

## VPanorama Tour

The massive amount of data stored in logfiles in a large company contain valuable information that often remain unnoticed, because of the sheer mass of the data, the long processing times involved and the limited human resources available.

In order to produce useful information in such an environment in a reasonable time, certain criteria must be satisfied in a program designed for this purpose. The bulk of the processing should happen at times when the IT infrastructure is not under load. Processing of data should be completed before the next cycle of business activity starts. The presentation of data should be graphical for quick analysis and should allow for textual mode for detailed probe of any data field in the records.

Vanadyne Panorama is a general-purpose data presentation and visualization application that satisfies all these requirements. It uses the parallelism and automation features of Magnet for optimum use of system resources and produces results at the maximum speed possible.

### FEATURES

- ▶ General Purpose.
- ▶ Multiple parallel views.
- ▶ Zooming
- ▶ Probing
- ▶ Incremental processing.
- ▶ No limit on data volume.
- ▶ Time resolution from decades to seconds.
- ▶ Ease of analysis.
- ▶ Grouping.
- ▶ Platform independence.

### BENEFITS

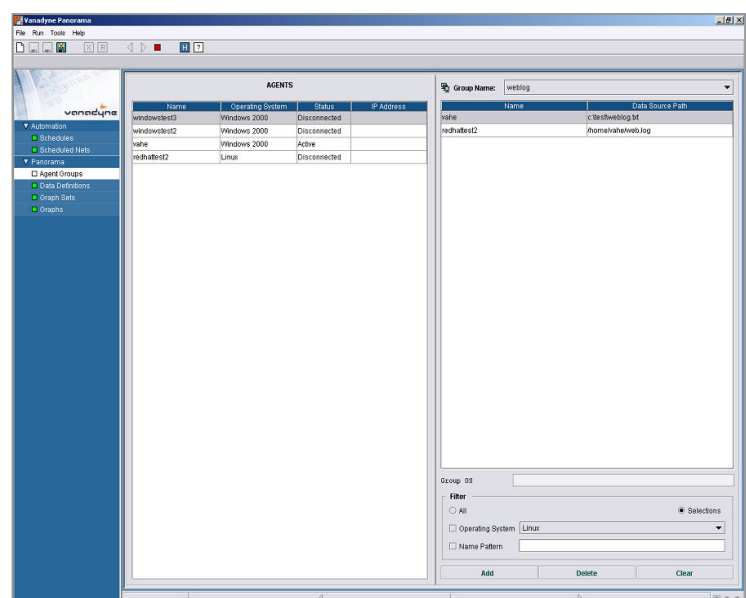
- ▶ Discover bottlenecks in your IT environment.
- ▶ Discover unusual or unexpected event frequency on any computer in your company.
- ▶ Extract vital information from the graphs for your business process optimization.
- ▶ Use the graphs to help you in planning for timely resource allocation, reallocation or acquisition.
- ▶ Compare similar data in different locations/departments of your enterprise using the grouping features of Panorama.
- ▶ Observe the evolution of data over any time period.

## Using VPanorama

In order to introduce the functionality of Panorama let us consider the following scenario. You would like to have a graphical view of the web logs on your web servers. The graphs should be updated automatically at certain intervals; but you want to see the state of the data at the moment you select the desired graph. What you need to do is to define the set of the web servers, determine the graphs you are interested in and automate the processing with a schedule.

### Step 1: Defining a group of web servers

1. Select the "Agent Groups" page and define a new group called "weblogs".
2. Select the desired hosts on the hosts list and add them to your group.
3. For each host, type in the path to the corresponding logfile and save.



