HLMS Editor Cheat Sheet

Main window



| **Action** | **Command** |
| --- | --- |
| Generate HLMS | **F5** |

| **File** | **Command** |
| --- | --- |
| New Project | **Ctrl + Shift + N** |
| New Hlms Pbs | **Ctrl + Alt + N** |
| New Hlms Unlit | **Ctrl + N** |
| Open Project | **Ctrl + Shift + O** |
| Open Hlms | **Ctrl + Alt + O** |
| Open Mesh | **Ctrl + O** |
| Save Project | **Ctrl + Shift + S** |
| Save Hlms | **Ctrl + Alt + S** |
| Save Project as | **Ctrl + Shift + A** |
| Save Hlms as | **Ctrl + Alt + A** |
| Save Mesh as | **Ctrl + A** |
| Export Material browser to zip | **-** |
| Export Current project to zip | **-** |
| Import HLMS Editor project from zip | **-** |
| Import 3D models | **-** |
| Quit | **Ctrl + Q** |

| **Materials** | **Command** |
| --- | --- |
| Apply current material to (sub)mesh | **Ctrl + M** |
| Open browser | **Ctrl + B** |
| Add material to browser | **Ctrl + H** |
| Material as preset | **Ctrl + C** |

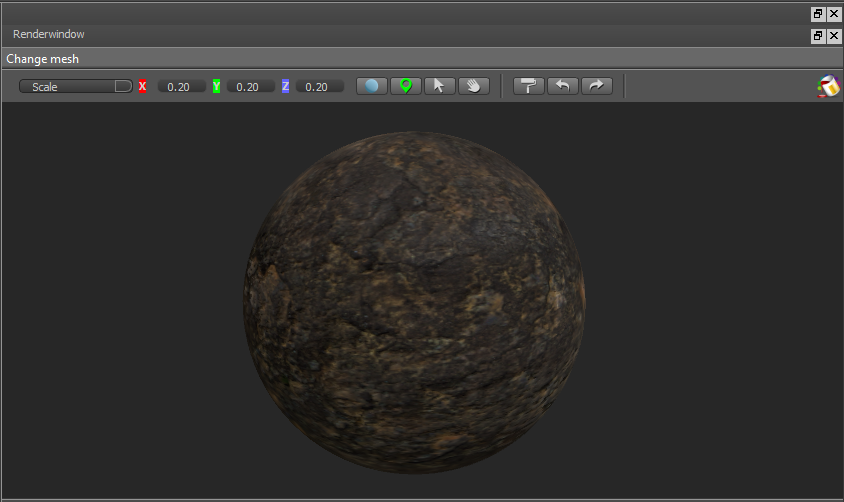
| **Textures** | **Command** |
| --- | --- |
| Import textures from directory | **Ctrl + I** |
| Add texture file(s) | **Ctrl + T** |

| **Painting** | **Command** |
| --- | --- |
| Create paint layer | **Ctrl + P** |
| Edit paint layer | **Ctrl + E** |
| Delete selected paint layer | **Ctrl + D** |

| **Tools** | **Command** |
| --- | --- |
| Configure | **Ctrl + X** |

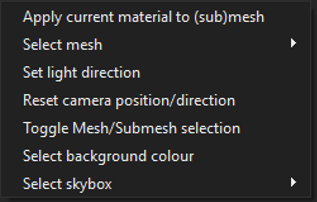
| **Window** | **Command** |
| --- | --- |
| Reset Window Layout | **Ctrl + R** |

