

# Program Evaluation Review Technique (PERT) Diagram

## Introduction

If you've ever struggled with mapping project tasks or keeping track of dependencies, we have the perfect solution for you.

A PERT chart is a project management tool that provides a graphical representation of a project's timeline. The Program Evaluation Review Technique (PERT) breaks down the individual tasks of a project for analysis. It provides a visual representation of a project's timeline and breaks down individual tasks. These charts are similar to Gantt charts, but structured differently.

PERT charts were first created by the U.S. Navy's Special Projects Office in 1950s to guide the Polaris nuclear submarine project. Using the PERT model, Navy project managers were able to evaluate the progress of their project, determine the validity of schedules, and estimate the effects of proposed changes to established plans.

## Definition

A PERT chart, also known as a PERT diagram, is a tool used to schedule, organize, and map out tasks within a project. A PERT chart uses circles or rectangles called nodes to represent project events or milestones. These nodes are linked by vectors, or lines, that represent various tasks.

## When to use a PERT Diagram

For starters, a PERT chart is a good method when you're looking to evaluate the timeline, resources needed, and a project's critical path. Let's look at each of these a little closer.

- **To determine the critical path:** One of the key features of a PERT chart that sets it apart from other methods is its ability to determine a project's critical path. This is important when visualizing the overall timeline of a project.
- **To evaluate resources:** With the unique features a PERT chart offers, you can easily display which tasks require resources and which don't. This saves both you and project stakeholders time by having that information upfront and accessible.
- **To estimate time:** Since a PERT chart evaluates both individual task duration and overall project duration, it's a great tool when you need to understand the expected timeline during the initial project planning phase.

## How does a PERT Diagram Work?

A PERT chart works by visually representing a project's tasks and the dependencies connected to each one. You might use one to create an initial schedule and estimated timeline to share with project stakeholders before the project actually begins.

Creating a project roadmap such as a PERT chart can help you accomplish several project planning activities, including:

- Getting schedule and timeline signoff from leadership
- Communicating project objectives to stakeholders
- Visually mapping out a complex project
- Estimating the time needed to complete individual tasks

In order to make the most of your PERT chart, you should first understand the steps needed to complete one and how to visually map out your diagram.

## How to make a PERT Diagram

To create a PERT chart, follow the five steps of the process lifecycle, which includes everything from identifying tasks to managing project completion.

1. Identify projects tasks.
2. Define task dependencies.
3. Connect project tasks.
4. Estimate project time frame.
5. Manage task progress.

