



Serfboard User Guide Version 1

CML00027-01

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1 Introduction

1.1 *Serfboard* overview

The *Serfboard* system enables a user to monitor, and possibly interact with, a running system or systems via a web based graphical dashboard. Dashboards of this nature that show a unified view of key performance indicators of different systems are extremely effective in the management of networked systems testing or systems stress testing. In stress testing, being interactive, the user can change various thresholds and key values in order to watch the effect of different loads on the system under stress.

The *Serfboard* system comprises the following parts:

- The core server (*serfboard*) which is a daemon process (executes in the background) that receives metric data, stores it and supplies it to the web application on request.
- The display instrument plug-in programs and web application which are responsible for rendering the final dashboard as viewed by the user. The web application continuously requests updates of data from the server.
- Metric feed probes and feed library. The metric feed probes are responsible for querying a specific system that supplies metrics (for example SNMP), extracting the relevant data, converting it to the *Serfboard* format and forwarding the metric data on the the server. There is also a C programming library interface available for development of user written metric feeder programs. See the following for more information about supplied probes:
 - *cmlxaixp*: AIX Performance Metric Probe [3]
 - *cmlxsolp*: Solaris Performance Metric Probe [6]
 - *cmlxsnmp*: SNMP Metric Probe [2]
 - *cmlxwinp*: Windows Performance Metric Probe [4]
 - *cmlxwasp*: Websphere Application Server Performance Metric Probe [5]

1.2 About this Manual

This document explains how a user accesses and interacts with a dashboard to effectively monitor a system.

The user opens a web page to request metrics for a particular group to be displayed. This will load an initial page containing panels. Each panel will request an update of data at regular intervals and display it in the panel.

For more information about the instruments implemented by the `serfboard`, refer to Serfboard Instruments Guide and Reference Version 1 [1].

2 SerfBoard Web Page

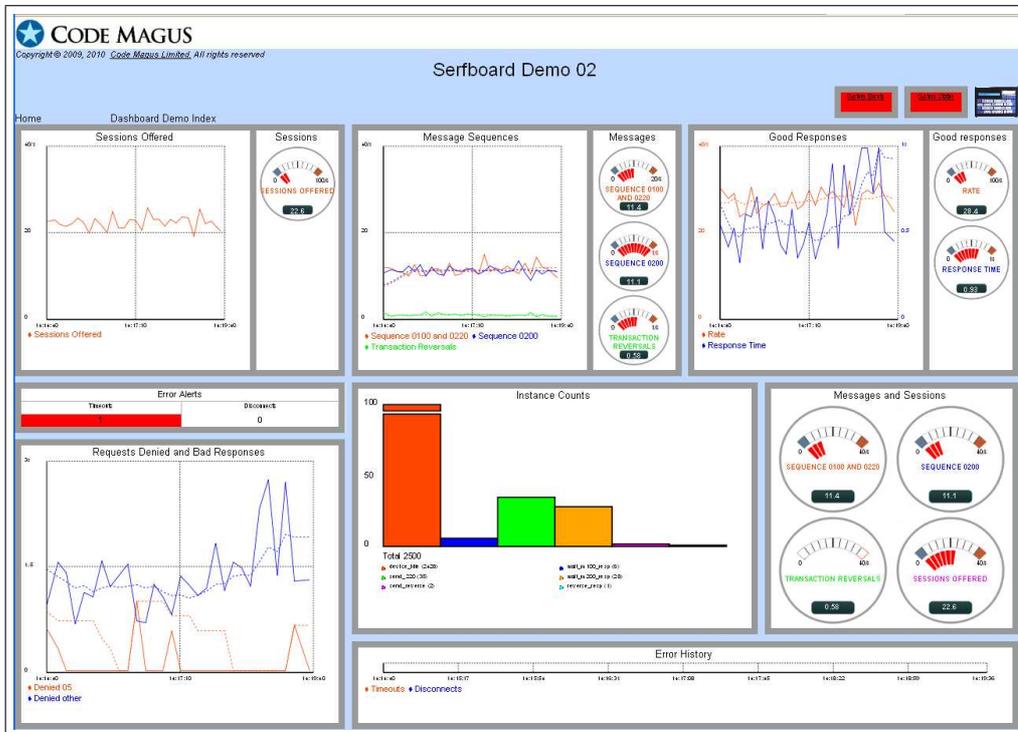
2.1 Home Page

To view the web page, open the *Serfboard* home page at the following URL:

<http://serfboard.info/serfboard/index.html> Replace the host name with the appropriate one obtained from the system administrator.

