

**Oracle® Communications
Performance Intelligence Center**
ProPerf Configuration User Guide
Release 9.0

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Chapter1: About this Manual

Topics:

- *Overview*
- *Scope and Audience*
- *About the Performance Intelligence Center*
- *Customer Care Center*

Customer Care Center

Customer Care Center

-
- *PIC Documentation Library*
-
- *Locate Product Documentation on the Customer Support Site*

Overview

ProPerf Configuration is a specific-purpose application that is part of Tekelec's IAS system. The ProPerf Configuration application enables operators to view performance and quality indicators in real-time or using historical data, with a dynamic display of curves and graphs.

Performance or quality indicators, calculated with xDRs, are provided by the probes and/or defined with the ProTraq application. The data is stored into statistical sessions within remote applications such as IXP or DataServer and managed using Centralized Configuration Manager (CCM). The following indicators can be displayed in ProPerf Configuration:

- SS7 network performance indicators according to ITU Q.752
- Customer traffic indicators based on ISUP and links analysis in real-time
- Real-time indicators based on Traffic or IP service Quality monitoring
- Load indicators on IN-transactions (per link and reprocessed for all links per SCP)
- INAP, MAP, CAP transaction efficiency, duration, operation, and global title
- Volume, efficiency, split of cause values for GPRS Session Management, Mobility Management, SMS management

Using ProPerf Configuration enables you to see failures and overloads instantly. In addition, trends can be easily estimated according to the shape of the curve.

Scope and Audience

This user's manual provides information about the ProPerf Configuration application. It is designed to be both a beginners' guide to working with performance indicators as well as an intermediate and advanced user's reference to general concepts. This guide is designed around performing common tasks such as:

- Understanding ProPerf dashboard and panel layouts to create statistical sessions
- Working with dashboards and panels
- Creating line charts, pie charts and bar graphs
- Modifying privacy settings to share your information with other users

Take a few minutes to browse through these tasks and become acquainted with the layout of this guide to become familiar with the headings and subheadings that allow you to find the information you need.

About the Performance Intelligence Center

The Performance Intelligence Center (PIC) is a monitoring and data gathering system that provides network performance, service quality and customer experience - across various networks, technologies, protocols, etc. Beyond monitoring performance and gathering data, the solution also provides analytics, actionable intelligence and potentially an intelligent feedback mechanism. It allows Service Providers to simultaneously look across the Data Link, Network, Transport and

Application layer traffic to better correlate and identify the impact of network problems on revenue generating applications and services.

PIC functionality is based on the following general flow. The Integrated Message Feeder (IMF) is used to capture SS7 and SigTran traffic. The Probed Message Feeder (PMF) is used to capture both SS7 and IP traffic. Both products forward Probe Data Units (PDUs) to the Integrated xDR Platform (IXP). The IXP stores this traffic data and correlates the data into detailed records (CDRs, IPDRs, TDRs, etc.). The IXP then stores the data on the system for future analysis. The Network Software Platform (NSP) provides applications that mine the detailed records to provide value-added services such as network performance analysis, call tracing and reporting.

PIC centralized configuration tasks fall into one of two categories:

- Data Acquisition and Processing - the configuration of the probes, routing of PDUs to the xDR builder setup, KPI generation, data feeds, etc.
- PIC System Administration - the configuration of monitoring sites,

Note: For more information see Centralized Configuration Manager Administration Guide.

This is a graphic overview of the PIC system.

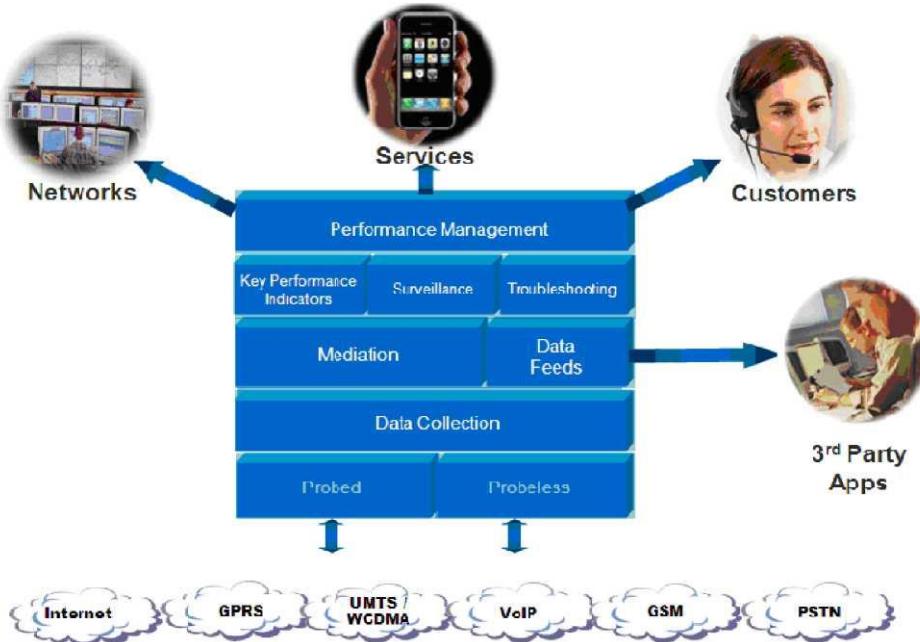


Figure 1: PIC Overview

configuring PIC servers, setting up permissions, etc.

Setting User Preferences

Users can set certain User Preferences that apply to the following NSP applications:

- Alarm Forwarding
- Audit Viewer
- ProAlarm Configuration

- ProAlarm Viewer
- ProPerf
- ProPerf Configuration
- ProTraq
- Security
- System Alarms
-

These User Preferences include

- Time specifications (date format, time zone, etc.)
- Directory names (for exporting, uploading, and downloading)
- Enumeration values (numerals vs. text)
- Node name and node link display
- Point code specifications
- CIC specifications
- Default alarm colors
- Default object privacy privileges

Setting Time Format

Follow these steps to set the time format:

1. Click **User Preferences** on the Application board. The User Preferences page is displayed.
2. Click the **Time** tab.

The Time page is displayed. The red asterisk denotes a required field.

Note: Use the tips on the page to help you configure the time format.

User preferences

Time Directory Enumeration Point code CIC Alarms Privacy

time related displays

Date format	dd/MM/yyyy *
Time format	HH:mm:ss *
Date and time fields	dd/MM/yyyy HH:mm:ss *
Duration fields	hhh:mm:ss:ms
Time zone	(GMT-05:00) America/New_York

Tips: above fields represents the format that will be applied to different types of fields. Here is an help about authorized values and their meanings. Separators are allowed, and will be substituted "as is". Please note that these formats are case sensitive.

yy or yyyy: Year (number)
dd: Day in month (number)
EEE: Day in week (string)
MM or MMMM: Month in year (respectively number or string)
aa: AM/PM marker (string)
HH: Hour in day (0-23)
hh: Hour in AM/PM (1-12)
mm: Minute in hour (number)
ss: Second in minute (number)

Reset for Time

Reset Save as default Apply Cancel

Figure 2: Time Formatting Page

3. Enter the format for these time-related displays.

- **Date format**
- **Time format**
- **Date and time fields**

4. Select the formats for these time-related displays by using the drop-down arrow.

- **Duration fields**
- **Time zone**

Note: You must choose your time zone to get local time.

5. If you want to reset the time-related displays to default settings, click "**Reset for Time**". (The bottom **Reset** button resets all the tabbed pages to default settings.)

6. Click **Apply** to save settings.

Setting Directory Preferences

Use the User Preferences feature to set the Export, Upload and Download directory paths for your system. These paths define where xDR's, dictionary files and other elements are stored.

