User Documentation

Team 07 - 2023/24 Software Hut

Preface

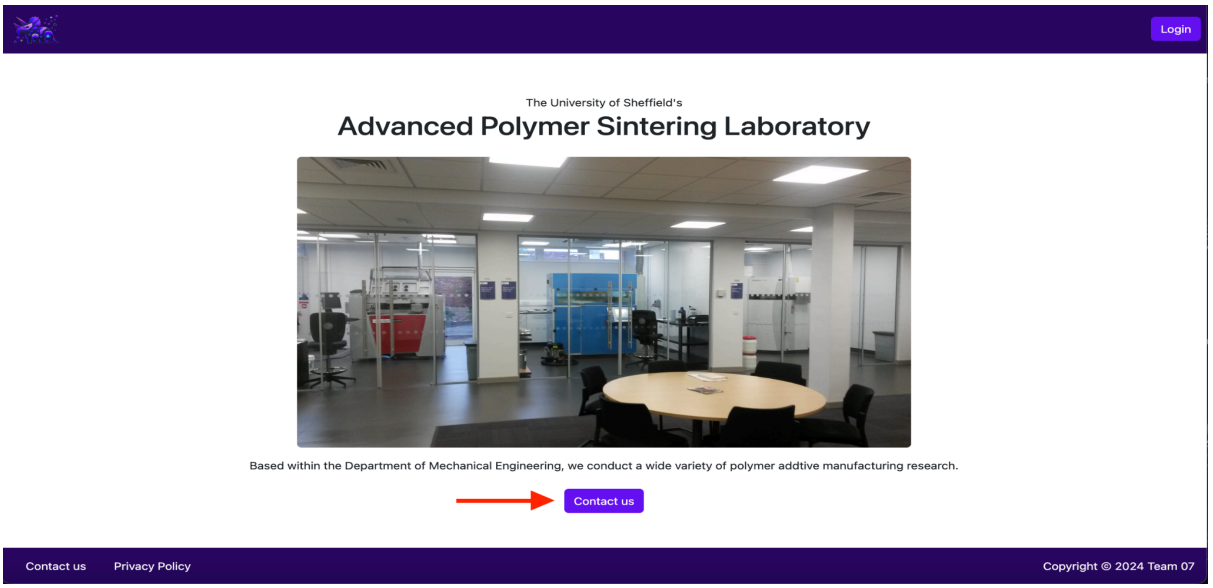
This software aims to address the challenges encountered by the APSL (Advanced Polymer Sintering Laboratory), in managing and storing substantial volumes of data. This data, generated by diverse staff members and students at varied times, exists in a variety of formats. The software is designed to facilitate accessibility for users both on and off campus, ensuring seamless access of data by authorised personnel.

User Roles

There are 4 different user roles. By default, you are a User.

1) Users - Anyone who has access to the software
2) Student - Students are users, having access and editing rights to their own data.
3) Staff - Staff are users, having access and editing rights to commercially available data.
4) Administrators - Administrators are users that can manage user access levels, assign data to groups and archive items.

If you require higher access, contact an administrator, through the 'Contact' button present on the Home Page.



University Login

To use the system, users must have a University of Sheffield username and password.

To log in, enter your university username and password, into the login fields.

No Sign Up

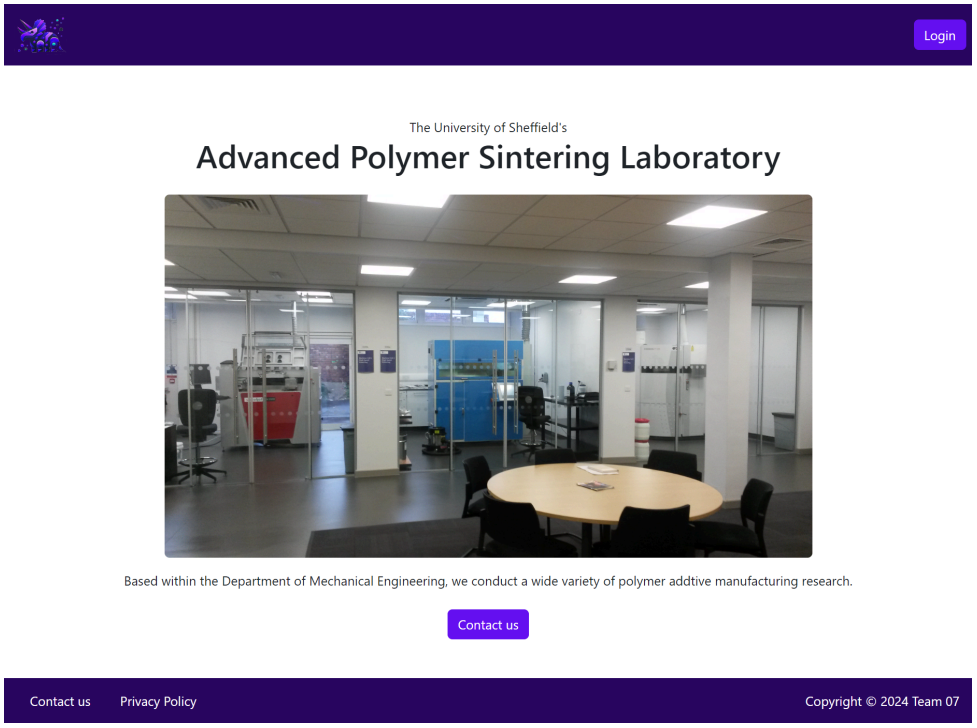
There are no particular sign up options, only University of Sheffield accounts are able to access the system.

Permission to Access Data

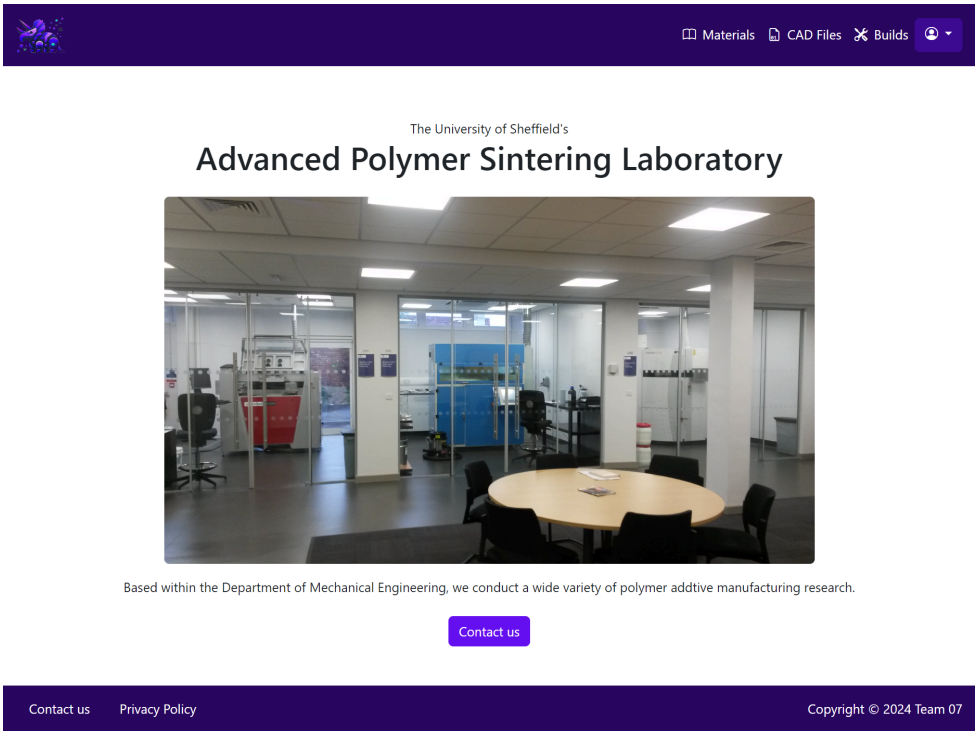
No data is available by default. Administrators will need to assign a role to users before their accounts are given permission to access data. Contact an administrator if you require (higher) access.

Home Page

The Home Page shows the default view shown once a user lands on the system.



The default view for the 'Home Page' before Login



The view for the 'Home Page' after Login

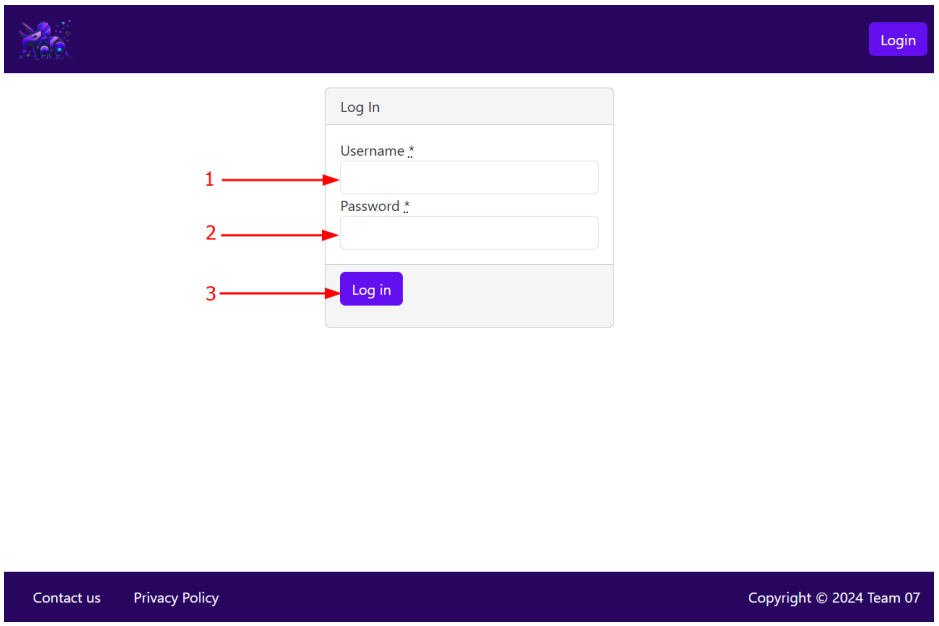
Login

In order to use the system, you will need to log in.

To Login:

1. On the homepage, click on the ‘Login’ button.

2. Enter your university username and password



3. Press ‘Enter’ or click ‘Login’.

Logout

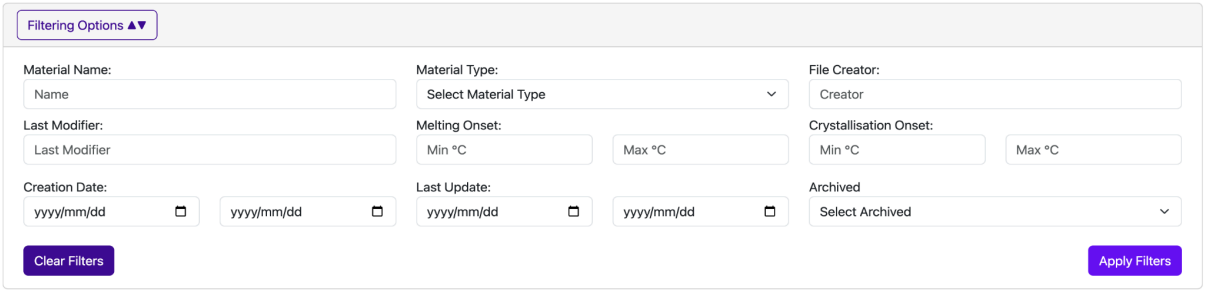
After finishing work, you need to logout of the website.

To logout:

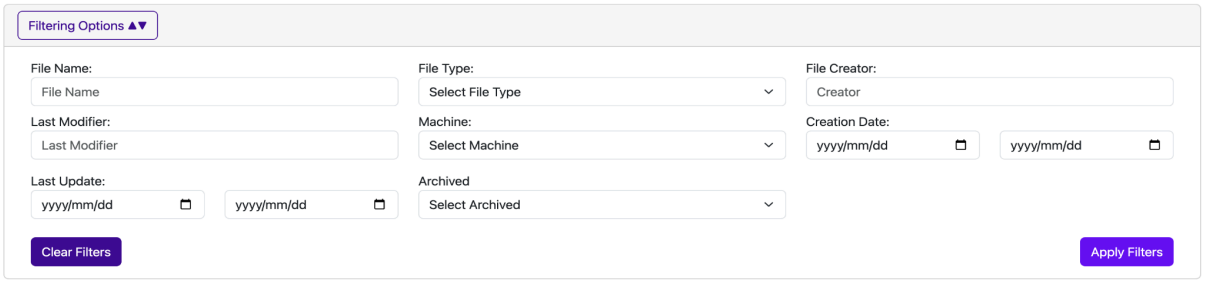
1. Click on the ‘Profile’ icon in the top right corner.
2. Click ‘Logout’, to exit the system.

