

Manual for Pekom plug-in

Content

Introduction	3
User Access and Authentication	4
Registration Process	4
Logging In	5
User Info	6
Library	8
Settings.....	11

Introduction

The **Pekom plug-in** is an add-in for Autodesk Revit developed to enhance BIM workflows by automating and standardizing everyday tasks. This document serves as a comprehensive manual for both users and administrators, outlining the core functionalities such as user authentication, account management, library usage, and administrative options for managing cloud content.

The plug-in enables fast and efficient loading of families, systems, and mounting components through an intuitive interface designed to align with Revit's logic and environment. The documentation is structured by topic to provide users with clarity and ease of use—from first launch to advanced features.

User Access and Authentication

To use the **Pekom tools**, a user must have a registered account and be successfully logged in. Only after completing the registration process is the user allowed to log in and access the system. This ensures that access to the tools is secure, personalized, and traceable.

User authentication is a necessary step. Access to all key functionalities — including loading families, systems, and prefabricated components into a Revit project — is strictly limited to logged-in users only.

This approach not only enhances security but also enables tracking the number of users utilizing the plugin, which can provide valuable insights into tool usage and contribute to its further improvement.

Registration Process

In order to access the Pekom tools, users must first create a registered account and successfully log in. The login window opens when the user clicks the login icon located within the Pekom plug-in interface. From the login window, users who do not yet have an account can open the registration window by clicking the **“Get Access”** button.

During the registration process, the user is required to provide a **username**, **email address**, **password**, and **confirm the password**. All fields are mandatory.

The email address must be in a valid format, and the password must be at least 6 characters long. Additionally, the password and its confirmation must match exactly. If any of these conditions are not met — for example, if the email format is incorrect, the passwords do not match, or any field is left empty — an error label will be displayed to the user indicating the specific issue.

Only after successfully completing this registration process can the user log in and access the system.

The image shows a software window titled "Welcome to PEKOM Revit Ribbon" with a red header bar. Inside the window is a white rounded rectangle labeled "Register". This form contains four input fields: "Username", "E-mail", "Password", and "Confirm password", each with a red border. A red "Register" button is positioned at the bottom center of the form.

Figure 1 – Register window

Logging In

To log in, the user should click the **“Log In”** icon located within the Pekom interface. This action opens a login window where the user must enter their **email address** and **password**.

If the user has forgotten their password, they can click the **“Forgot Password?”** button. A password recovery window will open, prompting the user to enter their email address. Upon clicking **“Submit”**, a password reset email will be sent to the provided email address. The user should check their inbox and follow the instructions in the email to reset their password.

After entering valid credentials, clicking the **“Log In”** button completes the login process. Upon successful authentication, the user gains access to the Pekom tools within the Pekom plug-in.

Welcome to PEKOM Revit Ribbon

Pekom
CABLE TRAY SPECIALIST

Log In

E-mail

Password

[Forgot password?](#)

Log in Get access

Figure 2 – Log in window

User Info

When the user successfully logs in to the Pekom system, clicking on the **"Log In"** icon reveals detailed information about their account, including their username and email address. This information helps the user verify which account is currently active. Additionally, the interface provides a **"Log Out"** button, enabling the user to securely end their session and log out from their account whenever they choose. This ensures that access to the system remains secure and personalized to the user.