Render window



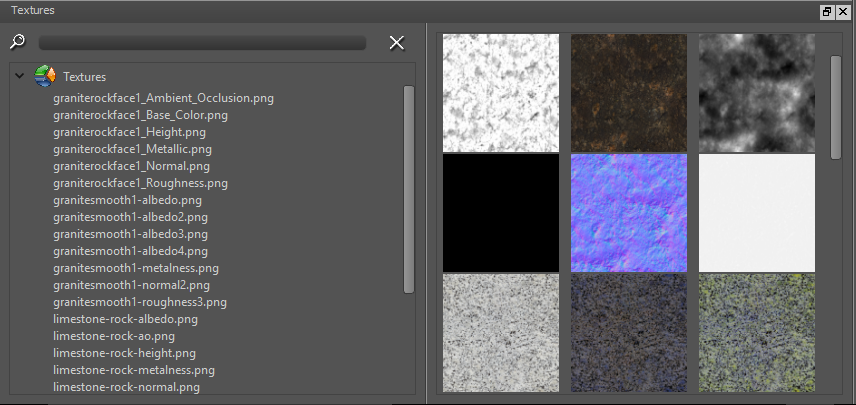
| **Action** | **Command** |
| --- | --- |
| Rotate mesh | **Left Mouse Button (LMB)** Drag |
| Move mesh | **Shift +** **LMB** Drag |
| Zoom in/out | **Mouse Wheel Up/Down** |
| Select a mesh from a list | **Change mesh** listbox |
| Switch transformation type | Select from list:   * **Position** – Position of the model * **Rotation** – Euler angle of the model * **Scale** – Scale of the model |
| Set Position, Rotation or Scale |  |
| Set light direction | **Toggle between**  **and** |
| Reset position and orientation mesh |  |
| Mesh/submesh selection | **Toggle** betweenand+  **Hoover** over submeshes (on/off) |
| Offset texture | **Toggle** betweenand  (+ detail map selected) +  **LMB** drag a detail map |
| Paint on a texture | **Toggle** betweenand  +  (+ paintlayer created) +  **LMB** + move |
| Undo paint action | **Click** on |
| Redo paint action | **Click** on |
| Change background colour | **Click** on |
| Set current material to a Mesh or a Submesh | **Doubleclick** on Mesh/Submesh or  by means of contect menu (see below) |

Render window context menu



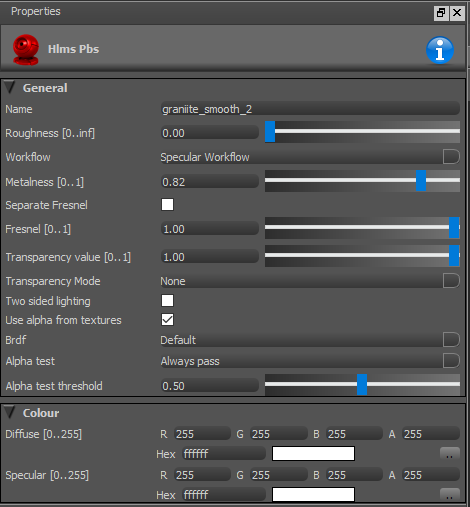
| **Action** | **Command** |
| --- | --- |
| Display context menu | **Right Mouse Button (RMB)** |
| Apply current material to a Mesh or a Submesh | ‘**Apply current material to a (sub)mesh**’ |
| Select a mesh from a list | ‘**Select mesh**’ |
| Set the direction of the light by moving the mouse | ‘**Set light direction**’ + **LMB** + move |
| Reset position and orientation mesh | ‘**Reset camera position/direction**’ |
| Hoover over submeshes; double clicking on highlighted submeshes applies the current material to that submesh | ‘**Toggle Mesh/Submesh selection**’ |
| Change background colour | ‘**Select background colour**’ |
| Select a skybox from a list | ‘**Select skybox**’ |

