



Documentation

IBM Workload Scheduler integration with Alteryx

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CHANGE HISTORY

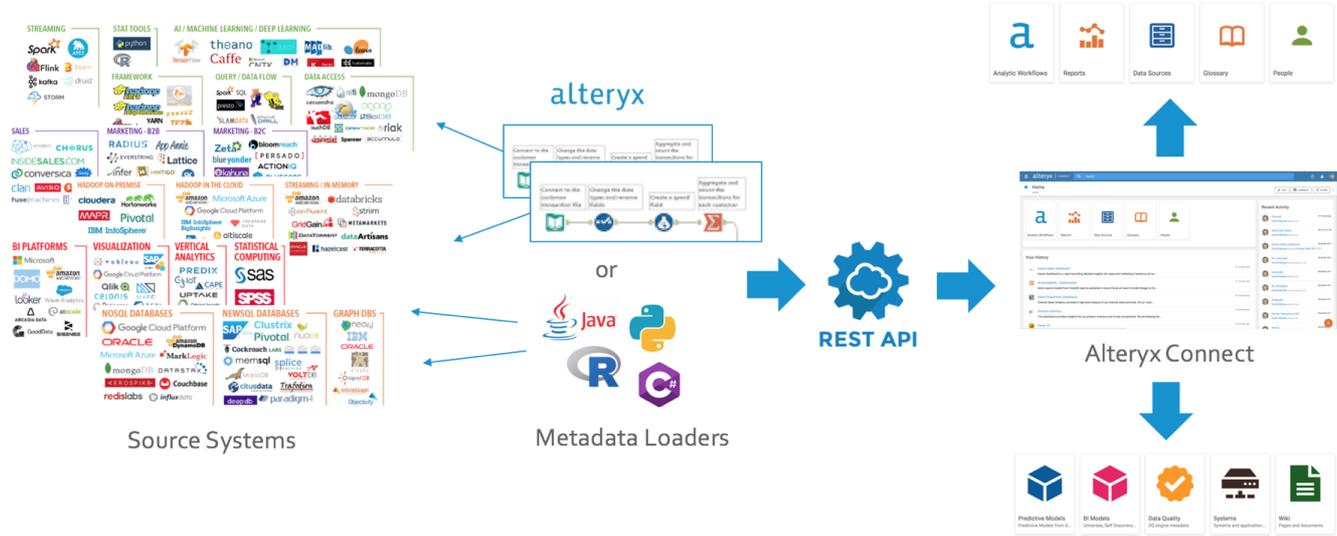
Version	Date of change	Change detail
1.0	December 20 2018	Initial version by M. Sanders



1. INTRODUCTION AND ARCHITECTURE

Alteryx accelerates your time to analytical insight and empowers analysts and business users across your organization to make informed, data-driven decisions. Using a scalable platform to deploy and share analytics, you and your team can easily collaborate on business-critical decisions. Not only does Alteryx provide self-service data analytics, it's IT friendly too. With 24/7 dependability and advanced administration options, you can avoid costly business interruptions and potential security issues. It's the fastest and easiest way to deploy data-intensive analytics across your organization. And with built in APIs and macros, you can integrate Alteryx processes directly into other internal and external applications easily for additional extensibility.

By leveraging the IBM Workload Scheduler plug-in for Alteryx, you will be able to submit and monitor Alteryx workflows.





2. INSTALLING AND CONFIGURING THE PLUG-IN FOR ALTERYX

The following prerequisites must be met in order to use the IBM Workload Scheduler plug-in for Alteryx.

- IBM Workload Scheduler 9.1 or later
- IBM Dynamic Workload Console 9.1 or later
- Alteryx Server 2018.1.3.42973 or higher

To install and configure the IBM Workload Scheduler plug-in for Alteryx, perform the following steps:

- Copy *com.ibm.scheduling.agent.alteryx_<version>.jar* to the *<TWA_HOME>/TWS/applicationJobPlugIn* folder on either the Master Domain Manager or a Dynamic Domain Manager
- Copy *com.ibm.scheduling.agent.alteryx_<version>.jar* to the *<TWA_HOME>/TWS/JavaExt/eclipse/plugins* folder on the Dynamic Agent that will run the Alteryx jobs
- Modify *config.ini* located in *<TWA_HOME>/TWS/JavaExt/eclipse/configuration* on the Dynamic Agent that will run the Alteryx jobs.. At the end of the line that starts with "osgi.bundles=", add the following: *","com.ibm.scheduling.agent.alteryx@4:start"*
- Restart the WebSphere Application Server of either the Master Domain Manager or the Dynamic Domain Manager.
- Restart the Dynamic Agent
- Restart the Dynamic Workload Console

