



Tutorial: Cost Driven Approval Workflow

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Introduction

This tutorial will demonstrate how the 'Cost Driven Approval' workflow, provided by Nintex Workflow for Project Server 2010 can be created. The workflow leverages the Stages, Project Properties and Project Detail Pages that are associated with the sample workflow included by Microsoft Project Server 2010.

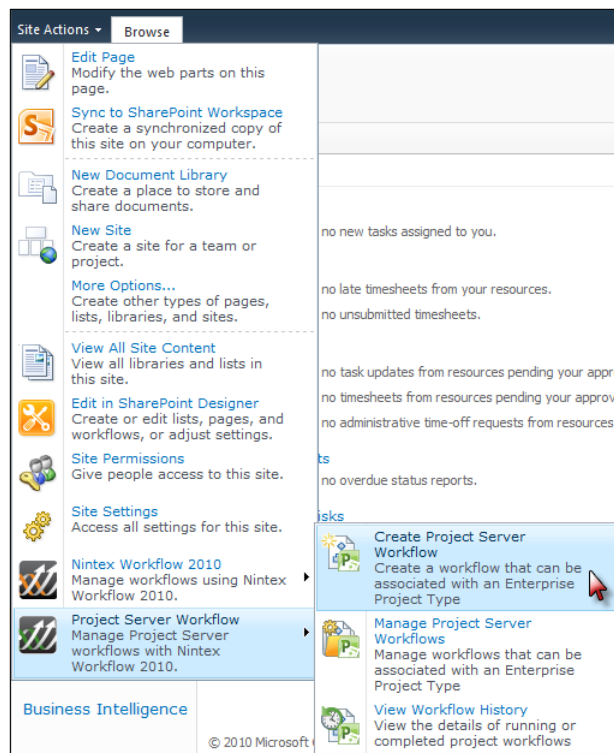
The Cost Driven Approval workflow determines if a proposal is greater than the predetermined approval limit of \$1,000,000. If the proposal is, the workflow will request approval from the Executives project group before moving it to the next stage in the project.

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Getting Started

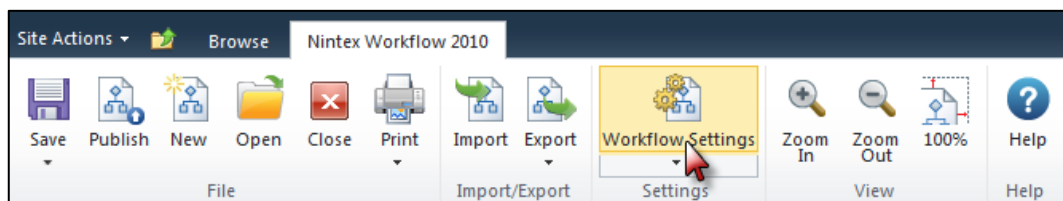
Open Nintex Workflow for Project Server 2010 workflow designer.

1. Navigate to the Project Web Application site.
2. Click Sites Actions > Project Server Workflow > Create Project Server Workflow.



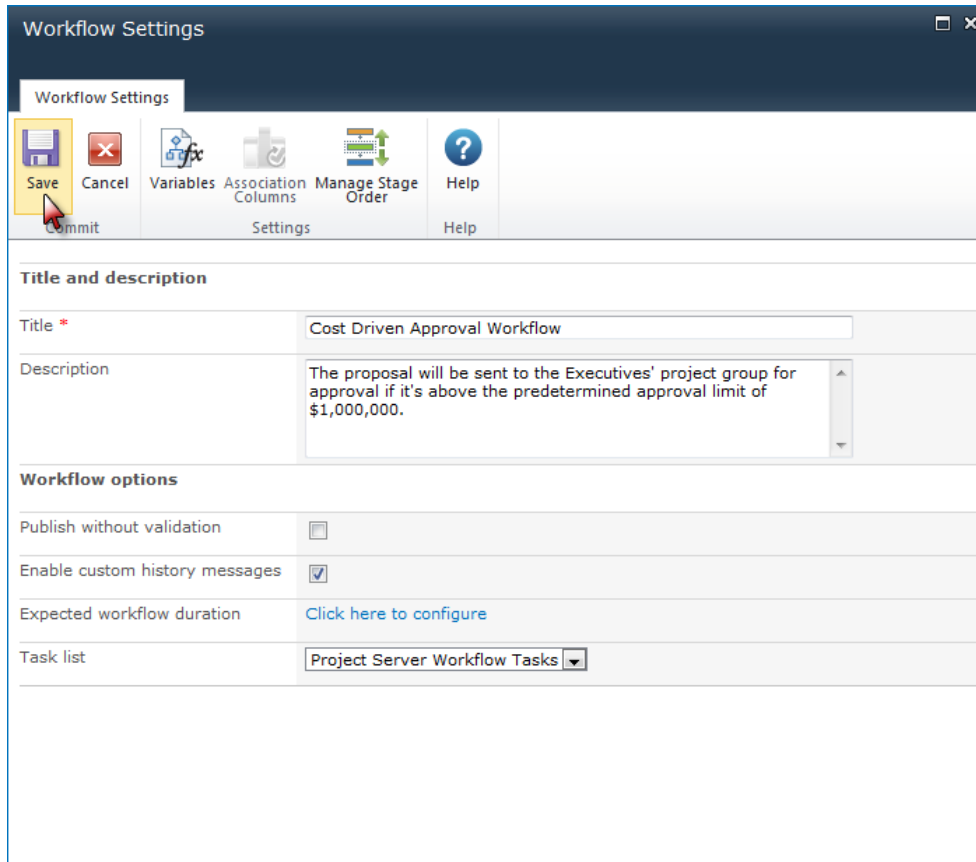
Configure the Workflow Settings and give the workflow a Title and Description.

