

Adding Pipelines To Your Project

Pipelines in XNAT are powerful mini-applications that can be run on your project data, to aid in complex processing or leverage the power of large computing clusters. Some pipeline-enabled workflows are carried out automatically without any human intervention, like auto-QC'ing images as they are added to your project archive. Others require a person to do manual steps, such as drawing a region of interest.

When pipelines are integrated into your project, you can:

- set up project-based workflows with project specific and experiment specific parameters,
- track a pipeline and send email notifications, and
- capture provenance information as the pipeline executes.

Only XNAT Site Administrators can [install new pipelines](#), but once installed on your site, any project owner can add them to their project. Then, any user with project permissions can run that pipeline on your data.

Adding Pipelines to your Project

As the project owner, you can add any pipeline that is active in XNAT. This is done from the project report page, under the *PIPELINES* tab. Here is a step-by-step walkthrough.

1. Navigate to your Project Report Page. From within a project, click on the **Pipelines** tab

The screenshot shows the 'Pipelines' tab selected in a project report. The page title is 'Pipelines for TEST2'. Below the title is a table with columns: 'Applies To', 'Generates', 'Name', and 'Description'. The table content is 'No records found.' Below the table is a button labeled 'Add More Pipelines'.

2. Click "Add More Pipelines." The table view will toggle to show you all pipelines installed on this XNAT.

The screenshot shows the 'Pipelines' tab selected in a project report. The page title is 'Additional Pipelines for TEST2'. Below the title is a table with columns: 'Applies To', 'Generates', 'Name', and 'Description'. The table contains two rows of pipeline information. Below the table is a button labeled 'Show Project Pipelines'.

		Applies To	Generates	Name	Description
Add	Details	All Datatypes		WebBasedQCImageCreator.xml	Pipeline for generation of QC Images
Add	Details	All Datatypes		DicomToNifti.xml	Pipeline creates NIFTI files from DICOM files.

3. Click "Add" next to the pipeline to be added. In this case, we'll use the Web Based QC Image Creator that ships standard with XNAT. A pipeline configuration popup will open for that pipeline.



If there is no pop-up when you click "Add" at this point, the problem may be that the pipeline was added with backslashes '\' in the path. Ask your XNAT Admin to re-add the pipeline using forward slashes '/' in the path instead.

Pipeline for generation of QC Images

Pipeline setup

Launch pipeline automatically when session is archived?

Project specific pipeline parameters:

Note: Parameters that take multiple values should be comma-separated

Name	Values	
sessionLabel	xnat:experimentData.label	Help
session	xnat:experimentData.ID	Help
xnat_project	xnat:experimentData.project	Help
notify	<input type="text" value="0"/>	Help

4. Insert any needed parameters into the pipeline configuration form. Each project can configure their own default parameters for running pipelines, but each time a user runs a pipeline, they can set their own custom parameters as needed.

5. Click Submit. If the pipeline configuration save is successful, the popup window will display the message: "The pipelines for the project were successfully modified"

You can then close the popup window, and your pipeline will be active on your project.



Next, see: [Running A Pipeline](#)