

HLMS Editor Cheat Sheet

Main window

File Materials Textures Painting Tools 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

<u>M</u> aterials	Command
Apply current material to (sub)mesh	Ctrl + M
Open browser	Ctrl + B
Add material to browser	Ctrl + H
Material as preset	Ctrl + C

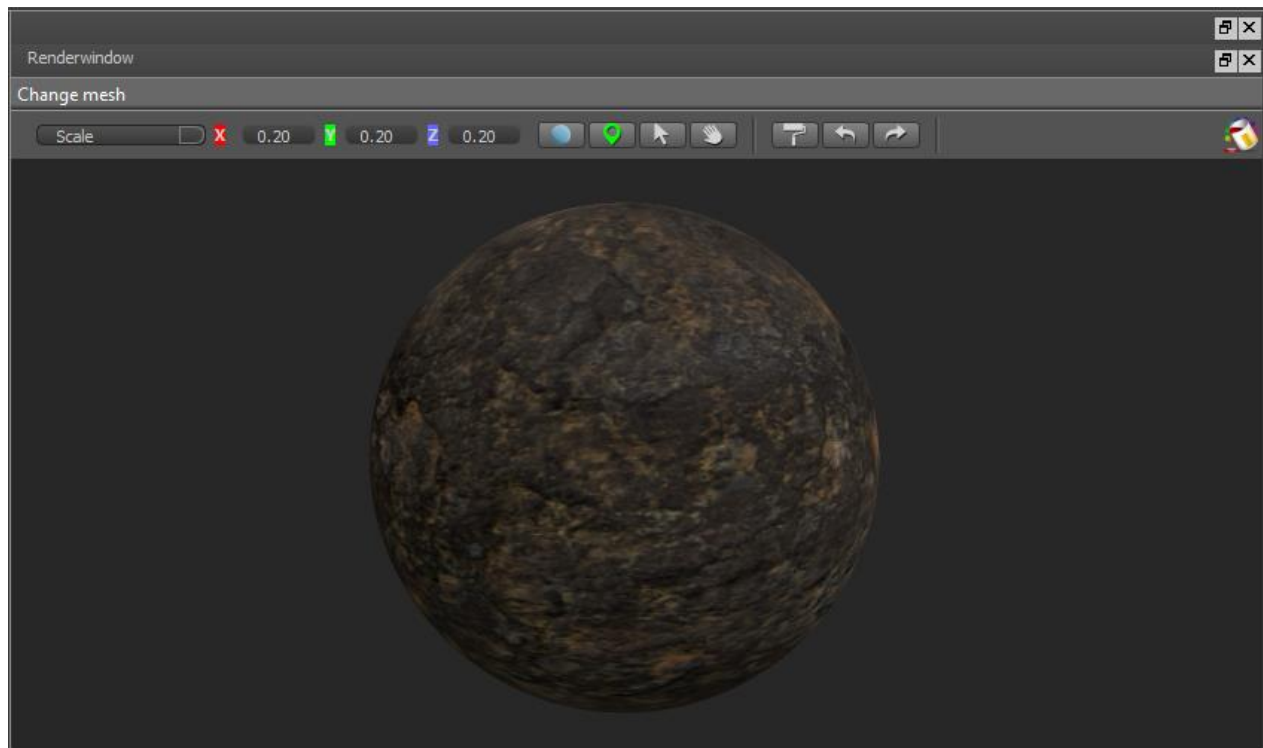
<u>T</u> extures	Command
Import textures from directory	Ctrl + I
Add texture file(s)	Ctrl + T

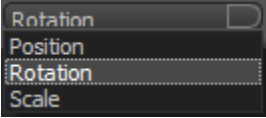


<u>P</u> ainting	Command
Create paint layer	Ctrl + P
Edit paint layer	Ctrl + E
Delete selected paint layer	Ctrl + D











<u>T</u> ools	Command
Configure	Ctrl + X

<u>W</u> indow	Command
Reset Window Layout	Ctrl + R

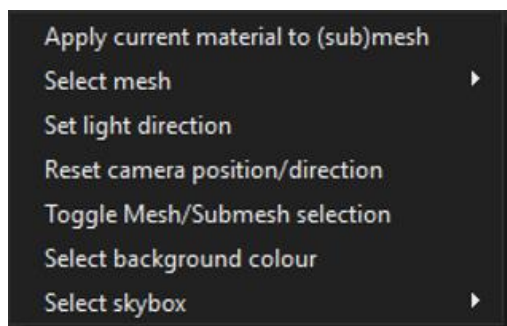
Render window



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: <ul style="list-style-type: none">• 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 

