How to Create a Change Request (CR)

On how to create a change request (CR).

Introduction

During the development life-cycle of a feature, there is a design and development phase, followed by testing and then finally deployment into production. For the feature to be deployed into client test or production, a change request (CR) needs to be created for it.

This is because any changes deployed into client test or production are visible to and impact external clients and customers. So it needs to be approved by the stake holders in the Change Advisory Board (CAB). The change request is used for this approval process.

Testing Phases

Once the feature has been developed and it is ready for testing, it is initially deployed to the test environment for system testing by testers. Once it passes system testing, the Stash branch that the feature was developed on is merged with the master branch and then the master branch is deployed for regression testing and user acceptance testing (UAT).

The master branch represents production code. Prior to going into production the feature branch needs to be merged with the master branch. The regression testing after merging the feature and master branches is done to ensure that the merging has not caused any issues, i.e. any regression. In addition to regression testing, user acceptance testing is also done so that the business users can accept the changes. This is done by testers with business users.

Once this regression testing and also the user acceptance testing is finished, that version of the application is ready for production deployment and is at this stage known as a candidate that is ready for production or the release candidate.

The last round of testing occurs in client test and in production. Client test is for the external users, usually the clients or customers that requested the feature or change, to test and accept it. There is also testing in production, which occurs after the changes are deployed into production to ensure that there are no issues after deployment.

The version of the application in client test and production is the same as the version of it in regression testing and user acceptance testing, after the feature branch is merged with the master branch. Once system testing, regression testing, user acceptance testing and client testing are complete, the changes are ready for deployment into production. Final testing occurs after deployment into production. The testing that is done in client testing and in production is referred to as product verification testing (PVT).

Creating a Change Request

The easiest way to create a new change request in Jira is by cloning an existing, related change request. To clone an existing change request, open it in the browser. Then click on the ‘More’ button at the top and select ‘Clone’ from the menu. It is best to find and clone an existing ticket from the same application as that would already have the correct values in it.

In the dialog that appears, for the ‘Summary’ duplicate the Jira enhancement number and the title of the enhancement that the change request refers to, e.g.:

EN-xxx

Then click on the ‘Create’ button and it will create a new Jira ticket with the number ‘CR-xxxx’ where ‘xxxx’ refers to the number created by Jira for the new change request ticket, e.g. ‘CR-xxx’. This ticket will be a copy of the ticket that it was cloned from and will have most of the same information from that ticket. However some of these values would need to be modified in the newly created ticket.

The convention used for Jira is that tickets related to enhancements start with ‘EN’ and tickets related to change requests start with ‘CR’.

Modifying the Change Request

Once the new change request is created, it can be modified. From the ‘General Info’ tab of the ticket, hover over the ‘Description’ field with the mouse and click on it to edit it. Other fields on the ticket can be similarly modified.

In the ‘Description’ enter a brief description of the change, which can be based on the description from the Jira enhancement ticket (EN) that this change request relates to. A link to the enhancement ticket can also be provided here by just entering the Jira ticket number, e.g. ‘EN-’, and Jira will automatically link the ticket number text to the relevant Jira ticket. Click on ‘Save’ to save the changes.

If the ticket was cloned from an existing related ticket, it should already have the correct values for ‘Business Unit’, ‘Environments’ and ‘Systems Impacted’, otherwise they would need to be set to the correct values related to the enhancement.

In the ‘Implementation / Backout Plan’ tab, enter the Confluence link of the detailed design for enhancement in the ‘Detailed Design’ field and click on the tick to save changes. In the ‘Implementation / Backout Plan’ enter the Confluence link to the implementation plan, once it is created, and click on the tick to save changes.

On the right in the “People” section, set the ‘Assignee’ to ‘Unassigned’. The ‘Reporter’ and ‘Developer’ should be set to the creator of the change request (yourself). Check and set the correct values for ‘Change Owner’, ‘Business Owner’, ‘CAB Approver(s)’ and ‘Escalation Contact’.

The ‘Change Implementer(s)’ should be set to the developer who would be deploying the change to client test and production. Set the correct values for ‘IT Tester(s)’, ‘UAT Tester(s)’ and ‘PVT Tester(s)’. The last field is for testers who would be doing the product verification testing (PVT), the testing of the client test and production deployments.

The “Past approvals” fields would be filled by other users as the ticket goes through the approval process. Scroll to the bottom right to the ‘Dates’ section. Set the ‘Start Time’, ‘End Time’ and the ‘Backout Start Time’ of the production deployment. These values may need to be changed later.

In the left middle, there is the “Issue Links” section. Links to the enhancement Jira ticket, the detailed design and the implementation plan, once it is available, can be added to this section by clicking on the ‘+’ to the right and filling in the ‘Link’ form.

In this form choose ‘Jira Issue’ to link to the Jira enhancement ticket, ‘Confluence Page’ to link to the detailed design or implementation plan and ‘Web Link’ for any other related links. Click on the ‘Link’ button to create the link.

Now the change request it ready to be reviewed by another developer.

Meeting Recording

The was a meeting held on the 07th of June 2022 and this document is based on that meeting. The recording of this meeting is available at this network location:

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It is in the folder named “2022-06-07 TeamCity, Octopus Deploy, Change Requests and Implementation Plans” at the above network location.