



PST

DESIGN WITHOUT LIMITS

Advanced Software Solutions for the Glazing & Home Improvement Industry

VS - Creating & Editing Materials

Creating and Editing Materials

Materials refers to all the different material types that are used to build up a model in VS & vsHome, these include;

- Glass
- Polycarbonate
- Solid panels
- Brick & Stonework
- Paving & other ground cover
- Flooring
- Skirting board
- Internal wall coverings such as paint
- Internal cills

VS & vsHome come with a library of different material types ready for use, such as different flooring, walling and glazing materials. As well as these materials there is also the facility to add your own materials into VS & vsHome.

Using materials in a model

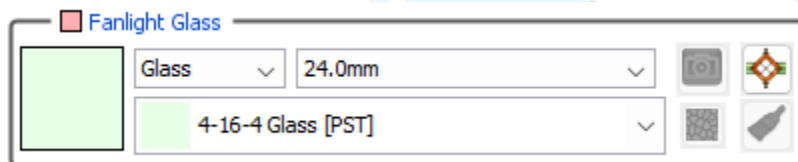
Once a model has been created there is the option to change the materials being used via the right hand tabs;



Glazing

The glazing tab allows you to select and edit the glazing materials, these make up three types;

- Glass
- Polycarbonate
- Solid Panels



This image to the right shows the glazing choose for fan light glazing.

The glazing chooser allows you to;

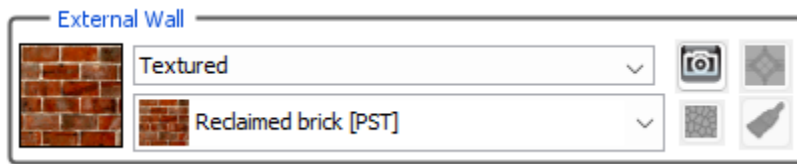
1. Choose between glass, poly or solid panels
2. Choose the glazing thickness
3. Select from a choice of materials of the specified material type and thickness (in the image above the chosen material is called Glass 4-8-4)
4. Add a decal to certain glazing panels (by using the right hand decal icon)



Materials

The materials tab allows you to select different internal and external materials for the model. There are two basic material types;

- Textured – has a textured finish, such as brickwork
- Painted – has a painted finish, the colour of which can be changed.



The image to the right shows the material chooser for external walls.

The material chooser allows you to;

1. Choose between a textured or painted material.
2. Select from a choice of materials (in the image above the chosen material is called Varicolor brick)
3. If the material is textured, the ability to add a new texture image to the selected material using the right hand camera icon.
4. If the material is painted, the ability to change the painted colour using the right hand paint brush icon.

Managing and Creating New Materials

As well as the materials already defined within VS & vsHome, there is the ability to modify these materials and add new ones using the Material Manager. The materials manager is located within the Preferences which is the globe icon on the top menu bar.

The Material Manager is divided into two main library types which contain all the available materials;

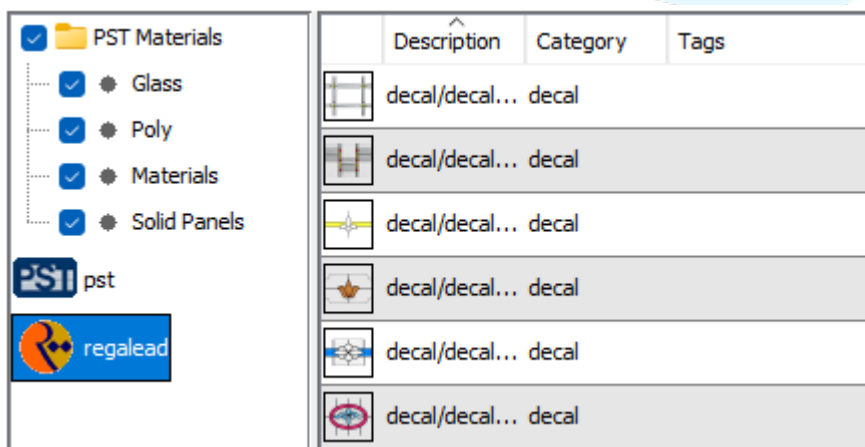
- System Libraries – comes with the software
- User Libraries - Created by users

These contain libraries of both materials and textures;

- Materials – contain all the available materials
- Textures – contain textured images which are used by textured materials such as brickwork and paving

System Libraries

The system libraries contain all the materials which are available by default. These materials can only be edited in a limited way (i.e. changing the name and cost) but these materials and libraries cannot be deleted, added to or duplicated.



