



Installation of a single Poi3D portal instance

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Introduction

This is an installation guide for installing the Poi3D portal on a single domain. The instance can be operated without restrictions and includes free usage for 2 users and 1 administrator.

In this documentation the following placeholders are used:

- **https://myPortal.com** (the name of the domain where the portal is installed)
- **PortalMainDir** (the name of the folder where the portal is installed)
- **info@myPortal.com** (an email which is used for sending mails to portal users)
- **smtp.myhoster.com** (the corresponding email hoster)

Pre requisites

For using communication encryption, the domain where the portal is installed must provide the **libsodium** extension with the corresponding PHP version (tested with PHP version 8.1.25).

To enable libsodium on Apache® based web server just uncomment the “extension=sodium” entry in php.ini and be sure that the libsodium.dll file is located in the apache/bin/ folder (it may have to be copied to there from the php directory)

The following extension must be enabled for PHP:

- php_openssl.dll
- gd
- gmp

For Apache based Web Servers this can be set by editing the php.ini file

The portal uses .htaccess files to restrict unallowed access to file resources. This works fine for all Apache® based web servers. In case of a different web server please adapt your server settings to the .htaccess settings (e.g. with web.config).

Portal installation

If you use an Apache® based web server, just skip the IIS Setup chapter.

IIS Setup

To install the portal to an IIS® web server you must configure the following steps:

1. Prerequisites

- Windows machine (Windows 10/11 or Server 2019/2022)
- IIS installed with **FastCGI Module**
- PHP 8.3 (Non Thread Safe build for Windows)
- libsodium extension enabled
- Web application files

2. Install and Configure IIS

- Open Windows Features (Win + R, run: optionalfeatures).
- Enable:
 - Internet Information Services
 - Web Management Tools
 - World Wide Web Services
 - Application Development Features → CGI (enables FastCGI)
- Click OK and wait for IIS installation.

3. Install PHP 8.3

- Download PHP 8.3 (x64 Non Thread Safe) from: <https://windows.php.net/>
- Extract PHP to C:\php\8.3\
 - Copy php.ini-development → php.ini
 - Edit php.ini:

```
extension_dir = "C:\php\8.3\ext"  
extension=sodium  
extension=openssl  
extension=curl  
date.timezone = "UTC"; Or your timezone  
allow_url_fopen = On
```

- Add PHP to system PATH.

4. Configure PHP with FastCGI in IIS

- Open IIS Manager.
- Go to server root → Handler Mappings.
- Add Module Mapping:
 - Request Path: *.php
 - Module: FastCgiModule
 - Executable: C:\php\8.3\php-cgi.exe
 - Name: PHP via FastCGI
 - Click "Request Restrictions" → Make sure "Invoke handler only if request is mapped to: File or Folder" is checked.
- IIS will ask to create a FastCGI Application → confirm.

5. Configure Mime types

- In IIS Manager → select *PortalMainDir*.
- Go to MIME Types → Add:
 - File Name Extension: .mjs
 - MIME Type: text/javascript
- Go to MIME Types → Add:
 - File Name Extension: .wpm
 - MIME Type: text/html

6. Secure JSON Files (Replacing .htaccess)

Create/Edit web.config in *PortalMainDir* (already included in the portal download)

```
<?xml version="1.0" encoding="UTF-8"?>
<configuration>
  <system.webServer>
    <staticContent>
      <mimeMap fileExtension=".mjs" mimeType="text/javascript" />
      <mimeMap fileExtension=".wpm" mimeType="text/html" />
      <mimeMap fileExtension=".manifest" mimeType="text/cache-manifest" />
    </staticContent>
    <security>
      <requestFiltering>
        <!-- Block direct access to JSON and document files -->
        <fileExtensions>
          <add fileExtension=".json" allowed="false" />
        </fileExtensions>
      </requestFiltering>
    </security>
  </system.webServer>
</configuration>
```

