

Using Project & Program History Diagrams

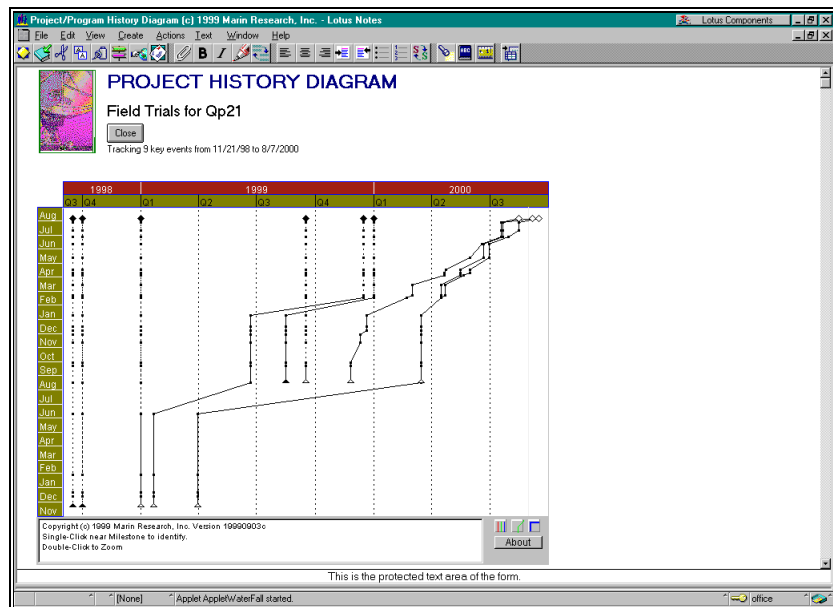
Overview

It is a fact of life that projects are like individuals, some are always on time and some are chronically late. Interpreting the true state of a project requires that you understand what the history of the project has been up to the current time. This is the purpose of the Phd diagrams.

Project History Diagrams

To create a project history, press the Phd action button at top of a Project Report. The system will access the set of stored history reports and construct a diagram similar to the following.

Note: If the project has a short history, the left side may show only a one or a few months. As the project lives, the left side scale will compress.



The project in this example has been monitored in an Observatory database for nearly two years.

A project history diagram shows the lifelines of each milestone in the project. In a perfect project, each milestone would be drawn as vertical line. In a slipping project, some or all of the milestones would shift to the right as they ascend up the page. In an accelerating project, the lines would shift to the left.

Reading the diagram

Project Timeline

The top bar is a timescale that will span the entire date range of the project.

Historical Timeline

The left bars show historical time, starting with today on top and extending downward to the first date of observation for the project that is available in the observatory data.

Milestone Symbols and Lifelines

Each milestone has a start point that is represented by a triangle and an endpoint that is represented by diamond. If the triangle or diamond is a solid shape, then that milestone is completed. If it is hollow, then it is not completed.

Every project has at least one milestone that is named **[project end]**. It will always be the one that is the furthest to the right.

Observation Markers

Along the lifelines will appear black dots. These represent the times of the project reports in the observatory. Normally these will be spaced weekly if the project is being reported on a weekly basis, but after a while the system purges some of the reports so that the older points may be more widely separated.

When new milestones are added to the project in the middle of its life, they will appear partway down the history axis and extend upward. It is also possible that a milestone can be removed from a project during its life, in this case the life line will end before it reaches the top.

A solid diamond is placed at the point in historical time when the milestone is first reported to be completed. Then a dotted line is extended upward to another milestone to show its place on the current timeline.

Controls

Buttons

There are three small buttons in the lower left corner. The leftmost of these will toggle the display to alternate the colors of milestones from left to right in a rainbow pattern. This makes it easier to see crossovers in crowded plans.

The second button toggles on and off the display of the big "dots" that represent the dates of observation.

The third button toggles on and off the vertical dotted lines that are provided to separated major time periods.

Time Zoom

There are several zoom functions that expand a part of the screen. You can double click into any part of the timescales to expand that period to fill the respective axis. So if you want to see year 2000 only, double click in the top header on the 2000 block. Double click to unzoom.

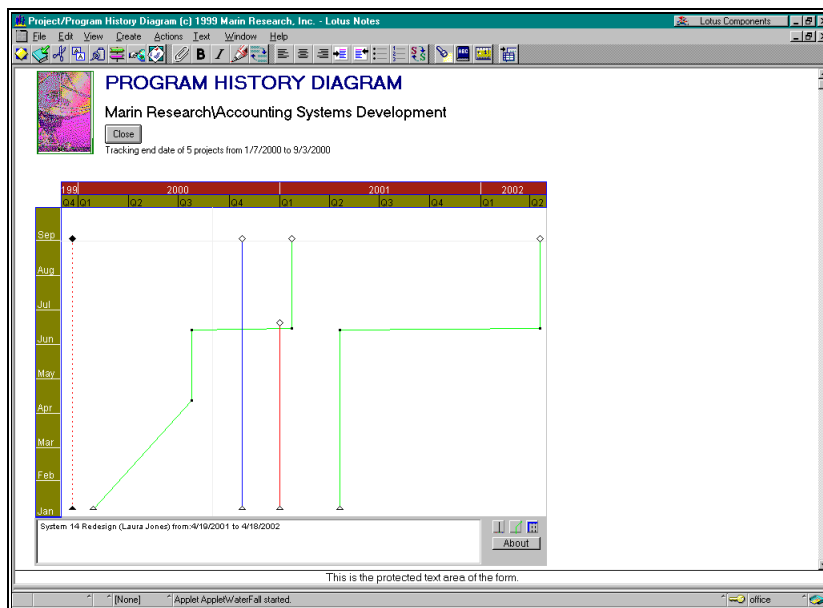
Custom Zoom

Put the mouse on the upper left corner of any part of the display, depress the mouse button, drag down and to the right (to define a rectangle) and release. This will zoom the rectangle to fill the chart area. Note that, if you move mostly right or mostly down, you will get a rather distorted chart. Double click to unzoom.

Program History Diagrams

A Program History Diagram shows the lifelines of the enddates of every project currently associated with a particular program.

To create a program history diagram, click the Phd action button that appears at the top of all Program reports. The system will find all projects that belong to that program, either directly or indirectly.



Controls

The buttons at the lower right will alternate line colors, remove the observation markers, and hide the vertical separator lines when toggled.

Double clicking on the time scale will zoom the image. Click-drag right and down-release will zoom any specific area. Click to unzoom.

Interpretation

A perfect project will always report the same end date. Thus it will appear as a vertical line. A project that is slipping will create a line that slips to the right. A project that is accelerating will create a line that slips to the left as it rises on the chart.

After you have found projects of interest, open the project report and run a Phd on the project to see the milestone history.

Operating Limitations

When more than 50 projects are found in the program, the system identifies those which the most "slippage" and draws them. The rest are excluded, but a message is shown which indicates what the maximum slip is for the projects that were not shown.

A maximum of 1000 projects are reviewed in the analysis. Programs containing more projects than this should be evaluated at the subprogram level.