

General Administration Guide



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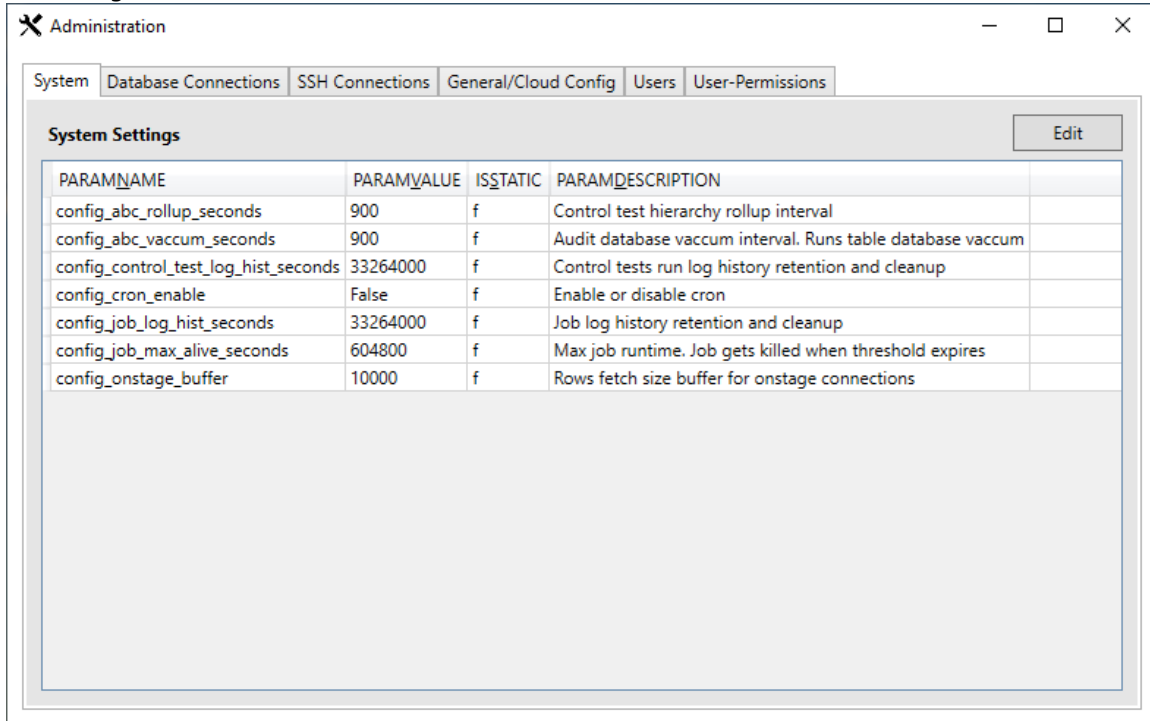
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General Administration

On the main window click [Administration], then click [Configure Maestro Server]. This opens Administration window which looks like the following:

System Settings

Figure: System Settings



Configuration Items

Parameter Name	Description
config_cron_enable	Values can be True or False to enable or disable scheduler. ELT Maestro utilizes cron table.
config_abc_vacuum_seconds	Interval to run vacuum on all tables on embedded ELT Maestro audit database. Leave this setting unchanged.
config_abc_rollup_seconds	Interval to run metrics status rollup within hierarchy. Leave this setting unchanged.
config_job_max_alive_seconds	Maximum duration in seconds where a workflow can have a status of RUNNING before ELT Maestro server issues halt command to the workflow. If a workflow has been running for more than specified number of seconds on this property, server issues halt command automatically.
config_job_log_hist_seconds	Maximum log retention value in seconds for workflow.
config_onstage_buffer	Record fetch buffer size for onstage step.
config_control_test_log_hist_seconds	Maximum log retention value in seconds for control test.

Perform **ELT Maestro Restart** sequence for changes to take effect (*Restarting instructions are available on ELT Maestro Server Operations section*).

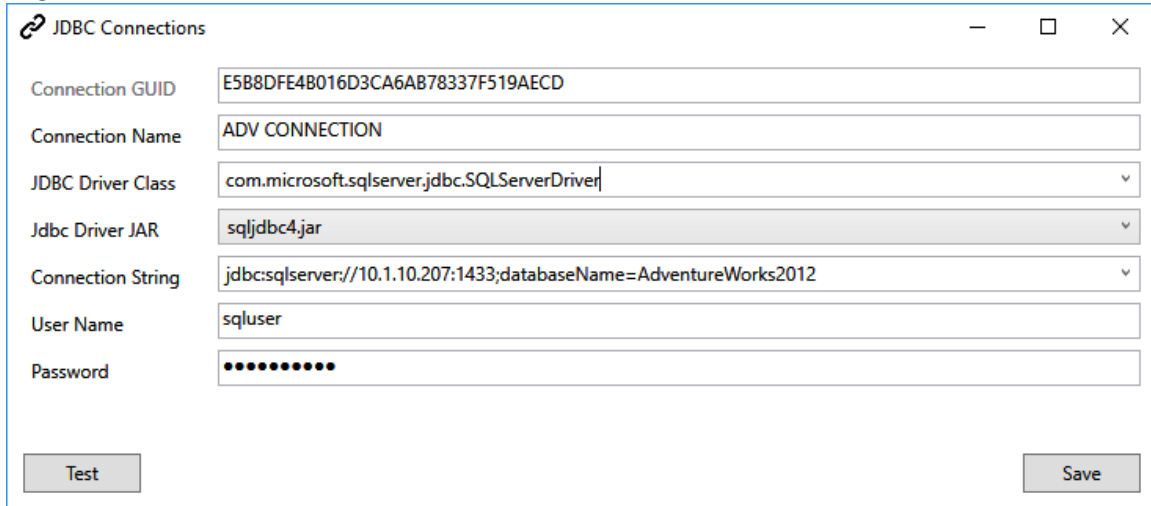
Database Connections [JDBC]

JDBC Tab provides list of configured jdbc connections.

