *Step 9*. (This is for advanced users.)
- Edit it by using OR fields and groups. To do this, go to the next step.

8 Use this to edit search expressions (see "Search Expressions" (p. 3-23)).

- *Fill in OR1 fields.* As needed:
  - Put values in an OR1 field or fields. For example, put "vca" in the fdc field in the illustration below. See: "What you can put in OR fields" (p. 3-24).
  - See "How to refine (magnifying glass)" (p. 3-30) for how to use the magnifying glass icon to fill in an OR field.
  - Left click the triangle in an OR field to change the field—for example, to change "fdc" to "ne".
- *Add or delete a field in OR1.* As needed, left click these icons:
  - Plus Sign to add an OR field. (See "Plus Sign. Add-restriction (add OR field) button" (p. 3-18).)
  - Minus Sign to delete an OR field. (See "Minus Sign. Delete-restriction (delete OR field) button" (p. 3-18).)
- *Add a new OR group.* As needed, left click the New OR button to add an OR2 group. Then fill in its fields, and add or delete its fields, as you did with OR1.
  - As needed, use the New Or button to add additional OR groups.
  - Red X. As needed, click this icon to delete an OR group. See "Boolean AND and OR" (p. 3-23).

9 If you want to save (to name) your search parameters to re-use later, select the Save As button, and follow prompts. If you save with an existing name, you replace that saved search.

10 To get output, left click Search.

END OF STEPS

Search Expressions

What is a search expression?

A search expression is a set of criteria that limits output on Alert Cases, Trap Alerts, Find, or Trap Data. It is built from fields and values, with 'Boolean AND and OR'.

Example: On Trap Data you could use the search expression "(fdc=wsn)" to limit output to only those CFIMs that have wsn in the fdc field.

A search expression does NOT include Net Group, FDC group, Table Layout, Find Time, and so on. However, such criteria is retained among searches, as long as you remain logged on.

Where seen

You see or use search expressions when you un-collapse the following Search triangles:

- At "Search/History" (p. 3-13), in the "Search Parameters" column. If the search expression is named, you see the name in the Search Name column.
- At "Search/Edit" (p. 3-16), in the "Search Exp" field. If an expression is named, you can enter the name in the Search Name field.
- At "Search/Saved" (p. 3-9), if an expression is named, you can enter the name in the Search Name field.

  Important! If any of the above is blank, it means "Default search" (p. 3-8).

Build or modify search expressions

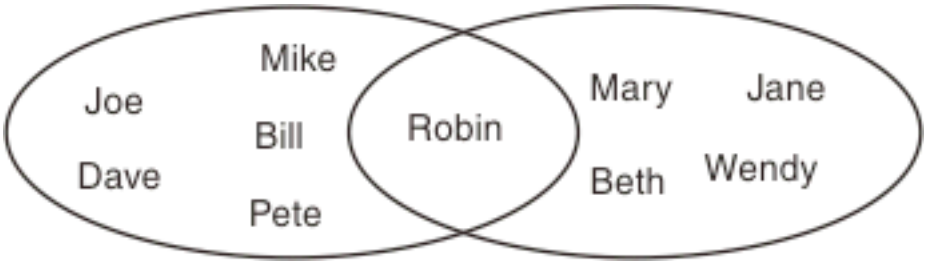
You build or modify a search expression in an Edit area, by either:

- using OR groups
- editing the "Search Exp" field directly (for advanced users).

Boolean AND and OR

Boolean search uses two operators to search:

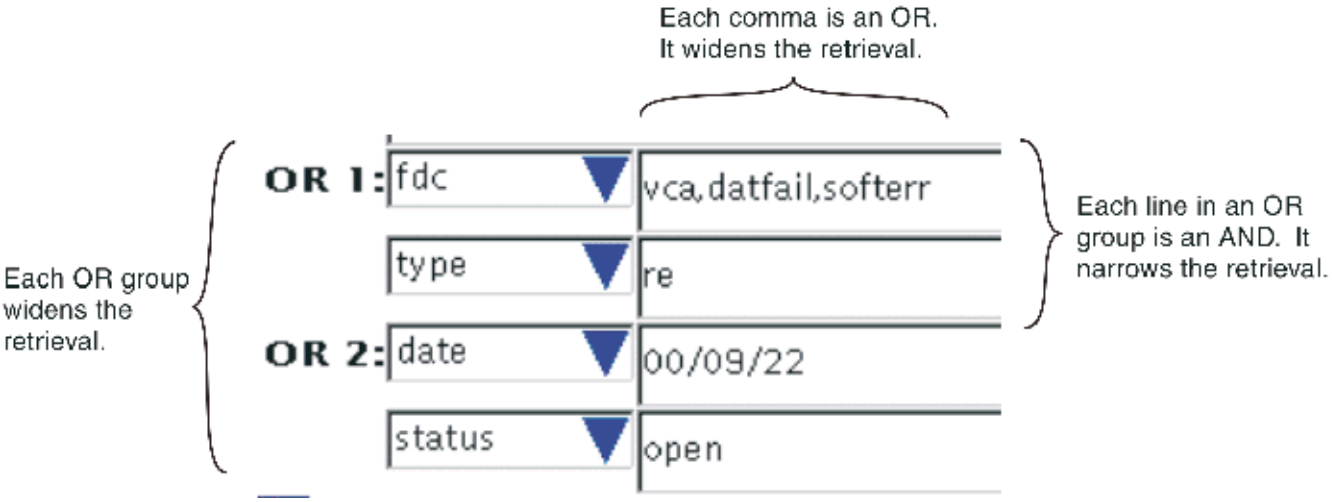
- OR — Combination of sets. In the example below: the set of men's names OR the set of women's names is ALL names.This is known as an "inclusive" OR.
- AND — Intersection of sets. In the example below: in the set of men's names AND the set of women's names, the intersection of sets is Robin.



Narrow and widen

At "What you can put in OR fields" (p. 3-24)we tell how to add or delete OR fields and OR groups. Here we discuss why you would do that.

You narrow and widen record retrievals as illustrated here.



In the example above, "Search Exp" is:

((fdc=vca,datfail,softerr and type=re) or (date=00/09/22 andstatus=open))

Important! When building a search expression, we suggest you start with an easy, wide search to get more records than you need. Then narrow the search until you get what you want.

What you can put in OR fields

The following table explains what you can put in OR fields:

Important! What you enter in an OR field appears in "Search Exp" after you left click another field.

Hint: What you can enter differs by field type. See "Field types" (p. 3-27).

Put this in an OR field:	To retrieve these records:
OR 1: fdc Nothing.	**Search Exp:** All records. (In this case, a Find stops after 10,000 records, or after all CFIMs received in the last 10 minutes—whichever comes first.)
OR 1: fdc abc One value.	**Search Exp: (fdc=abc)** Records where FDC is abc.
OR 1: fdc abc, xyz, 999 Multiple values, with commas, no spaces. Comma means Boolean OR.	**Search Exp: (fdc-abc)** Records where FDC is abc OR xyz OR 999.
OR 1: fdc !=abc, xyz, 000 "!=" for "not equals".	**Search Exp: (fdc!=abc,xyz,000)** Records where FDC is NOT abc, xyz, or 123.
OR 1: de - Null value (not permitted in a key field). Either: • - dash means not applicable or none. • ? means missing data (tell your system administrator). This applies to a few fields.	**Search Exp: (de=-)** Records where de is not applicable. *Example:* To see records where de is missing because something is not in the NTP database, use "de=?".
OR 1: fdc 9* Meta character: • * means none or more characters.	**Search Exp: (fdc=9*)** Records where FDC is 9 or begins with 9.

Put this in an OR field:	To retrieve these records:
OR 1: ict <777 The following operators, with numeric or date/time field types only. • < for less than • > for greater than • <= for less than or equal too • >= for greater than or equal to Pleae note that if you omit operators, "=" is implied	**Search Exp: (ict<777)** Records where ICT is less than 777. *Mixed operators.* Let us say you want records where ict is less than 10 OR more than 100. • You might try to put "<10,>100" in one ict field, but you can NOT mix operators (=, !=, >, and so on) in one field. • You can try to put this on two ict lines in the same OR group, but that will not work, since lines within an OR group are AND'd (see "Narrow and widen" (p. 3-24)). • So, you must: – In one OR group, put <10 in an ict field. – Press the NEW OR button to start a new OR group, and there put >100 in another ict field.
OR 1: fdc vca **OR 1: ne am3** Also, more than one field in an OR group.	**Search Exp: (fdc!=vca and ne=am3)** Records where FDC is vca AND the NE is am3.
OR 1: fdc vca **OR 1: ne am3** **OR 2: fdc busy** Also, more than one OR group.	**Search Exp:** **((fdc!=vca and ne=am3) or (fdc=busy))** Records where FDC is vca AND the NE is am3; or records where FDC is busy.

Edit the Search Exp field directly

Rather than use OR fields to cause a search expression to appear in the "Search Exp" field, you can type a search expression directly in the "Search Exp" field—or edit an expression already in that field.

If you do that, an arrow appears to the right of the field.

Left click the arrow to make OR fields match what you typed in "Search Exp".

"Search Exp" syntax is:

Syntax	Note
Blank	Means retrieve all records.

Syntax	Note
`field operator value` *Example:* fdc=abc fdc!=abc fdc=abc,xyz,999 fdc=a* ct>100 ct=100-200	Where: • **`Fields`**. For the list of fields, left click an OR field's blue arrow. • **`Operators and values`**. These are the same as listed in "What you can put in OR fields" (p. 3-24), with one exception: The "=" operator is implied there, but MUST be included here.
`field operator value` ***`Boolean`*** **`field operator value`** ***`Boolean`*** **`field operator value`** and so on *Example:* (fdc=abc) and (re=999) (fdc=abc) and (re=999 or de=999)	Where: • Booleans are "and" and "or". See "Boolean AND and OR" (p. 3-23). • Statements in parentheses are executed first, starting with the deepest nested parentheses.

Field types

Each OR field has a type. For example, FDC is a string. Field types are:

- **String** — alphanumeric.
- **Set** — a defined set of strings.
- **Numeric** — digits.
- **Date, time** — dates, times, or both.

To see a field's type, see the field in Appendix A, "Surveillance and Summary Database Tables", or use "How to get field help" (p. 2-24).

Field type determines what operators and values you can enter in a field for a search expression.

You can use this operator and value			With this field type			
Operator	**Value**	**Example**	**string**	**set**	**numeric**	**date, time**
Either: None (= is implied) != (means "not equals")	Single value	5367 !=5367	yes	yes	yes	yes
	Multiple values (use commas, omit spaces; comma is Boolean OR)	5367,5389,5398 !=5367,5389, 5398	yes	yes	yes	yes
	Range of values. Use dash.	5233-5264 !=5233-5264	no	no	yes	yes
	- (means null; for non-key fields) ? (means missing data; for a few non-key fields)	- !=- ? !=?	yes	yes	yes	no
	* (wild card for none or more characters)	abc* !=abc*	yes	yes	no	no
>, <, >=, <=	Single number or date or time	<5200	no	no	yes	yes

Date and time format

Some search expression fields are for dates, times, or both.

Important! You can click the "Calendar Dialog" (p. 5-10) icon to create date entries

This table shows various ways to enter date and time. Use military time; for example, 06:30 for 06:30 a.m., and 18:30 for 6:30 p.m.

These fields	Use these formats	Example
Time, Ftime, Ltime	HH:MM	13:45

These fields	Use these formats	Example
Date, Fdate, Ldate	YY/MM/DD (Omitted YY defaults to current year.)	03/02/21
Datime, Fdatime, Ldatime	YY/MM/DD HH:MM (Omitted YY/MM/DD defaults to current day.)	03/12/21 13:50

Relative Time Expressions

The date and datime fields also accept relative time expressions. This table shows various ways of using them.

Relative Time Field	Use these formats of relative time expressions	Example
Date	yesterday, today, a day name	today yesterday-today Tuesday Monday-Sunday
Datime	yesterday HH:MM, yesterday HH:MM-HH:MM, today HH:MM, today HH:MM-HH:MM, a day name HH:MM, a day name HH:MM-HH:MM	yesterday 13:50 Tuesday 09:00-09:25

This table shows how NTP interprets date and time.

IF you enter...	
date only	Between midnight and 23:59 p.m. on the date.
time only	At the specified time for the current date.
time and date	At the time and date specified.
datime-datime	Within the specified range of dates and times.

You can enter dates and times as follows:

- Range. Example: 03/03/24 8:15-03/03/31 10:25
- Range. Example: yesterday 8:15-today 10:25
- Range. Example: 03/03/24 8:15-10:25
- Range. Example: today 8:15-10:25
- With operator. Example: <=03/03/25
- Multi-value. Example: 03/3/7 8:15,03/3/9 8:15

How to refine (magnifying glass)

Purpose

The refine symbol beside a field means you can call up a list of values for the field to help you build a search expression, as follows:

1 In the field beside the refine symbol, type one of the following:

- A * to list all values for the field.
- A string using a meta character (*****) to list just some values for the field.
  Examples:
  - To limit values offered for the FDC field, you might type: **a*** to list all FDCs beginning with "a".
  - To limit E-mail addresses used with the "Scheduled Data Distribution" (p. 5-16) feature, you might type: **j*** to list all E-mail addresses beginning with "j".
- Beginning of a string, to retrieve the first match.
  Example: If you want to enter CLLI code abcdefghij in the Re field, and you know that it is the only CLLI beginning with abc, type justabc.

2 Left click the refine symbol.

Example: If you see an FDC listed more than once (such as busy and busy), select just one, which is the same as selecting them all. A repeated FDC means there is more than one acode mapped to the FDC. See "Working with acodes?" (p. 3-31).

Result: In the third case in the previous step, the string expands, and you are done. In the other two cases, a refine window appears.

3 Left click the box beside each field you want to "OR" into the search expression.

Example: If I left click the box beside amt213 and amt113, I am saying, show me all records where FDC is amt213 OR amt113 (which appears in the search expression field asfdc=amt213,amt113).

4 Left click Select.

END OF STEPS

Working with acodes?

acode2fdc table

1A *ESS* switch conversion uses the ess12fdc table.

To determine some FDCs, we use the acode2fdc table. The table has three fields:

- **Fname** — A code found in a CIM, which NTP maps to one or more FDCs.
- **Acode** — A string found in a CIM, used to map one Fname to different FDCs.
- **FDC** — The FDC mapped to.

Usually, NTP looks in a CIM for just one code to map to just one FDC. In this case, NTP does not use the Acode2fdc table (the FDC is not in the acode2fdc table).

Each *4ESS* FHC code maps to a unique FDC. Each *5ESS* MDII code maps to a unique FDC.

Sometimes (especially with DMS) NTP starts with a CIM's code (Fname), and maps it to different FDCs according to different strings (Acodes) NTP locates in the CIM.

Example: If a CIM with code (Fname) c7up100 contains the string (Acode) "no ack circuit reset", we assign FDC of 100p_1. If a CIM with code (Fname) c7up100 contains the string (Acode)"no ack grp crkt reset" we assign FDC of 100p_2.

Less often, we may map multiple Acodes mapped to one Acode

Example: If CIM with code (Fname) trk114 contains the string(Acode) "partial_dial" or the string (Acode) "partdialdial", weassign FDC of pd114.

How to see an FDC's acode

Purpose

To see acode-to-FDC mapping, do a Find on the acode2fdc table. (For how to Find, see "Find Page" (p. 5-3).)

Alternately, you can use this procedure.

1 In the field beside the refine symbol, type either:

- A * to list all values for the field.
- A string using a meta character (*) to list just some values for the field.

  Example: To limit values offered for the FDC field, you might type:

  - a* to list all FDCs beginning with "a".

2 Left click the refine symbol.

  Important! If there are many FDCs, you may want to check the box beside the FDC or FDCs whose acodes you want to see. This will help you identify their acodes in the next step.

  Result: You see a list of matching FDCs.

3 Use the pull-down menu to change FDCs to Acodes.

  Result: FDCs are now shown as Acodes.

  - If you see one acode for an FDC, then you can select that acode (just as you can select the FDC) and then left click **Select** for a search.
  - If you see multiple acodes for one FDC, you might think you can select one acode, and then left click **Select**, to search on just that acode, but that does not work. Instead, your search will be on ALL acodes that map to the same FDC.

END OF STEPS

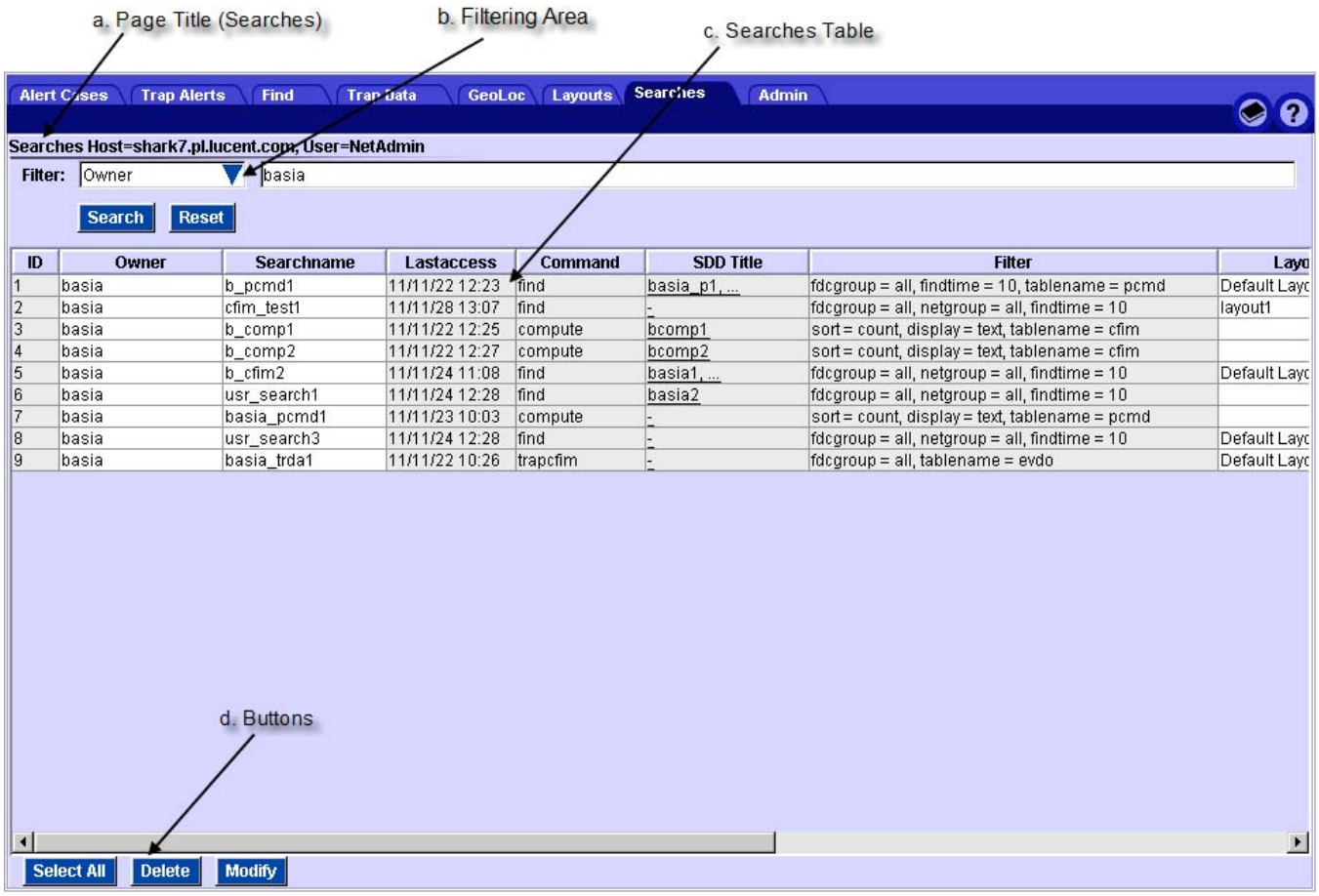
Searches Page

Searches page Purpose

The Searches page enables you to modify, delete or filter searches used on other pages.

Searches page example

This picture is an example of the Searches page.



Searches page parts

Searches page parts are:

Part	Purpose
a	Page title. Identifies the page you are on.

Part	Purpose
b	How to filter the searches: Select the field that will be filtered, fill out the value, click *Search* button. To reset the filtering click the *Reset* Button **Note:** The filter area is available only for the users with the BBGUI administration privileges.
c	List of the existing searches that meet the filter condition.
d	Buttons to: select all records, delete selected records, modify selected fields.

Searches Table

The Searches Page contains the table with the list of existing searches that meet the condition configured in the filtering area.

The table has the following characteristics:

- Sorted By ID
- Layout that displays columns in the following order:
  - ID
  - Owner
  - Searchname
  - Lastaccess
  - Command
  - SDD Title
  - Filter
  - Layout
  - Userpublic
  - Searchexpression
  - Ownertype
- The following fields can be modified:
  - Owner - only by the user with administration privileges
  - Searchname
  - Layout
  - Userpublic
- The coloring of the cell background showing the ability to modify value:
  - **`White`** - the field can be modified
  - **`Grey`** - the filed is read only, and can not be modified

- Ability to select one or more rows to delete them. NOTE: To select whole row click on the ID cell of the particular record.
- Possibility to change the value of the following fields for multiple records:
  - Owner
  - Userpublic
- The entire Owner and Userpublic column can be selected by clicking on the column title.
- The value in the SDD field is presented as hyperlink and shows only the first scheduled data distribution (SDD) for particular search. NOTE: To see whole list click the hyperlink.

How to modify or delete searches

Before you begin

The actions on the Searches page affect the scheduled data distribution reports. Removing the saved search deletes all SDDs associated with this search. The modification of the owner of the saved search changes owner in all associated SDDs but doesn't change the recipient list.

Modify a search

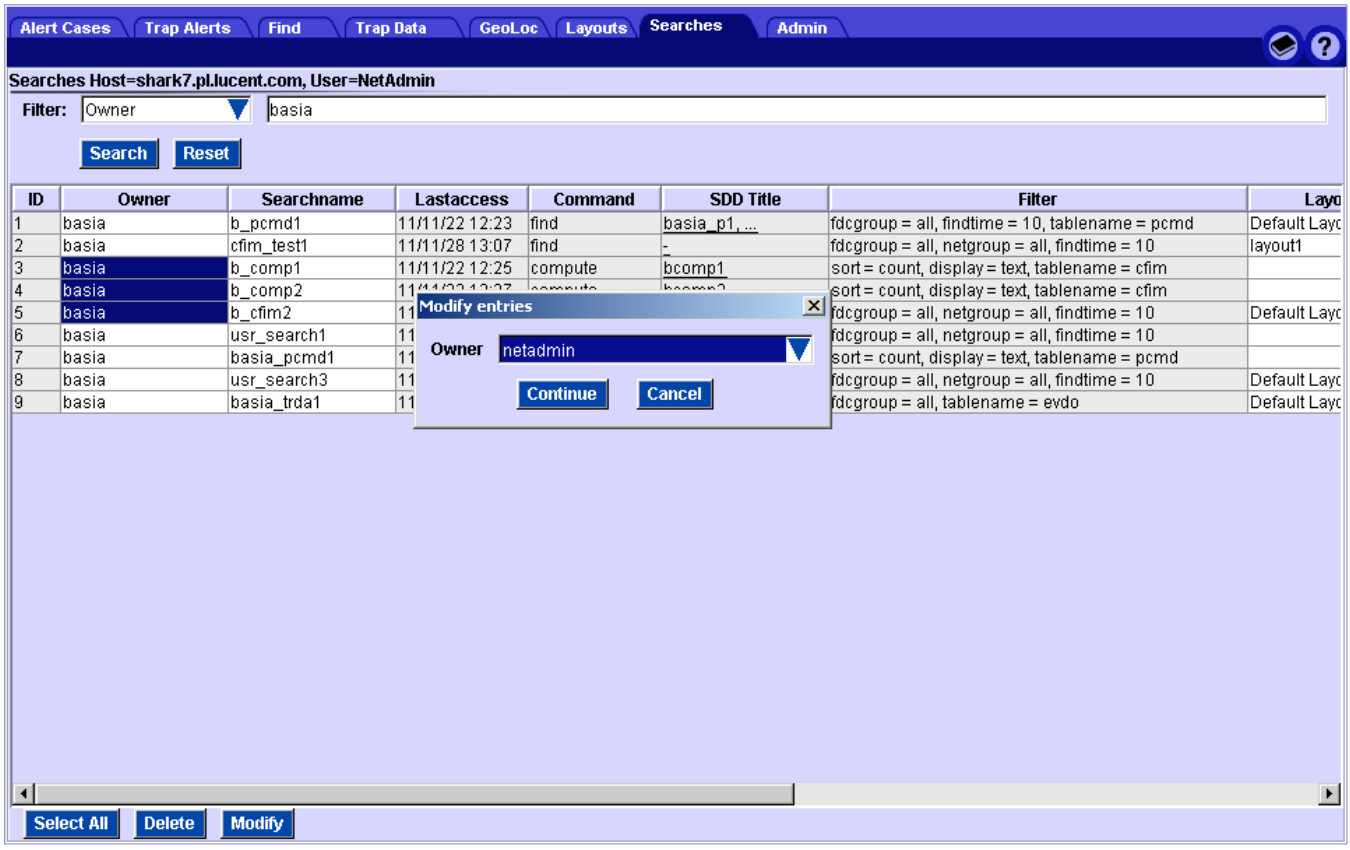
Use this procedure to modify the searches.

1. Go to the Searches page. Find the searches you are about to change.

2. Select the cell which value you want to modify. NOTE: You can select and modify multiple cells from the Owner and Userpublic columns.

3. Click the **Modify** button.

   A window similar to the following appears. Change the value and click the **continue** button.


Alert Cases
Trap Alerts
Find
Trap Data
GeoLoc
Layouts
Searches
Admin
Searches Host=shark7.pl.lucent.com, User=NetAdmin
Filter:
Owner
basia
Search
Reset
ID
Owner
Searchname
Lastaccess
Command
SDD Title
Filter
Layo
1 basia b_pcmd1 11/11/22 12:23 find basia_p1,... fdcgroup = all, findtime = 10, tablename = pcmd Default Layo
2 basia cfim_test1 11/11/28 13:07 find - fdcgroup = all, netgroup = all, findtime = 10 layout1
3 basia b_comp1 11/11/22 12:25 compute bcomp1 sort = count, display = text, tablename = cfim
4 basia b_comp2 sort = count, display = text, tablename = cfim
5 basia b_cfim2 fdcgroup = all, netgroup = all, findtime = 10 Default Layo
6 basia usr_search1 fdcgroup = all, netgroup = all, findtime = 10
7 basia basia_pcmd1 sort = count, display = text, tablename = pcmd
8 basia usr_search3 fdcgroup = all, netgroup = all, findtime = 10 Default Layo
9 basia basia_trda1 fdcgroup = all, tablename = evdo Default Layo
Modify entries
Owner
netadmin
Continue
Cancel
Select All
Delete
Modify

END OF STEPS

Delete a search

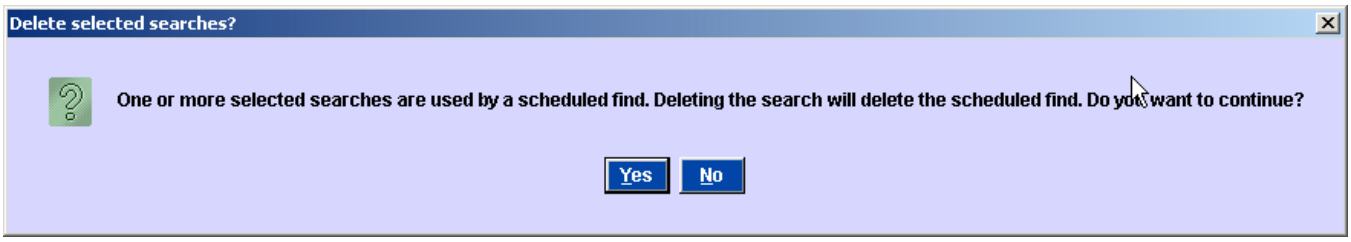
Use this procedure to delete one or more searches.

1 Go to the Searches page. Find the searches you are about to delete.

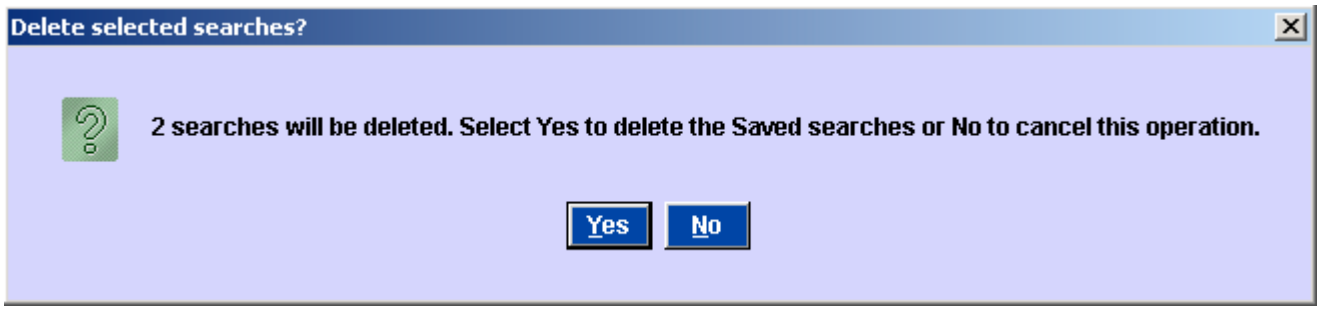
2 Select the ID cell of the search you want to delete. NOTE: You can select multiple rows. To select all click the **Select All** button.

3 Click the **Delete** button.

When there are associated SDDs a similar window will appear.



Otherwise the following window will appear



Click the **Yes** button to delete selected rows.

