



Documentation

IBM Workload Scheduler integration with Talend Data Integration

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CHANGE HISTORY

Version	Date of change	Change detail
1.0	March 27 2017	Initial version by M. Sanders

1. INTRODUCTION AND ARCHITECTURE

Providing powerful and easy-to-use features, Talend Data Integration offers all the functionality you need to design and execute a wide range of data integration processes such as data migration (including both ETL and ELT) and data synchronization to maximize its value to your business. Talend Data Integration software provides the unified tools to integrate, cleanse, mask and profile all of your data, enabling you to turn data into decisions faster. By leveraging the IBM Workload Scheduler plug-in for Talend Data Integration, you will be able to schedule these mission critical jobs from a single interface.





2. INSTALLING AND CONFIGURING THE PLUG-IN FOR TALEND DATA INTEGRATION

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

- IBM Workload Scheduler 9.1 or later
- IBM Dynamic Workload Console 9.1 or later

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

- Copy *com.ibm.scheduling.agent.talend_<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.talend_<version>.jar* to the *<TWA_HOME>/TWS/JavaExt/eclipse/plugins* folder on the Dynamic Agent that will run the Talend Data Integration jobs
- Modify *config.ini* located in *<TWA_HOME>/TWS/JavaExt/eclipse/configuration* on the Dynamic Agent that will run the Talend Data Integration jobs. At the end of the line that starts with "osgi.bundles=", add the following:
",com.ibm.scheduling.agent.talend@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 A TALEND DATA INTEGRATION JOB

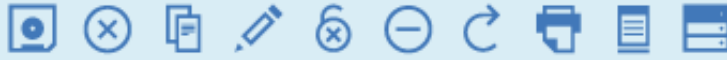
From the Dynamic Workload Console, you can define a Talend Data Integration job as follows:

- 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 -> ERP -> Talend Data Integration*.
- On the *Talend Data Integration* panel, fill in the job details
 - **Administration Center (*)** : Talend Administration Center (TAC) URL
 - **Username** : The username used to log on to the Talend Administration Center (TAC). The user should have the *Operation Manager* role.
 - **Password (*)** : The password of the user.
To validate the connection, click *Test Connection*.
 - **Task name**: Fill in the Talend Data Integration task 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.
- (*) These parameters can also be supplied in a common properties file *TalendJobExecutor.properties* located in `<TWA_HOME>/TWS/JavaExt/cfg` on the Dynamic Agent that will run the Talend Data Integration jobs. Values from the job definition (if provided) override the values in the properties file.



TALEND DATA INTEGRATION (9.3.0.02) - DELTA#TALEND_DEMO

Select an Action ▾



General

Affinity

Recovery Options

Talend Data Integration

Server Information

Administration Center

Username

Password ...

Test Connection

Task Details

* Task name

Polling period

Timeout

Select ...



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

Example:

```
DELTA#TALEND_DEMO
TASK
<?xml version="1.0" encoding="UTF-8"?>
<jSDL:jobDefinition xmlns:jSDL="http://www.ibm.com/xmlns/prod/scheduling/1.0/jSDL"
xmlns:jSDLTalend="http://www.ibm.com/xmlns/prod/scheduling/1.0/jSDLTalend" name="TALEND">
  <jSDL:application name="talend">
    <jSDLTalend:talend>
      <jSDLTalend:TalendParameters>
        <jSDLTalend:TalendParams>
          <jSDLTalend:serverInformation>
            <jSDLTalend:server>http://talend:8080/org.talend.administrator</jSDLTalend:server>
            <jSDLTalend:username>miguel.sanders@uniforce.eu</jSDLTalend:username>
            <jSDLTalend:password>{aes}m0QtaVU1CFVwHRKKKbyqSSN9CDWD4hxbc=</jSDLTalend:password>
          </jSDLTalend:serverInformation>
          <jSDLTalend:jobDetails>
            <jSDLTalend:jobname>ListFiles</jSDLTalend:jobname>
            <jSDLTalend:pollingPeriod>10</jSDLTalend:pollingPeriod>
            <jSDLTalend:pollingTimeout>7200</jSDLTalend:pollingTimeout>
          </jSDLTalend:jobDetails>
        </jSDLTalend:TalendParams>
      </jSDLTalend:TalendParameters>
    </jSDLTalend:talend>
  </jSDL:application>
</jSDL:jobDefinition>
RECOVERY STOP
```