The system libraries show the material and texture libraries which come as default. The left image shows there is a default PST material library with glass, poly, materials and solid sub libraries. It also shows there are PST and Regalead texture libraries which contain all the default texture images used by any materials which have a textured finish, such as brickwork.

User Libraries

If you want to add new materials or entire libraries of materials then the User Libraries allow you to do this. Also if you want to add a new texture or whole texture library, the User Libraries allows you to do this. These libraries are fully editable and new materials or textures can be added, duplicated and deleted as required.

Working with System and User Libraries

The structure of the material libraries is the same for both System and User defined libraries;

<input checked="" type="checkbox"/> PST Materials				
<input checked="" type="checkbox"/> Glass				
<input checked="" type="checkbox"/> Poly				
<input checked="" type="checkbox"/> Materials				

Description	Thickness	Act	Fav
16mm Bronze/Opal	16.0 mm	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16mm Bronze	16.0 mm	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Each library and individual material within a library has a toggle on/off tick button next to it. This controls whether the library or material will be available for use when working on a model.

All materials are stored in sub libraries depending on what type of material they are;

- Glass sub library – for glass materials.
- Poly sub library – for polycarbonate materials.
- Materials sub library – for non-glazing/panel materials. (eg. Brick, paving)
- Solid panels sub library – for solid panel materials.

Select a sub library to show the materials contained within it. Selecting an individual material within a sub library will allow you to edit its name and cost. When viewing materials in User libraries you can fully edit the materials, see below for details.

Favorites

Each individual material has a star next to it (unselected by default). Selecting the star for a given material marks it as one of your most commonly used materials, this means it will appear at the top of the material lists when working on a model.

Working with User Libraries

The User Libraries also allow you to build up entire libraries and sub-libraries of materials for use when creating models.

New Material Library...

Create a new empty material library. A new library will always contain sub-libraries for glass, poly, materials and solid panels which are initially empty.

New Texture Library...

Create a new empty texture library. Supply a library name and icon in the pop up dialog box.

New Material Sublibrary...

Allows you to create any number of sub-libraries within any glass, poly, material or solid panel library.

Delete Selected Library

Delete the selected library and all its contents.

Export Library...

Export a material or texture library for other users.

Adding materials to a User Material Library

Once you have created the required material library and sub-library structure, it can then be populated with new materials. Note, only new materials which match the library type can be created within that library (eg. Only glass materials can be created in a glass library or sub-library).

New Solid Material

Create a new glass, poly, material or solid panel within the selected sub-library.

Delete Material

Delete the selected material.

Duplicate Material

Duplicate the selected material, to create new materials quicker.

Once you have created a new material, the attributes of that material can then be edited. Depending on whether the new material is glass, poly, material or solid panel, the attributes for the material, which will be displayed on the right side of the screen, will vary. The attributes associated with a glass material are outlined below;

Selected Material

24mm Glass Unglazed 6/12/6 unit

Type: Glass

Cost: 0.0 Price: 0.0

Save Cancel

Attributes:

Thickness (mm)	24.0
Category	Roof Glass Custom Roof Glass 1-5
Roof Matrix Uplift (%)	0.0
Glazing Arrangement	double glazing 6-12-6
Allow Obscure?	<input type="checkbox"/>
Lock Obscure Texture:	not set
Cost Visible	<input checked="" type="checkbox"/>

Add Attribute Delete

Once you create a new material you will need to edit and save the attributes before continuing to working with other materials. In edit mode, just mouse click over any attribute and you will be given the option to change it. The *Category* attribute needs to be set for all materials. By selecting the *Category* while in edit mode, you are presented with a list of all the available locations you want this material to be used. For example, with glass materials, you may want to select the roof and sidewall categories so this new glass material will be available in both the roof and sidewall material choosers when working on a model.

You can also add more attributes to a material by selecting the 'Add Attribute' button at the bottom of the screen. There is also the option to delete attributes. Note, some attributes can not be deleted such as glass arrangement.

✓

vsHome

✓

• Glass

✓

• Poly









✓

• **Materials**

✓

• Solid Panels

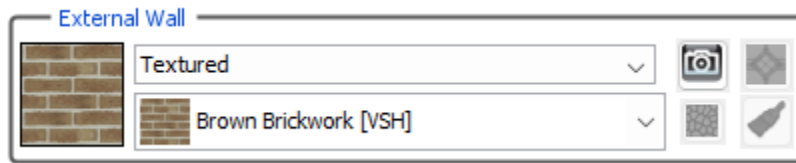
vsHome Textures

	Description	Thickness	Act	Fav
	Beige Timber		<input type="checkbox"/>	
	Brown Brickwork		<input checked="" type="checkbox"/>	
	Cedar DPC		<input type="checkbox"/>	
	Chartwell Green DPC		<input checked="" type="checkbox"/>	

Any materials or libraries that you want to be available when working on a model must have a tick by them.