## Step 2: Defining fields of a log entry

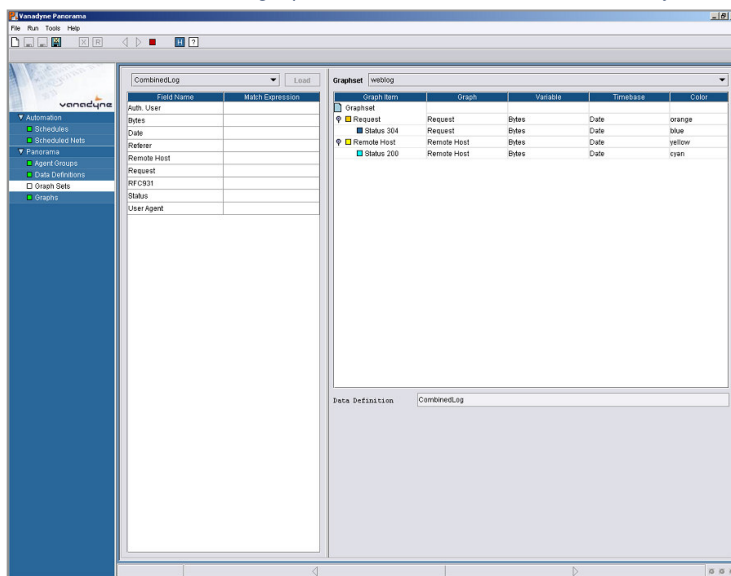
Since the format for weblog records is standard and publicly known, you do not need the data definitions. Both the Common Log Format and the Combined Log Format are predefined data definitions. However if you need to analyze data with different record formats, do the following.

1. Select the "Data Definitions" page and create a new Data Definition object.
2. By selecting the appropriate entries from the dropdown fields, you can now define which type of data source you want to analyze, which delimiter is being used in the record and give other data specific information.
3. In the table "Fields" add the record fields of the data source; with name, data type and the position index in the record.

Name	Data Type	Index	Units
User Agent	STRING	9	
Status	STRING	6	
RFC 931	STRING	2	
Request	STRING	5	
Remote Host	STRING	1	
Referer	STRING	8	
Date	TIMESTAMP	4	
Bytes	COUNTER	7	
Auth. User	STRING	3	

## Step 3: Creating a "Graph Set"

A "Graph Set" is the set of interrelated graphs of the various fields of the log record vs. a time base. Each graph can have several sub-graphs with a filter, which enables you to visualize and analyze subsets of the data as compared to the total set. For example, you would like to see the percentage of all web accesses that returned with status code 200. Each graph set member is color coded for easy visualization.



1. Select the "Graph Sets" page and create a new graph set object called "weblog".
2. In the left panel choose the appropriate data definition from the list and load it. In this case it is the Combined Log Format.
3. In the right panel add a graph and define it by selecting from the dropdown lists in each entry field assigning a color code of your choice.
4. If you wish, add sub-graphs, repeating the procedure in step 2 for each sub-graph and enter a value for the filter in the data definition table in the left panel. For example status = 200. Save the Graph Set.

## Step 4: Creating the process

To guarantee reusability, graph sets and the group of servers are independent entities. You can now specify which computers should produce the graph set you defined previously.

1. Select the "Graphs" page and create a new "Graph" object.
2. Using the lists in the left panel assign the weblog graph set to the group of computers you also called "weblog", and save.
3. If you want to automate the process select a predefined schedule from the automation box and save. Press the activate button to start the scheduled task.

## Step 5: Viewing and Analyzing the Graphs

Press the start button in the Graphs page to display the graph-set result for all the web servers defined in the web server group. At this point all the servers defined in your weblog group update their current results in parallel and display the results.

### After having clicked "Start", you can now do the following:

1. Navigate the graph tree in the left panel to view the desired graph on a certain server.
2. Study the parameters of interest in the graph such as maxim/minimum values, repeating patterns, unexpected absence/presence of events etc.
3. Select a time interval in the graph, using the two cursors and zoom in for a closer look at the data. Continue this operation, if you wish, to the maximum time resolution.
4. Lock in to a time value, using the left/right keys on your keyboard and view the individual fields of the locked record in text mode.
5. Use the bar chart at top to analyze the data relationships between the specified fields of the sub-graphs, which you defined in the graph set.
6. Use the pie chart presentation for each bar graph for numerical values.