Creating, Updating & Deleting JDBC Connections

To create Click [Create] and fill in required properties, then click [Save]

Figure: Creating Jdbc Connection



The screenshot shows a window titled "JDBC Connections" with a close button in the top right corner. The window contains several input fields and dropdown menus for configuring a JDBC connection:

- Connection GUID: E5B8DFE4B016D3CA6AB78337F519AECD
- Connection Name: ADV CONNECTION
- JDBC Driver Class: com.microsoft.sqlserver.jdbc.SQLServerDriver (dropdown)
- Jdbc Driver JAR: sqljdbc4.jar (dropdown)
- Connection String: jdbc:sqlserver://10.1.10.207:1433;databaseName=AdventureWorks2012 (dropdown)
- User Name: sqluser
- Password: [masked with 10 dots]

At the bottom of the window, there are two buttons: "Test" on the left and "Save" on the right.

- To modify select a connection and Click [Edit], make necessary changes then Click [Save]
- To delete select a connection and Click [Delete]
- To make a duplicate copy select a connection and Click [Duplicate], make necessary changes then Click [Save]

Note: If a database driver is not listed that requires a new jar file, visit ELT Maestro Server Operation section to understand procedure to add a new database driver.

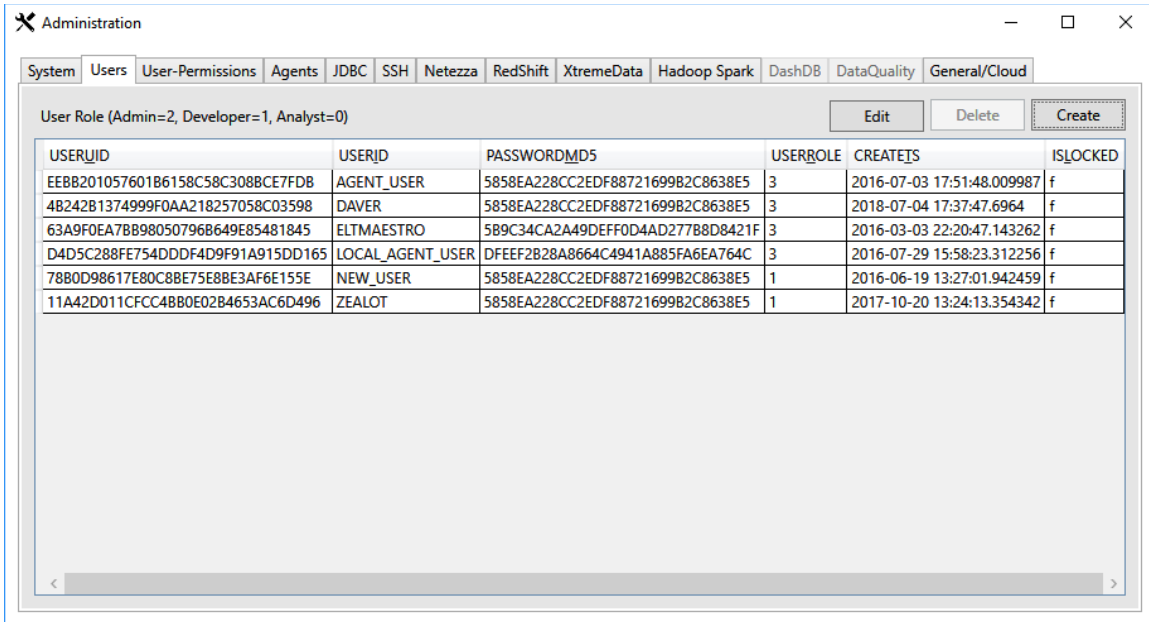
Registering a new jdbc driver

- Place the new jar file on ELT Maestro directory [ELTM_HOME/library/JDBC]
- Perform ELT Maestro Restart Sequence (*Restarting instructions are available on ELT Maestro Server Operations section*)

Users

Users Tab displays current list of users with options to create, delete and change password. Refer to ELT Maestro Server Operation section to understand how to unlock a locked user account.