Action	Command
Reset position and orientation mesh	
Mesh/submesh selection	Toggle between  and  + Hoover over submeshes (on/off)
Offset texture	Toggle between  and  + (+ detail map selected) + LMB drag a detail map
Paint on a texture	Toggle between  and  + (+ 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 context menu (see below)

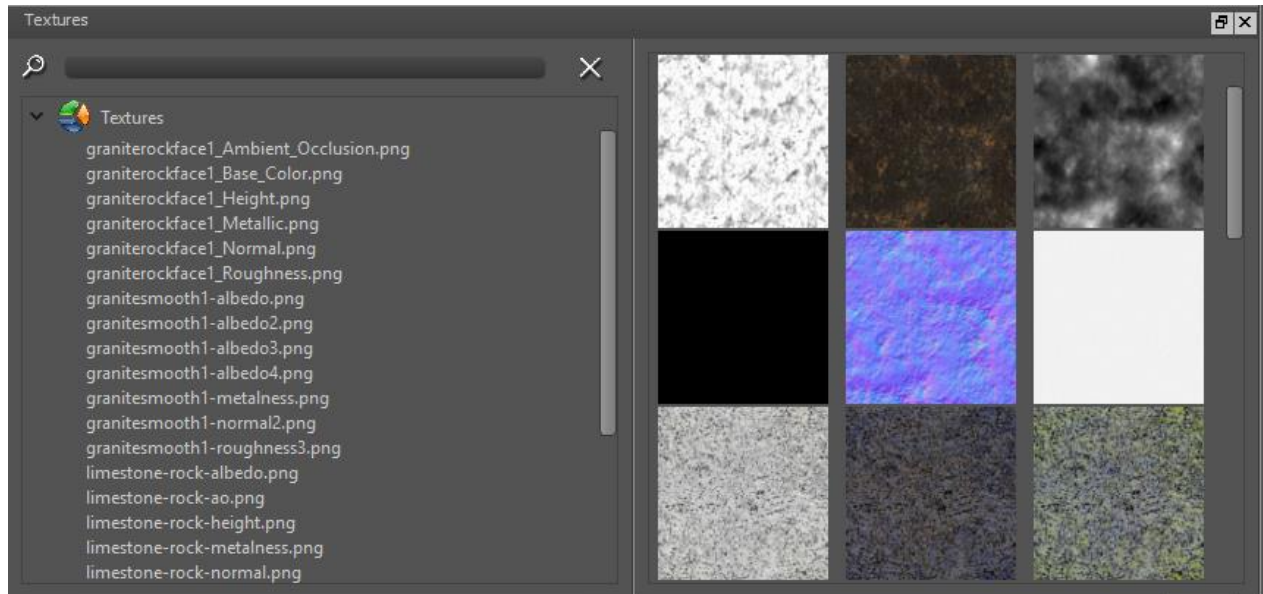
Render window context menu




Action	Command
Display context menu	Right Mouse Button (RMB)

Action	Command
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'