Portal Setup

Download the portal from <https://mypoi3d.com/Downloads/Poi3dToGo.zip> and extract it into the domain folder (here *PortalMainDir*). The directory should look like this:

```
/PortalMainDir/CmiBitmaps
/PortalMainDir/CmiScripts
/PortalMainDir/Downloads
/PortalMainDir/FileOutput
/PortalMainDir/Materials
/PortalMainDir/Poi3d
/PortalMainDir/Poi3dUserContent
/PortalMainDir/Poi3dUserData
/PortalMainDir/Poi3dUsers
/PortalMainDir/SignedUsers
/PortalMainDir/Templates
/PortalMainDir/TestModels
/PortalMainDir/Videos
/PortalMainDir/Poi3dViewer.html
/PortalMainDir/index.html
...
```

If you want to force the portal use to https, edit the .htaccess file to the following settings:

```
RewriteEngine Off
RewriteCond %{HTTPS} !=on
RewriteRule ^ https://%{HTTP_HOST}%{REQUEST_URI} [L,R=301]
<Files "*.json">
    Order Deny,Allow
    Deny from all
</Files>
```

IIS specific

If you have used IIS as a web server you must set folder permissions to your web location

Ensure that **IIS has write access** to your *PortalMainDir*.

- Right-click → Properties → Security → Edit → Add:
- User: IUSR
- User: IIS_IUSRS
- Permissions: Read & Write

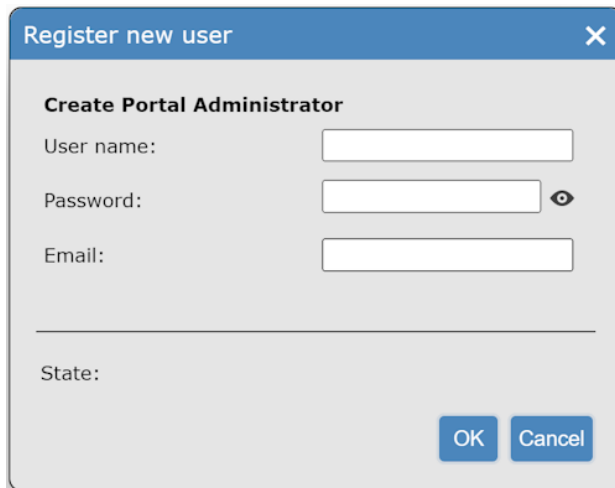
This allows PHP to read/write JSON files, but IIS (via HTTP) is blocked by web.config.

Administrator creation

Open the installed portal <https://myPortal.com> in a web browser.

When the portal is started at the first time, an administration account must be created which is used for configuring the portal and for defining portal users.

This is realized by filling out the following dialog, which pops up if no user has been created yet:

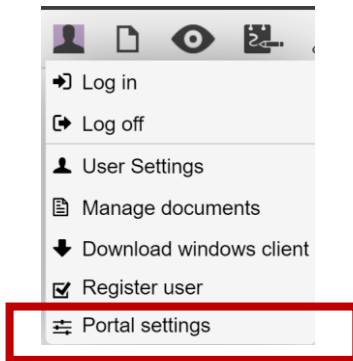


The image shows a dialog box titled "Register new user" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

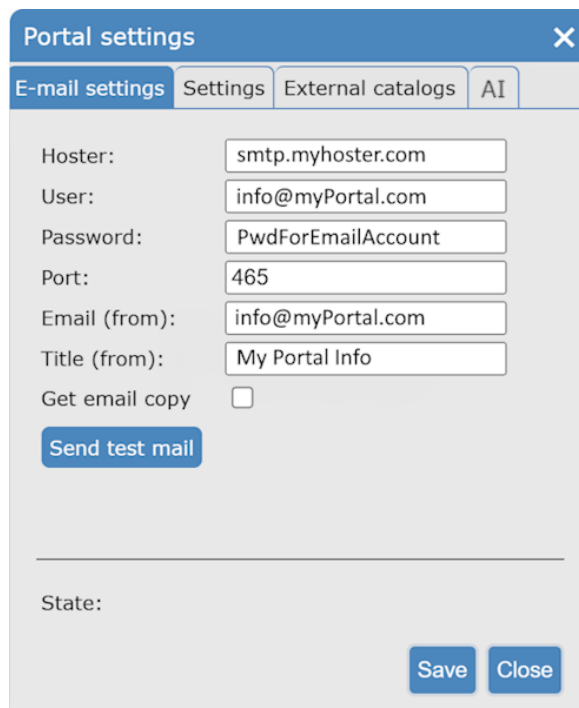
- Create Portal Administrator** (Section Header)
- User name:
- Password: (with an eye icon for visibility toggle)
- Email:
- State:
- Buttons: and

Portal configuration

Log into the portal using the previously created administrator account.
The menu entry “Portal settings” enables the administrator to configure the portal.



