Admin User Guide

Kryon RPA

v20.9.8

@2021 Kryon Systems, All rights reserved

Document revision: 29-Sep-2021

Contents

Introduction

An Overview of Kryon Admin 5
Glossary 6
Accessing Kryon Admin 8
A Tour of Kryon Admin 9

Managing Companies

Creating a Company 12
Deleting a Company 14

Activating Your Kryon RPA License

Two Methods of License Activation 16
Activating via the Internet 16
Activating without the Internet 16
Creating a Company Key 17
Activating Your License 18

Enabling the Kryon Credentials Vault

Integrations

Integrating with Microsoft Azure Cognitive Services 22

Managing Users

User Management: An Overview 24
RPA Authentication Method 24
User Roles 24
Users and Roles in Aerobase/Keycloack and Kryon Admin Tool 26
Users type overview 26
Creating and managing Admin users 26
Kryon application users vs. Admin users 30
Kryon client application user roles 31
Download the Import Users file template 33
Import the file 33
User Management in Aerobase Admin Portal 35
Resetting User Password 35
Enabling account-Lock after failed login attempts 35
Unlocking User Account 35
Enabling User Account Audit Trail 36
Syncing from a User Federation 37
Connect a federation with a company 37

Sync users to Kryon Admin 38
Creating User Groups 39
Managing Applications
Adding an Application 42
Application Identification Methods 44
Adding identification methods and conditions 44
Recommended identification methods 45
Additional identification methods 45
Exporting/Importing Application Properties 47
Exporting application properties 47
Importing application properties 47
Managing Libraries
Catalog Structure 51
Creating a Library 52
Deleting a Library 54
Managing Permissions
Activating the Permission System 56
Setting Library Permissions 56
Setting Wizard/Sensor Catalog Permissions 58
Setting User Permissions 59
Setting General Permissions 59
Multi-Tenancy Support
Enabling Multi-Tenancy Support 61

Introduction

In this chapter:

An Overview of Kryon Admin 5
Glossary 6
Accessing Kryon Admin 8
A Tour of Kryon Admin 9

An Overview of Kryon Admin

Kryon Admin is the application used by administrators to manage the Kryon RPA Platform: setting up companies, managing licensing and credentials, defining automation libraries and supported applications, etc.

After installation of the Kryon RPA Server and clients (Kryon attended/unattended robots and Studio), the next step is to set up the RPA environment using Kryon Admin. (For complete information on installing the Kryon RPA Server and clients, see the *Kryon RPA Platform Installation & Upgrade Guide*).

These are the steps required to set up the Kryon RPA environment:

- Create a company
- Activate the Kryon RPA license
- Enable the Kryon Credentials Vault
- Add users
- Define the business applications that will be used in automations
- Create libraries in the catalog (to house all automations)

Each of these steps is covered in a separate chapter of this guide.

Glossary

The following terms are essential to understanding Kryon RPA functionality and are used throughout this guide.

Term	Description
RPA developer	A Kryon Studio user who creates, edits and manages Kryon automations
Robotic Process Automation (RPA)	A form of process automation technology based on the notion of software robots. A robot is a software application that replicates the actions of a human being interacting with the user interface of a computer system. For example, the execution of data entry into an SAP system – or indeed a full end-to-end business process – would be a typical activity for a software robot. The robot operates on the user interface (UI) in the same way that a human would. In addition Kryon's technology can run background activities using web services, SQL queries, DLL and integration technologies (such as SAP, HTML, .NET, Excel, PDFs, emails, etc.) Kryon RPA can also assist human end users in performing their tasks, either by walking them through the task step-by-step or by performing the task for them right on their desktop
Kryon RPA Server	The Kryon RPA Platform is a client-server solution. Kryon robots, running on client desktops/VMs, are connected to a central server (repository) to obtain and execute automation wizards. The Kryon Server is a central repository that stores all automations, collects end-user usage statistics, and manages licenses and permissions.
Robot	A lightweight client that runs wizards on target applications • Unattended robot: installed on a virtual machine and runs wizards with no human intervention • Attended robot (known as **Kryon Assistant**): installed on an end-user desktop and runs wizards on the user's applications
Catalog	A hierarchical tree of libraries, categories and automations for predefined applications
Library	The top-level folder in the catalog, containing the categories that, in turn, contain automations

Term	Description
Category	A library subfolder that contains automations
Automations	Wizards and sensors listed in the catalog
Wizard	An intelligent pre-developed script – created using Kryon Studio, stored on the Kryon RPA Server, and run by Kryon robots • In the context of Kryon's unattended automation solution, unattended robots automatically run wizards on target applications • In the context of Kryon's attended automation solution, human end-users run wizards on target applications using attended robots
Sensor	A powerful guard that intervenes only when a predetermined criteria is met, as if there were a trainer watching over the user's shoulder Sensitive to the context on the screen and to user behavior, sensors are used to push notifications and relevant information, as well as to validate user input and block user errors.

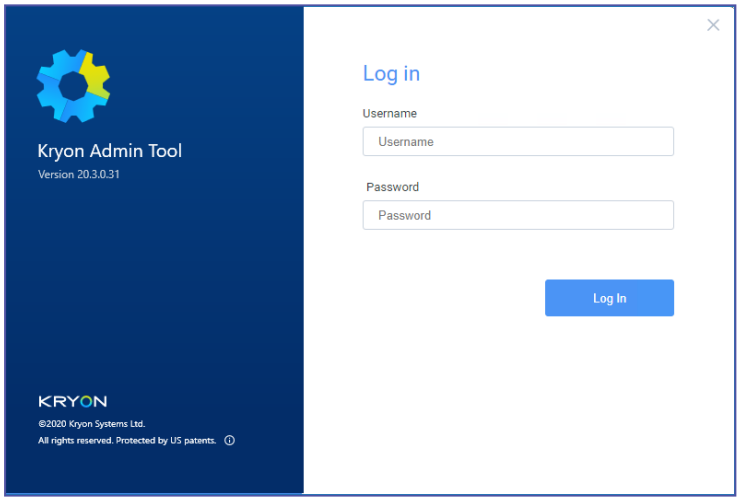
Accessing Kryon Admin

Kryon Admin is installed automatically on the server as part of the RPA server installation.

> **NOTE**
>
> The default installation path for the Kryon Admin application is `{Install Folder}\RPA\Kryon Admin Client 64bit\`.

To launch Kryon Admin:

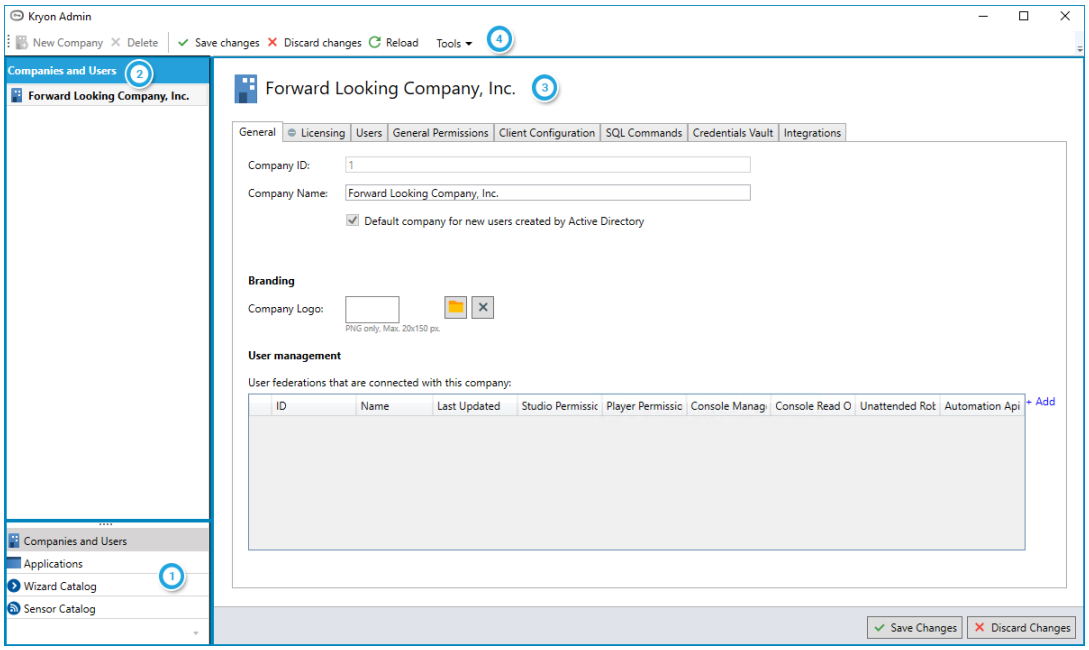
1. Go to the **Windows Start** button and type `Kryon Admin` (or simply scroll down to its icon in the menu)



2. Log in to the **Kryon Admin** with these credentials:
   - **Username:** sitemanager
   - **Temporary password:** Aa123456!
     - You will be prompted to change the temporary password upon first login.

A Tour of Kryon Admin

The Kryon Admin main window is organized into panes, as further detailed below:



1 Menu Pane

Kryon Admin enables you to work with the main elements of the RPA platform:

- Companies and Users
- Applications
- Catalogs (i.e., the Wizard Catalog and the Sensor Catalog)

These main elements are listed in the **Menu Pane**

2 Entities Pane

When you select an element in the **Menu Pane**, the **Entities Pane** will list all the entities that have been created within that element:

- When you select **Companies and Users**, the **Entities Pane** will list all companies
- When you select **Applications**, the **Entities Pane** will list all applications
- When you select the **Wizard Catalog**, the **Entities Pane** will list all libraries in the wizard catalog and the categories within them
- When you select the **Sensor Catalog**, the **Entities Pane** will list all libraries and the categories within them

NOTE: The Wizard and Sensor Catalogs share the same libraries. Categories

created within the libraries vary between the Wizard and Sensor Catalogs.

3 **Properties Pane**

When you select an entity in the **Entities Pane**, the **Properties Pane** will display all the properties relevant to the selected entity type. Properties are organized in tabs to make them easier to locate and navigate.

- For example: If you have selected **Applications** from the **Menu Pane**, then selected a specific application from the **Entities Pane** → the **Properties Pane** will display all of that application's properties

4 **Toolbar**

The toolbar located at the top of the Admin screen provides access to additional actions related to the type of element you are working with.

Managing Companies

A company is the basic organizational unit within the Kryon RPA Platform. A company can be an entire organization, or a division, unit, or team within that organization.