Follow these steps to set the directory preferences.

1. Click **User Preferences** on the Application board.
2. Click the **Directory** tab.

The Directory page is displayed. The red asterisk denotes a required



Figure 3: Directory Page

3. Type in the following:

- **Export directory**
- **Upload directory**
- **Download directory**

4. If you want to reset the directories to default settings, click **Reset for Directory**. (The bottom **Reset** button resets all the tabbed pages to default settings.)
5. Click **Apply** to save your settings.

Setting Mapping Preferences

You can set the Mapping settings using the User Preferences feature. Follow these steps to set Mapping preferences.

1. Click **User Preferences** in the Application board. The User Preferences page is displayed.
2. Click the **Mapping** tab. The Mapping page is displayed.

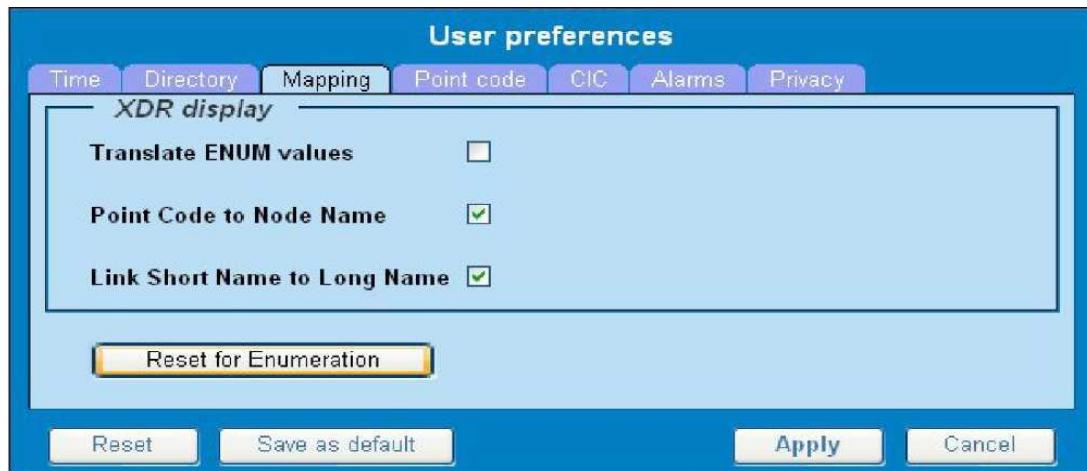


Figure 4: Mapping Page

3. Check **Translate ENUM values** to display text instead of numerals.
Enumeration is used by xDRs to display text values instead of numeric. (For example, rather than showing the numeral for Alarm Severity, the user interface will show the actual word, such as "Major" or "Critical.")
4. Check **Point Code to Node Name** to display the custom (user-defined) name of the node. Otherwise, the Point Code value is displayed.
5. Check **Link Short Name to Long Name** to display the custom (user-defined) link name or the Eagle link name. Otherwise, the short name is displayed, which is the name that begins with an asterisk (*).
6. To reset the Mapping values to the default, click **Reset for Enumeration**. (The bottom **Reset** button resets all the tabbed pages to default settings.)
7. Click **Apply** to save the changes.

Setting Point Code Preferences

The User Preferences feature enables you to set the Point Code preferences for your system. A Point Code is a unique address for a node (Signaling Point), used to identify the destination of a message signal unit (MSU).

Follow these steps to set the Point Code preferences.

1. Click **User Preferences** in the Application board.
The User Preferences page is displayed.
2. Click the **Point Code** tab.
The Point Code page is displayed. The red asterisk denotes a required field.

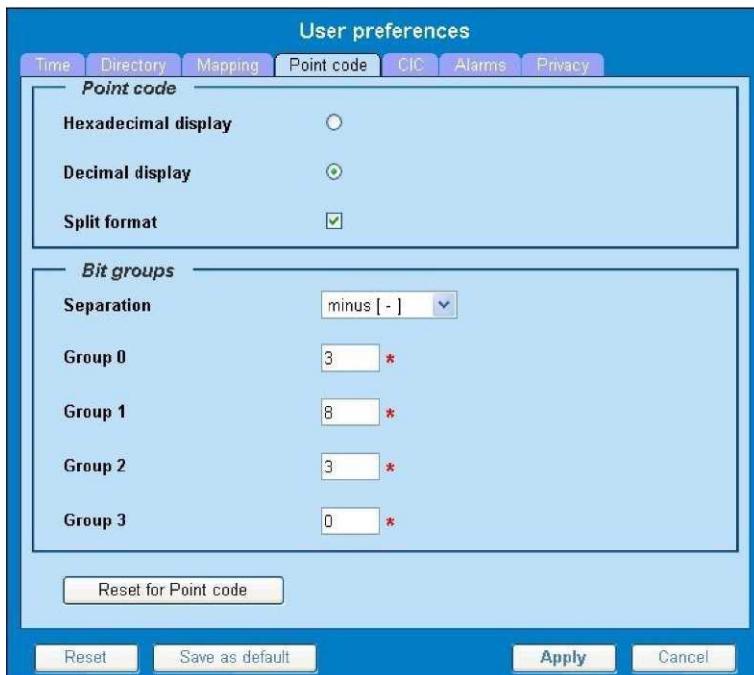


Figure 5: Point Code Tab

3. Select either **Hexadecimal display** or **Decimal display**.
4. Select or de-select **Split format**.
If **Split format** is checked, the Bit groups settings in the box below are active. If **Split format** is not checked, Bit groups settings are not applicable.
5. If you selected Split format above, go to the next step. If you did not select Split format, go to step [To reset](#) the point code preferences to default settings, click **Reset for Point code**. (The bottom **Reset** button resets all the tabbed pages to default settings.).
6. In the Bit groups panel, use the drop-down box to select the **Separation** type.
7. Type in values for **Groups 0-3**.
8. To reset the point code preferences to default settings, click **Reset for Point code**. (The bottom **Reset** button resets all the tabbed pages to default settings.)
9. Click **Apply** to save your settings.

Setting CIC Preferences

The Circuit Identification Code (CIC) provides a way to identify which circuit is used by the Message Signaling Unit (MSU). This is important in ProTrace applications. Use the User Preferences feature to set the CIC settings for your system.

Complete these steps to set the CIC preferences:

1. Click **User Preferences** in the Application board.
The User preferences page is displayed.
2. Click the **CIC** tab. The CIC page is displayed. The red asterisk denotes a required field.

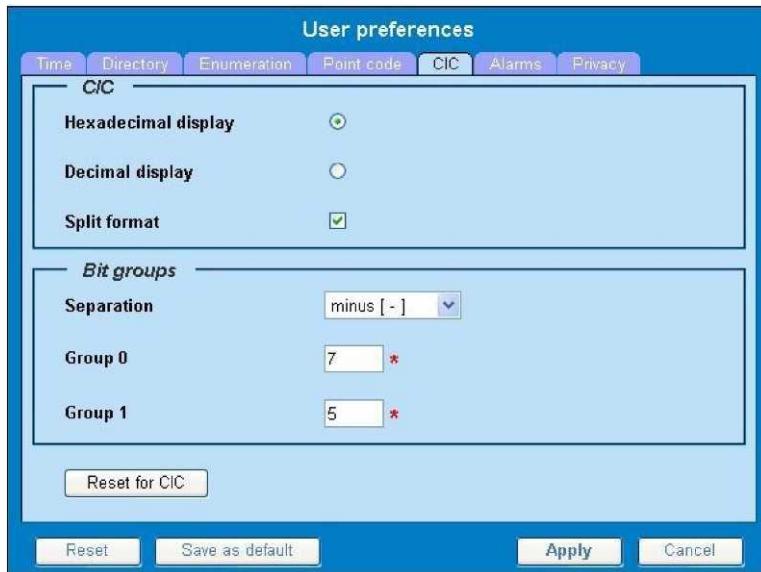


Figure 6: CIC Page

3. Select either **Hexadecimal display** or **Decimal display**.
4. Select or de-select **Split format**.
If **Split format** is checked, the Bit groups settings in the box below are active. If **Split format** is not checked, Bit groups settings are not applicable.
5. If you selected Split format above, go to the next step. If you did not select Split format, go to step
If you want to reset CIC preferences to the default, click **Reset for CIC**. (The bottom **Reset** button resets all the tabbed pages to default settings.).
6. In the Bit groups panel, use the drop-down box to select **Separation** type..
7. Type in values for **Group 0** and **Group 1**.
8. If you want to reset CIC preferences to the default, click **Reset for CIC**. (The bottom **Reset** button resets all the tabbed pages to default settings.)
9. Click **Apply** to save your settings.