The command brings up the following dialog:

A screenshot of a dialog box titled 'Portal settings'. The dialog has a blue header bar with a close button (X). Below the header are four tabs: 'E-mail settings' (selected), 'Settings', 'External catalogs', and 'AI'. The 'E-mail settings' tab contains several input fields: 'Hoster:' with 'smtp.myhoster.com', 'User:' with 'info@myPortal.com', 'Password:' with 'PwdForEmailAccount', 'Port:' with '465', 'Email (from):' with 'info@myPortal.com', and 'Title (from):' with 'My Portal Info'. There is also a checkbox for 'Get email copy' which is unchecked. Below these fields is a blue button labeled 'Send test mail'. At the bottom of the dialog, there is a 'State:' label and two blue buttons: 'Save' and 'Close'.

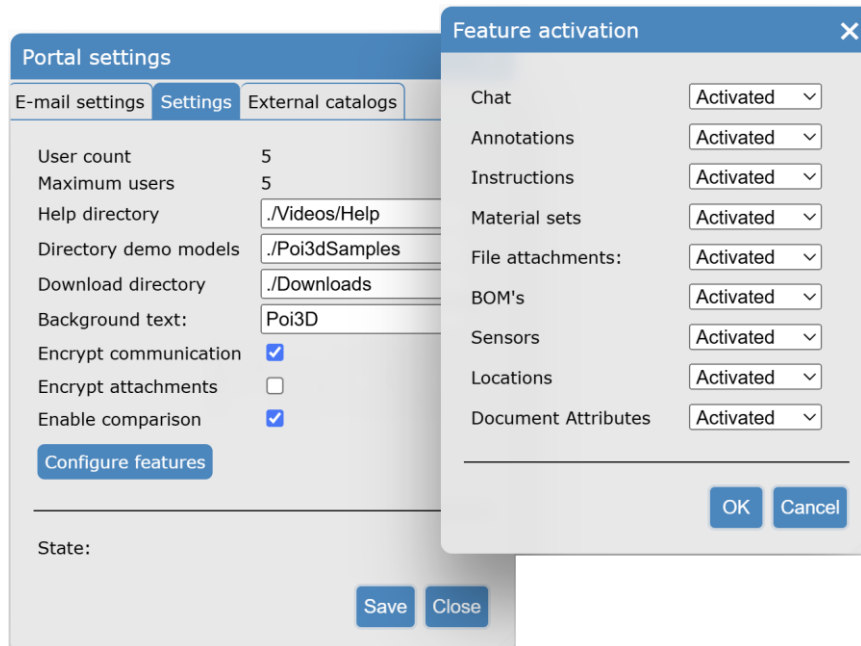
Email Settings

The following options configure the mail account for the portal. This is necessary to be able to send emails to users (e.g. for joining work groups)

- **Hoster:** The hoster of the email account
- **User:** The email address which should be used
- **Password:** The password to log into the email account
- **Port:** The port of the email account
- **From email:** The email address which should occur as a sender
- **From Title:** The title which is used in the portal emails

After saving the settings you can send a test email clicking on the button.