Each company has its own:

- Users/user groups
- Kryon RPA license

In this chapter:

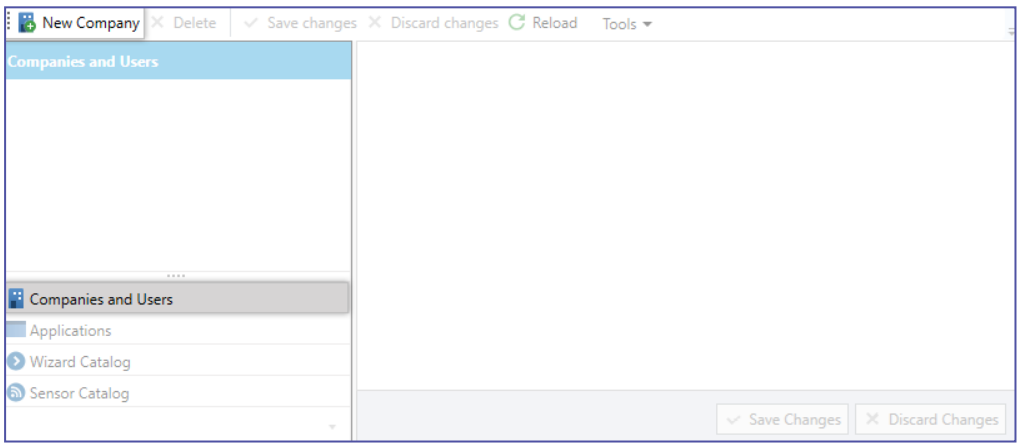
Creating a Company 12
Deleting a Company 14

Creating a Company

> **NOTE**
>
> This guide covers the setup of a single company per Kryon RPA Server. If your organization requires more than one company per server, contact the Kryon Support Team for assistance.

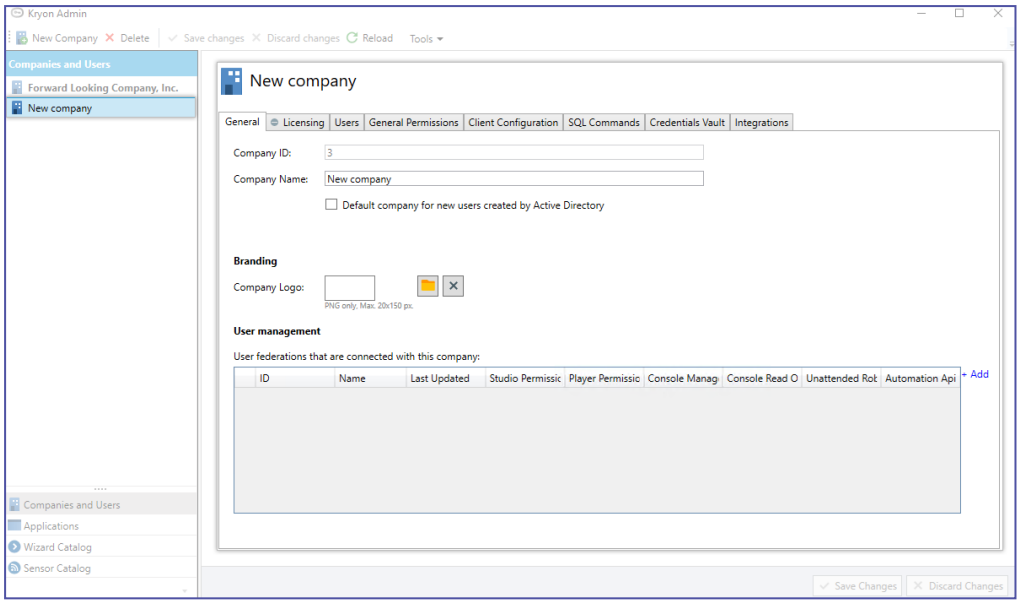
To create a company:

1. In the Menu Pane, click **Companies and Users**
2. From the toolbar, click the **New Company** button



3. An company called **New company** is created in the Entities Pane

   The new company is automatically selected, and its properties appear in the Properties Pane, with the **General** tab active



4. Enter a name for the company in the **Company Name** field
5. Click the Save Changes button

Deleting a Company

To delete a company:

1. In the Menu Pane, click **Companies and Users**
2. In the Entities Pane, select the company you want to delete
3. From the toolbar, click the

button
4. In the confirmation message, click **Yes**

CAUTION

When you delete a company, its users, user data, and license information are also deleted.

Activating Your Kryon RPA License

In this chapter:

Two Methods of License Activation 16
Creating a Company Key 17
Activating Your License 18

Two Methods of License Activation

In order to use the Kryon RPA platform, you must first receive a license file from your Kryon RPA sales contact. In the most cases, the license file requires activation via the Internet. However, if your Kryon RPA Server does not have readily available internet access, you can receive a license file that does not require internet activation.

Activating via the Internet

If you will be activating your license via the Internet:

1. Follow the steps described in Activating Your License.
    - Skip **Creating a Company Key**, as these steps do not apply to internet activation

Activating without the Internet

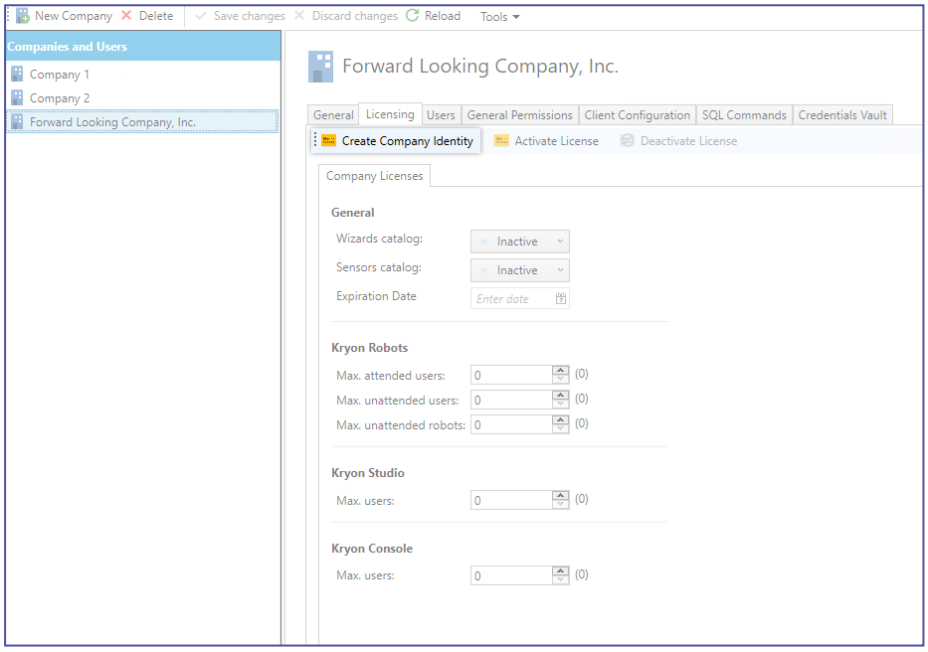
If you will be activating your license without an internet connection:

1. Follow the steps in Creating a Company Key
2. Then proceed to the steps in Activating Your License

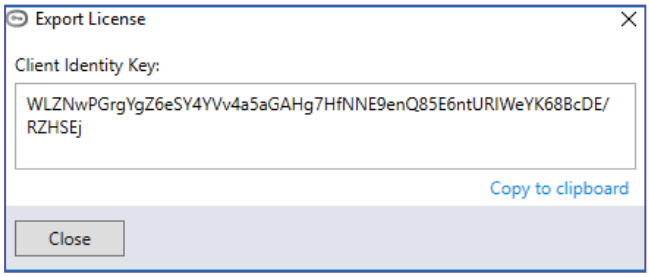
Creating a Company Key

To create a company key:

1. In the Menu Pane, click **Companies and Users**
2. In the Entities Pane, select the company for which you want to create a key and receive a license
3. In the Properties Pane, select the **Licensing** tab
4. Click **Create Company Identity**



5. From the dialog box that opens, click **Copy to clipboard** to copy the generated company key



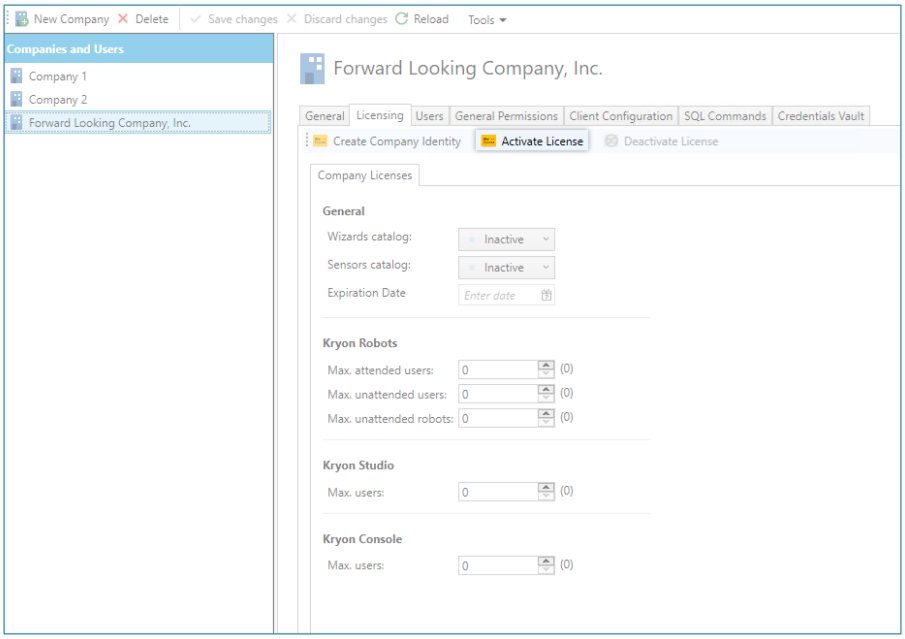
6. Send the company key to your Kryon RPA sales contact, who will use it to generate your license file
7. After you receive your license file, proceed to Activating Your License

Activating Your License

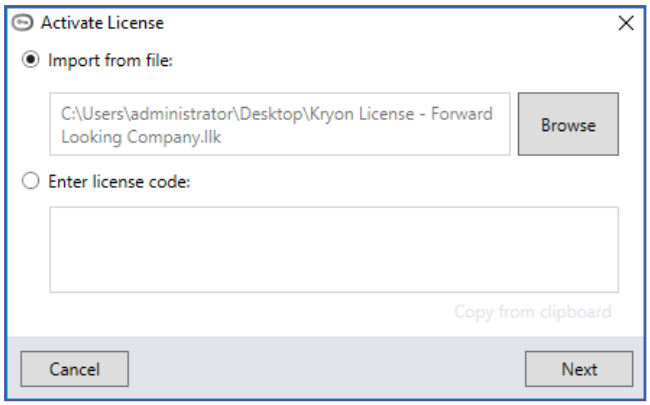
> **NOTE**
>
> The following steps apply to both license activation methods (either with or without the Internet)