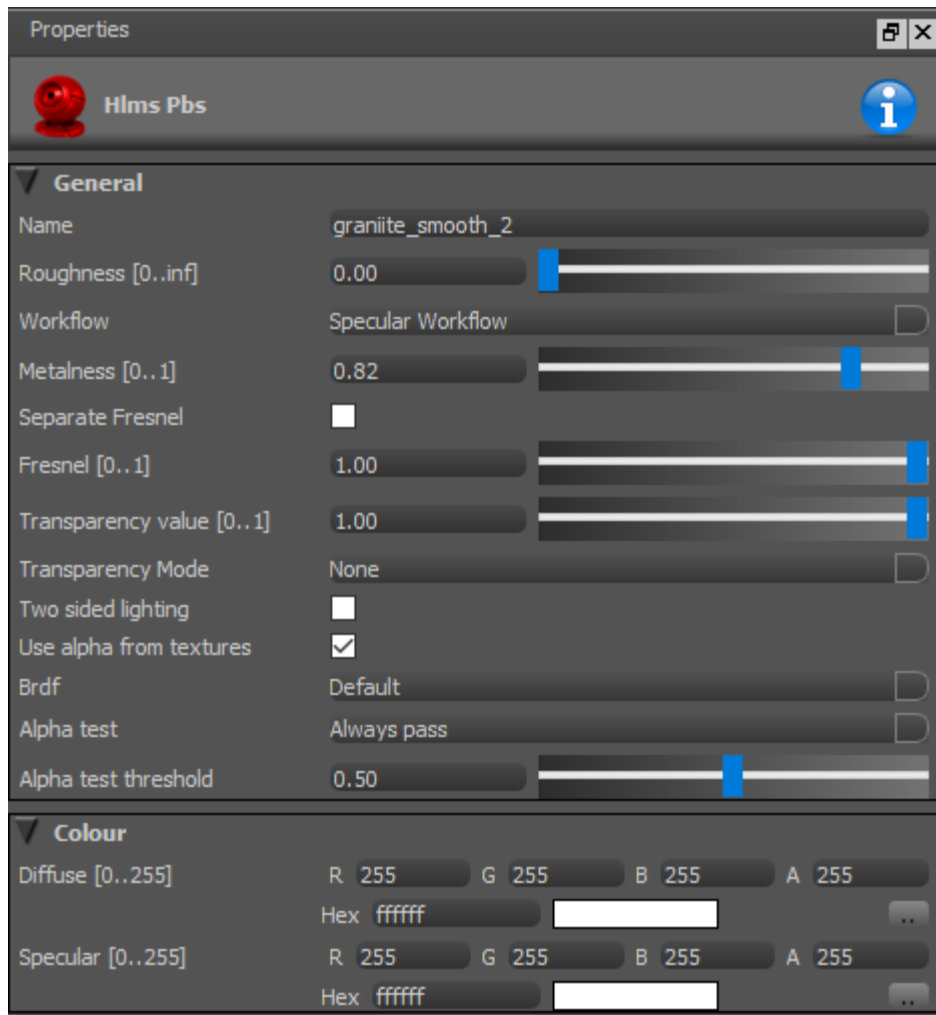
Texture window



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	or

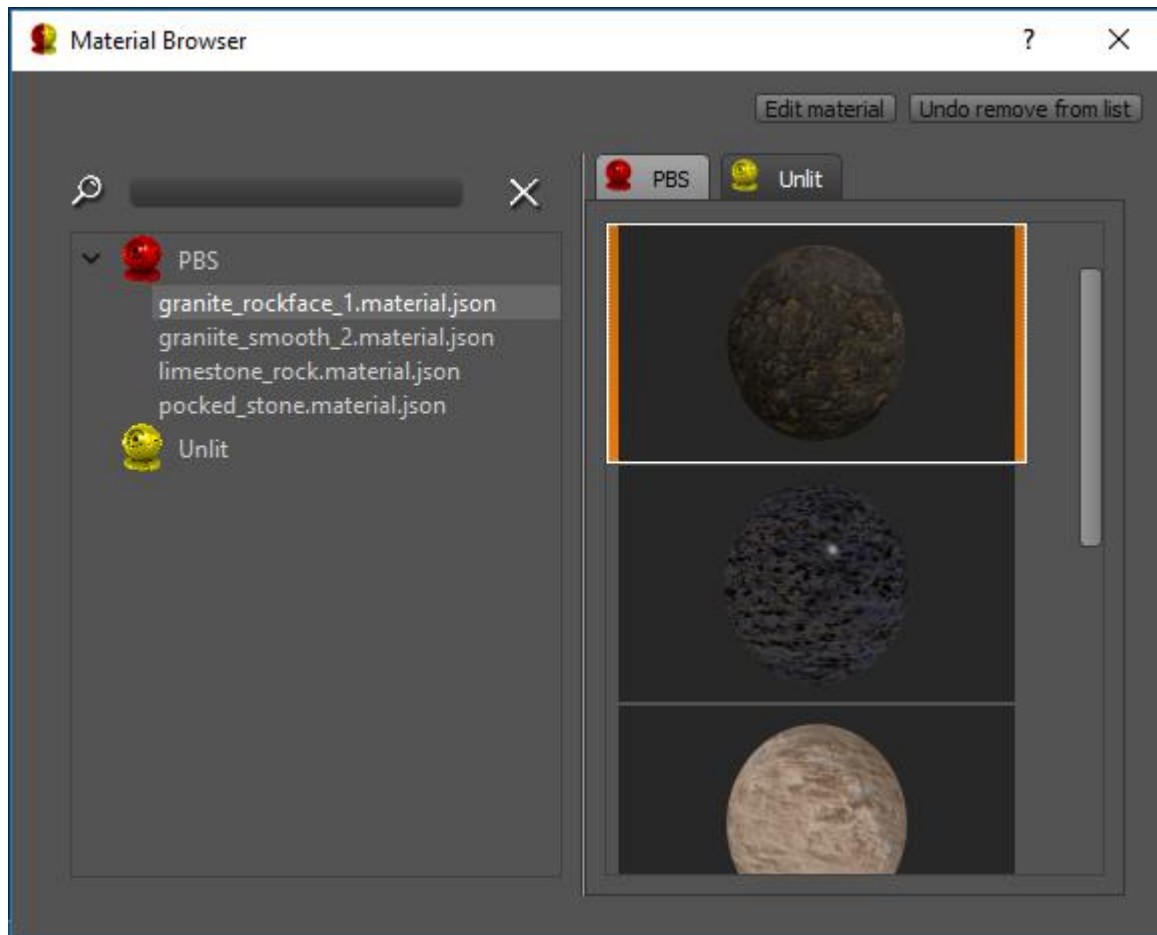
Action	Command
(in Node editor window)	Doubleclick on texture name in tree
New Texture / Samplerblock node (in Node editor window)	Drag image + drop on node editor window or Doubleclick on texture


