

MINIATURE MILESTONES

The miniature milestone practice is a fine-grain approach to project tracking and control which provides exceptional visibility into a project's status. It produces its benefit by virtually eliminating the risk of uncontrolled, undetected schedule slippage. It can be used on business, shrink-wrap, and systems software projects, and it can be used throughout the development cycle.

Main Benefits	Improved status visibility, fine-grain control, improved motivation, and reduced schedule risk.
Keys to Success	Not planning beyond your headlights, initiating miniature milestones early in the project, keeping the milestones small, ensuring the list of milestones is exhaustive, and regularly assessing progress.
When to Use	Miniature milestones can be used on almost any type of project. They are especially well suited to project recovery.
Main Risks	Wasting effort planning excessive detail or planning too far in the future.

Overview

There are two key concepts to miniature milestones. Keep the milestones small (average around a day in length) and treat their completion as binary.

To use the best practice, break your near-term work into small chunks that you expect to average about a day in length. For a team you can create milestones that multiple people work on at once (assuming they are working closely together), or you can break down individual tasks into miniature milestones. An iterative process of estimating the effort and time for the milestones as they are being broken down works well, but should be done by those who will be doing the work. This is a very detailed planning exercise, so you should only develop your miniature milestone plan out as far as you reasonably understand the details of work well enough to estimate one day tasks.

Once the plan is complete, track the progress to plan daily, treating completion of milestones as binary (i.e., no 90% done milestones). If you start to slip completion of milestones, take stock of the situation, re-estimate work and re-plan as appropriate (re-plan both the miniature milestone plan, and if necessary your project schedule).

CxOne Support

CxOne combines miniature milestones with earned value and project headlights best practices as described in *CxGuide_EarnedValueWorkPlan*.

CxOne provides direct implementation support for miniature milestones with the *weekly individual plan* materials, see *CxGuide_WeeklyIndividualPlan* for more details.

Interactions with other Best Practices

Miniature milestones are well-suited for use with the daily-build-and-smoke-test process, which improves your ability to verify that each miniature milestone is being met. They work well with collaborative construction, providing a framework in which informal team execution can occur efficiently.

Miniature milestones are also useful as a means of adding control to amorphous development practices that can otherwise be hard to control: evolutionary prototyping, user interface prototyping, and so on.

You can use miniature milestones as an estimation-calibration practice even if you don't use it for project control. Plan out the first few weeks of your project using mini milestones and see how you perform against your estimates. If you meet your estimates, then maybe you'll want to quit using miniature milestones. If you find that your estimates are off by significant amounts, that tells you that you should reestimate and try again.

Further Reading

McConnell, Steve. *Rapid Development*. Microsoft Press. 1996

Gilb, Tom. *Principles of Software Engineering Management*. Wokingham, England: Addison-Wesley, 1988