3. In the Workflow Designer Ribbon, click on Workflow Settings.



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4. In the Workflow Settings dialog, enter the Title and Description and click Save when completed.



Workflow Settings

Workflow Settings

Save Cancel Variables Association Columns Manage Stage Order Help

Commit Settings Help

Title and description

Title * Cost Driven Approval Workflow

Description The proposal will be sent to the Executives' project group for approval if it's above the predetermined approval limit of \$1,000,000.

Workflow options

Publish without validation

Enable custom history messages

Expected workflow duration [Click here to configure](#)

Task list Project Server Workflow Tasks


Note: The task list called Project Server Workflow Tasks is the default task list used for Project server workflows that is accessible from the Workflow Approvals link in the PWA home page.

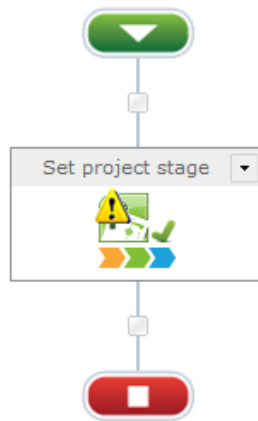
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Designing the Cost Driven Approval Workflow

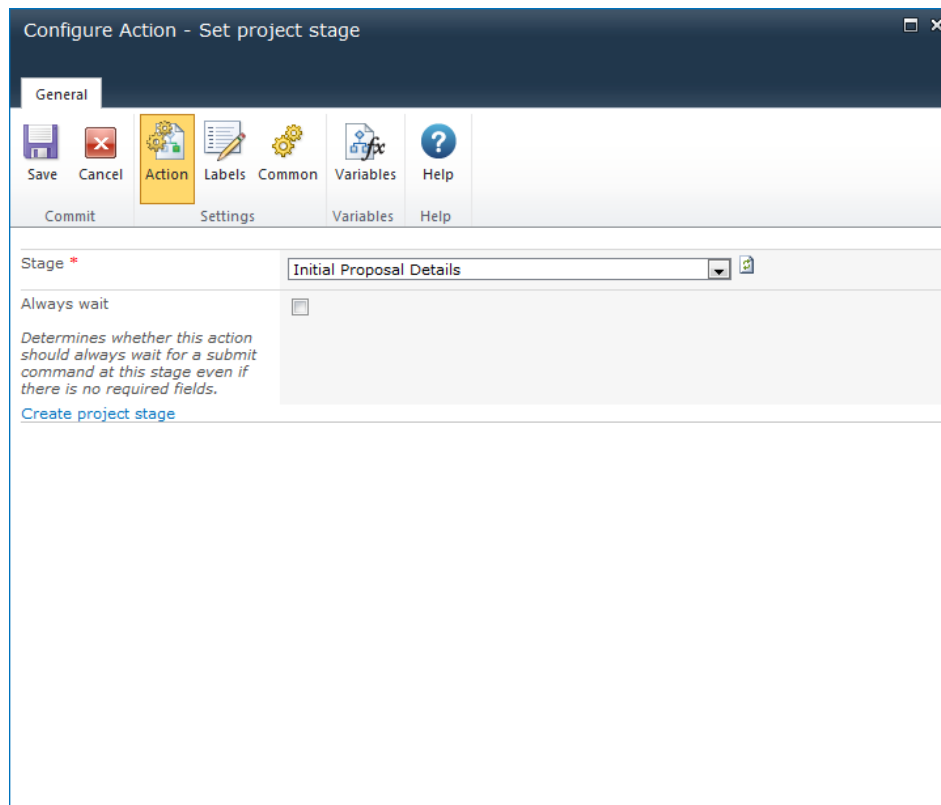
The initial steps within this workflow will be to set the project stage and initial status of the project to wait for an input when the workflow is started.

