

Gantt Charts

The list of essentials of a project plan includes an activity/event network plan. This is a pictorial representation of how an event or activity progresses, step-by-step, at each decision level. To go a step further, add time to an activity/event chart and come up with a time/activity/event chart.

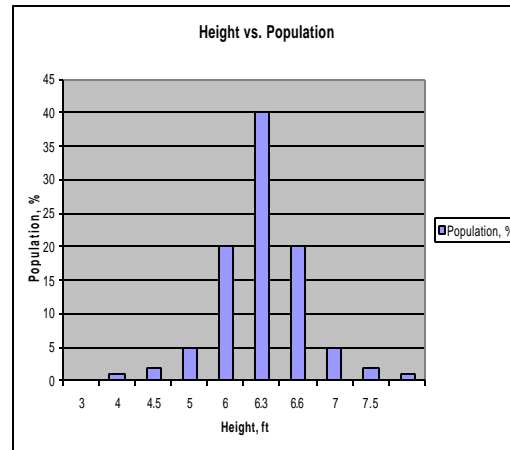
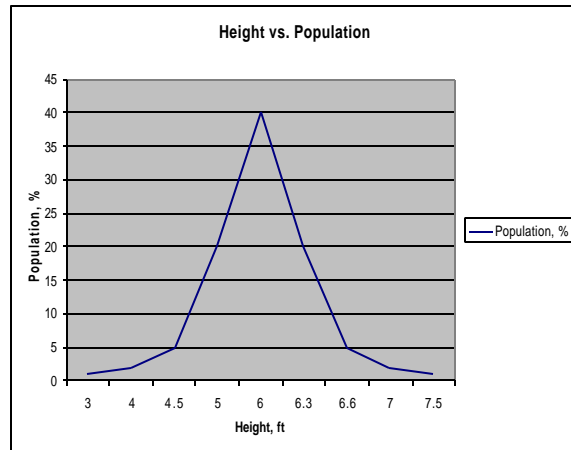
There are several types of time/activity/event charts. The most frequently used in project planning and control are the GANTT and PERT charts.

The Gantt Chart is built from a form called the “project task plan and schedule” form. It should contain the following information:

- The names of all tasks listed on the work breakdown structure.
- The name of the person responsible for each task. Also, it may be helpful to include the name(s) of the person(s) assigned each task.
- The starting date of each task.
- The expected duration of each task.
- The due date of each task.
- The form can also be used to monitor actual progress on a task-by-task basis.

Basics

A normal graph usually displays two things (2-d plot). For example, we may display population vs. height (which would be a normal or bell curve). This display can be as a line graph, or perhaps a histogram.



For a Gantt chart, we actually display three things on a horizontal histogram – the name of the activity (on the vertical or Y axis), the start time and the duration. The horizontal or X axis is usually calendar days, so that both start time and duration can be displayed on the graph using the same X axis.

Example

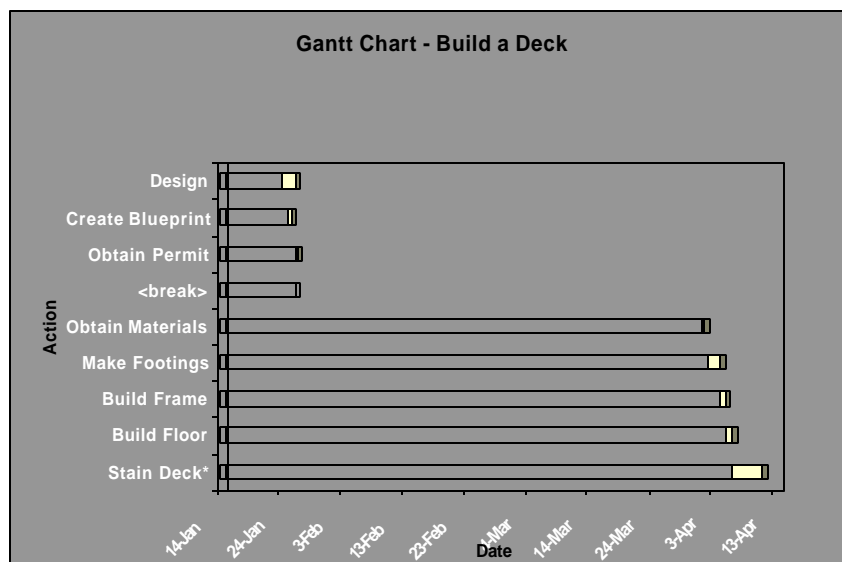
Here is an example project task plan and schedule for building a deck on a house:

Action	Start Date	Duration
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Design	Jan 24	2 days
Create Blueprint	Jan 25	1/2 day
Obtain Permit	Jan 26	1/2 day
<break>		
Obtain Materials	Apr 1	1/2 day
Make Footings	Apr 2	2 days
Build Frame	Apr 4	1 day
Build Floor	Apr 5	1 day
Stain Deck*	Apr 6	5 days

* I really hate painting, so it always takes a long time!

To convert this into a Gantt chart, we must create a histogram with the Actions as the Y axis and Calendar date as the X axis. We draw each histogram bar starting at the start date, and having a length equal to the duration of the action.



The Gantt chart shows the interaction between events. It can be used to plan feasibility of a project, or to document the project proposal. It can also be used to track of a project. The Gantt chart is often included in project reports.