Texture window



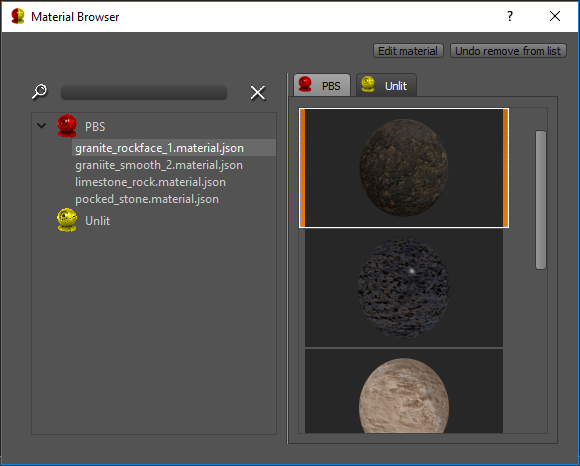
| **Action** | **Command** |
| --- | --- |
| Search | Enter search phrase in edit field |
| Reset search | **Click** on |
| Create a subgroup | **Right Mouse Button (RMB) + ‘Create a subgroup’**  from contextmenu |
| Rename subgroup | **Doubleclick** on ‘subgroup’ + enter name |
| Remove selected subgroup or texture from texture list | **RMB + select** ‘**Remove from list**’ from contextmenu |
| Collapse / expand | **RMB + select** ‘**Collapse / expand**’ from contextmenu |
| Import from directory | **RMB + select** ‘**Import from directory**’ from contextmenu |
| Add texture file(s) | **RMB + select** ‘**Add texture file(s)**’ from contextmenu |
| Add texture file(s) | **Drag** from file external explorer (eg Windows file explorer) + **drop** on texture window |
| Delete selected texture | **Delete** key |
| New Texture / Samplerblock node  (in Node editor window) | or  **Doubleclick** on texture name in tree |
| New Texture / Samplerblock node  (in Node editor window) | **Drag** image + **drop** on node editor window or  **Doubleclick** on texture |

Properties window



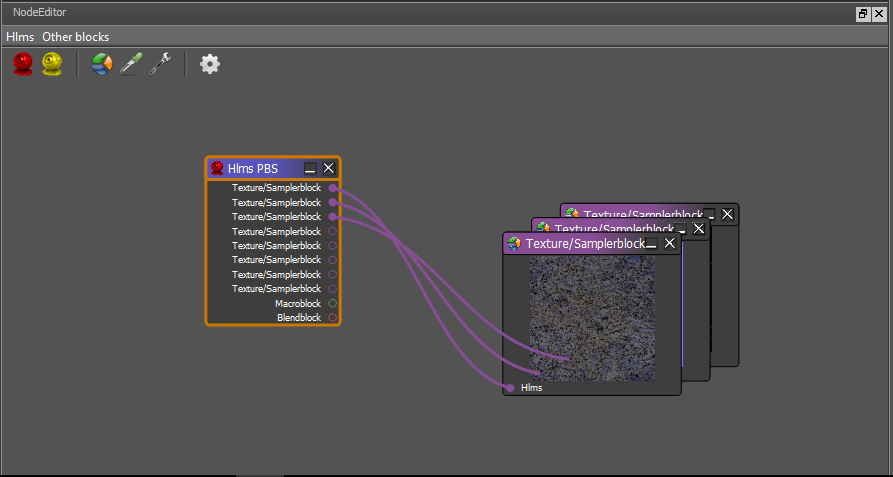
| **Action** | **Command** |
| --- | --- |
| Collapse property group | **Click** on |
| Expand property group | **Click** on |

Material browser window



| **Action** | **Command** |
| --- | --- |
| Search | Enter search phrase in edit field |
| Reset search | **Click** on |
| Select material for editor | **Doubleclick** on item in listbox |
| Select material for editor | **Click** on item in listbox + button **Edit material** |
| Select material for editor | **Right Mouse Button (RMB) + select** ‘Edit material’ from contextmenu |
| Create a subgroup | **RMB + select** ‘Create a subgroup’ from contextmenu |
| Clone a material | **RMB** + ‘ Clone material‘ from contextmenu |
| Remove selected subgroup or material from material list | **RMB** + ‘Remove from list‘ from contextmenu |
| Collapse / expand | **RMB** + ‘Collapse / expand‘ from contextmenu |
| Undo remove from list | **Click** on item in listbox + button **Undo remove from list** |