Properties window



Action	Command
Collapse property group	Click on 
Expand property group	Click on 

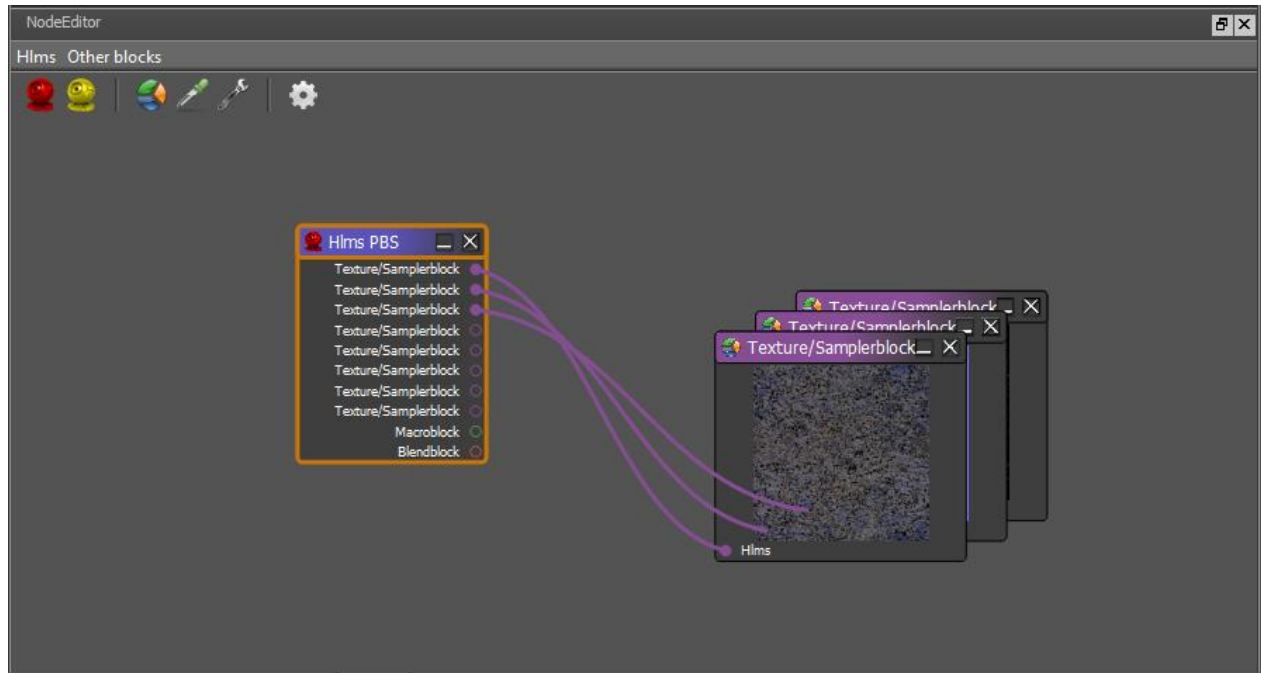
Material browser window








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


Action	Command
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

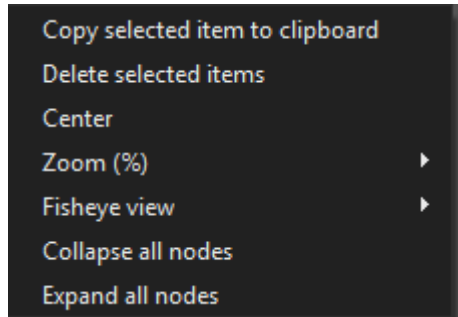


Node editor toolbar and menu

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

Action	Command