Search and Filter

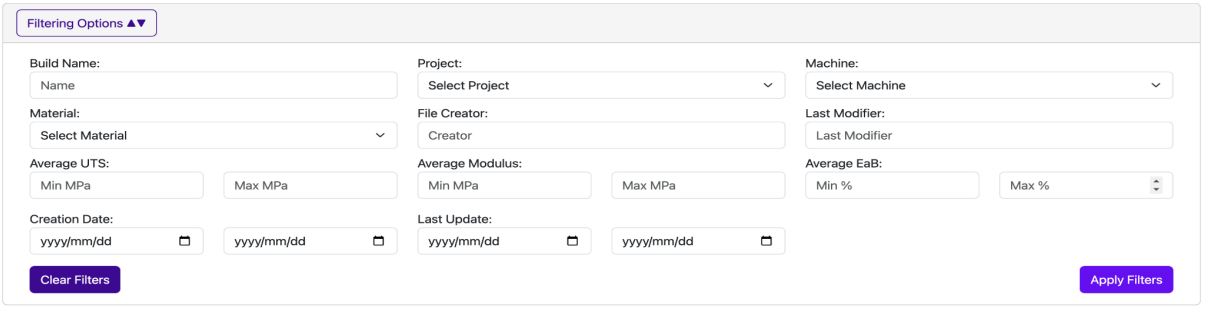
The search and filter feature helps narrow down the search results and show only the specific results required. These features are available for Materials, CADS, Builds, Machines and User Roles.



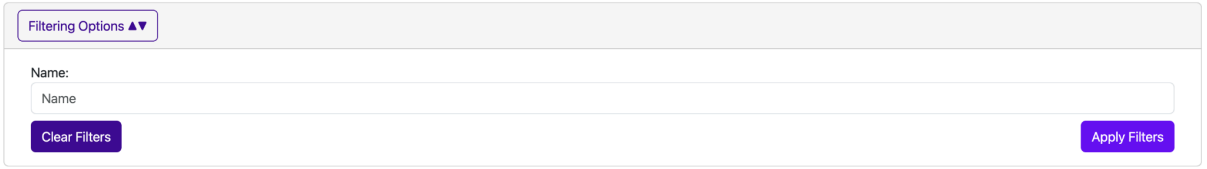
Default view for ‘Search-Filter’ for ‘Materials’.



Default view for ‘Search-Filter’ for ‘CAD’s’.



Default view for ‘Search-Filter’ for ‘Build’s’.



Default view for ‘Search-Filter’ for ‘Machines’.

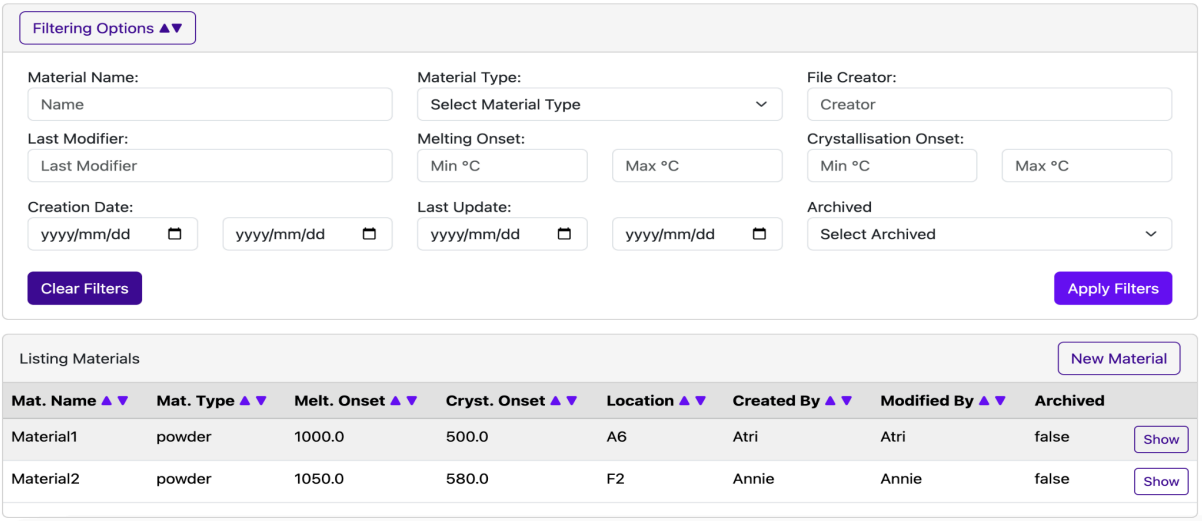
Proceed to parameter filtering, to see filtering based on parameters.
Proceed to ordered filtering, to see filtering in ascending/descending.

Filter by Parameters

For each of the above-mentioned pages, we can filter results based on the specific search criteria.

For example, for the Material's page, we can search materials based on the following parameters:

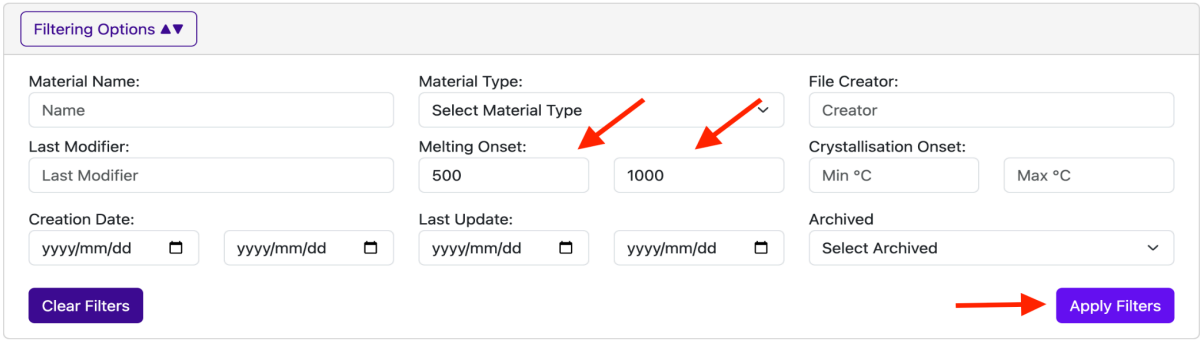
Material Name, Material Type, File Creator, Last Modifier, Melting Onset (Min/Max), Crystallisation Onset (Min/Max), Creation Date (between the specified time frame), Last Updated (between the specified time frame) and Archived (yes/no).



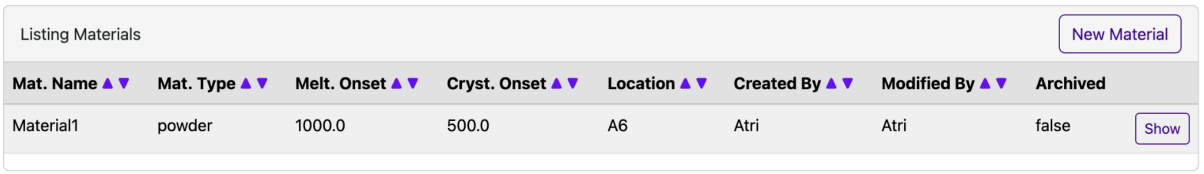
To filter by parameters:

1. Enter details in the specified field for the parameter you want to filter by, then click 'Apply Filters' for results.

For example, filtering materials having 'Melting Onset' between 500°C and 1000°C.



This should display only ‘Material 1’, since it ‘Material 2’ has a melting onset of 1050°C.



2. Proceed to applying multiple filters, to include multiple parameters while filtering.
3. Proceed to clear filters, to remove the applied filters.

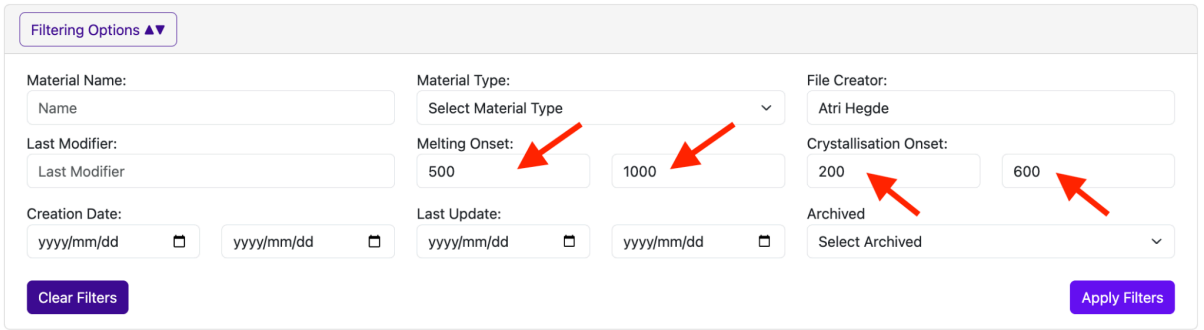
Applying multiple filters

You can apply more than one filter at the same time.

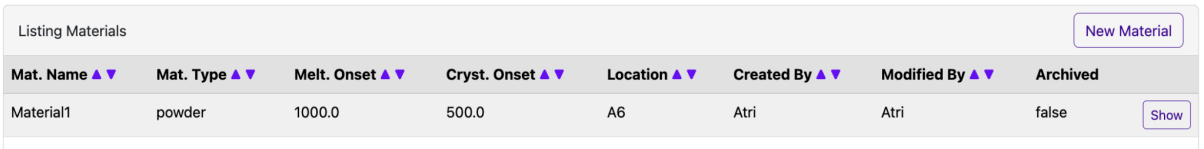
To apply multiple filters:

1. Enter details in all the different fields by which you want to filter the materials.

For example, filtering materials having ‘Melting Onset’ between 500°C and 1000°C, as well as the ‘Crystallisation Onset’ between 200°C and 600°C.



This should display only ‘Material 1’, since that is the only one satisfying both the conditions.

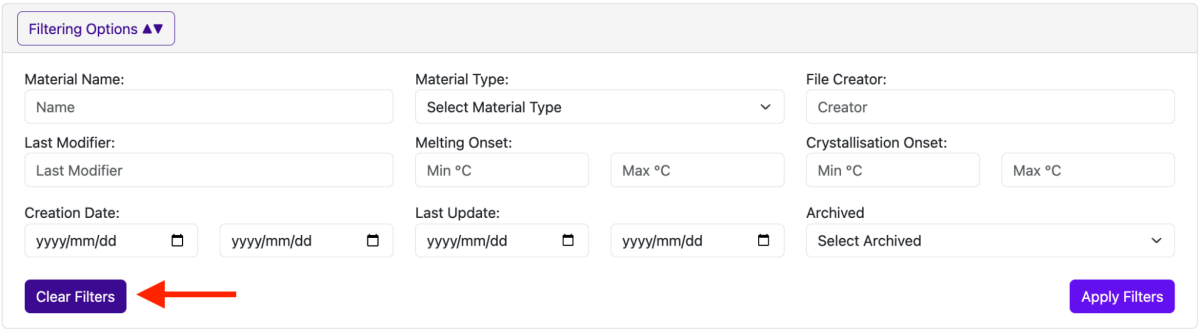


Clear Filters

Once filters are applied, we can remove them to see all the materials again.

To clear the applied filters:

1. Click ‘Clear Filters’ on the Materials page.

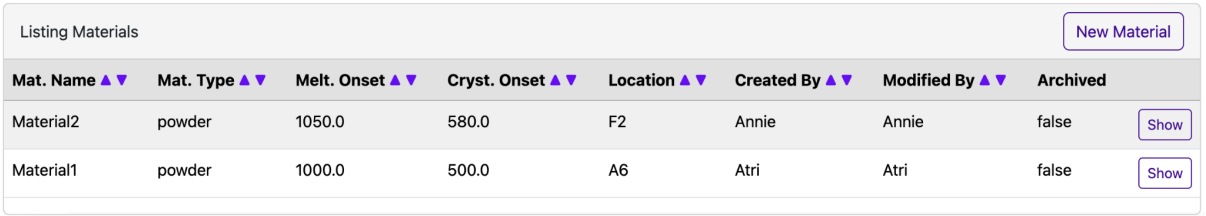


Filtering in Ascending/Descending order

For each of the above-mentioned pages, we can also filter them in ascending/descending order based on a specific parameter.

