Falstaff

Change Control Plan

CxSample_ChangeControlPlan.doc

Version 1.0

July 30, 2001

WebBooks Inc.

WebBooks

Powered By

cxone

www.construx.com

Revisions

Version	Primary Author(s)	Description of Version	Date Completed
Draft 1	Helena Flute	Initial draft of the Falstaff Change Control Plan	2/21/01
Draft 2	Helena Flute	Finalized draft ready for review.	3/15/01
Revision 1	Helena Flute	Review comments incorporate and document base-line	7/30/01

Contents

1 Introduction

This document defines the structure and processes that will be used for change control on the Falstaff project. Change control is a subset of configuration management.

The *Falstaff Configuration Management Plan* (CM plan) contains the background and context for this change control plan. The Change Control section of CxOne's *CxStand_ConfigurationManagement* standard forms the basis for this plan.

The items that will be placed under change control are defined in the CM plan.

1.1 Overview

Change control touches upon a large number of project areas. Core change control activities revolve around the change control board (CCB) and changes to existing requirements, but there are other sources for change to the existing state of a project such as reported defects or changes to project constraints. The management of these issues and balancing them against existing work to ensure project success is the responsibility of the entire project. Change control's issue management plays an important role in coordinating these responsibilities.

The diagram below provides a high level view of the scope and information flow of the change control process. Once issues have been addressed, they are fed into the project's planning and tracking process so all work on the project can be managed in the same fashion (e.g., work to implement a new change needs to be scheduled in with work that was already planned). The use of database tools allows for efficient management and storage of the information related to change control, namely the requirements, acceptance tests, project management risks and issues, defects, and change requests.
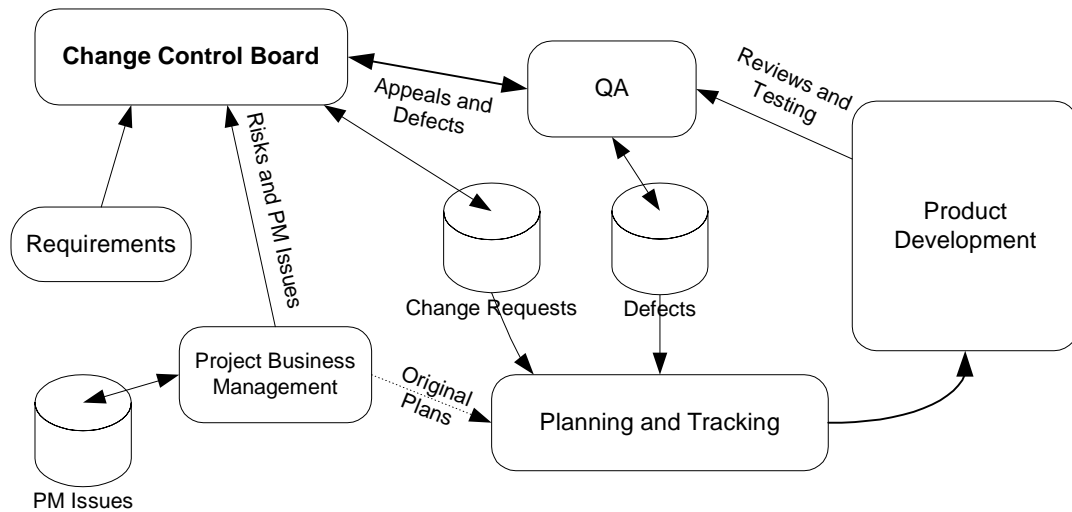

Figure 1-1: Change Control Process

Powered by CxOne from Construx Software – Version 1.0

1.2 Items under Change Control

Details of configuration items (CIs) are described in the *Falstaff Configuration Management Plan*. This section provides a convenient summary of change control issues.

1.2.1 Explicit Change Control

The CIs that are explicitly under control of the CCB are listed below. In most cases these CIs represent groupings of artifacts (e.g., the Requirements CIs include all requirements related artifacts).