3. DEFINING AN ALTERYX JOB

From the Dynamic Workload Console, you can define an Alteryx job as follows:

- In the Dynamic Workload Console navigation tree, expand *Administration* and select *Manage Workload Definitions*.
- Specify the name of the engine. Subsequently, the Workload Designer is displayed.
- In the Working List panel, select *New -> Job Definition -> Business Analytics -> Alteryx*
- On the *Alteryx* panel, fill in the job details
 - **Hostname** : Hostname of the Alteryx Server
 - **Port** : Port of the Alteryx Server
 - **Key** : API Key (Can be found in the Alteryx Gallery)
 - **Secret** : API Secret (Can be found in the Alteryx Gallery)
 - **Use SSL** : Select whether SSL/TLS is used for the connection to Alteryx Server
 - To validate the connection, click *Test Connection*.
 - **Workflow Name** : Fill in the workflow name.
 - **Polling period (*)** : The monitoring frequency determines how often the job is monitored. The default value is 10 seconds.
 - **Timeout (*)**: The monitoring time determines for how long the job is monitored. If the job hasn't finished by the end of the timeout interval, the job is marked as ABEND. The default value is 7200 seconds.
 - **Workflow Questions** : Fill in the name/value pairs for the optional workflow questions

(*) These parameters can also be supplied in a common properties file *AlteryxJobExecutor.properties* located in `<TWA_HOME>/TWS/JavaExt/cfg` on the Dynamic Agent that will run the Alteryx jobs. Values from the job definition (if provided) override the values in the properties file.



ALTERYX (9.4.0.04) - DELTA#DEMO_ALTERYX

Select an Action ▾



General

Affinity

Recovery Options

Alteryx

Versions

Server Information

Hostname

Port

Key

Secret ...

Use SSL

Test Connection

Workflow Details

* Name

Polling period

Timeout

Select ...

Workflow Questions

Filter ✕

Clear

Questions

Name	Value
------	-------





Alternatively, the *composer* command line can be used to define the job.

Example:

DELTA#DEMO_ALTERYX

TASK

```
<?xml version="1.0" encoding="UTF-8"?>
<jsdl:jobDefinition xmlns:jsdl="http://www.ibm.com/xmlns/prod/scheduling/1.0/jsdl"
xmlns:jsdlalteryx="http://www.ibm.com/xmlns/prod/scheduling/1.0/jsdlalteryx" name="ALTERYX">
  <jsdl:application name="alteryx">
    <jsdlalteryx:alteryx>
      <jsdlalteryx:AlteryxParameters>
        <jsdlalteryx:AlteryxParms>
          <jsdlalteryx:serverInformation>
            <jsdlalteryx:hostname>indigo.uniforce.eu</jsdlalteryx:hostname>
            <jsdlalteryx:port>80</jsdlalteryx:port>
            <jsdlalteryx:apiKey>8D643E864F1A539be32d4feeefffc96ac88</jsdlalteryx:apiKey>
            <jsdlalteryx:password>{aes}kB+eXeiqVIRPoe610qdAkIY+yBcV0=</jsdlalteryx:password>
          </jsdlalteryx:serverInformation>
          <jsdlalteryx:workflowDetails>
            <jsdlalteryx:workflowName>5be1859b2e2b910eec43dfcb</jsdlalteryx:workflowName>
            <jsdlalteryx:pollingPeriod>10</jsdlalteryx:pollingPeriod>
            <jsdlalteryx:pollingTimeout>7200</jsdlalteryx:pollingTimeout>
          </jsdlalteryx:workflowDetails>
          <jsdlalteryx:workflowQuestions>
            </jsdlalteryx:workflowQuestions>
          </jsdlalteryx:workflowQuestions>
        </jsdlalteryx:AlteryxParms>
      </jsdlalteryx:AlteryxParameters>
    </jsdlalteryx:alteryx>
  </jsdl:application>
</jsdl:jobDefinition>
RECOVERY STOP
```



4. MONITORING AN ALTERYX JOB

Like regular jobs, you can monitor Alteryx jobs by using either the Dynamic Workload Console or the *conman* command line.

Plan Name: Current Plan

@#JOBS.@DEMO@IBP@

Status	Internal Status	Job	Job Type	Workstation (Job)	Job Stream	Workstation (Job Stream)
<input checked="" type="checkbox"/> Successful	SUCC	DEMO_IBP	SAP Integrated Business Planning	DELTA	JOBS	DELTA