END OF STEPS

4 Monitor

Overview

Purpose

Outputs in this chapter automatically identify problems and report them to network managers. These outputs are:

Output	Description
"Alert Cases Page" (p. 4-2)	• Each output row is an alert case. • Updates every 5 minutes.
"Trap Alerts Page" (p. 4-9)	• Each output row is a NEW alert case, shown as soon as it is created. • Updates in real time. At the end of each 5-minute period the alert cases move from this output, to the Alert Cases page.

You can use the Trap Data page to alert you of problems, but in that case, you must set up its search parameters to look for a problem. You do not need to do that with these outputs. They automatically identify problems.

Contents

Alert Cases Page

Alert Cases page purpose

NTP software thresholds CFIMs into alert cases, and lists alert cases on this page.

About output

On the Alert Cases page:

- **Sort**. Alert cases are sorted, with the biggest problems (most lost calls, most recently) at the top. For details, see "How to save a new sort for Alert Cases page" (p. 4-5).
- **Alert level**. Each alert case's al (alert level) field is color coded according to the importance you place on its FDC.
- **Updates**. The Alert Cases page updates every 5 minutes. At that time:
  - Tallies type fields are updates.
  - Expired alert cases disappear.
  - New alert cases appear.
  - Alert cases are re-ordered (but each keeps its Tn field value).

  Important! The Alert Cases page shows the most recent alert cases. However, if both a 5-minute and an hourly alert case are open at the same time, the 5-minute alert takes precedence, and the hourly alert is not shown. This is true even if the 5-minute alert has a negative CAI (current alert interval) and the hourly alert has a positive CAI.

Column Tooltips

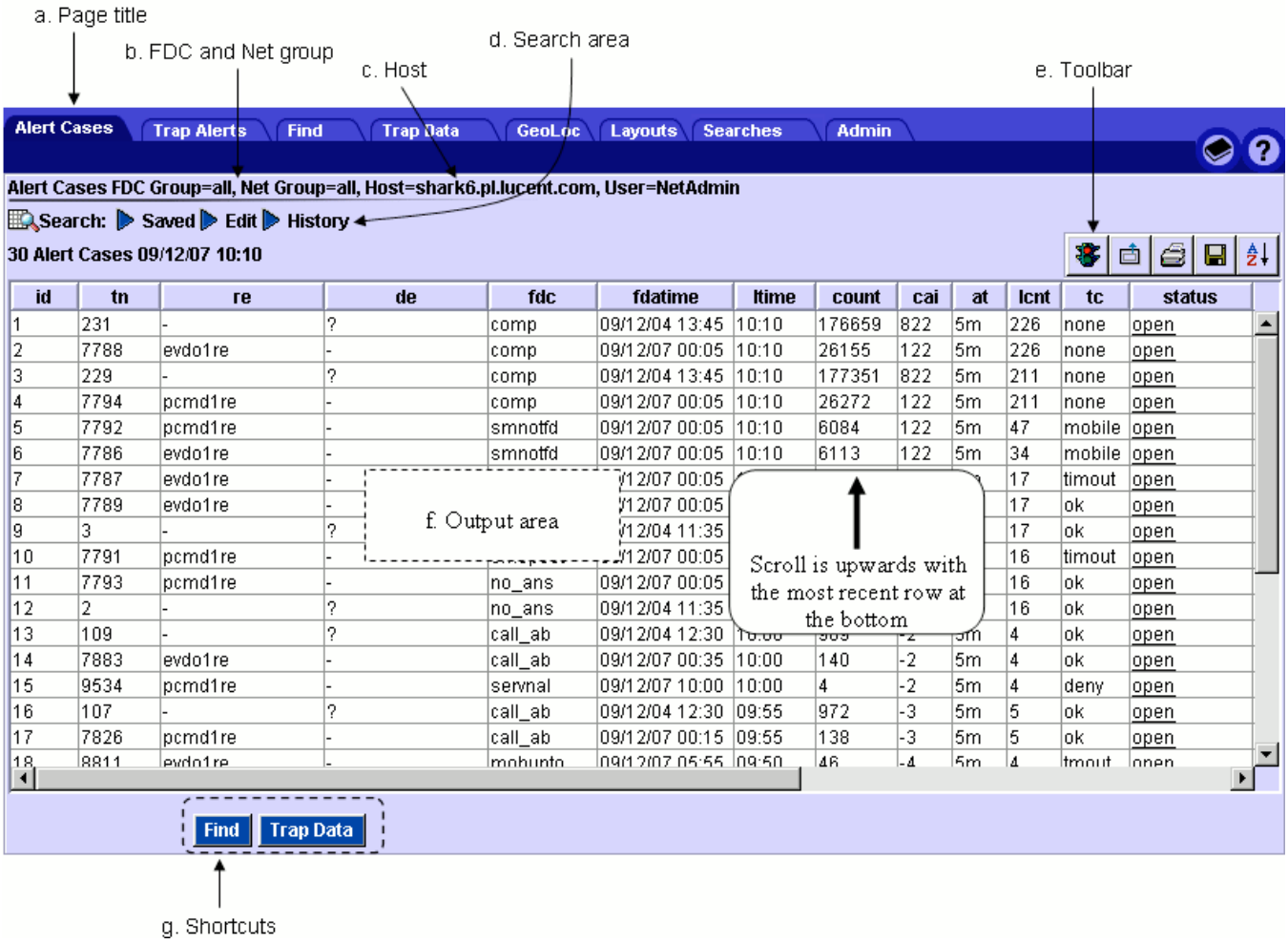
On Alert Cases ouput, put your cursor on a column heading to see a tooltip telling a descriptive name for the column.

References

- For how CFIMs are thresholded into alert cases, see "Thresholding" (p. 1-6).
- For other outputs that show alert cases, see "Alert Case Overview" (p. 1-9).

Alert Cases page example

This is an example of the Alert Cases page.



id	tn	re	de	fdc	fdatime	ltime	count	cai	at	lcnt	tc	status
1	231	-	?	comp	09/12/04 13:45	10:10	176659	822	5m	226	none	open
2	7788	evdo1re	-	comp	09/12/07 00:05	10:10	26155	122	5m	226	none	open
3	229	-	?	comp	09/12/04 13:45	10:10	177351	822	5m	211	none	open
4	7794	pcmd1re	-	comp	09/12/07 00:05	10:10	26272	122	5m	211	none	open
5	7792	pcmd1re	-	smnotfd	09/12/07 00:05	10:10	6084	122	5m	47	mobile	open
6	7786	evdo1re	-	smnotfd	09/12/07 00:05	10:10	6113	122	5m	34	mobile	open
7	7787	evdo1re	-		/12/07 00:05					17	timout	open
8	7789	evdo1re	-		/12/07 00:05					17	ok	open
9	3	-	?		/12/04 11:35					17	ok	open
10	7791	pcmd1re	-		/12/07 00:05					16	timout	open
11	7793	pcmd1re	-	no_ans	09/12/07 00:05					16	ok	open
12	2	-	?	no_ans	09/12/04 11:35					16	ok	open
13	109	-	?	call_ab	09/12/04 12:30				5m	4	ok	open
14	7883	evdo1re	-	call_ab	09/12/07 00:35	10:00	140	-2	5m	4	ok	open
15	9534	pcmd1re	-	servnal	09/12/07 10:00	10:00	4	-2	5m	4	deny	open
16	107	-	?	call_ab	09/12/04 12:30	09:55	972	-3	5m	5	ok	open
17	7826	pcmd1re	-	call_ab	09/12/07 00:15	09:55	138	-3	5m	5	ok	open
18	8811	evdo1re	-	mobunto	09/12/07 05:55	09:50	46	-4	5m	4	tmout	open

Alert Cases page parts

Alert Cases page parts are:

Part	Purpose
a	Page title. Identifies the page you are on.
b	See "Web User Information page parts" (p. 7-3).
c	Host machine where NTP is running, chosen by your system administrator.
d	Search triangles.
e	See "Toolbar" (p. 2-12).
f	Output area.

Part	Purpose
g	Shortcut buttons to other Pages. *Note:* It is not possible to transfer to other Pages if there are multiple alert cases selected for different chronological tables.

Call Volume Alert Cases

Call volume alert cases are a special kind of alert cases. They are seen on the Alert Cases page, and threshold on overall call volume for each RE. This is useful, for example, for monitoring revenue type inputs.

Call volume alert cases have "vol" in the Alert Cases's Type field.

This table compares call volume and other alert cases,

Call Volume Alert Cases	Other Alert Cases (If any)	Reference
On the Alert Cases page, the Type field is "vol".	On the Alert Cases page, the Type field is "RE" or "DE", or other.	
Typically thresholds on non-failure CFIMs.	Typically thresholds on call failure CFIMs.	"Two flavors of CFIMs" (p. 1-13).
Alert case is made from CFIM's where billtype field is NOT "-".	Alert case is made from CFIM's where billtype field IS "-".	
Uses thresholding on RE.	Uses thresholding on FDC/RE and FDC/DE.	"Thresholding" (p. 1-6).

How to find closed alert cases

In order to find closed alert cases, the search criteria must contain the **status** column with a value of *closed*

Note: To see expired alert cases use also Find Acase. See "Find Page" (p. 5-3).

How to save a new sort for Alert Cases page

Purpose

Default sort on the Alert Cases page is on the Ldatetime field descending, and then the Lcnt field descending. This puts the Alert Cases with the largest and most recent CFIM counts at the top.

You can override default sort by saving a new sort. This affects your own login only.

Procedure

Use this procedure to override default sort. This affects your own login only.

1 Go to the Alert Cases page and call up output.

2 Change the output's sort to what you want.

3 Go to the Edit mode, and use Save As to save the page.

Example: If I sorted on FDCs, I might name the page "FDC sort".

4 Whenever you want to use the same sort in the future, go to the Alert Cases page Saved mode, and use the saved search.

END OF STEPS

Default Sort

The sort button on the Toolbar allows you to reset the sort order to the system default order, as well as to revert to the sort saved by the user, if one exists.

Modifying Alert Cases

About modifying alert cases

Here we tell how to modify alert cases on the Alert Cases page.

- These changes are seen by ALL users.
- If you want to see the login ID that modified an alert case, look in the alert case's Userid field.
- Modification of closed Alert Cases is not allowed.

Count versus CFIM counts in an alert case

On the Alert Cases page, you may notice that the Alert Cases Count field shows fewer CFIMs than the list of all CFIMs in the Alert Case, this is because:

- The count field is the tally of CFIMs only for 5-minute periods when the Alert Case was above threshold.
- The CFIMs list ALL CFIMs, for all 5-minute periods since the Alert Case was born including those periods when the count was below the threshold.

How to Modify Alert Cases

Procedure

Use this procedure to close, assign, comment, or otherwise modify an alert case.

1 Go to the Alert Cases page and call up output.

2 Select (left click) the alert case you want to modify.

3 Right-click in the output area to call up the right-click menu.

4 On the menu, left click **ACResolve**.

Result: The Alert Case Resolve window appears.

5 *How to close an alert case*

Do you want to close the alert case:

- If NO, go to the next step.
- If YES, use the pull-down menu to change the Status box to closed and SKIP the next step.

Notes

- There is no need to close alert cases. They close themselves.
- If you accidentally close an alert case, you can NOT re-open it. However, if the problem is still crossing thresholds, a new alert case will be created.
- After an alert case is closed, its Status field says closed.

Important! Do not attempt to change an alert cases status by selecting Open, Assigned, or Referred into the Status field.

6 *How to assign/refer an alert case*

Do you want to assign (give to an "owner") or refer (and retain forever) an alert case?

- If NO, go to the next step.
- If YES, put a name or initials in Owner (to make assigned), Referred, or both fields.

Notes

- Assign and refer means a name or initials has been put in the Owner (for assigned) or Referred, or both fields, to everyone know who is handling an alert case. But,
  - **Assigned** — Means the alert case expires normally.
  - **Referred**— Means the alert case is retained forever, or until you close it (previous step), or un-refer it (next step) and let it close itself.
- **Status**. After you complete this procedure, in an alert case's status field you see:
  - **Assigned**, if you put something in the Owner field.
  - **Referred**, if you put something in the Referred field or if you put something in both fields.

7 *How to un-assign/un-refer an alert case*

Do you want to un-do a previous assign or refer?

- If NO, go to the next step.
- If YES, mark the status to open once again and erase the name and initials from Owner Referred.

8 *How to give an Fcause to an alert case*

Do you want to give an Fcause to the alert case?

- If NO, go to the next step.
- If YES, use the pull-down menu to select an Fcause.

  Important! Fcauses are defined by your system administrator.

9 *How to comment an alert case*

Do you want to add a comment to the alert case?

- If NO, go to the next step.
- If YES, type a comment in the Comments field.

10 Left click **Submit**.

END OF STEPS

Trap Alerts Page

Trap Alerts page purpose

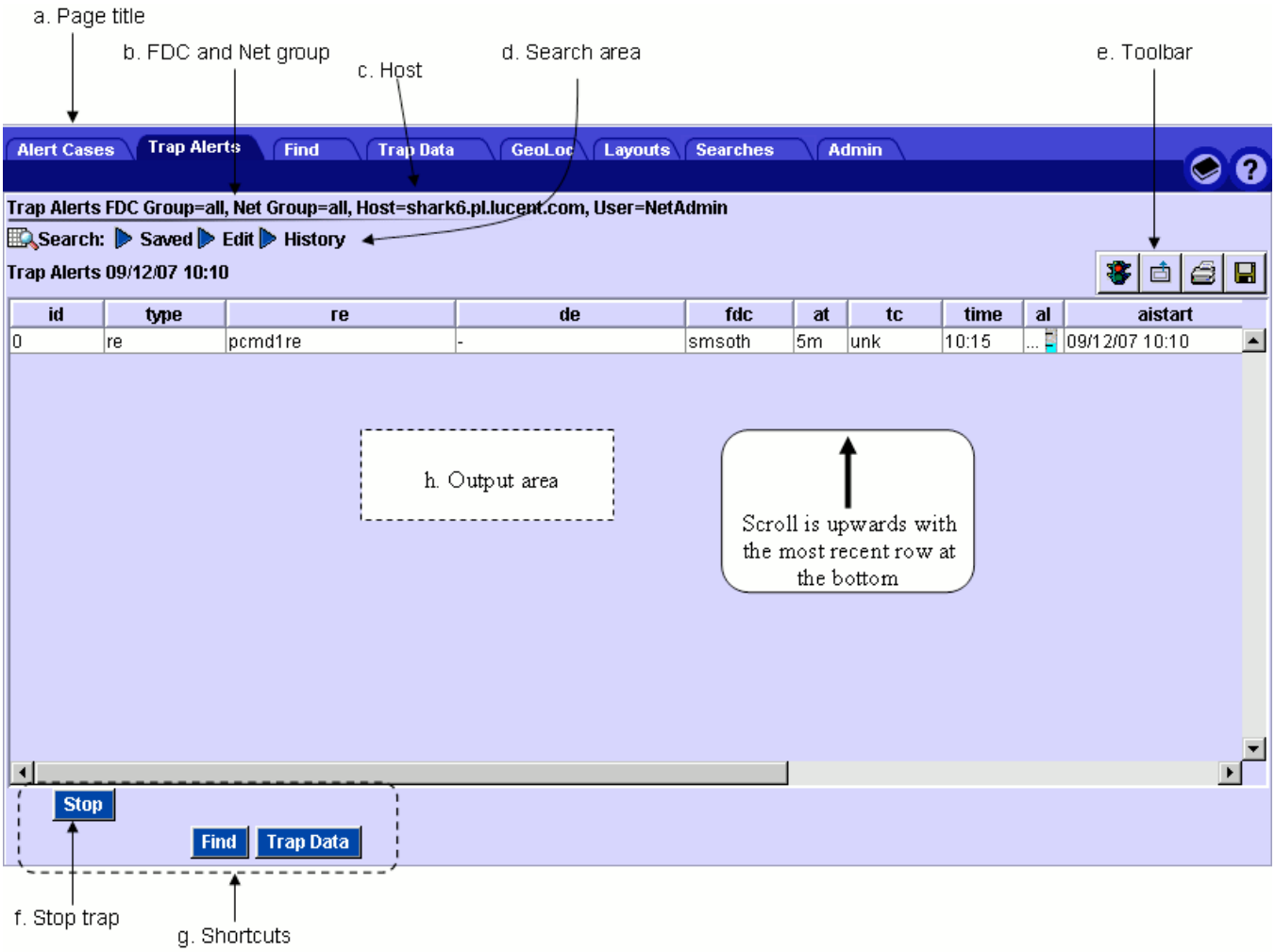
NTP collects reports of failed calls and organizes them into alert cases—each indicating a problem. NTP lists alert cases on Alert Cases, the worst at the top. The Alert Cases page updates every 5 minutes. If you want to see new alert cases as they are generated (in real time) use Trap Alerts.

At the end of each 5-minute period, any alert cases on Trap Alerts disappear from that output, and appear on Alert Cases.

- For how CFIMs are thresholded into alert cases, see "Thresholding" (p. 1-6).
- For other outputs that show alert cases, see "Alert Case Overview" (p. 1-9).

Trap Alerts page example

Here is an example of the Trap Alerts page.



Trap Alerts page parts

Trap Alerts page parts are:

Part	Purpose
a	Page title. Identifies the page you are on.
b	See "Web User Information page parts" (p. 7-3).
c	Host machine where NTP is running, chosen by your system administrator.
d	Search triangles.
e	See "Toolbar" (p. 2-12).
f	Left click to stop. To restart, re-execute Search.
g	Shortcut buttons to other Pages.

Part	Purpose
h	Output area

Enhanced Mass Call Alerting

Enhanced Mass Call Alerting purpose

Enhanced Mass Call Alerting tells which dialed digits belonging to a specific RE or set of REs are showing up in several CFIMs, indicating a mass call event through the **"mc"** alert type displayed on the Alert Cases and Trap Alerts screens.

Example: A radio station announces a call-in number without warning you for call gapping. The number quickly shows up on this output.

MC Alert Type

This feature introduces an additional alert type to the Alert Cases and Trap Alerts screen outputs. The additional alert type is tagged "**mc**" to differentiate it from the existing "**re**" and "**de**" alert types.

The following details characterize the functionality of the "**mc**" alert:

- The "**mc**" alert type uses a single settable threshold (MCTHRESH variable). The other alert types use individually settable thresholds.

  Reference: Refer to System Administration Guide, Chapter 7, section "Enhanced Mass Call Alerting", for detailed information about configuration of the Enhanced Mass Call Alerting feature.
- The "**mc**" alert uses filtering on FDC values in the FDC table.

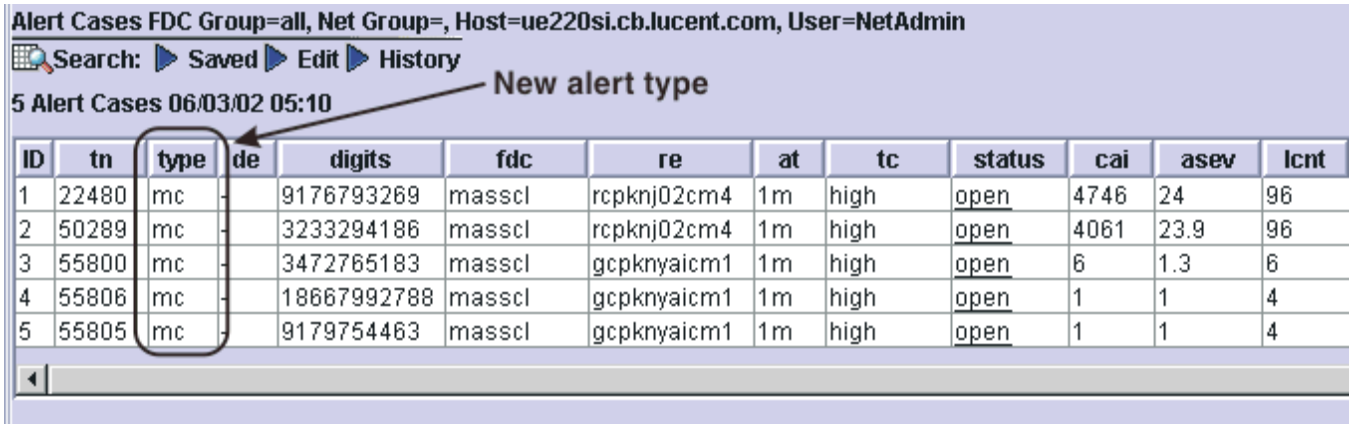
  Note: The Enhanced Mass Call Alerting feature provides the additional fdc "**masscl**".
- The "**mc**" alert supports all normal user interface functions of the Alert Cases and Trap Alerts screens, including support of network segments, support of searching and saving searches, and drill down to individual CFIMs via Find or Pattern Painter.
- In order to avoid mixing different networks, the key fields for this alert type are RE and DIGITS.

Mass Call Alerts examples

Alert Cases screen output

Mass Call Alerts are updated onto the Alert Cases screen only every 5 min. in order to avoid excessive redraw of that screen. Note that the counts shown always represent the count of calls for a single 1-min. interval.

This is an example of the **"mc"** alert type on the Alert Cases screen output.

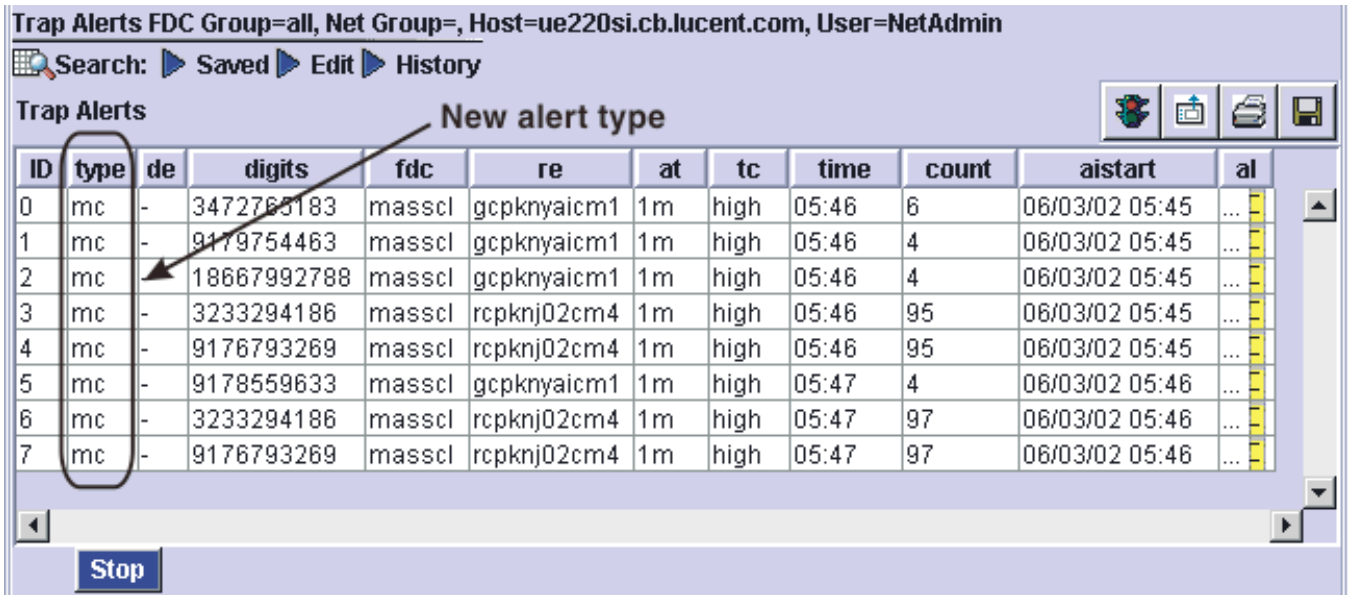


ID	tn	type	de	digits	fdc	re	at	tc	status	cai	asev	lcnt
1	22480	mc	-	9176793269	masscl	rcpknj02cm4	1m	high	open	4746	24	96
2	50289	mc	-	3233294186	masscl	rcpknj02cm4	1m	high	open	4061	23.9	96
3	55800	mc	-	3472765183	masscl	gcpknyaicm1	1m	high	open	6	1.3	6
4	55806	mc	-	18667992788	masscl	gcpknyaicm1	1m	high	open	1	1	4
5	55805	mc	-	9179754463	masscl	gcpknyaicm1	1m	high	open	1	1	4

Trap Alerts screen output

Appearance of **mc** alerts on the Trap Alerts screen occurs on a 1-min. interval. Unlike **re** and **de** alerts, **mc** alerts are shown for every minute that they occur, rather than just the first time that the threshold is crossed.

This is an example of the **"mc"** alert type on the Trap Alerts screen output.



ID	type	de	digits	fdc	re	at	tc	time	count	aistart	al
0	mc	-	3472765183	masscl	gcpknyaicm1	1m	high	05:46	6	06/03/02 05:45	...
1	mc	-	9179754463	masscl	gcpknyaicm1	1m	high	05:46	4	06/03/02 05:45	...
2	mc	-	18667992788	masscl	gcpknyaicm1	1m	high	05:46	4	06/03/02 05:45	...
3	mc	-	3233294186	masscl	rcpknj02cm4	1m	high	05:46	95	06/03/02 05:45	...
4	mc	-	9176793269	masscl	rcpknj02cm4	1m	high	05:46	95	06/03/02 05:45	...
5	mc	-	9178559633	masscl	gcpknyaicm1	1m	high	05:47	4	06/03/02 05:46	...
6	mc	-	3233294186	masscl	rcpknj02cm4	1m	high	05:47	97	06/03/02 05:46	...
7	mc	-	9176793269	masscl	rcpknj02cm4	1m	high	05:47	97	06/03/02 05:46	...

Administering Mass Call Alerts

Screen Mass Call Alerts by FDC

Filtering for Enhanced Mass Call Alerting is based on the "**mc**" field in the FDC table.

The mass call flag (**mc**) indicates the use of a particular FDC in mass call digit thresholding. Valid values for this field are: "Y" - for mass call FDCs, "N" - for all other FDCs.

Mass Call Alerts output does NOT use FDC group or network group filtering. (Those are filtering groups the system administrator sets up and network managers can switch among.) However, you CAN ask your system administrator to tell Mass Call Alerts to do its own FDC screening, to ignore CFIMs with FDCs you do not care about.

To see which FDCs are ignored, do a Find on the FDC table (see “Find Page” (p. 5-3)). If an FDC in that table has N or a dash in the MC field, that FDC is ignored.

Example: Call gaps generate many CFIMs with the same dialed digits. You do not care, since a call gap is a solution to a problem. Therefore, in the fdc table, the system administrator puts N in the MC field beside each FDC that refers to call gaps. Then, no mass call alerts are generated by call gaps.

5 Analyze

Overview

Purpose

Outputs in this chapter show you CFIMs or CIMs.

In this chapter we discuss these outputs.

Output	Description
"Find Page" (p. 5-3)	• Each output row is a record from some table (most often the CFIM table). • Allows you to save output to User Table for quick Compute. • Allows you to define, schedule, and distribute tabular data via e-mail or file-based report output (available as an optional feature).
"Trap Data Page" (p. 5-26)	• Each output row is a CFIM. • It updates in real time.
"CIMs Page" (p. 5-29)	• Each row is a CFIM, with its raw CIM. • It does not update. It is a snapshot.

Contents

Find Page

Find Page Purpose

The Find page enables you to retrieve records from the various tables in the NTP database, using search criteria. You can:

- Sort them (see "Sort" (p. 2-17)).
- Use Compute or Pattern Painter to analyze the information. For Find output, take shortcut buttons to "Compute" (p. 6-4) or "Pattern Painter" (p. 6-21).
- Schedule re-execution of Find page (see "Scheduled Data Distribution" (p. 5-16)).

The most common use of Find is with the CFIM table. Each output row is a CFIM. For other tables, each row is a record from the specified table.

Example: Find all FDCs defined on the system (Find on fdc table).

Public/Private Find Page Layouts

Find page layouts may be specified as either public or private. Both administrators and regular users may set a layout to be private (for use only by the creator), or public (for use by all users).