This page lists the pages that are available. Click on the Start button next to the name to view the *Serfboard* page.

A view similar to the following will open:



2.2 Interaction common to all controls

When the mouse pointer hovers over a panel title, a sub-window with a description appears. Clicks on the panel title to open a help window. This contains the title and description of the metric, as well as a short status message.

3 Elements of the display

3.1 Overview

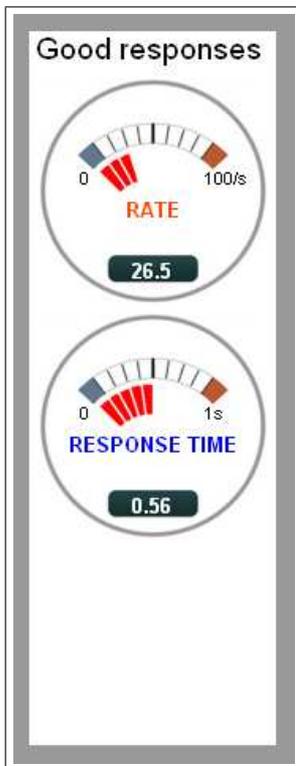
The layout in use is determined by the system administrator. One or more of the following elements will typically be found in a display.

3.2 Gauges

Gauges display the current rate or response time of a metric. They are usually combined in a panel. Such a panel will then display one of the following

- rate and response time of a single metric
- rate of multiple metrics
- response time of multiple metrics

A dial can have a small sub-window that display a value in digital form. This is the moving average. It is calculated for a time period set by the administrator. The period is displayed in a pop-up window when the mouse pointer is moved over the value.



3.3 Alerts

This is a set of pilot lamps that indicate a severe condition not encountered during normal operation of the system being monitored. Such a state usually requires intervention from an operator.

Errors					
Timeouts	Disconnects	HSM Errors	Pin Errors	Bad Logon	Logon Deny
0	4	0	0	0	0

The user clicks on the numeric value to blank out the sub panel. When the user moves the mouse pointer clicks on the title of a warning light, a help window opens. This contains detailed descriptions.

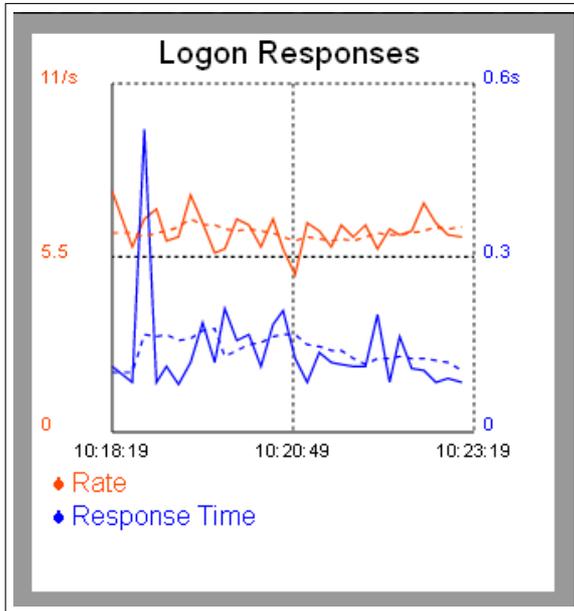
3.4 Counters

This is a set of indicators that display the current value of a metric.

Active Alerts			
Connections Refused	Connections Third Retry	Connections Second Retry	Connections First Retry
64	64	65	69

