

# SOFTWARE PROJECT SURVIVAL GUIDE

**Microsoft®**

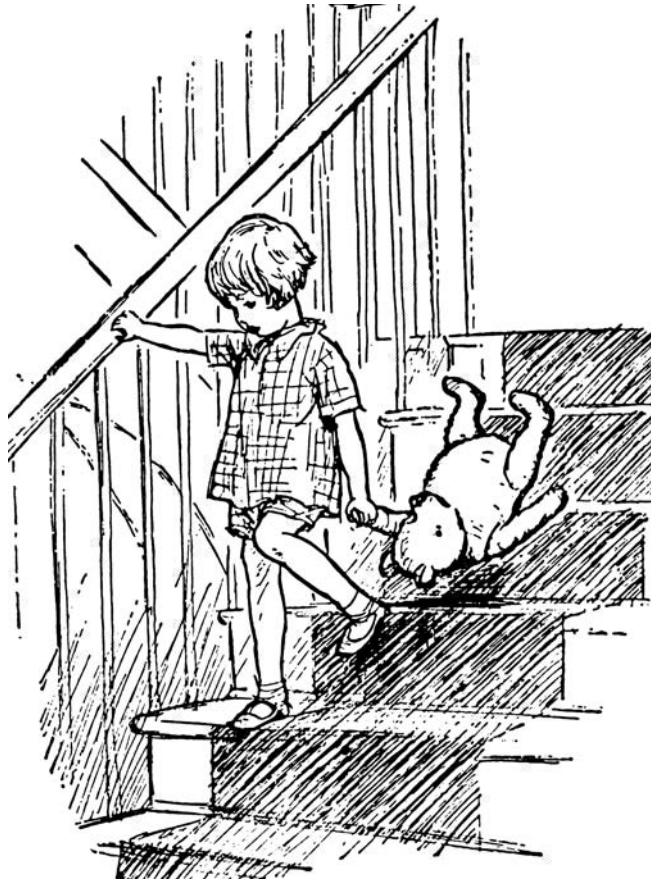
*How to Be  
Sure Your First  
Important  
Project Isn't  
Your Last*



**Steve McConnell**

*Author of Code Complete  
and Rapid Development*

✓ **Best  
Practices**



*Here is Edward Bear, coming downstairs now, bump, bump, bump on the  
back of his head, behind Christopher Robin.  
It is, as far as he knows, the only way of coming downstairs,  
but sometimes he feels that there really is another way,  
if only he could stop bumping for a moment and think of it.  
And then he feels that perhaps there isn't.*

### HOW TO HANDLE POLITICAL ISSUES

For people who have not worked with a formal change control process, the process will seem cumbersome at first. After project members become familiar with it, however, it requires little time compared to the benefit it provides. For small changes, the change impact can often be assessed during the change board meeting itself, and the time required to complete Steps 5a–5e may be only a few minutes or less.

One initial effect of implementing change control is that fewer changes will be accepted than were accepted previously. Some people will feel that getting any changes accepted at all is impossible. Although the change board might initially seem to be miring the project in bureaucracy, it is always free to approve as many changes as it wants. Before change control, change impacts are usually not fully considered; once they are fully considered, fewer changes will be judged valuable enough to approve. This sometimes uncomfortable period marks an important transition from letting changes control a project to making the project control changes.

Some of the loudest objections to change control will come from the people who have been most successful at ramrodding changes through without giving the project team enough time to consider the full impacts of those changes. With change control in place, those people will not be successful as often as they were previously. One of change control's benefits is its ability to rein in hastily considered changes.

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*People who are used to getting their way can still  
get their way with systematic change control, but  
they'll have to do it through a process that emphasizes  
visible decision making and accountability.*

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Development personnel need to realize that this will be a difficult transition for some people to make and should prepare for it.

### WHICH WORK PRODUCTS TO PLACE UNDER CHANGE CONTROL

The change control plan should include a list of the work products that will be placed under change control. At a minimum, this list should include the work products listed in Table 6-1.

TABLE 6-1  
**WORK PRODUCTS  
PLACED UNDER CHANGE CONTROL**

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**Work Product**

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Change Control Plan

Change Proposals

Vision statement

Top 10 Risks List

Software Development Plan, including project cost and schedule estimates

User Interface Prototype

User Interface Style Guide

User Manual/Requirements Specification

Quality Assurance Plan

Software Architecture

Software Integration Procedure

Staged Delivery Plan

Individual Stage Plans, including miniature milestone schedules

Coding Standard

Software test cases

Source code

Media incorporated into the product, including graphics, sound, video, and so on

Software build instructions (make files)

Detailed Design Document for each stage

Software Construction Plan for each stage

Install program

Deployment Document (Cutover Handbook)

Release Checklist

Release Sign-Off Form

Software Project Log

Software Project History Document

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Each of the work products is initially placed under change control at the time it is “baselined.” (See Table 5-1, “Top-Level Milestones and Deliverables” on page 65.)

This list of work products represents a healthy minimum set of deliverables to place under change control. When you see a set of work products like this list, you might think, “That’s a lot of overhead and extra work.”



Creating these products *is* overhead and extra work—it probably adds a few percentage points of overhead to the project. But there is no way to provide the status visibility, risk reduction, and project control—in short, the greatly increased chance of project success—without creating and controlling work products more or less like these. Because of the significant benefit they provide, in most business situations, the decision to accept this particular kind of overhead is not just a good trade-off—it’s an excellent one.

For any one project, creating all these work products the first time will be a lot of work. On the second or third project, however, the development team can create many of them simply by modifying previous versions of similar work products.<sup>1</sup>

### COMMITTING TO CHANGE CONTROL

For change control to work, the project and the organization of which the project is a part must commit to change control. This commitment needs to take place on several levels.

Software change control activities need to be planned. The change control plan procedure and list of work products described in this chapter should be expressed within a written Change Control Plan. The Software Development Plan (discussed in the next chapter) should reference the Change Control Plan as part of the official software development process.

Project members must be given time to carry out their change control responsibilities. At a minimum, each project member will spend some time assessing the impact of a few proposed changes. A few project members will also spend time attending change board meetings.

The organization must accept the decisions of the change board at all levels. Change control will be next to meaningless if the project manager or marketing department can summarily override change board decisions, or if software developers add changes to the software without honoring the change control procedure.

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1. Samples of some of these documents can be found on the *Survival Guide* Web site.

### ***Survival Check***



The project has a change board.



The change board's decisions can be reversed by management, marketing, or the customer.



The project has a written, approved Change Control Plan.



Project team members aren't given enough time to carry out the plan.



Work products aren't actually put under change control.



Change Proposals are evaluated by all the project's concerned parties before they are resolved.



The change board notifies the project's concerned parties of how each Change Proposal is resolved.



The change board has the project team evaluate changes in batches so that the team is not distracted by a constant barrage of change requests.



# 7

## *Preliminary Planning*

Successful projects begin planning early. Preliminary planning activities include defining a project vision, identifying an executive sponsor, setting targets for project scope, managing risks, and mapping out strategies for using personnel effectively. These preliminary plans are captured in a Software Development Plan.