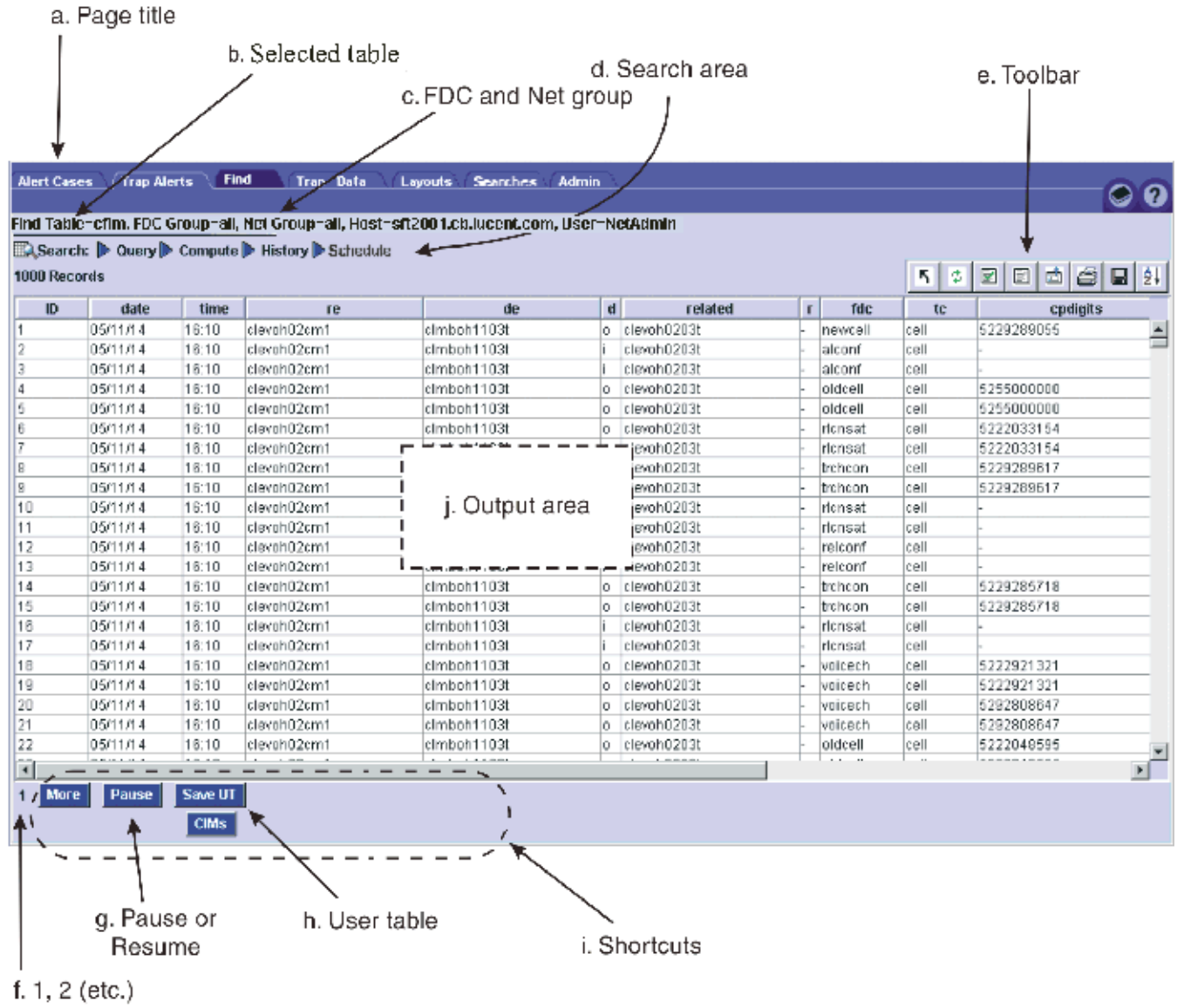
If a table layout is not specified as either public or private, then:

- for administrators the default is public
- for regular users the default is private.

For more details on saving Find page layouts as public or private, see "How to save an output's layout" (p. 2-27), section: "*Saving Find Page table layouts as private/public*".

Find Page Example

This picture is an example of the Find page:



Find Page Parts

Find page parts are:

Part	Purpose
a	Page title.
b	Source table.
c	See "Web User Information page parts" (p. 7-3).
d	"Search triangles illustrations" (p. 3-7).

Part	Purpose
e	See “Toolbar” (p. 2-12).
f	See “How to More with Find” (p. 5-8).
g	A large Find may take a long time. To stop it, so you can look at (and compute on) the records found so far, left-click the Pause button which then changes to **Resume**. Left-click **Resume** if you want to resume the find.
h	See “Using the User Table with Find” (p. 5-8).
i	Shortcut buttons to other Pages.
j	Shows output.

Search Area

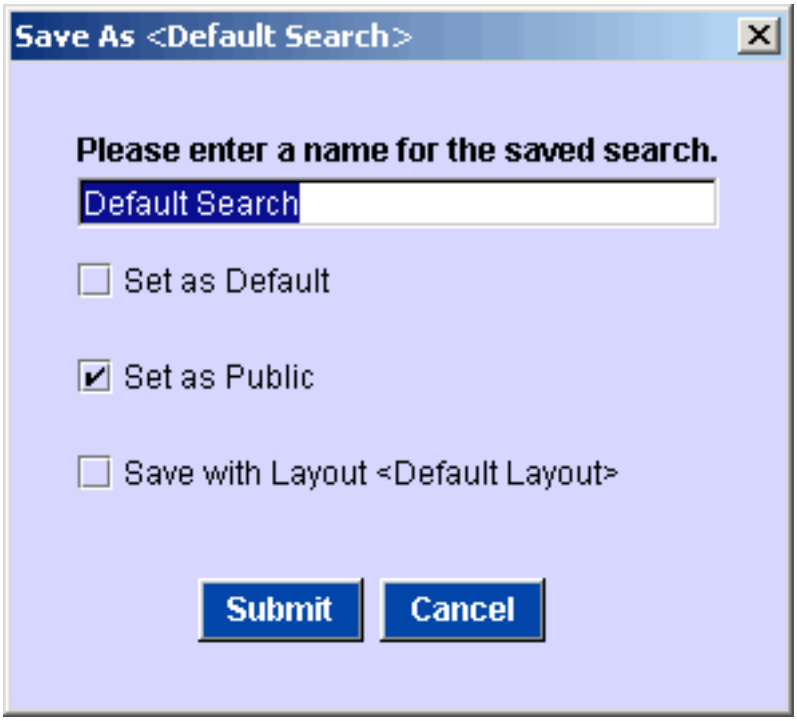
Search criteria on the Find page differs from those on other page types.

See “Search triangles illustrations” (p. 3-7) for more details.

Associating Saved Searches with Table Layouts

When saving a search you are, optionally, able to save a layout to be associated with the saved search.

This picture shows the Save As dialog window for the Find page.



Save as dialog window checkboxes description:

Part	Purpose
Set as Default	If set, this saved search is specified as the user's default (cleared).
Set as Public	If set, this saved search is public, thus available for others to use (set for administrators, cleared for regular users).
Save with Layout <*Layout Name*>	If set, this saved search should be associated with a particular table layout (cleared).

For details on saving Find page layouts, see "How to save an output's layout" (p. 2-27).

Table Selection

You can access data from any table in NTP database. All tables are listed together in the **`Table Name`** pull-down menu. See "How to get Table Name online help" (p. 5-15).

The **`Table Name`** pull-down menu displays a list of table names based on the selection made in the **`Table Type`** object.

This picture is an example of the Find page with the Table Name pull-down menu.

Different Groups of Tables

Our database tables are classified into three groups, as follows:

Type of table	Where documented	Notes
Alert	System Administration Guide, Appendix A	Available when the THRESHOLDING option is enabled. Allows to search on following tables: ACASES, Alert Case Summary.
Detail (surveillance and summary)	*BB-GUI User's Guide, Appendix A*	Also called surveillance tables and chronological tables. These tables hold collected data (such as CFIMs). Since output tables hold chronological data, they are affected by Find Time. See "Search/Edit parts" (p. 3-17).
Reference	*System Administration Guide, Appendix A*	Also called system admin tables. These tables are populated by your system administrator. Some reference tables that may be of interest to you are: • Rearch — to see the list of Re's. • Swarch — to see the list of De's. • Fdc — to see the list of Fdc's.

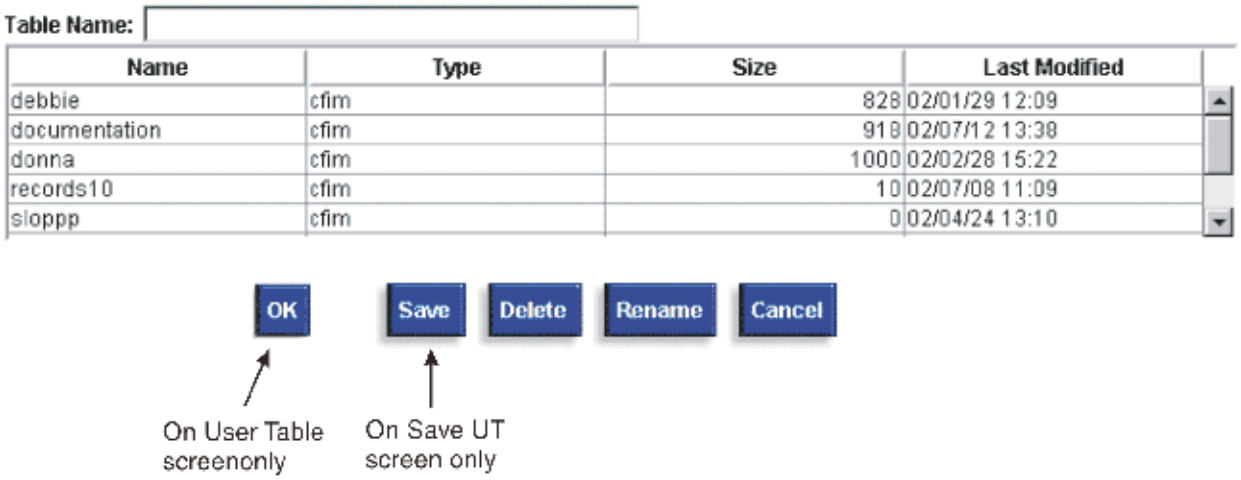
Using the User Table with Find

The User Table allows you to save the results of a Find. Doing this gives you a way to retrieve previously executed searches quickly and run Compute on them. This is especially helpful and time-saving for large searches, some of which may contain up to 30,000 records.

- The User Table button is found on the Find pages when using the Edit function. This button allows you to select a previously saved Find.
- The Save UT button is found on the Find pages. This button allows you to save the results of a Find to the User Table.

Please note that you can view/delete/rename your saved Find results only. The Administrator can view and delete saved Finds for all users.

When you select either of these buttons, the following screen appears:



Using this screen you can:

- Select a previously saved Find and click OK to retrieve the Find
- Name the Find and click Save to save the Find to the User Table
- Delete any entry that you saved by selecting it and clicking Delete. (Only the Administrator can delete the entry of another user.)
- Rename an existing entry by selecting it and clicking Rename.

How to More with Find

About the More button:

- Find retrieves up to the value of "table size" number of records. Initially, table size is 1,000 (to change this, see Reference links below).
- After Find, you see 1 beneath output.

- If more records are available you see a More button.
- If you select More, you retrieve the next "table size" chunk of records and you see 1 and 2.
- If still more records are available, you again see a More button, and you can select again, and you see 1, 2, and 3, so on, up to the value of "max table size". Initially, max table size is 10,000 records (to change this, see Reference, below).
- Note that you can click 1 to see records 0-1,000, or 2 to see records 1,000-2,000, 3 to see records 1,000-2,000, and so on. An underlined number can be selected (think of it as a hypertext link). A not-underlined number is the page you are on.

Note that:

- You can retrieve all up-to-"max table size" records at one time by selecting Show All. This may take a while.
- Even if you retrieve only the default "table size" records, if you compute, you compute on all up-to-"max table size" records.
- To change table size, see either:
  - “Web User Information page parts” (p. 7-3).
  - “Search/Edit parts” (p. 3-17).
- To change max table size, see “Web User Information page parts” (p. 7-3).

Printing Data from the Find Page

Selecting the print icon from a Find page prints the data shown on the page ONLY. To print an entire dataset, save the information to a file (see “How to save output to a file” (p. 2-15)) and then print the file (see “How to print to printer or postscript file” (p. 2-14).)

Calendar Dialog

Purpose

Calendar dialog allows you to create date entries by choosing individual dates or ranges of dates and discontinuous dates.

The Calendar Dialog displays two consecutive months. By default the second month is the current month.

Date Selections

There are three methods of choosing dates in the Calendar Dialog:

- Left click on a specific date on the dialog to highlight the date. Any previously highlighted date is cleared.
- When you have pressed a specific date and shift-left clicked on another date, then all dates (inclusive) between the previously clicked date and the current clicked date are highlighted.
- When you have pressed a specific date or dates and then ctrl-left clicked on another date, then the previously clicked date(s) remain highlighted and the current clicked date is highlighted.

Prior and Next buttons

The Calendar Dialog displays two consecutive months.

- Press the right button to move the dialog ahead by one month.
- Press the left button to move the dialog backward by one month.

Calendar Dialog Output

The Calendar Dialog returns a string representing a date, range of dates, or nonconsecutive dates. The format of the dates is yy/mm/dd. (e.g. "**`06/05/20`**" or "**`06/05/20-06/05/24`**" or "**`06/05/20, 06/05/23, 06/05/27`**").

When you press the **`OK`** button, the date string is returned. If the **`Cancel`** button is pressed, no string is returned.

Find CFIM-specific information

Overview

The most common use of Find is with the CFIM table. Each output row is a CFIM.

RE, DE, Related

The CFIM's Re, De, and Related fields are the network elements the CFIM is about. See "Network Elements" (p. 1-13).

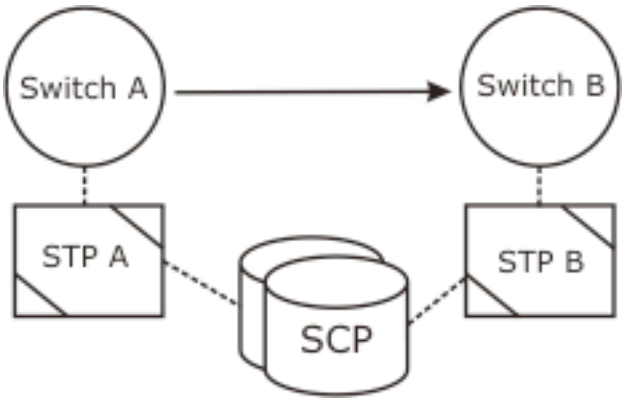
CFIM point-of-view exercises

Always read CFIMs from the Re point of view. The following examples show what we mean.

> **Important!** If you see a "-" in the CFIM's billtype field, the CFIM probably came from the Re, and these exercises apply fully. Otherwise, the CFIM probably came from a mediation system, such as a EMS, and the meaning of Re, De, and Related may be somewhat arbitrary.

Diagram 1

Use this diagram with the next three scenarios.



Scenario 1

Switch A attempts to reach switch B and encounters an NCA (no circuit available) condition. Find CFIM Output shows the following:

Reporting Entity	Reporting entity's	Distant entity's STP	Distant entity	Call direction	Related entity	Related direction
Re	Rs	Ds	De	D	Related	R
Switch A	STP A*	STP B*	Switch B	O	-	-

Scenario

Switch A attempts to reach the SCP pair and gets a time-out. Find CFIM Output shows the following:

Reporting Entity	Reporting entity's	Distant entity's STP	Distant entity	Call direction	Related entity	Related direction
Re	Rs	Ds	De	D	Related	R
Switch A	STP A*	STP B*	the SCP pair	O	-	-

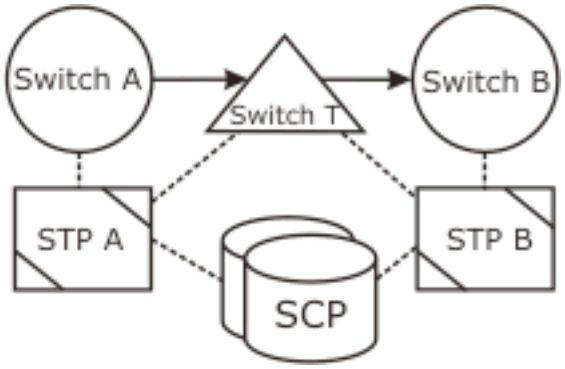
Scenario 3

Switch A mis-routed information to switch B and switch B issued a vacant code. Find CFIM Output shows the following:

Reporting Entity	Reporting entity's	Distant entity's STP	Distant entity	Call direction	Related entity	Related direction
Re	Rs	Ds	De	D	Related	R
Switch B	STP B*	STP A*	Switch A	*I*	-	-

Diagram 2

Use this diagram with the next scenario.



Scenario 4

Switch A attempts to reach switch B via switch T. Switch T encounters a no circuit available condition. Find CFIM Output shows the following:

Reporting Entity	Home entity's STP	Distant entity's STP	Distant entity	Call direction	Related entity	Related direction
Re	Rs	Ds	De	D	Related	R
Switch T	STP A*	STP B*	Switch B	O	Switch A	*I*

Important! In all four scenarios, STP A* and STP B* means the STP would be reported IF the FDC indicates a signalling problem.

How to get Table Name online help

Purpose

When selecting a table on the Find page, you may wish to view a description of the table.

Use this procedure to see the definition of any table.

1 Select the table into the Find page's Table Name field.

2 Right click on the Table Name field, to call up the "Help", "Help All" menu.

3 Either:

- Left click Help to see the purpose of the table in Table Name.
- Left click Help All to see the purpose of all tables.

END OF STEPS

Scheduled Data Distribution

Purpose

The optional Scheduled Data Distribution feature enables you to:

- schedule re-execution of the Find page, and
- receive output via electronic mail and/or a file-based report.

Overview

You use the Find display page to interactively search and display data in a tabular format. You can save your searches and layouts associated with your search.

The Scheduled Data Distribution feature allows you to schedule tabular data output from the Find query page and Find compute page to be sent to destinations such as files and E-mail addresses.

The feature adds a scheduling capability to the Find page by specifying the time, frequency, and destination parameters for re-executing this Find display at future points in time. The frequency can be **`now`**, **`once`** only or **`recurring`**. The destination of the display can be a file on the host or an E-mail address. You can view and delete existing schedules.

Important! In order to use SDD feature, you have to make sure that your post daemon (for example, sendmail) is properly configured. Please contact your corporate networking administrator to determine your particular mail process.

To verify the configuration, you can use the mail command (for example, mail myaddress@alcatel-lucent.com).

Note: You can inactivate receiving output from schedules, see *System Administration Guide, chapter 9. Customize*. If you create, modify, activate/deactive, or delete a schedule data distribution on the Inactive NTP a message indicating that this action is being done on the Inactive NTP will be presented. Then you will be able to confirm and continue with your changes or cancel with no action taken.

Scheduling Capabilities

Find pages can be scheduled for execution at a future point in time. You can schedule a saved search for a table name and table layout.

Selecting Time Periods

You may use the time period fields in the search expression to retrieve data for a particular time range.

- For tables like, for instance, the CFIM table – you can enter a combination of the values in **`datime`**, **`date`**, and **`time`** or Find Time. The date field include the following relative times: *Today*, *Yesterday*, *Monday* through *Sunday*.

Schedule Button

The Find Page contains a **`Schedule`** button. When selected, the Schedule Search Area is displayed. It allows you to add, modify, or delete schedule attributes for the Find page.

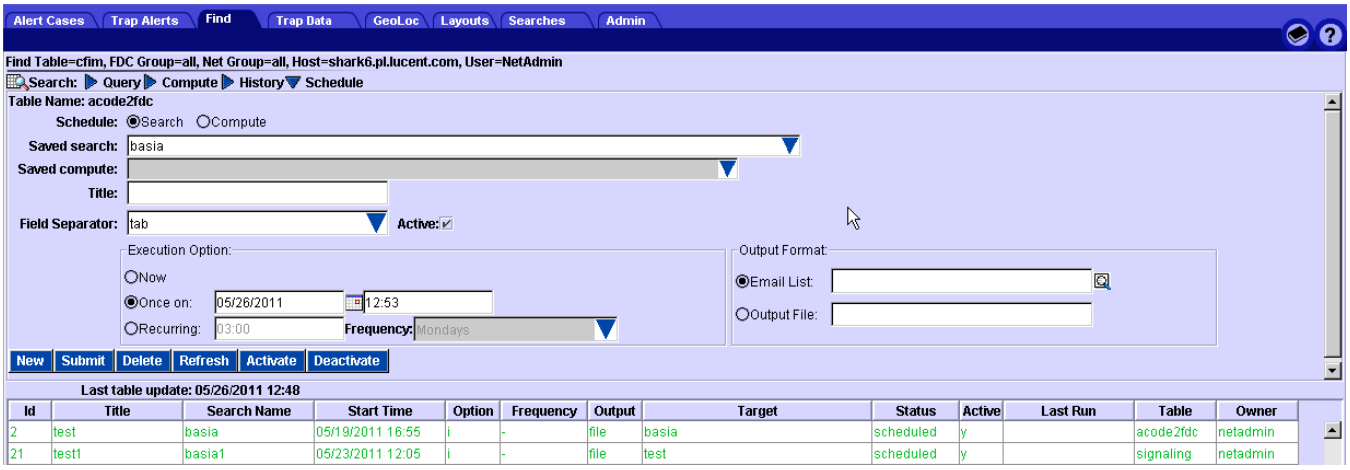
Configure the Schedule Search Area

Click the **`Schedule`** button to display the Schedule Search Area .

Important! Save the search before scheduling a find. You cannot use the search that is owned by someone else. If you want a specific table layout, you should save it with the search you are using for scheduling a find.

Important! When using a saved search with Scheduled Data Distribution, the maximum limit of fetched rows defined by *tablesize* is ignored.

This picture is an example of a Schedule Search Area.



Schedule your own Find page using the information from the following table.

Part of Schedule Search Area	Description
Table Name	The table name for the schedule.
Schedule	Type of the schedule: Search or Compute.
Saved search	The name of the saved search owned to the user.

Part of Schedule Search Area	Description
Saved computes	The name of saved computes owned to the user. Active only when the Schedule radio button is set to “Compute”.
Title	You can enter any string as a title for the output; default is the same as the title of the dialog window separated by “-“.
Field Separator	Field separator is user definable. Depending on the option you choose, separator can be:: • *tab* • *space* • *,* • *:* • *;* • | **Note:** The default separator is *tab.*
Active	Check box field to set if a report must be executed or is temporarily disabled. By default this box is checked. You can change that value by pressing **`Edit`** button, on already created schedule. **Note:** Only the owner or admin can change this field.

Part of Schedule Search Area	Description
Execution Option (default: **`Once on`**) **Note:** If the system is down, scheduled data distribution is not executed or scheduled to execute in the future. In addition, no record of the missed distributions is noted in the log file.	Radio button fields to toggle between the following execution options: • **`Now`** - allows you to run report immediately. • **`Once on`** - allows you to enter a date and time to execute the Find page in the future (use "Calendar Dialog" (p. 5-10) to create date entries). **Note:** The dialog window displays a default of the current day and 5 min. in the future (the ntp host date/time is used instead of the local current date/time). • **`Recurring`** - allows you to enter the frequency of execution and a time to execute the report. The default time is 03:00 A.M. The Schedule dialog window supports the following frequency options. Depending on the option you choose, Find can execute: – *Everyday* – *Weekdays* – *Mondays* – *Tuesdays* – *Wednesdays* – *Thursdays* – *Fridays* – *Saturdays* – *Sundays*.

Part of Schedule Search Area	Description
Output Format	The Output Format contains the following options: • **`E-mail list`** - to specify a list of semicolon separated E-mail addresses (there cannot be a space character between a semicolon and another E-mail address). The user's email address may also be a UNIX mail group to facilitate distributing SDDs to groups of users. Select an **`E-mail list`** option to schedule sending the E-mail to a valid user E-mail address. You can use a refine button which enables you to select E-mail addresses from the list. See "How to refine (magnifying glass)" (p. 3-30). **Note:** The list of valid E-mail addresses needs to be populated by the administrator on the "Web User Information Page" (p. 7-2). To add an E-mail address in the BB-GUI, the administrator needs to populate all the required fields on the Web User Information Page (marked with an `*`) and an optional E-mail address field. To add an E-mail address in the SUI, the user logged in as `ntp` needs to use the `add_ntpuser` command and the "`-a`" parameter (see *System Administration Guide* for more information). The scheduled E-mail contains the following information: – E-mail Subject : NTP Data <datime when data distribution was executed> – Attachment: tab separated file name, format of the file name (datime when data distribution was executed). – The mail attachments have a "**`.xls`**" extension. • **`Output File`** - allows you to send the output of the scheduled find to a file name on the host. **Note:** The system accepts an ASCII UNIX file name between 1 to 30 characters long. Valid characters include letters (a,b,...,y,z, A,B,...,Y,Z), digits (0,1,...,9), under score (_), and dot (.). The first character of ASCII file name cannot be a dot "." The output files are generated in a predefined output storage directory area per user and have 644 permissions: **`/lucent/ntp/snas/appl/tmp/user_id`** **Note:** The output files have a "**`.txt`**" extension.

Schedule Search Area Buttons

The schedule search area contains the following buttons:

- **New** – set a new Schedule Data Distribution: clears title, resets Output Format to email list and populates with user's address (if it exists), resets Execution Option to Once and sets time datime format to current date/time + 5 minutes.
- **Submit** – adds a new schedule to the database for the user, given saved search, table and layout, or updates an existing schedule.

  On successful addition of the schedule to the database, an indication that the schedule was successfully submitted is presented.
- **Delete** – deletes an existing schedule.
- **Refresh** – allows you to refresh Scheduled Data Distribution Queue View.
- **Activate** – allows you to activate inactive schedules.
- **Deactivate** – allows you to deactivate active schedules.

Output Format

The output of a scheduled find has a title line followed by rows of data in a tab separated tabular format. The title is the first line of the report and contains the value of the title box. The first row of the data is a list of column names for which the data is presented. If there is no data in the report, then the report only has a title line followed by list of column names.

Scheduled Find Output storage Directory Area

There is a predefined root directory path owned by "**`ntp`**" and a directory underneath it for each user for storing scheduled find output. The output files are stored under each user's directory and have a start date/time of execution ("**`-YYYYMMDD-HH-MM`**") appended to the file name:

`/lucent/ntp/snas/appl/tmp/user_id`

The System Administrator is responsible for:

- Creating user directories for users who need file output storage area.
- Monitoring and maintaining disk space usage in this area and removing older files.

Scheduled Data Distribution Queue View

The scheduled data distribution configuration area contains table representing the queue of scheduled searches and computes.

The table has the following characteristics:

- 5 minute auto-update cycle
- By default sorted descending by Last Run
- The table can be sorted by any field, in either ascending or descending order.

- The multiple entries can be selected at once.
- The layout ordering as the following:
  - Id
  - Title
  - Search Name
  - Compute Name (for scheduled compute only)
  - Start Time
  - Option
  - Frequency
  - Output
  - Target
  - Status
  - Active
  - Last Run
  - Table
  - Owner (for administrator only)
- The coloring of the table text showing status of the schedule as the following:
  - **Green** - scheduled or waiting
  - **Blue** - executing
  - **Red** - failed
  - **Black** - completed
  - **Orange** - suspended
- Double clicking on a row in the table allows for editing the selected schedule in the Schedule Search Area.

Log of Data Distribution Status

The system logs the status of the scheduled data distributions in files $LOGDATA/sddlog.<DOW>, where <DOW> means day of week, expressed by three letters, for example: Mon, Thu, Wed...

The following information is included:

- date and time of the data distribution,
- user id who created the distribution,
- saved search and table layout used,
- status.
- search name.

E-mail failures are reported in the ntp user's E-mail account.

How to Schedule a Find page

Purpose

You can schedule tabular data output from the Find query page or Find compute page to be sent to destinations such as files and/or E-mail addresses.

Related information

For the background information, see "Scheduled Data Distribution" (p. 5-16).

Before you begin

Important! Save the search before scheduling a find. You cannot use the search that is owned by someone else. If you want a specific table layout, you should save it with the search you are using for scheduling a find.

Procedure

Use this procedure to schedule re-execution of the Find search page (the same for Find compute page).

1. In the Find output area, click on the **`Schedule`** button.

   Result:

   The configure Schedule area is displayed.

2. Make sure that the proper saved search is chosen.

3. In the title area enter any string as a title for the output.

4. From the **Field Separator** combobox choose separator, which you want to use in the received report.

5. Uncheck **Active** checkbox to temporarily disable the schedule, or leave it checked to execute the schedule.

6 Select the **Execution Option**:

- **Now**
- For the **Once on** option, enter a date and time to execute the Find page in the future (use "Calendar Dialog" (p. 5-10) to create date entries).

  Note: The time selection must be at least 5 minutes ahead of the current time on the host machine, therefore the dialog window displays a default of the current day and 5 min. in the future (the ntp host date/time is used instead of the local current date/time).
- For the **Recurring** option, enter the frequency of execution and a time to execute the report.

7 Select the **Output format**:

- For the **Email list** option, enter valid user semicolon separated E-mail addresses (there cannot be a space character between a semicolon and another E-mail address). The user's E-mail address may also be a UNIX mail group to facilitate distributing SDDs to groups of users. You can use a refine button which enables you to select E-mail addresses from the list. See "How to refine (magnifying glass)" (p. 3-30).

  Note: The list of valid E-mail addresses needs to be populated by the administrator on the "Web User Information Page" (p. 7-2). To add an E-mail address in the BB-GUI, the administrator needs to populate all the required fields on the Web User Information Page (marked with an `*`) and an optional E-mail address field. To add an E-mail address in the SUI, the user logged in as `ntp` needs to use the `add_ntpuser` command and the "`-a`" parameter (see *System Administration Guide* for more information).
- For the **Output File** option, the output files (file name can be up to 30 characters long) are generated in a predefined output storage directory area per user and have 644 permissions:

  /lucent/ntp/snas/appl/tmp/user_id

8 Click on the **Submit** button to add your schedule to the database.

END OF STEPS

Examples

Here are some user scenarios for CFIM data:

- Retrieve 1 or more hours of data once
  1. Set the search for the hour you want using the time field (e.g. 16:00-18:00) and the date you want using the date field. Alternatively, you can use date for “today” to get today’s data or “yesterday” to get yesterday’s data.
  2. Schedule this for any time.
  3. Note if you schedule for a time before the time period (e.g. 15:00) and no date or relative date is specified, no records will be retrieved.
- Retrieve 1 or more hours of data on a recurring basis – every day at 6:00 AM
  1. Set the search for the hour you want using the time field (e.g. 16:00-18:00).
  2. Set date to “yesterday”, set the schedule for 6:00 AM.
- Retrieve 1 days worth of data once
  1. Set the search for the date you want using the date field and time 00:00-23:59, or use the Find Time field for 1 day, or use “yesterday” in date.
  2. Schedule this for any time.
- Retrieve 1 or more days worth of data on a recurring basis
  1. Set the search for date=yesterday.
  2. Schedule this to run after midnight.