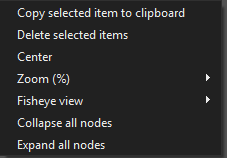
Node editor window



Node editor toolbar and menu

| **Action** | **Command** |
| --- | --- |
| New HLMS PBS node | **Click** on  Menu: Hlms 🡪 New Hlms Pbs |
| New HLMS Unlit node | **Click** on  Menu: Hlms 🡪 New Hlms Pbs |
| New Texture / Samplerblock node | **Click** on  Menu: Other blocks 🡪 New Texture/Samplerblock |
| New Blendblock | **Click** on  Menu: Other blocks 🡪 New Blendblock |
| New Macroblock | **Click** on  Menu: Other blocks 🡪 New Macroblock |
| (Re)generate HLMS | **Click** on |

Node editor context menu

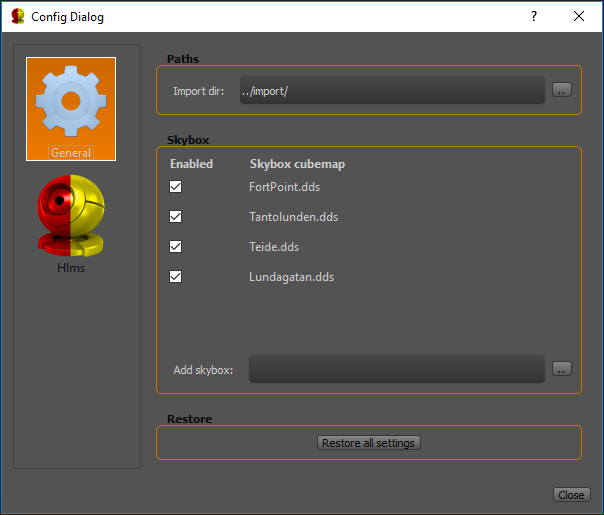


| **Action** | **Command** |
| --- | --- |
| Display context menu | **RMB** |
| Copy selected item to clipboard; only works for samplerblocks | **‘Copy selected item to clipboard’** |
| Delete one or more selected items from the node editor window | **‘Delete selected items’** |
| Center all nodes | ‘**Center**’ |
| Zoom in/out (10% - 300%) | ‘**Zoom (%)**’ |
| Automatic zoom in/out (based on mouse position) | ‘**Fisheye view**’ |
| Collapse all nodes | ‘**Collapse all nodes**’ |
| Expand all nodes | ‘**Expand all nodes**’ |

Node editor canvas actions

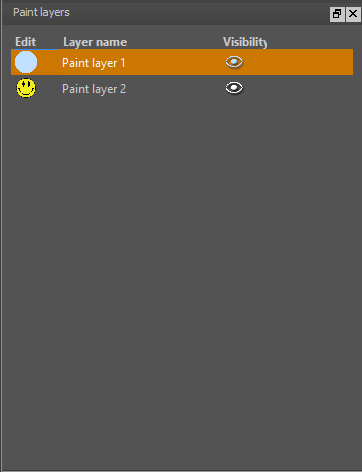
| **Action** | **Command** |
| --- | --- |
| Select node | **Click** on header of a node |
| Add to selection | **Ctrl + Click** on header of a node |
| Rubberband selection | **LMB** Drag |
| Delete selected node(s) | **Delete** key |
| Move selected node(s) | **Ctrl +** **LMB** Drag |
| Pan the graph | **Shift +** **LMB** Drag |
| Zoom in/out | **Mouse Wheel Up/Down** |
| Display properties in properties window | **Click** on header of a node |

Configure dialog



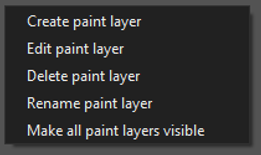
| **Action** | **Command** |
| --- | --- |
| Set the import directory (used for importing project and models) | **Tab General: Click** on  (in Paths group) |
| Enable/disable a skybox | **Tab General: Click** on |
| Add a skybox | **Tab General: Click** on  (in Skybox group) |
| Restore all settings | **Tab General: Click** on |
| Set default value of Min, Mag, Mip Filter of a Samplerblock | **Tab Hlms: Select** from dropdown listbox |
| Close the config dialog | **Click** on |