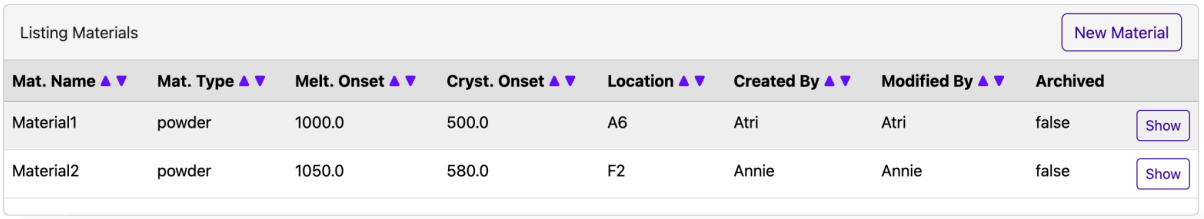
For example, for the Material’s page, we can filter materials based on the following parameters:

Material Name, Material Type, Melting Onset, Crystallisation Onset, Location, Created By, Modified By and Archived.



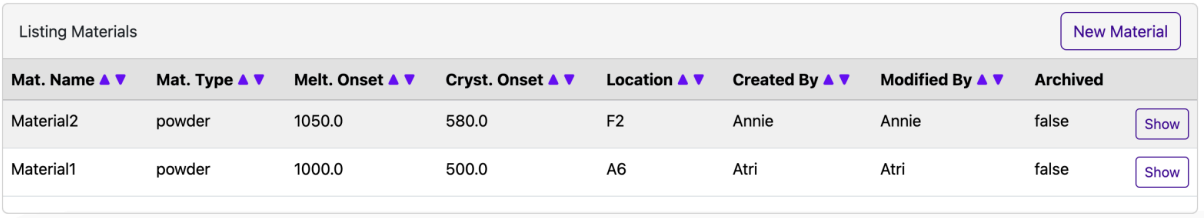
Default view for ‘Listing Material’.

To filter in ascending order, click the ‘▲’.
For example, filtering materials in ascending order based on the ‘Melting Onset’.



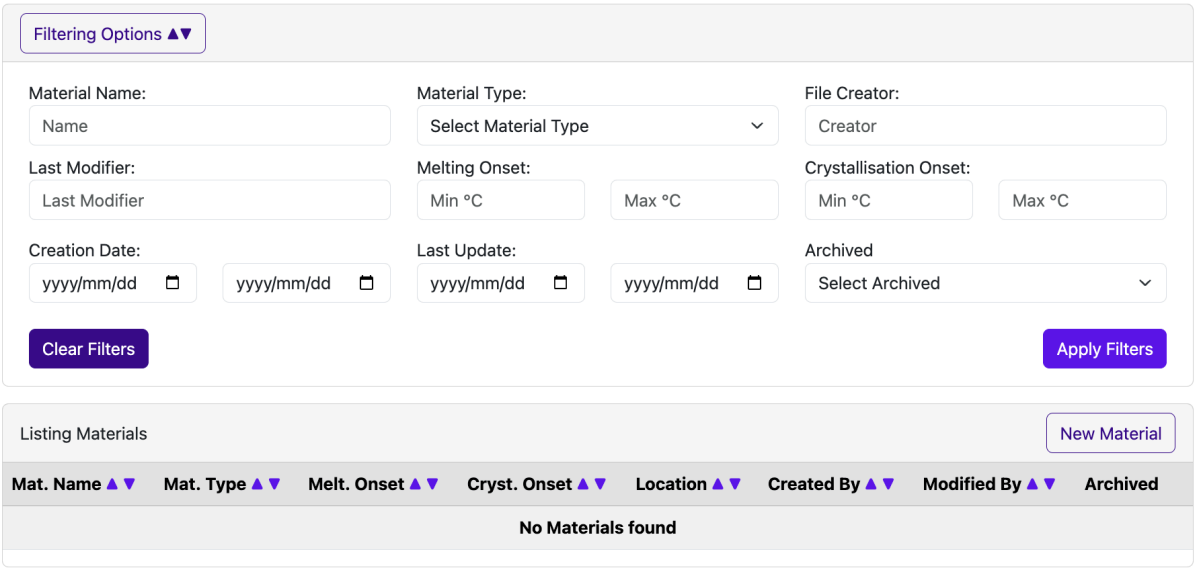
To filter in descending order, click the '▼'.

For example, filtering materials in descending order based on the 'Location'.



Materials

The ‘Materials’ page (accessed from the top right of the page) is used to store all the available materials in the laboratory. By default, it will list all materials you have access to.
Your level of access depends upon your user role.

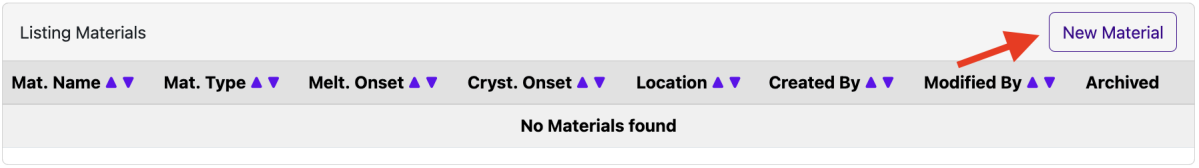


Default view for ‘Materials’ page.

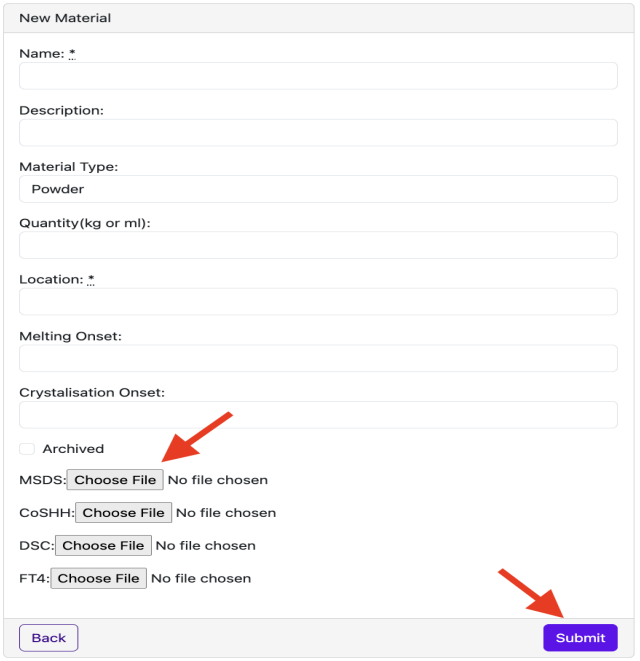
Adding a New Material

To add a new Material:

1. Click on the ‘New Material’ on the ‘Materials’ page.



2. Enter all the required information. For uploading a file, click ‘Choose File’ and upload a file from your computer. Click ‘Submit’ to add the new Material.

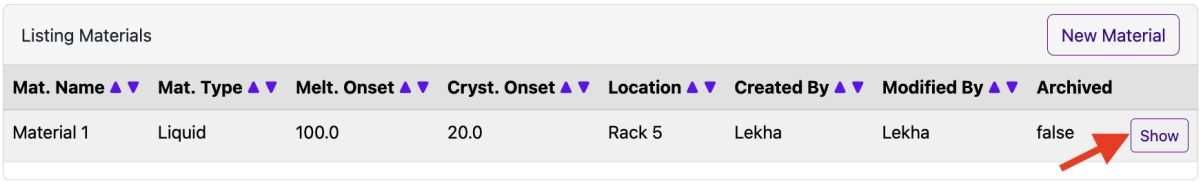


3. Proceed to viewing material to see the details of a particular material.
4. Proceed to editing material to edit the details of a particular material.

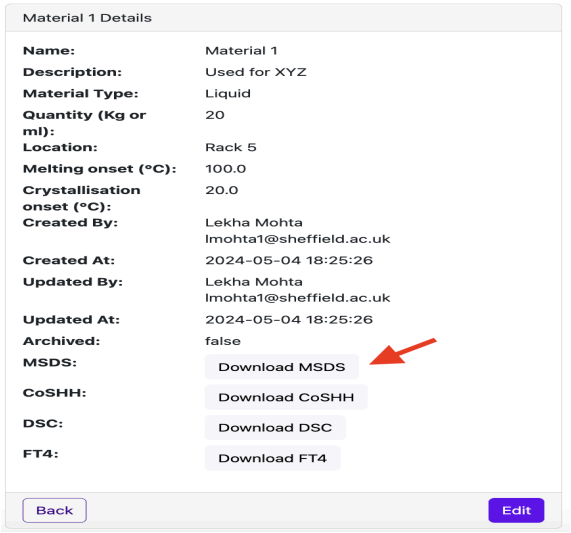
Viewing a Material

To view details of a Material:

1. Click on the 'Show' button present on the 'Materials' page.



2. It takes you to a page, consisting of all details related to the particular Material. You can also download the files attached with the Material, by clicking on the download button.

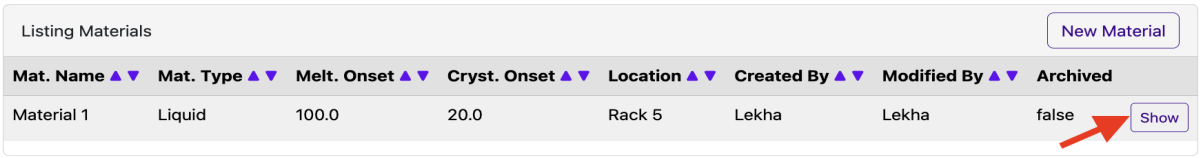


3. Click on the ‘Back’ button to return to the ‘Materials’ home page.

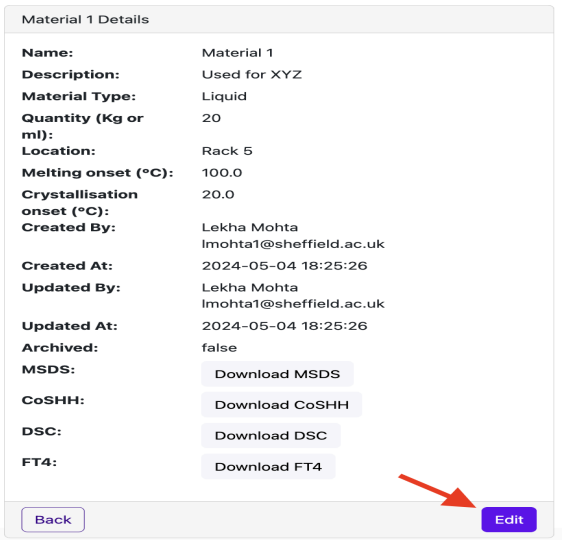
Editing a Material

To edit a Material:

1. Click on the ‘Show’ button present on the ‘Materials’ page.



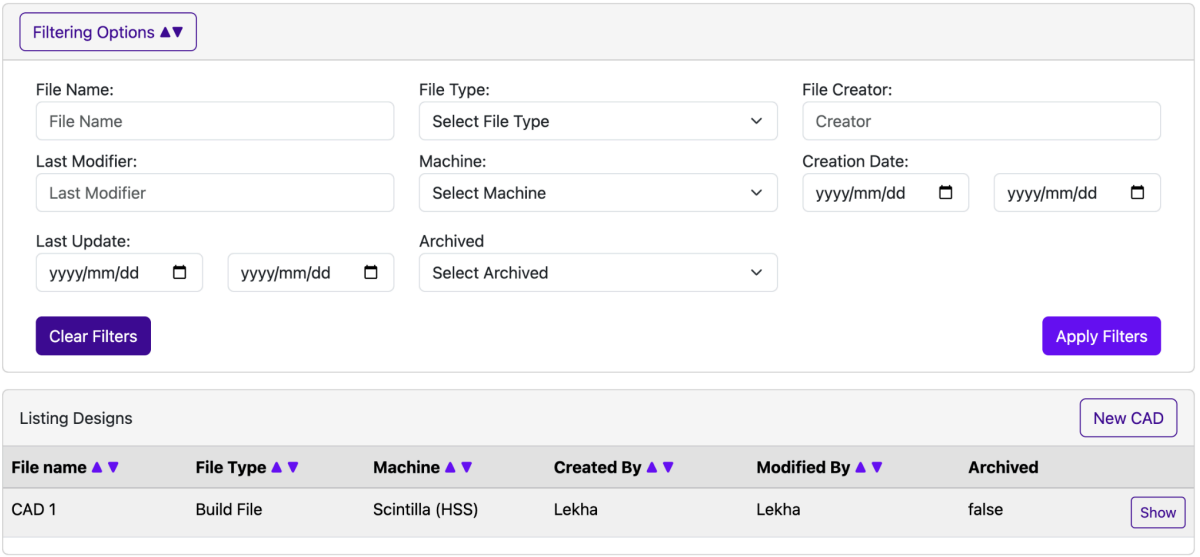
2. Click on the ‘Edit’ button on the ‘Show Material’ page. This will take you to a page where you can edit details of that particular material.



