



intalio

Intalio IAM

Custom Jobs Guide (EN)

Version: 1.0

Intalio is an international software provider with 30 years of innovation in the field of Content and Process Services. By combining cutting-edge technologies with AI and Machine Learning to introduce advanced Line of Business solutions, Intalio managed to become a trusted leader in Digital Transformation across the US, Europe, and the MENA region.

Vision.


Making business simple by connecting people, processes and content.

Table of Contents

- 1. IMPORT JOBS 3
- 2. DATA SOURCES..... 4
 - 2.1. Database.....4
 - 2.1.1. Push Database Table Users5
 - 2.1.2. Pull Database Table Users6
 - 2.1.3. Push Database Table Structures7
 - 2.1.4. Pull Database Table Structures8
 - 2.2. Active Directory 10
 - 2.2.1. Pull AD Users 11

1. Import Jobs

The custom jobs can be imported by using the IAM import feature.

 Please note that the integration data sources exceeding the IAM license limit will not be imported.

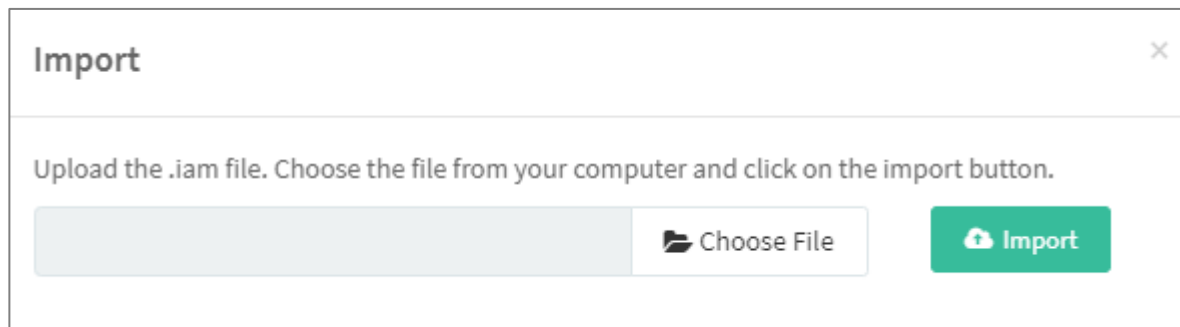
Therefore, before importing the jobs, make sure that the IAM license supports adding 2 new integration data sources.

To import the jobs, follow the below steps:

1. Login to IAM.
2. Go to Settings- > Parameters.
3. Click on the **Import** button located on the top of the page.



4. The following window will open:



5. Select the file to be imported. (. iam extension)
6. Click on **Import**.

The imported file will create 2 data sources: **Database** and **Active Directory** with their related user jobs.

Check the [data sources](#) section for more details.

2. Data Sources

The data sources are available under the integration menu.

2.1. Database

The **Database** data source is used by 2 user jobs: [Push Database table users](#) and [Pull Database table users](#).

Name *

Database

User

Class for push ⓘ

DatabaseUserIntegrationPush

Assembly fully qualified name for push ⓘ

Class for pull ⓘ

DatabaseUserIntegrationPull

Assembly fully qualified name for pull ⓘ

Structure




Class for push ⓘ

Assembly fully qualified name for push ⓘ

Class for pull ⓘ

Assembly fully qualified name for pull ⓘ

Properties

Name	Default value	Description	Mandatory	Encrypted	
DataBaseType	sql	Database type must be	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ConnectionString			<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Table			<input checked="" type="checkbox"/>	<input type="checkbox"/>	

The data source contains 2 classes:

- **DatabaseUserIntegrationPush**: for the user push job
- **DatabaseUserIntegrationPull**: for the user pull job