Setting Alarms Preferences

Use the Alarms tab in User Preferences to define the default colors that indicate alarm severity. The colors are displayed in the Perceived Severity column of alarms tables and on object icons in maps.

Follow these steps to modify alarm status colors.

1. Click **User Preferences** in the Application board.
The User preferences page is displayed.
2. Click the **Alarms** tab.
The Alarms page is displayed. The red asterisk denotes a required field.

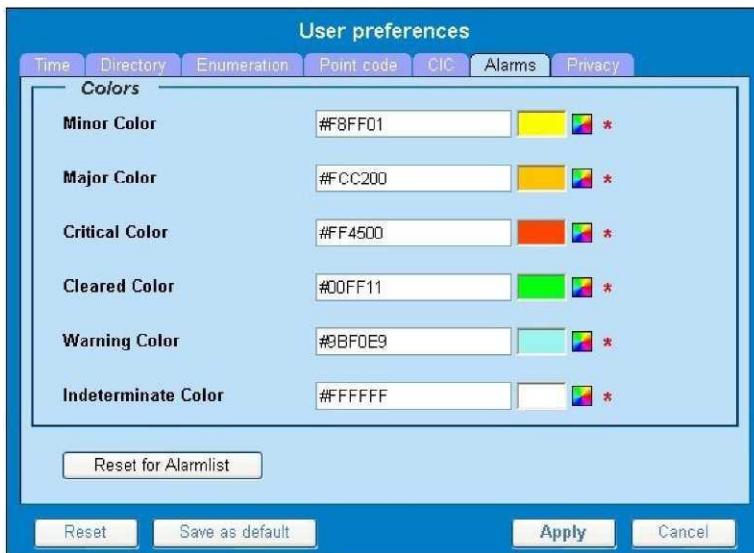


Figure 7: Alarms Page

3. Click the color palette (icon on the right side of the screen) associated with the alarm status color(s) you want to modify.
A pop-up palette window is displayed.
4. Click the color you want for the type of alarm.
The color palette pop-up is closed and the color box for the alarm displays the selected color.
The number for the color is also displayed.
5. If you want to reset the Alarm preferences to the default, click **Reset for Alarmlist**. (The bottom **Reset** button resets all the tabbed pages to default settings.)
6. Click **Apply**.
The changes do not take effect until you log out of and in again to NSP.

Setting Default Object Privacy

All NSP users can set default access privileges for Objects (data) they create in NSP applications. An owner has full rights to modify or delete the object. Other users are assigned to a Profile and have access to these Objects through that Profile's associated Privacy Roles.

To enter the default Object Privacy (data) settings, follow these steps:

1. Click **User preferences** in the Application board menu.
The User Preferences window is displayed. The **Time** tab is active by default.
2. Click the **Privacy** tab.
The Privacy page is displayed.

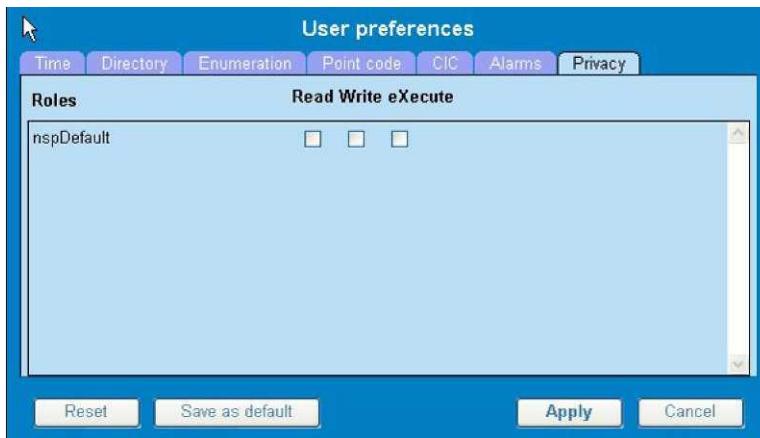


Figure 8: Privacy Page

3. Click the appropriate box to select **Read**, **Write**, or **eXecute**. If you want the role to have no access to the selected object(s), ensure that no box is checked.
4. Click **Save as default**.
5. To reset all the tabbed pages to default settings, click **Reset**.
6. Click **Apply**.

The settings are saved.

Customer Care Center

The Tekelec Customer Care Center is your initial point of contact for all product support needs. A representative takes your call or email, creates a Customer Service Request (CSR) and directs your requests to the Tekelec Technical Assistance Center (TAC). Each CSR includes an individual tracking number. Together with TAC Engineers, the representative will help you resolve your request.

The Customer Care Center is available 24 hours a day, 7 days a week, 365 days a year, and is linked to TAC Engineers around the globe.

Tekelec TAC Engineers are available to provide solutions to your technical questions and issues 7 days a week, 24 hours a day. After a CSR is issued, the TAC Engineer determines the classification of the trouble. If a critical problem exists, emergency procedures are initiated. If the problem is not critical, normal support procedures apply. A primary Technical Engineer is assigned to work on the CSR and provide a solution to the problem. The CSR is closed when the problem is resolved.

Tekelec Technical Assistance Centers are located around the globe in the following locations:

Tekelec - Global

Email (All Regions): support@tekelec.com

USA and Canada

Phone:

1-888-FOR-TKLC or 1-888-367-8552 (toll-free, within continental USA and Canada)
1-919-460-2150 (outside continental USA and Canada)

TAC Regional Support Office Hours:

8:00 a.m. through 5:00 p.m. (GMT minus 5 hours), Monday through Friday, excluding holidays

Caribbean and Latin America (CALA)

Phone:

USA access code +1-800-658-5454, then 1-888-FOR-TKLC or 1-888-367-8552 (toll-free)

TAC Regional Support Office Hours (except Brazil):

10:00 a.m. through 7:00 p.m. (GMT minus 6 hours), Monday through Friday, excluding holidays

- **Argentina**

Phone:

0-800-555-5246 (toll-free)

- **Brazil**

Phone:

800-891-4341 (toll-free)

TAC Regional Support Office Hours:

8:30 a.m. through 6:30 p.m. (GMT minus 3 hours), Monday through Friday, excluding holidays

- **Chile**

Phone:

1230-020-555-5468

- **Colombia**

Phone:

800-912-0537

- **Dominican Republic**

Phone:

1-888-367-8552

- **Mexico**

Phone:

001-888-367-8552

- **Peru**

Phone:

0800-53-087

- **Puerto Rico**

Phone:

1-888-367-8552 (1-888-FOR-TKLC)

- **Venezuela**

Phone:

0800-176-6497

Europe, Middle East, and Africa

Regional Office Hours:

8:30 a.m. through 5:00 p.m. (GMT), Monday through Friday, excluding holidays

- **Signaling**

Phone:

+44 1784 467 804 (within UK)

- **Software Solutions**

Phone:

+33 3 89 33 54 00

Asia

- **India**

Phone:

+91 124 436 8552 or +91 124 436 8553

TAC Regional Support Office Hours:

10:00 a.m. through 7:00 p.m. (GMT plus 5 1/2 hours), Monday through Saturday, excluding holidays

- **Singapore**

Phone:

+65 6796 2288

TAC Regional Support Office Hours:

9:00 a.m. through 6:00 p.m. (GMT plus 8 hours), Monday through Friday, excluding holidays

PIC Documentation Library

PIC customer documentation and online help are created whenever significant changes are made that affect system operation or configuration. Revised editions of the documentation and online help are distributed and installed on the customer system. Consult your NSP Installation Manual for details on how to update user documentation. Additionally, a Release Notice is distributed on the Tekelec Customer Support site along with each new release of software. A Release Notice lists the

PRs that have been resolved in the current release and the PRs that are known to exist in the current release.