Start creating the workflow by dragging and dropping the workflow actions onto the design canvas.

1. Click and drag the Set project stage action from the toolbox and drop it onto the drop-zone  on the design canvas.



- a. In the configuration settings, set the stage to Initial Proposal Details.



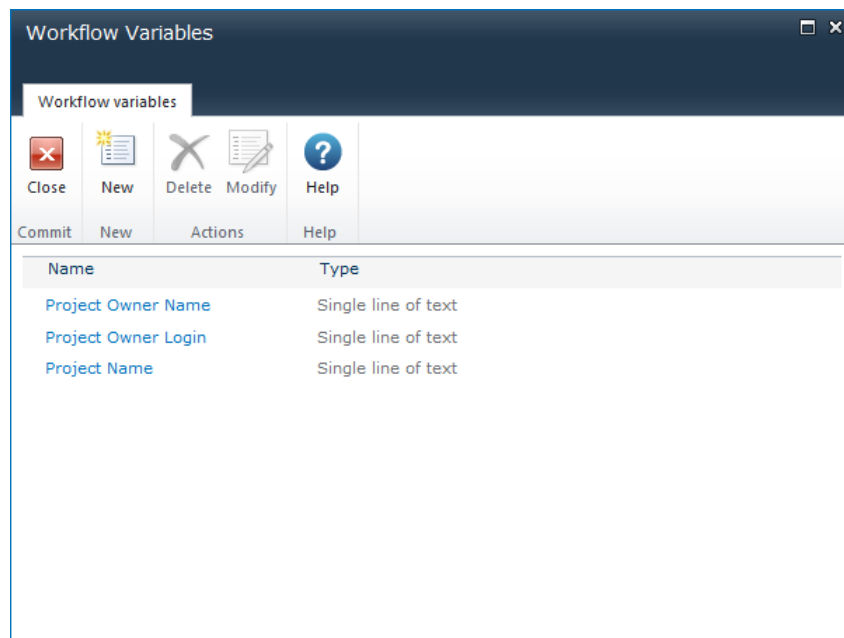
Note: The first action in a Project Server workflow must be a Set project stage action.

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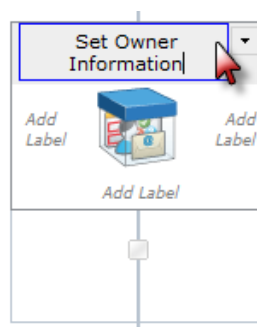
2. Drag and drop the Set status information action. In the Configuration settings, set the following:
 - a. Stage: Initial Proposal Details
 - b. State: Waiting for input

The workflow will need to query Project Server for the name of the project, the display and login names of the project owner (the user who created the proposal) and store them in variables that will be used throughout the workflow.

3. Create the following workflow variables to store the name and login of the project owner and the project name:
 - a. Project Owner Name (Single line of text)
 - b. Project Owner Login (Single line of text)
 - c. Project Name (Single line of text)