Configuration Item	Baseline Milestone
Project Plan	M2
CM Plans	M2
Quality Plans	M2
Requirements	M4
Architecture	M4

1.2.2 Implicit Change Control

All CIs not under explicit change control are assumed to be under implicit change control. A summary of the most important tracing relationships are described below. With the exception of requirements to test case tracing, tracking will be informally managed on the project.

- Detailed project management documents including the work plan, schedule, and tracking artifacts are covered by project, quality, and CM plans.
- Test cases are covered by requirements.
- Designs are implicitly covered by the architecture and requirements.
- Product source code is covered by designs and requirements.
- Automated test source code is covered by test cases and designs.
- Infrastructure source code is covered by product and automated test source code.

2 Change Control

2.1 Change Input

The two primary types of changes that will be managed for the Falstaff project are *Change Requests* and *Defect Reports*. These two types of changes have been split apart to ensure that the project can run with maximum efficiency. Each change type is described in more detail throughout the document.

Project management risks and issues that go before the change control board will be managed as change requests.

2.1.1 Change Request

A change request is created when there is a business need to add, modify, or remove requirements to a work product already under change control..

Change requests are proposed directly to or by a CCB member and then entered into the change request database. The CCB will meet at least weekly to process any new change requests.

2.1.2 Defect Reports

Defect reports (also referred to as "defects") are used when there is a well-understood requirement, and some part of the system (whether the executing software or any documentation that specifies that system) is not performing to that requirement.

Defects are proposed to the QA Lead or directly entered into the defect database. They are then addressed by being fixed, placed on hold due to low priority, or determined to be invalid. When necessary, the defect may be returned to the submitter with a request for additional information or clarification.

Project stakeholders are able to monitor all defects in the database. If a stakeholder does not agree with the handling of a defect, the defect may be escalated by being appealed to the CCB. At that point, the defect will be processed as a change request.

2.2 Change Control Board

The Change Control Board (CCB) makes binding decisions about which proposed changes are approved. Before approving change requests, the CCB must consider the impact of the change on all aspects of the project. Approval of the change indicates management approves changes and impact to the project's scope, cost, and/or schedule for all work the change will create.

The CCB is normally responsible only for processing change requests and appealed defects. Towards the end of the project, the CCB may start to take an active role in the management of defects as well.

Every incorporated change must be traceable to an approved change request. No design or implementation work other than feasibility exploration will be performed on proposed or unapproved changes.

2.2.1 CCB Process

The CCB will initiate or receive change requests to items explicitly under change control, usually related to product requirements or project constraints. Other special issues such as appealed defects or specific changes to items not under explicit change control may arise

The CCB will meet weekly to consider change requests. The CCB can also meet on an as needed basis to address high priority or project critical issues.

When considering items the CCB will solicit input from affected stakeholders and make prioritization decisions based on that input. The CCB ensures that affected stakeholders will be able to analyze a change and provide input to the CCB on the priority of the change.

Change Requests are assessed as outlined in the *CxStand_ConfigurationManagement*. A formal or informal cost / benefit analysis will be done. In some cases items may be initiated and resolved in the same meeting. In others the CCB may commission an investigation into feasibility or estimated impact or benefit. The CCB may postpone consideration of items until possible dependencies are resolved. Depending on the scope of the change request, the act of investigating a change request may have impact to the project's cost or schedule.

The CCB will eventually make a final determination of any changes to work products. Normally the CCB will only deal directly with changes to items under explicit change control. It will then be the responsibility of project leads to propagate those changes through any downstream items. For example, a change to the requirements late in the project would propagate through many downstream artifacts including design, test cases, and source code.

2.2.2 CCB Roles

Members
The CCB consists of the following roles:

- Executive sponsors (co-chairs)
- Project business managers (acting co-chairs)
- Requirements lead (facilitator)
- Technical leads as appropriate
- Leads from related projects as appropriate

See *Falstaff Project Plan* for the individuals staffed for these roles.