Listed is the entire PIC documentation library of user guides.

- Security User Guide
- Alarms User Guide
- ProAlarm Viewer User Guide
- ProAlarm Configuration User Guide
- Centralized Configuration Manager Administration Guide
- Customer Care User Guide
- Alarm Forwarding Administration Guide
- Diagnostic Utility Administration Guide
- ProTraq User Guide
- ProPerf User Guide
- ProPerf Configuration User Guide
- System Alarms User Guide
- ProTrace User Guide
- Data Feed Export User Guide
- Audit Viewer Administration Guide
- ProDiag User Guide
- SigTran ProDiag User Guide
- Report Server Platform User Guide
- Reference Data User Guide
- Exported Files User Guide
- Scheduler User Guide
- Quick Start User Guide

Locate Product Documentation on the Customer Support Site

Access to Tekelec's Customer Support site is restricted to current Tekelec customers only. This section describes how to log into the Tekelec Customer Support site and locate a document.

Viewing the document requires Adobe Acrobat Reader, which can be downloaded at

www.adobe.com.

1. Log into the *Tekelec Customer Support* site.

Note: If you have not registered for this new site, click the **Register Here** link. Have your customer number available. The response time for registration requests is 24 to 48 hours.

2. Click the **Product Support** tab.

3. Use the Search field to locate a document by its part number, release number, document name, or document type. The Search field accepts both full and partial entries.

4. Click a subject folder to browse through a list of related files.

5. To download a file to your location, right-click the file name and select “**Save Target As**”.

Chapter 2: Understanding ProPerf Configurations

Topics:

- *Overview*
- *Accessing and logging into NSP*
- *ProPerf's Functionality*
- *The ProPerf GUI*
- *ProPerf Configuration GUI*

Overview

ProPerf is a specific-purpose application that is part of Tekelec's IAS system.

ProPerf makes it possible for you to view performance indicators in real-time and from historical data with a display of curves and graphs. These indicators, calculated with message-based counters are provided by the probes and/or defined by the *ProTraq* application.

Data is stored in statistical sessions organized as matrix of column and line filter results. This matrix defines cells named KPI (Key Performance Indicators).

ProPerf is based on a dashboard concept, that is, a single-page display of multiple KPI's in associated charts and tables (set up in Panels), determined according to predefined layouts. *ProPerf* offers two main dashboard functions:

- Dashboard Editing - Allows you to configure a dashboard to display as an independent page and automatically refresh it in real-time.

Note: Accessible to users in the group NSPConfigPowerUser.

- Dashboard Display - Allows you to use global settings to display a dashboard, to specific properties of the KPI's used.

Note: Accessible to users in the group NSPBusinessUser.

Accessing and logging into NSP

To access and log into NSP, follow these steps:

1. Open your Web browser.
2. In the Address bar, type the following **Uniform Resource Locator (URL)** for NSP:
<http://nspserver/nsp> , where the nspserver is the IP address of NSP.

Note: NSP only supports versions of IE 7.0 or later and Firefox 3.6 or later. Before using NSP, turn off the browser pop up blocker for the NSP site.

The NSP login screen opens.

Note: Before you can start NSP, you must first have a userid and password assigned to you by your NSP system administrator.

3. Type your **username** assigned to you in the *Username* field.
4. Type your **password** in the *Password* field.
5. Click **OK**.

The NSP *Application Board* opens.

6. Click on the *ProPerf Configuration* icon to open the application.

ProPerf's Functionality

ProPerf has two major functions, they are:

- Editing - enables you to perform the following:
 - Create a dashboard
 - Create a panel (line chart, bar chart, pie chart or table)
 - Define xDRs to be displayed
 - data source as source session, column and line
 - display properties for a chart, like color, symbols, etc.
- Display - enables you to perform the following:
 - Leave a dashboard in a new page
 - Print or save a dashboard page
 - Zoom in or out to change the Reference Duration of the current view
 - View historical data for a given date and time
 - View the dashboard in real-time

Opening ProPerf

ProPerf is part of the NSP *Toolkit* and is opened from the NSP *Platform*.

Note: To log into ProPerf, you must first have an Network Software Platform (NSP) userid and password. For more information contact your network administrator.

Once you have logged into NSP, the NSP *Application Board* opens shown in [Figure 9: NSP Application Board with ProPerf And ProPerf Configuration Icons](#).

There are two entry points into the ProPerf application, the **ProPerf** icon under the **Application** label and the **ProPerf Configuration** icon under the **Configuration** label. The ProPerf application only allows the user to display predefined dashboards and use the dashboard toolbar. The ProPerf Configuration application allows you to create and configure dashboards.

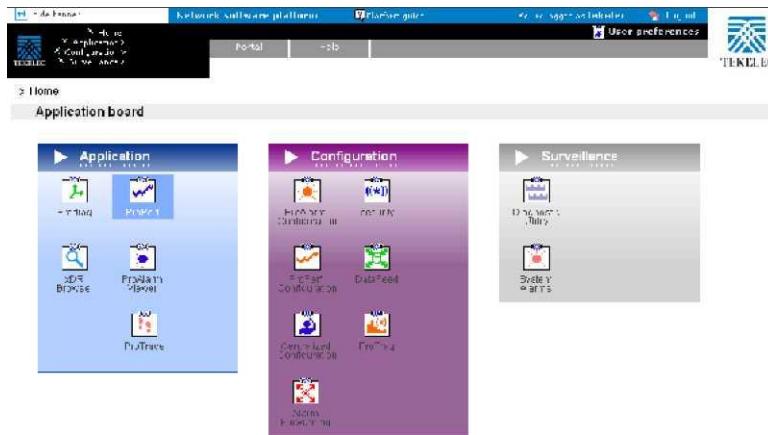


Figure 9: NSP Application Board with ProPerf And ProPerf Configuration Icons

To view a dashboard, click the **ProPerf** icon under the Application heading. To configure or create a

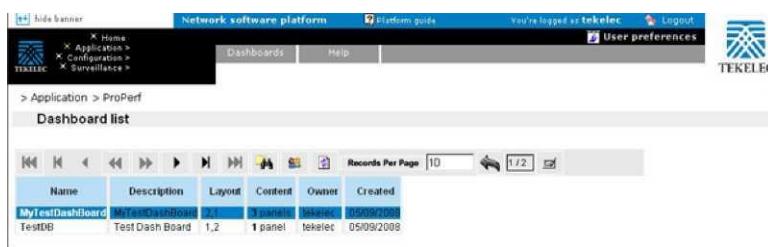


Figure 10: ProPerf Main Page

dashboard clicks the **ProPerf Configuration** icon under the Configuration heading. The *ProPerf Main* page opens displaying the *Dashboard list* shown in [Figure 10: ProPerf Main Page](#).