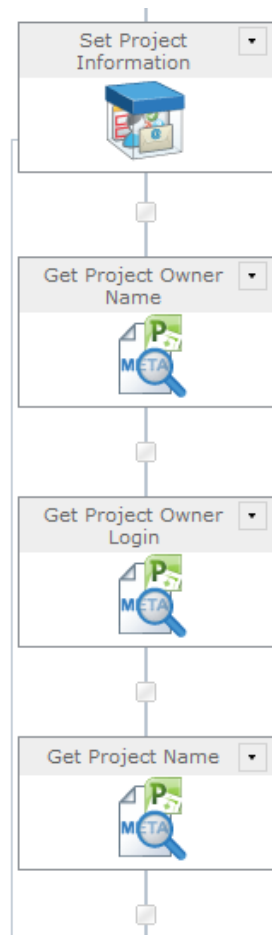


4. Add an Action set action to the designer canvas and rename the Action title to "Set Owner Information".



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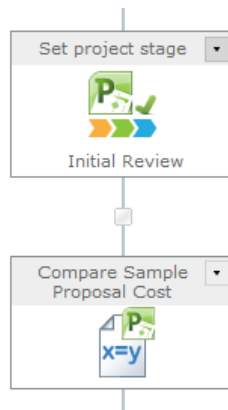
5. Drag and drop on the Read project property action within the Action set (Set Owner Information). In the Configuration settings, set the following:
 - a. Project property: Project Owner Display Name
 - b. Store result in: Project Owner Name
6. Drag and drop on the Read project property action within the Action set (Set Owner Information). In the Configuration settings, set the following:
 - a. Project property: Project Owner Login Name
 - b. Store result in: Project Owner Login
7. Drag and drop on the Read project property action within the Action set (Set Owner Information). In the Configuration settings, set the following:
 - a. Project property: Project Name
 - b. Store result in: Project Name



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The cost driven condition in the business process is to automatically approve any proposal that has a cost of less than \$1,000,000. Any proposals that are more than \$1,000,000 must be approved by the members of the Executives' project group.

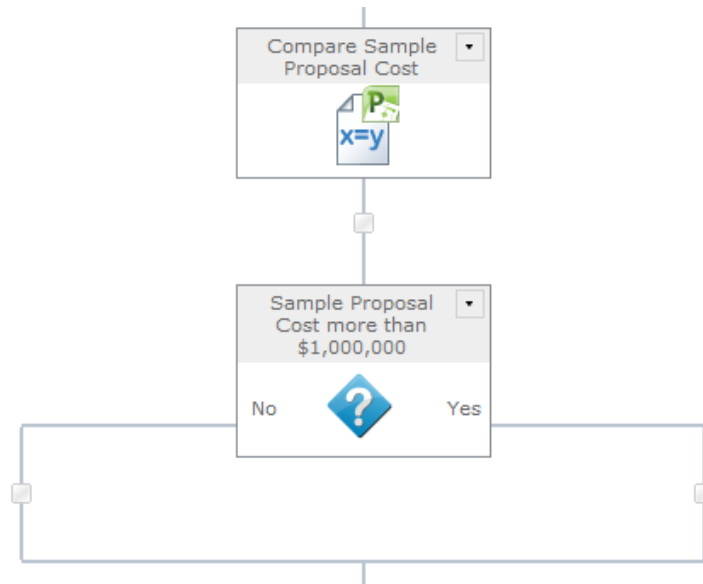
8. Drag and drop the Set project stage action. In the Configuration settings, set the following:
 - a. Stage: Initial Review
9. Create the following workflow variable to be used for storing the comparison result:
 - a. Is Too Expensive (Yes/No)
10. Drag and drop on the Compare project property action. In the Configuration settings, set the following:
 - a. Project property: Sample Proposal Cost
 - b. Comparison Operator: Greater than
 - c. Value: Value; 1000000
 - d. Store result in: Is Too Expensive



Note: The Compare project property action will return a True/False based on the comparison. The result can then be branched on in the workflow.

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5. Drag and drop the Set a condition action. In the Configuration settings, set the following:
 - a. Condition: If any value equals value
 - b. Where: Workflow Data; Is Too Expensive; equals; Value; Yes



If the proposal cost is less than \$1,000,000, the proposal will be automatically approved and moved to the next stage.

11. In the **"No"** branch, add and configure the following workflow actions:
 - a. Drag and drop the Set status information action. In the Configuration settings, set the following:
 - i. Stage: Initial Review
 - ii. State: Leave current state
 - iii. Status information: Proposal is below the approval limit. Automatically approved.
 - b. Drag and drop the Send notification action. In the Configuration settings, set the following:
 - i. To: Project Owner Login (workflow variable)
 - ii. Subject: Proposal was rejected
 - iii. Body: Use inserted references to provide context to the email body.

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Rich Text Insert Reference 

Dear Project Owner Name,

The proposal Context Item Display Name is too expensive.