Figure: Users



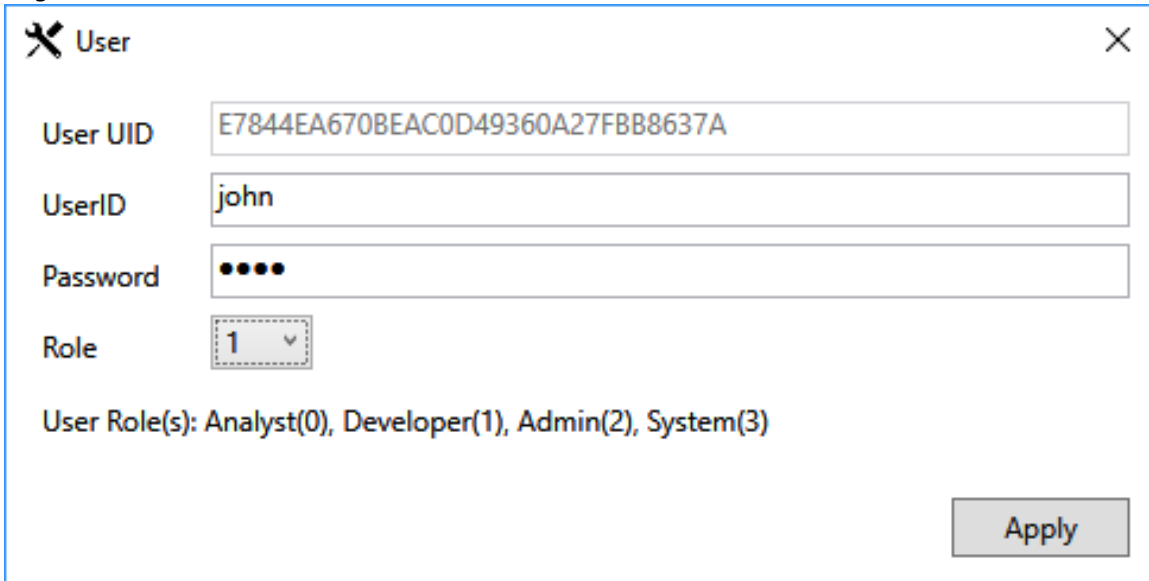
The screenshot shows the 'Administration' window with the 'Users' tab selected. The window title is 'Administration' and it has standard window controls. Below the title bar is a navigation menu with tabs: System, Users, User-Permissions, Agents, JDBC, SSH, Netezza, RedShift, XtremeData, Hadoop Spark, DashDB, DataQuality, and General/Cloud. The 'Users' tab is active, displaying a table of users. Above the table, there is a summary: 'User Role (Admin=2, Developer=1, Analyst=0)' and three buttons: 'Edit', 'Delete', and 'Create'. The table has the following columns: USERUID, USERID, PASSWORDMD5, USERROLE, CREATE_TS, and IS_LOCKED. The data rows are as follows:

USERUID	USERID	PASSWORDMD5	USERROLE	CREATE_TS	IS_LOCKED
EEBB201057601B6158C58C308BCE7FDB	AGENT_USER	5858EA228CC2EDF88721699B2C8638E5	3	2016-07-03 17:51:48.009987	f
4B242B1374999F0AA218257058C03598	DAVER	5858EA228CC2EDF88721699B2C8638E5	3	2018-07-04 17:37:47.6964	f
63A9F0EA7B898050796B649E85481845	ELTMAESTRO	5B9C34CA2A49DEFF0D4AD277B8D8421F	3	2016-03-03 22:20:47.143262	f
D4D5C288FE754DDDF4D9F91A915DD165	LOCAL_AGENT_USER	DFEEF2B28A8664C4941A885FA6EA764C	3	2016-07-29 15:58:23.312256	f
78B0D98617E80C8BE75E8BE3AF6E155E	NEW_USER	5858EA228CC2EDF88721699B2C8638E5	1	2016-06-19 13:27:01.942459	f
11A42D011CFCC48B0E02B4653AC6D496	ZEALOT	5858EA228CC2EDF88721699B2C8638E5	1	2017-10-20 13:24:13.354342	f

Creating a user

- Click [Create]

Figure: Creating User



The screenshot shows the 'User' dialog box with the following fields and options:

- User UID:** E7844EA670BEAC0D49360A27FBB8637A
- UserID:** john
- Password:** [masked with dots]
- Role:** 1 (selected from a dropdown menu)
- User Role(s):** Analyst(0), Developer(1), Admin(2), System(3)
- Apply** button

- Input User ID
- Input Password
- Select appropriate role
- Click [Apply]

For changes to take effect ELT Maestro Server requires restart. Please visit ELT Maestro Server Operation section to understand restart procedures.

Note: Application throws error if user id length is less than 4 or password is less than 8 characters. Admin and System roles have access to all ELT Maestro objects. Object level permissions are applied to Analyst or Developer roles only.

Modifying a user's password or role

- Click [Edit]
- Make necessary changes to either Password or Role
- Click [Apply]

Perform **ELT Maestro Restart** sequence for changes to take effect (*Restarting instructions are available on ELT Maestro Server Operations section*).

Note: Application throws error if user id is less than 4 or password is less than 8 characters.

Unlocking a user manually

To unlock a locked user, login to ELT Maestro server using ssh client then run following command. Replace following sample user [JOHN] with actual locked username.

```
psql -c "update t_user set is_locked=false where user_id='JOHN'"
```

Perform ELT Maestro Restart Sequence for changes to take effect (*Restarting instructions are available on ELT Maestro Server Operations section*).

Deleting a user manually

To delete a user, login to ELT Maestro server using ssh client then run following command. Replace following sample user [JOHN] with actual locked username.

```
psql -c "delete from t_user where user_id='JOHN'"
```

Perform ELT Maestro Restart Sequence for changes to take effect (*Restarting instructions are available on ELT Maestro Server Operations section*).

User Permissions

User Permissions Tab contains object permissions available to selected user.

- Select a user from [Select User] combo box.
- Select a component
- Click [Toggle Access] to set T or F to enable/disable access flag.