The ProPerf GUI

ProPerf has the same look and similar functionality as all applications in the NSP *Toolkit*.

Note: Do not use the Function Keys (F1 through F12) when using the NSP. Function keys work in unexpected ways. For example, the F1 key will not open NSP help but will open help for the browser in use. The F5 key will not refresh a specific screen, but will refresh the entire session and will result in a loss of any entered information.

Page Layout

The page is divided into the following:

Links to applications, configuration applications and surveillance - located in the top left-hand corner. Menu bar - contains two menus:

- Your Dashboard - that shows dashboards you created or ones that you have been given access to.
- Help - has two options
- Help - that provides an online help system
- About - that provides basic information about the current *ProPerf* release.

Toolbar - that provides navigation and function buttons. **Note:**

For other GUI features refer to the NSP Platform Guide.

Dashboard list - a table that lists the configured xDR sessions (in panels). For more information on using the Dashboard, see [**Using the Dashboard Toolbar..**](#)

Dashboard Layout

As mentioned in the section above, Dashboards are presented in table format. The table has seven columns.

Dashboard Columns

Name - shows the name of the dashboard

Description - shows the description, (if any), of the dashboard

Layout - shows the panel configuration in *columns* and *rows*, for example, 1x3 means one column and three row layout. 1,2 means one row has one column and the second row has two columns. There are eight possible configurations.

Content - shows how many panels are presently in the dashboard configuration

Owner - shows who created the dashboard Created - shows when the dashboard was created

Dashboard and panel Links

The *Name* and *Panel* columns are links. Clicking on these links opens the *Dashboard configuration* and *Panel List* pages respectively.

Dashboard Display

Note: You can only view dashboards that you are authorized to view. For more information see the chapters on Privacy in the NSP Administrator's Guide.

To display a dashboard click the **Name**. The *Dashboard* opens in a separate page. An example of a dashboard with a 2,1 configuration is shown in [**Figure 11: Dashboard Screen With 2,1 Configuration.**](#)

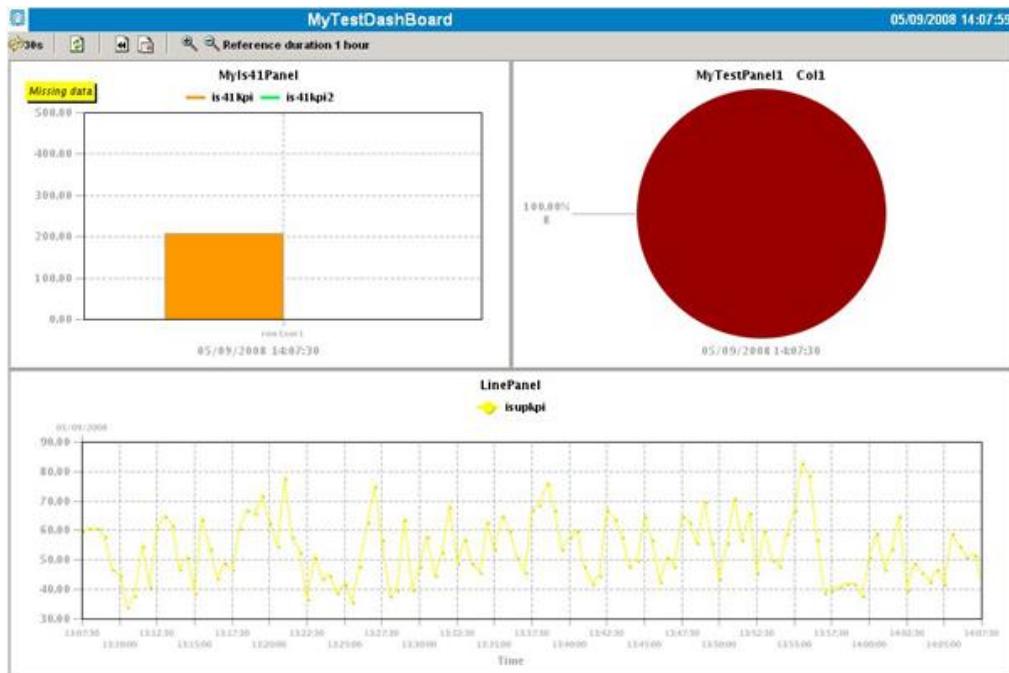


Figure 11: Dashboard Screen With 2,1 Configuration

Note: Real-time dashboards are automatically refreshed according to default settings.

Note: Resulting graph displays an exact value as tooltips when cursor is on a point of a curve.

ProPerf Configuration GUI

The ProPerf Configuration GUI has all of the functionality of the ProPerf application (viewing dashboards) as well as the dashboard configuration and panel functionality.

Panel List Display

The panel list page also has a GUI and table format similar to the *Dashboard* page shown in [Figure 12: Panel List Page](#).

Note: The Panel List display can only be accessed using the ProPerf Configuration application.

> Configuration

Panel list for dashboard 'MyTestDashBoard'

1/2
3

Name	Duration	Type	Rank
MyIs41Panel	0	BARCHART	1
MyTestPanel1	0	PIECHART	2
LinePanel	3600	LINECHART	3

Figure 12: Panel List Page

Panel list configuration Symbol

The *Panel list* page shows the current panel configuration in the upper right half of the page. This icon will change if the panel configuration changes.

View children Button



The *Panel list* toolbar has a **View Children** button that opens the sessions that belong to a record.

[Figure 13: Parent/Child Tables](#) shows an example of the *Panel list* page with *Parent/Child* tables.

> Configuration

Panel list for dashboard 'MyTestDashBoard'

1/2
3

Name	Duration	Type	Rank
MyIs41Panel	0	BARCHART	1
MyTestPanel1	0	PIECHART	2
LinePanel	3600	LINECHART	3

Kpi	Session	Application	Line	Column
is41kpi1	MyTestStats	Ixp1108-1a_DWH	all panel selected columns...	Col1
is41kpi2	MyTestStats	Ixp1108-1a_DWH	all panel selected columns...	Col1

Figure 13: Parent/Child Tables

Panel list Table Layout

There are four columns in the *Panel* table.

Name - that shows the name of the panel.

Duration - shows the time that will be measured.

Type - shows the layout (table, line chart, bar chart, pie chart).

Rank - will show what order the panel is in the whole configuration.

Chapter 3: Using ProPerf Configuration

Topics:

- [*Overview*](#)
- [*Working with Dashboards*](#)
- [*Working with Panels*](#)

Overview

This section describes the procedures used in *ProPerf*. These descriptions include:

- Viewing dashboards in historical and real-time display
- Using the zoom function
- Using the previous and next view

Working with Dashboards

This section describes the procedures used in creating, modifying and deleting *ProPerf* dashboards.

Creating a Dashboard

To create a new dashboard follows these steps:

1. In the dashboard list toolbar, click **Add record**.

The *Add dashboard* screen opens shown in [Figure 14: Add Dashboard Screen](#).