Trap Data Page

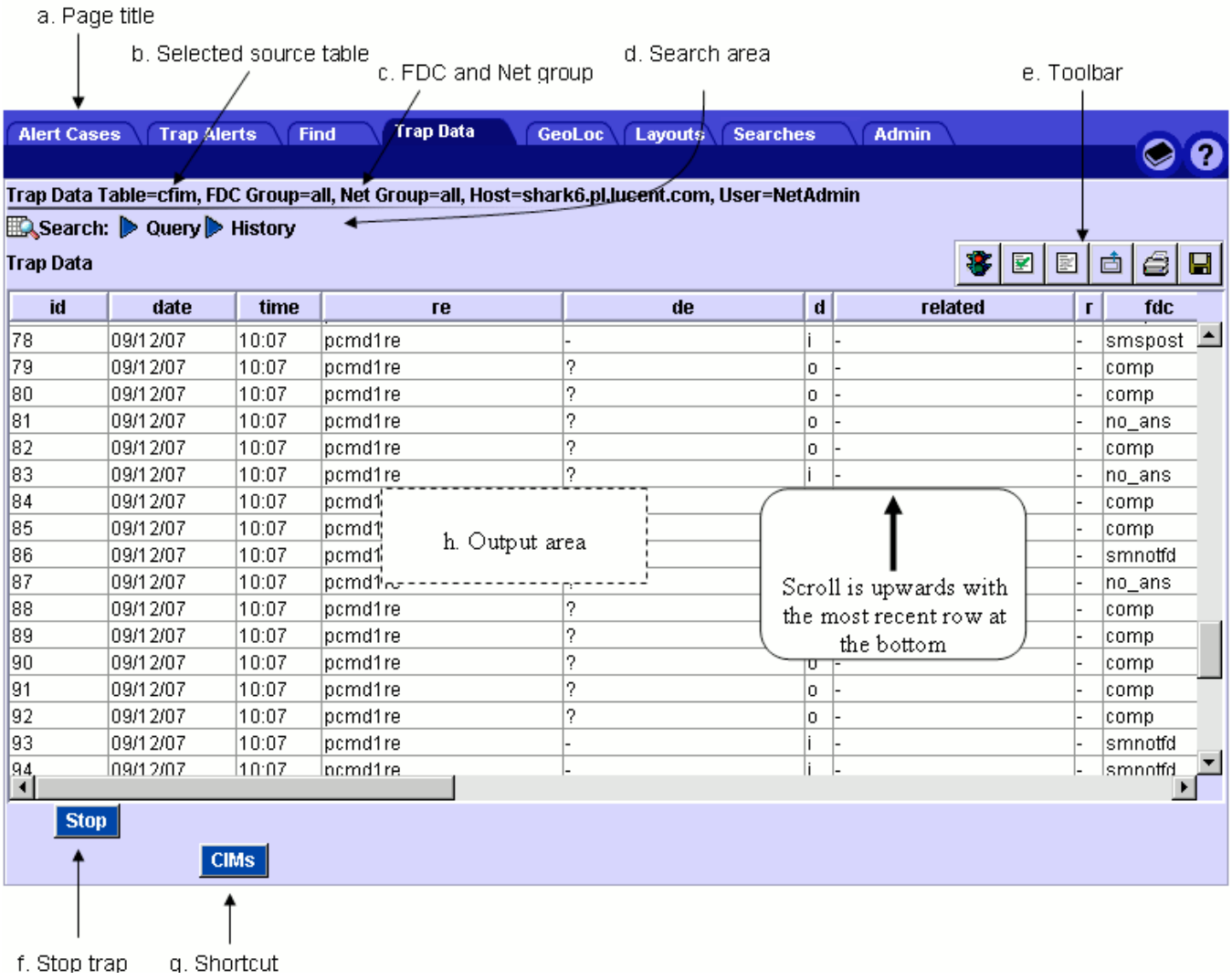
Trap Data purpose page

Trap Data enables you to see CFIMs as soon as they arrive. This serves two purposes:

- You see a problem. You trap on it, so that you see its CFIMs scrolling onto the Trap Data page. You then correct the problem, and the moment the correction takes affect, scrolling stops.
- You trap on something, you are going to change (such as an area code). You see no or few CFIMs. You make the change. If you suddenly see many CFIMs, you know your change has caused calls to be lost.
- Allows you to trap CFIMs from every chronological table available in the system.

Trap Data page example

Here is an example of the Trap Data page.



Trap Data page parts

Trap Data page parts are:

Part	Purpose
a	Page title.
b	Chronological source table
c	See “Web User Information page parts” (p. 7-3) for information on how to change FDC group.
d	“Search triangles illustrations” (p. 3-7).
e	See “Toolbar” (p. 2-12).

Part	Purpose
f	Left click to stop a Trap Data. To restart, re-execute Search.
g	Shortcut buttons to other Pages.
h	Output area.

CIMs Page

CIMs page purpose

The CIM page shows you the raw CIM that a CFIM was converted from. We enable you to quickly call up a CFIM's raw CIM, to look for any information not in the CFIM.

Important! We may discard revenue type CIMs (such as EMS CDRs), since usually all of the CIMs information is in the CFIM. Any unwanted information would be screened at the mediation system (such as at the EMS). However, CDR CIMs from *GeoProbe* may be retained by NTP.

CIM on Demand feature

This feature provides an enhancement where the converter only decodes the sections needed for CFIM conversion and leaves the ASN.1 CDR in binary format in the incoming files. The converter provides enough information in the CFIM to find the incoming file and the corresponding CDR, and decodes the CDR only 'on demand'.

The Find page has been enhanced to enable the user to highlight a CFIM or set of CFIMs, click the CIM button, and be presented with a new window of corresponding decoded CDRs.

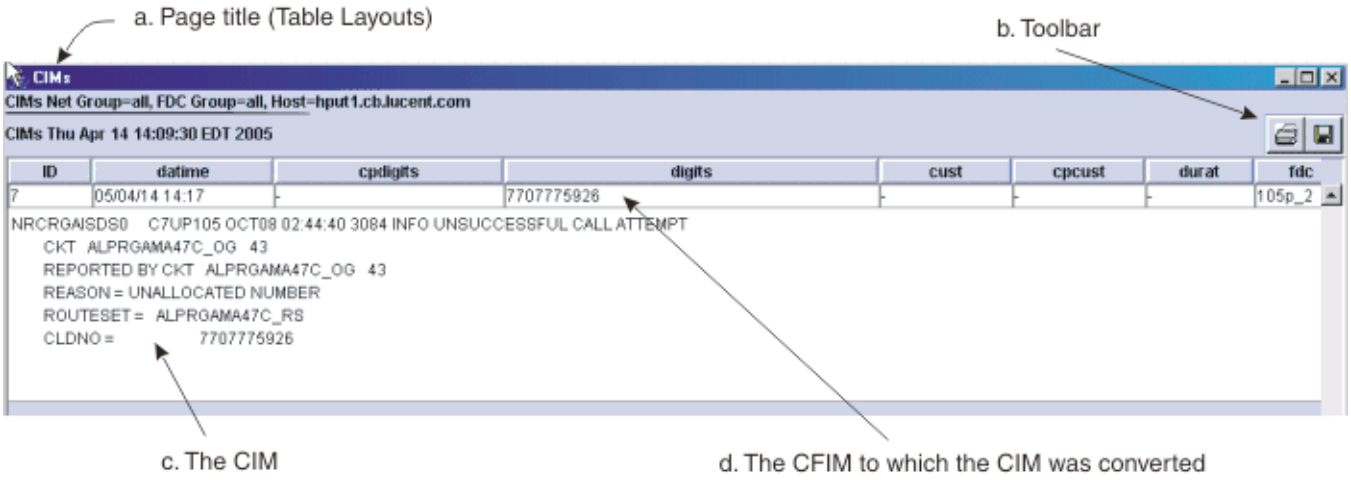
Important! This feature is only for the BB-GUI, not the SUI.

How to get CIMs page output

On an output that shows CFIMs, select one or more CFIMs and left-click the CIMs button.

CIMs page example

This is an example of a CIMs page.



How to read CIMs

To read a CIM, see vendor documents of the system that created it—which may be the Re (such as a *5ESS* switch), or the source (such as a EMS). To identify what created the CIM:

- First figure out the CFIM's.
- Then look up the conversion on the left side of the table and see the right side of that table for what created the CIM. This tells you what vendor documents to look in (for example, EMS documents).
- The right side also tells you what types of messages the CIMs are, so you know what to look up in vendor documents.

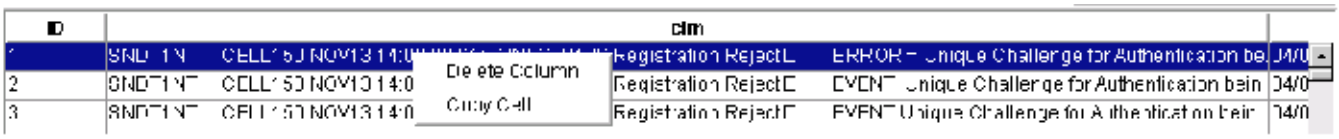
How to view complete CIM

Purpose

Performing a Find on the CIM table produces output that can be very large and is sometimes truncated to fit into the viewing area. Use the following procedure to view an entire CIM in the proper format.

1 Left click the CIM you want to view. The CIM is highlighted when selected.

2 Right click the highlighted CIM and select Copy Cell.



3 Open desired text tool and paste the copied CIM. The entire CIM is displayed in the correct format.

```
SNDT1NT    CELL150 NOV13 14:08:00 6156 INFO IS136 Registration Reject¶
     ERROR = Unique Challenge for Authentication being attempted¶
     MDN :¶
     MSID MIN = 8475079770  SERNO = 82  3006626¶
     CELL = 171X          ICP = 6¶
 TIMEDELTA TEST MISC1¶
§
```

END OF STEPS

6 Compute and Pattern Painter

Overview

Purpose

NTP software provides two graphical analysis tools: Compute and Pattern Painter. Both tools provide a snapshot of data in graphical form, enabling you to see patterns (groupings) to identify problems.

Compute takes records from your Find (with either non-periodic or periodic data) and groups them by criteria you choose. It displays the results in a table or other simple graphical form such as a bar chart or graph.

Pattern Painter can be used as the equivalent of multiple Computes. It provides an enhanced graphical view of the results.

Example: A burst of CFIMs arrives in the last few minutes. Use Compute or Pattern Painter to see where they come from (grouping them by RE) or what they are reporting (grouping them by FDC).

Contents

Introduction

Adjusting the number of records in Find, Compute, and Pattern Painter output

Number of records retrieved

You may want to see Find output for longer or shorter periods, such as Monday only or Monday through Friday. To do this, simply enter the date and time range you want in the Find's search parameters (for example, use datime in an OR).

But what if there are so many records for Monday that Find stops before it reaches Friday? You would need to Find a bigger set of records.

Within limits set by your system administrator, you can increase the number of records retrieved into a Find. To change the number of records retrieved for:

- a specific Find, see "Search/Edit" (p. 3-16).
- all Finds see "Web User Administration Page" (p. 7-8).

The number of records in a Find affects Compute and Pattern Painter because it is using the working set.

Within limits set by your system administrator, you can increase the number of records retrieved for Compute by using the Max Records field when calling up Compute output. Typically, you can go up to 1 million. (This number is configurable. Contact your NTP Customer Support Representative for more information.)

Compute

Overview

Purpose

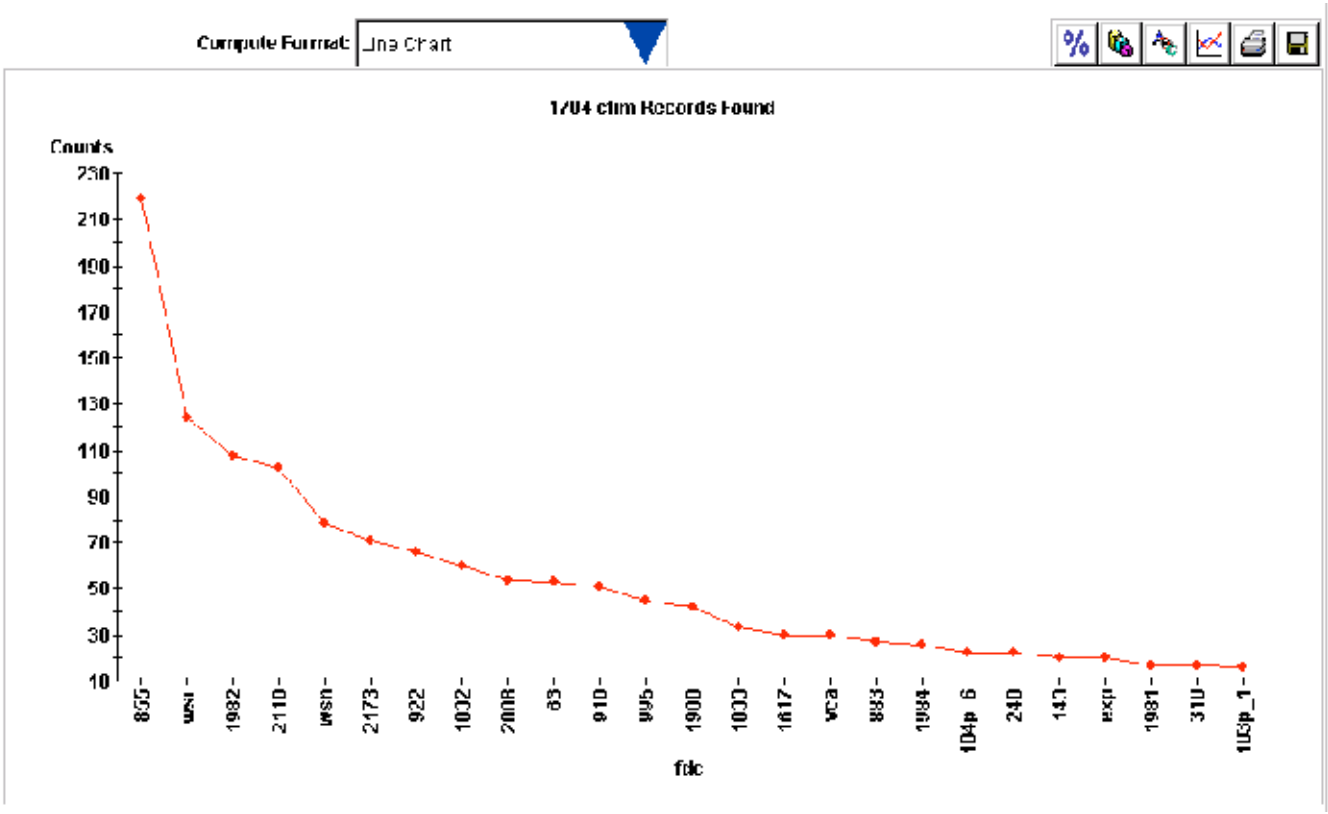
Compute enables you to take a group of records from the Find page or the Alert Case page, sort the records by a field of your choice and then graphically depict the data. If that field is not helpful, you can Compute again, on a different field.

Example: A Find for all CFIMs in an alert case.

Whether you retrieve a group of CFIMs by criteria, or by selecting a group of CFIMs on which we alerted, you can quickly format that data into one of the following formats to look for patterns:

- text
- bar chart
- pie chart (only available when computing for the Count option)
- line chart (graph, as shown here).

Picture



Compute Displays on Screen

When viewing Computes, be sure to set your screen to a full size viewing area. A smaller window may cause problems with some types of Compute displays, especially those with long label lengths.

Contents

How to get Compute output

Overview

Use this procedure to call up Compute output.

1 To call up Compute from:

- Alert Cases — go to Step 2.
- Find — go to Step 3.

2 From the Main Launch Page, left click the Alert Cases tab.

- You see the Saved triangle un-collapsed. If you want, select a search into the Search Name field. Or, un-collapse the Edit triangle, and enter search criteria. Or, un-collapse the History triangle and select a past search.
- Left click the Search button to call up Alert Case output.
- Left click an alert case. (You can left click multiple alert cases to group them. If alert cases have the same TN, we assume they are related, and you may want to group them.)
- Left click the Find button. You go to the Find page, with the Query triangle un-collapsed, displaying search criteria matching the alert case.
- Left click the Compute button.
- Continue with Step 4.

3 To call up Compute from the Find tab:

- from the Main Launch Page, left click the Find tab to go to the Find page.
- You see the Query triangle un-collapsed. If you want, select a search into the Search Name field. Or, enter search criteria. Or, un-collapse the History triangle and select a past search.
- In the Query area, to define your own search, fill in the OR field and other search parameters, as desired. For how, see "Search/Edit" (p. 3-16).
- Left click the Compute button.
- Continue with Step 4.

4 In the Compute area:

- Put a column heading (or comma-separated list of headings) from in the Row field.
- Use other fields and buttons as needed.
- Left click Submit.

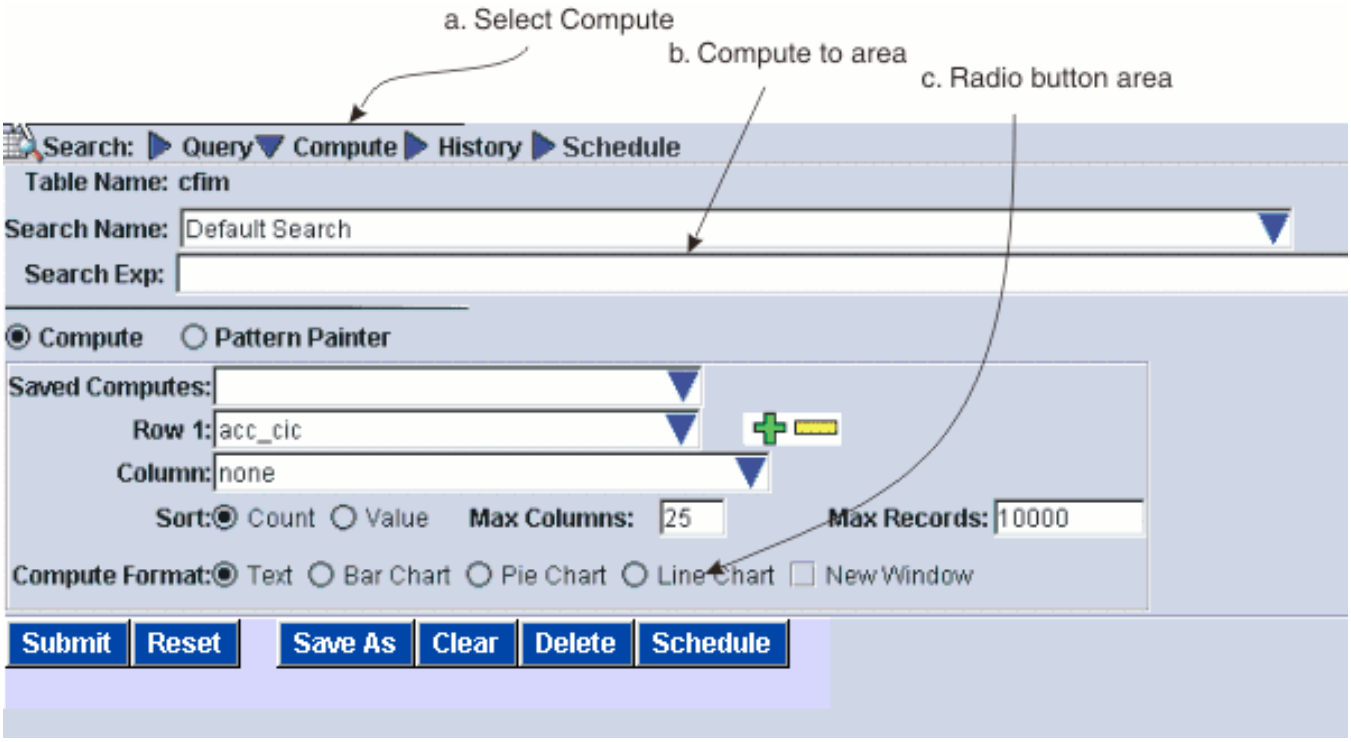
END OF STEPS

Compute input page example

Overview

Call up Compute from the Compute radio button.

The following Compute input page applies to Find data.



Compute parts

Overview

Here we explain parts of the screen you see when you are calling up Compute output. These parts are from “Compute input page example” (p. 6-8).

Part	Purpose
a	• **Query**. See “Search/Edit” (p. 3-16). • **Compute** • **History**. Here you can left click a radio button beside one of our last 20 Computes, and then left click to re-execute it.
b	• **Table Name**. The name of the table on which you can use Compute or Pattern Painter. • **Search Name**. A pre-named search expression. (You create these from the "Save As" button.) • **Search Exp**. The search expression matching Search Name. For how to read these, see
c	If you select the radio button for: • **Compute**: For fields in this area, see the “Compute Parameters” section. • **Pattern Painter**: For fields in this area, see *Step 2* in the "How to get Pattern Painter output" section.

Compute Parameters

Overview

Compute parameters are at Find page > Compute button. They are below the radio button, as illustrated at "Compute input page example" (p. 6-8). *Hint: Toolbar icons specific to Compute are discussed in* "Compute Output" (p. 6-15).

Compute parameters list

This is the list of Compute parameters.

Part	Purpose
Parameters	
Saved Computes	Left-click the arrow to pull down a list of Computes you saved. Then left-click a Compute to select it. For how Computes get saved, see the "Save As" button, later in this list. Also see the Delete button, later in this list.
Row 1	Left-click the arrow to pull down a list of column headings you want to sort into rows. For additional rows, left-click the green cross. You must have at least one row item.
Num Digits	Num digits field appears only if you put a digits type item (Digits, Cpdigits, Servdig, Psn, Dsdigits, or IMSI) in a Row. Use it to select which digits to Compute on. See "Num Digits" (p. 6-14).
5 min	The (unlabeled) interval column appears only if you put a date or time item in a Row. It enables you to select what interval of data to display.
Column	Left-click the arrow to pull down a list of column headings you want to sort into columns.
Sort	To order output by the value in Row 1, left-click **Value**. Otherwise, left-click **Count** to order by CFIM (or other record) count. *Example:* To make a line graph showing how many CFIMs arrived over time, use datime in row and left-click **Value**.
Max Columns	Use this area to specify the maximum number of columns to be displayed on the Compute page. You can specify up to 75 columns, with the default being 25.
Retrieve New Data?	Use this object to indicate that data needs to be retrieved. If you check this box, the page will query for records pertaining to the search parameters that were specified. If you do not check this box, then the page will use the results generated from a previous search that displayed a table of data from the Find Page. However, if no data is available and the boxed is not checked, the page will retrieve the data.
Compute Format	Left-click the output format you want.

Part	Purpose
Max Records	See "Number of records retrieved" (p. 6-3)
Buttons Specific to the Page	
Search	Execute the Compute.
Reset	Return fields to default.
Delta Triangle	Delta. This triangle means you have made a change to the search you selected from history.
Save As	Use this to name and save a Compute, so you can use it later from the Saved Computes field.
Clear	Clears fields that contain user input.
Delete	Delete a search you highlighted on the Saved Computes page.
Schedule	Allows to Schedule computes, see reference "Scheduled Data Distribution" (p. 5-16).

How to use Compute parameters

Overview

Use this procedure to use Compute parameters.

1 Start from "How to get Compute output" (p. 6-6).

Result: You see parameters illustrated at "Compute input page example" (p. 6-8).

2 If you want to use a saved Compute, use the Saved Computes field to select one, edit its fields as needed, left-click **Search**, and you are done. Otherwise, go to the next step.

3 Select an a column heading into Row 1.

- Use a column heading with differing values in the column.
- If you want to show output chronologically, put a date or time item (such as datime) in Row 1.

4 If you want an additional Row, left-click  to call up Row 2 and enter another column heading. Repeat as needed.

Hint: More than two Rows often gives confusing output. For multi-field analysis, use "Pattern Painter" (p. 6-21) *instead.*

5 Did you select a digits type Column heading (Digits, Cpdigits, Servdig, Psn, or Dsdigits) into a Row? If NO, go to the next step. If YES, see "Num Digits" (p. 6-14) and continue with the next step.

6 Did you select a date or time type Column heading (such as datime) into a Row? If no, go to the next step. If yes, an unlabeled field appears showing your output interval is "5 min". Change it if needed.

7 If you want to format on Columns, use that Column field. Otherwise, leave it blank.

Select either:

- **Count**. If you want output ordered by record count, most to least. This is default.
- **Value**. If you want output organized by the value of the item.
- Use this if you put a date or time column heading in Row 1, and you want to show output chronologically.

8 Select output format — bar, pie, line chart, or text.

9 Left-click **Submit**.

10 If you want to use the Compute in the future, left-click **Save As** and give it a name. (You can then re-use it from the Saved Computes field.)

END OF STEPS

Num Digits

Overview

Num Digits field appears only if you put a digits-type item (Digits, Cpdigits, Servdig, Psn, Dsdigits, or IMSI) in a Compute Row.

In this field, type in a string to represent how you want the digits-type item displayed and computed. Type in either:

- A single position.
  Example: **Num Digits: 5**
  Result: `xxxxXxxxxxxxxxxxxxxx`
- A range.
  Example: **Num Digits: 1-3**
  Result: `XXXxxxxxxxxxxxxxxxxx`
- A combination.
  Example: **Num Digits: 1,3-5,19-21**
  Result: `XxXXXxxxxxxxxxxxxxXXX`

On output, the string appears as follows:

- "x" is in each digit position you ignored.
- "-" is in each digit position that was empty.
- Numbers (sometimes letters) in significant digit positions not ignored.
  Example: You set Num Digits to "1-6,11-13". On output,"`8001234567`" is displayed as:
  `800123xxxx---xxxxxxx`

  Important! For CFIMs, the range is 1 to 21 and the default is Sigdig 1-21.

Compute Output

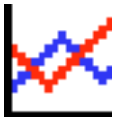
Purpose

This section provides examples of Compute output. Use the icons in the toolbar to view the output in 3-dimensional form, title the output, and make other enhancements.

Toolbar icons

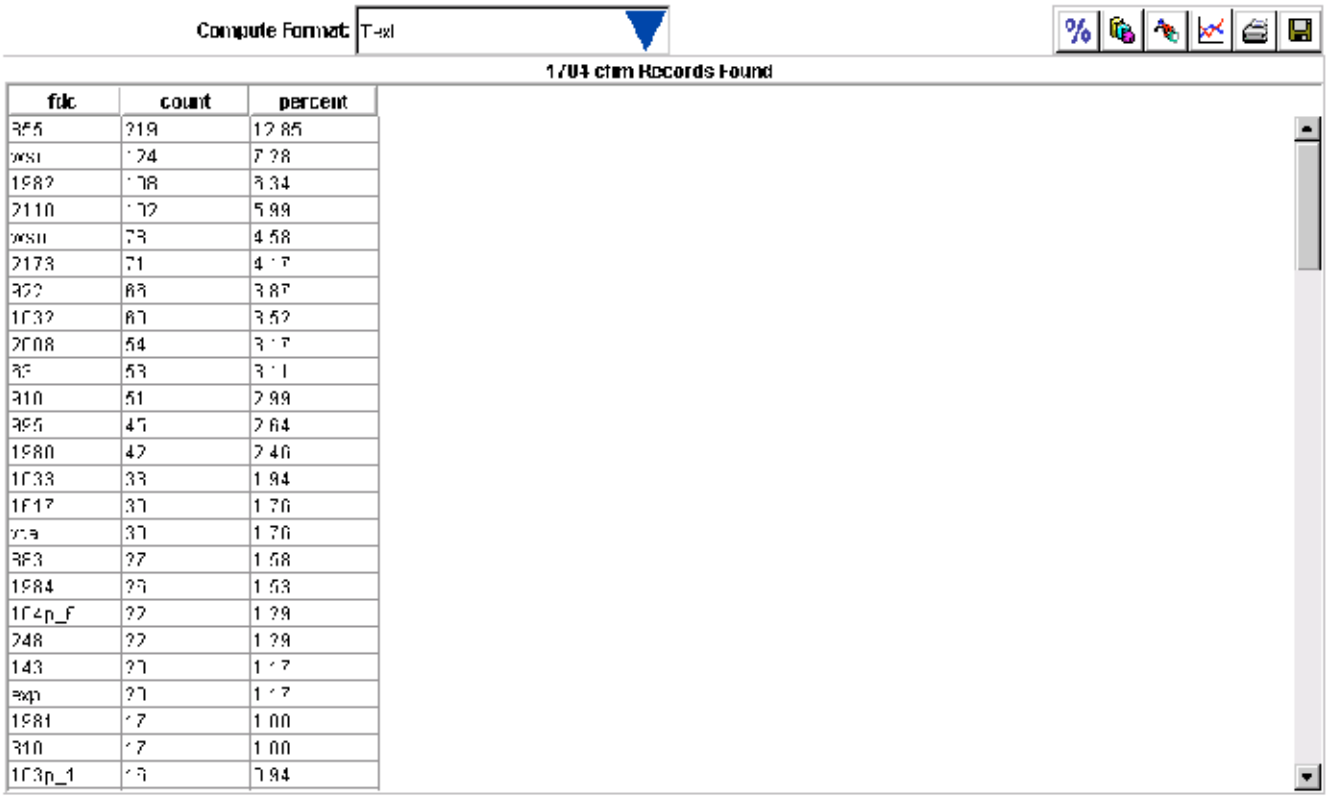
The following icons are specific to Compute output.

Part	Purpose
	Show no values. The icon deactivates the values on the bar, pie and line outputs. This icon toggles between 'Show no values' and 'Show values' (below).
	Show values. The icon activates the values (in percentages or counts) on the bar, pie and line outputs. This icon toggles between 'Show values' and 'Show no values' (above).
	View Compute output in percentages. This icon toggles between percentages and counts (below).
	View Compute output in counts. This icon toggles between counts and percentages (above).
	View Compute output in 2-dimensional form. This icon toggles between 2-dimensional and 3-dimensional form (below).
	View Compute output in 3-dimensional form. This icon toggles between 3-dimensional and 2-dimensional (above).
	Add or change title on Compute output.