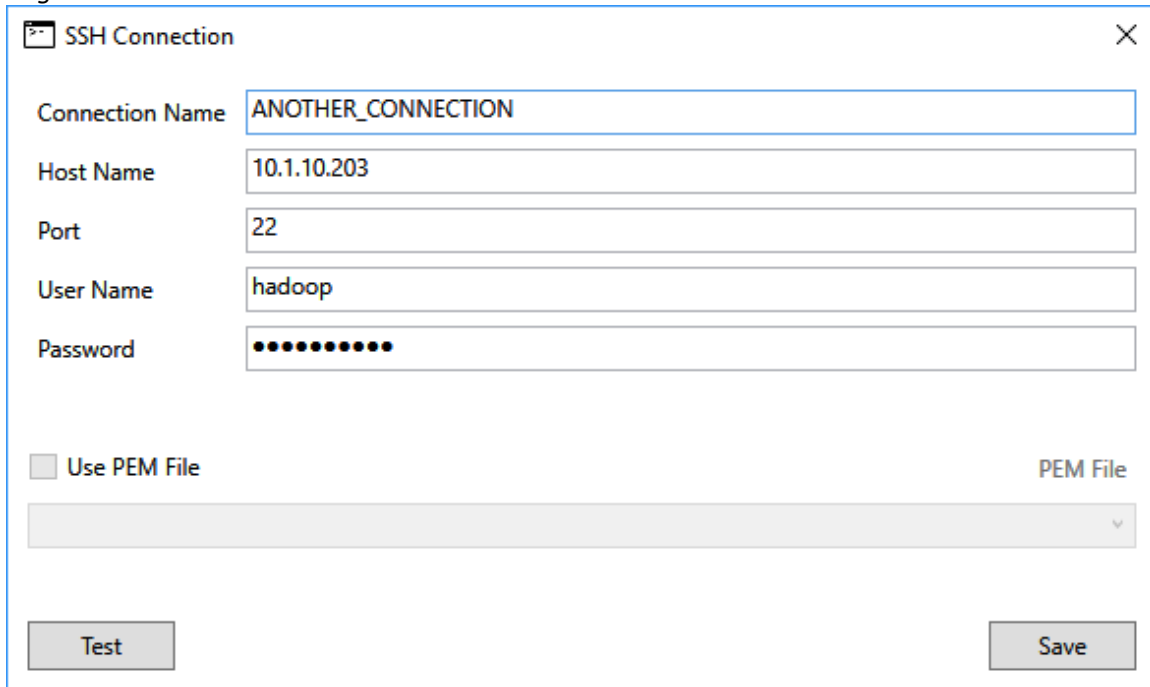
SSH Connection

SSH Tab provides list of configured SSH/SFTP connections.

Creating, Updating & Deleting SSH Connections

- **To create** Click [Create], add required information, then Click [Save]

Figure: Creating SSH Connection



The image shows a dialog box titled "SSH Connection" with a close button (X) in the top right corner. The dialog contains several input fields and a checkbox:

- Connection Name:** A text input field containing "ANOTHER_CONNECTION".
- Host Name:** A text input field containing "10.1.10.203".
- Port:** A text input field containing "22".
- User Name:** A text input field containing "hadoop".
- Password:** A text input field with 10 black dots representing a masked password.
- Use PEM File:** A checkbox that is currently unchecked.
- PEM File:** A dropdown menu to the right of the checkbox, currently showing a blank space.
- Buttons:** At the bottom, there are two buttons: "Test" on the left and "Save" on the right.

- **To modify** select a connection, Click [Edit], make necessary changes, then Click [Save]
- **To delete** select a connection, Click [Delete]
- **To duplicate** select a connection, Click [Edit], provide a different connection name, then Click [Save]

ELT Maestro Server Operations

Starting Services

To Start ELT Maestro Server, login to the server using ssh client then run following command.

```
. ~/.env_integrator  
mstart-all
```

Stopping Services

To Stop ELT Maestro Server, login to the server using ssh client then run following command.

```
. ~/.env_integrator  
mstop-all
```

Restarting Services

Restarting ELT Maestro consists of following tasks in sequence.

```
. ~/.env_integrator  
mstop-all  
mstart-all
```

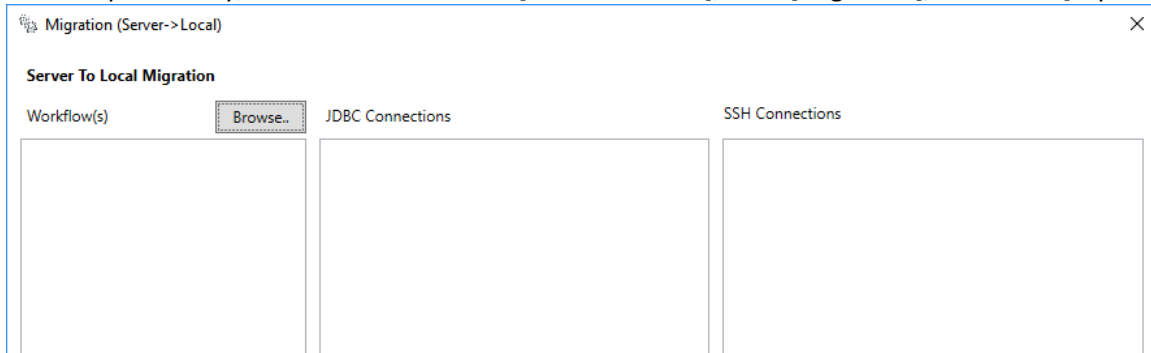

Workflow Migration

To migrate a workflow from one environment to another, use this feature to perform such operation. For example, a workflow designed and tested in [development] environment can be migrated to [quality assurance] or [production] environment. This process involves exporting selected workflow(s) from one environment to a local file system and importing to another environment from local filesystem. The exported files can also be versioned, internally these files are of xml format.

