

Using the Observatory Explorer

Overview

The Observatory Explorer is a graphical display tool implemented as a Java applet. Each report (Project, Program, etc.) contains a "Graphs" button that will invoke this tool. This function can be accessed by any Notes Client 4.6.1 or later and by Web browsers such Internet Explorer 4.01 or later, Netscape 4.5 or later or Sun Hot Java. Of course, Java support must be enabled in the client or browser.

The information available for display depends upon the report selected. Not all reports will show all possible charts, and new charts may be defined by the observatory administrator.

All charts fall into the following groups.

Time Series

Historical

Historical Extrapolation

Distribution Pie Charts

Ranking Pie Charts

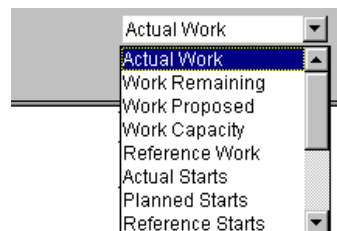
Skills Pie Charts

Custom Pie Charts

General Operation

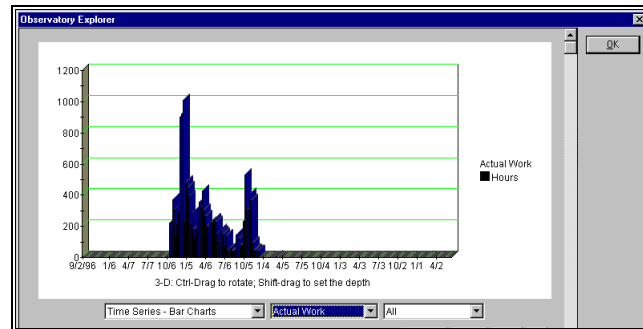
Chart Selection

You select a chart type on the left, data in the center and time period on the right. Whenever you change any of the selectors, the current chart will be redrawn. This can take several seconds depending upon the speed of your workstation and the amount of data displayed.

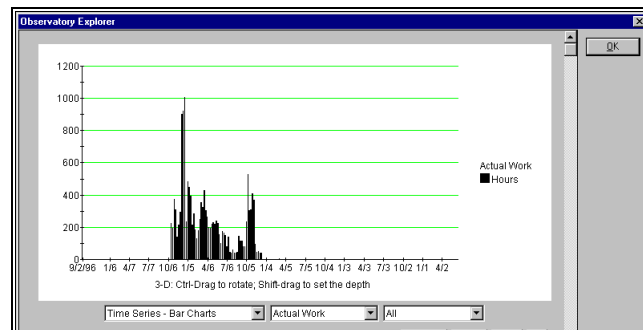


Visual Perspective

By depressing the Control Key or Shift Key and then dragging the mouse, you can change the visual perspective of the chart.



Default Perspective



Rotated to 2-D format

Printing

Charts displayed in web browsers can be printed. Notes 4.x clients do not have any provision for printing from Java objects, but the charts can be captured to the clipboard and pasted into other documents as bit maps.

Reading Chart Values

Clicking on any data bar, point, or slice will display a popup showing the data value and, for time based charts, the date.

Time Series Charts

These bar charts show the "commitments" and "capacity" information found in each report. You select the kind of data to show and the time period for display from lists provided. The time periods are generally self explanatory.

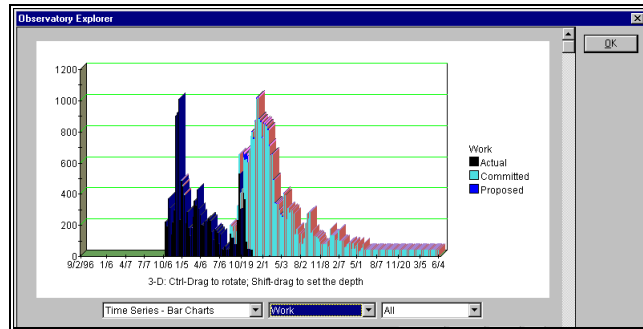
Data Selection

Actual Work - Actual work hours for each week.