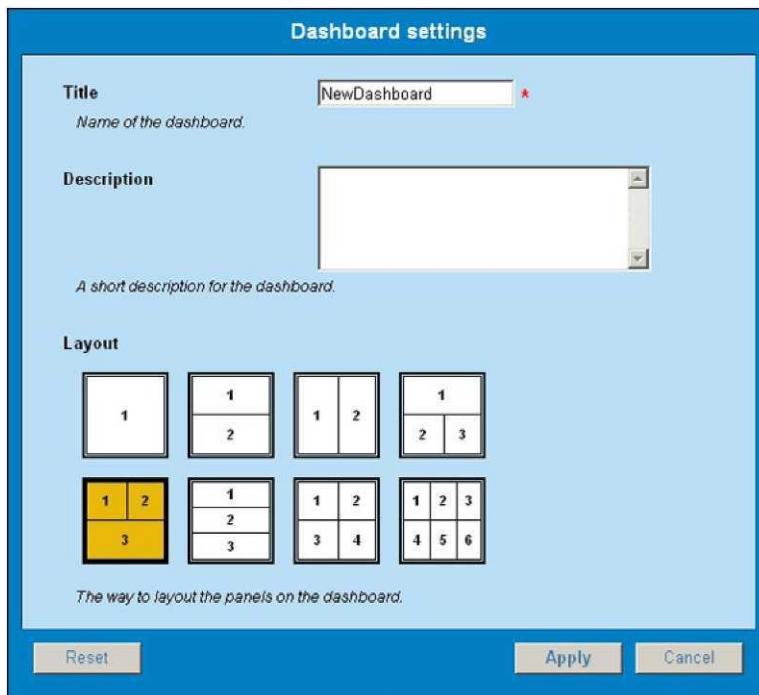


Figure 14: Add Dashboard Screen

The following table describes the attributes you choose on the Dashboard settings page.

2. Type in the **Name** of the dashboard.

Note: Special characters are not allowed for title. Use only standard alphanumerical characters and "_" and ".".

3. (Optional) Type in a **Description** of the dashboard.
4. Select the **Layout**.
5. Click **Apply**.
The dashboard record appears in the *Dashboard* page.
6. Proceed to "**Panel display List**" in this new dashboard.

Modifying a Dashboard

Follow these steps to modify an existing dashboard.

1. Select the **dashboard** to be modified.
2. Click **Name** to open the *Dashboard Settings* screen.
3. Make the necessary modifications.
4. Click **Apply**.

The changes are saved to the system.

Note: To view the changes in the table, click the Refresh button.

Deleting a Dashboard

Follow these steps to delete an existing dashboard.

1. Select the **dashboard** to be deleted.
2. Click **Delete**.
3. Click **OK** at the prompt.

The dashboard and all panels associated with that dashboard are deleted.

Using the Dashboard Toolbar

You can use the dashboard toolbar to zoom in and out (to change the reference duration), choose the display date, view previous and next time periods in historical data, and chose the real-time or historical view.

Choosing a Date

You can choose a date to display information from a historical record by doing the following:

1. Select the **history** button. The date input screen appears.
2. Enter the date and time or select it from the calendar tool.
3. Click **OK**. The information in the chart is updated to display historical data for the new date.

Note: If the display period of a graph includes the time when there is a switch between Daylight Savings Time and Standard Time the data after the change may be offset by one hour.

Viewing in Real-time

If you are currently viewing historical data, you can switch to the real-time display by doing the following:

1. Select the **real-time** button.
2. The information in the chart is updated with the real-time data.

Note: When a dashboard is first opened its default viewing mode is real-time.

Note: If the display period of a graph includes the time when there is a switch between Daylight Savings Time and Standard Time the data after the change may be offset by one hour.

Using the Zoom function

When viewing data as a line chart, you can you can zoom in or out to change the time duration for the current view. You can zoom in to 1% of the current configured duration and out to 400% of the current configured duration. To use the zoom function does the following:

1. Select the zoom in button to see shorter time duration, or the **zoom out** button to see a larger duration. Each successive click of the zoom in or out button will result in the view being updated one increment shorter or larger.
2. The information in the chart is updated with the new time duration and the new reference duration is displayed in the toolbar.
3. To reset the zoom factor to the configured duration select the “**reset zoom**” button. **Note:**

The zoom function is only available with the line chart view.

Using the Previous and Next view

When viewing a dashboard, you can modify the view to show previous data or next data (in historical view). To use the previous and next function do the following:

1. Select the **previous** button or **next** button to see the previous or next data.
Note: If you are currently in real-time mode selecting previous will change the view to historical mode and automatic refresh will not happen.
2. For line chart views, the view will shift by 3/4 of the current time duration to display the previous or next data in the view. For Data Tables, Pie Charts and Bar charts, the view will shift to the previous or next period.
3. To get back to the real-time view select the **real-time** button.
Note: If the new calculated date is greater than current time, the dashboard switch back to real-time mode, refreshing data automatically every period.

Working with Panels

Panel display List

Once you have created a dashboard, you can create panels to obtain the information from xDR sessions.

Note: xDR sessions are discovered using CCM. Refer to the *Centralized Configuration Manager User's Guide* for information on managing xDR sessions.

These panels will supply the data for you to view, organize, and report.

Note: Statistics sessions must already be created in ProTraq. Refer to the ProTraq User's Guide for information on managing statistics sessions.

Panels are the basic component of a dashboard. There are three types of panels available in ProPerf:

- Line charts (multiple session allowed)
- Bar chart (one session only)
- Pie chart (one session only)

Follow these steps to display a panel.

1. Select the **dashboard** that will have the panel(s).

Figure 15: Selected Dashboard shows a dashboard page with a dashboard selected. **Note:** New dashboards show "No Panel" in content column



Name	Description	Layout	Content	Owner	Created
MyTestDashBoard	MyTestDashBoard	2,1	3 panels	tekelec	05/09/2008
NewDashboard		2,1	No panel	tekelec	05/09/2008
TestDB	Test Dash Board	1,2	1 panel	tekelec	05/09/2008

Figure 15: Selected Dashboard

2. Click the **content** link in the *Content* column.

The *Panel List* page opens shown in *Figure 16: Panel List Page*.

> Configuration

Panel list for dashboard 'NewDashboard'

1	2
3	

No Records

Figure 16: Panel List Page

3. Click Add.

The *Panel Settings* screen opens shown in Figure 3-4.

Panel settings

General

Title	T1 *
Name displayed at the top of the panel.	
Type	Table
Panel type choice allows to select graphical properties to be set.	
Rank	2
Rank order of panel into dashboard layout.	
Offset	None
Offset is used to shift panel date/time from current time. It permits to compare old data to realtime data displayed in another panel.	

Continue >> Cancel

Figure 17: Panel Settings Screen-General Tab

In this step you can begin to add panel records with different graphic layouts.

Using the Previous and Next view

When viewing a dashboard, you can modify the view to show previous data or next data (in historical view). To use the previous and next function do the following:

1. Select the **previous** button or **next** button to see the previous or next data.

Note: If you are currently in real-time mode selecting previous will change the view to historical mode and automatic refresh will not happen.

2. For line chart views, the view will shift by 3/4 of the current time duration to display the previous or next data in the view. For Data Tables, Pie Charts and Bar charts, the view will shift to the previous or next period.
3. To get back to the real-time view select the **real-time** button.

Note: If the new calculated date is greater than current time, the dashboard switch back to real-time mode, refreshing data automatically every period.

Adding a line Chart Pane

Follow these steps to add a table panel record.

1. Type in the **Name**.
2. Select the graphic outlay to **Line Chart**.
3. Select the **Rank**.

This is the position where the Panel is located in the dashboard.

4. Select the **Offset** time.

This option is used to compare current data to past data in another panel.

5. Click **Continue**.

The screen changes to show the *Datasource* tab. This screen has the discovered xDR sessions that have been discovered using the *Centralized Configuration Manager* (CCM). For more information on discovering xDR sessions see *Centralized Configuration Manager User's Guide*.

6. Select the **session**.

7. Click **Use this session as datasource**.

The screen changes to show the datasource on the bottom on the screen.

8. Select the **X-axis** tab.

The screen displays the x-axis parameters.

- a) Select the **X grid** (vertical grid).
- b) Select the **Time scale** (X duration).