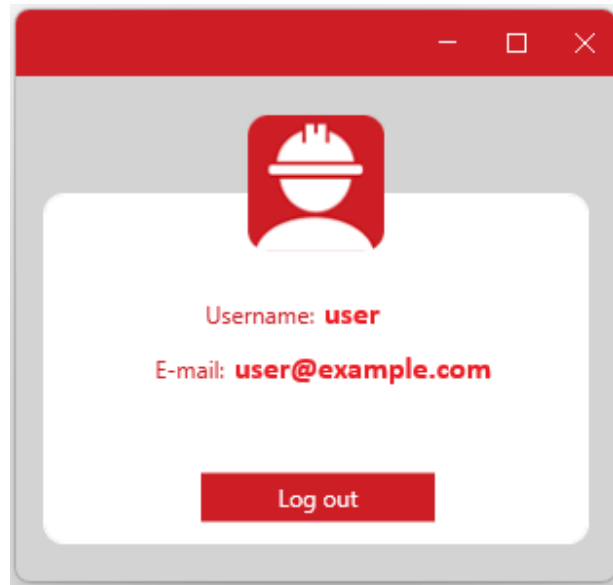


Figure 3 – User info

Library

The **Pekom plug-in** is a Revit add-in developed to enhance the BIM process, enabling users to efficiently load various types of families, systems, and mounting systems directly into a Revit project. The plugin includes a rich library of families compatible with Revit versions from 2021 to 2025, ensuring broad applicability across different projects and software versions. Users can select and load one or multiple families at once, significantly speeding up and simplifying the modelling process.

The user interface is intuitive, clean, and easy to navigate, allowing users to quickly find their way around without the need for additional training or technical support. The entire user experience is designed to follow the logic of everyday Revit workflows and to fully support user productivity.

This window allows users to quickly and easily load families, systems, and mounting systems into a Revit project. The interface is divided into several functional sections, as described below:

1. The family and system loading window is designed to provide users with a fast and intuitive workflow within the Revit environment. On the left side, there is a navigation panel in the form of a tree view, displaying the available Revit versions from 2021 to 2025. When a version is selected, a list of *Cable Tray Fittings* families available for that specific version is displayed on the right side of the window. This functionality allows for easy filtering and review of families based on the software version used in the current project.
 2. Below the family list, there are two dropdown menus used to define and load cable tray systems:
 - 2.1. **System Name (first dropdown):** Allows users to select the name of the system (e.g., *PNK*).
 - 2.2. **System Material (second dropdown):** Allows selection of the material designation (e.g., *TC*).
- Note:** Systems represent a group of elements (e.g., cable trays and associated fittings) that are loaded as a single unit.
3. By clicking the "**Download System**" button, the selected system is automatically loaded into the Revit project. The window then closes, and the user is prompted to place the system in the desired location within the model.
 4. A separate section is dedicated to loading **mounting systems**, which consist of specialized fittings used for mounting cable trays. This section contains three dropdown menus:
 - 4.1. **System Name (first dropdown):** Used to select the name of the mounting system.
 - 4.2. **Material (second dropdown):** Used to select the type of material.

- 4.3. **Symbol (third dropdown):** Used to select the specific symbol representing the visual appearance of the chosen mounting fitting.

Once the desired options are selected, the system is prepared for placement.

5. When all options are selected, clicking the "**Download Mounting System**" button loads the system into the project. The window closes, and the user is then able to immediately place the selected component in the model.
6. In the upper-right corner, there is a search field that allows quick filtering of families by entering keywords. The search is performed in real time, automatically as the user types.
7. The right side of the window displays a **visual gallery of available Revit families** for the selected software version. When the user selects a specific Revit version in the left-hand panel (e.g., 2021), the list of families corresponding to that version is automatically shown. Each family is presented in the form of a card, which includes:
 - 7.1. In the top-left corner of each family display, there is a **checkbox** that allows the user to select families individually. When a user checks a specific family using the checkbox, the "**Load**" button automatically appears, enabling the loading of that particular family into the Revit model.
 - 7.2. Each family is visually represented by an image, which is located at the top of the display, while the family name is shown just below the image, providing a clear identification of the family.
 - 7.3. The "**Load**" button allows the user to load a single family without the need to load multiple families at once. This functionality provides the user with greater flexibility and precision when choosing which families to use in the project.
8. Next to each card is a checkbox, enabling users to select one or more families for batch loading. Additionally, at the bottom-right corner of the window, there is a "**Select all**" option that automatically selects all displayed families in the list.
9. When the user selects one, several, or all families using the checkboxes or the *Select all* option, an additional "**Load**" button appears at the bottom of the window. This button enables loading multiple families at once, significantly speeding up the workflow and eliminating the need to load each family individually. This functionality is especially useful for projects that require complete systems consisting of multiple elements.