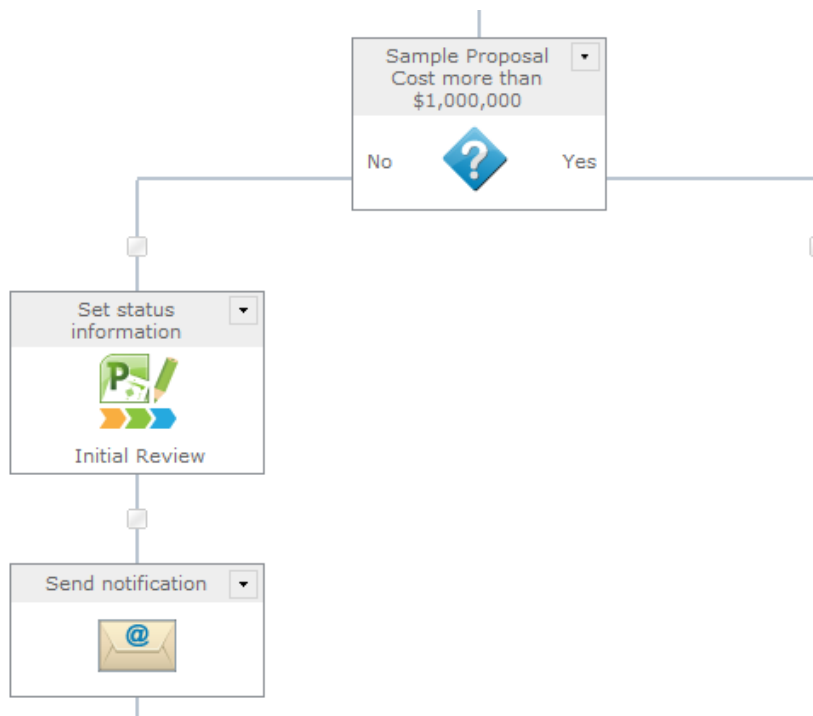
[View workflow status](#)

[View Item](#)

Notes:

See the Nintex Workflow 2010 help file "Inserting reference fields" for more information about inserting references into a text field, including how to construct URLs.

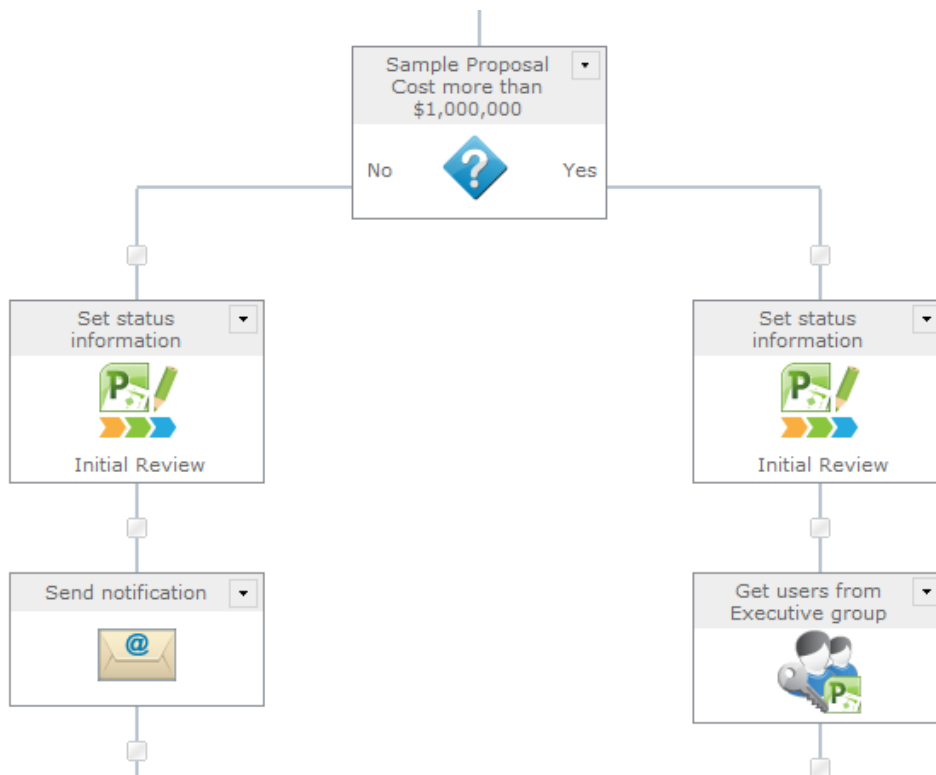
In a Project Server workflow, using the 'Context Item Display Name' token will resolve to the name of the proposal, and the 'Context Item URL' will resolve to the URL of the proposal status page.