3. Once you have completed editing, click ‘Submit’ to save the changes.

CADs

The ‘CADs’ page (accessed from the top right of the page) is used to store all the CAD files created during a process, by a user. By default, it will list all CAD files you have access to.
Your level of access depends upon your user role.

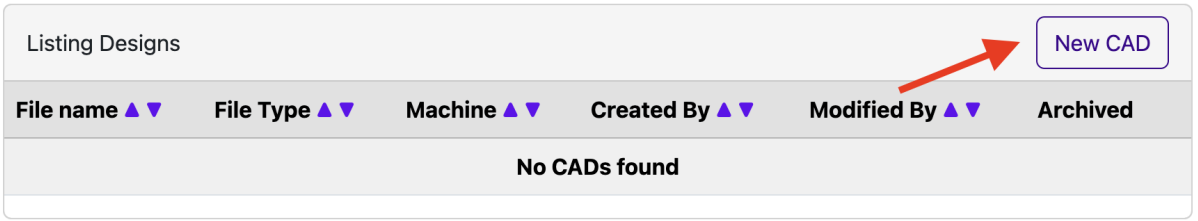


Default view for ‘CADs’ page

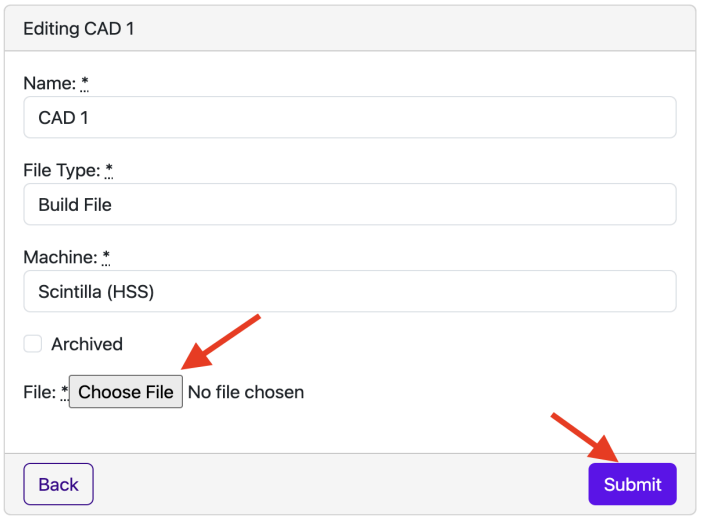
Adding a New CAD File

To add a new CAD file:

1. Click on the ‘New CAD’ on the ‘CADs’ page.



2. Enter all the required information (Name, File Type, Machine, Archived, File). To upload a File, click ‘Choose File’ and upload a file from your computer.
3. Click ‘Submit’ to add a new CAD.

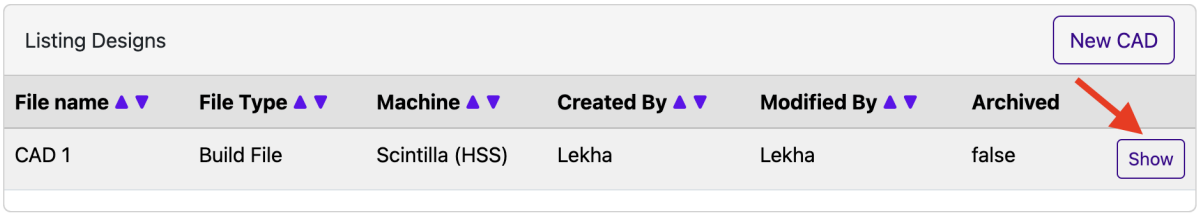


4. Proceed to viewing cads to see details of a specific CAD.
5. Proceed to editing cads to edit details of a specific CAD.

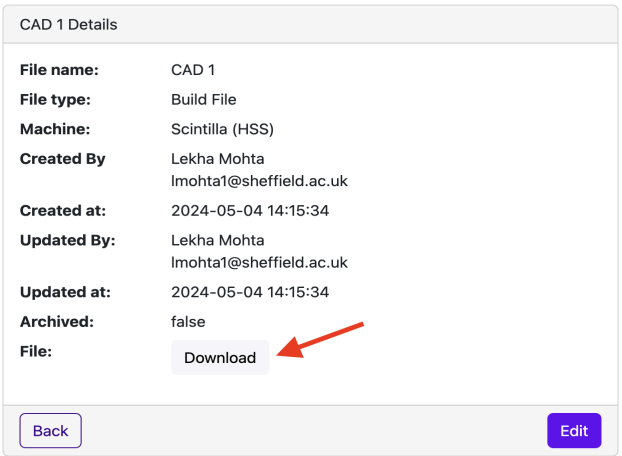
Viewing a CAD

To view details of a CAD:

1. Click on the 'Show' button present on the 'CADs' page.



2. It takes you to a page, consisting of all details related to the particular CAD. You can also download the file attached with the CAD, by clicking on the download button.

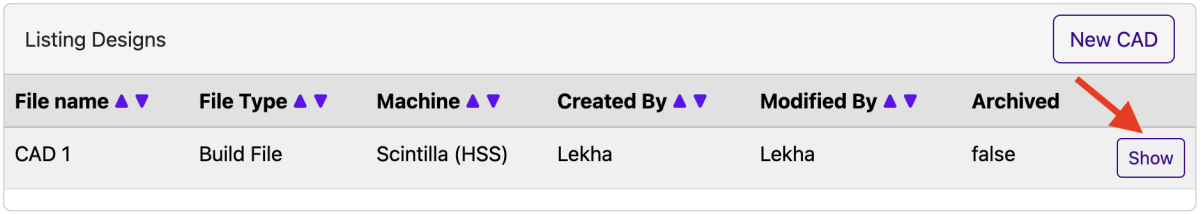


3. Click on the 'Back' button to return to the 'CADs' home page.

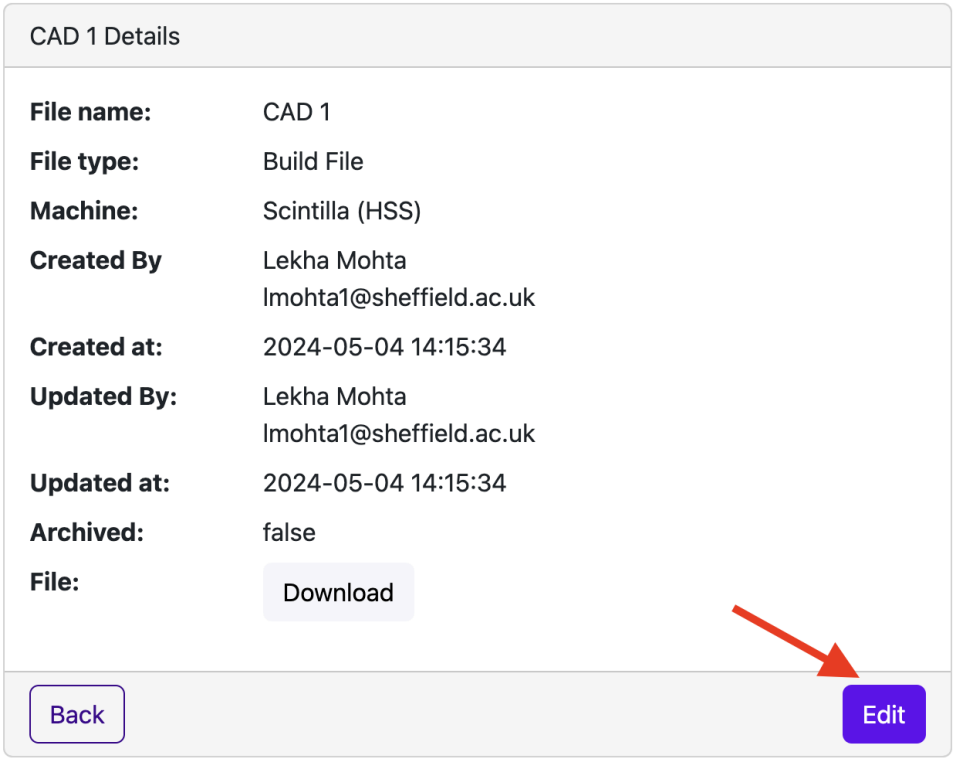
Editing a CAD

To edit a CAD:

1. Click on the 'Show' button present on the 'CADs' page.



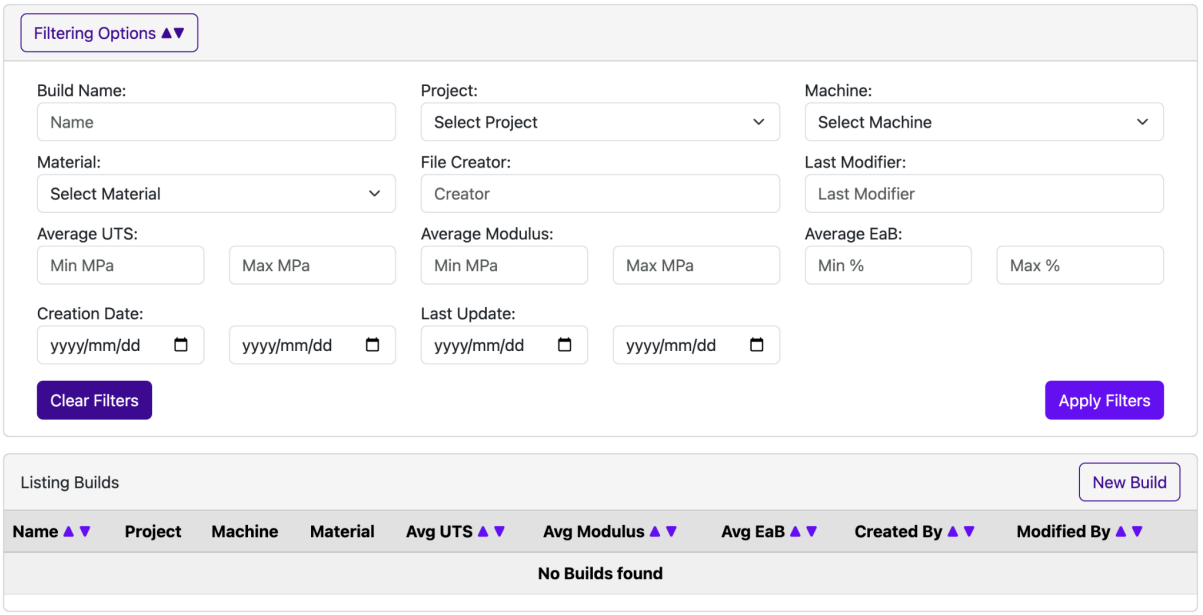
2. Click on the 'Edit' button on the 'Show CAD' page. This will take you to a page, where you can edit details (Name, File Type, Machine, Archived, File).



3. Click 'Submit' to save the changes.

Builds

The ‘Builds’ page (accessed from the top right of the page) is used to keep track of all the builds created by a user. By default, it will list all builds you have access to.
Your level of access depends upon your user role.

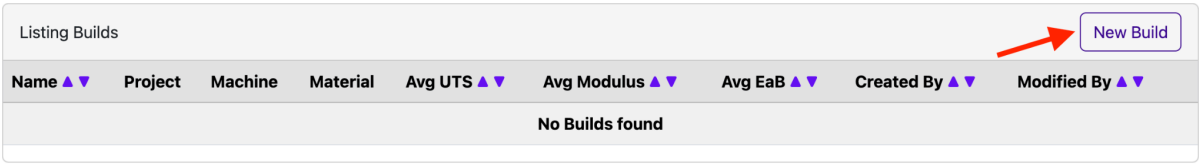


Default view for ‘Builds’ page.