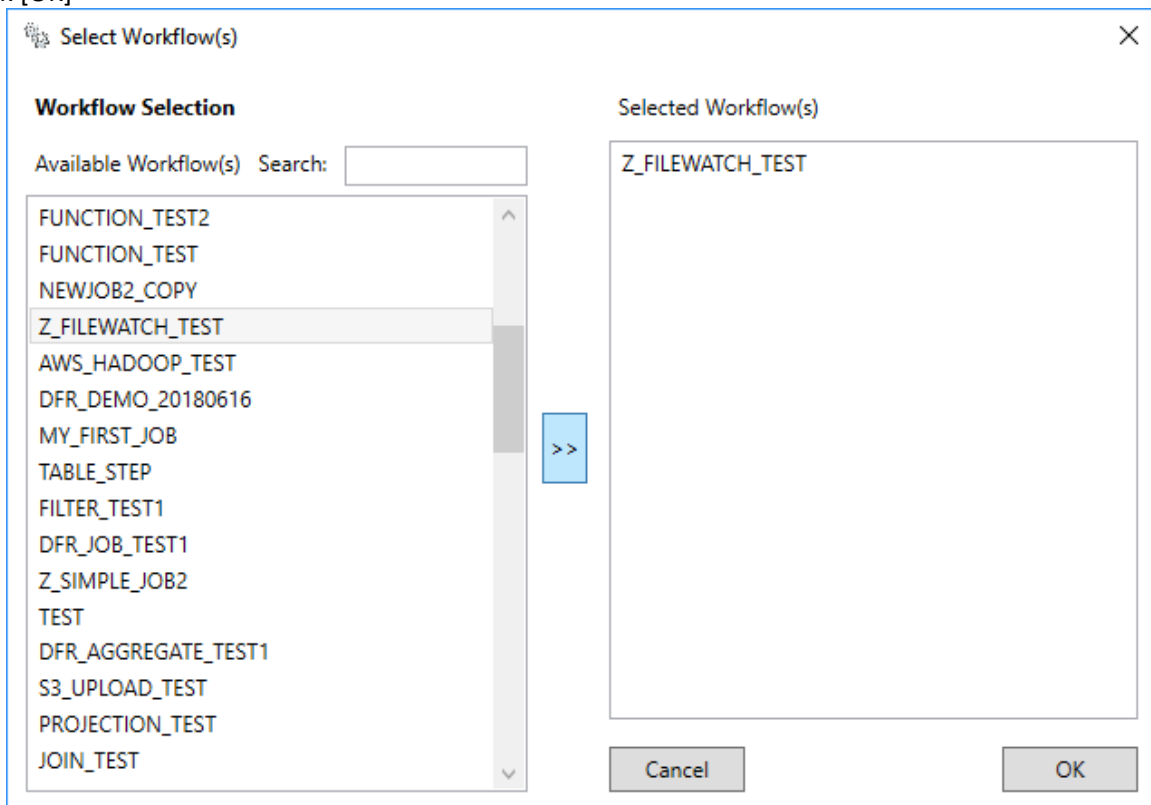
Exporting Workflow(s)

Login into source ELT Maestro Server where workflow(s) are supposed to be exported from.

- To launch Export Utility, on main window Click [Administration], Click [Migration], then Click [Export Workflow's]

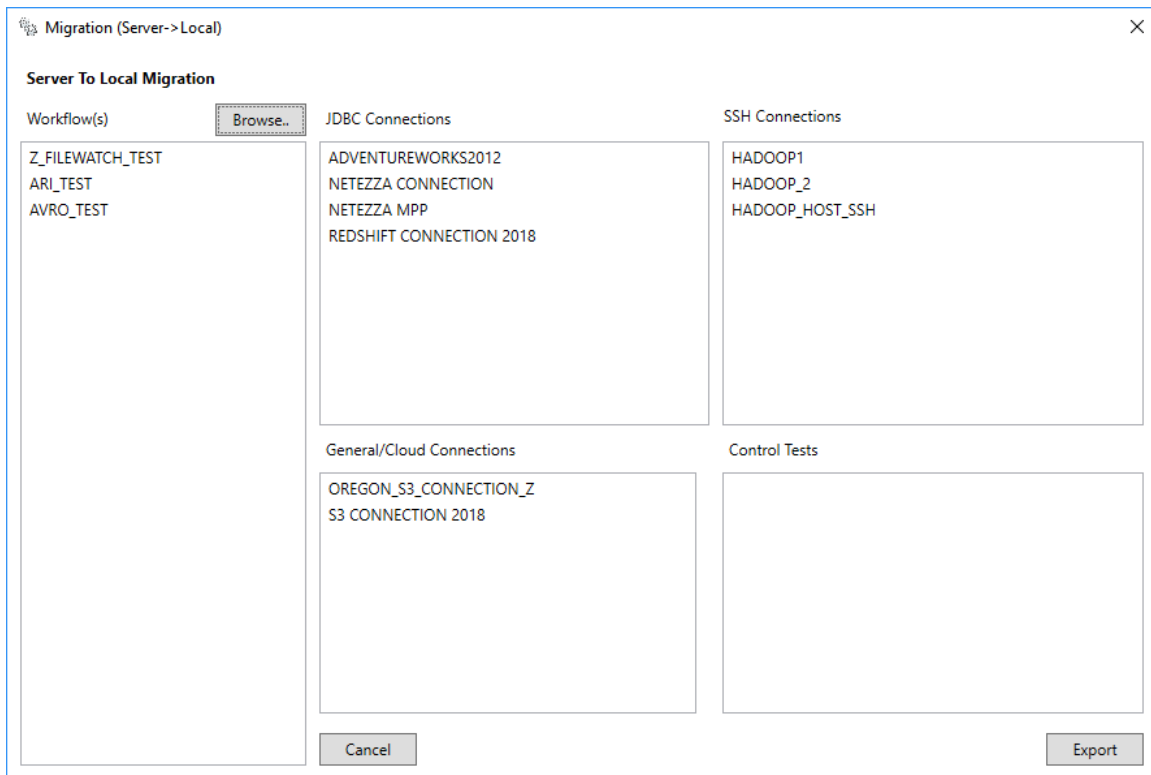


- Click [Browse] to opens workflow selection dialog
- Select workflow(s), then Click [>>] button to add to selection list
- Click [OK]