Portal Settings

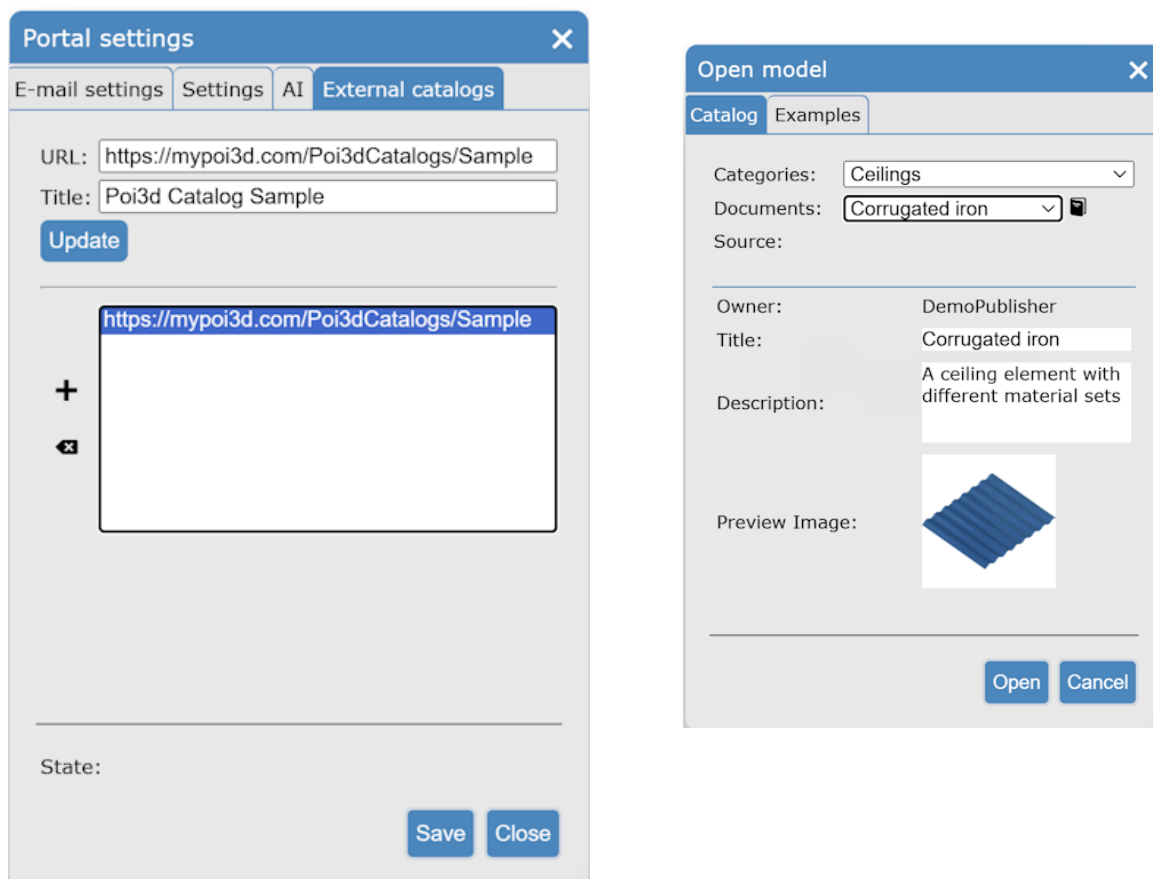


In this section the following settings can be applied:

- **User count:**
Shows the number of registered portal users.
- **Maximum users:**
Shows the maximum number of users for the current portal license.
- **Help Directory:**
Here the location of the help videos can be set.
The default value is <https://mypoi3d.com/Videos/Help> which uses the help videos from mypoi3d.
If you want to host your own video directory, please write an email to info@cadmai.com
- **Directory Demo Models:**
Here the location of the demo models can be set.
The default value is <https://mypoi3d.com/Poi3dSamples> which uses the demo models from mypoi3d.
If you want to host your own demo model directory, please write an email to info@cadmai.com
- **Download directory:**
Here the location of the file downloads (e.g. documentation files, setup for the Windows client) can be set.
The default value is <https://mypoi3d.com/Downloads> which uses the resources from mypoi3d.
If you want to host your own download directory, please write an email to info@cadmai.com
- **Background text:**
Here the background text of the graphic window is set.
- **Encrypt communication:**
This settings steers if the communication between the browser and the server should be encrypted to avoid unauthorized access. If you use a **http** instead of **https** connection, the communication encryption is a must.

- **Encrypt attachments:**
If this option is enabled all attachments to a document (annotations, instructions, material assignments, chat entries, ...) are encrypted from endpoint to endpoint and are stored encrypted at the server.
The benefit is, that if the server is hacked the data cannot be read directly. The encryption leads to bigger data and takes additional performance for encrypting and decrypting.
- **Enable comparison:**
If checked the portal supports 3d model comparison.
- **Configure features**
This button brings up an additional dialog where the portal features can be switched between “activated”, “deactivated” and “read only”.

External Catalogs



In this section external catalogs can be added.

The URL must point to a catalog directory, which has been exported from the portal.