Part	Purpose
	Configure Compute graph points. • Max Rows (the max number of row values to display on pie charts, bar graphs and line charts is 1000) • Min Count Value - (default is disabled - no filtering) • Max Count Value - (default is disabled - no filtering) • Number of Columns - (default is 25, if at least 25 columns are returned by the compute) • Question Mark - displays graph point help

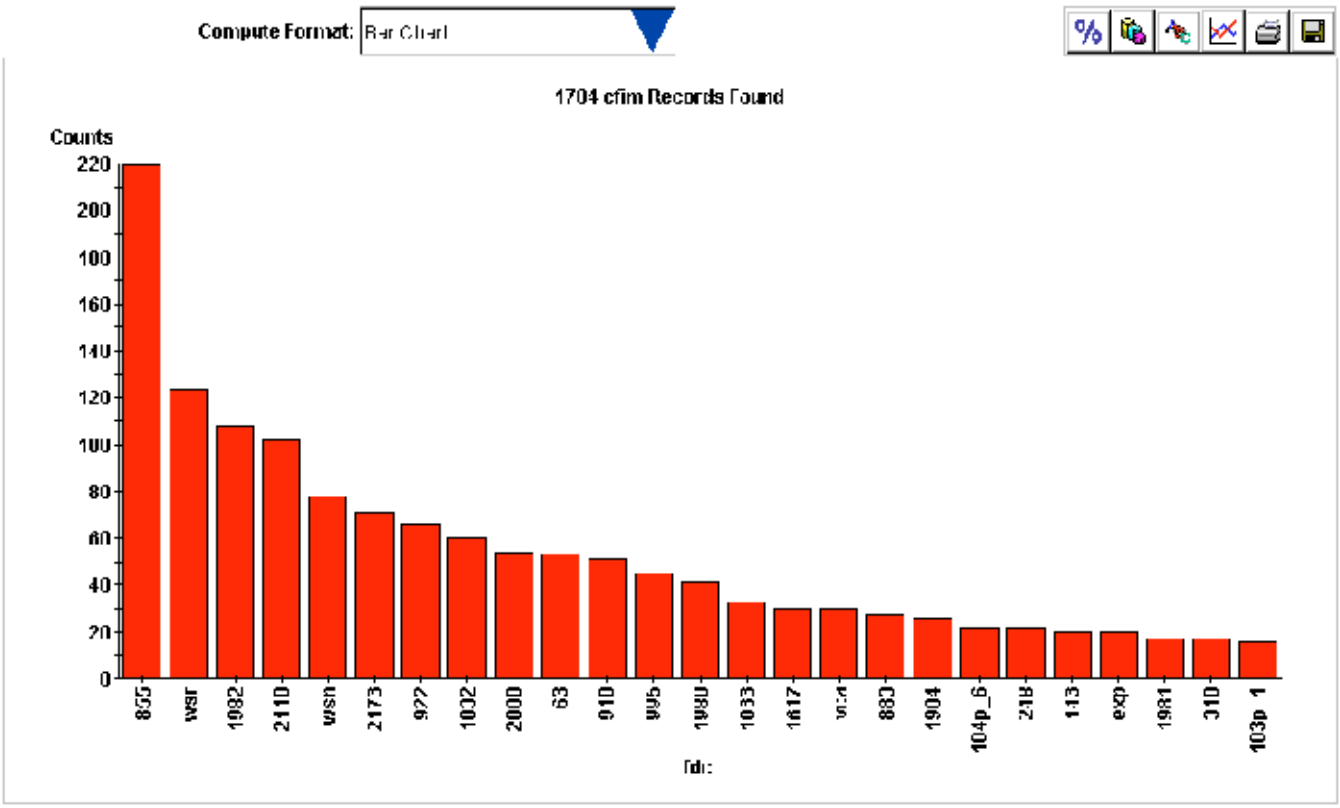
Text Output

This is an example of Text Output for Compute.



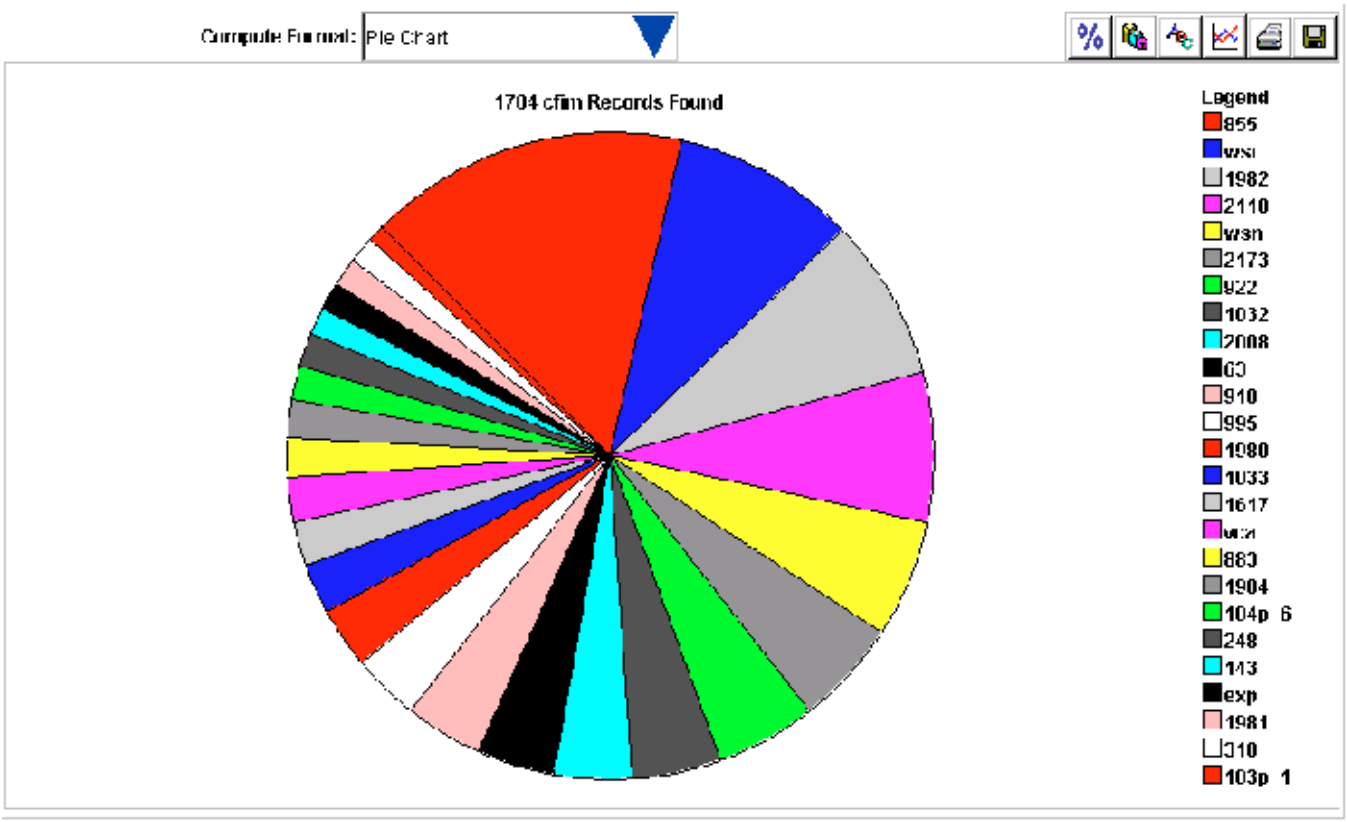
Bar Chart Output

This is an example of Bar Chart Output for Compute.



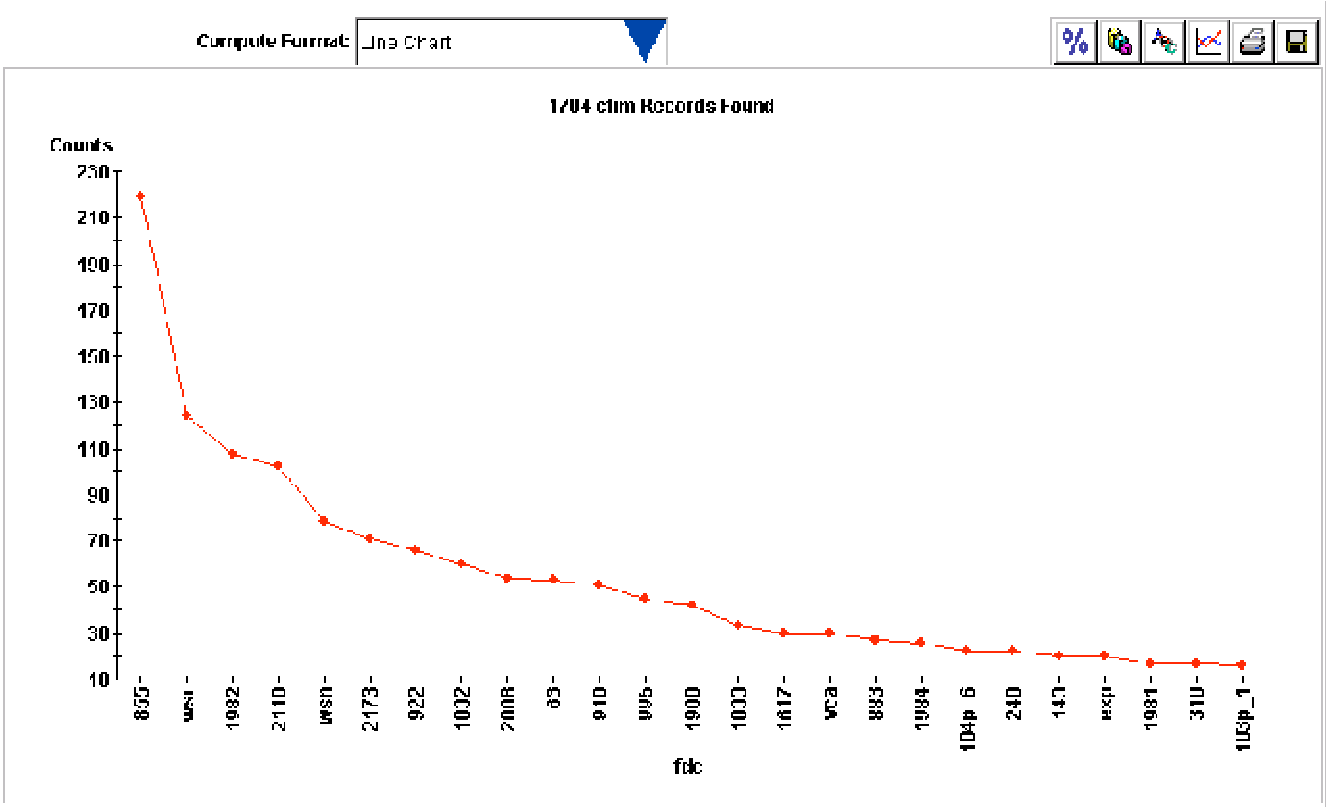
Pie Chart Output

This is an example of Pie Chart Output for Compute.



Line Chart Output

This is an example of Line Chart Output for Compute.


Compute Format:
Counts
250
210
190
170
150
130
110
90
70
50
30
10
855
1982
2110
2173
922
1900
1617
240
1981
fdc

How to print Compute output

Overview

Use this procedure to print Compute output.

1 Call up Compute output.

2 On the output page:

- select the print icon from the toolbar to print the output.

OR

- use the save-to-file icon to save output to a .jpg, .pgn, or text file. Outside of NTP, call up the saved file in any graphics application, and use that application to print the file.

END OF STEPS

Pattern Painter

Overview

Purpose

Recall that Compute enables you to take a group of records from the Find page or the Alert Case page and "compute" on it by sorting its records according to a field you choose. If that field is not helpful, you can Compute again, on a different field.

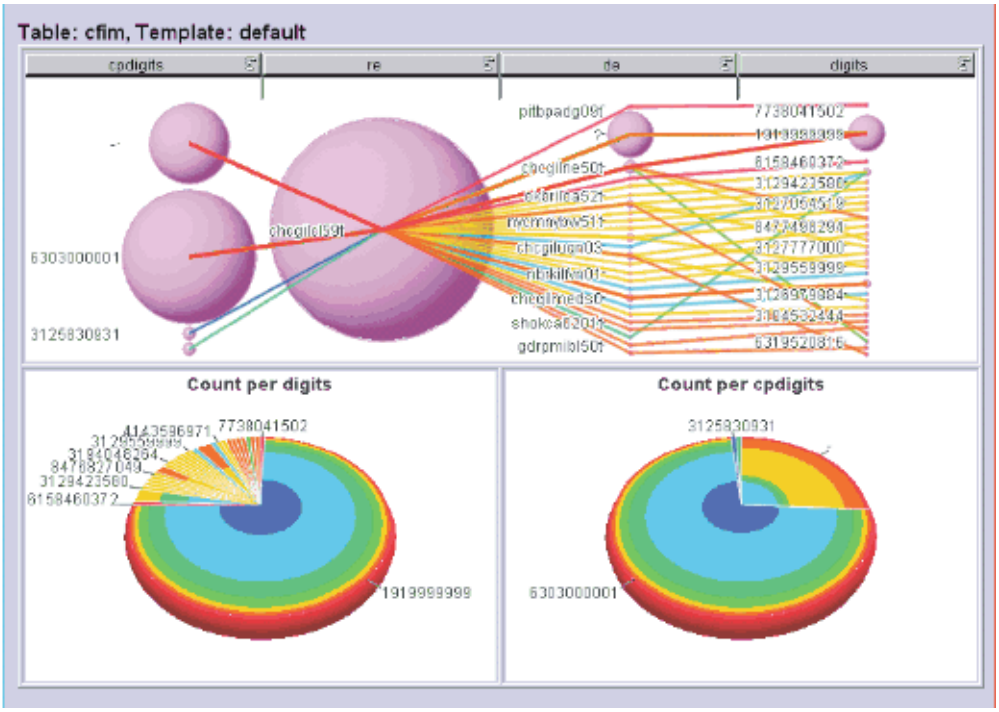
Pattern Painter is like an automatic multiple Compute. Specifically, it has a parabox (parallel box plot) area with multiple columns, and each column is like a Compute on a different field.

Pattern Painter also has two pie charts, each for a different field of the selected table. You can change what fields are in the parabox and pie charts. See"How to select which fields are on Pattern Painter output" (p. 6-35).

Picture

Parabox area. Each column is a different CFIM field. →

Two pie charts depicting different CFIM fields. →



Important! Before you start using Pattern Painter, disable pop-up window blocking in your browser. See *System Administration Guide, chapter 1, Hardware and Software, "Disabling pop-up blocker warnings"* for more information.

Pattern Painter Data Storage

Pattern Painter output is displayed on a web page. The web page is stored in your home directory.

Example: C:/Documents and Settings/<user>/Local Settings/Application Data

Pattern Painter requires 5MB of space in your home directory on PC for every 10,000 records. This is up to 15MB of space for the maximum of 30,000 records.

Contents

How to get Pattern Painter output

Important! Before you get Pattern Painter output, please note that:

- Running multiple Pattern Painter instances is not recommended due to high memory use.
- You can cancel out of Pattern Painter at any time.

Procedure

Use this procedure to get Pattern Painter output.

1 To call up Pattern Painter from:

- Alert Cases — go to Step 2.
- Find — go to Step 3.

2 From the Main Launch Page, go to the Alert Cases page.

- You see the Saved triangle un-collapsed. If you want, select a search into the Search Name field. Or, un-collapse the Edit triangle, and enter search criteria. Or, un-collapse the History triangle and select a past search.
- Left click the Search button to call up Alert Case output.
- Left click an alert case. (You can left click up to 10 alert cases to group them. If alert cases have the same TN, we assume they are related and they will be grouped.)
- Left click the PatPaint button. You are done.

3 To call up Pattern Painter from the Find page:

- From the Main Launch Page, left click the Find icon to go to the Find page.

  Note: Pattern Painter radio button in Compute panel is available only for the Detail table type.
- Left click the Search button to call up Alert Case output.
- Left click the Submit button.

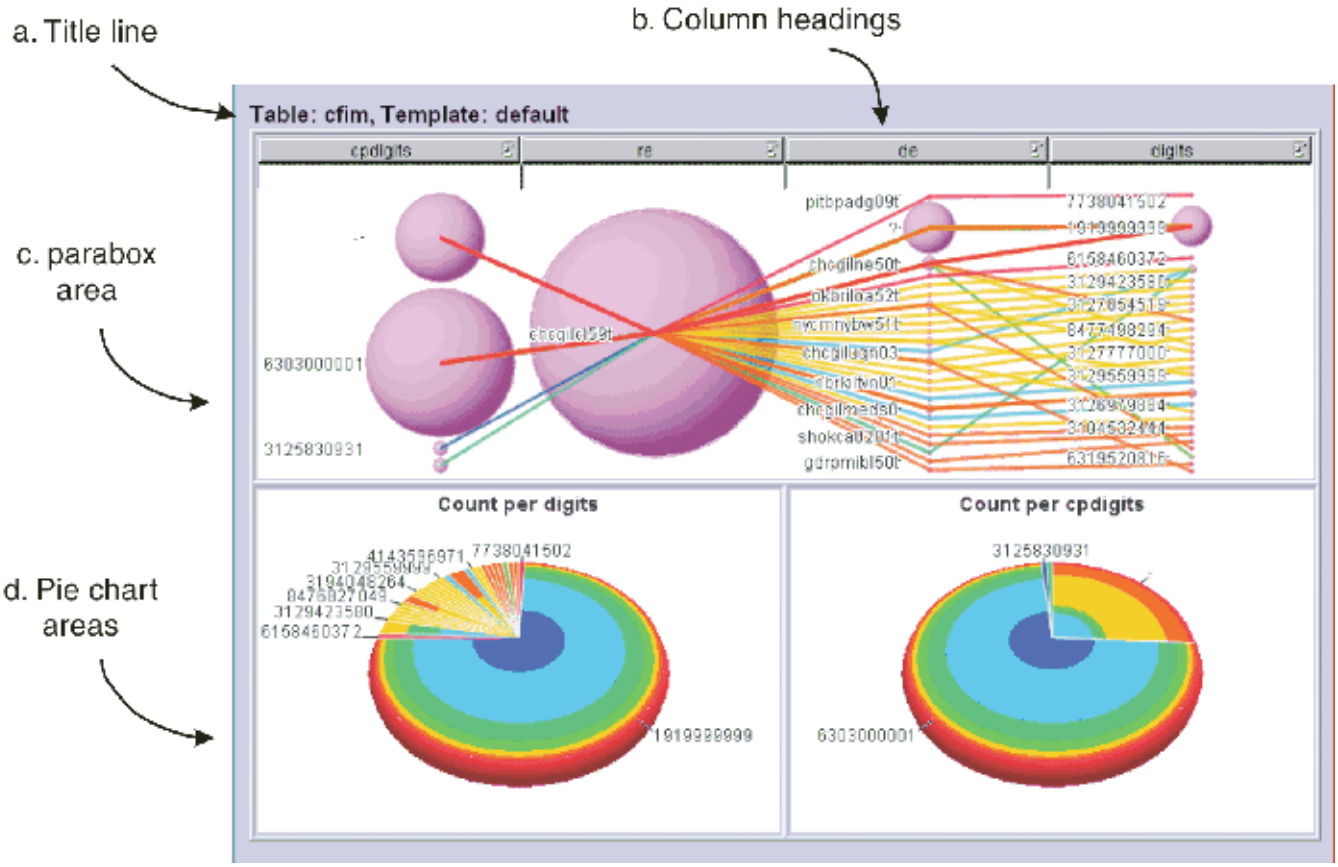
END OF STEPS

Pattern Painter Output example

Example

This is an example of Pattern Painter output.

Important! NTP translates all field names and values to lowercase (for example, in the graphic below, cpdigits, re, etc.) unless there is a specific constraint on a field within the system. In those few instances, the value appears in case-sensitive format.



Pattern Painter output parts

Overview

Here we explain parts of the screen you see when you are calling up Pattern Painter output. These parts are from "Pattern Painter Output example" (p. 6-24)

Part	Purpose
a	Page title and template used.
b	Column headings representing selected CFIM fields.
c	Parabox (top). (Parallel box plot) Each column is one CFIM field.
d	Pie chart (bottom left) for one CFIM field and Pie chart (bottom right) for another CFIM field.

Templates

Pattern Painter templates

Templates determine what CFIM data Pattern Painter graphics include. NTP provides a default CFIM template ONLY. Templates for any other tables must be defined by your System Administrator. Until a template is created for a given table, you will not be presented with the option to run Pattern Painter.

The System Administrator must modify reference tables with the dbedit command to define the templates:

- pptemplate Table

  This table names the template, defines the CFIM data in the pie charts, and sets the CFIM field that Pattern Painter uses as the primary color field for both the parabox and pie charts.
- pptemp_columns Table

  This table maps an FDC to a template. It defines the data Pattern Painter displays if a Find involves only one FDC.

  This table lists template name, table name, and all the fields Pattern Painter displays in the parabox for a particular template. It also allows you to specify an order for the parabox columns.
- sigdigpp Table (optional)

  This table allows you to do a significant digit analysis on the data by defining different significant digit patterns.

Hint: Information about these tables and procedures detailing how to modify them are found in the System Administration Guide , Chapter "Customize", and Appendix A, "Reference Database Tables".

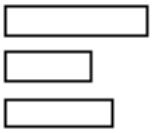
Saving output formats

With other BB-GUI outputs, you can save your own output formats as "table layouts". Although you can override a template, you can NOT save that format. Instead, ask your system administrator to create a template and to assign it to an FDC, so it will be used automatically if all CFIMs in a set have that FDC.

Working with Pattern Painter parabox columns

How to sort Pattern Painter parabox

To sort a column of bubbles in the Pattern Painter parabox output, left click the column heading. Each time you click, you cycle to the next of five different sorts, each indicated by an icon, as follows.

Sort icon	Meaning
	Original sort.
	Sort by record (e.g., CFIM) count, from smallest (bottom) to largest (top).
	Sort by record (e.g., CFIM) count, from largest (bottom) to smallest (top).
	Sort by label, from A (bottom) to Z (top).
	Sort by label, from Z (bottom) to A (top). **Note:** Use this with etime, time, or datime, to see trends.

How to move Pattern Painter parabox columns

To move parabox columns:

- Left-click-hold on a column heading. (Your cursor becomes a hand.)
- Move your cursor right or left, to where you want to move the column.
- Release.

How to highlight output parts

To highlight part of a pie chart, or bubbles in parabox column, thereby causing corresponding output to be highlighted in the other pie chart and other parabox columns, either:

- Left click a bubble.
- Left click hold and draw a box around, or touching, bubbles, or pie pieces, to be highlighted. Then release.

  Important! You can change how your cursor selects. See "Working with Pattern Painter properties - Selecting Tab" (p. 6-40).

Pattern Painter parabox right-click menu items

These items are listed on the menu that appears if you right click in the parabox window.

Please note that any items on the menu that appear in light grey and cannot be selected are not supported by NTP.

Item	How to use it
parallel axis	Draw lines between columns showing correspondence.
show selection	Use lines to connect bubbles that share records.
same scale	Use the same largest-to-smallest range for all columns that are boxplots or dotstrips.
explain	Give a general explanation of a pie chart or parabox.
undo	Undo previous actions. You can select this multiple times.
redo	Repeat the previous action.
Select > select all	Select all bubbles (and all pie pieces) so all are in color. Otherwise, only the bubble or pie piece select is in color, and all else is gray.
Select > unselect all	Un-select all pie pieces, so all are gray (or all are hidden, if "show un-selected" is off).
Select > toggle all	Reverse selected and un-selected.
Select > exclude unselected del	Hide not-selected bubbles and pie pieces.
Select > restore excluded	Un-hide not-selected bubbles and pie pieces.
save image	Save the image to a GIF file, for printing, emailing, etc.
copy image	Copies image to clipboard for pasting elsewhere.

Item	How to use it
properties	Select this to open windows to set output properties. See: • "Pattern Painter properties: Data tab" (p. 6-32) • "Pattern Painter properties: Data Color tab" (p. 6-37). • "Pattern Painter properties: Selecting tab" (p. 6-40). • "Pattern Painter properties: Parabox tab" (p. 6-44) (if you called up this menu by right-clicking the parabox). • "Pattern Painter properties: Pie Chart tab" (p. 6-45) (if you called up this menu by right-clicking the pie chart).

Working with Pattern Painter pie-charts

How to highlight output parts

To highlight part of a pie chart, or bubbles in parabox column, thereby causing corresponding output to be highlighted in the other pie chart and other parabox columns, either:

- Left click a bubble.
- Left click hold and draw a box around, or touching, bubbles, or pie pieces, to be highlighted. Then release.

  Important! You can change how your cursor selects. See "Working with Pattern Painter properties - Selecting Tab" (p. 6-40).

Pattern Painter pie chart right-click menu items

These items are listed on the menu that appears if you right click in either pie chart window.

Please note that any items on the menu that appear in light grey and cannot be selected are not supported by NTP.

Item	How to use it
show unselected	If turned on, show un-selected (uncolored) pie pieces in gray. If turned off, un-selected pieces are hidden.
rotation	Offers menu to rotate pie chart.
explode	Make bigger or smaller gaps between pie pieces.
animate	See "How to animate Pattern Painter" (p. 6-47).
primary order	Offers menu to re-order pie labels; Original, Label, Size, Total Selected, or % Selected.
label	Offers menu for how to display pie labels; Best fit, Selected, All, Off, Custom. Same as menu that appears if you select Properties > Labels Shown).

Item	How to use it
undo	Same as in previous table.
redo	
Select > select all	
Select > unselect all	
Select > toggle	
Select > exclude unselected del	
Select > restore excluded	
save image	
copy image	
properties	

Working with Pattern Painter properties - Data Tab

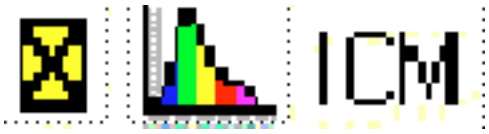
Pattern Painter properties: Data tab

This window appears if you:

- Right-click in the parabox OR pie area to call up a menu.
- Then left click Properties.
- Then left click Data.

Pattern Painter properties: Data tab, how to use

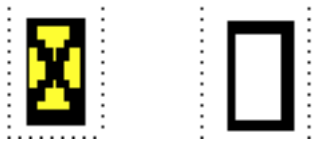
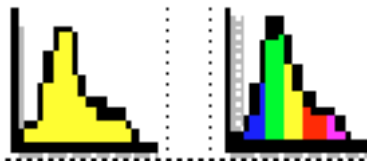
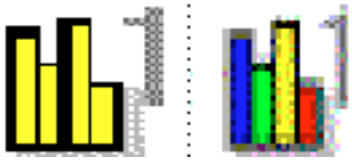
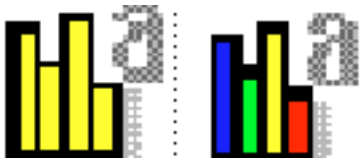
This table lists parts of the Data window, and tells how to use them (at right-click menu > Properties > Data tab).

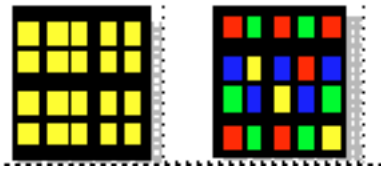
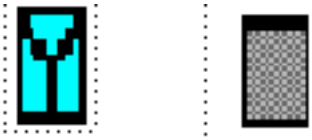
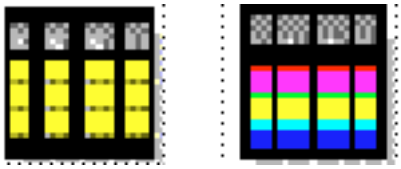
Item	How to use it
Tree view area	Select icons to choose which fields appear on output. You do this separately for the parabox and each pie chart. Examples The ICM field is NOT selected to appear on output.  The ICM field IS selected to appear on output.  The ICM field is selected to appear on output, and to color output. (Only ONE field can color output).  For more information: • See "Pattern Painter tree view icons" (p. 6-33). • See "How to select which fields are on Pattern Painter output" (p. 6-35). • See "How to select which field colors Pattern Painter output" (p. 6-39).
delete table button	Pattern Painter has just one table, for CFIMs. It must not be deleted.

Item	How to use it
reset data pool button	Do NOT select this. If you select this, you lose all table settings. To restore them, close the Pattern Painter window and start over by selecting the PatPaint button.
data file (and browse button)	Pattern Painter has just one data table, for CFIMs. So you would not browse to select another.
Help button	Select to see Visual Insights help. (Please ignore parts of help dealing with outputs other than parabox and pie chart.)

Pattern Painter tree view icons

This table lists icons you see in the tree view area (at right-click menu > Properties > Data tab).

Icons showing selection	
	Field is selected to be on output (left), or is NOT selected (right).
Icons showing type of data, and if it colors output (only ONE item can be selected to color output)	
	The field is a real number. Not selected (left) or selected (right) to color output.
	The field is an integer. Not selected (left) or selected (right) to color output.
	The field is a string. Not selected (left) or selected (right) to color output.

	The field is a date. Not selected (left) or selected (right) to color output.
	The field has been selected as a Y-Axis (left), or is not available for selection (right).Y is not used by NTP, so do not select it.
	A table with no colors (left), or with colors (right).

How to select which fields are on Pattern Painter output

Purpose

You do this separately for the parabox and each pie chart.

1 To call up the right click menu, right-click in either:

- The parabox area
- A pie chart area

Important! Where you click is where you change output. For example, to change a pie chart, click its area.

2 On the menu, left-click Properties, to call up a Properties window.

3 On the Properties window, left click the Data tab.

Example: See "Pattern Painter properties: Data tab" (p. 6-32).

4 In the tree view, left click boxes to either of the following two states:

Item not selected to be on output.

Item selected to be on output.

Please note that if you click twice, X becomes Y. Y is not used by NTP, so click again.

If you are modifying a pie chart, we recommend you select just one item.

5 Left click OK.

Hint: See "How to select which field colors Pattern Painter output" (p. 6-39).