Defines the time range of X-Axis for a line chart. Last date/time or Current date/time will be selected. The duration unit is one hours.

9. Click the **Y Axis** tab to open the Y Axis screen.

10. Set the **attributes** on the **Y axis** tab of the line chart panel configuration window.

Table 1: Y-Axis Attribute Descriptions

Attribute	Description
Y-grid	Displays a horizontal grid if checked
Scale name	Displays a title for the default (left) y-axis, and selects a scale by name if an optional scale is defined (default is "left")

Auto scale	Allows the software to calculate the default (left) y-axis range. Otherwise, minimum and maximum values should be filled in.
Minimum scale value	Defines the minimum value of the default (left) y-axis range.
Maximum scale value	Defines the maximum value of the default (left) y-axis range.
Second scale	Displays an optional right y-axis in the chart
Second scale name	Displays a title for the optional right y-axis and selects a scale by name (default is "right")
Auto scale	Allows the software to calculate the optional right y-axis range. Otherwise, minimum and maximum values should be filled in.
Minimum second scale value	Defines the minimum value of the optional right y-axis range.
Maximum second scale value	Defines the maximum value of the optional right y-axis range.

11. Click the **Labels** tab to apply a label to the session. Labels are available if the session contains additional text fields for ProTraq TOP.

12. Select the appropriate **data columns** and enter the **formatting string** that specifies how the values will be separated. The recommended syntax for the formatting string is **%n\$s** and an invalid syntax may lead to no displayed values. If the formatting syntax is not defined, the values will be separated by spaces.

When entering the formatting string, use the syntax **%[col_index\$][width][.precision]conversion** where:

- The optional col_index is a decimal integer indicating the position of the argument in the selected column list. The first column is referenced by "1", the second by "2\$", and so on.
- The optional width is a non-negative decimal integer indicating the minimum number of characters to be written to the output.
- The optional precision is a non-negative decimal integer usually used to restrict the number of characters.
- The required conversion is a character indicating how the argument should be formatted. A lowercase "s" returns the string as it is and an uppercase "S" returns the string in upper case letters.

13. Click **Apply** to save changes. The panel appears in the *Panel list*.

Adding a bar Chart Pane

To set the display parameters for a bar chart, follow these steps:

1. Type in the **Name**.
2. Select the graphic outlay to **Bar Chart**.
3. Select the **Rank**.

This is the position where the Panel is located in the dashboard.

4. Select the **Offset** time.

This option is used to compare current data to past data in another panel.

5. Click **Continue**.

The screen changes to show the *Datasource* tab. This screen has the discovered xDR sessions that have been discovered using the *Centralized Configuration Manager* (CCM).

6. Select the **session**.

7. Click **Use this session as datasource**.

The screen changes to show the datasource on the bottom on the screen.

8. To add more sessions, repeat steps 6-7.

9. Click the **X-Axis** tab to open the *Panel Settings* screen.

10. Set the **X-grid** attributes on the screen.

a) Select **x grid**.

If selected a vertical grid is displayed.

11. Select Values

a) Select **Lines** (fields) that display the X-Axis values as the line selection in the statistics session.

b) Select **Columns** that display the X-Axis values as the column selection in the statistics session-with simple count

Note: The X axis selections are defined in discrete values. The legend items are applied to each value in the selection.

12. Click the **Y-Axis** tab to open the attribute screen.

13. Select the **attributes** for the Y-axis.

14. Click the **Labels** tab to apply a label to the session. Labels are available if the session contains additional text fields for ProTraq TOP.

15. Select the appropriate **data columns** and enter the **formatting string** that specifies how the values will be separated. The recommended syntax for the formatting string is **%n\$s** and an invalid syntax may lead to no displayed values. If the formatting syntax is not defined, the values will be separated by spaces.

When entering the formatting string, use the syntax **%[col_index\$][width][.precision]conversion** where:

- The optional col_index is a decimal integer indicating the position of the argument in the selected column list. The first column is referenced by "1\$" the second by "2\$", and so on.
- The optional width is a non-negative decimal integer indicating the minimum number of characters to be written to the output.
- The optional precision is a non-negative decimal integer usually used to restrict the number of characters.
- The required conversion is a character indicating how the argument should be formatted. A lowercase "s" returns the string as it is and an uppercase "S" returns the string in upper case letters.

16. Click **Apply** to save your settings. The panel record is saved to show a bar chart.

Setting Pie Chart Parameters

To set the display parameters for a bar chart, follow these steps:

1. Click **Add** in the *Panel List* page.
2. Type in the **Name**.
3. Select the graphic outlay **Pie** as the type.
4. Select the **Rank**.

This is the position where the Panel is located in the dashboard.

5. Select the **Offset** time.

This option is used to compare current data to past data in another panel.

6. Click **Continue**.

The screen changes to show the *Datasource* tab. This screen has the discovered xDR sessions that have been discovered using the *Centralized Configuration Manager* (CCM).

7. Select the **session**.

8. Click **Use this session as datasource**.

The screen changes to show the datasource on the bottom on the screen.

9. To add more sessions, repeat steps 7-8.

10. Select the **Values** tab.

The screen changes to show the columns for the panel.

11. Set the **line** or **column** values.

- a) Line values define the pie slices as columns for a line to be selected in the line list of the statistics session.
- b) Column values define pie slices as lines for a column to be selected in the column list of the statistics session.

12. Click the **Labels** tab to apply a label to the session. Labels are available if the session contains additional text fields for ProTraq TOP.

13. Select the appropriate **data columns** and enter the **formatting string** that specifies how the values will be separated. The recommended syntax for the formatting string is **%n\$s** and an invalid syntax may lead to no displayed values. If the formatting syntax is not defined, the values will be separated by spaces.

When entering the formatting string, use the syntax **%[col_index\$][width][.precision] conversion** where:

- The optional col_index is a decimal integer indicating the position of the argument in the selected column list. The first column is referenced by 1, the second by "2\$", and so on.
- The optional width is a non-negative decimal integer indicating the minimum number of characters to be written to the output.
- The optional precision is a non-negative decimal integer usually used to restrict the number of characters.
- The required conversion is a character indicating how the argument should be formatted. A lowercase "s" returns the string as it is and an uppercase "S" returns the string in upper case letters.

14. Click **Apply.**

The settings are saved to the panel list.

Unselecting (deleting) Data Sources

You can *unselect* an xDR session in a Panel record by follow these steps.

1. Select the **Panel record** to be modified.
2. Click **Modify**.
3. Click the **Datasource** tab.
4. Click **unselect** but the xDR session you want to delete.
5. Click **Apply**.

The changes are saved to the system.

Modifying a Panel Record

Follow these steps to modify a panel record.

1. Select the **Panel record** to be modified.
2. Click **Modify**.
3. Make the appropriate changes.
4. Click **Apply**.

The changes are saved to the system.

Deleting a Panel Record

Follow these steps to delete a panel record.

1. Select the **Panel record** to be modified.
2. Click **Delete**.
3. Click **OK** at the prompt.

The record is deleted.

Creating legend Items

For a charting panel, some legend items need to be defined in order to apply graphic properties specific to that item, such as color, symbol, etc.

These properties are applied to these two items:

- A precise KPI (line chart or pie chart) - which is a key point indicator identified by a column and a line in the selected statistics session (in panel definition)
- A KPI set (bar chart) - which are *key point indicators* identified by a line or a column and respectively selected columns or lines of a session (in panel definition)

Displaying a legend item List

Each charting panel has children records associated with it. To display an item list, follow these steps:

1. Select the **record**.
2. Click **Show child** to open the child list screen shown in [Figure 18: Child Records List Screen](#).