Chair
The CCB chair is the ultimate decision-making entity, however the chair may defer decisions to the appropriate leads. While the executive sponsors make up the CCB chair, in practice the chair responsibilities will be delegated to the project business managers.

Facilitator

The CCB facilitator runs the meetings and performs CCB administrative duties. The facilitator responsibilities include:

- Identifying who needs to provide impacts and tracking them to make sure the impacts are completed for the CCB review

- Sending the CCB meeting request and agenda

- Facilitating the CCB meeting

- Recording CCB decisions in the issue management database

3 Issue Management

This section describes the foundation for the issue management database. This includes information on how to use the databases and additional information on the issue management lifecycle used for the Falstaff project.

3.1 Roles

This section describes the roles defined in change request and defect report databases. The roles are defined and enforced by either the database itself or rules described in this document.

Manager

A team member who has management authority in the defect database. Note that this does not necessarily relate to whether the person plays a management role on the project (i.e., all people who are managers may not have manager privilege in the defect database). Managers have broad authority to make changes to records in the defect database. Although they have the ability, managers should only make changes to change requests at the request of the CCB.

Sponsor

The person who sponsors a change request or defect. This role varies slightly between change requests and defects.

For change requests, the submitter is considered the original sponsor of the change request. Once submitted, a change request comes under control of the CCB, but the sponsor will be a primary stakeholder in the resolution of that change request. The CCB may decide to reassign the sponsor if it is determined that there is a better primary stakeholder.

For defects, the submitter is initially considered the sponsor of the defect. If the submitter of the defect is also the owner, it is recommended that they change to sponsor to another person on the project that can verify the changes, preferably a QA or Test individual if the change pertains to production code. This person does not need to be someone playing a QA role on the project, although it often will be.

The sponsor is responsible for continuing investigation of the defect and any testing or review necessary to verify the resolution of the defect. The QA lead, owner, or a manager may reassign the sponsor.

Overall the sponsor is responsible for ensuring the issue is driven to resolution in some manor.

Owner

This is the person assigned to resolve the change request or defect. This role varies slightly between change requests and defects.

For change requests, this is the CCB member or team member assigned by the CCB to resolve the defect. The owner of a change request will likely change over the life of the change request. For instance, the CCB could assign a change request to someone (even the sponsor)

for further investigation. When that person was done with their investigation they would set the owner back to the CCB member who had assigned it.

For defects, this is the person responsible for fixing the defect. This does NOT necessarily need to be someone playing a development role on the project, although it often will be. The owner will be assigned by a manager and may change over the life of the defect.

3.2 Tool

The Falstaff project will use AcmeTrack as the issue management tool. This section provides an overview of the issue management database along with details on how to log and update requests.

3.2.1 Logging On

The defect and change request databases may be accessed by running the AcmeTrack client. The change request database may also be accessed via the project website. You will need to enter the password and username to log into the database (see the project business manager for details).

3.2.2 Submitting Requests

Change requests, defects, and issues should be as atomic as possible. If there are many issues related to a change or defect, separate it into discrete elements such that each may be dealt with separately. However, this shouldn't be taken to the extreme; judgment should be used in grouping related issues (e.g., if there are 10 separate tab-order errors on an entry screen, enter 1 defect that covers all 10).

Submitting Defect Fix Requests
When a defect fix request is submitted it must:

- Identify the artifact in question.

- Describe the defect (deviation from explicit or implied requirements) that the artifact exhibits.

Describe the background of the defect. If it is a defect in a software component, describe the steps to reproduce the problem. If it is a defect in another artifact like the architecture specification, provide enough background such that the problem with the defect can be easily understood.

Submitting Change Requests
When a change request is submitted it must:

- Identify the work product in question.

- Describe the aspect of the work product that the party feels is in need of change and how those changes will be accomplished (if known; this may need to be assigned for investigation by the CCB).