Configured catalog entries are available in the “Open model” dialog

AI Bots

In this section AI bots can be configured, which can be used in the portal's chat communication. In addition to LLM's hosted in the web, also locally installed LLM providers like GBT4All, Ollama and NVIDIA ChatRTX can be addressed.

To communicate with the configured providers the Open AI API must be supported.

Portal settings

E-mail settings Settings AI External catalogs

Chatbot name: Oll-Local

Description: Ollama Test

Provider: Generic

API endpoint: http://localhost:11434/api/chat

Access Key:

LLM Name: phi

Update

+ Oll-Local

OpenAI

OpenRouter

State:

Save Close

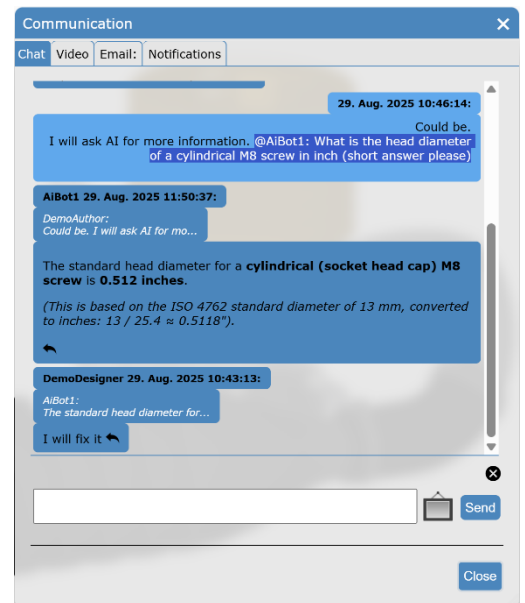
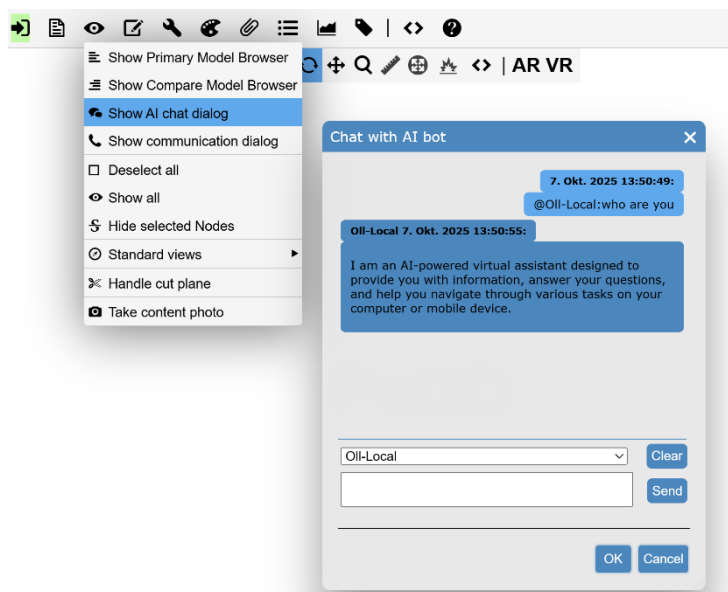
In this section the following settings can be applied:

- **Chatbot name**
Defines the name of the AI chat bot you want to communicate with. The name should not be a registered user name
- **Description**
A description of the chat bot
- **Provider**
One of the following entries:
 - **Open Router** (<https://openrouter.ai>)
A generalized interface to multiple LLM's. A login and an API key are needed to work with LLM's provided by Open Router.
The API Endpoint is <https://openrouter.ai/api/v1/chat/completions>
 - **Open AI** (<https://platform.openai.com>)
A login and an API key are needed to work with LLM's provided by Open AI.
The API Endpoint is <https://api.openai.com/v1/chat/completions>

- **Generic**
This selection is used to connect to LLM's from other providers.
The interface must match the Open AI API
- **Endpoint**
The URL to communicate with the LLM e.g.
 - https://openrouter.ai/api/v1/chat/completions for Open Router
 - https://api.openai.com/v1/chat/completions for Open AI
 - http://localhost:11434/api/chat for a locally hosted Ollama instance
 - http://localhost:4891/v1/chat/completions for a locally hosted GPT4All instance
- **Key**
The API key which is used to identify the provider account
- **LLM name**
The name of the LLM which should be used for communication