Using User Materials when working on Model

After you have edited or added a material/library, you will only see these changes once the software has been restarted.



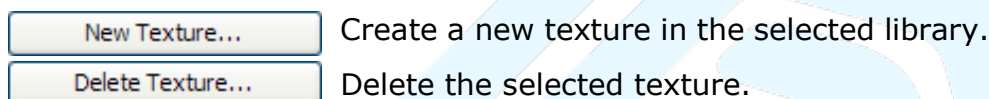
Once back in VS or vsHome, the new materials will be available when building a model.

Once a user defined material has been used in a model, it will be saved as part of the overall project. This means a project 'carries' its materials with it, independently of the materials available in the Preferences. For example;

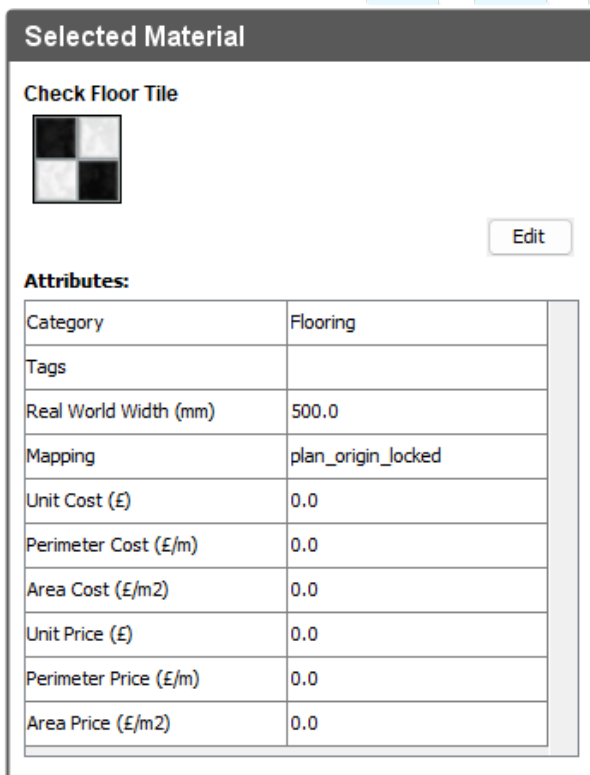
1. Even if a user defined material gets deleted in the Preferences, the material will still be available within the saved project.
2. If a project gets opened on a different computer on which the user defined material does not exist, the material will still be available within the project.

Adding Textures to a User Texture Library

Firstly you will need to create a new User texture library using the 'New texture library' button. It can then be populated with new texture images.



Once you have created a new texture, the attributes for that texture can then be edited in the right hand column.



In edit mode, just mouse click over any attribute and you will be given the option to change it's settings.

Category – allows you to assign a category to the texture (eg. tiles).

Tags – assign a tag to allow grouping of textures.

Real world width – This allows the image to be correctly sized in the model.

Mapping – defines how the image will mapped over the entire surface of the material.

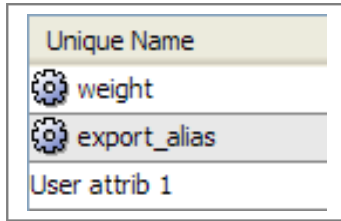
You can then choose how the texture can be costed if applicable.

Once you have set up a texture it is then available to add to any new or existing user materials.

Managing and Creating Material Attributes

The Material Attributes allow you to create new settings which can then be attributed to your user defined materials. Select 'Material Attributes' within the Materials folder of Preferences. This will display a table of all the available attributes already created.

There are 2 different types of attributes;



1. User attributes – these can be created by users as required. These attributes have no icon next to them.
2. System attributes – these are created by PST and cannot be edited. These are indicated by the cog icon next to them

User Attributes;

Once you have added a new attribute to the table, it will then be available to add to any user created materials. For example, if you have created user defined glazing materials which are supplied by different glazing suppliers, you could set the supplier name as an attribute and add it to these glazing materials. Your glazing paperwork can then be modified to show which supplier the glazing for a roof comes from.

System Attributes;

These default attributes represent the most commonly used attributes which can be added to a user material;

Weight – allows you to supply a weight for the material. This will be used instead of the default value in VS for structural calculations. It is also useful for giving a weight to solid panels which can then be incorporated into the structural calculations for roofs containing solid panels.

Export alias – This will replace the text for the <poly ref> tab in the interface files. By default the interface file uses the material name from VS as the description for the interface file. The Export alias allows you to give a different description text if required.