You will receive a license file – `Kryon License - {Company Name}.llk` – from your Kryon RPA sales contact. Save the file to a location from which you can easily access it on the Kryon RPA Server, then follow these steps to activate it in Kryon Admin:

1. In the Menu Pane, click **Companies and Users**
2. In the Entities Pane, select the company for which you are activating the license
3. In the Properties Pane, select the **Licensing** tab
4. Click **Activate License**



5. From the dialog box that opens, select the option **to Import from file**, click Browse and navigate to the license file you saved



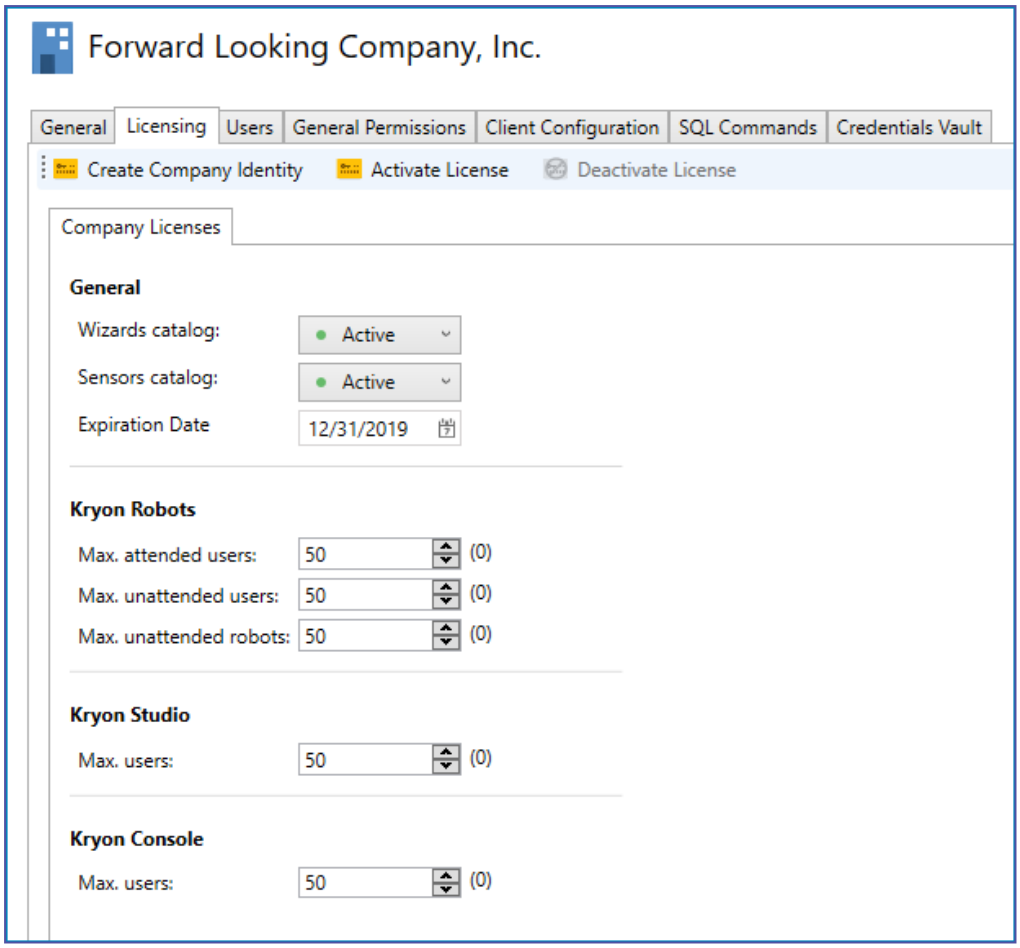
6. Click Next

7. For internet activation licenses (i.e, created without a company key), you will be prompted to activate via the Internet. Ensure that you are connected, then click Activate .

   - or -

   For non-internet activation licenses (i.e., created **with** a customer key), you will be prompted simply to activate (without a required internet connection). Click Activate .

8. You will receive a message that activation was successful, and all the relevant details of the license (expiration date, maximum number of users for platform components, etc.) will be automatically populated



9. Click the Save Changes button

Enabling the Kryon Credentials Vault

The Kryon Credentials Vault provides secure storage for the usernames and passwords used by robots. The credentials are stored using a 2-phase encryption mechanism, which allows only Kryon clients to retrieve and decrypt the data and enter the credentials when required.

When the Credentials Vault is enabled, the credentials themselves are managed through Kryon ConsoleX and/or Kryon Studio. For complete details, see the Credentials chapter of the *Kryon ConsoleX User Guide*.

To enable the Kryon Credentials Vault:

1. In the Menu Pane, click **Companies and Users**
2. In the Entities Pane, select the company for which you want to enable the Credentials Vault
3. In the Properties Pane, select the **Credentials Vault** tab
4. Click the

button
5. Choose whether access to the Credentials Vault (from ConsoleX and Studio) should be password protected
    - If so, click the **Set Password** link to set the Credentials Vault password
6. Click the

button

IMPORTANT NOTE: If you are using License Type 2 segregation level, you must turn the Credentials Vauls off.

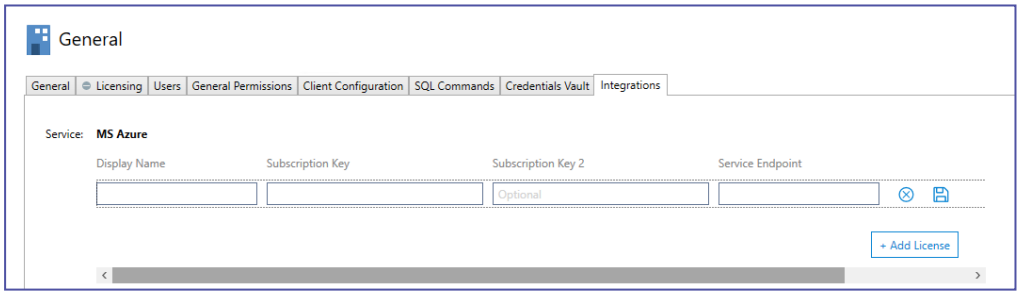
Integrations

The integration tab in the **Admin** Tool lets you configure licenses of 3rd party services. This option lets you manage the services licenses in Admin, while allowing the studio user to use the services without configuring the service credentials for each service AC. It is also possible to add the credentials in the studio, at each use in the Advanced Command itself.

Integrating with Microsoft Azure Cognitive Services

You can configure Microsoft Azure Cognitive Services license:

1. In the Menu Pane, click **Companies and Users**.
2. In the Entities Pane, select the company for which you want to configure the integration.
3. In the Properties Pane, select the **Integrations** tab
4. Insert the required details for the integration. See
   Note: All fields are mandatory expect for the "Subscription key 2".



Managing Users

Each company in the Kryon RPA environment has its own authorized users. The company's Kryon RPA license determines the maximum number of authorized users for each platform component.

In this chapter:

User Management: An Overview 24
Users and Roles in Aerobase/Keycloack and Kryon Admin Tool 26
User Management in Aerobase Admin Portal 35
Syncing from a User Federation 37
Creating User Groups 39

User Management: An Overview

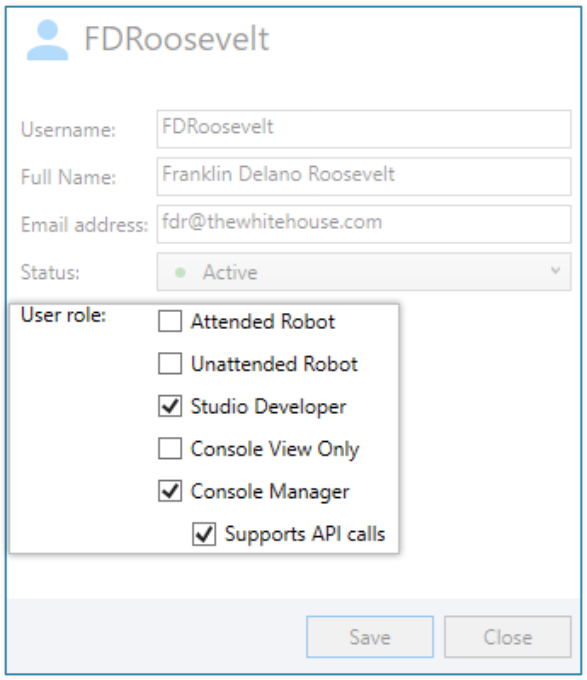
RPA Authentication Method

User management in the Kryon RPA Platform depends on the authentication method selected at the time of Kryon RPA Server installation:

- **Username & Password authentication –** client applications will connect to the Kryon RPA Server using credentials configured specifically for the RPA platform and defined in Kryon Admin
  - User credentials can be created individually or imported from a CSV file
- **Domain authentication (Kerberos)–** client applications (including unattended/attended robots, Studio, and Console) will connect to the Kryon RPA Server using network credentials defined in Windows Active Directory. When this method is used, users are initially synced into Admin from a user federation configured at the time of RPA server installation. Then, they will be automatically added according to domain rules the first time they access a Kryon client application.
  - When using the Domain Authentication method, users can also be created manually through Kryon Admin, but this is not generally required.

User Roles

Each user of the Kryon RPA platform is assigned one or more user roles. These roles determine which platform component(s) each user is able to access.



User Role	Description
Attended Robot	A human end-user who will run automations on his/her desktop via the Kryon Assistant client
Unattended Robot	A virtual user that will run automations without human intervention via the Kryon Robot client (generally installed on a virtual machine)
Studio Developer	An automation developer who will record/create/edit automations in Kryon Studio
Console View Only	An manager or user who will monitor and analyze unattended robot/task performance, but will not schedule or edit robot/task scheduling
Console Manager	An RPA administrator who will schedule and manage unattended robot tasks using Kryon Console **NOTE:** This could also be a user created in order to schedule and manage tasks via API call. Assign this type of user the **Console User** role, then tick the Supports API calls checkbox that appears underneath.

Users and Roles in Aerobase/Keycloack and Kryon Admin Tool

Users type overview

Kryon RPA solution and components feature two types of users; Kryon RPA **Admin user**, and Kryon **client application user**.