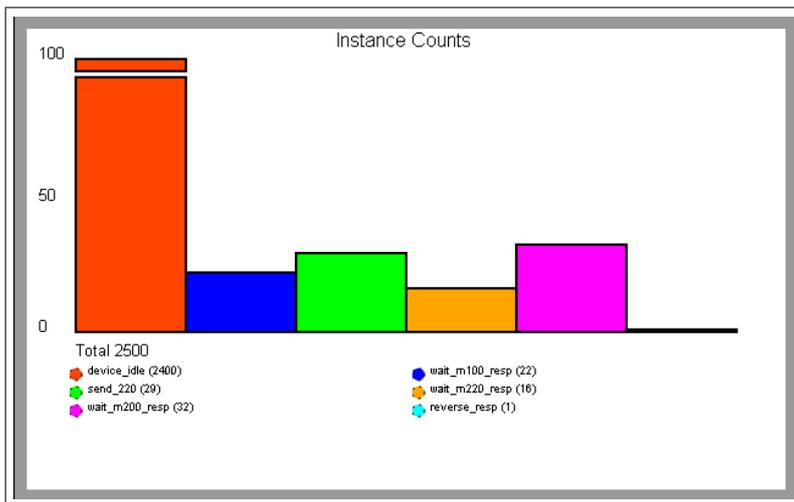
3.5 Graph

This displays the value of a metric against time. The start and end times are displayed below the horizontal axis.



3.6 Bar chart

This is a specialised type of display tailored to certain metrics. An example of this is the states of a *ptester* machine. The display will show a number of bars, each corresponding to a state. The height of each bar is proportional to the number of times that a state occurs. The actual values are given in a list below the graph.



3.7 Events

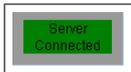
This instrument displays event messages sent to and generated by the server. A warning light is turned on when a new event occurs.

User interaction

A new window with all of the event messages open when the user clicks on the warning light. These are displayed in reverse chronological order.

3.8 System status

A warning lamp lights up when no input has been received for a certain interval. The system administrator determines the length of this interval.



User interaction

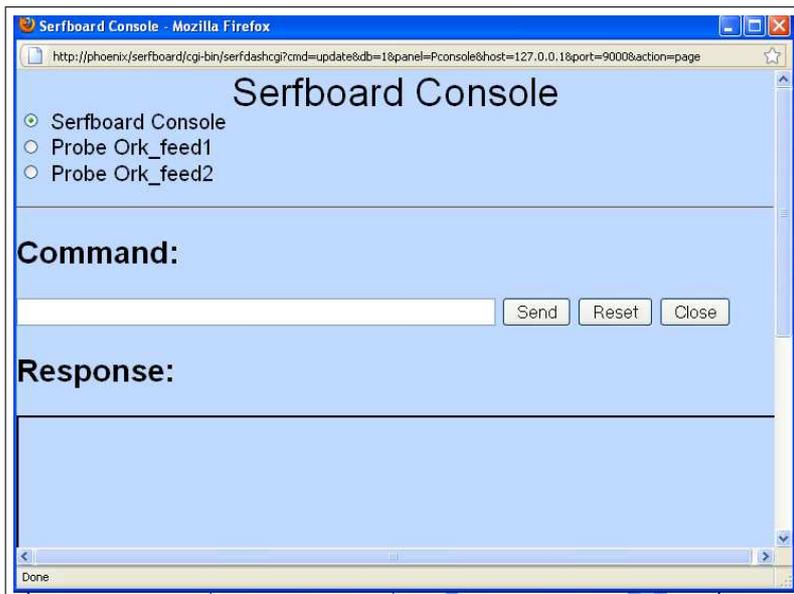
Click on the lamp to bring up a window with more detail.

3.9 Data feed console

A user can enter commands for a data feed such as *ptester* in this panel to alter the behaviour of the system.

User interaction

1. Click on the console icon to open a *ptester* console.
2. Enter command in the input area of the *ptester* console and press Enter. The result of the command is displayed below the input area.



References

- [1] Serfboard Instruments Guide and Reference Version 1. CML Document CML00024-01, Code Magus Limited, July 2008. [PDF](#).
- [2] cmlxsnmp: SNMP Metric Probe. CML Document CML00044-01, Code Magus Limited, June 2009. [PDF](#).
- [3] cmlxaixp: AIX Performance Metric Probe. CML Document CML00045-01, Code Magus Limited, June 2009. [PDF](#).
- [4] cmlxwinp: Windows Performance Metric Probe. CML Document CML00048-01, Code Magus Limited, June 2009. [PDF](#).
- [5] cmlxwasp: Websphere Application Server Performance Metric Probe. CML Document CML00049-01, Code Magus Limited, June 2009. [PDF](#).
- [6] cmlxsolp: Solaris Performance Metric Probe. CML Document CML00065-01, Code Magus Limited, June 2009. [PDF](#).