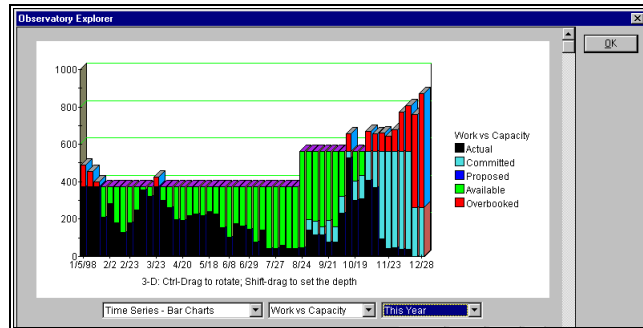
Planned Work - All planned (including committed and proposed) work hours by week.

Reference Work - All reference (baseline) work hours by week.

Work - Actual, planned and proposed work hours with color coding for each.



Work vs. Capacity - Total Work (planned + proposed + actual) overlaid with capacity. Unused capacity is shown in green. Excessive use is shown in red. Actual use is shown in black so long as it is less than available capacity.



Work vs. Reference - Total work (planned and proposed + actual) overlaid with the reference plan. Red shows the extent to which the reference plan was exceeded (overrun), green otherwise (underrun).

Work Capacity - Total capacity (in work hours) defined for this entity by week. Note that this is set by the Capacity Action on the report and can vary from week to week.

Planned Starts - This shows the number of task/assignment starts planned for each week.

Actual Starts - This shows the number of task/assignment starts reported for each week.

Reference Starts - The number of task/assignment starts in the baseline plan by week.

Planned Finishes - This shows the number of task/assignment finishes planned for each week.

Actual Finishes - This shows the number of task/assignment finishes reported for each week.

Reference Finishes - The number of task/assignment finishes in the baseline plan by week.

Historical Line Charts

These charts show the value of significant parameters as they have varied over time. The data for these charts is created by the automatic historian process in the observatory which generally runs weekly. Accumulating a substantial number of data points will take several months.

Data

Some of the variables tracked are listed below.

Total Work - you would expect that the total work for a project would remain pretty constant, but if this trend is upward, then the project is growing. In a program this could change up or down due to the addition or removal of projects.

Actual Work - This should increase steadily over the course of a project.

Work Remaining - On projects, this should decrease steadily. If not, it means that the project is growing faster than it is being accomplished!

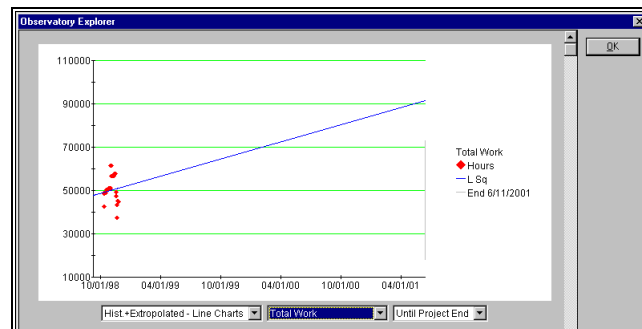
Key Events Completed - If milestones are properly planned and executed, this graph should step upward at regular interval.

Historical Trend Charts

These charts show the same data as the previous groups. In addition, the system computes the trend line using the method of least squares and projects this trend to the project or program end date.

If more than 90 days of data is available, then two trend lines are plotted. The first uses all data and the second uses only the last 90 days' data.

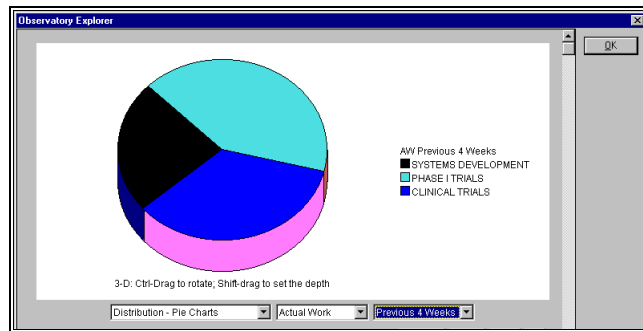
The end date of the project or program (or the last week of available data for organizations and commitments) is shown as a vertical line we call the goal line. The intersection of the trend line and the goal line shows the projected value of the variable at completion.