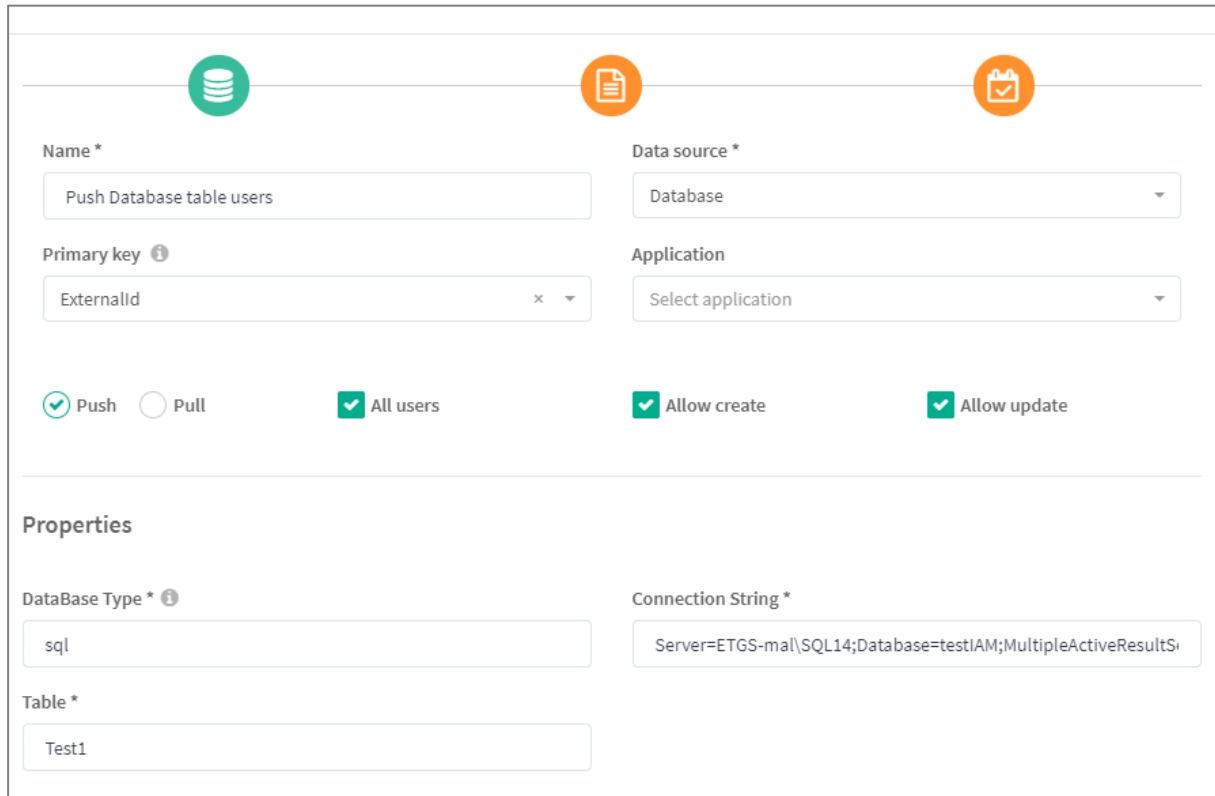
And the following properties:

- **DataBaseType**: must be one of the following > sql, postgresql, oracle, mysql
- **Connection String**: the database connection string to push to/pull from
- **Table**: the database table to push to/pull from

These properties should be filled for each of the data source's jobs.

2.1.1. Push Database Table Users

The **Push Database table users** job is a user job used to push IAM users to a database.



The screenshot shows the configuration interface for the 'Push Database Table Users' job. At the top, there are three icons: a green database icon, an orange document icon, and an orange calendar icon. Below these are three main sections:

- Name ***: A text field containing 'Push Database table users'.
- Data source ***: A dropdown menu with 'Database' selected.
- Primary key ⓘ**: A dropdown menu with 'ExternalId' selected and a clear button (x).
- Application**: A dropdown menu with 'Select application' selected.
- Options**: Four checkboxes: 'Push' (checked), 'Pull' (unchecked), 'All users' (checked), 'Allow create' (checked), and 'Allow update' (checked).
- Properties**: A section with three fields:
 - DataBase Type ***: A dropdown menu with 'sql' selected.
 - Connection String ***: A text field containing 'Server=ETGS-mal\SQL14;Database=testIAM;MultipleActiveResultS'.
 - Table ***: A text field containing 'Test1'.

Fill/Edit the job's configuration:

- **Name:** job name
- **Primary key:** if any, select from the IAM attributes dropdown the attribute related to the database primary key. (For this job a custom attribute must be selected)
- Either select **All Users** or select an application from the **Application** dropdown:
 - **All Users:** will push all IAM users.
 - **Application:** will push only the IAM users having access to the selected application.
- **Allow create:** check if the job should create new users.
- **Allow update:** check if the job should update existing users.
- **Properties:**
 - DataBase Type
 - Connection string
 - Table

Click next, fill the attributes mapping and set a schedule if needed.