(Re)generate HLMS	Click on 

Node editor context menu



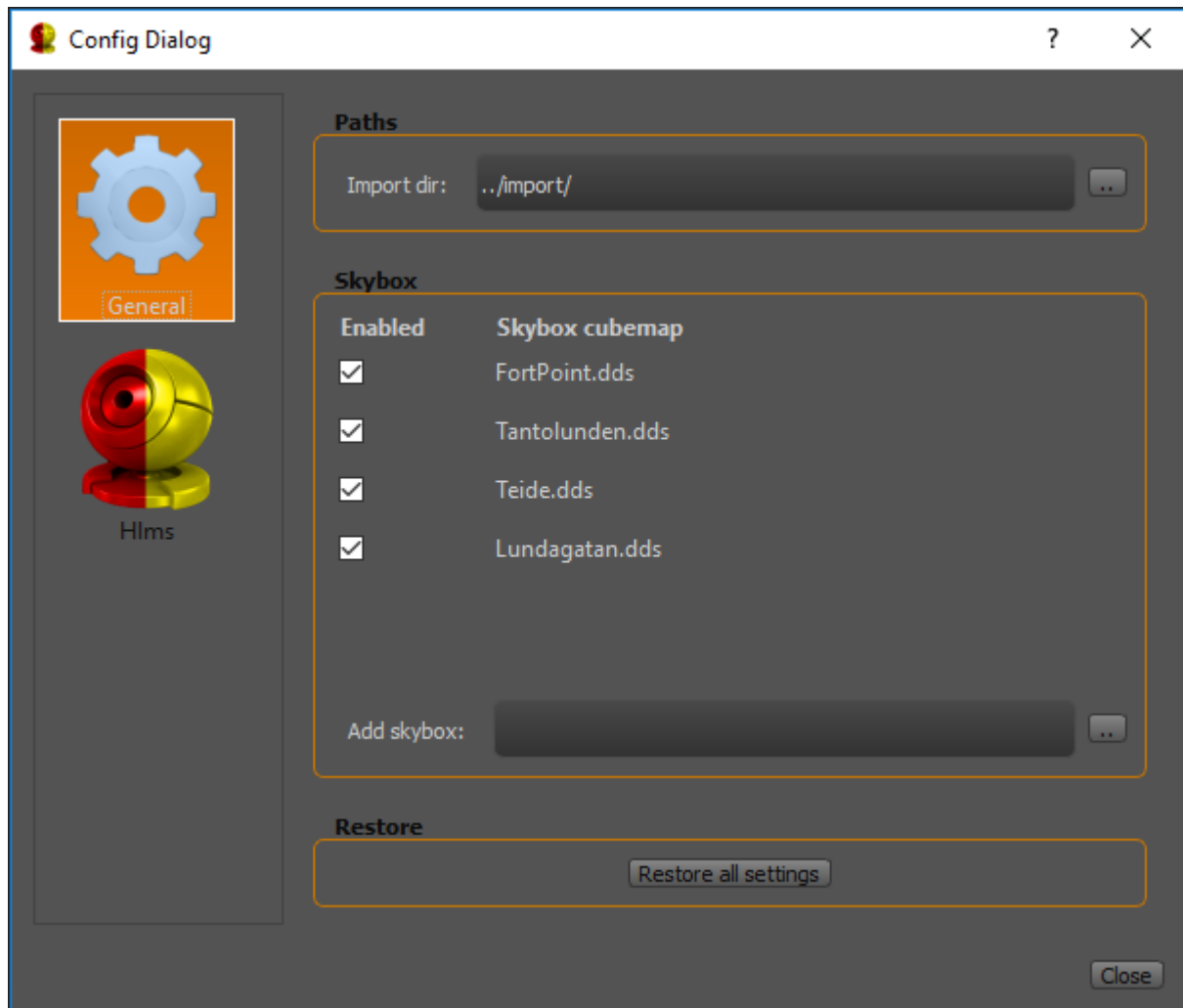
Action	Command
Display context menu	RMB
Copy selected item to clipboard; only works for samplerblocks	'Copy selected item to clipboard'
Delete one or more selected items from the node editor window	'Delete selected items'
Center all nodes	'Center'
Zoom in/out (10% - 300%)	'Zoom (%)'
Automatic zoom in/out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