END OF STEPS

Working with Pattern Painter properties - Data Color Tab

Pattern Painter properties: Data Color tab

This window appears if you:

- Right-click in the parabox or pie area to call up the menu.
- Left click Properties.
- Left click Data Color.

Pattern Painter properties: Data Color tab, how to use

This table lists parts Data Color window, and tells how to use them.

Item	How to use it
Help button	Select to see Visual Insights help. (Please ignore parts of help dealing with outputs other than parabox and pie chart.)
Color Using Field	
Table	This is not applicable because we use just one table, so we do not care about selecting tables.
Field	See "How to select which field colors Pattern Painter output" (p. 6-39).
Reapply color to field	Let us say you select a pie piece, or a bubble, or a range of bubbles, and then select "exclude unselected del" to hide the unselected. That would limit your range of colors—for example, from the full rainbow, to just yellow-to-green. To restore the range to the full rainbow, select this item.
Color Scale	
green/red, rainbow, pastel, gray, equalized, thermal, categorical	Modify colors as indicated by the name.
smallest values are high priority	Reverse colors.
Standard Tool Element Colors	
black, blue, and white buttons	Rather than pick element colors one a time (under Component Element Colors), use a set of colors based on a black, blue, or white background.
Component Element Colors	

Item	How to use it
background, foreground, etc.	Use this to change the color of the element named. To do this, left click the existing color, and use the resulting window to change the color.

How Pattern Painter output is colored

One parabox column is selected to have different colors for each bubble. Then those same colors are used for lines to other bubbles, and to corresponding pieces in the two pie charts.

Example: The etime column colors output on "Pattern Painter Output example" (p. 6-24).

How to select which field colors Pattern Painter output

Purpose

Use this procedure to choose which field colors your output.

1 Right-click to call up the right-click menu.

Important! It does not matter if you right-click in the parabox of pie chart area.

2 On the menu, left-click Properties, to call up a Properties window.

3 On the Properties window, left click the Data Color tab, to call up that tab.

Example: See"Pattern Painter properties: Data Color tab" (p. 6-37).

4 On the Data Color tab, Left click the "Field" pull-down arrow, and select the field you want to color output.

5 Left click OK.

END OF STEPS

Working with Pattern Painter properties - Selecting Tab

Pattern Painter properties: Selecting tab

This window appears if you:

- Right-click in the parabox or pie area to call up the menu.
- Left click Properties.
- Left click Selecting.

Pattern Painter properties: Selecting tab, how to use

This table lists parts of the Selecting window, and tells how to use them.

Item	How to use it
Help button	Select to see Visual Insights help. (Please ignore parts of help dealing with outputs other than parabox and pie chart.)
Selector Shape	
Rectangle, Lasso, Circle, Rectangular Brush, Circle Brush	Select one button to pick the kind of area used when you left-click-hold-sweep on output.
Interactive Labelling	
details	Choose from the pull-down menu.
location	Choose from the pull-down menu.
flicker free drawing	Default is on.
Selector Operation	
Replace, Toggle, Add, Subtract, Intersect	Choose what will happen when you left click in the parabox.

Working with Pattern Painter properties - Fonts Tab

Pattern Painter properties: Fonts tab

This window appears if you:

- Right-click in the parabox or pie chart area to call up the menu.
- Left click Properties.
- Left click Fonts.

Pattern Painter properties: Fonts tab, how to use

This table lists parts of the Fonts tab window, and tells how to use them.

Item	How to use it
View Title Font	Select this button to change the font type for the output's title.
Axis Title Font	Select this button to change the font type for the axis title.
Label Font	Select this button to change the font type for the labels.

Working with Pattern Painter properties - Titles Tab

Pattern Painter properties: Titles tab

This window appears if you:

- Right-click in the pie chart area (NOT a parabox area) to call up the menu.
- Left click Properties.
- Left click Titles.

Pattern Painter properties: Titles tab, how to use

This table lists parts of the Titles tab window, and tells how to use them.

Item	How to use it
Title text	Enter the title to be displayed on the pie chart.
Show view title	• Checked - title is displayed • Unchecked - title is not displayed.

Working with Pattern Painter properties - Bookmarks Tab

Pattern Painter properties: Bookmarks tab

This window appears if you:

- Right-click in the parabox or pie chart area to call up the menu.
- Left click Properties.
- Left click Bookmarks.

Pattern Painter properties: Bookmarks tab, how to use

This table lists parts of the Bookmarks tab window, and tells how to use them.

Item	How to use it
Go to	Go to a saved bookmark. Select the desired bookmark from the list and click this button to access it.
Remove	Remove a saved bookmark. Select the desired bookmark from the list and click this button to remove it.
Create	Create a bookmark. Enter a path and select this button to create a bookmark.

Working with Pattern Painter properties - Parabox Tab

Pattern Painter properties: Parabox tab

This window appears if you:

- Right-click in the parabox area (NOT a pie chart area) to call up the menu.
- Left click Properties.
- Left click Parabox.

Pattern Painter properties: Parabox tab, how to use

This table lists parts of the Parabox properties window, and tells how to use them.

Please note that any items on the menu that appear in light grey and cannot be selected are not supported by NTP.

Item	How to use it
Help button	Select to see Visual Insights help. (Please ignore parts of help dealing with outputs other than parabox and pie chart.)
tool tips	Toggle on to show tool tip for any item your cursor is touching.
Strip Options	
show selected subset	Display box plot (optional) in yellow (default).
show labels	Beside icons.
numerics use same scale	For all columns.
Parallel Axis	
show parallel axis	Show or hide lines connecting corresponding bubbles across columns.
show unselected lines	Show or hide unselected (gray) lines.
use background2 color	Switch to background2 color. You pick this color at the Data Color tab.
Bubble Options	
size from magnitude	Tells how to display negative values. Ignored, since NTP has no negative values.
size from smallest value	

Working with Pattern Painter properties - Pie Chart Tab

Pattern Painter properties: Pie Chart tab

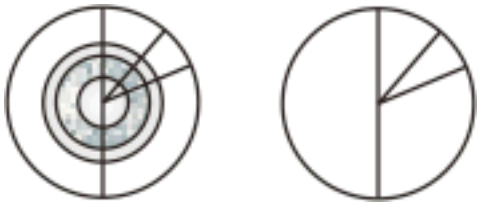
This window appears if you:

- Right-click in a pie chart area (NOT the parabox area) to call up the menu.
- Left click Properties.
- Left click Pie Chart.

Pattern Painter properties: Pie Chart tab, how to use

This table lists parts of the Pie Chart properties window, and tells how to use them.

Please note that what you do here applies to only the pie whose right-click menu you called up.

Item	How to use it
Help button	Select to see Visual Insights help. (Please ignore parts of help dealing with outputs other than parabox and pie chart.)
show unselected	Select on or off to show or hide unselected pie pieces and bubbles.
stack colors	Default is to select stack colors, which causes a pie chart to be colored in layers corresponding to the parabox's colored column. *Example:* A pie chart stacked (left) and un-stacked (right). 
3D	View image in 3-Dimensional form.
rotation	Rotate pie.
explode	Make bigger or smaller gaps between pie pieces.

Item	How to use it
labels shown	Pick how to show pie piece labels. Either: • Best fit — (Default) Label for readability. • Selected — Label a pie piece when it is selected. • All — Label all pieces. • Off — No labels. • Custom — Allows you to label, as follows: 1. Go to the Pie Chart tab. See "Pattern Painter properties: Pie Chart tab" (p. 6-45). 2. Left click the "Labels Show" pull-down arrow, and select "Custom". 3. Select each section of the pie, in turn. 4. Press letter "l" key to turn labelling on or off. 5. Left click OK to implement.
Order	
primary, secondary	Choose for each.
Animation	
animation	See "Pattern Painter animate options" (p. 6-48).

How to animate Pattern Painter

Purpose

Animate selects (colors) slices of a pie chart in turn, and at the same time selects corresponding parts of the other pie chart, and the parabox.

Procedure

Use this procedure to animate output.

1 Right click in a pie chart area to pull down the menu, and select Animate.

Please note that:

- See "Pattern Painter pie chart right-click menu items" (p. 6-30)
- To pause and restart, type x and t.
- To stop, select Animate again.

2 Do you want to modify animation?

- If NO, you are done.
- If YES, either:
  - Use a keyboard shortcut (see second column, below).
  - Go to the Pie chart tab (see "Pattern Painter properties: Pie Chart tab" (p. 6-45)) and use animation options (see the first column, below) and select OK.

END OF STEPS

Modifying Pattern Painter animation

Pattern Painter animate options

Here we tell how you can modify animation.

Icon on Pie Chart > (right-click) menu > (left-click) Properties > (left click) Pie Chart	Keyboard shortcut	Purpose
	None. But you can select Animate from the pie chart right-click menu (see "Pattern Painter pie chart right-click menu items" (p. 6-30)).	Animate.
Slower button	- or <	Slower.
Normal button	=	Normal.
Faster button	+ or >	Faster.
	backspace	One step back.
	x	Stop.
	t or enter	Resume.
	space or tab	One step forward.

7 Web User Information and Administration

Overview

Purpose

This section describes the pages used to administer BB-GUI users:

- Web User Information page, which displays your login's attributes and enables you to change some of them.
- Web User Administration page, which displays attributes for logins on the system. It also allows you to search for logins.

Hint: For additional administrative information, see the System Administration Guide, Chapter 6, "Add or Delete Users".

Contents

Web User Information Page

Web User Information page purpose

This page displays the attributes of your login and enables you to change some of them.

Selecting the Admin tab takes you to the:

- Web User INFORMATION page if you have a regular login.
- Web User ADMINISTRATION page if you have an administrative login. (This page is never visible to regular logins.) See "Web User Administration page purpose" (p. 7-8).

How to access the Web User Information page

Use this procedure to access the Web User Information page.

1 Select the **Admin** tab from any BB-GUI page.

2 If you have:

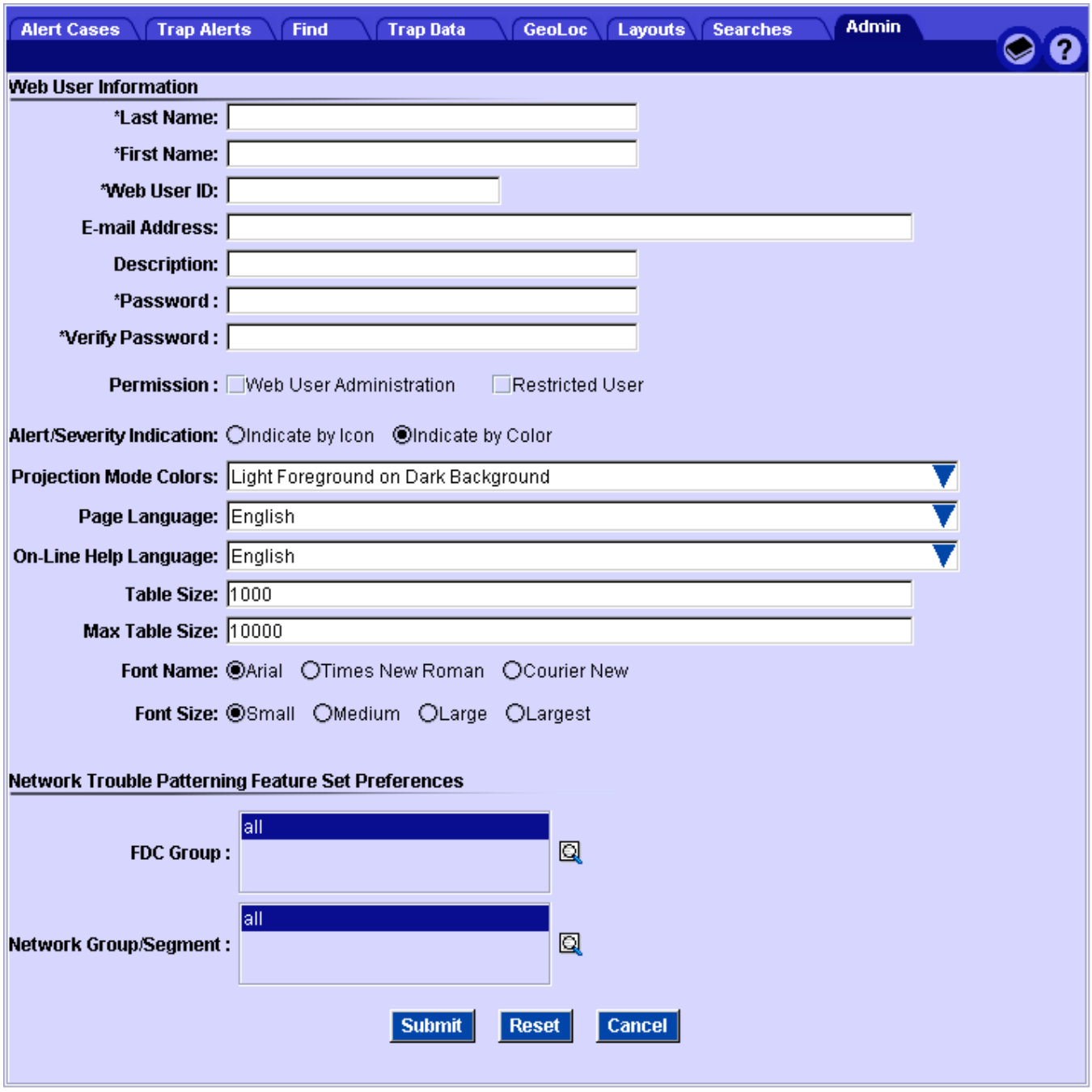
- a non-administrative login, the Web User Information page appears.
- an administrative login, the Web User Administration page appears. Select a specific login from this page to continue to the Web User Information page.

END OF STEPS

Web User Information page example

The following is an example of the Web User Information page.

Note that fields on this page vary depending on the features that are enabled on your system.



Web User Information page parts

The Web User Information page has two areas:

- Web User Information area.
- NTP software Preferences area.

Permissions in this table mean:

- **Network analyst**. You can change this field.
- **Administrator**. Your administrator can change this field.
- **System**. Neither you nor your administrator can change this field.

Field	Description	Permission
Buttons Specific to the Page		
Submit	Submit the changed user information.	All
Reset	Resets the page to previously saved user information.	All
Cancel	Returns you to the Web User Administration page.	Administrator
Delete (available only when updating an existing user)	Delete the displayed user. **Note:** When deleting a BB-GUI user, you will be asked if you want to delete the associated NTP user.	Administrator
Web User Information		
Last Name	Your name.	Administrator
First Name		
Web User ID	Your BB-GUI login ID (only lowercase characters are allowed).	Administrator
E-mail Address	Full E-mail address for the user. This is an optional field; however, if not populated, a user will not be able to use the "Scheduled Data Distribution" (p. 5-16)feature.	Administrator
Description	Information about you, if desired.	Administrator

Field	Description	Permission
Password Verify Password	How to change your password Enter a new password in the two fields presented to you and left-click **Submit**. **Important!** Once you have changed your password, close all browser windows and restart the browser to use a new password. The password length and composition components, by default, are set to a minimum length of eight characters and are required to have characters from at least three of the four following sets: *ABCDEFGHIJKLMNOPQRSTUVWXYZ* *abcdefghijklmnopqrstuvwxyz* *1234567890* *!#^*()-_+={}[];:,./<>$&*	Network analyst
Password Option	If the Expire Password Now box is checked, the user is prompted to change their password the next time they log in. This is most often used by administrators to assign a user a temporary password.	Administrator
Permission	Determines whether a user has: • Web Administration permission - full administrative privileges (can change user information, etc.). • Restricted permission (This option applies to a large network where strict data permissions are implemented.) Values: selected or unselected.	Administrator
Alert/Severity Indication	Use to change how the Alert Cases page displays exception levels: Select one of the following and left-click **Submit**. • **Indicate by Icon** — A thermometer icon is displayed in the Al (Alert Level) field. • **Indicate by Color** (default) — The background of the entire row is colored as follows: – Red — critical – Yellow — major – Cyan (blue-green) — minor Note that the text, instead of background, is colored if you selected Light Foreground on Dark Background.	Network analyst

Field	Description	Permission
Projection Mode Colors	To set colors, for projection mode, left-click the blue triangles to pull down menus to select from: • Dark Foreground on Light Background (default for regular mode) • Light Foreground on Dark Background (default for projection mode) After selecting from one or both menus, left-click **Submit**.	Network analyst
Page Language	The language in which the BB-GUI displays pages.	System
Online Help Language	The language in which the BB-GUI displays online help.	System
Table Size	Use to change Find Table Size default. Type a new table size in the field. Do not use commas. This cannot exceed Max Table Size.Then left-click **Submit**. Table size is the maximum number of scrollable rows displayed in your Query at one time. Each chunk of rows identified by the numbers and arrow under the bottom left corner of output. Initial default is 1000. This parameter can be increased up to the Max Table Size number (maximum of 30,000). Please note that increasing this number will add extra wait time to load the table. *Example:* If table size is 5,000, and a line above your Find says "15000 records found", then below the bottom left corner of output you see "1 2 3". The bold 1 means you are looking at records 1-5,000. Left-click 2 to see records 5,001-10,000, and left-click 3 to see records 10,001-15,000.	Network analyst
Max Table Size	Type a new max table size in the field. Do not use commas. This cannot exceed 30,000. Then left-click **Submit**. The Max Table Size field sets the Table Size default parameter on the Query page. This is the maximum number of records your Find retrieves. Note that Max Table Size and Table size have no affect on the number of records in Compute or Pattern Painter.	Network analyst
Font Name	Select from the following: Arial (default), Times New Roman, Courier New. Then left-click **Submit**.	Network analyst

Field	Description	Permission
Font Size	Select from the following: Small (default), Medium, Large, Largest. Then left-click **Submit**.	Network analyst
NTP Preferences		
FDC Group	Make a selection from the scrolling list. After selecting, left-click **Submit**. • **Purpose**. Select an FDC group to limit output to only those alert cases (or CFIMs) with FDCs in the group. The "all" means no limits. • **Define groups**. The system administrator defines FDC groups. If you see only "all", there are no groups defined. • **Displayed**. Your current group is listed beside the page name of the output page. • **Override**. If you use search criteria ("Search/Edit" (p. 3-16)) to specify FDCs, the FDC group is ignored. • **Core**. FDC groups is a core feature.	Administrator
Network Group/Segment	Make a selection from the scrolling list. After selecting, left-click **Submit**. Similar to FDC group. Select a network group or segment to limit output to only those alert cases with those CLLIs in the NE field (or CFIMs with those CLLIs in the Re or De fields).	Administrator
	Netgroup and fdcgroup refine buttons. Click to bring up a popup window, where you can then select one particular group to refine into its members.	All

Web User Administration Page

Web User Administration page purpose

This page displays attributes for logins on the system. It also allows you to search for logins.

How to access the Web User Administration page

Use this procedure to access the Web User Administration page.

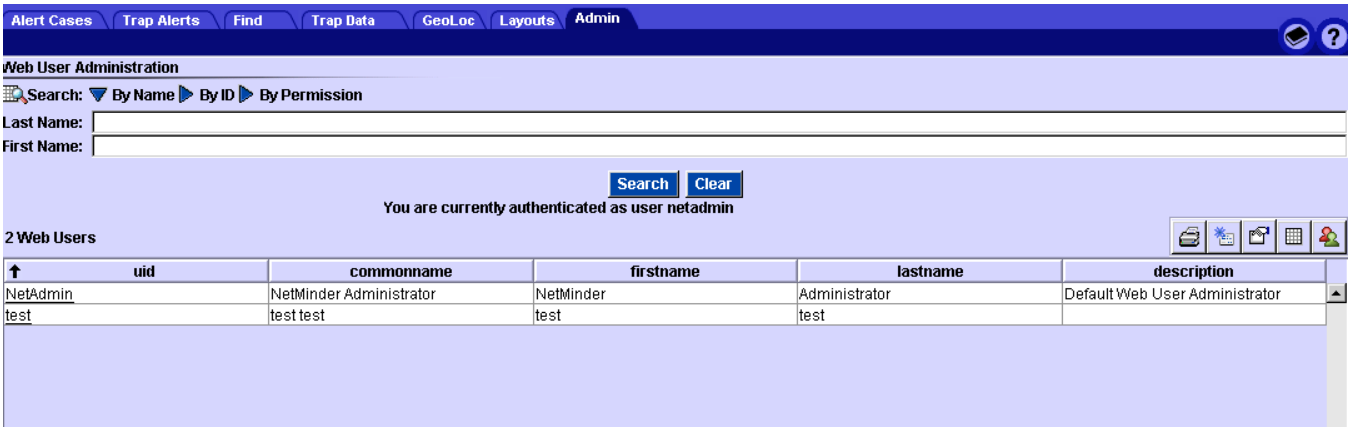
1 Select the **Admin** tab from any BB-GUI page.

2 If you have an administrative login, the Web User Administration page appears.

END OF STEPS

Web User Administration page example

Here is an example of the Web User Administration page.



Web User Administration page parts

The Web User Administration page has two areas:

- Search area
- Web User Information area

It also has buttons and icons that are specific to the page. Those specific icons are discussed here. Common toolbar icons are discussed in"Toolbar icons" (p. 2-12).

Field	Description
Search	
Search Criteria	Search for a user by: • name • ID • permission (allows you to search by Web Administration permission/non-Web Administration permission and Restricted User/non-Restricted User.)
Buttons Specific to the Page	
Search	Select the Search Button to begin your specified search.
Clear	Clear the search fields.
Icons Specific to the Page	
	Create New Entry in Table icon This allows administrators to create a new entry in the Web User Table. Selecting this icon will take you to the Web User Information page, where a new user can be added.
	User Default icon This icon allows administrators to set defaults for • all users • newly-defined users For more information see the "Add or Delete Users" chapter in the *System Administration Guide*.
	User Table icon This icon brings up the Administer User Tables screen. From this screen the administrator can view and/or delete user tables saved by any user. For more information see the "Add or Delete Users" chapter in the *System Administration Guide*.

Field	Description
	Group Manager icon This icon brings up the Group Manager dialog window. From this window the administrator can view, create, delete and edit following items: • FDC Groups • Network Groups • Network segments For more information about groups, see the "Modify Users" chapter in the *System Administration Guide*. For more information about Group manager, see "Group Manager" (p. 7-11)
Web User Information	
Web User ID	Login ID of web user (only lowercase characters are allowed).
Common Name	User's name.
First Name	
Last Name	
Description	Information about user.

Group Manager

Group Manager purpose

The Group Manager feature allows you to manage FDC groups, network groups and network segments. This procedure describes the Group Manager dialog window.

Use this procedure to add new FDC group (follow similarly the instruction to add network groups and network segments).

1 Select the **Admin** tab from any BB-GUI page.

2 If you have an administrative login, theWeb User Administration page appears.

3 Click Group Manager Icon.

4 When the **Group Manager** dialog window will appear, make sure that the **FDC groups** tab is on the top and then click **Add** button.

5 When the **Create a new FDC Group** dialog windows will appear enter in the FDC group area any string as a name of this group.

Important! The name of a group can contain only lower letter characters, numbers and underscore character ("_"). Also the name can be max 24 characters long.

6 In the Description area enter any string as a description of the group.

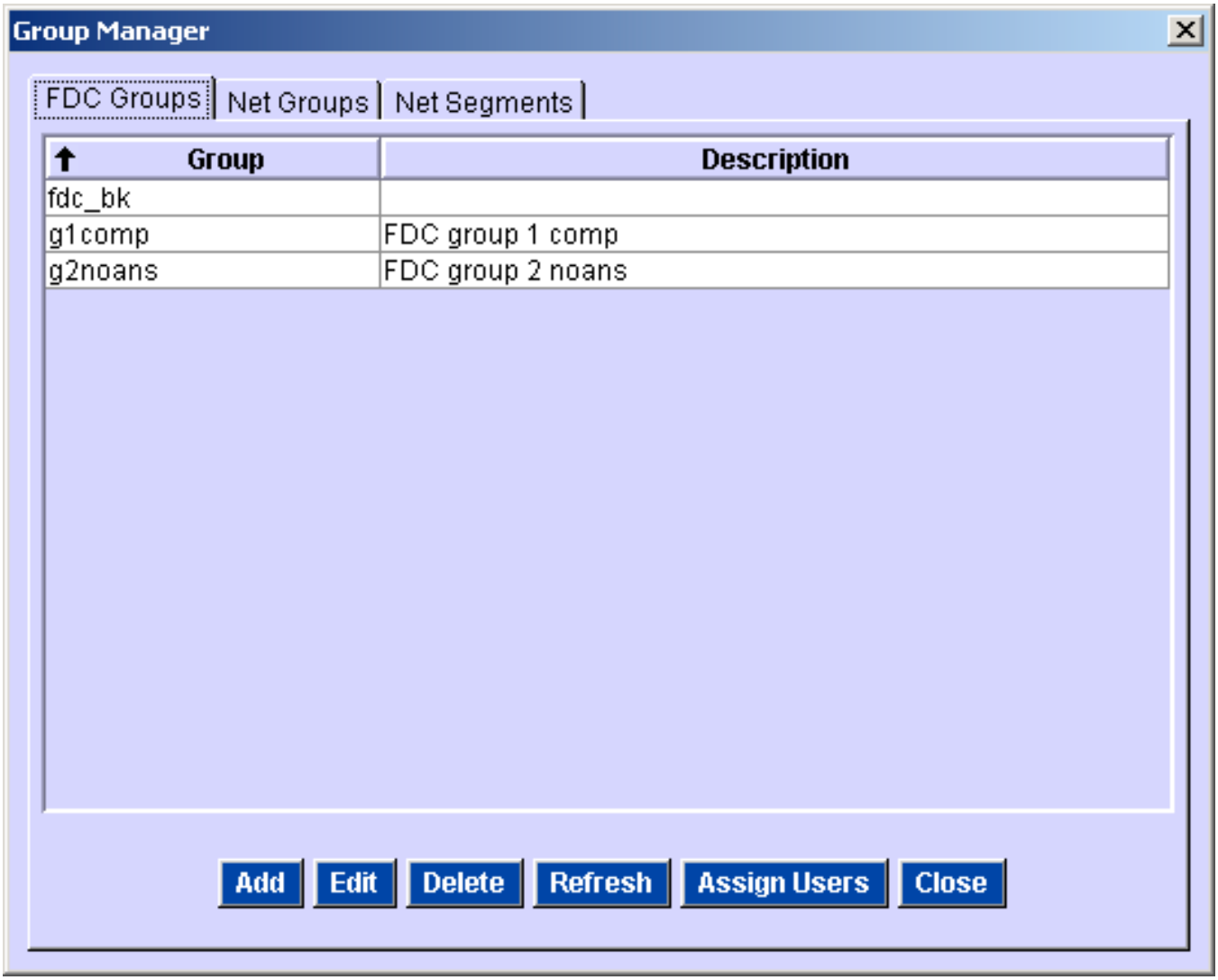
7 Add to the **In group** list the FDCs by marking them on the **Available** list and using the **Add** button.

8 Click the **Save** button to add the group to the database.

END OF STEPS

Group Manager dialog window example

Here is an example of the **Group Manager** dialog window.



Group Manager dialog window parts

The Group Manager dialog window contains:

- Three tabs with the lists of: FDC Groups, Net Groups and Net Segments.
- The **Add** button to add new group.
- The **Edit** button to edit marked group.
- The **Delete** button to delete marked group.
- The **Refresh** button to refresh list of groups.
- The **Assign Users** button to assign users to the marked group.
- The **Close** button to close the **Group Manager** dialog window.

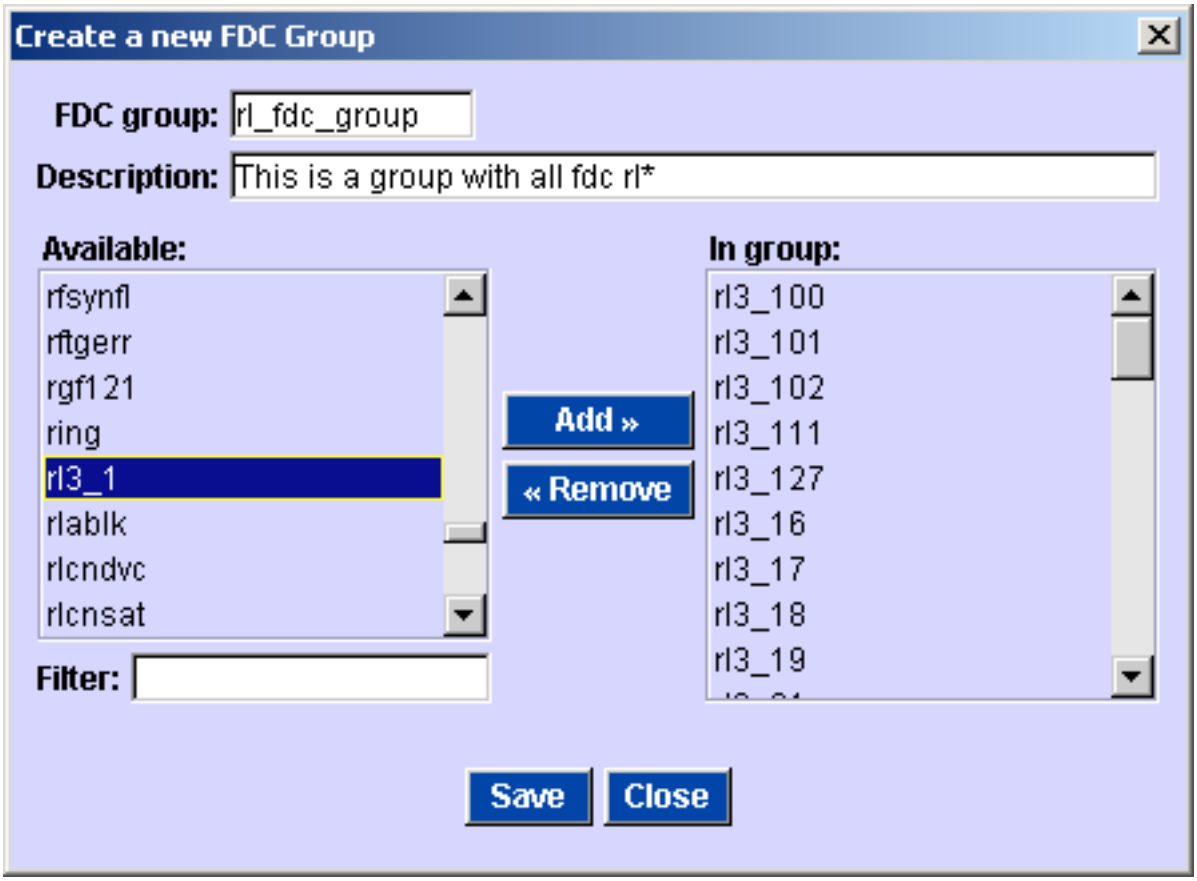
  Note: To edit group and assign users to marked group follow similarly as to the instruction of adding new group above.