- Include a description of the impact, from the submitting party's point of view, of leaving the work product as is compared with incorporating the suggested change. This gives the CCB a better understanding of why the change is being submitted and what importance it has from the perspective of the submitting party.

Submitting Requests which impact multiple Artifacts

Some requests will ripple throughout the system. When a request like this is made, a list of the work products impacted needs to be included. The change request will then change owners so that each impacted work product is updated. Prior to changing the owner to the next person in line, the current owner must include a note indicating the change that was made to their work product.

An example of this is a change to the requirements that impacts the architecture, one or more detailed design documents, code, and test design specifications. The initial owner is the Requirements Lead, followed by the engineer(s) responsible for the design, the engineer(s) responsible for the code, and finally the engineer(s) responsible for the appropriate test cases.

3.2.3 Updating Requests

All records in the database should be a complete historical record of the issue from submission through resolution. Therefore the following information should be added to the issue during its lifetime.

Dispositioning an Issue

Detailed information on the resolution of the change request should be included in the notes when the issue is dispositioned by the CCB.

Resolving an Issue

A full description of the resolution, testing performed, the owner should list unfinished items and the affected artifacts as part of the resolution notes.

Verifying an Issue

Information on the test cases run to verify the resolution should be listed, or referenced as part of the sponsor's note.

3.3 Issue Lifecycles

This section diagrams the typical workflows for a defect fix request and a change request to bring additional clarity to the process flow.

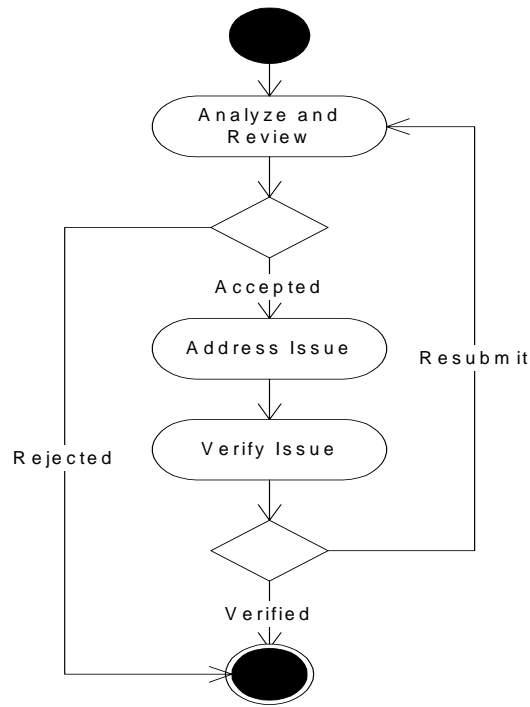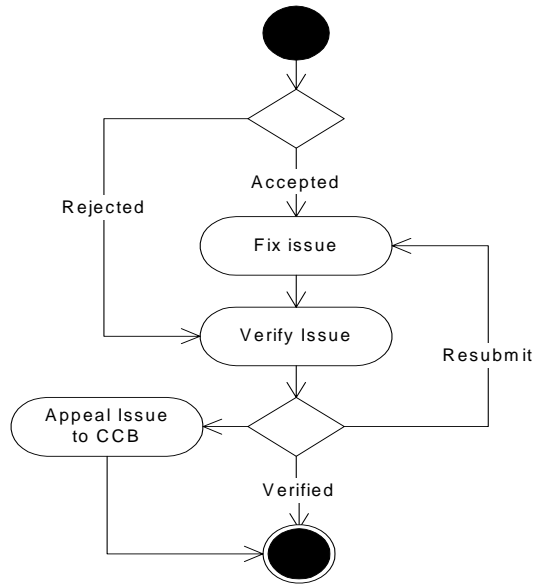Figure 3-1: Change Request Workflow

Figure 3-2: Defect Fix Request Workflow

3.4 Detailed Fields

The fields to be used with the defect and change request database are described in *FalstaffIssueDatabase*.