

# XNAT Workflow API

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## Workflow Querystring Parameters

These parameters can be used when creating or modifying a workflow entry.

<b>wrk:workflowData/id</b>	The ID of the experiment
<b>wrk:workflowData/launch_time</b>	The launch time of the pipeline. (Format: "YYYY-MM-DD HH:MM:SS")
<b>wrk:workflowData/data_type</b>	The data type (xsiType) of the experiment. (Required only when adding a new workflow)
<b>wrk:workflowData/pipeline_name</b>	The name of the pipeline or process
<b>wrk:workflowData/status</b>	The status of the workflow (Required only when adding a new workflow)

## Create A Workflow Entry From An XML Descriptor File

Note that the specified experiment ID "local\_E00106" does not have to exist in your XNAT in order for this workflow entry to be stored. However, any workflow entry with a valid XNAT experiment ID will show up in that experiment's History table.

### Workflow Description XML

```
<wrk:Workflow xmlns:wrk="http://nrg.wustl.edu/workflow"
  ExternalID="PipelineTest"
  ID="local_E00106"
  data_type="xnat:mrSessionData"
  launch_time="2014-02-13T00:50:54"
  pipeline_name="My_Pipeline_Name"
  status="In Progress" />
```

PUT - /data/workflows

### Parameters

<b>file</b>	Required body or form parameter
<b>?inbody=true</b>	Optional querystring parameter. Use if you are including the file in the body of your request, rather than part of a multi-part form

### Response Code:

<b>200</b>	OK
------------	----

Response: none

## Create A New Workflow Entry With Querystring Parameters

```
PUT - /data/workflows?wrk:workflowData/id=local_E00106&wrk:workflowData/pipeline_name=My_Pipeline_Name&wrk:workflowData/launch_time=2018-01-01%2000:50:54&wrk:workflowData/data_type=xnat:mrSessionData&wrk:workflowData/status=In%20Progress
```

### Response Code

200	OK
-----	----

Response: none

## Change the Status Of A Workflow Entry

```
PUT - /data/workflows/{workflow-id}?wrk:workflowData/status=Failed
```

### Parameters

{workflow-id}	Required path parameter.
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### Response Code

200	OK
-----	----

Response: none

## Get A Workflow Entry By Querystring Parameters

```
GET - /data/workflows?wrk:workflowData/id=local_E00106&wrk:workflowData/pipeline_name=My_Pipeline_Name&wrk:workflowData/launch_time=2018-01-01%2000:50:54&wrk:workflowData/data_type=xnat:mrSessionData&wrk:workflowData/status=In%20Progress
```

### Response

```
<wrk:Workflow data_type="xnat:mrSessionData" ID="local_E00106" ExternalID="PipelineTest" status="FAILED" pipeline_name="My_Pipeline_Name" launch_time="2014-02-13T00:50:54" xmlns:arc="http://nrg.wustl.edu/arc" xmlns:val="http://nrg.wustl.edu/val" xmlns:pipe="http://nrg.wustl.edu/pipe" xmlns:wrk="http://nrg.wustl.edu/workflow" xmlns:scr="http://nrg.wustl.edu/scr" xmlns:xdat="http://nrg.wustl.edu/security" xmlns:rad="http://nrg.wustl.edu/rad" xmlns:cat="http://nrg.wustl.edu/catalog" xmlns:prov="http://www.ncbi.nlm.nih.gov/prov" xmlns:xnat="http://nrg.wustl.edu/xnat" xmlns:xnat_a="http://nrg.wustl.edu/xnat_assessments" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://nrg.wustl.edu/workflow http://10.1.1.17/xnat/schemas/workflow.xsd http://nrg.wustl.edu/catalog http://10.1.1.17/xnat/schemas/catalog.xsd http://nrg.wustl.edu/pipe http://10.1.1.17/xnat/schemas/repository.xsd http://nrg.wustl.edu/rad http://10.1.1.17/xnat/schemas/radRead.xsd http://nrg.wustl.edu/scr http://10.1.1.17/xnat/schemas/screeningAssessment.xsd http://nrg.wustl.edu/arc http://10.1.1.17/xnat/schemas/project.xsd http://nrg.wustl.edu/val http://10.1.1.17/xnat/schemas/protocolValidation.xsd http://nrg.wustl.edu/xnat http://10.1.1.17/xnat/schemas/xnat.xsd http://nrg.wustl.edu/xnat_assessments http://10.1.1.17/xnat/schemas/assessments.xsd http://www.ncbi.nlm.nih.gov/prov http://10.1.1.17/xnat/schemas/birnprov.xsd http://nrg.wustl.edu/security http://10.1.1.17/xnat/schemas/security.xsd">
  <!--hidden_fields[wrk_workflowData_id="530"]-->
</wrk:Workflow>
```




Note that the returned XML descriptor now has a "hidden field" that displays the workflow ID. Helpful.