FDC groups

FDC groups determine which FDCs' alert cases appear on TP output. For more information about FDC groups, see *Manage FDC Groups, Chapter Modify Users, System Administration Guide*.

Create a new FDC Group dialog window example

Here is an example of the **Create a new FDC Group** dialog window.



Create a new FDC Group dialog window parts

Create a new FDC Group dialog window contains:

- The **FDC group** area to defining name of the group.
- The **Description** area to enter description of the group.
- The **Available** list with the list of all available FDCs.
- The **In group** list with the list of already selected FDCs.
- The **Filter** area to filter list of available FDCs.
- The **Add** button to add FDCs to the **In group** list.
- The **Remove** button to remove FDCs from the **In group** list.

- The **Save** button to save group into the database.
- The **Close** button to close the window.

Network Groups and Segments

Network groups and segments determine the entities users see on output. For more information about Networks Groups and Segments, see *Manage Network Groups and Segments, Chapter Modify Users, System Administration Guide*.

Note: The dialog windows to manage Networks Groups and Segments are respectively similar to the dialog window to manage FDC Groups.

Important! Tabs for managing Network Groups and Segments are available only when option NETSEG is enabled. To enable this option contact your Alcatel-Lucent Customer Engineer.

8 Geo-Location Page

Overview

Purpose

The Geo-Location Page (accessed via the GeoLoc tab from the Launch page) presents a geographic map showing call densities, min/max/frequency of call related values, call instance maps, differential analysis ("before vs. after"), and other call related information.

Overview

The Geo-Location Page provides a graphical display of call density maps based on geo-located Per-Call Measurement Data (PCMD) and the associated Pilot Strength Measurement Messages (PSMM). The maps provide a geographic display of mobile CDMA calls, with the display showing cell site locations, antenna orientation, roads, and other geographic landmarks.

The maps produced by the Visual Geo-Location Analysis feature can be divided into two kinds: the grid summary and call instance maps.

The grid summary maps comprise the following:

- A color-coded grid, showing call counts or other call characteristics in geographic areas 100 meters square.
- A wire frame depiction of the geographic area, showing various borders, roads, rivers, bodies of water, railroads, and so on. The complexity and content are up to the discretion of the user who creates this map using MapInfo® Professional.
- Cell base stations, their sectors including azimuths, beamwidths, and pseudo-noise.

The call instance maps comprise the following:

- A depiction of the geographic area, showing various borders, roads, rivers, bodies of water, railroads, etc. The complexity and content are up to the discretion of the user who creates this map using MapInfo® Professional.
- Cell base stations, their sectors, azimuths, beamwidths, and pseudo-noise.
- Call instance locations (they indicate that a configurable group of field information is included).

Audience

The Geo-Location page is an application whose audience is primarily Radio Frequency (RF) and performance engineers. However, NOC engineers can also use it for tracking user call instances.

Layers in Geo-Location

Visual Geo-Location is built on various layers. Layers refer to a form of layout in a geographic application. These layouts can represent borders, roads, cities, populations, topography, landmarks, objects, and so on. It is a general term, as the layouts can be color-coded, use solid or translucent areas, or can just be wire frame representations of their data. These layers are ordered and some layers can block viewing of areas of lower layers.

In **summary maps**, the layers that you create (roads, borders, etc.) are forced to wireframe when drawn on top of the summarized grid. With **call instance maps**, these layers are left as you created them.

Prerequisites

The following four options are prerequisites for using the Geo-Location page:

1. 8920 NTP feature 6379, Per Call Measurement Data (PCMD) Converter
2. 8920 NTP feature 6401, Autoplex Pilot Strength Measurement Messages (PSMM) Support
3. 8920 NTP feature 6417, CDMA Call Data Geo-Location Analysis (with option *pcmdgeoloc)*
4. MapInfo® Professional® Third Party Graphics software package (Microsoft® Windows® only product)

MapInfo® Professional®

The Geo-Location Page makes use of MapInfo® Professional® for creation and display of maps, which is the industry standard for doing geographic layouts. MapInfo operates separately from the typical BB-GUI applet type of environment.

MapInfo Professional is executed for the creation of maps and final viewing of Geo-Location output.

Important! The MapInfo map data is stored in your computer and, therefore, the area definitions cannot be shared with other users.

Contents

Geo-Location Map

Purpose

This section provides information about the layers in a Geo-Location map.

Geo-Location Map Layers

The **Grid Summary Map** is comprised of the following aspects:

1. **The base layer.** It is a geographic grid based on summary information.
   The summary information represents one of the following items:
   - The record count for each grid cell from the data selection that created the summary information.
   - The minimum or maximum, mean, or standard deviation of a field value for each grid cell from the data selection that created the summary information.
   - The cell by cell difference between two similar summaries. ("before and after" studies) (Requires the same area definition.)
   - The cell by cell division between two summaries. (various grid based ratios.) (Requires the same area definition.)
2. **The middle layer or layers.** It is a wire frame depiction of the geographic area, which you create in MapInfo. It shows various borders, rivers, bodies of water, railroads, and so on. At lower levels, it shows road or street level detail. (The underlying map controls the level of detail.) The WGS84 projection is used for display. (These are different layers as you can create different layers related to various types of geographic data.)
3. **The top layer.** It represents the cell base stations, their sectors, azimuths, beamwidths, and pseudo-noise. The grid summary information has associated cell summary information that contains the cell base station data related to the summary for the date of summary. If the map is based on two summaries, then the cell data displayed is for the summary with the later date/time.
4. **A textual heading window** presented in MapInfo for the geographic map.
   It contains the following elements:
   - Area Definition name
   - Date range
   - Time range
   - Other selection criteria
   - Summary field choice – Field choice from the summary data.
   - Call count
   - RunTime and run length (calculate from DoneDate-RunDate)

Important! If the map is either a differential or rational map, then the information from both summary tables is included in the heading. Redundant information (for example, same date or time range, or selection criteria) is only displayed once.

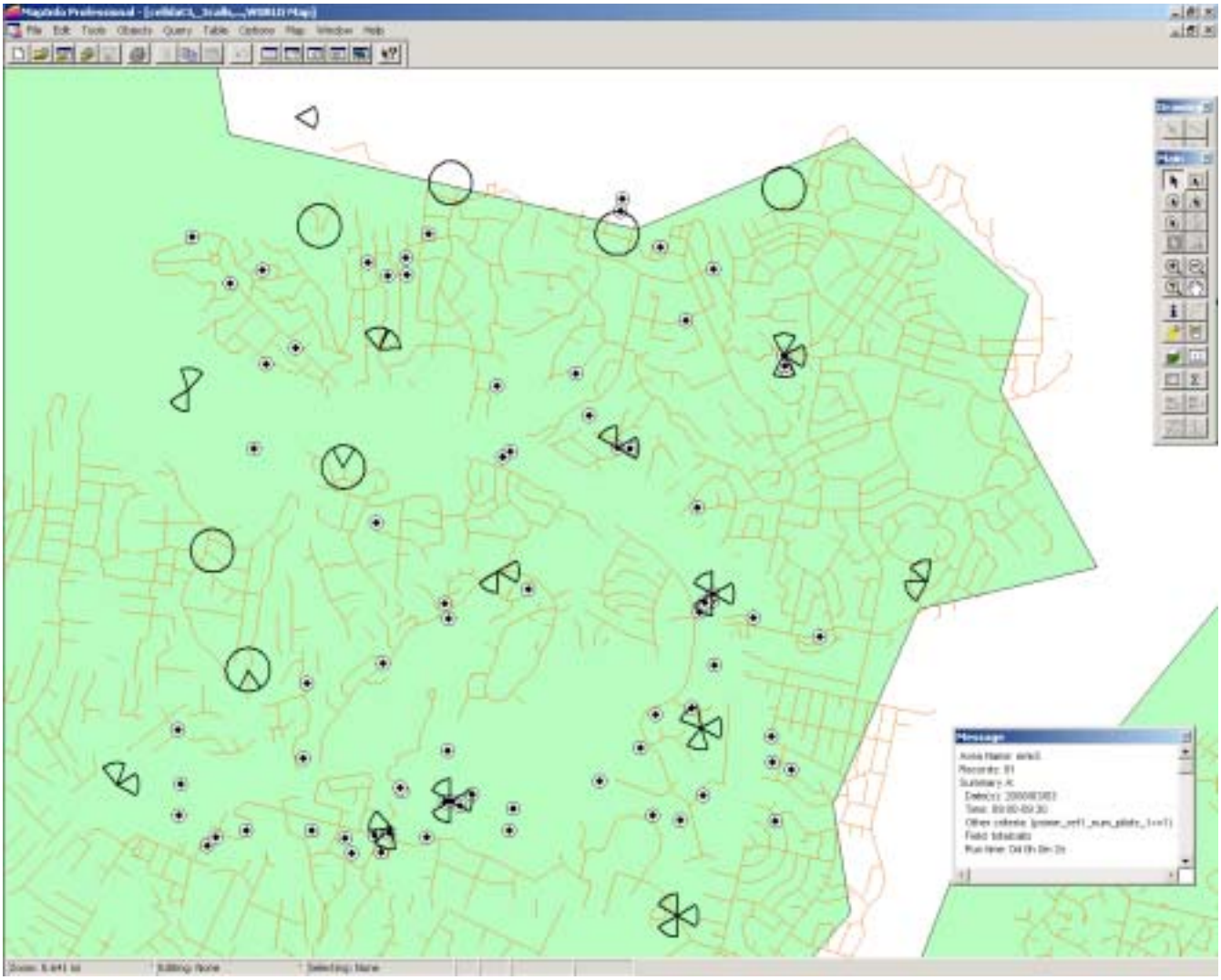
The **Call Instance Map** is comprised of the following aspects:

- **The bottom layer(s).** It is a map layout of the geographic area as designed by you. This is created by you in MapInfo and shows various borders, rivers, bodies of water, railroads, and so on. At lower levels, it may show road or street level detail. (The underlying map controls the level of detail.) The WGS84 projection is used for display. (There may be several layers as you can create several layers related to various types of geographic data.)
- The next layer up is the cell base stations, their sectors, azimuths, beamwidths, and pseudo-noise. The selection information has associated cell selection information that contains the cell base station data related to the selection for the date of selection.
- **The top layer.** It shows the Call Instances, represented as a diamond with a surrounding circle. Call instances indicate that a configurable group of field information is included
- **A textual heading window** presented in MapInfo for the geographic map which contains the following elements:
  - Area Definition name
  - Date range
  - Time range
  - Other selection criteria
  - RunTime and run length (calculate from DoneDate-RunDate)

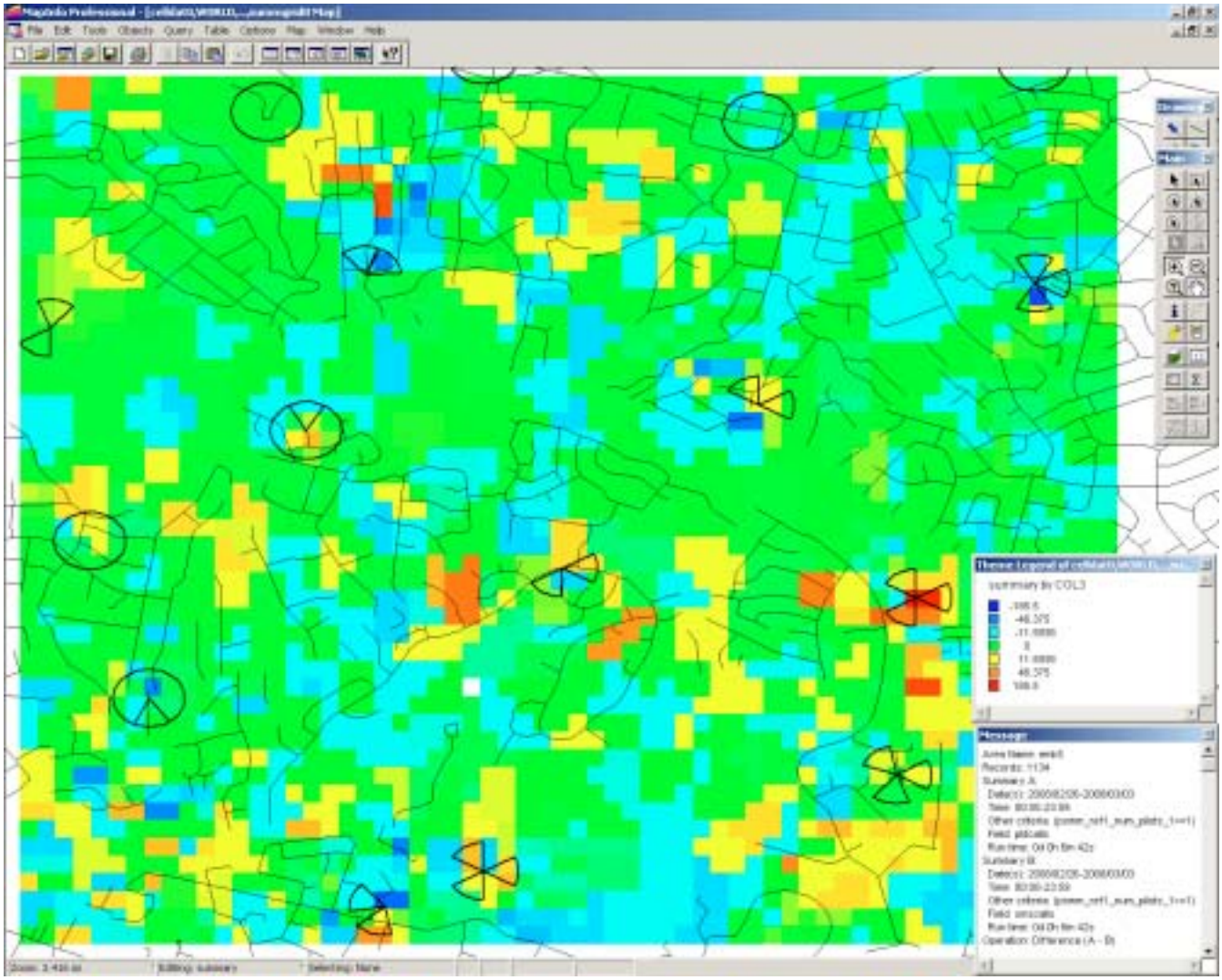
Examples

These pictures are examples of Geo-Location maps in MapInfo Professional (call instances, comparison of packet vs. SMS calls, and total calls).

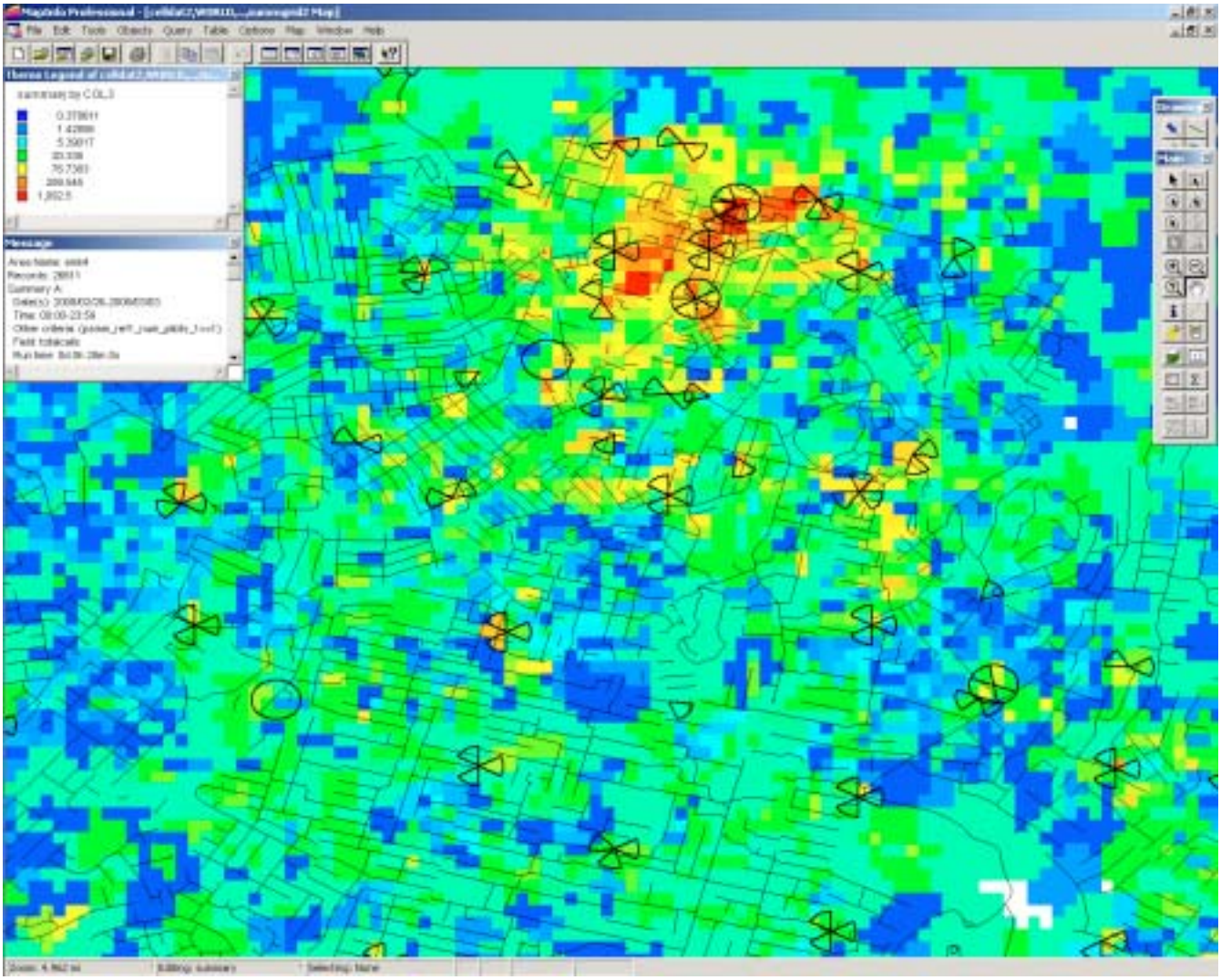
GeoLocation Call Instance Map in MapInfo Professional.



GeoLocation Grid Summary Map in MapInfo Professional: comparison of packet vs. SMS calls.



GeoLocation Grid Summary Map in MapInfo Professional: total calls



General Guidelines on How to View a Map

Viewing a Map

Proceed through a three-step process to view a map:

1. **Create an Area Definition.**

   Reference: "How to Create an Area Definition" (p. 8-14)

   An Area Definition is associated with you and includes the square geographic region. The sizes of the area are 5 km x 5 km, 10 km x 10 km, 20 km x 20 km, or 40 km x 40 km, 100 km x 100 km, 200 km x 200 km (last two for Call Instance only). The assumption is that you (as an RF engineer) are responsible for a lot of geographic areas that are defined initially and periodically updated. The majority of the time you would make use of the previously defined areas. MapInfo is launched so you create a map associated with the area, choose the center point of the area, and choose the size of the area.

   For more details, see "Geo-Location Search Panel – Define Area" (p. 8-10)

   Important! As these maps are stored on your computer, back up this data regularly.

2. **Create a Selection Definition.**

   Reference: "How to Create a Selection Definition" (p. 8-18)

   Once you submit the Selection Definition, summary data is created for the selection criteria using the geographic region in the Area Definition.

   Selection Definition consists the following data:

   - date range,
   - time range,
   - selection type,
   - other search criteria.

   A Selection Definition is associated with you and an area.

   For more details, see "Geo-Location Search Panel – Create Selection Area" (p. 8-16)

3. **View the map.**

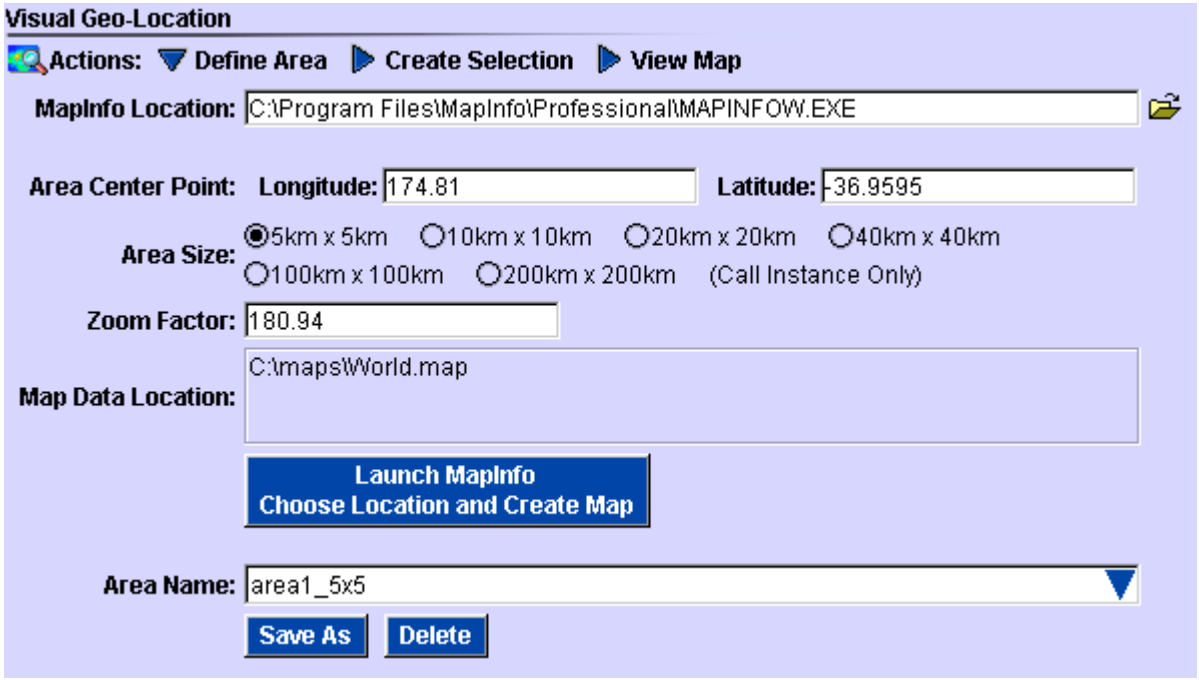
   Reference: "How to View a Map" (p. 8-23)

   Once the selection process completes, you can view in a map the various summarized grid data and cell tower information associated with the Area Definition. MapInfo is launched to display the map (For more details see "Geo-Location Search Panel – View Map Area" (p. 8-20).

Geo-Location Search Panel – Define Area

Define Area Panel Example

The following picture is an example of the Define Area Panel.



Define Area Panel Elements

The Define Area Panel contains the following elements:

Label	Description
MapInfo Location	Location of MapInfo Professional executable (default value: typical location based on the default installation of the MapInfo product).
Longitude	Editable longitude value for center point of area definition. It is returned when launch of MapInfo is completed.
Latitude	Editable latitude value for the center point of area definition. It is returned when launch of MapInfo is completed.

Label	Description
Area Size	You choose an area size. The choices are: • 5 km x 5 km • 10 km x 10 km • 20 km x 20 km • 40 km x 40 km • 100 km x 100 km (Call Instance only) • 200 km x 200 km (Call Instance only) It is returned when launch of MapInfo is completed. (default value: 5 km x 5 km)
Zoom Factor	Editable zoom factor value which controls how much space is viewed in a map.
Map Data Location	Location of the map created in MapInfo. It is returned when launch of MapInfo is completed. It is a scroll region
Area Name	Menu of Area Definition names associated with you.

Buttons on Area Panel

The Area Panel contains the following buttons:

- **Disk button** – popups the file dialog to allow you to designate the location of the MapInfo executable.
- **Launch MapInfo** – executes MapInfo. Upon return from MapInfo the Longitude, Latitude, Area Size, and the Map location is populated.
- **Save As** – opens a dialog for saving the Area Definition. The dialog is populated with the current highlighted name in the Area Name menu. You can change or retain the name.
- **Delete** – opens a dialog to confirm the deletion of the Area Definition.

Grid Summary/Call Instance Selection Queue View

The Geo-Location page contains an auto updating table representing the queue of summaries and call instance selections which are created, running or failed (the `gl_sel_queue` table view).

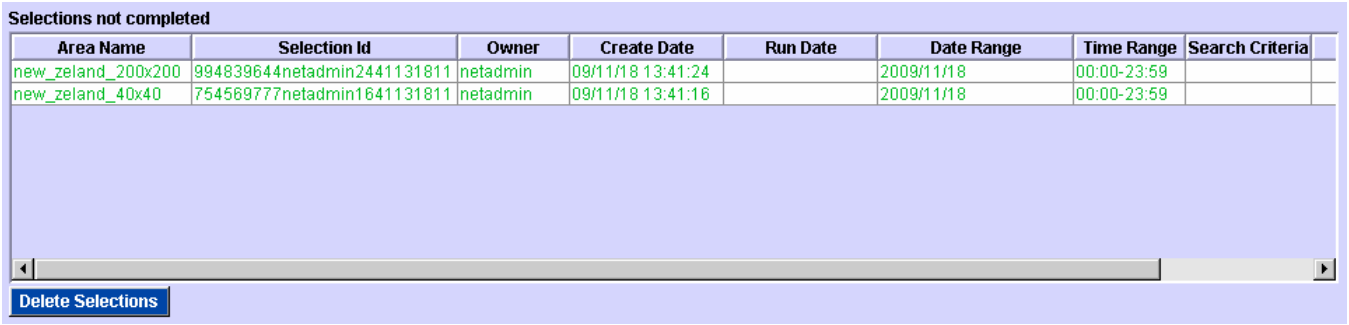
The table has the following characteristics:

- The title “Selections not completed”
- 15 second auto-update cycle

- Sorted ascending by CreateDate
- The layout ordering as the following:
  - Area Name
  - SelectionId
  - Owner
  - CreateDate
  - RunDate
  - Daterange
  - Timerange
  - Searchcriteria
  - ErrorText
- The coloring of the table text as the following:
  - **Green** – created selections
  - **Blue** – running selections
  - **Red** – failed selections (those with an ErrorText)
- Allows for copy the cell contents by popup menu.

Example

This is an example table showing status of the `gl_sel_queue` view (less coloring of text)



Delete Selections button

You are able to delete your own selections from the queue. To do so, highlight the rows to be deleted and then press the Delete Selections button.

Creating a Map and Choosing the Area in MapInfo

You can create a map as desired with whatever layers seem appropriate.

After you have created the map, then the process of choosing area is as follows:

1. Choose the "area pointer tool" from the Main tool button pad. 
2. Click on the center of the desired area.
3. Once you click, a dialog appears to designate the area size.

   - The box representing the area is drawn in the map and a dialog is displayed to confirm that the area is correct.

4. Choose **OK** or **Cancel**
   - If you choose **OK**, then the longitude and latitude of the center point, the area size, the zoom factor, and the related map data are saved to disk where the applet retrieves the content. The data is saved on your PC in the "**%USERPROFILE%/Local Settings/Application Data/Lucent**" directory.
   - If you choose **Cancel**, no data is saved.
5. You are able to repeat the choosing of the point and area size.

Once the area and map data are written to disk, the Geo-Location applet reads the data and populates the Area Center Point, Area Size, Zoom Factor and Map Data Location with the new data.

How to Create an Area Definition

Purpose

The procedure included in this section shows a basic scenario which you can use to create an area definition.

Related information

For the background information, see"Geo-Location Search Panel – Define Area" (p. 8-10).

Procedure

Use this procedure to create an area definition.

1 On the GeoLocation page, choose the Define Area panel from the Search area.

2 Set the location of MapInfo.

Note: This should only happen once and then retained. A default is provided based on a standard installation of MapInfo.

3 Launch MapInfo

4 In MapInfo, create a map, choose the Area Center Point and Area Size, and click the button which passes control back to the applet.

Reference: See "Creating a Map and Choosing the Area in MapInfo" (p. 8-13) for more information.

Result The associated data is written to disk and the applet reads this data. The Map Location, Area Center Point, Area Size and Zoom Factor are populated in the panel.

5 In Area Name, choose a name from menu.

6 You can either:

- Press **SaveAs** and a dialog appears for saving the Area Definition. You may use the currently highlighted name or change the name.
- Press **Delete** to delete the Area Definition.