Admin user:

- A user that can access the Kryon management component; Kryon Admin Tool.
- Admin user can create client application users if it has the appropriate roles.
- Admin users can be initially created and managed in Aerobase/Keycloack.
- Once an Admin user is created with the appropriate access role in Aerobase, the same user can create and manage more Admin users directly through the Kryon Admin Tool.

Client application user:

- A user with different types of access as assigned by the Admin user.
- With the appropriate roles, the client application user can access the Kryon RPA client applications; Kryon Console, Studio, and Attended/Unattended Robots.

Creating and managing Admin users

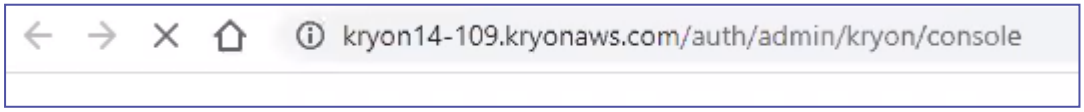
To access and use the **Kryon Admin Tool**, you need to create a user on **Keycloak Admin Console** and assign the user the appropriate roles as described in the table below.

Note: The password created for the admin user ***must not*** contain @ (at sign).

Step 1: Open Keycloak Admin Console / Aerobase by logging in using the `Authadmin` user credentials as provided in the documentation.

URL format to access the management tool: `FQDN/auth/admin/Kryon/console/`

EXAMPLE:



- **Note:** The `Authadmin` user provides access and user management permission on **Keycloak Admin Console** only. This user has one assigned role to it, the

`auth-admin-access` role. Make sure not to modify the roles of this user unless you are instructed to by Kryon Support.

Step 2: Go to **Manage** > **Users** > **Create User** and create a user.

Step 3: Click the **Role Mappings** tab to assign roles to the user as following:

a. Assign the `admin-access` role (Realm Roles) + `Kryon-admin-tool` (Client Roles).

b. Assign one or more of the following Realm roles considering the type of access and permissions each role allows:

Role	Allowed access and permission type
admin-catalog	• **Wizard Catalog (view+manage)** • **Sensor Catalog (view+manage)** • **Applications (view+manage)** • **License (activation only)** • **Companies and Users (view only)**
admin-permissions	• **Wizard Catalog (view+manage)** • **Sensor Catalog (view+manage)** • **Applications (view+manage)** • **License (activation only)** • **Companies and Users (view+manage)** • **Client application users (view+manage)**
admin-license	• **Wizard Catalog (view+manage)** • **Sensor Catalog (view+manage)** • **Applications (view+manage)** • **License tab (activation only)** • **Companies and Users (view+manage)** • **Client application users (view+manage)** • **Admin users (view+manage)***

Notes:

- In **Orange**: The common access and permissions between the three (3) roles.
- In **Green**: The common access and permissions between the `admin-permissions` and the `admin-license` roles.
- Any other roles are not relevant and can be disregarded.

*A user with `admin-license` role can create and manage other Admin users and Kryon client application users directly through the **Kryon Admin tool**.

Kryon application users vs. Admin users

Kryon client application users are managed under the **Users** tab (Kryon Admin Tool > General > Users). Only Admin users with the assigned roles of either `admin-permissions` or `admin-license` can manage (create new users and edit existing users) Kryon client applications users.

Creating a new user

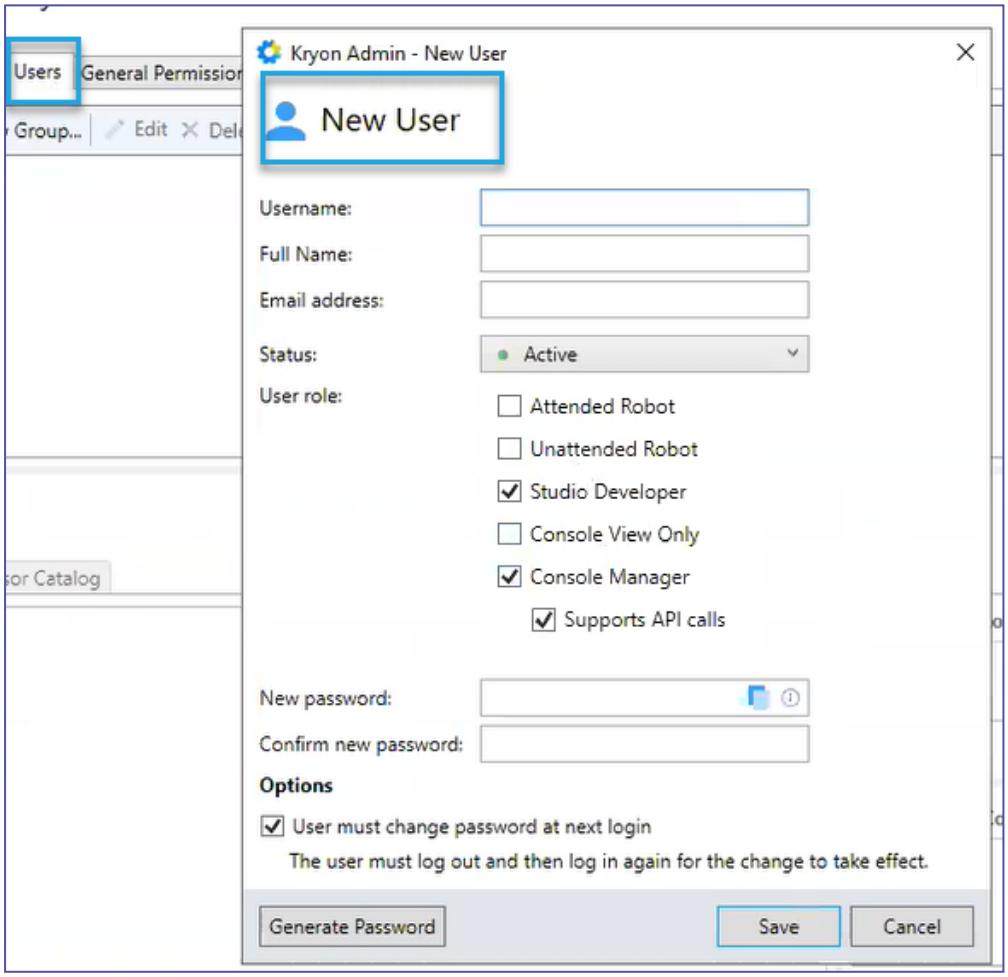
a. In the Menu Pane, click **Companies and Users**

b. In the Entities Pane, select the company for which you are creating a user

c. In the Properties Pane, select the **Users** tab

d. Click **New User**

e. Enter the required information in the **New User** dialog then click **Save**



1. Enter a username, full name, and email address
2. Select whether the new user is active

   NOTE: Generally, the default value of `Active` is applicable to new users. However, the user status can be changed at any time.
3. Assign the user to one or more roles
4. Enter and confirm new password
   - Password-related fields are not applicable to Domain authentication and will not be visible when this authentication method is used
   - Passwords require a minimum of 8 characters and must include at least 2 of the following: uppercase letters, lowercase letters, numbers, and symbols
   - To create a random-generated password, click **Generate Password**
   - To copy the password to the Windows clipboard, click the icon
5. Select whether the user is required to change the password the next time he/she logs in

   NOTE: This is often appropriate for human users, but not for unattended robots

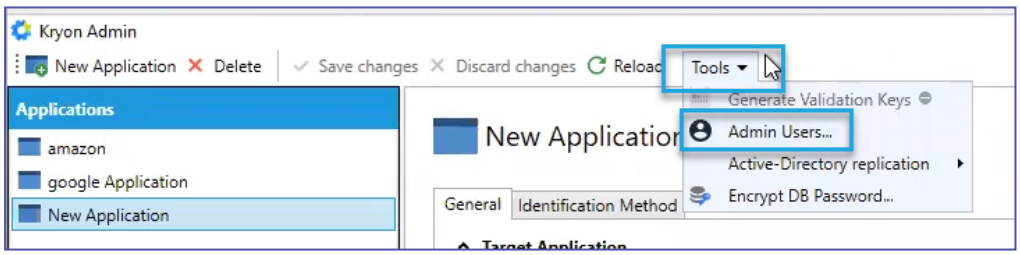
Kryon client application user roles

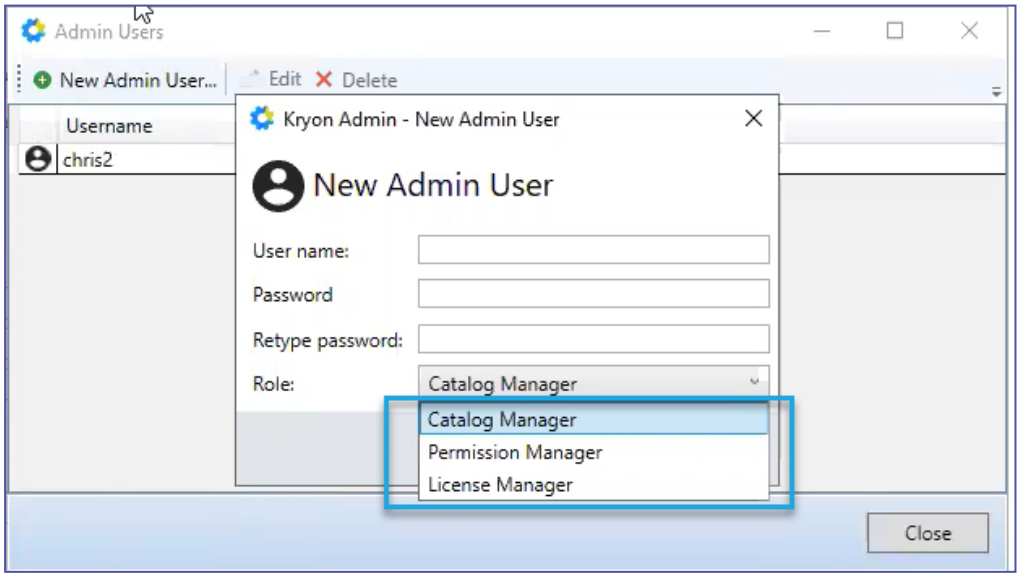
Client application roles can be managed directly through the Kryon Admin Tool (recommended). You can also manage the same exact roles through Aerobase/Keycloak. The table below maps out the roles as they appear in the **Kryon Admin Tool** and their equivalent roles in **Aerobase/Keycloak**.