The entire section is designed to support fast, clear, and efficient work, particularly when working with a large number of Revit components.

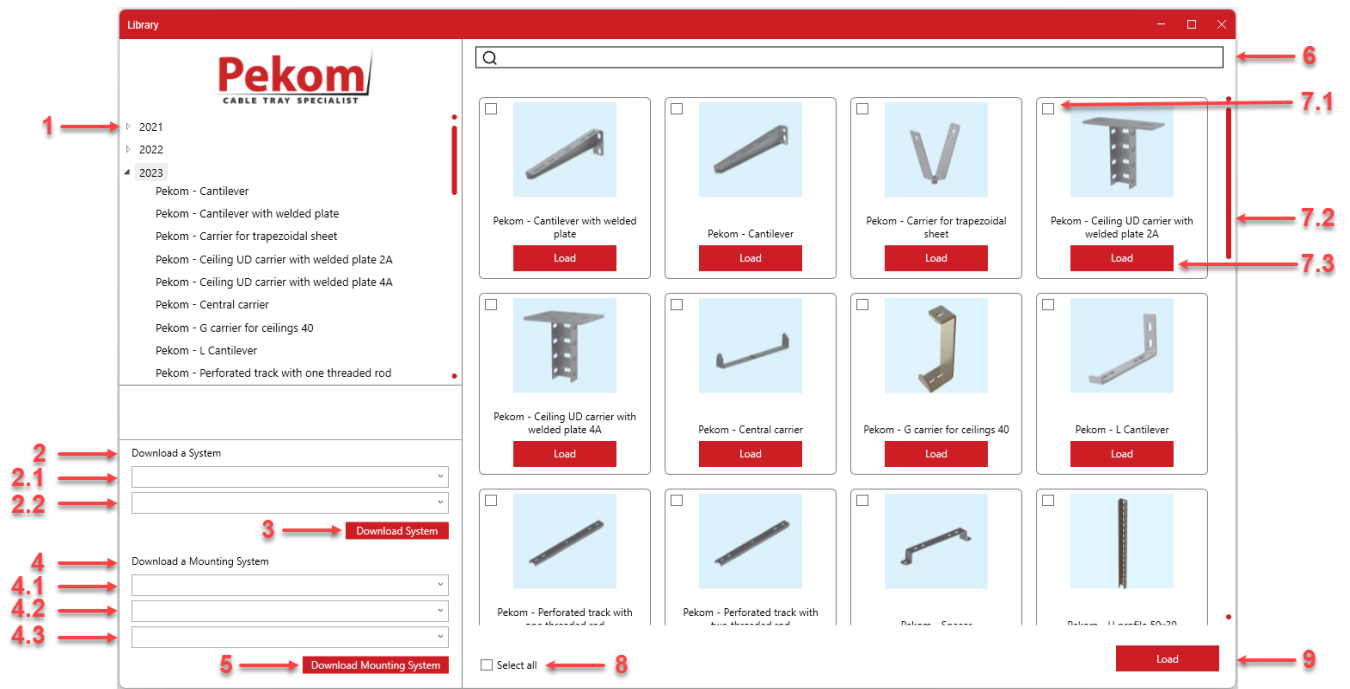


Figure 4 – Library window

Settings

The Pekom plugin also includes a **Settings** option, which is visible **only to administrators** and hidden from standard users. This window provides administrators with full control over user management within the system. In this window, the administrator can view a complete list of all registered users. By default, every new user who completes the registration process is automatically assigned the role of **Standard User**.

Administrators have the ability to change user roles, granting or revoking administrative privileges as needed. They can also delete user accounts if access is no longer required or if a user violates usage policies. In addition, the system offers the option to export or save the list of registered users, which can be useful for documentation, backups, or internal audits.

This functionality ensures that only authorized personnel can perform critical administrative actions, maintaining system security and ensuring proper role-based access control across the Pekom platform.