END OF STEPS

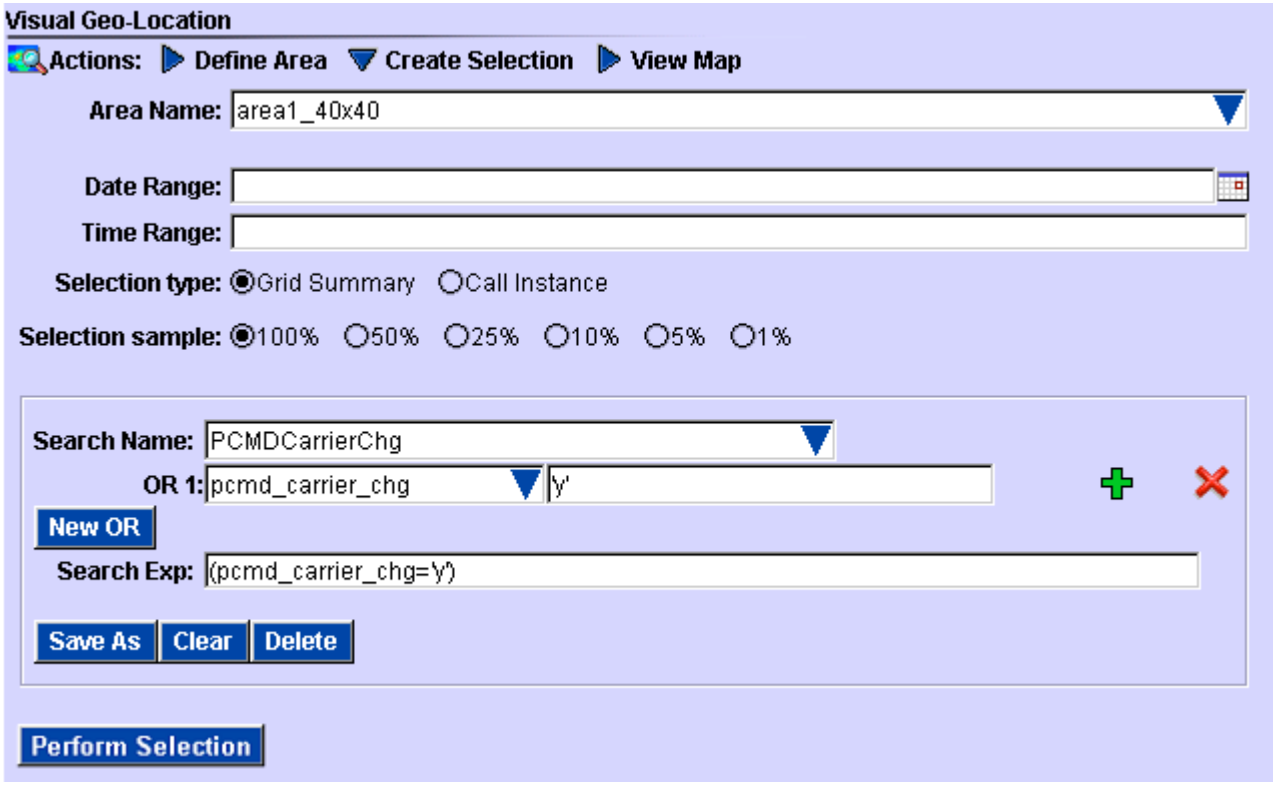
Result

You have created an area definition. Now you need to create a selection definition. See "How to Create a Selection Definition" (p. 8-18).

Geo-Location Search Panel – Create Selection Area

Create Selection Area Panel Example

This is an example of the Create Selection Area Panel.



Create Selection Area Panel Elements

The Create Selection Area Panel contains the following elements:

Label	Description
Area Name:	Menu of Area Definition names associated with a user.
Date Range:	A text representation of a date range. Format is consistent with date ranges on the Find page. You are required to enter this field. **Note:** You can use a calendar dialog.

Label	Description
Time Range:	A text representation of a time range. Format is consistent with time ranges on the Find page. **Note:** If no time range is entered, then the following default time range will be used "00:00-23:59".
Selection Type	Choice of Selection Type: Grid Summary or Call Instance.
Selection Sample:	Selection sampling – Percent of data returned based on selection criteria.
Search Name (other criteria):	Other search criteria. Search name contains a menu of saved search criteria. No time or date fields are among the field choices.

Buttons on Create Selection Panel

The Create Selection Panel contains the following buttons:

- **Calendar Dialog icon** – opens the Calendar dialog that allows you to choose a date or dates visually. By clicking the OK button on the dialog box, the Date Range is populated with the returned string (for more information see "Calendar Dialog" (p. 5-10).
- **Save As** – opens a dialog for saving the Other Criteria. The dialog is populated with the current highlighted name in the Other Criteria menu. Then you change or retain the name, and save the Other Criteria.

  Note: The public option check-box is available where you can designate the criteria available to others, as in the Find page.
- **Clear** – clears the search query box so you can reenter your search criteria.
- **Delete** – opens a dialog to confirm the deletion of the currently highlighted name in the Other Criteria menu.
- **Perform Selection** – submits the Selection Definition for processing. Upon creation of the Selection Definition, a simple dialog is displayed to indicate the creation of Selection Definition.

How to Create a Selection Definition

Purpose

The procedure included in this section shows a basic scenario which you can use to create a selection definition.

Related information

For the background information, see "Geo-Location Search Panel – Create Selection Area" (p. 8-16).

Before you begin

Make sure that you have created an area definition.

If you have not done it yet, go to "How to Create an Area Definition" (p. 8-14).

Procedure

Use this procedure to create a selection definition.

1. On the GeoLocation page, choose the **Create Selection** panel from the **Search area**.
2. Choose an **Area Name** from the menu.
3. Enter **Date Range**. You can use the "Calendar Dialog" (p. 5-10).
4. Enter **Time Range**.
5. Choose **Selection Type**. The default is **Grid Summary**.

   Note: The lower overhead of a Call Instance Selection allows more concurrent Call Instance Selections than Grid Summary Selections. The default number of concurrent non-shorttime Call Instance Selections is 8. The default number of concurrent non-shorttime Grid Summary Selections is 3. Both values can be modified.

   Important! To modify default values please contact your Alcatel-Lucent Customer Engineer.
6. Choose **Selection Sample**. The default is 100%.

7 Choose or enter other search criteria related to the CFIM table similar to the search area of the Find page. These criteria can either be saved or currently saved criteria may be deleted.

Note: The menus of fields contain no date or time-related fields.

8 Press **Perform Selection** to send your selection definition to the host for processing.

END OF STEPS

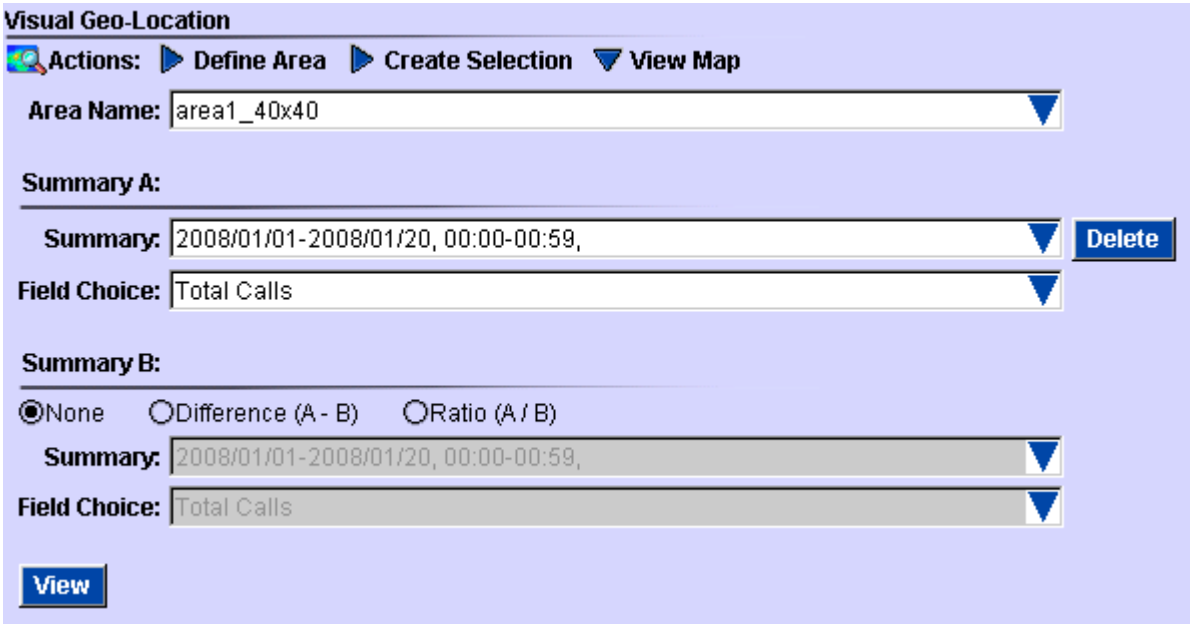
Result

You have created a selection definition. Now you are ready to view a map. See "How to View a Map" (p. 8-23).

Geo-Location Search Panel – View Map Area

View Map Area Panel Example

This is an example of the View Map Area Panel.



View Map Area Panel Elements

The Define Area Panel contains the following elements:

Label	Description
Area Name:	Menu of Area Definitions associated with you. **Note:** When this choice changes, then the selection menus for Selection A and Selection B are updated.
Selection:	Menu of Selections for Selection A (the criteria of selections related to this Area Definition; they are ordered in reverse chronological order). Only completed selections are displayed in this menu. **Note:** Press the **Delete** to delete the current entry in the Selection A menu.

Label	Description
Field Choice:	Menu of field choices from the Selection A. (default value: Total Calls) **Note:** If the entry in Selection A is Call Instance, then this menu is disabled.
	Choice for Selection B. The choices are: • **None** (no Selection B) • **Difference** (A-B) • **Ratio** (A/B) **Note:** If the entry in Selection A is Call Instance, then this menu is disabled.
Selection:	Menu of Summaries for Selection B. Characteristics are the same as for Selection A with the following exceptions: • Only Selections with a Selection Type of "grid summary" are populated in this menu. • If the choice for Selection B is "None", then this menu is disabled.
Field Choice	default value: Total Calls **Note:** If the choice for Selection B is "None", then this menu is disabled.

View Button

Press the View Button to:

- download the selection data onto your PC into the "**`%USERPROFILE%/Local Settings/Application Data/Lucent`**" directory.
- be launched into MapInfo with a MapBasic program to present the map in its three layers: selection grid, wire frame geographic area, and cell base stations.

The selection grid data is one of the following:

- If the value of the option button for Selection B is "**None**," grid display data is based only on the Selection A and Field Choice.
- If the value of the option button for Selection B is "**Difference**," grid display data is based on the Selection A and Field Choice, and the Selection B and Field Choice, with a grid cell by grid cell subtraction of Selection B from Selection A.
- If the value of the option button for Selection B is "**Ratio**," grid display data is based on the Selection A and Field Choice, and the Selection B and Field Choice, with a grid cell by grid cell division of Selection A by Selection B.

How to View a Map

Purpose

The procedure included in this section shows a basic scenario which you can use to view a map.

Related information

For the background information, see "Geo-Location Search Panel – View Map Area" (p. 8-20).

Before you begin

Before you can view a map:

1. Create an Area Definition. For more information, see "How to Create an Area Definition" (p. 8-14)
2. Create a Selection Definition. For more information, see "How to Create a Selection Definition" (p. 8-18).

Procedure

Use this procedure to view a map.

1 On the GeoLocation page, choose the **View Map** panel from the **Search area**.

2 Choose **Area Name** from menu:

- The Selection menus (A and B) are populated with selections related to Area Name in reverse chronological order.
- Selection B is set to None.

3 Choose Selection A.

- If the Selection is a **Grid Summary**, then choose an A Field Choice (for example, Total calls/lost calls/ratio, Ec/Io max/min/mean/std dev).
- If the Selection is a **Call Instances**, then the Field Choice menu is disabled.

If Selection A is a **Grid Summary**, then you can optionally set Selection B to **Difference** or **Ratio**.

- Choose Selection B.
- Choose a Selection B Field Choice.

4 Press **View**.

END OF STEPS

Result

MapInfo is launched and the map is displayed.

Appendix A: Surveillance and Summary Database Tables

Overview

Purpose

This appendix describes:

- Surveillance database tables - which hold collected data or calculations,
- Summary database tables - which contain calculated information.

These tables cannot be modified.

Contents

Introduction

Introduction To Surveillance and Summary Database Tables

Overview

This appendix lists:

- *Surveillance data tables* — These tables are populated in real time as a result of input data streams from CIMs. This information is used to populate NTP software outputs such as Alert Cases, TrapAlerts, and other displays on the BB-GUI. These tables are not modifiable. Surveillance database tables are sometimes referred to as *chronological* tables.
- *Summary data tables* — these tables contain calculated information. They cannot be modified.

In addition to Surveillance and Summary database tables, there are also:

- *Reference database tables* — These are user-modifiable tables used to parse, interpret, and manipulate data in the Surveillance and Summary database tables.

Hint: Reference database tables are detailed in Appendix A, "Reference Database Tables", in the System Administration Guide.

Accessing Table Descriptions

Overview

The listings in this appendix contain general information about the tables as well as special notes.

Generally, the following information is presented for each table:

- Purpose — a description of the table.
- Populates — indicates where the information in this table is displayed on the NTP BB-GUI.
- Special Considerations/Notes — information to be aware of when working with this table.
- Reference — if necessary.

Field Information

The listings in this appendix do NOT contain a listing of the fields within these database tables. Because the fields in these tables change frequently and are highly dependent on the options and features enabled on your NTP system, the most accurate information is available on the NTP software itself. See "Viewing Table and Field Descriptions" (p. A-4).

Important! NTP translates all field names and values to lowercase unless there is a specific constraint on a field within the system. In those few instances, the value appears in case-sensitive format. For example, for ease of reading, the Description field retains a mix of upper- and lowercase letters.

Viewing the tables

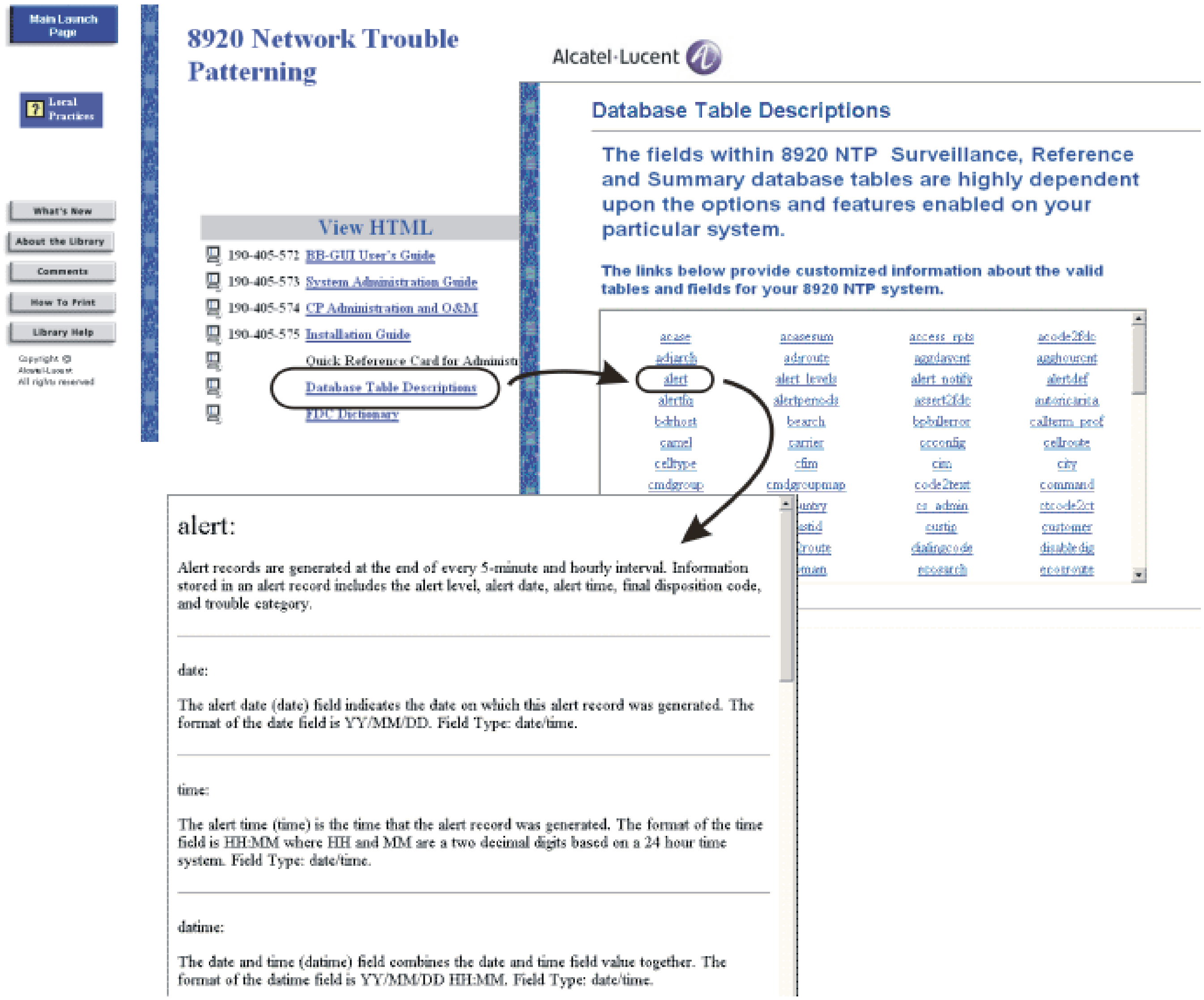
To see records in any table except Trapalert, use "Find Page" (p. 5-3).

On any page (e.g., Find Page), column help is accessed by right-clicking on an output column and selecting "column help".

Viewing Table and Field Descriptions

There are two ways to view descriptions of tables and their associated fields:

- The **`describe`** command, which is accessed from the command line (administrators only). This command is described in detail in Chapter 4, "Reference Data Tables," in the *System Administration Guide*.
- The Database Table Description link, which is accessed from the Library Page. This link presents you with a listing of all tables found on your system. Select a table and you are presented with output detailing the valid fields for the selected table.


Main Launch Page
Local Practices
What's New
About the Library
Comments
How To Print
Library Help
8920 Network Trouble Patterning
View HTML
190-405-572 BB-GUI User's Guide
190-405-573 System Administration Guide
190-405-574 CP Administration and O&M
190-405-575 Installation Guide
Quick Reference Card for Administr
Database Table Descriptions
FDC Dictionary
Alcatel·Lucent
Database Table Descriptions
The fields within 8920 NTP Surveillance, Reference and Summary database tables are highly dependent upon the options and features enabled on your particular system.
The links below provide customized information about the valid tables and fields for your 8920 NTP system.
acase
acasesum
access_rpts
acode2fdc
adjarch
adroute
aggdavent
agghourcnt
alert
alert_levels
alert_notify
alertdef
alertfa
alertperiods
assert2fdc
autoricarita
bdrhost
bsearch
bpbillerror
callterm_prof
camel
carrier
ccconfig
cellroute
celltype
cfim
cim
city
cmdgroup
cmdgroupmap
code2text
command
cs_admin
ctcode2ct
custip
customer
dialingcode
disabledig
ecosearch
ecotroute
alert:
Alert records are generated at the end of every 5-minute and hourly interval. Information stored in an alert record includes the alert level, alert date, alert time, final disposition code, and trouble category.
date:
The alert date (date) field indicates the date on which this alert record was generated. The format of the date field is YY/MM/DD. Field Type: date/time.
time:
The alert time (time) is the time that the alert record was generated. The format of the time field is HH:MM where HH and MM are a two decimal digits based on a 24 hour time system. Field Type: date/time.
datime:
The date and time (datime) field combines the date and time field value together. The format of the datime field is YY/MM/DD HH:MM. Field Type: date/time.

Surveillance Data Tables

acase (v_acase) Table

Purpose

Each row of this table summarizes a problem's CFIMs for all intervals in which the problem's CFIM count was above its threshold.

Populates

Records in this table, where status is NOT closed, appear on the Alerts Cases page (see "Alert Cases Page" (p. 4-2)).

acase/acasesum and v_acase/v_acasesum

Alert case information is spread over two tables:

- The ACASE table contains one row per alert case.
- the ACASESUM table may contain multiple rows per alert case (one per alerting period length, e.g., 5m, 1h, etc.).

The v_acase and v_acasesum views provide a combined display of acase and acasesum.

- v_acase shows only one acasesum row per acase row (it chooses only the most recent acasesum record per acase)
- v_acasesum provides one row for each acasesum row.

The set of fields is the same as the combined set for the two tables.

The table description (accessed via the **`describe`** command - see "Viewing Table and Field Descriptions" (p. A-4)) notes which fields are "v_acase table only" or "acase table only".

acasesum (v_acasesum) Table

Purpose

This table holds detailed statistics for open acase records.

See "acase (v_acase) Table" (p. A-6) for more information.

aggdaycnt Table

Purpose

The aggdaycnt table contains daily counts from Arbor BP.

agghourcnt Table

Purpose

The agghourcnt table contains hourly counts from Arbor BP.

alert Table

Purpose

Each row (record) in this table is an alert. An alert is one interval (5-minute or hourly) of an alert case. Alerts are created for above-threshold intervals only.

Populates

These records indirectly populate "Alert Cases Page" (p. 4-2) and "Trap Alerts Page" (p. 4-9) (when summarized into alert cases).

Important! You might refer to the alert table to see the threshold used when the alert case was generated (see the thresh field).

bpbillerror Table

Purpose

The bpbillerror table stores errored billing records from Arbor BP.

cfim Table

Purpose

Each record in the cfim table is a common format call or session information message (CFIM), which is a standardized translation of a call or session information message.

Populates

A record in this table maps to a row on the following outputs:

- "Find Page" (p. 5-3).
- "Trap Data Page" (p. 5-26).

Special Note

When the fields local_end and local_start are used in a Find, requests are mapped onto datime to maintain system performance. The findtime field is ignored.

cim Table

Purpose

This table holds raw CIMs collected from converters and sources.

Raw CIMS are available:

- By double-clicking any record in source data table on Find or Trap Data output
- By using the View CIM menu item on Find or Trap Data output
- As an added field on Find or Trap Data output
- By doing Find CIM—see "Find Page" (p. 5-3).

Populates

Populates the "CIMs Page" (p. 5-29).

fdccount Table

Purpose

Each record in the fdccount table is the hourly peg count for a combination of network entity and FDC, by entity type re or de. Records are made at the end of each hour. No records are written for counts of zero.

Important! If you Find (see "Find Page" (p. 5-3)), and you enter no datime or yymmddhh, output defaults to default Find Time—typically, the last 10 minutes—which returns NOTHING, since this table is an hourly summary. So, either enter a datime or yymmddhh, or override default Find Time (see "How to change Find Time for one Find" (p. 3-19)).

Populates

Records in this table appear in no other output.

fq_history_xx

Purpose

This table contains histories of CFIM counts and means for FQs defined for alerting. Records are added every time the thresholds are updated. This table is titled fq_history_*xx*, where *xx* is re or de.

Populates

Records in this table appear in no other output.

gap Table

Purpose

The gap table contains records of time or sequence number gaps. This table is populated directly from journal records transferred from Arbor BP, or by gap detection done on NTP.

linkalert Table

Purpose

Each record in the linkalert table is the link status of all links that were either down or degraded in the past 5 minutes.

Populates

Records in this table appear in no other output.

linkhist Table

Purpose

The linkhist table reports links over which few or no CIMs have been reported, indicating they may be down or in trouble. If the switch is creating few CIMs, then this may be a false alarm. Link refers to the connections between the switch and our system, so a problem could be at the switch, between the switch and a CIM source (such as a CP or NFM), at the source, or between the source and our system.

Field dependency

None.

linksum Table

Purpose

The linksum table is a daily summary of the linkstatus table. It reports average cim or cdr rate, peak cim or cdr rate, total degraded minutes, total down minutes, and total unknown status minutes for each RE and source.

Field dependency

None.

otr Table

Purpose

This table lists CFIMs converted from operator trouble reports (OTRs). These CFIMs are already in the cfim table, but they are retained longer in the OTR table.

This table retains

- OTR CFIMs from *DMS* and *5ESS* switches.
- TOPS LNP CFIMs (your system administrator must put their FDCs in the otr2fdc table). The TOPS FDCs you may want would be those that populate CFIMs' Opn and Opid fields.

Populates

Partially populates the CFIM page. Lists operator trouble report CFIMs. These are also in the CFIM table, but they are retained longer in the otr table.

phone_usage Table

Purpose

The table works with the phone_audit command to examine phone_usage records and, for every record with a null usage_date, populate it if and only if the phone and clli of the phone_usage record match an re and cpdigits in a cfim record within the specified time range.

Hint: For additional information see "Phone Audit Command" in Chapter 4 of the System Administration Guide.

Field dependency

There are no fields in this table whose values must be defined in other tables.

samplingrate Table

Purpose

Use if you have *4ESS* Re's. The sampling rate (sampling rate) table contains the sampling rate for all *4ESS* reporting entities and the *4ESS* CPs. The records for this table are automatically created by the system. This applies to *4ESS* switches only.

Field dependency

In table...	Before you put a value in field...	That value must be in field...	In table...
samplingrate	re	re	rearch
	fdc	fdc	fdc

tg_usage Table

Purpose

This table works with the Trunk Group Usage audit feature to allow you to determine whether trunk groups on a switch are properly recording usage records. This helps find trunk groups that are incorrectly provisioned and not producing billing records.

The summarizer for this data determines the count of CDRs and the MOU for those CDRs and then updates the corresponding record in this table. This summarizer performs the summation daily at 3:00 a.m.

Hint: For additional information see "Trunk Group Usage Audit" in Chapter 4 of the System Administration Guide.

Field dependency

There are no fields in this table whose values must be defined in other tables.

transerror Table

Purpose

The transerror table is a subset of the journal table containing only transmission failure records.

trapalert Table

Purpose

Each row on Trapalert Output represents an alert case that is to be created.

Trapalert records disappear at the beginning of the next 5-minute interval. Therefore, Trapalert is the only table in this appendix that is NOT available from "Find Page" (p. 5-3).

Important! Between Trapalert and Acase (see "acase (v_acase) Table" (p. A-6)) tables, there is another level—the Alert table, which summarizes alerts in each interval of an alert case.

Populates

Populates the Trap Alerts page.

Summary Tables

Overview

Purpose

This section is about tables that hold hourly summaries of CFIMs.

Related Output

Three types of output look at call volume type data.

- "Call Volume Alert Cases" (p. 4-4).
- "Summary Tables" (p. A-26). These are the database tables used to create summary reports. (To see them, use "Find Page" (p. 5-3).)

  Important! Outputs may show upper- and lower-case letters, but when you are entering a search expression, capitalization does not matter.

If no output

If you do a Find (see "Find Page" (p. 5-3)) on a summary table and get no output, note that:

- Summary tables hold chronological data, so they use Find Time.
- Default Find Time is the last 10 minutes, but summary tables are hourly summaries.
- So, to analyze a summary table, you must override default Find Time. Either:
  - Enter a date or time in the search expression. (See "Summary tables datime and yymmddhh fields" (p. A-26).)
  - Change Find Time.

Summary tables datime and yymmddhh fields

Note: You can click the "Calendar Dialog" (p. 5-10) icon  to create date entries.

These two fields appear in each of the "Summary Tables" (p. A-26).

- datime

  (Key field.) Identifies the hour summed into this record. Format is YY/MM/DD HH:MM. Omit YY/MM/DD to default to today. MM is the minutes time of the first CFIM summed into this record, so your Find on, for example "datime=02/12/25 08:00", may return nothing. So, to Find one hour, use a range of 00 to 59 minutes, similar to this: datime=02/12/25 08:00-08:59. (To get Find output, you must use this field, or change Find Time, as explained at "If no output" (p. A-26).) Field Type: date/time.

Format examples:

Single entry	Not applicable. Use range of 00 to 59 minutes (see above).
Range	datime=02/03/24 8:00-02/03/31 10:59
Range	datime=02/03/24 8:00-10:59
Relational	datime<=02/03/25 8:59
Multi-value	datime=02/03/24 8:00-10:59,02/03/24 15:00-15:59

- yymmddhh
  Identifies the hour summed into this record, where hh is the hour's start time. This serves the same purpose as the Datime field, but is provided for ease of use with some report packages you may use. Such packages are not part of our product. Field Type: 8-character string.

Format examples:

Notice you can use asterisk as a meta-character.

Entire day of 06/10/01	yymmddhh=010610*
Entire month of June 2001	yymmddhh=0106*

Contents

fdc_audit Table

Purpose

The fdc_audit table is associated with the FDC Audit feature. The table contains the missing FDC values.

At the end of each day, a comparison is done between expected and actual results. The output of the comparison is stored in an **`fdc_audit`** table viewable in the BB-GUI through the Find page. Its contents can be saved to a delimited file for import into another application.

Note: The contents of the **`fdc_audit`** table is retained for 30 days. Data older than 30 days is removed from the table.

Reference: For more information on the FDC Audit feature, see *System Administration Guide, Chapter 8, Threshold Administration*.

gap_summary

Purpose

The gap_summary table is used to store the "gaps" discovered in the sequence numbers of consecutive Per Call Measurement Data (PCMD) records.

This table is used with the PCMD converter, which provides the means to collect, parse, interpret, expand, store and analyze PCMD records from *Autoplex*.

This table stores the following information:

- The first missing sequence number for the current gap.
- The last missing sequence number for the current gap.
- The number of records in the current gap.
- The date/time of record which indicated the gap.
- The source where the gap was found.

Appendix B: License Information for Open Source Software

Overview

Purpose

NTP incorporates a number of third-party open source software packages. This section provides the license and other legal information required by those software packages.

Contents

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Heirloom mailx

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imap_gssapi.c:

imap_gssapi.c is partially derived from sample code in:

GSS-API Programming Guide

Part No: 816-1331-11

Sun Microsystems, Inc. 4150 Network Circle Santa Clara, CA 95054 U.S.A.

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hmac.c is derived from:

Network Working Group

Request for Comments: 2104

Category: Informational

H. Krawczyk

IBM

M. Bellare

UCSD

R. Canetti

IBM

February 1997

HMAC: Keyed-Hashing for Message Authentication

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