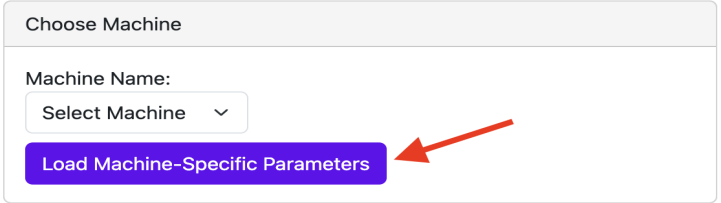
Creating a New Build

To add a new Build:

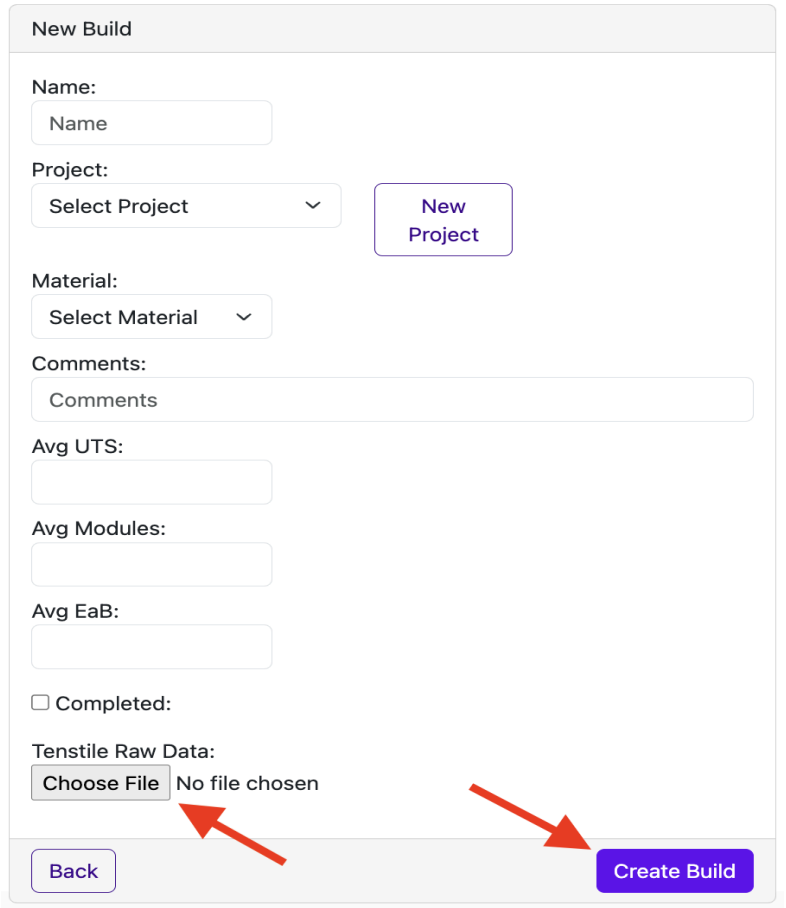
1. Click on the ‘New Build’ on the ‘Builds’ page.



2. Enter the required information. Clicking on the ‘Load Machine-Specific Parameters’ will show the parameters based on the machine selected. Enter details for all these parameters.



3. To upload a File, click ‘Choose File’ and upload a file from your computer. Click ‘Create Build’, to add the new build.

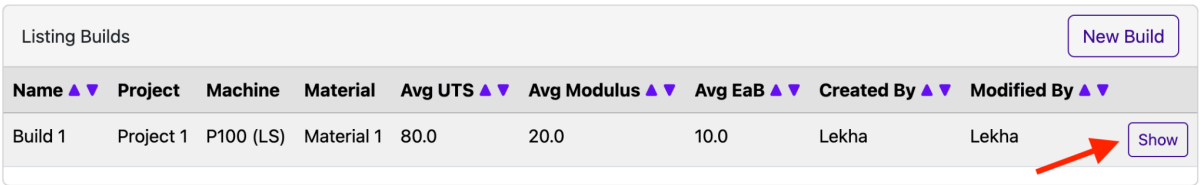


4. Proceed to adding new project, to see how to add a new project
5. Proceed to viewing builds to see the details of a specific build.
6. Proceed to editing builds to edit the details of a specific build.

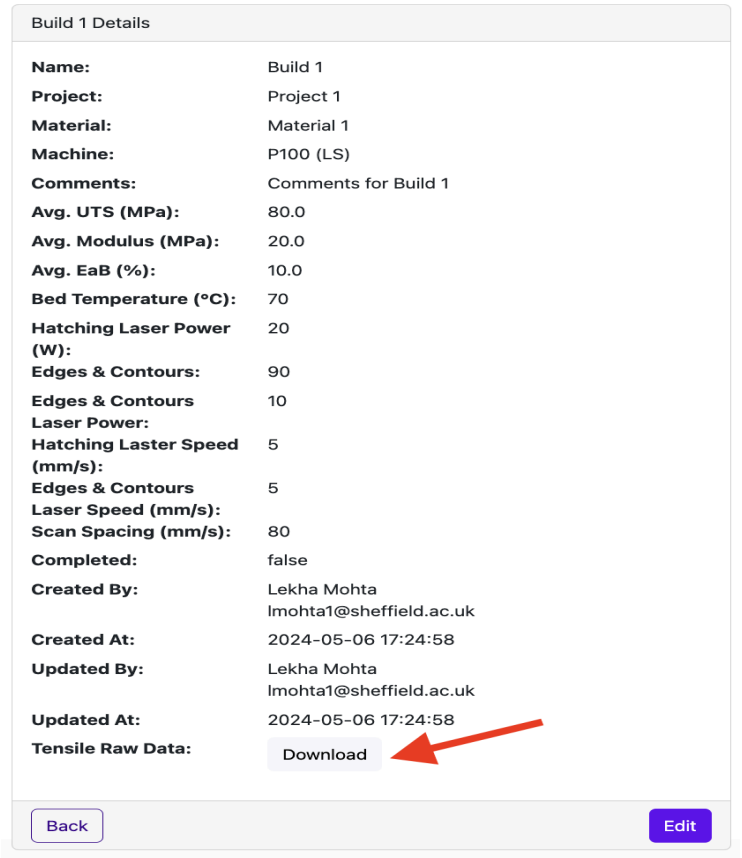
Viewing a Build

To view details of a Build:

1. Click on the ‘Show’ button present on the Builds page.



2. It takes you to a page, consisting of all the details related to that particular Build. You can also download the files attached with this Build, by clicking on the download button.

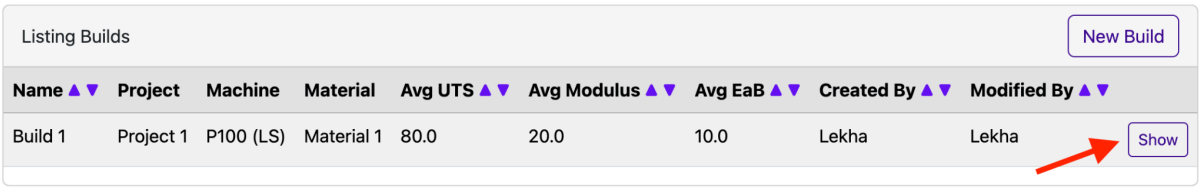


3. Click on the 'Back' button to return to the 'Builds' home page.

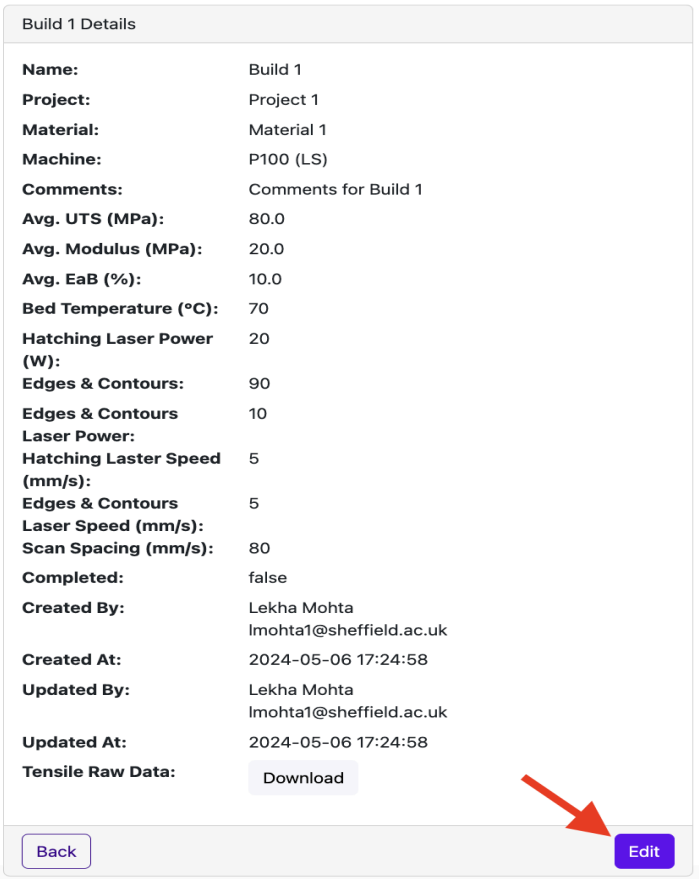
Editing a Build

To edit a Build:

1. Click on the 'Show' button present on the 'Builds' page.



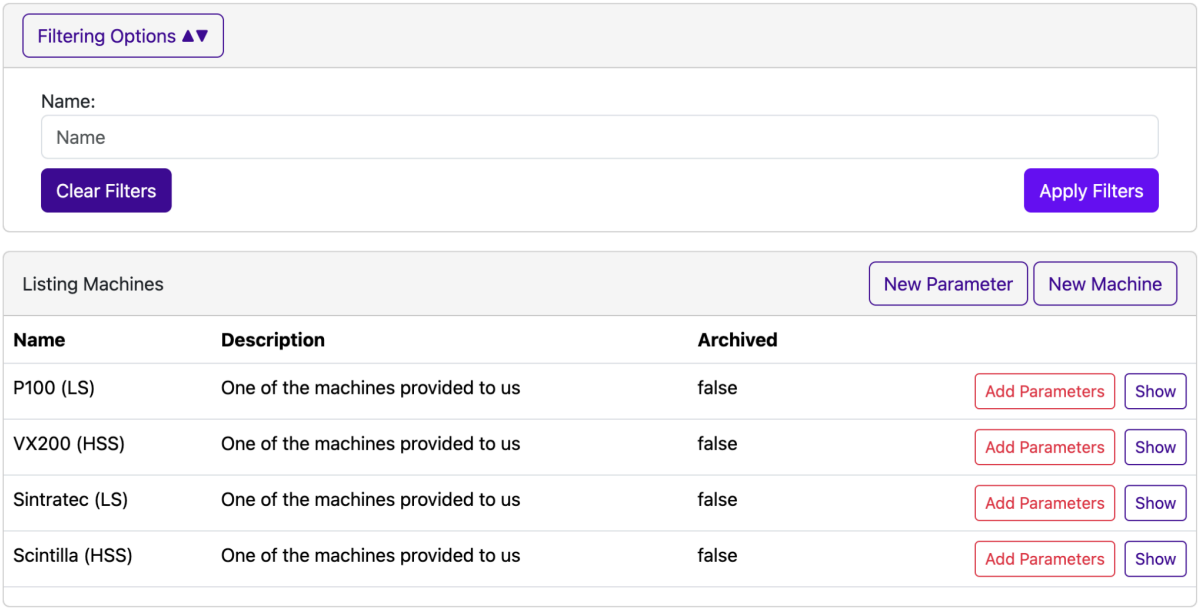
2. Click on the 'Edit' button on the 'Show Build' page. This will take you to a page where you can edit details of that particular build.



3. Once you have completed editing the details, click ‘Update Build’ to save the changes.

Machines

The ‘Machines’ page (accessed from the drop-down in the top right) is used to store all related information for the machines in the laboratory. By default, it will list all machines. This page is only accessible by administrators.