Role in Kryon Admin Tool	Role in Aerobase/Keycloack	Description
Attended Robot	attended-robot	A human-end-user who runs automations on the desktop via the Kryon assistant (Robot) client
Unattended Robot	unattended-robot	A virtual user that runs automations without human intervention via the Kryon Robot Client (generally initiated on a virtual machine)
Studio Developer	studio-developer	An automation developer who records/creates/edits automations in Kryon Studio
Console View	console-view-only	A permission to view the available

Only		information in the Kryon RPA ConsoleX
Console Manager	console-user	An RPA administrator who schedules and manages unattended Robot tasks using Kryon ConsoleX. This could also be a user created to schedule and manage tasks via API calls. Assign this type of user the ConsoleX User role, then tick the Supported API calls check-box that appears underneath (Supported API calls).
Supported API Calls	supports-api-calls	This role allows the user to schedule and manage tasks via API calls. This role become available only when the `Console Manager` role is selected.
Note: Any other roles are not relevant and can be disregarded.		

- **Kryon RPA Admin users** are managed under **Tools** in the Kryon Admin Tool. The roles available are equivalent to the roles in Keycloak/Aerobase as described above (Step 3 > Role Mapping > b.).





Notes:

- Admin users created by the Kryon Admin Tool can be viewed and managed through Aerobase (Keycloak Admin Console) and through the Kryon Admin tool.
- Admin users created by Aerobase are managed and viewed only on Aerobase (Keycloak Admin Console).

Importing users

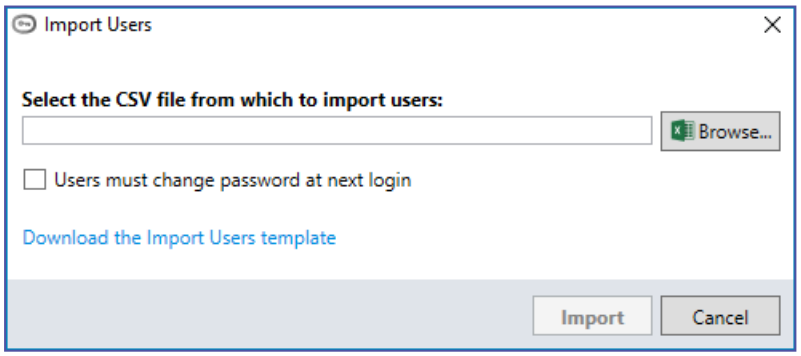
To make it easy to create a large number of users at one time, Kryon Admin allows you to import them from a CSV file. Doing so is a 3-stage process:

1. Download the **Import Users** file template
2. Fill in the template with user information
3. Import the file

Download the Import Users file template

To download the **Import Users** file template:

1. Go to **Companies and Users** and select the **Users** tab
2. Click the Import users... button
3. In the dialog box, click the link to **Download the Import Users template** and select a download location



Import the file

To import the completed Import Users file:

1. Go to **Companies and Users** and select the **General** tab
2. Click the Import users... button

3. In the dialog box, click the **Browse** button and navigate to the **Import Users** CSV file you created
4. Tick the checkbox if users are required to change their passwords the next time they log in

   NOTE: This is often appropriate for human users, but not for unattended robots
5. Click the **Import** button

The users listed in the file are created.

User Management in Aerobase Admin Portal

To access the portal, use the URL **http://[FQDN or IP]/auth/admin/Kryon/console/#/realms/kryon**.

Resetting User Password

To reset a user password:

1. Go to **Users** (under Manage on the left pane)
2. Search for the intended user or view all
3. Click on the hyperlinked user ID
4. Open the **Credentials** tab
5. Type in **New Password** and **Password Confirmation** - Password must be at least 9 characters in length
6. If password is a temporary one and requires reset on 1st login, leave "**Temporary**" as **ON**
   If reset password on 1st login is not required, set "**Temporary**" to **OFF**
7. Click **Reset Password**

Enabling account-Lock after failed login attempts

To enable account-lock after a number of failed login attempts:

1. Go to **Realm Settings** and select **Security Defenses**
2. Click "**Brute Force Detection**"
3. Enable the "**Enabled**" and "**Permanent Lockout**" option and set the number of the **Max Login Failures** (e.g., **5**).
4. Restart Kryon services on the server to allow the changes to take effect

Unlocking User Account

If the user receives an alert that their account is disabled, it indicates that the account has been locked. To unlock the account:

1. Go to **Users** (under Manage on the left pane)
2. Search for the intended user or view all
3. Click on the hyperlinked user ID

4. Open the **Details** tab
5. To unlock a locked user, set the **User Enabled** setting to **ON**.

Enabling User Account Audit Trail

To enable an audit trail for all account activities:

1. Go to **Events** (under Manage on the left pane)
2. Open the **Config** tab
3. Set "**Save Events**" to **ON** (under **Login Event Settings**)
4. Upon enabling, the audit logs become available from the **Login Events** tab.

Syncing from a User Federation Kerberos

IMPORTANT!

Be sure to follow the steps for creating a company and activating its license prior to following the steps in this section.

If your license hasn't been activated prior to syncing, all users will come into the system in **Inactive** status.

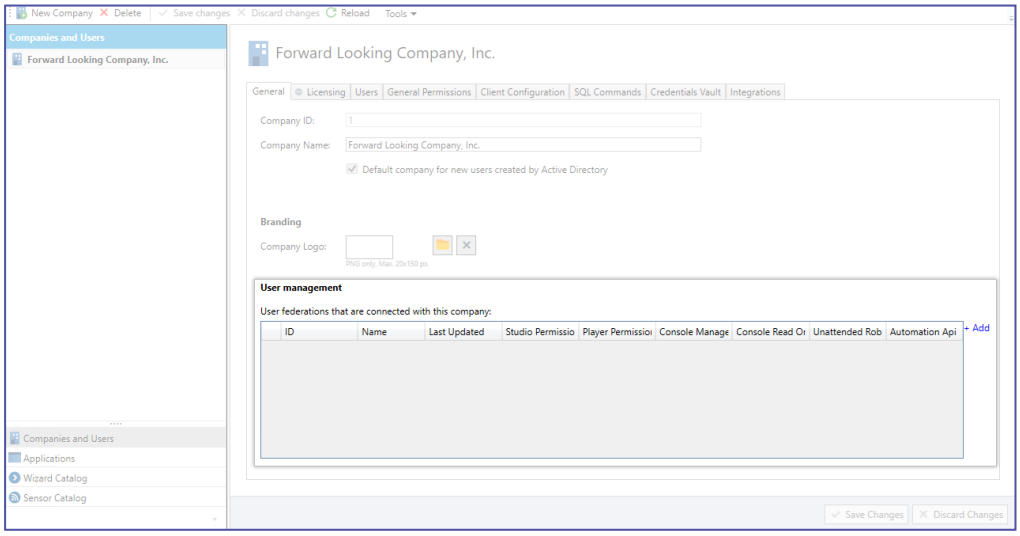
Syncing users from a federation is a 2-stage process:

1. Connect a federation with the company
2. Sync users to Kryon Admin

Connect a federation with a company

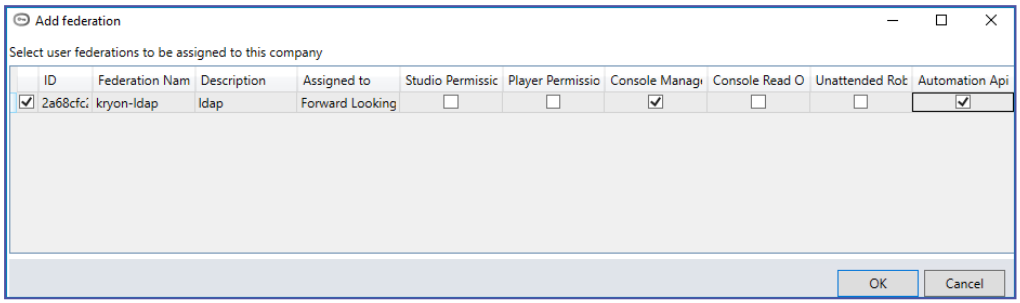
To connect a federation with a company:

1. In the Menu Pane, click **Companies and Users**
2. In the Entities Pane, select the company with which you want to associate a user federation
3. The selected company's data will appear in the Properties Pane
4. In the **General** tab's **User management** section, click the + Add link



5. The **Add federation** window will appear
6. Select the federation to connect to the company

7. ***Optional:*** Select the default permissions that you wish to automatically assign to each user. These permissions can be manually edited for individual users following sync.

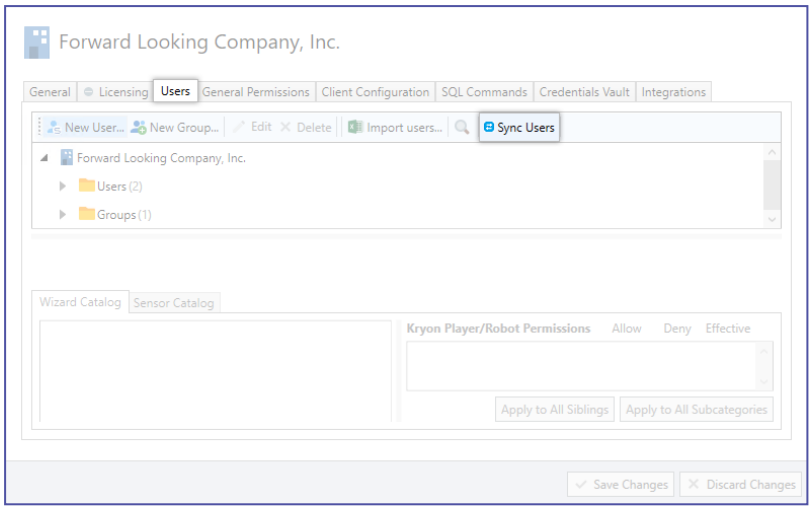


8. Click the **OK** button to save your changes
9. The connected user federation will now appear in the **User management** section

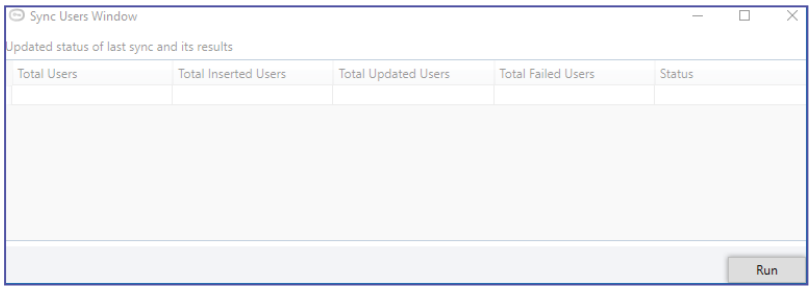
Sync users to Kryon Admin

After connecting the user federation, follow these steps to sync the federation's users to Admin:

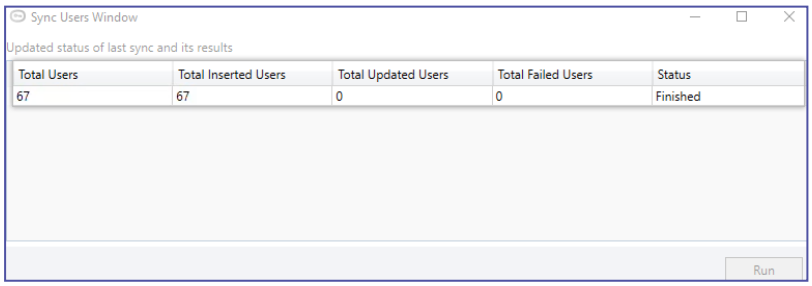
1. In the Properties Pane, select the **Users** tab
2. Click the **Sync Users** button



3. The **Sync Users Window** will open
4. Click the **Run** button to begin the sync



5. The **Sync Users Window** will close, and you will be returned to the **Users** tab. At any point, click the **Sync Users** button again to see the status of the sync process (but close the window without clicking the **Run** button again).
6. When the sync is complete, the **Status** column in the **Sync Users Window** will display `Finished`

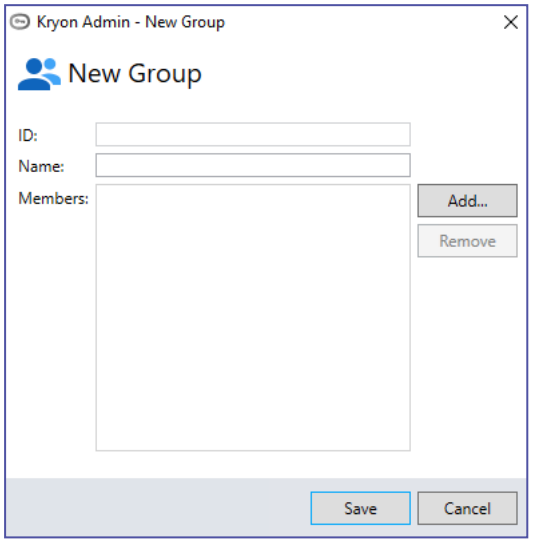


Creating User Groups

You can allocate access privileges to the various automation components and assign action-specific permissions to various users or groups. Follow these instructions to

create user groups:

1. In Admin, go to **Companies and Users** and select the **Users** tab
2. Click the **New Group** button. The New Group window appears.



3. Enter a name for the group and click **Add**
4. Select users to add to the group
5. Click **Save**

To set permissions to users and groups, see Managing Permissions

Managing Applications

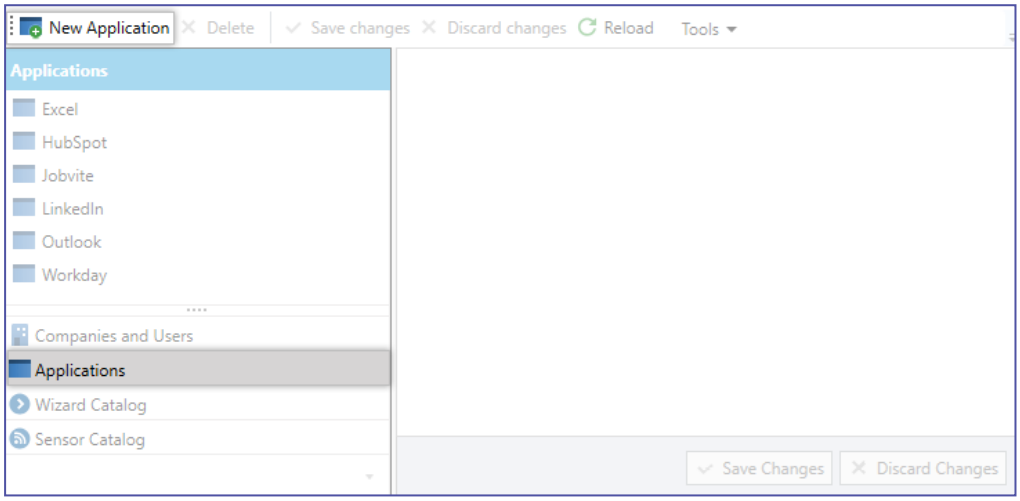
In this chapter:

Adding an Application 42
Application Identification Methods 44
Exporting/Importing Application Properties 47

Adding an Application

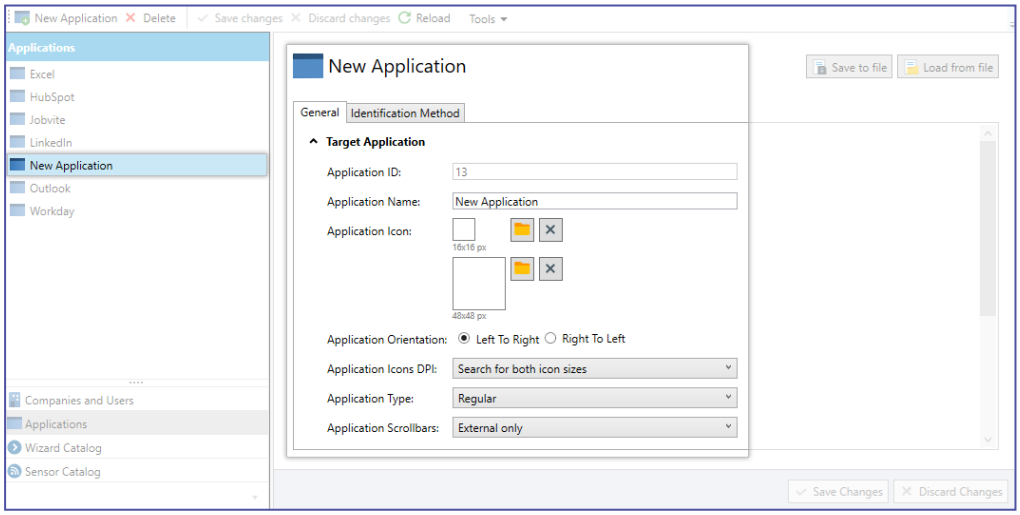
Any application that is used in an automation must first be defined in Kryon Admin. To add an application:

1. In the Menu Pane, click **Applications**
2. From the toolbar, click the **New Application** button



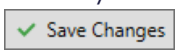
3. An application called **New Application** is created in the Entities Pane

   The new application is automatically selected, and its properties appear in the Properties Pane, with the **General** tab active



4. Enter a name for the application on the **General** tab

> **NOTE**
>
> **Additional general properties**
>
> There are many properties available on the General tab. However, when adding an application, the only **General** tab field that is required is the **Application Name**.

5. Define the application's identification methods on the **Identification Methods** tab
6. When you have finished defining the application's properties, click the 

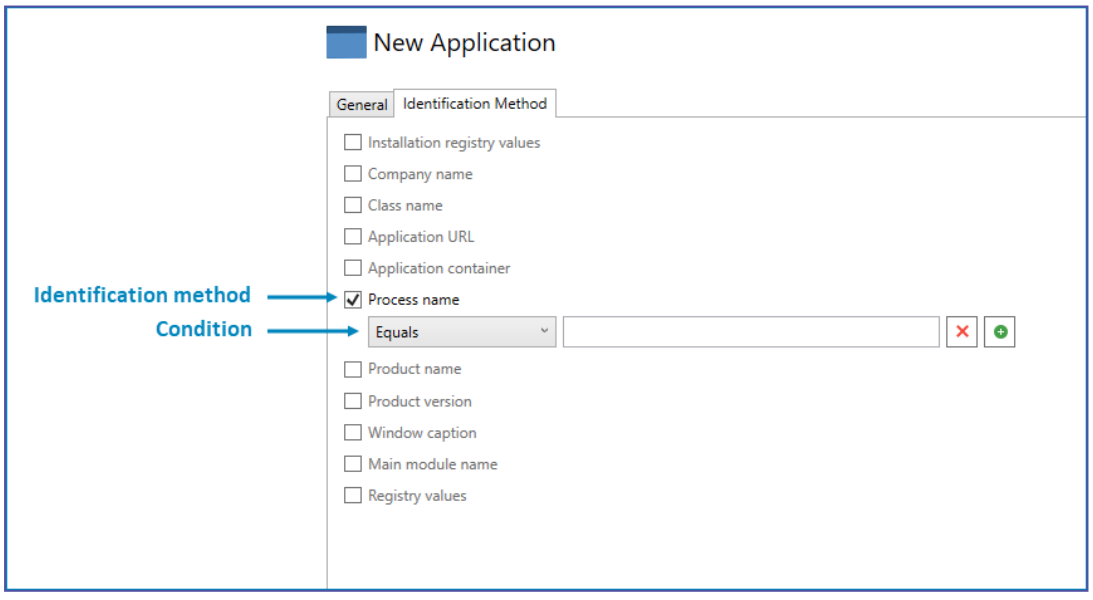
button

Application Identification Methods

Application **Identification Methods** are the ways in which the Kryon RPA Platform identifies the application being used. In order to add an application, you must define **at least one** identification method.

> **NOTE**
> **One or more? AND or OR?**
>
> There are numerous methods by which an application can be identified, and it is possible to specify more than one for each application. Additionally, within each method, one or more conditions can be specified.
>
> - If more than one method is specified, **ALL** the specified methods must be satisfied in order for the application to be properly identified (i.e., each method is separated by an **AND**)
> - If more than one condition within a single method is specified, **ONLY ONE** of the conditions must be met in order for the method to be satisfied (i.e., each condition is separated by an **OR**)

Adding identification methods and conditions



To add an identification method:

1. Tick its checkbox
2. Enter the details of the condition under that method

To add a condition under an identification method, click the button

To remove a condition under an identification method, click the button

Recommended identification methods

Best practice is to use one of the following identification methods (depending on whether the application is desktop- or web-based) and add other identification methods only as necessary.

Process name is the recommended identification method for desktop applications.

- In the condition, enter the application's process name as it appears in the **Windows Task Manager > Details** tab – without the `.exe` extension (e.g., `outlook`)

Application URL is the recommended identification method for web-based applications.

- To maximize the probability that the web application is properly identified:
  - In the condition, enter the website's URL without the protocol (usually, `http` or `https`) and without the path (i.e., the section of the URL following the domain name)
  - Use an operator other than `Equals` (e.g., `Contains`, `Starts With`, etc.)