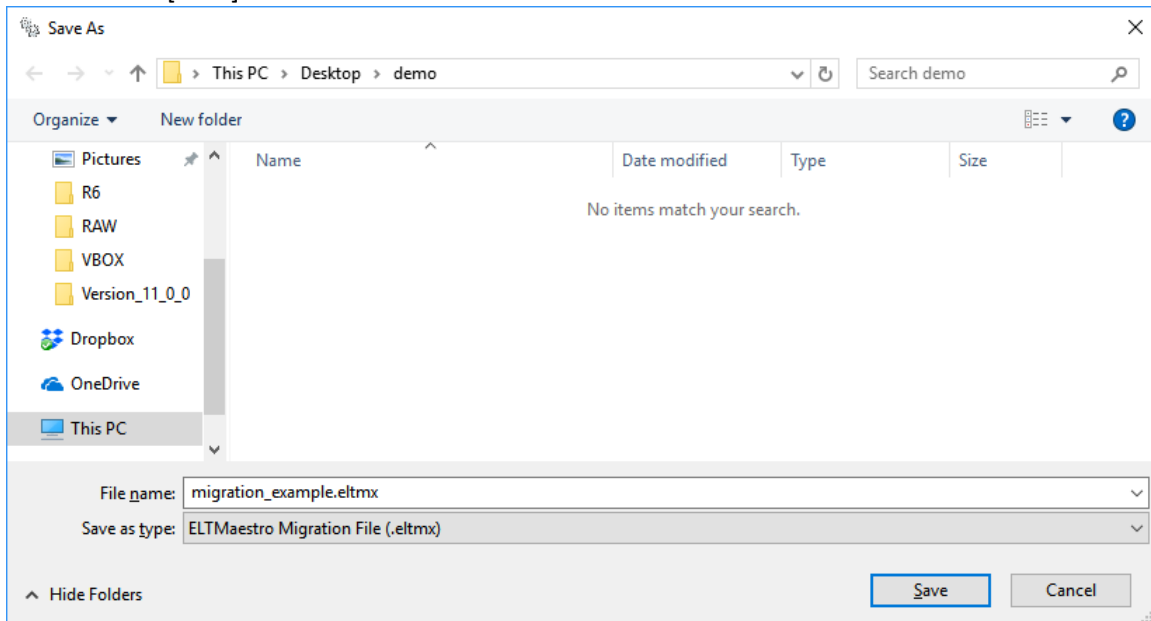


List of configuration objects are also shown.

- Click [Export]



- Browse and Click [Save]

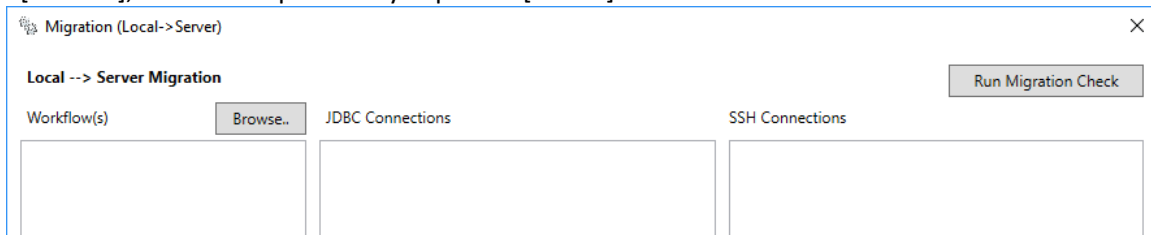


- Click [OK] on export message box

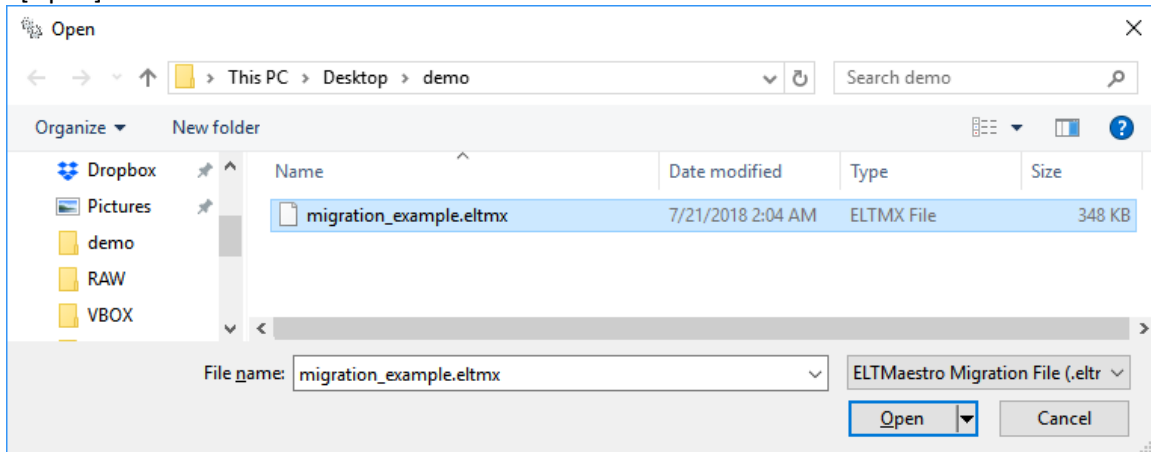
Note: If exported workflow contains hierarchy of other workflow(s) then those workflows are also exported automatically. For example, if workflow A runs workflow B and C then all workflows A,B and C are exported to the export file. **Current version of ELT Maestro does not support exporting or importing any Control Test objects.**