This window encompasses a range of functionalities and options that enable the administrator to efficiently manage user accounts:

1. The majority of the window is occupied by a table displaying the list of all registered users. The table consists of two columns — the first column shows the user's email, while the second column displays their current role in the system. There are two possible roles: **Admin** and **Standard User**. This table provides the administrator with a clear overview of all users and their access rights.
2. By clicking the **"Add User"** button, a new window opens that allows the administrator to add a new user to the system. In this window, the administrator enters the user's **email address** and selects their **role** from the available list (Standard user or Admin). After entering the required information and confirming the action, the user is added to the user list stored in the cloud and is granted access to the system according to the assigned privileges. This process simplifies user management and enables precise control over access to various features of the application.
3. By clicking the **Change Roles** button, a separate window opens where the selected user's email is shown. The email field is disabled, meaning it cannot be changed. Below the email, there is a dropdown menu containing the role options — **Admin** and **Standard User** — from which the administrator can select a new role for the user. Once the selection is made, clicking the **"Save"** button saves the changes and updates the user's role in the system.
4. The **"Remove User"** button allows the administrator to permanently remove a user from the list and the system. Before a user is deleted, the administrator must select the user from the table and then click the **"Remove User"** button. After this, a confirmation dialog appears where the administrator must clearly confirm

or cancel the deletion. This prevents accidental deletion and adds extra security when managing user accounts.

5. Clicking the **“Save”** button saves the complete list of users along with their email addresses and roles. This list is securely stored in the cloud, ensuring that the data is accessible and synchronized across different devices and protected against loss. This guarantees that user management remains reliable and persistent.

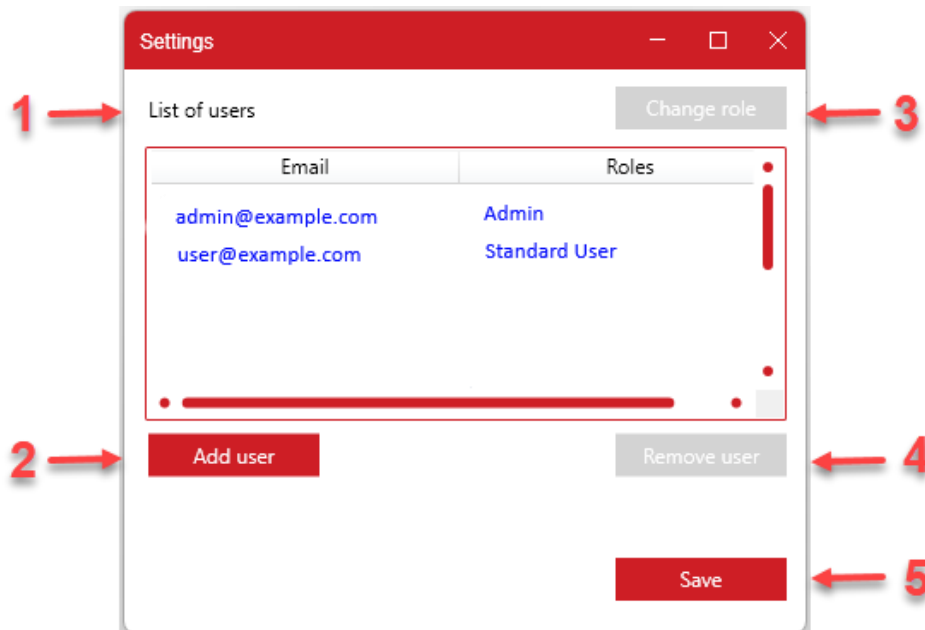


Figure 5 – Settings window

When a user is logged in as an administrator, additional options, **Upload** and **Delete**, will be available to them in the **Library** window:

1. The **“Upload”** option allows the administrator to upload a new family to the cloud platform, where it is stored on a central server and can be accessed by all authorized users of the system.
2. On the other hand, the **“Delete”** option enables the administrator to permanently remove an existing family from the cloud, preventing further use of that family in projects or applications. These functionalities are essential for efficient management of the library content and ensure that only authorized users can make changes and manage families on the cloud.