Additional identification methods

You can use additional identification methods either instead of or in addition to the recommended methods. These additional methods include:

- Installation registry values
- Company name
- Class name
- Application container
- Product name
- Product version
- Window caption

- Main module name
- Registry values

Exporting/Importing Application Properties

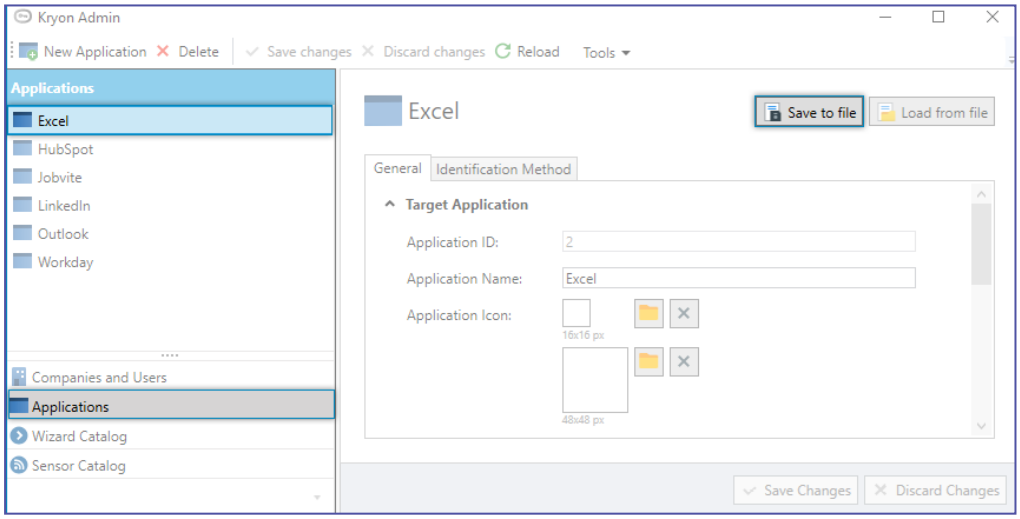
To facilitate migrating defined applications among different environments, Kryon Admin allows you to export an application's properties to an XML file and import them into the new environment.

> **NOTE**
>
> An application's general properties and identification methods are included when you export/import its properties.

Exporting application properties

To export an application's properties:

1. In the Menu Pane, click **Applications**
2. In the Entities Pane, select the application whose properties you want to save
3. In the Properties Pane, click the Save to file button



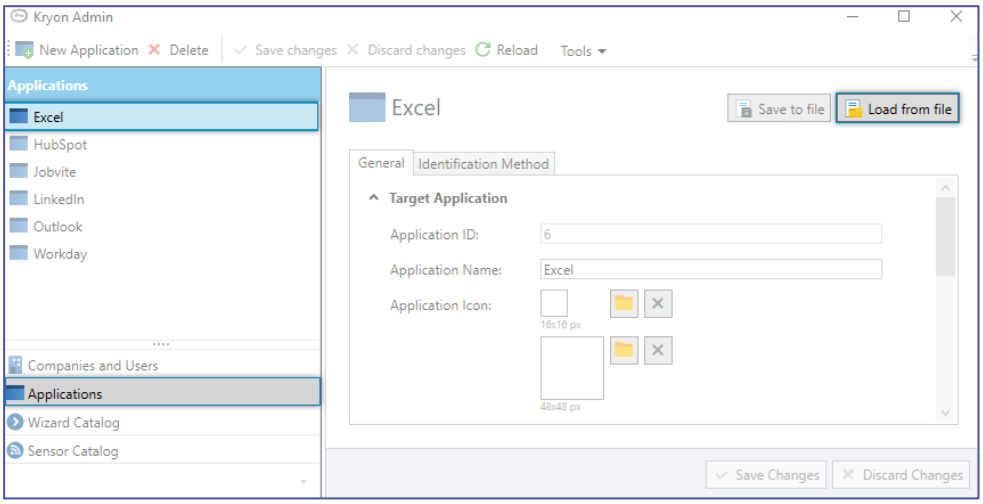
4. Navigate to the location in which to save the file
5. Click **Save**

An **XML** file is saved to the selected location.

Importing application properties

To import an application's properties:

1. In the Menu Pane, click **Applications**
2. ***If the application you wish to import already appears in the Entities Pane***:
   a. Select the relevant application
   b. In the Properties Pane, click the Load from file button



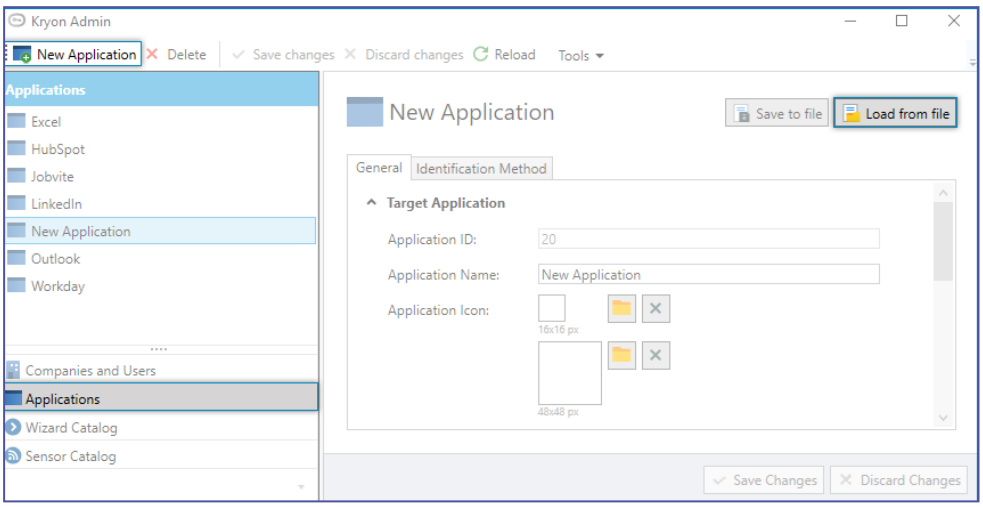
   c. Navigate to the **XML** file you previously saved for this application
   d. Click **Open**

      The application's general properties and identification methods are loaded into the Properties Pane
   e. Click the Save Changes button

3. ***If the application you wish to import does NOT appear in the Entities Pane***:

   a. From the toolbar, click the New Application button

   b. In the Properties Pane, click the Load from file button



   c. Navigate to the **XML** file you previously saved for this application

   d. Click **Open**

      The application's general properties and identification methods are loaded into the Properties Pane

   e. Click the Save Changes button

Managing Libraries

All wizards and sensors are housed on the Kryon RPA Server in the wizard and sensor catalogs, respectively. Libraries are the top level in the catalog's hierarchy. Each library:

- Contains categories and subcategories, which, in turn, contain automations
- Is associated with its own set of defined applications for which automations can be recorded

In this chapter:

Catalog Structure 51
Creating a Library 52
Deleting a Library 54

Catalog Structure

By default, the **wizard and sensor catalogs share an identical library structure**

- Libraries are created and associated with their supported applications in Kryon Admin

The wizard and sensor catalogs have varying structure from the category level down

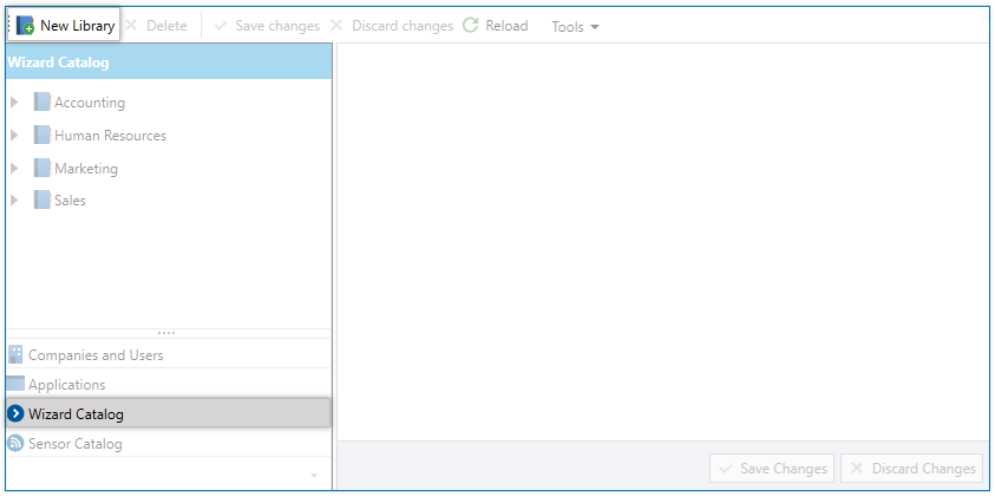
- Categories and subcategories are created in Kryon Studio

  For details, see the *Kryon Studio User Guide* (Categories)

Creating a Library

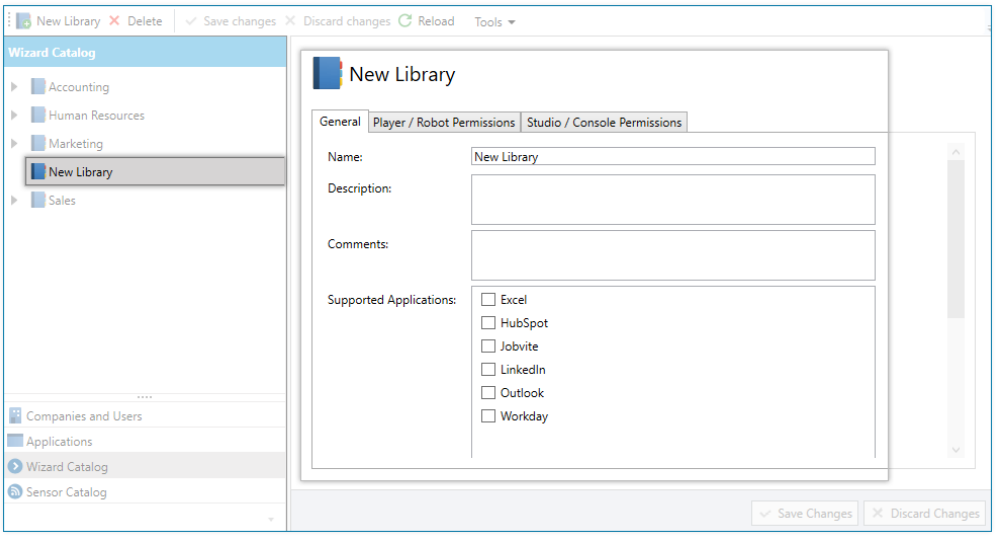
To create a library:

1. In the Menu Pane, click either the **Wizard Catalog** or the **Sensor Catalog**
2. From the toolbar, click the **New Library** button



3. A library called **New Library** is created in the Entities Pane

   The new library is automatically selected, and its properties appear in the Properties Pane, with the **General** tab active



4. Enter a name for the library in the **Name** field
5. In the **Supported Applications** field, check the boxes of all applications that are used by that library's automations

- The list of supported applications includes all previously defined applications

6. Click the Save Changes button

Deleting a Library

To delete a library:

1. In the Menu Pane, click **Wizard Catalog** or **Sensor Catalog**
2. In the Entities Pane, select the library you want to delete
3. From the toolbar, click the

button
4. In the confirmation message, click **Yes**

CAUTION

When you delete a library:

- It is deleted both from the wizard catalog and the sensor catalog
  - **Why?** Remember that, by default, the wizard and sensor catalogs share an identical library structure
- All categories, wizards, and sensors within the library are also deleted

Managing Permissions

The purpose of permissions is to allocate access privileges to the various automation components and assign action-specific permissions to various users or groups. This ensures that members of one group cannot view or edit the automation catalog from another and that RPA managers can only manage their group's catalog and robots.

