

XNAT Workflow API

Contents

- [Workflow Querystring Parameters](#)
- [Create A Workflow Entry From An XML Descriptor File](#)
- [Create A New Workflow Entry With Querystring Parameters](#)
- [Change the Status Of A Workflow Entry](#)
- [Get A Workflow Entry By Querystring Parameters](#)
- [Get A Workflow Entry By ID](#)

Workflow Querystring Parameters

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

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

file	Required body or form parameter
?inbody=true	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:

200	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.
---------------	--------------------------

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.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">
  <!--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

{workflow-id}	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"
format	Optional querystring parameter. Format the response object. <ul style="list-style-type: none">• xml (default)• html• json

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>
```