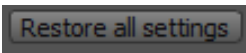
Node editor canvas actions

Action	Command
Select node	Click on header of a node

Action	Command
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

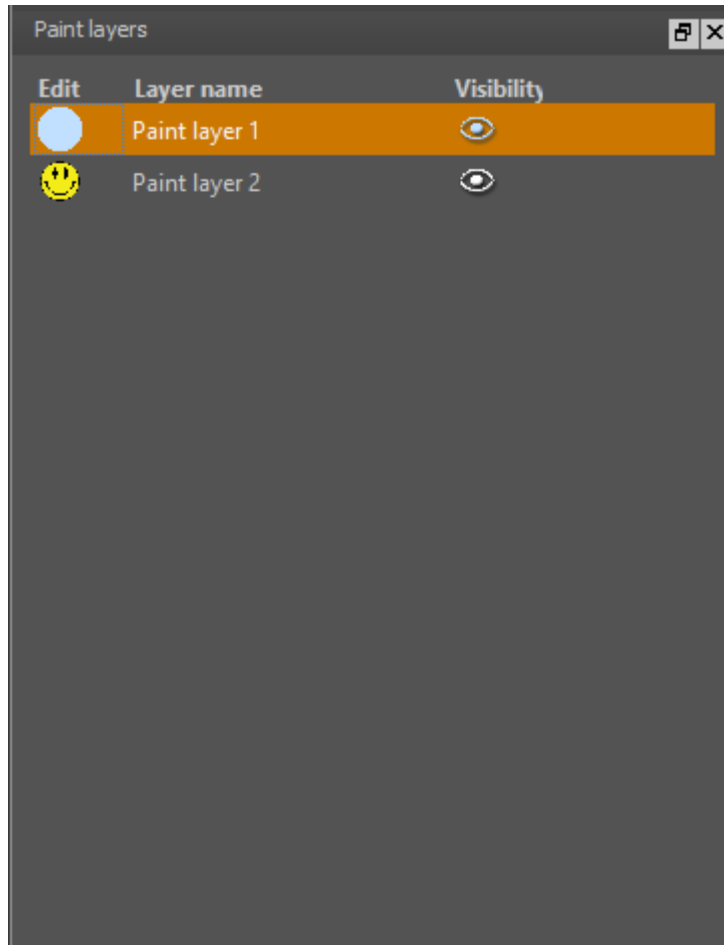
Configure dialog




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 

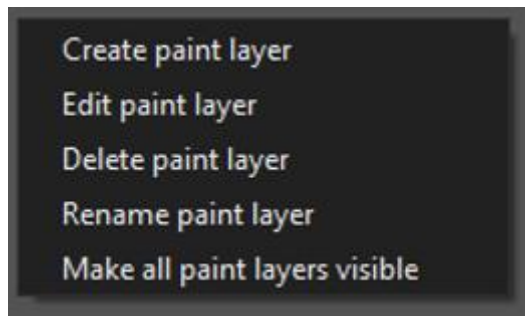
Action	Command
Set default value of Min, Mag, Mip Filter of a Samplerblock	Tab Hlms: Select from dropdown listbox
Close the config dialog	Click on 

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

Properties paint layer: Paint layer 1

General

Texture type

Paint effect

Colour

Overflow

Continue

Colour painting

Paint colour

R 255

G 255

B 255

A 255

Hex

ffffff

..