These trend displays are very useful for projects and stable program/organization groups. They can provide insight into evolving problems that might otherwise go unnoticed.

Distribution Charts

These charts display the allocation of effort among the direct contributors to this report. For a project report, this shows the distribution among the assigned resources. For a program it shows the distribution among the direct subprograms and directly assigned projects. For an organization, it shows the distribution of effort among the direct suborganizations (or members) and any directly assigned project commitments.



The distribution charts show work hours distributed in 12 charts

Actual Work

All, Year to Date, Past 4 Weeks.

Planned Work

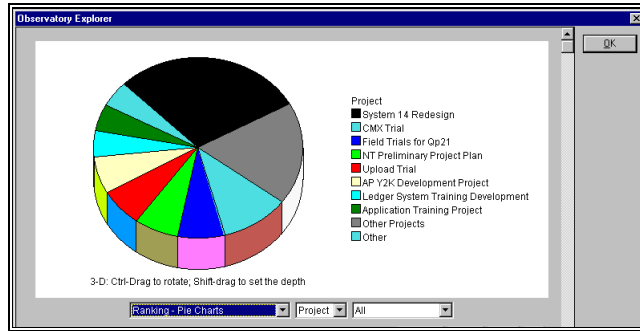
All, Year to Date, Past 4 Weeks, Next 4 Weeks and All Overdue Work.

Reference Work

All, Year to Date, Past 4 Weeks, Next 4 Weeks

Ranking Charts

These charts show the individual projects that contributed the most to the particular report. They do not appear on Project or Project Commitment reports. This lets you see which specific projects are taking the largest shares of labor in your program or organization, no matter where they are located in your subprogram or suborganization structure.



You can think of this as the "top 10" for each program or organization. There are 5 charts in this category: All, Year to Date, Past 4 Weeks, Next 4 Weeks, and Overdue.

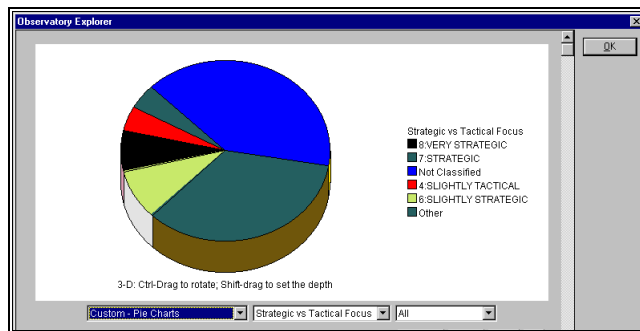
Skills

If you have categorized commitments by skill, then these charts will show the distribution of labor by skill for each project, program or organization.

There are 4 charts in this category: Actual, Planned, Total and Proposed.

Custom

Custom charts may be defined by the Observatory Administrator. One of these charts is predefined for portfolio analysis. This is the strategic vs. tactical ranking chart.

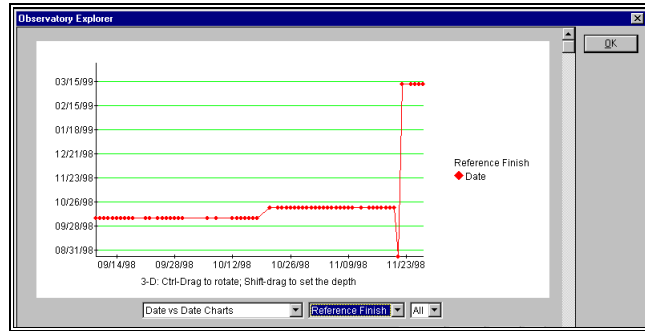


For each custom chart category the system prepares 6 charts:

All Work, Year to Date, Previous 4 Weeks, Next 4 Weeks, Overdue Work, and Count. Count is simply the count of projects or commitments in each category.

Date vs. Date charts

These are similar to the Historical Charts. The horizontal axis is the time of record, the vertical axis is the value of a recorded date at that time. These show the evolution of the finish date and reference finish date as a function of time.



Custom variables may be defined by the Observatory Administrator that will be included in this category.