In this chapter:

Activating the Permission System 56
Setting Library Permissions 56
Setting Wizard/Sensor Catalog Permissions 58
Setting User Permissions 59
Setting General Permissions 59

Activating the Permission System

To enable the assignment of permissions, you must activate the permission system during the installation of the Kryon Application Server:

- In the **Server Information** screen, tick the **Activate Permission System** checkbox.

There are two places in the Kryon Admin application where you can see or edit permissions:

- In the **Wizard Catalog** or **SensorCatalog** section under the **Menu Pane** (libraries and categories).
- In the **Companies** and **Users** section under the **Menu Pane**. Here, the permissions are available under the **Users** tab, per user or group.

IMPORTANT

- When setting permissions, note that **Deny** is stronger than **Allow**. For example, a user set to **Allow** might be a member of a group which is set to **Deny**. In this case, **Deny** supersedes **Allow** for that user.
- By default, once the **Activate Permission System** has **been** enabled, the users no longer have any permissions. You need to manually set the permissions to the users.

Setting Library Permissions

There is only one type of user or group permission for libraries:

- Studio/Console Permissions

TO SET STUDIO/CONSOLE PERMISSIONS:

1. In the **Menu Pane**, click either the **Wizard Catalog** or the **Sensor Catalog**
2. In the **Entities Pane**, select the library that contains the user or group whose permissions you want to set
3. In the **Properties Pane**, select the **Studio/Console Permissions** tab
4. **Open** the **Users** or **Groups** folder and select the user **or** group whose permissions you want to set
5. In the **Permissions** section of the **Properties Pane**, tick the **Allow** or **Deny** checkboxes for the following parameters as required:

- Edit
- Add
- Add Rule
- Delete Rule
- Generate Reports
- Add Read-Data Advanced Commands*
- Add Write-Data Advanced Commands*
- Add Execute-Action Advanced Commands*
- Import**
- Export**

NOTE

*These permissions determine the availability of the following advanced commands in the Kryon Studio:

- Read from registry
- Get environment variable
- Read from text file
- Delete a file
- Delete file(s)
- Monitor file changes
- Get files
- Delete a folder
- Monitor folder changes
- Write to text file
- Remove from registry
- Write to registry

** You can set the Import and/or Export permission at the Library level to allow a user to import and/or export wizards. Enabling these permissions without any other permission allows the user(s) to *ONLY* import and/or export wizards, i.e., the subject users cannot edit/create/move catalogs or wizards.

6. When done, click the **Save Changes** button

Setting Wizard/Sensor Catalog Permissions

There are two different types of user or group permissions for the wizard and sensor catalogs:

- Player/Robot Permissions
- Studio/Console Permissions

TO SET PLAYER/ROBOT PERMISSIONS:

1. In the **Menu Pane**, click either the **Wizard Catalog** or the **Sensor Catalog**
2. In the **Entities Pane**, select the wizard that contains the user or group whose permissions you want to set
3. In the **Properties Pane**, select the **Player/Robot Permissions** tab
4. **Open** the **Users** or **Groups** folder and select the user **or** group whose permissions you want to set
5. In the **Permissions** section of the **Properties Pane**, tick the **Allow** or **Deny** checkboxes for the **Do It** and **Guide Me** parameters as required
6. If required, click the **Apply to All Siblings** button to apply these permissions to the user's or

   group's siblings
7. If required, click the **Apply to All Subcategories** button to apply these permissions to the user's or group's subcategories
8. When done, click the **Save Changes** button

TO SET STUDIO/CONSOLE PERMISSIONS:

1. In the **Menu Pane**, click either the **Wizard Catalog** or the **Sensor Catalog**
2. In the **Entities Pane**, select the wizard that contains the user or group whose permissions you want to set
3. In the **Properties Pane**, select the **Studio/Console Permissions** tab
4. Open the **Users** or **Groups** folder and select the user **or** group whose permissions you want to set
5. In the **Permissions** section of the **Properties Pane**, tick the **Allow** or **Deny** checkboxes for the

   View, **Edit**, **Add**, **Delete** and **Publish** parameters as required

6. If required, click the **Apply to All Siblings** button to apply these permissions to the user's or

   group's siblings

7. If required, click the **Apply to All Subcategories** button to apply these permissions to the user's or group's subcategories
8. When done, click the **Save Changes** button

Setting User Permissions

Although Kryon **Player/Robot** and **Studio/Console** permissions are available in the lower part of the screen under the **Users** tab, it is recommended that you edit these permissions only via the wizard and sensor catalog permissions.

Setting General Permissions

The **General Permissions** tab can be used to manage sensors if necessary. However, this functionality is rarely required in most deployments.

Multi-Tenancy Support

In this chapter:

Enabling Multi-Tenancy Support 61

Enabling Multi-Tenancy Support

Multi-tenancy support is available at the license segregation level. It allows you to:

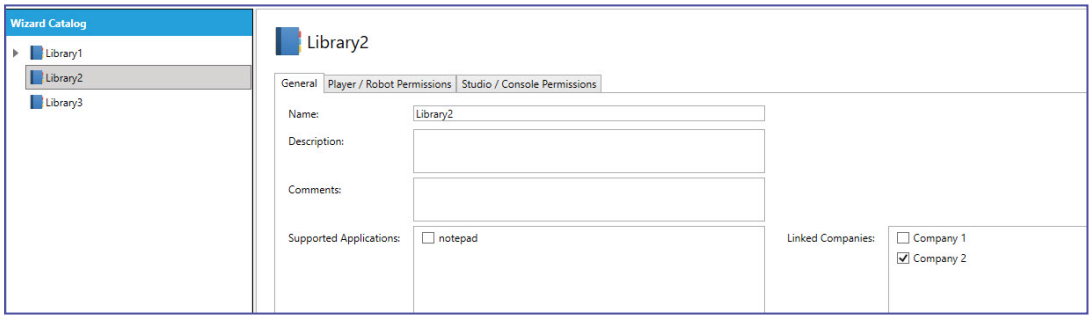
- Link specific libraries to specific companies
- Activate Credential Vault on multiple companies
- Display only the company-linked-libraries on the client side (on the user's Console/Studio/Robot)

You can activate another level of user access and segregation on the Company level by simply connecting a Library to a Company.

Using this segregation level lets users under the intended Company to have access ONLY to the linked Libraries. Which also means that the users under a specific Company, that is linked to specific libraries.

This option becomes available once you have more than one company.
> Simply click a Library and link it to the relevant Companies.

EXAMPLE:



Important NOTES:

- When upgrading to Kryon version 20.9, you must re-link the libraries to the intended companies.
  Upgrading from version 20.9 to any future version will keep your linked companies and libraries SAVED as intended.
- Upgrading to version 20.9 (i.e., from License Type 1 to Type 2) requires new licensing on the company level. The new license is provided by Kryon Customer Support.
- Linking a Library to more than one company requires attention to the status of the Credentials Vault.

About Credentials Valut and Linking a company to more than one library

If your Library is linked to a company with the Credentials Valut ON, and you attempt to link your Library to additional Company, the second company must have the Credentials Vault OFF.

This means that if a Library is linked to more than one Company, only one of the linked companies can have the credentials Valut ON.

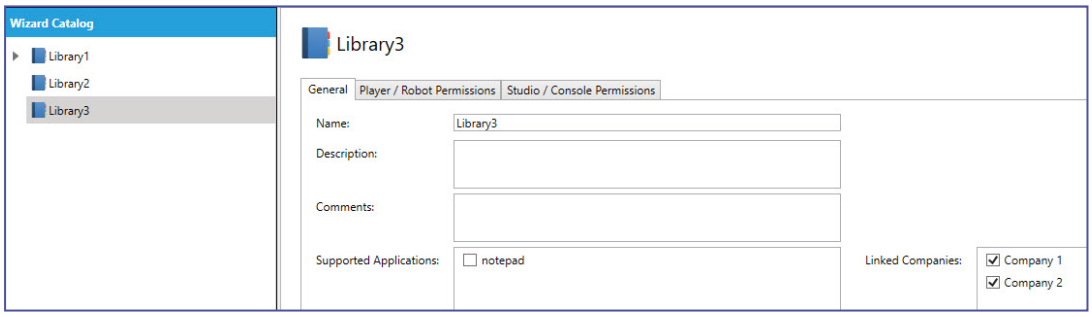
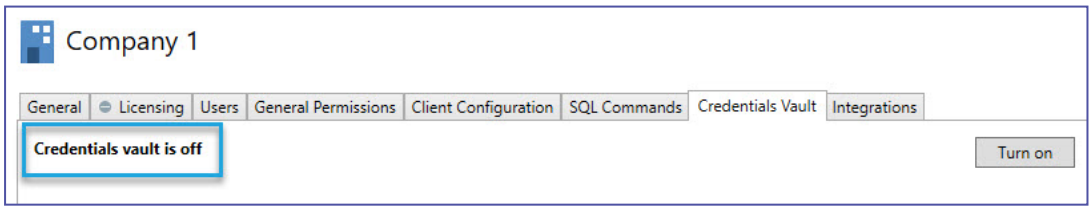
This is because that in terms of verification and validation, the Library credentials are protected and CANNOT be shared with other companies.

EXAMPLE:

Library 3 is linked to two companies, Company 1 and Company 2. In this case, the Credentials Vault in Company 1 is OFF while in Company 2 is ON.

The working scenarios that are optional in this case are either to:

Turn OFF the Credentials Valut on both companies

;or

Turn ON the Credentials Valut only on one Company.