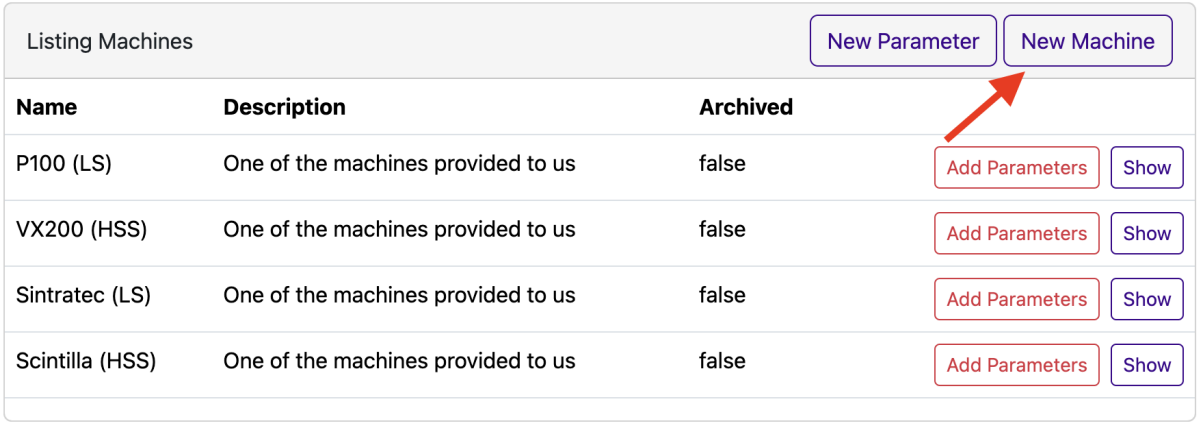


Default view for ‘Machines’ page.

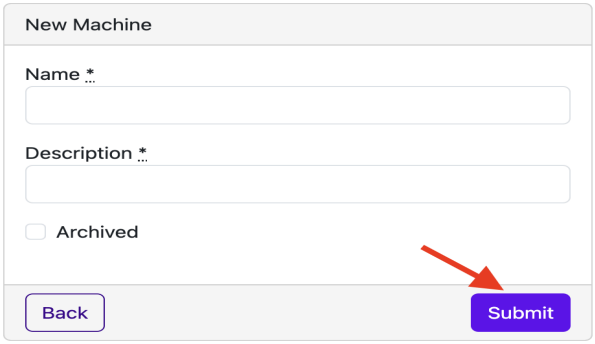
Creating a New Machine

To create a new Machine:

1. Click on the ‘New Machine’ on the ‘Machines’ page.



2. Enter the name, description and archived (yes/no) by selecting the checkbox for the machine. Click 'Submit' to add the new Machine.

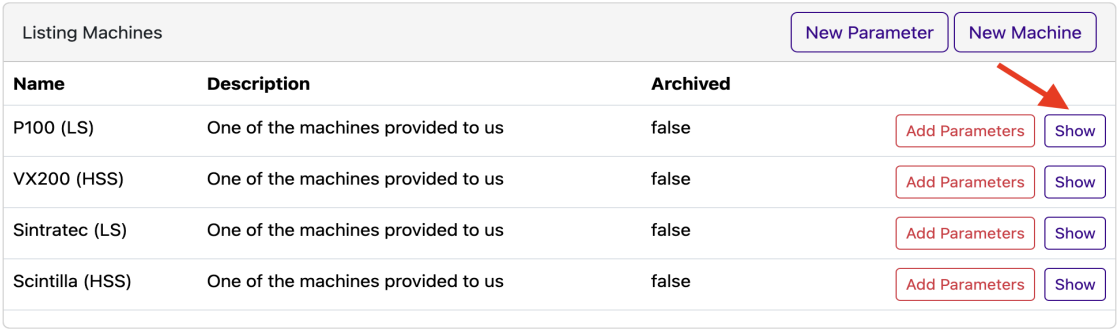


3. Proceed to viewing a machine to see the details of a particular machine.
4. Proceed to editing a machine to edit the details of a particular machine.

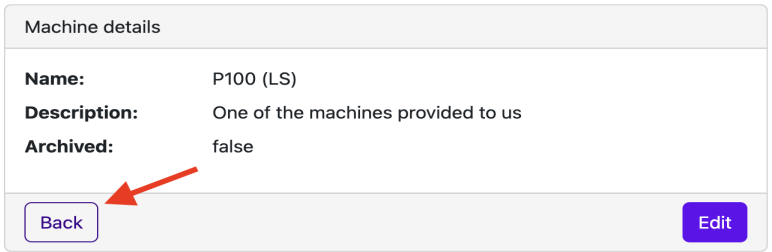
Viewing a Machine

To view details of a Machine:

1. Click on the 'Show' button present on the 'Machines' page.



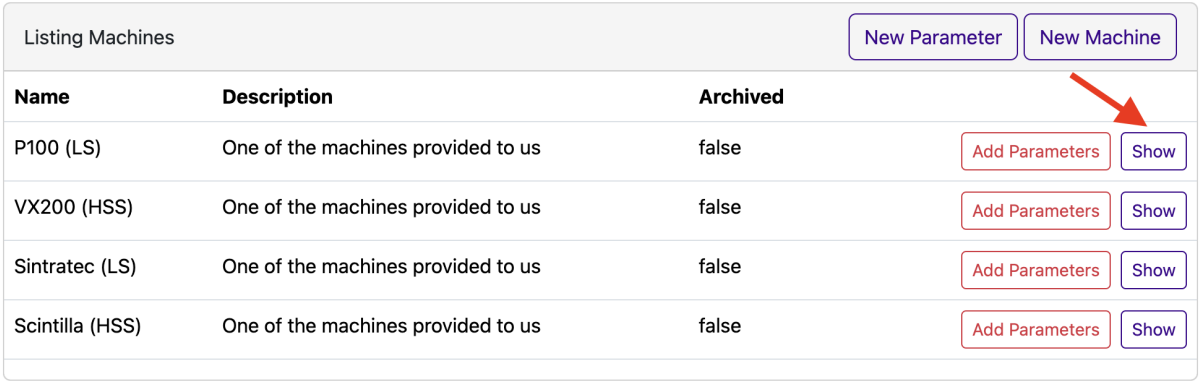
2. It takes you to a page, consisting of the name, description and archived feature of the machine.
3. Click on the 'Back' button to return to the 'Machines' home page.



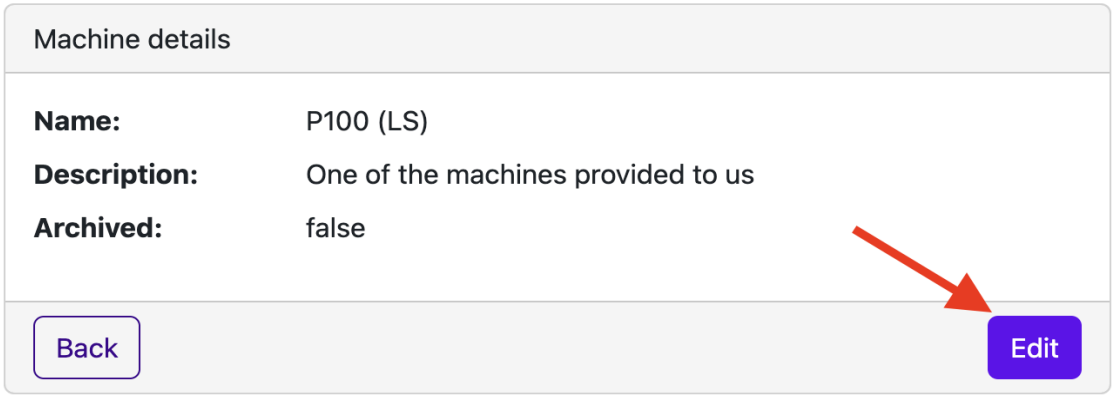
Editing a Machine

To edit a Machine:

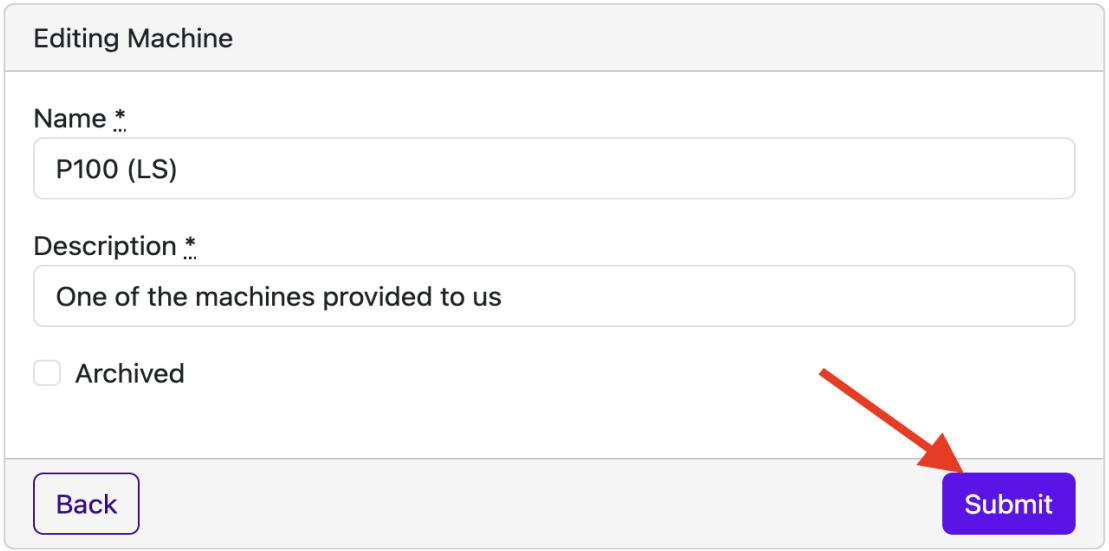
1. Click on the 'Show' button present on the 'Machines' page.



2. Click on the 'Edit' button on the 'Show Machine' page. This will take you to a page, where you can edit the name, description and archived features of the machine.

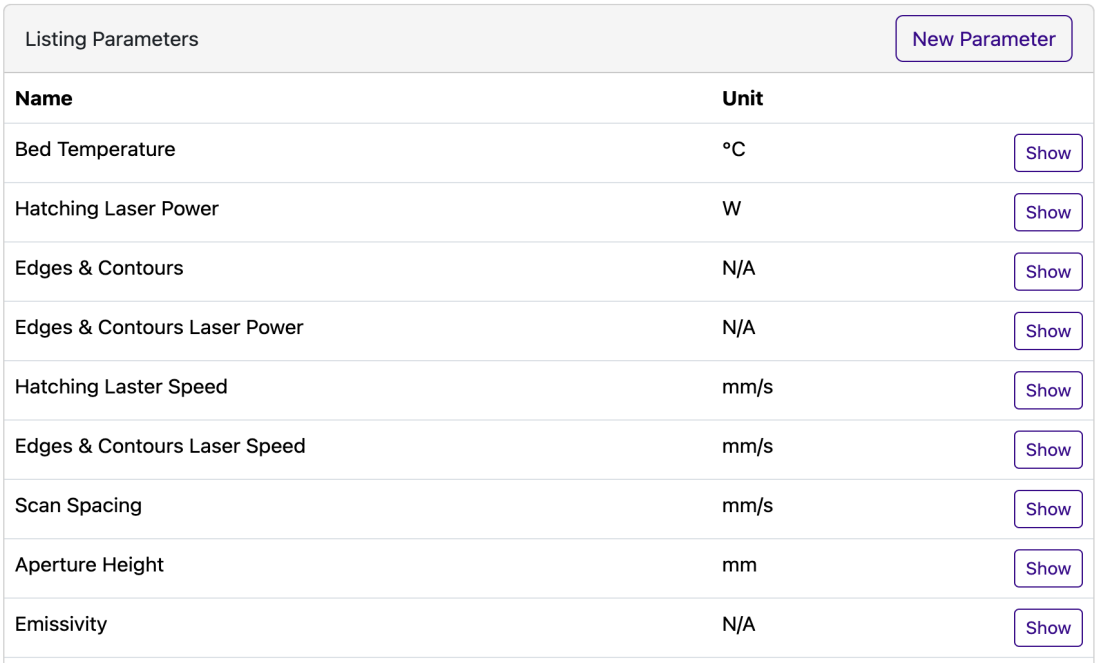


3. Click 'Submit' to save the Machine features.



Parameters

Parameters store all the details for each of the machines in the system.