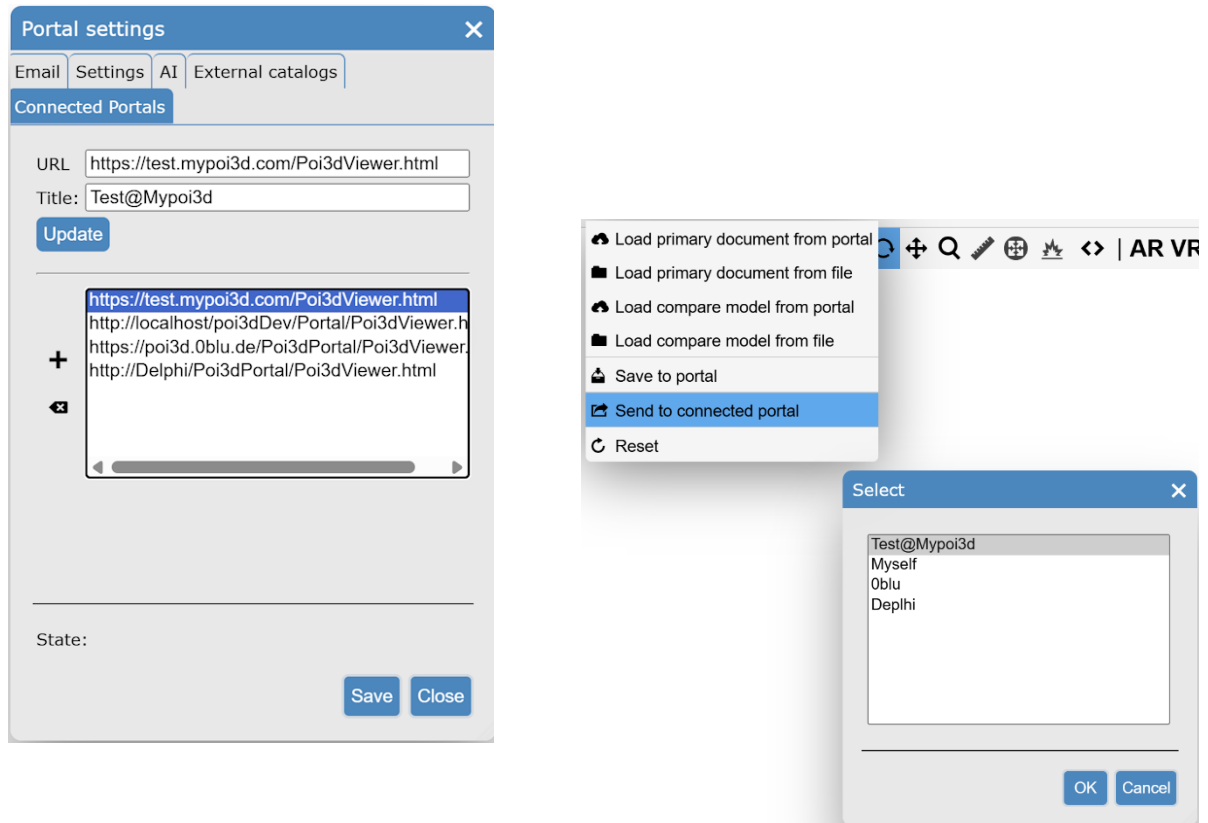
AI Chat bot test

The configured bots can be tested with the chat bot dialog or the chat section in the communication dialog (to address a specific bot here just integrate a **@BotName: Question** to the chat text).



Connected Portals

In this section Poi3D portals which run under a different URL can be defined as “Connected Portals”. Connected portals can be used to transfer Poi3D documents from the opened portal to the connected one.



