

## How Project Schedules Are Limited and Created

There is generally a trade-off among the three constraints—scope, cost, and schedule—and the project should have flexibility to manipulate at least one of these three constraints. Project schedules sometimes get higher priority over scope and cost when it is a time-constrained project. In addition to these constraints, the project schedule is constrained by other factors. One way to understand project schedules and how they are constructed is to understand that five factors may limit how fast a project can be completed:

1. Logical order
2. Activity duration
3. Resource availability
4. Imposed dates

### 5. Cash flow

- The first factor is the logical order in which activities need to be completed. For example, one needs to dig a hole before cement can be poured in it. This is covered in the section on sequencing activities.
- The second factor is how long each individual activity will take to complete. This is discussed in the section on estimating activity duration. It includes methods for estimating durations, problems with estimates, and remedies to those problems.
- The third factor is how many key resources are available at specific times in the project. For example, if six rooms were available to be painted at the same time, and fewer than six painters were available, progress would be slower. This is discussed in [Chapter 9](#) in the section on resource availability.