Importing Workflow(s)

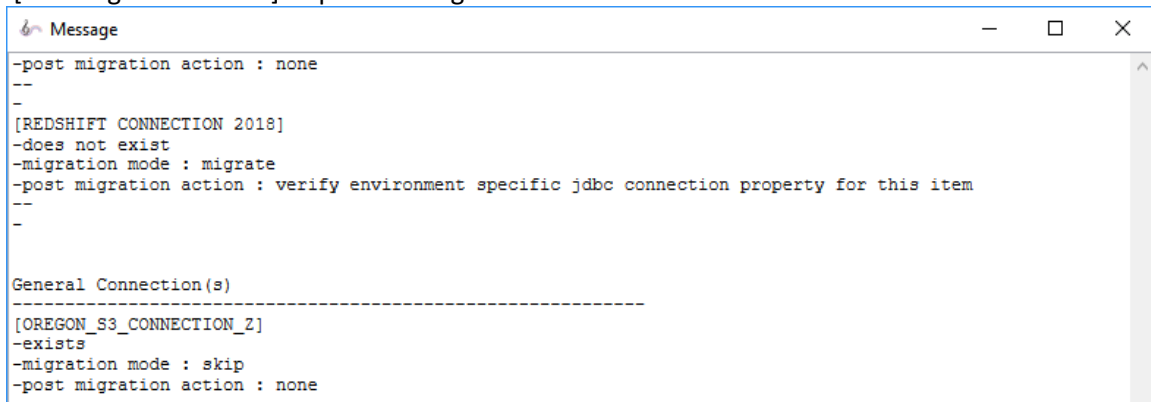
- Login into target ELT Maestro Server where workflow(s) are supposed to be imported to.
- Launch Import Utility. On main window Click [Administration], Click [Migration], then Click [Import Workflow's]
- Click [Browse], then select previously exported [.elmtx] file.



- Click [Open]



- Click [Run Migration Check] to preview migration actions



Note: Workflows(s) will be replaced on target during import if already exist. Other non-workflow objects like JDBC Connections are not replaced if they already exist on target server. If non-workflow objects do not exist on target server, they are still migrated with a post migration action comment to verify because you are migrating one environment configuration to another by copying if it does not exist. It is best practice to create non-workflow objects with same name on all environments to avoid. Please save the output of migration check to attend any post migration actions that can be potentially missed.

- If migration check output is acceptable, close the output window then Click [Import].

Migration result output is displayed after import is completed.

```
Message
[REDSHIFT CONNECTION 2018]
-does not exist
-migration mode : migrate
-post migration action : verify environment specific jdbc connection property for this item
-Migration SUCCESSFUL
-

General Connection(s)
-----
[OREGON_S3_CONNECTION_Z]
-exists
-migration mode : skip
-post migration action : none
-

[S3 CONNECTION 2018]
-exists
-migration mode : skip
-post migration action : none
-

Control Test(s)
-----
-
-
-
-
Migration Process Completed..
```

Import Logic:

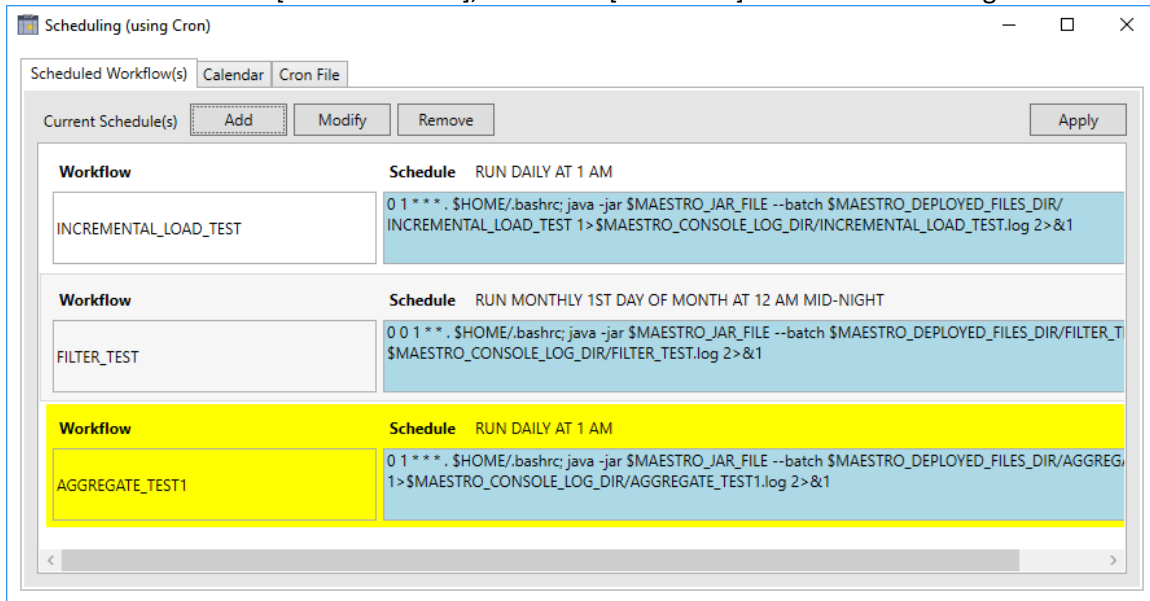
If workflow exists then replace, if not then create.