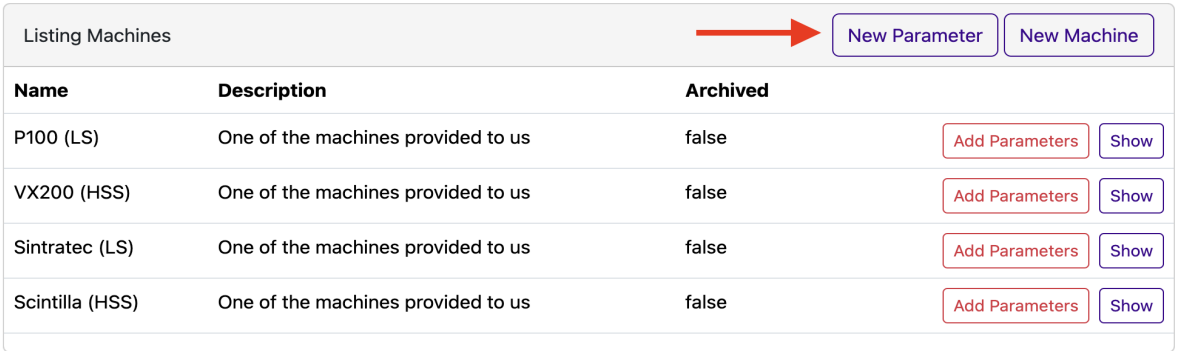


Default view for 'Parameters Page'.

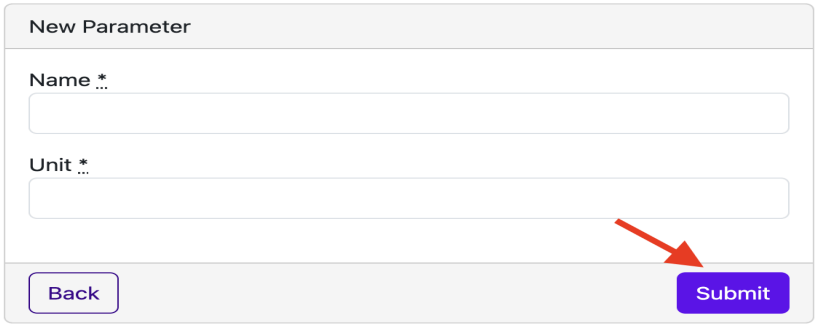
Creating a New Parameter

To create a New Parameter:

1. Click on the 'New Parameter' on the 'Machines' page.



2. Enter the name and unit for the parameter. Click 'Submit' to add a new Parameter.



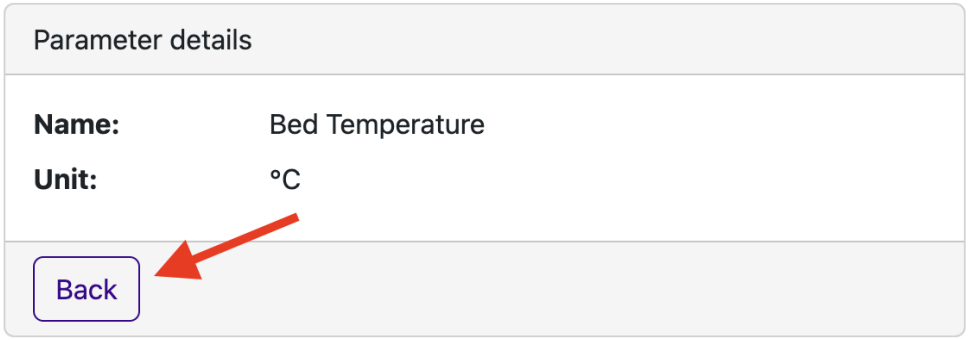
3. Proceed to viewing parameters to see the details of a parameter.
4. Proceed to adding parameters to the machine to see how to add a parameter to a particular machine.

Viewing a Parameter

To view details of a Parameter:

1. Click on the 'Show' button present on the 'Parameters' page.

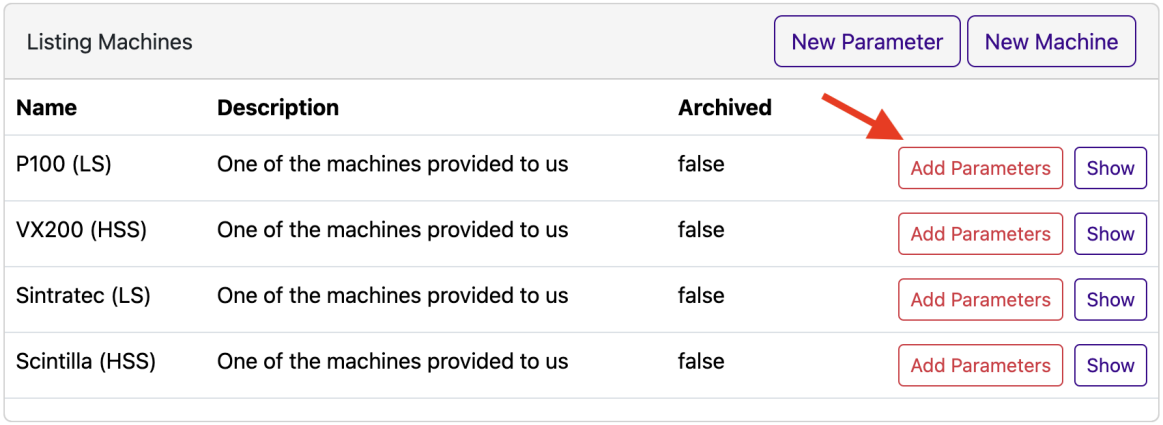
2. It takes you to a page, consisting of the name and unit of the parameter.
3. Click on the 'Back' button to return to the 'Machines' home page.



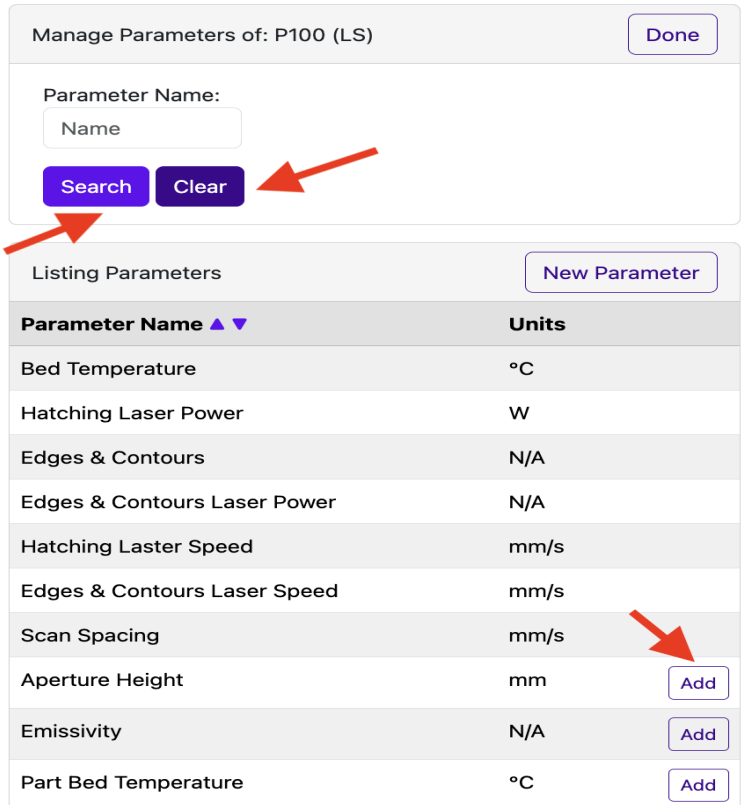
Adding a Parameter to a Machine

To add a Parameter to a Machine:

1. Click on the 'Add Parameter' button on the 'Machines' page.



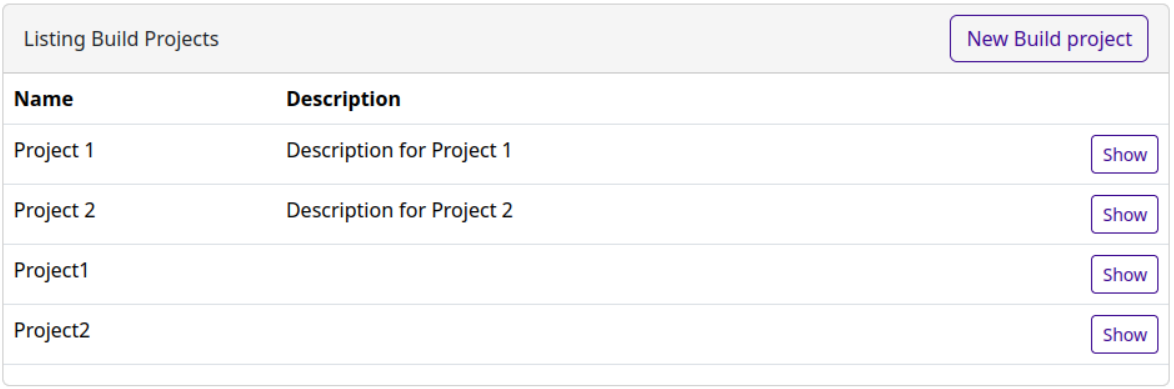
2. Click on the 'Add' button to add the particular parameter to the selected machine. To search for a particular parameter, type the parameter name and click 'Search'. To clear search filters, click 'Clear'.



3. Once you are done adding parameters, click 'Done' to return to the 'Machine' home page.

Build Projects

Projects stores the projects used in the Builds.

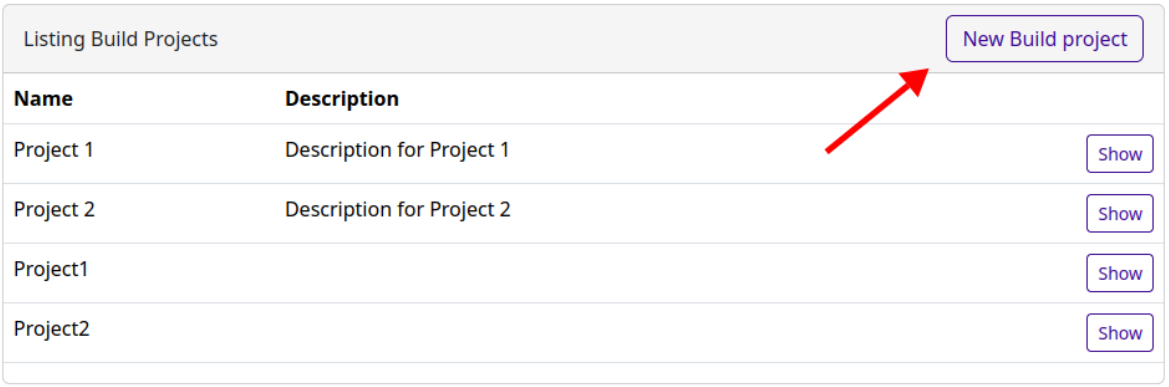


Default view for 'Build Projects' page.

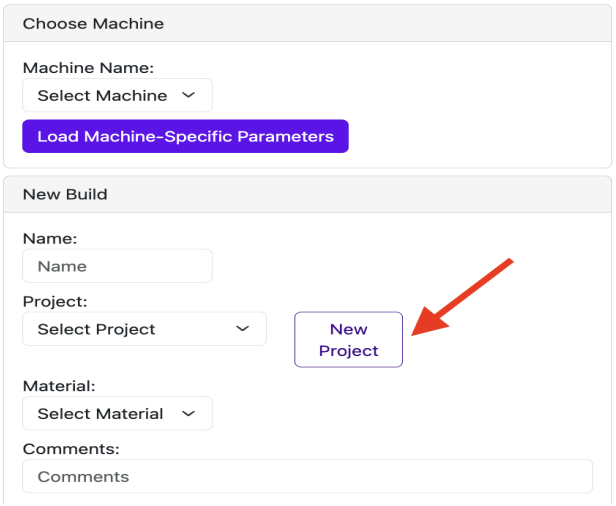
Creating a New Project

To create a new Project:

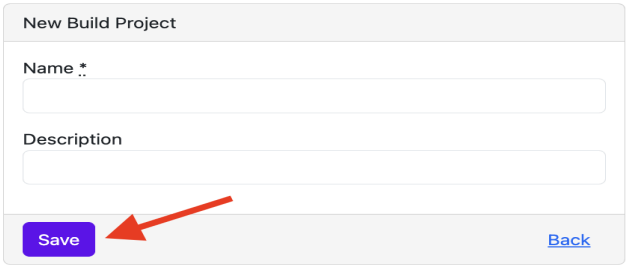
1. Click on the 'New Build Project' on the 'Build Projects' page.