4. MONITORING A TALEND DATA INTEGRATION JOB

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

@#@.TALEND@

Status	Internal Status	Job	Job Type	Workstation (Job)	Job Stream	Workstation (Job Stream)
<input checked="" type="checkbox"/> Successful	SUCC	TALEND_DEMO	Talend Data Integration	DELTA	JOBS	DELTA

= Job Number: 247963820

= Mon Mar 27 16:53:35 CEST 2017

```

#####
### Job STARTED at 2017/03/27 16:53:36 (jobId=20170327_142837_WmZif, jobExecutionId=20170327165336_cx0nn) ###
[INFO ]: ibm_workload_scheduler.listfiles_0_1.ListFiles - TalendJob: 'ListFiles' - Start.
[statistics] connecting to socket on port 10734
[statistics] connected
[INFO ]: ibm_workload_scheduler.listfiles_0_1.ListFiles - tSystem_1 - Setting the parameters.
[INFO ]: ibm_workload_scheduler.listfiles_0_1.ListFiles - tSystem_1 - Executing the command.
[INFO ]: ibm_workload_scheduler.listfiles_0_1.ListFiles - tSystem_1 - Command to execute: 'ls -al /tmp'.
[INFO ]: ibm_workload_scheduler.listfiles_0_1.ListFiles - tSystem_1 - The command has been executed successfully.
total 12
drwxrwxrwt. 15 root root 4096 Mar 27 16:53 .
dr-xr-xr-x. 20 root root 4096 Feb 27 18:11 ..
drwxrwxrwt. 2 twsusr twsgrp 54 Mar 23 09:02 .com_ibm_tools_attach
-rw-r--r--. 1 root root 55 Mar 27 12:00 customers.txt
drwxrwxrwt. 2 root root 6 Feb 27 16:28 .font-unix
drwxr-xr-x. 2 nexus nexus 17 Mar 23 09:02 hsperfdata_nexus
drwxr-xr-x. 2 root root 30 Mar 27 16:53 hsperfdata_root
drwxr-xr-x. 2 tomcat tomcat 17 Mar 23 09:02 hsperfdata_tomcat
drwxrwxrwt. 2 root root 6 Feb 27 16:28 .ICE-unix
drwxr-xr-x. 2 root root 6 Mar 23 09:03 mmfs
drwx-----. 3 root root 16 Mar 23 09:02 systemd-private-78498ec89f4046c1a3d70754c864696c-httpd.service-M0n0f0
drwx-----. 3 root root 16 Mar 23 09:02 systemd-private-78498ec89f4046c1a3d70754c864696c-mariadb.service-IYB7wv
drwx-----. 3 root root 16 Mar 23 09:02 systemd-private-78498ec89f4046c1a3d70754c864696c-ntpd.service-jZ2kao
drwxrwxrwt. 2 root root 6 Feb 27 16:28 .Test-unix
drwxrwxrwt. 2 root root 6 Feb 27 16:28 .X11-unix
drwxrwxrwt. 2 root root 6 Feb 27 16:28 .XIM-unix

### Job ENDED SUCCESSFULLY at 2017/03/27 16:53:36 (jobId=20170327_142837_WmZif, jobExecutionId=20170327165336_cx0nn) ###
[statistics] disconnected
[INFO ]: ibm_workload_scheduler.listfiles_0_1.ListFiles - TalendJob: 'ListFiles' - Done.

```

```

=====
= Exit Status : 0
= Elapsed Time (hh:mm:ss) : 00:00:10
= Mon Mar 27 16:53:45 CEST 2017
=====

```