Jitter colour

☐

Brush scale

Brush scale

0.10

Jitter brush scale

☐

Brush force

Brush force

1.00

Jitter brush force

☐

Brush rotation angle

Brush rotation angle

0.00

Jitter brush rotation angle

☐

Brush translation

Translation X

0.00

Translation Y

0.00

Jitter translation

☐

Brush mirror horizontal

Horizontal mirror

☐

Jitter horizontal mirror

☐

Brush mirror vertical



Vertical mirror

☐

Jitter vertical mirror

☐

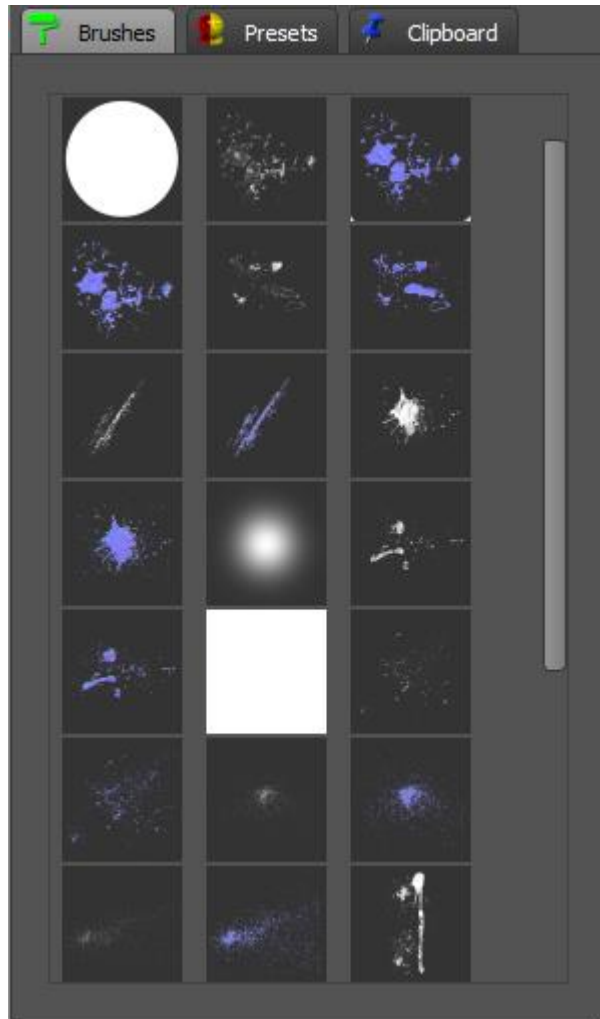
Close

Action	Command
General	
Texture type	Select from list: Only the texture types used by the material are showed.
Paint effect	Select from list: <ul style="list-style-type: none"> • 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 <p>(*) To add new brush, add texture file to ../HLMSEditor/common/brushes/</p>
Overflow	Select from list: <ul style="list-style-type: none"> • 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

Action	Command
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	Checkbox

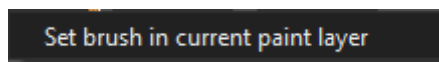
Action	Command
Determines whether the brush is mirrored horizontally	
Jitter horizontal mirror If checked, the brush is mirrored horizontal randomly. The interval determines the frequency.	Checkbox
Brush mirror vertical	
Brush mirror vertical Determines whether the brush is mirrored vertically	Checkbox
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