Note: this job works with database having a primary key set as identity.

2.1.2. Pull Database Table Users

The **Pull Database table users** job is a user job used to pull users from a database to IAM.

The screenshot shows the configuration form for the 'Pull Database table users' job. At the top, there are four icons: a database icon, a user icon, a document icon, and a calendar icon. The form fields are as follows:

- Name ***: Pull Database table users
- Data source ***: Database (dropdown)
- Primary key ⓘ**: ExternalId (dropdown with a clear button 'x')
- Push/Pull**: ☐ Push, ☒ Pull
- Allow create**: ☒
- Allow update**: ☒
- Properties** section:
 - DataBase Type * ⓘ**: sql
 - Connection String ***: Server=ETGS-mal\SQL14;Database=testIAM;MultipleActiveResultSi
 - Table ***: Test1

Fill/Edit the job's configuration:

- **Name:** job name.
- **Primary key:** if any, select from the IAM attributes dropdown the attribute related to the database primary key. (For this job a custom attribute must be selected)
- **Allow create:** check if the job should create new users.
- **Allow update:** check if the job should update existing users.
- Properties:
 - DataBase Type
 - Connection string
 - Table

Click next, fill the attributes mapping and set a schedule if needed.

Notes:

- Firstname, lastname and email are mandatory and should be selected in the mapping of this job as its related class code use the mapping to populate the user's data and not the model properties.
- This job works with attribute selected in the primary key dropdown, if this is not your case, the class code must be modified.
- This job creates local users, if this is not your case, the class code must be modified.

2.1.3. Push Database Table Structures

The **Push Database table structures** job is a user job used to push IAM users to a database.

The screenshot shows the configuration form for the 'Push Database table structures' job. At the top, there are three icons: a database cylinder, a document, and a calendar. The form is divided into several sections:

- Name ***: A text input field containing 'Push Database table structures'.
- Data source ***: A dropdown menu with 'Database' selected.
- Primary key ⓘ**: A text input field with 'ExternalId' and a dropdown arrow.
- Structure type**: A dropdown menu with 'All' selected.
- Structures**: An empty text input field.
- Push/Pull**: Two radio buttons, 'Push' is selected.
- All structures**: A checked checkbox.
- Allow create**: A checked checkbox.
- Allow update**: A checked checkbox.
- Properties**: A section containing:
 - DataBase Type * ⓘ**: A text input field with 'sql'.
 - Connection String ***: A text input field with 'Server=ETGS-mal\SQL14;Database=testIAM;MultipleActiveResultSi'.
 - Table ***: A text input field with 'Structure'.

Fill/Edit the job's configuration:

- **Name:** job name.
- **Primary key:** if any, select from the IAM attributes dropdown the attribute related to the database primary key. (For this job a custom attribute must be selected)
- **Structure type:**
 - All: will push all structures.
 - Internal: will push only internal structures.
 - External: will push only external structures.
- Either select **All Structures** or select root structures from the **Structures** dropdown:
 - **All Structures:** will push all IAM structures.
 - **Structures:** will push only the selected root structures and their children.
- **Allow create:** check if the job should create new structures.
- **Allow update:** check if the job should update existing structures.
- **Properties:**
 - DataBase Type
 - Connection string
 - Table

Click next, fill the attributes mapping and set a schedule if needed.

Notes:

- This job works with database having a primary key set as identity.
- This job will not push the structure type. But the type is available in the StructureModel External attribute. To push it to your database, the code must be modified to include it in the query.
- This job will not push parent structures. To push it to your database, the code must be modified.

2.1.4. Pull Database Table Structures

The **Pull Database table structures** job is a user job used to pull users from a database to IAM.

The screenshot shows the configuration form for the 'Pull Database Table Structures' job. At the top, there are three icons: a green database icon, an orange document icon, and an orange calendar icon. The form is divided into several sections:

- Name ***: A text input field containing 'Pull Database table structures'.
- Data source ***: A dropdown menu with 'Database' selected.
- Primary key ⓘ**: A dropdown menu with 'ExternalId' selected and a close button (x).
- Structure type**: A dropdown menu with 'Internal' selected.
- Push/Pull**: Two radio buttons; 'Push' is unselected, and 'Pull' is selected.
- Allow create**: A checked checkbox.
- Allow update**: A checked checkbox.
- Properties**: A section containing:
 - DataBase Type * ⓘ**: A dropdown menu with 'sql' selected.
 - Connection String ***: A text input field containing 'Server=ETGS-mal\SQL14;Database=testIAM;MultipleActiveResultsS'.
 - Table ***: A text input field containing 'Structure'.