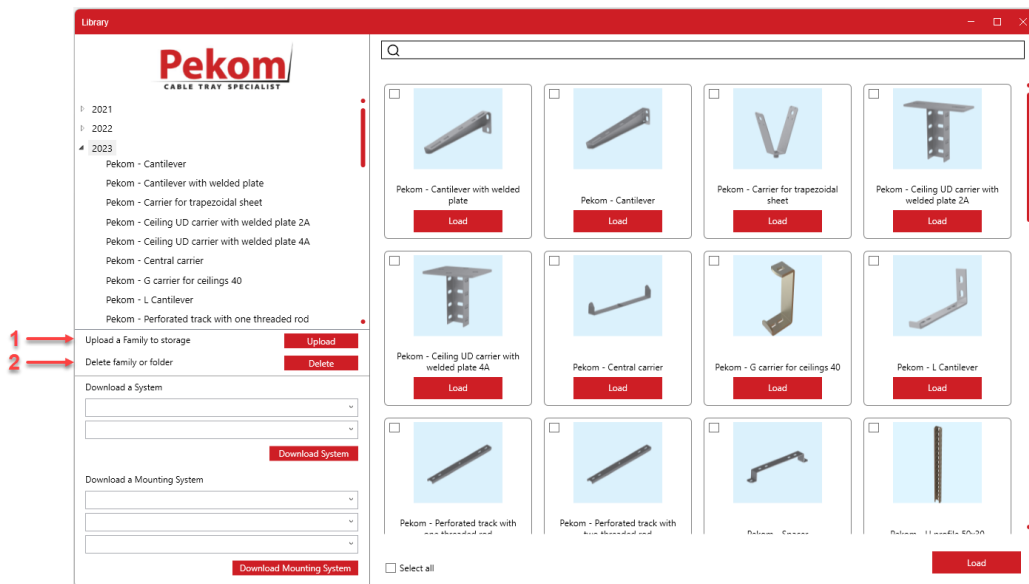


Figure 6 – Upload and Delete button

Clicking the "**Download**" button opens a new window that allows the user to precisely define how they want to upload a family to the cloud. This window includes the following options:

1. At the top of the window, there is a dropdown menu for selecting the target folder where the family will be stored. The cloud storage path follows the structure: *Library/{Revit version}/*, where the Revit version ranges from 2021 to 2025. This structure enables organized storage of families based on the Revit version.
2. The "**Create new folder**" field allows the user to define a custom subfolder path within the selected folder where the uploaded family will be saved. The path must follow the format *NewFolder/NewFamilyFolder*, maintaining a hierarchical folder structure. This provides detailed categorization and better organization of families within the cloud library.
3. By clicking the "**Choose image**" button, a dialog window opens, allowing the user to select an image (e.g., a preview of the family) that will be visually associated with the uploaded family. This image is displayed as a thumbnail in the library and helps with easier identification.
4. The "**Choose family**" button allows the user to locate and select the .rfa file, i.e., the specific Revit family they want to upload to the cloud.
5. Finally, clicking the "**Upload**" button uploads the selected family along with the associated image to the previously defined path on the cloud. This action confirms the upload and makes the family available to all authorized users.

The image shows a software window titled "Upload Family" with a red header bar containing standard window controls (minimize, maximize, close). The window contains the following elements, each indicated by a numbered red arrow:

- 1** points to the "Choose folder:" label next to a dropdown menu.
- 2** points to the text input field for "Or create new folder:".
- 3** points to the "Choose image" button, which is adjacent to a text input field.
- 4** points to the "Choose family" button, which is adjacent to a text input field.
- 5** points to the "Upload" button at the bottom right of the window.

Additional text within the window includes "Example path for folder: NewFolder/NewFamilyFolder/" located below the "Or create new folder:" input field.

Figure 7 – Upload Family window