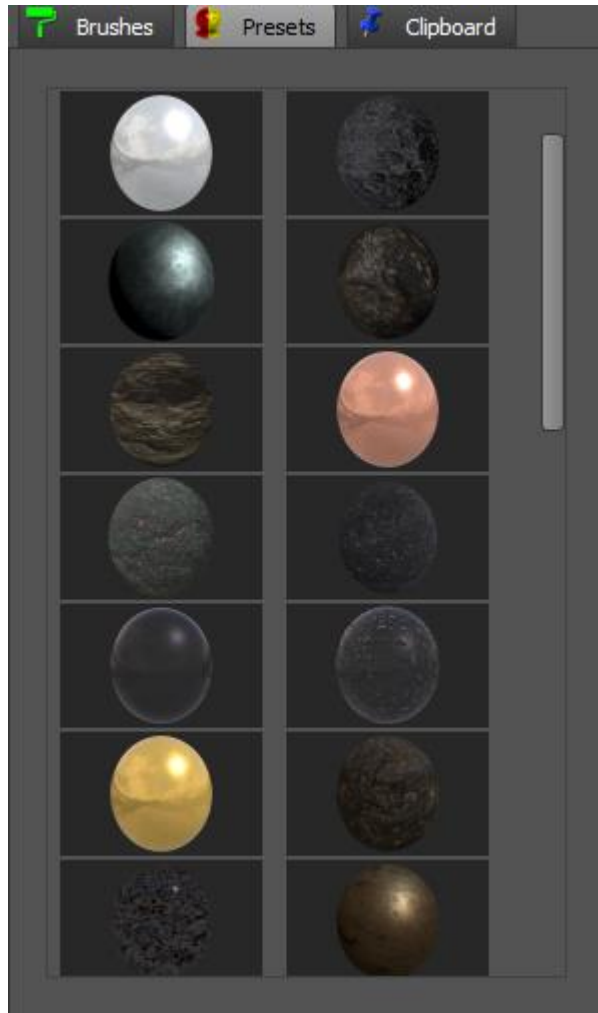
Brushes context menu



Action	Command
Display context menu	Select brush + RMB

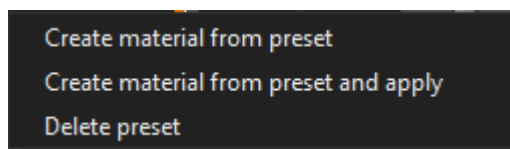
Action	Command
Apply the brush in the currently selected paintlayer	'Set brush in current paint layer'

Presets



Action	Command
Create a material from the preset	Doubleclick on preset

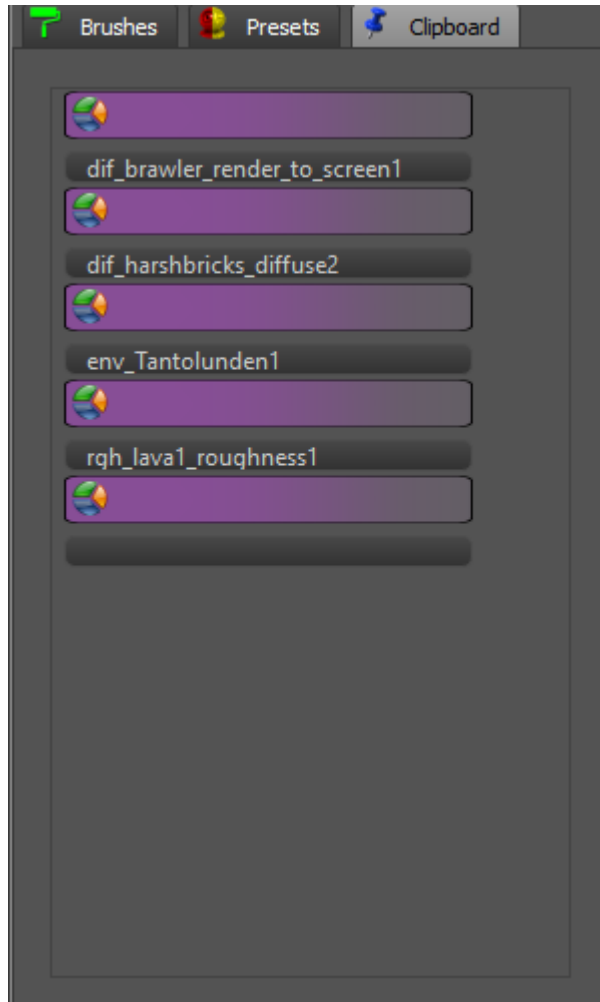
Presets context menu



Action	Command
Display context menu	Select preset + RMB

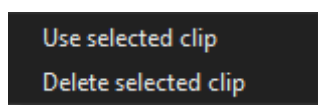
Action	Command
Create a material from the preset	'Create material from preset'
Create a material from the preset and apply it to the current 3D model	'Create material from preset and apply'
Delete a preset	'Delete preset'

Clipboard



Action	Command
Create a samplerblock from a samplerblock clip	Doubleclick on clip
Create a samplerblock from a samplerblock clip	Drag-and-drop clip to node 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