Fill/Edit the job's configuration:

- **Name:** job name.
- **Primary key:** if any, select from the IAM attributes dropdown the attribute related to the database primary key. (For this job a custom attribute must be selected)
- **Structure type:**
 - Internal: the pulled structures will be created as internal structures.
 - External: the pulled structures will be created as external structures.
- **Allow create:** check if the job should create new users.
- **Allow update:** check if the job should update existing users.

- Properties:
 - DataBase Type
 - Connection string
 - Table

Click next, fill the attributes mapping and set a schedule if needed.

Notes:

- Name is mandatory and should be selected in the mapping of this job as its related class code use the mapping to populate the structure's data and not the model properties.
- StructureParentId must be mapped to get the parent. If not mapped all structures will be added on the root.
- This job works with attribute selected in the primary key dropdown, if this not your case, the class code must be modified.

2.2. Active Directory

The **Active Directory** data source is used by 1 user job: [PULL AD users](#).

Active Directory

User

Class for push ⓘ

Choose File

Class for pull ⓘ

Choose File

Assembly fully qualified name for push ⓘ

Assembly fully qualified name for pull ⓘ

ActiveDirectoryUserPull

Structure

Class for push ⓘ

Choose File





Class for pull ⓘ

Choose File

Assembly fully qualified name for push ⓘ

Assembly fully qualified name for pull ⓘ

Properties

Name	Default value	Description	Mandatory	Encrypted	
LDAP			<input checked="" type="checkbox"/>	<input type="checkbox"/>	
OU			<input type="checkbox"/>	<input type="checkbox"/>	
ActivatedAccountAttributeName	UserAccount	Name of the	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
ActivatedAccountAttributeValue	66048	Value of the	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

The data source contains 1 class:

- **ActiveDirectoryUserPull:** for the user pull job.

And the following properties:

- **LDAP**
- **OU:** Organizational Unit.
- **Activated Account Attribute Name:** Name of the attribute used to determine the status of the account in the AD.
- **Activated Account Attribute Name:** Value of the attribute used to determine the status of the account in the AD.

These properties should be filled for each of the data source's jobs.

2.2.1. Pull AD Users

The **Pull AD users** job is a user job used to pull users from an active directory to IAM.

The screenshot shows the configuration form for the 'Pull AD users' job. At the top, there are four icons: a database, a user, a document, and a calendar. The form fields are as follows:

- Name ***: Text input with 'PULL AD users'.
- Data source ***: Dropdown menu with 'Active Directory' selected.
- Primary key ⓘ**: Dropdown menu with 'Select primary key'.
- Push/Pull**: Radio buttons; 'Push' is unselected, 'Pull' is selected.
- Allow create**: Checkmark is selected.
- Allow update**: Checkmark is selected.
- Properties** section:
 - LDAP ***: Text input with 'LDAP://BEIRUT-01'.
 - OU**: Text input with 'OU=EVER-LEBANON,OU=EVERTEAM-MEA-USERS,DC=everteam-me'.
 - Activated Account - Attribute Name * ⓘ**: Text input with 'UserAccountControl'.
 - Activated Account - Attribute Value * ⓘ**: Text input with '66048'.

Fill/Edit the job's configuration:

- **Name:** job name.
- **Allow create:** check if the job should create new users.
- **Allow update:** check if the job should update existing users.
- **Properties:**
 - LDAP. (value should be equal to the LDAP value of an existing login provider otherwise it won't retrieve any users (no error logged))
 - OU.
 - Activated Account – Attribute Name.
 - Activated Account – Attribute Name.



In the imported job, as an example, the properties values are filled based on Everteam's active directory, they should be edited based on the client's AD



This job only works on Windows OS.

Click next, fill the attributes mapping and set a schedule if needed.

In this custom job, the user data are not returned in the IntegrationUserModel properties, they are instead all filled in the model's attributes property.

For the attribute mapping, by default the job will import the following:

- First name: givenname
- Last name: sn
- Email: mail
- Username: samaccountname

Therefore, if you need to pull any additional fields, you need to:

- Select the attribute in the mapping section and set its relative AD property name.
- Edit the custom class. (Download it from the data source, edit it then upload it again)
 - Add these additional attributes in the List method.