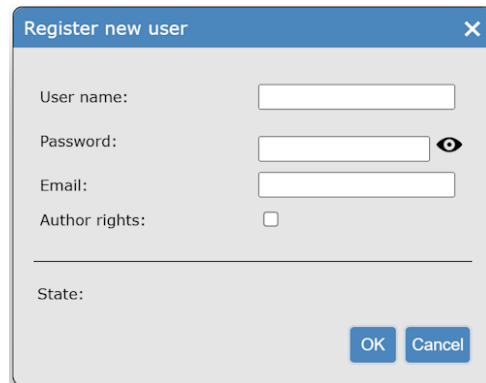
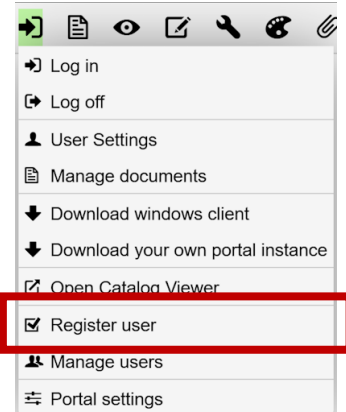
Settings location

The configuration settings are stored in a configuration file named “portalConfig.json” in the *PortalMainDir* folder.

It is recommended to backup this file to be able to restore it in case of server problems especially when the attachment encryption is used.

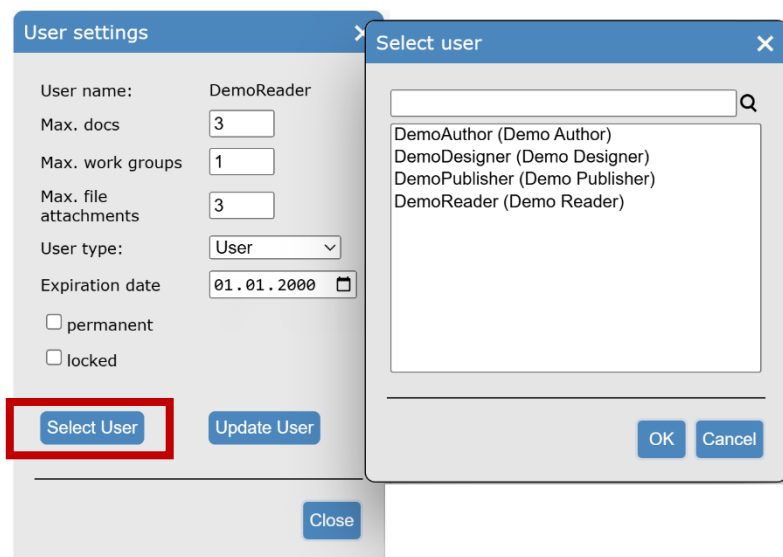
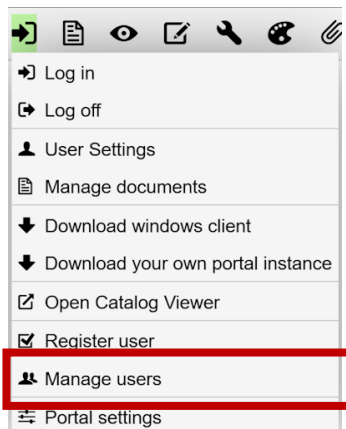
User creation

When you log in as an administrator, new user log-ins can be created by selecting the “Register User” command and filling out the “User Creation Dialog”.



A screenshot of the "Register new user" dialog box. It contains the following fields: User name: [text input], Password: [password input with eye icon], Email: [text input], Author rights: , and State: [text input]. At the bottom right, there are "OK" and "Cancel" buttons.

User Management



A screenshot showing two overlapping dialog boxes. The "User settings" dialog box (left) has the following fields: User name: DemoReader, Max. docs: 3, Max. work groups: 1, Max. file attachments: 3, User type: User (dropdown), Expiration date: 01.01.2000 (calendar icon), and checkboxes for permanent and locked. The "Select user" dialog box (right) has a search bar and a list of users: DemoAuthor (Demo Author), DemoDesigner (Demo Designer), DemoPublisher (Demo Publisher), and DemoReader (Demo Reader). Both dialog boxes have "OK" and "Cancel" buttons. The "Select User" button in the "User settings" dialog is highlighted with a red box.

After a user is selected by pressing the “Select User” button additional values can be set for the user and saved by pressing the “Update User” button.

These values can be changed with a time limitation by setting an expiration date.

The user can be locked with the correspondent “locked” checkbox.

Alias switching

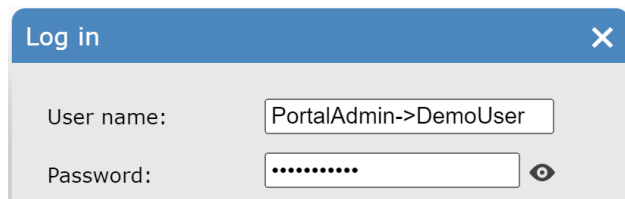
An administrator can work as a regular user by logging into the user account with the administrator password.