## Get A Workflow Entry By ID

```
GET - /data/workflows/{workflow-id}
```

### Parameters

<b>{workflow-id}</b>	Required path parameter.   A table of all logged workflows in your XNAT can be found in the XNAT Admin UI. By default, the first column is "Workflow ID"
<b>format</b>	Optional querystring parameter. Format the response object. <ul style="list-style-type: none"><li>• xml (default)</li><li>• html</li><li>• json</li></ul>

### Response

Example workflow entry from an Autorun pipeline execution on a development XNAT VM.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<wrk:Workflow type="PROCESS" category="DATA" data_type="xnat:mrSessionData" ID="XNAT_E00011" ExternalID="
BJC_Pat" current_step_launch_time="2018-01-04T16:16:30" current_step_id="LAUNCH_PIPELINES" status="Complete"
pipeline_name="xnat_tools/AutoRun.xml" step_description="Launch auto-run pipelines" launch_time="2018-01-04T16:
16:14" percentageComplete="100.0" xmlns:arc="http://nrg.wustl.edu/arc" xmlns:val="http://nrg.wustl.edu/val"
xmlns:pipe="http://nrg.wustl.edu/pipe" xmlns:wrk="http://nrg.wustl.edu/workflow" xmlns:scr="http://nrg.wustl.edu
/scr" xmlns:xdat="http://nrg.wustl.edu/security" xmlns:rad="http://nrg.wustl.edu/rad" xmlns:cat="http://nrg.
wustl.edu/catalog" xmlns:prov="http://www.nbirn.net/prov" xmlns:xnat="http://nrg.wustl.edu/xnat" xmlns:xnat_a="
http://nrg.wustl.edu/xnat_assessments" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:
schemaLocation="http://nrg.wustl.edu/workflow http://10.1.1.17/xnat/schemas/workflow.xsd http://nrg.wustl.edu
/catalog http://10.1.1.17/xnat/schemas/catalog.xsd http://nrg.wustl.edu/pipe http://10.1.1.17/xnat/schemas
/repository.xsd http://nrg.wustl.edu/rad http://10.1.1.17/xnat/schemas/radRead.xsd http://nrg.wustl.edu/scr
http://10.1.1.17/xnat/schemas/screeningAssessment.xsd http://nrg.wustl.edu/arc http://10.1.1.17/xnat/schemas
/project.xsd http://nrg.wustl.edu/val http://10.1.1.17/xnat/schemas/protocolValidation.xsd http://nrg.wustl.edu
/xnat http://10.1.1.17/xnat/schemas/xnat.xsd http://nrg.wustl.edu/xnat_assessments http://10.1.1.17/xnat/schemas
/assessments.xsd http://www.nbirn.net/prov http://10.1.1.17/xnat/schemas/birnprov.xsd http://nrg.wustl.edu
/security http://10.1.1.17/xnat/schemas/security.xsd">
  <wrk:executionEnvironment xsi:type="wrk:xnatExecutionEnvironment">
    <wrk:pipeline>xnat_tools/AutoRun.xml</wrk:pipeline>
    <wrk:xnatuser>793aeb08-f225-4bbe-8fa4-8c3b3cf758ba</wrk:xnatuser>
    <wrk:host>http://10.1.1.17/xnat</wrk:host>
    <wrk:parameters>
      <wrk:parameter name="id">XNAT_E00011</wrk:parameter>
      <wrk:parameter name="label">Patient_007382</wrk:parameter>
      <wrk:parameter name="project">BJC_Pat</wrk:parameter>
      <wrk:parameter name="xnat_project">BJC_Pat</wrk:parameter>
      <wrk:parameter name="userfullname">A. Admin</wrk:parameter>
      <wrk:parameter name="supressEmail">>false</wrk:parameter>
      <wrk:parameter name="useremail">administrator@xnat.org</wrk:parameter>
      <wrk:parameter name="session">XNAT_E00011</wrk:parameter>
      <wrk:parameter name="xnatserver">XNAT</wrk:parameter>
      <wrk:parameter name="mailhost">localhost</wrk:parameter>
      <wrk:parameter name="sessionType">xnat:mrSessionData</wrk:parameter>
      <wrk:parameter name="adminemail">administrator@xnat.org</wrk:parameter>
      <wrk:parameter name="sessionLabel">Patient_007382</wrk:parameter>
      <wrk:parameter name="workflowid">125</wrk:parameter>
    </wrk:parameters>
    <wrk:notify>administrator@xnat.org</wrk:notify>
    <wrk:dataType>xnat:mrSessionData</wrk:dataType>
    <wrk:id>XNAT_E00011</wrk:id>
    <wrk:supressNotification>1</wrk:supressNotification>
  </wrk:executionEnvironment>
</wrk:Workflow>
```