Paint Layers



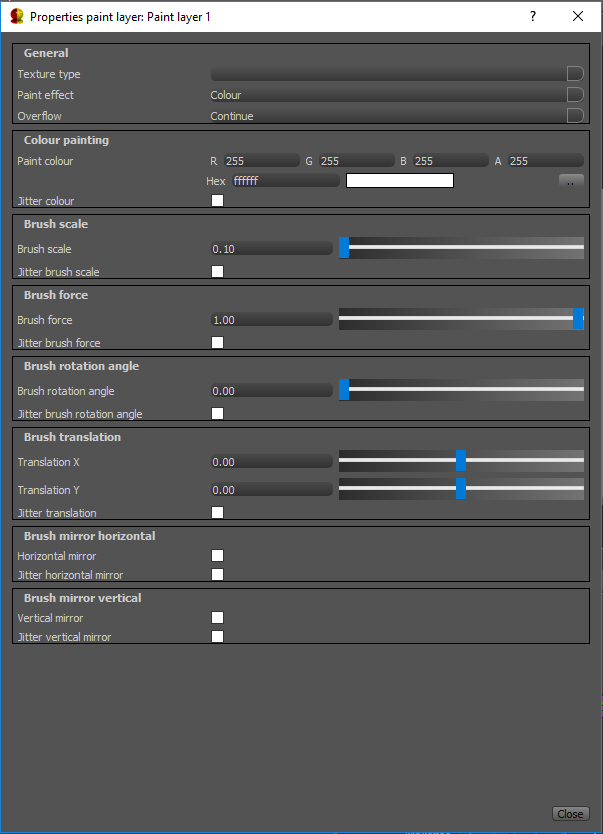
| **Action** | **Command** |
| --- | --- |
| Open properties window | **Doubleclick** on brush icon |
| Change (edit) the name of the layer | **Doubleclick** on Layer name |
| Make layer visible/invisible; all other layers with the same texture type reference are also made visible/invisible |  |

Paint layers context menu



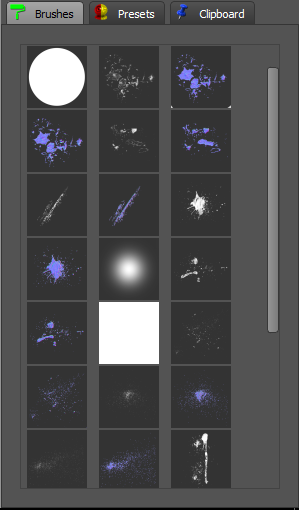
| **Action** | **Command** |
| --- | --- |
| Display context menu | **Select** paintlayer **+ RMB** |
| Add (create) a new paint layer | ‘**Create paint layer**‘ |
| Open properties window | ‘**Edit paint layer**‘ |
| Delete the selected paint layer | ‘**Delete paint layer**‘ |
| Change (edit) the name of the layer | ‘**Rename paint layer**‘ |
| Set all visibility icons | ‘**Make all paint layers visible**‘ |