To do so, the user's name given in the login dialog must have the following form:

AdminUserName->RegularUserName

And the given password must be the administrator's password.

Example:



The image shows a 'Log in' dialog box with a blue header and a close button (X) in the top right corner. Below the header, there are two input fields. The first field is labeled 'User name:' and contains the text 'PortalAdmin->DemoUser'. The second field is labeled 'Password:' and contains a series of dots, indicating a masked password. To the right of the password field is an eye icon, which is currently closed.

Portal updates

When an installed portal should be updated to a newer version just download the new version and extract it into the domain folder (PortalMainDir) as described in "Portal installation"

Provided HTML-Pages and Web-Apps

The following HTML Pages are provided after the portal is installed:

- **Poi3dViewer.html**
The Poi3D Portal
- **Poi3dTalkFlow.html**
A messenger UI for the portal which has its focus on group communication with mobile devices. It supports AI integration, group chat, email/telephone/video communication, and file sharing.
- **Poi3dBasicPortalViewer.html**
A reduced UI of the Poi3D portal for mobile devices
- **Poi3dCatalogViewer.html**
A viewer for exported Poi3D catalogs

These HTML pages can also be installed as “Progressive Web Apps” (PWA’s) e.g. on mobile devices

For iOS:

To install a Progressive Web App (PWA) on iOS, follow these steps:

1. **Open Safari:** PWAs are installed through Safari, so you’ll need to use that browser.
2. **Go to the PWA’s Website:** Navigate to the website you want to install.
3. **Tap the Share Button:** This is the square with an upward arrow, located at the bottom of the screen on iPhones (or top on iPads).
4. **Select "Add to Home Screen":** From the Share Sheet, scroll down and tap on “Add to Home Screen.”
5. **Confirm the Installation:** You'll be asked to name the app (optional). Tap "Add" in the top-right corner.

After that, the PWA will appear on your home screen like a regular app, and you can launch it anytime, even without an internet connection in some cases.

Note: Unlike Android, iOS doesn’t offer full native app-like features, so some PWAs may have limited functionality.

For Android:

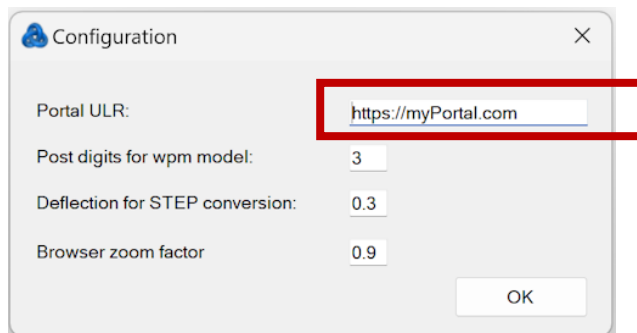
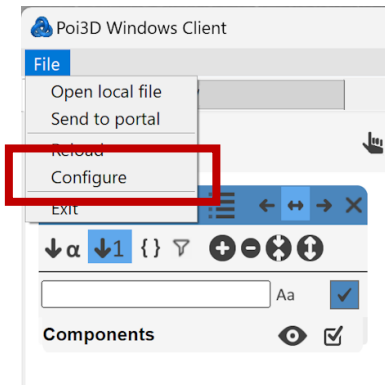
To install a Progressive Web App (PWA) on Android, follow these steps:

1. **Open Chrome:** PWAs are installed through the Chrome browser, so make sure you’re using Chrome.
2. **Go to the PWA’s Website:** Navigate to the website you want to install.
3. **Tap the Menu Button:** This is the three vertical dots in the top-right corner of Chrome.
4. **Select "Add to Home Screen":** In the menu, tap on “Add to Home Screen.”
5. **Confirm the Installation:** You may be prompted to name the app (optional). Tap “Add.”

Once installed, the PWA will appear on your home screen like any other app, and you can open it directly without needing to go to the website.

Poi3D Windows Client

If the Poi3D Windows Client should be used for converting and uploading 3D models to the created portal, the portal URL must be configured to the new address (<https://myPortal.com>).



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