Or, through the 'New Build' page by the 'New Project' button.



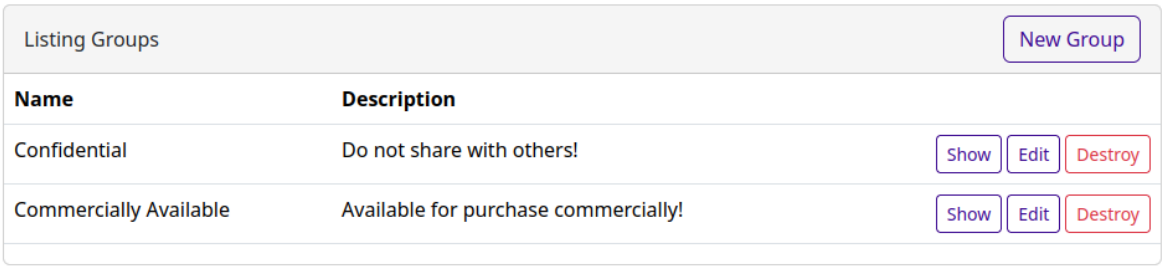
2. Enter the name and description of the Build Project. Click ‘Save’ to add the new project.



3. Proceed to Viewing Build Project to see the details of that build project.
4. Proceed to Editing Build Project to edit the details of that build project.

Groups

Groups are a way to manage access control. Only administrators can access this page from the menu dropdown in the top right.

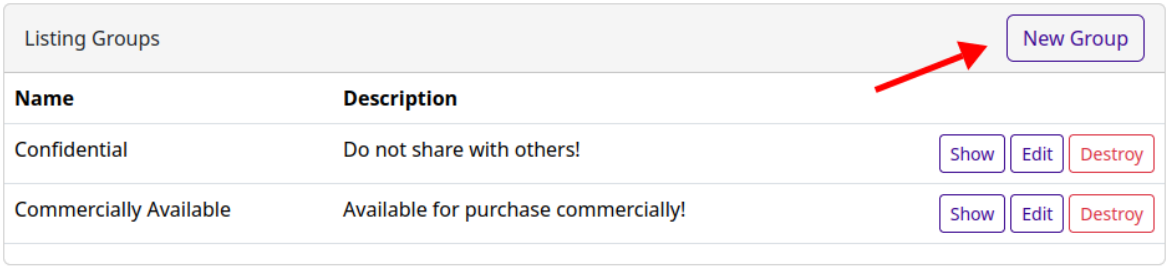


Default view for 'Groups' page.

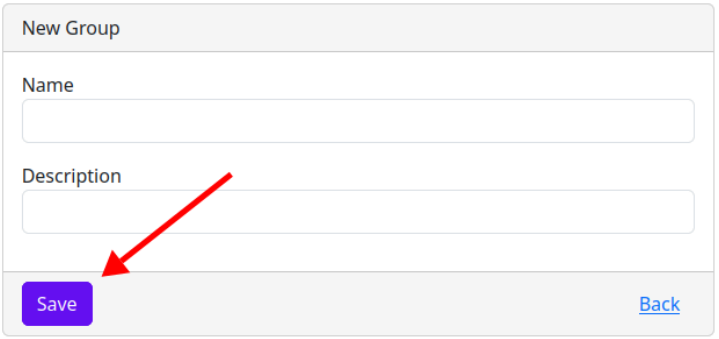
Creating New Groups

To create a new group:

1. Click on 'New Group' on the 'Groups' page.



2. Enter a name and description.
3. Click 'Save'.

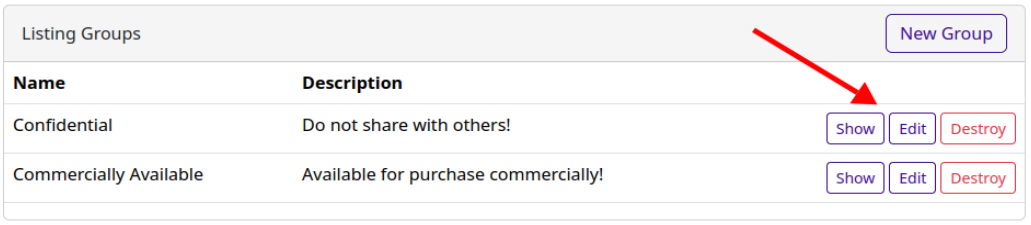


4. Proceed to editing groups to manage what is included in each group.

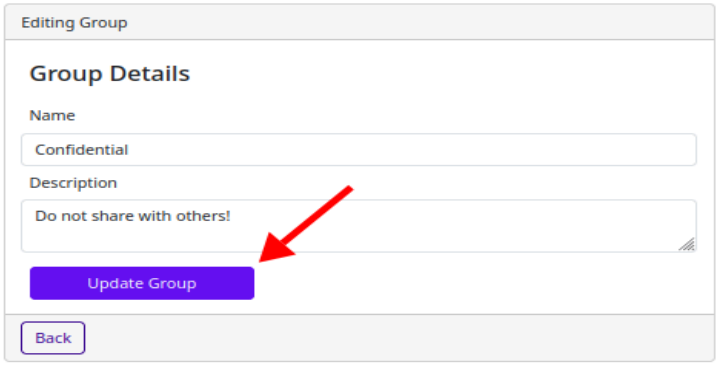
Editing Groups

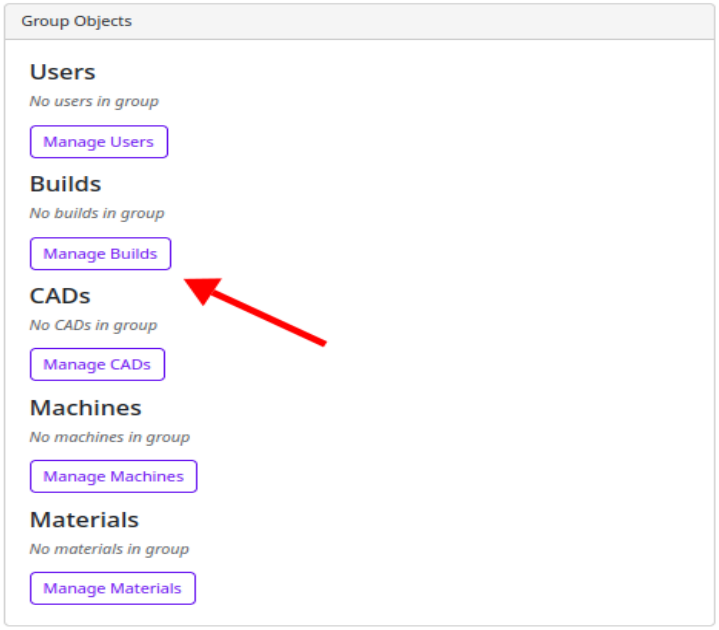
To edit a group:

1. Click on the 'Edit' button for the group you wish to edit. This will take you to a page, where you can manage (add/remove) Users, Builds, Machines and CAD files, in the group.

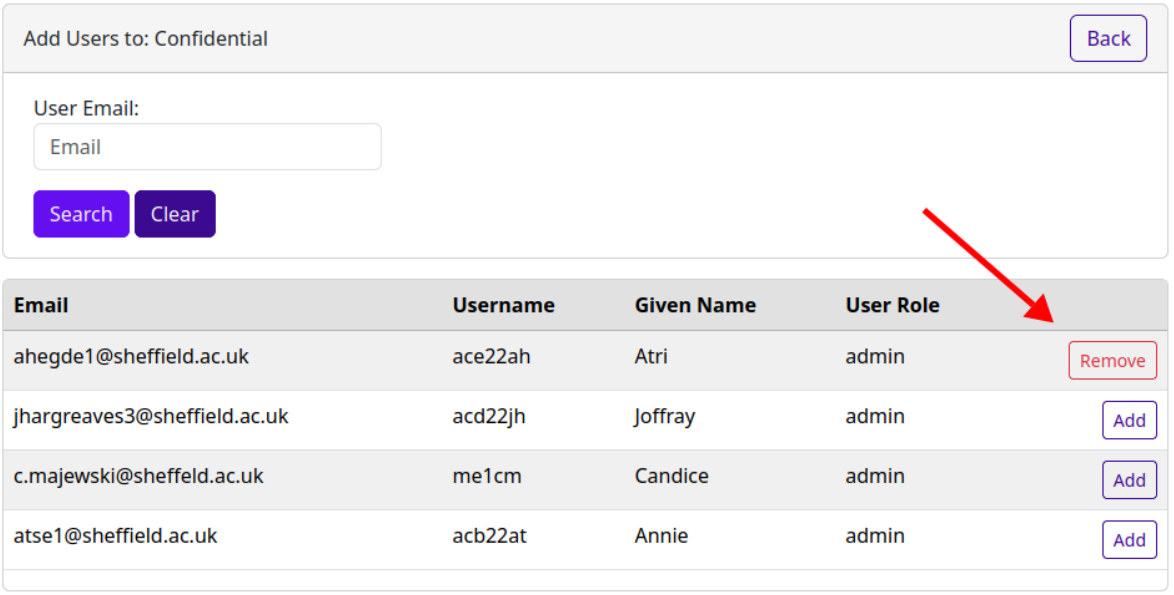


2. To edit the name and description, click the 'Update Group' button.
3. Click on any of the 'Manage XXX' buttons to take you to a page where you can add or remove the relevant data.





a. You are able to filter by name
b. Click the ‘Remove’ or ‘Add’ buttons



Default Groups

There are two default groups that cannot be deleted. These groups contain information accessible only by a particular set of users.

Confidential

This group contains info that is included in NDA agreements. The information within this group is not accessible to anyone except people included within the agreement.

Commercially available

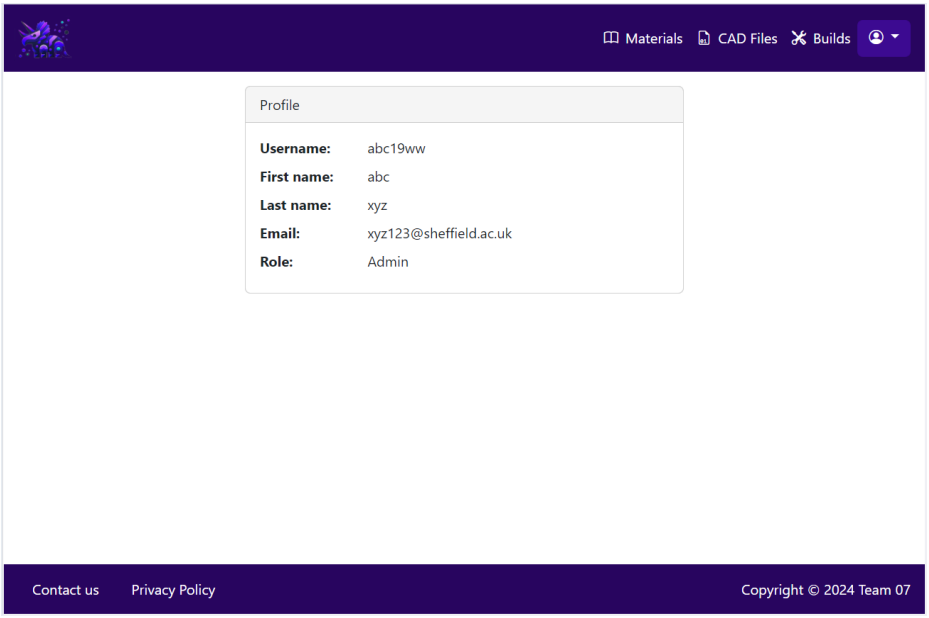
This group contains information that is only available to the staff members at APSL.

Profile Page

The profile page allows you to view your details as registered on the APSL website, you cannot change these details as they are acquired from your university login. If you found out that any of your user details are incorrect, please contact the administrator promptly for support.

To open your profile page:

1. Click on the profile icon in the top right corner
2. Click on your username



The Profile page view