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If the proposal cost is more than \$1,000,000, the workflow will require approval from the members of the Executives' project group.

12. In the **"Yes"** branch, add and configure the following workflow actions:
 - a. Drag and drop the Set status information action. In the Configuration settings, set the following:
 - i. Stage: Initial Review
 - ii. State: Waiting for approval
 - b. Drag and drop the Read project security group action. In the Configuration settings, set the following:
 - i. Group name: Executives
 - ii. Create a workflow variable Executives (single line of text) to store the users retrieved from the Project security group
 - iii. Store result in: Executives

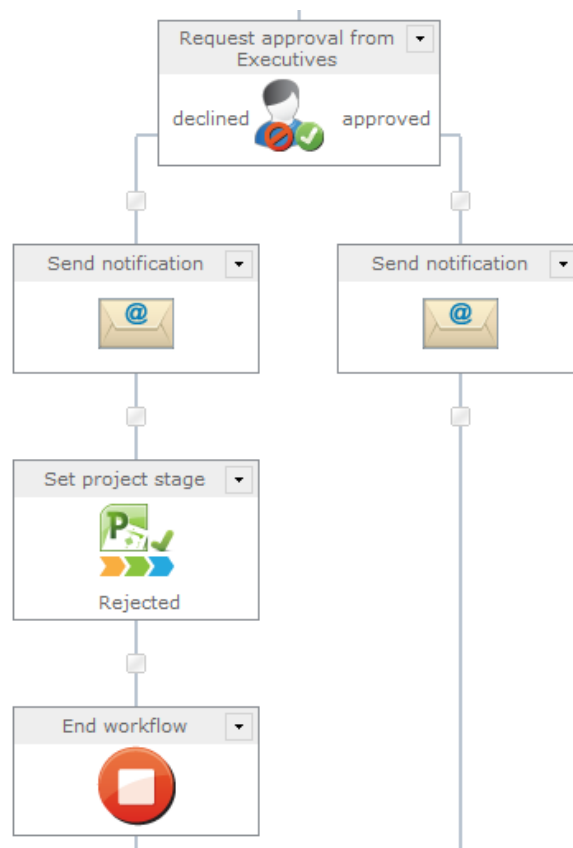


A 'Request approval' action is used to request approval from a user. It will send the user a notification requesting their response with a URL to a task page for them to submit their decision. The action can be configured to change the rules of the approval process (i.e. all must respond, all must agree, etc.)

- c. Drag and drop the Request approval action, configure the options as follows:
 - i. Assignees: Executives
 - ii. Leave all other options as default
- d. In the **'declined'** branch:

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- i. Drag and drop the Set project stage action. In the Configuration settings, set the following:
 1. Stage: Rejected
 - ii. Drag and drop the Send notification action. In the Configuration settings, set the following:
 1. To: Project Owner Login (workflow variable)
 2. Subject: Proposal was rejected
 3. Body: Create a message using the Project Owner Name , Context Item Display Name (name of the proposal) and Context Item URL (URL to the status)
 - iii. Drag and drop the End workflow action.
- e. In the 'approved' branch:
- i. Drag and drop the Send notification action. In the Configuration settings, set the following:
 1. To: Project Owner Login (workflow variable)
 2. Subject: Proposal was approved
 3. Body: Use inserted references to provide context to the email body.



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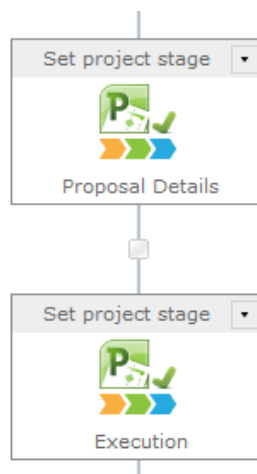
Once the proposal has gone through the automated approval or Executives' project group approval, it will be moved to the Proposal Details stage to collect more information and once the Project Detail Pages for the Project Details stage has been submitted, it will move the proposal to the final stage, Execution.

Drag and drop the Set project stage action. In the Configuration settings, set the following:

- f. Stage: Proposal Details

13. Drag and drop the Set project stage action. In the Configuration settings, set the following:

- a. Stage: Execution



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Next Steps

This workflow can now be associated to a new or existing Enterprise Project Type via Server Settings. See the Nintex Workflow for Project Server 2010 help file “Associating a Project Server Workflow with an Enterprise Project Type”.