Properties paint layers



| **Action** | **Command** |
| --- | --- |
| **General** | |
| Texture type | Select from list:  Only the texture types used by the material are showed. |
| Paint effect | Select from list:   * **Colour** - Paint with colour * **Erase** – Use the brush as an eraser * **Alpha** - Paint with an alpha value * **Texture / Normal** – The brush image is placed on the texture; brush can be used for decals (\*) * **Carbon Copy** – Use the brush to ‘stamp’ the selected texture on the target map of the model * **Smudge** – Smudge the target map with the brush   *(\*)*  *To add new brush, add texture file to ../HLMSEditor/common/brushes/* |
| Overflow | Select from list:   * **Ignore** – The part of the brush that crosses the boundaries of the map is ignored for painting * **Continue** – When the brush crosses the boundaries of the map, painting continues at the opposite side |
| **Carbon Copy** | |
| Texture | + select texture from file dialog |
| Scale texture | **LMB** + slide |
| **Colour Painting** | |
| Paint colour | Enter values of the colour OR  Colour picker: |
| Jitter colour  If checked, a random colour between 2 colours is painted. The interval determines the frequency. | Checkbox |
| **Smudge** | |
| Smudge decay | **LMB** + slide |
| **Brush scale** | |
| Brush scale  Determines the size of the brush | **LMB** + slide |
| Jitter brush scale  If checked, a brush scale between 2 values is used for painting. The interval determines the frequency. | Checkbox |
| **Brush force** | |
| Brush force  Determines how much ‘pressure’ is used for painting | **LMB** + slide |
| Jitter brush force  If checked, a brush force between 2 values is used for painting. The interval determines the frequency. | Checkbox |
| **Brush rotation angle** | |
| Brush rotation angle  Determines the angle of the brush in relation to the texture | **LMB** + slide |
| Jitter brush rotation angle  If checked, a brush rotation angle between 2 values is used for painting. The interval determines the frequency. | Checkbox |
| **Brush translation** | |
| Brush translation  Applies a uv offset to the brush | **LMB** + slide |
| Jitter translation  If checked, a brush translation between 2 values is used for painting. The interval determines the frequency. | Checkbox |
| **Brush mirror horizontal** | |
| Brush mirror horizontal  Determines whether the brush is mirrored horizontally | Checkbox |
| Jitter horizontal mirror  If checked, the brush is mirrored horizontal randomly. The interval determines the frequency. | Checkbox |
| **Brush mirror vertical** | |
| Brush mirror vertical  Determines whether the brush is mirrored vertically | Checkbox |
| Jitter vertical mirror  If checked, the brush is mirrored vertical randomly. The interval determines the frequency. | Checkbox |

Brushes



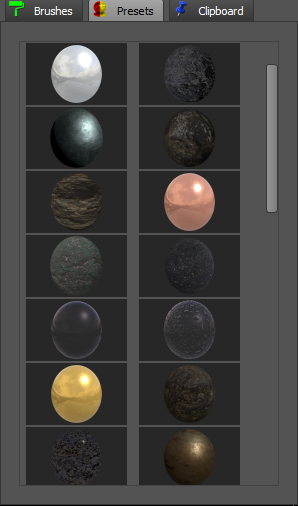
| **Action** | **Command** |
| --- | --- |
| Assign the brush to the selected paint layer | **Doubleclick** on brush |

Brushes context menu



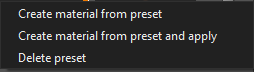
| **Action** | **Command** |
| --- | --- |
| Display context menu | **Select** brush **+ RMB** |
| Apply the brush in the currently selected paintlayer | **‘Set brush in current paint layer’** |

Presets



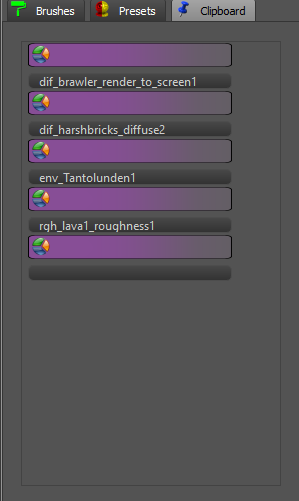
| **Action** | **Command** |
| --- | --- |
| Create a material from the preset | **Doubleclick** on preset |

Presets context menu



| **Action** | **Command** |
| --- | --- |
| Display context menu | **Select** preset **+ RMB** |
| Create a material from the preset | **‘Create material from preset’** |
| Create a material from the preset and apply it to the current 3D model | **‘Create material from preset and apply’** |
| Delete a preset | **‘Delete preset’** |

Clipboard



| **Action** | **Command** |
| --- | --- |
| Create a samplerblock from a samplerblock clip | **Doubleclick** on clip |
| Create a samplerblock from a samplerblock clip | **Drag-and-drop** clip tonode editor window |

Clipboard context menu



| **Action** | **Command** |
| --- | --- |
| Display context menu | **Select** clip **+ RMB** |
| Create a samplerblock from a samplerblock clip | **‘Use selected clip’** |
| Delete a clip from the clipboard | **‘Delete slected clip’** |

Workflows