Name	Duration	Type	Rank
My41Panel	0	BARCHART	1
MyTestPanel1	0	PIECHART	2
LinePanel	3600	LINECHART	3

NPI	Session	Application	Line	Column
1641kp1	MyTestStat1	sp1100-1a_APP	all panel selected columns	Col1
1641kp12	MyTestStat2	sp1100-1a_DWH	all panel selected columns	Col1

Figure 18: Child Records List Screen

Defining KPI Data Sources

Follow these steps to define a KPI data source.

1. In a child record, click **Add record** to open the KPI configuration screen shown in [Figure 19: KPI Configuration Screen](#).

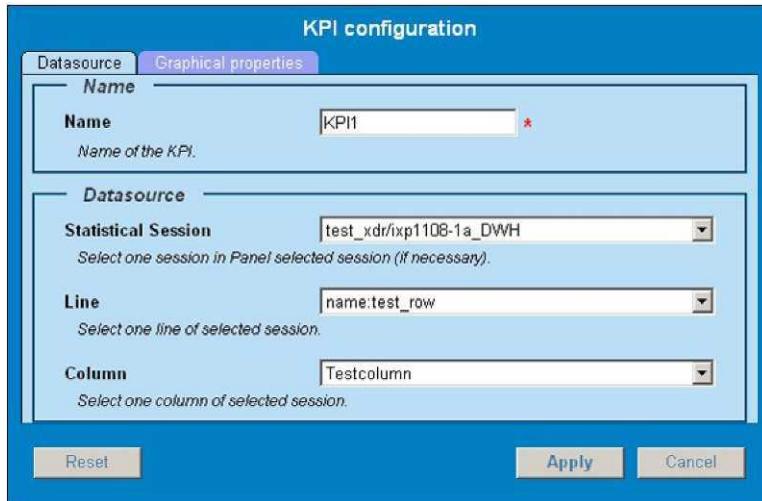


Figure 19: KPI Configuration Screen

Note : Only the numerical KPI field will be listed here , for example IMEI type (which can contains 'A','B',..) will not appear here

2. Select the **Datasource** tab and set the following attributes that are described in [Table 2: Xdr Configuration Settings](#).

Table 2: Xdr Configuration Settings

Attribute	Description
Name	Name to be displayed in the legend for this KPI
Statistical Session	Selects a statistical session if multiple sessions have been selected in the panel settings (only for a line chart)
Line	Selects a line in the statistical session. This attribute does not appear for bar charts or pie charts if the line values have been defined in the panel settings.
Column	Selects a column in the statistical session. This attribute does not appear for bar charts or pie charts if the column values have been defined in the panel settings

Note: Special characters are not allowed for name. Use only standard alphanumerical characters and "_" and "."

3. Select **Graphical properties** tab to open this screen shown in [Figure 20: Graphical Properties Tab](#).

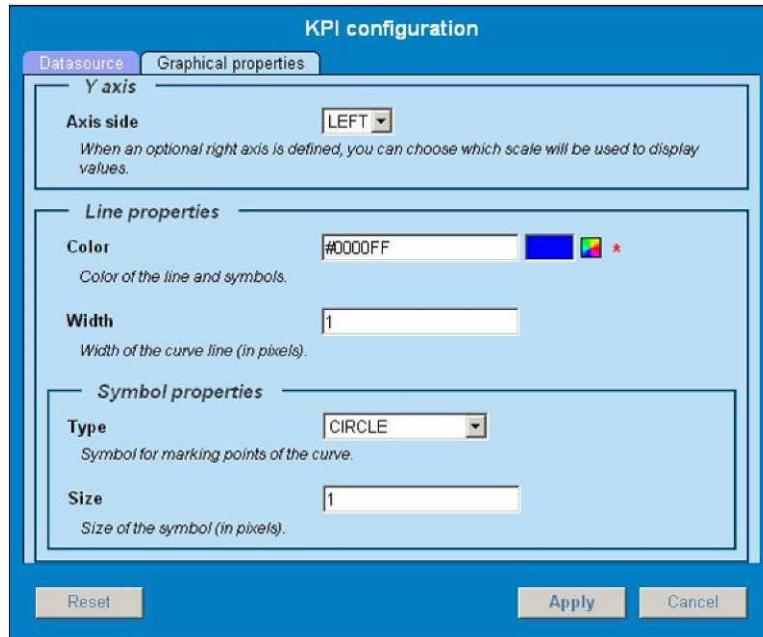


Figure 20: Graphical Properties Tab

4. Select the **graphic attributes** for the datasource described in [Table 3: Attribute Descriptions](#).

Table 3: Attribute Descriptions

Attribute	Description
Axis side	If an optional second Y axis has been defined (only for bar charts or line charts), you may select which axis to use.
Color	Selects color
Width	Defines line thickness (only for line charts)
Symbol type	Defines the symbol used at the value location

Attribute	Description
Symbol size	Defines the symbol size in pixels

5. Click **Apply** to save your settings.

Modifying the panel Order

If you would like the information of a specific record organized differently, you can modify the panel order. In this way the most pertinent information is presented first. To change the panel order, follow these steps.:

1. Select the **record** you want by using the *Navigation* buttons.
2. Click **Edit record** to open the panel shown in [Figure 21: Panel Settings Screen](#).

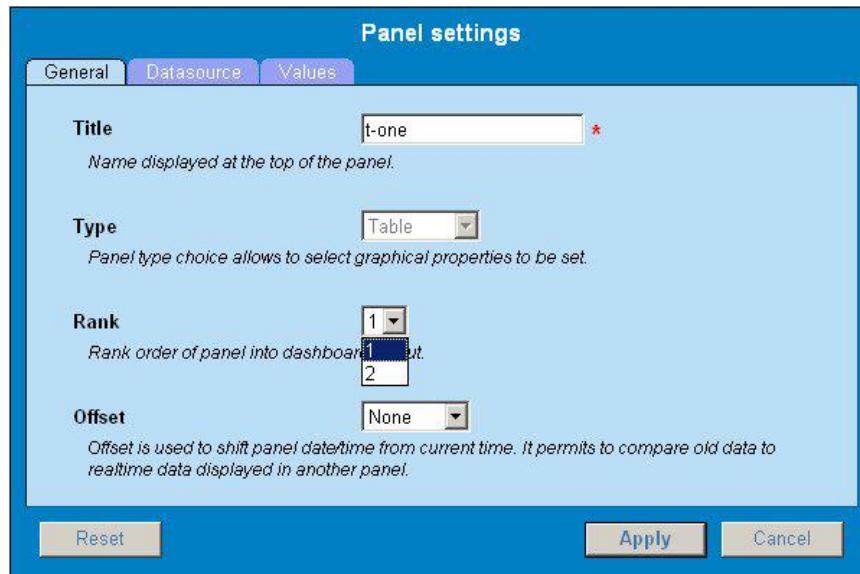


Figure 21: Panel Settings Screen

3. Select the **new position** of the panel by using the corresponding attribute.
4. Click **Apply** to save your settings.

Note: If the new rank is below the old one, every panel in between will be automatically shifted up. Otherwise, panels between these ranks will be automatically shift down.

Modifying privacy Settings

In order to modify access rights of a dashboard, follow these steps:

1. Select the **record** you want by using the *Navigation* buttons.
2. Click **Roles**, the *Change Privacy* page opens.

3. Give the following **access privileges** according registered roles.

- a) x : allows to display dashboard
- b) w : allows to modify settings
- c) r: allows to view dashboard in list and corresponding settings lists

Note: A user belongs to one or more groups, each of these being mapped to one or more roles (by default one group=one role).

Printing the Dashboard

To print dashboard:

1. Select the web browser **Print menu** (right click for context menu).
2. Follow the web browser standard instructions for printing a document.