If Connections (JDBC, S3/Cloud, SSH) exist then don't migrate, if not then create but add a post-action item.

Workflow Scheduler

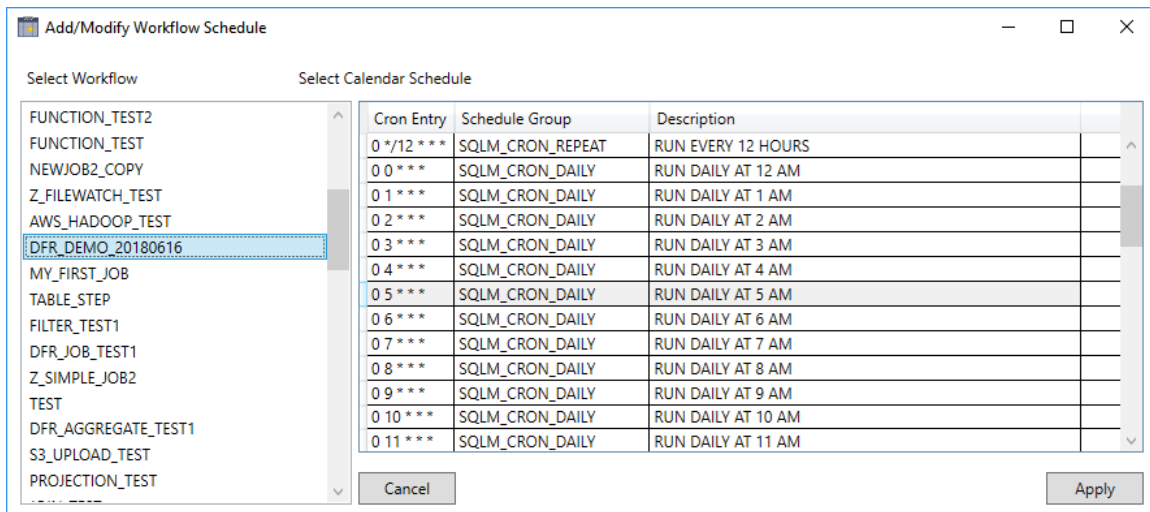
ELT Maestro utilizes cron to schedule workflow execution commands. This scheduler is very much like cron table editor, but only for ELT Maestro workflows.

- On the main window Click [Administration], then Click [Scheduler] to launch scheduling window.

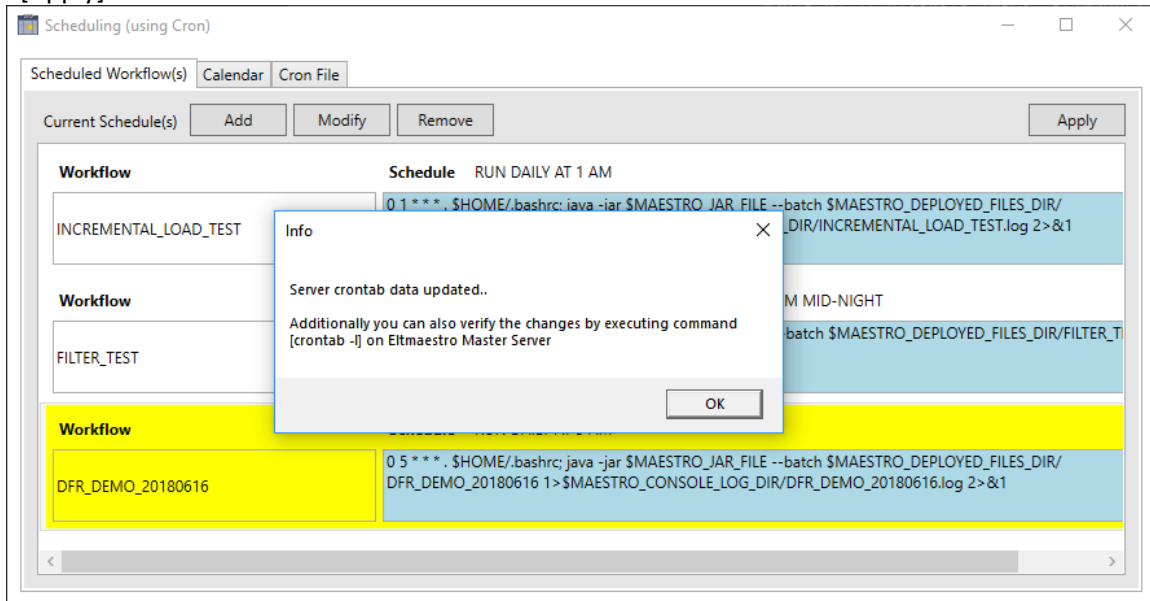


Adding workflow schedule

- Click [Add]
- Select a Workflow
- Select a Schedule
- Click [Apply]



- Click [Apply]



Modifying workflow schedule

- Select a workflow
- Click [Modify]
- Select a calendar
- Click [Apply]
- Click [Apply]

Deleting workflow schedule

- Select a workflow
- Click [Remove]
- Confirm [Yes] or [No]

Custom schedule

- Custom schedule can be created on [Calendar] tab. Click [Add] and fill in necessary inputs to create a custom schedule based on cron.

Support

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