



# GMH 2 Documentation

## 1 CONTENT

2	INSTALLING.....	2
2.1	RUNNING.....	2
3	GMH 2.6 OVERVIEW STRUCTURE .....	3
4	GMH2 MANUAL.....	4
4.1	CREATION TAB.....	4
4.1	SURFACE EDIT TAB.....	5
4.2	MATERIAL TAB.....	6
4.3	DYNAMIC TAB.....	6
4.4	EXPORT TAB.....	6
4.5	BAKING/UV TAB.....	7

## 2 INSTALLING



Put ThunderCloud folder into Maya default 's scripts folder. Make sure you put it in the correct script path of current Maya.

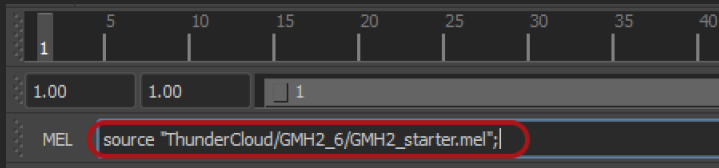
Note: if you already have ThunderCloud folder in your script folders, you can append and overwrite to the old folder.

Advance : If you have set Maya script path to something else in Maya.env file, please put ThunderCloud folder in the custom script folder stated in Maya.env

### 2.1 RUNNING

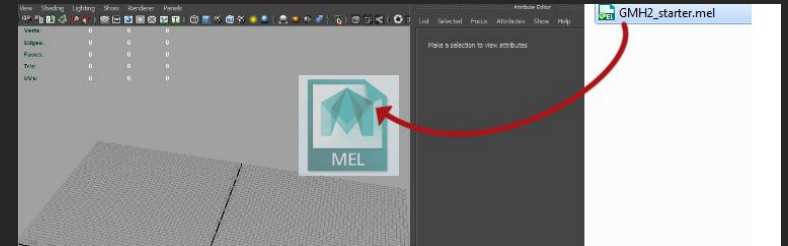
- Execute this line in Maya Mel Editor

1. `source "ThunderCloud/GMH2_6/GMH2_starter.mel";`



or

- Drag and drop GMH2\_starter.mel file onto Maya viewport.



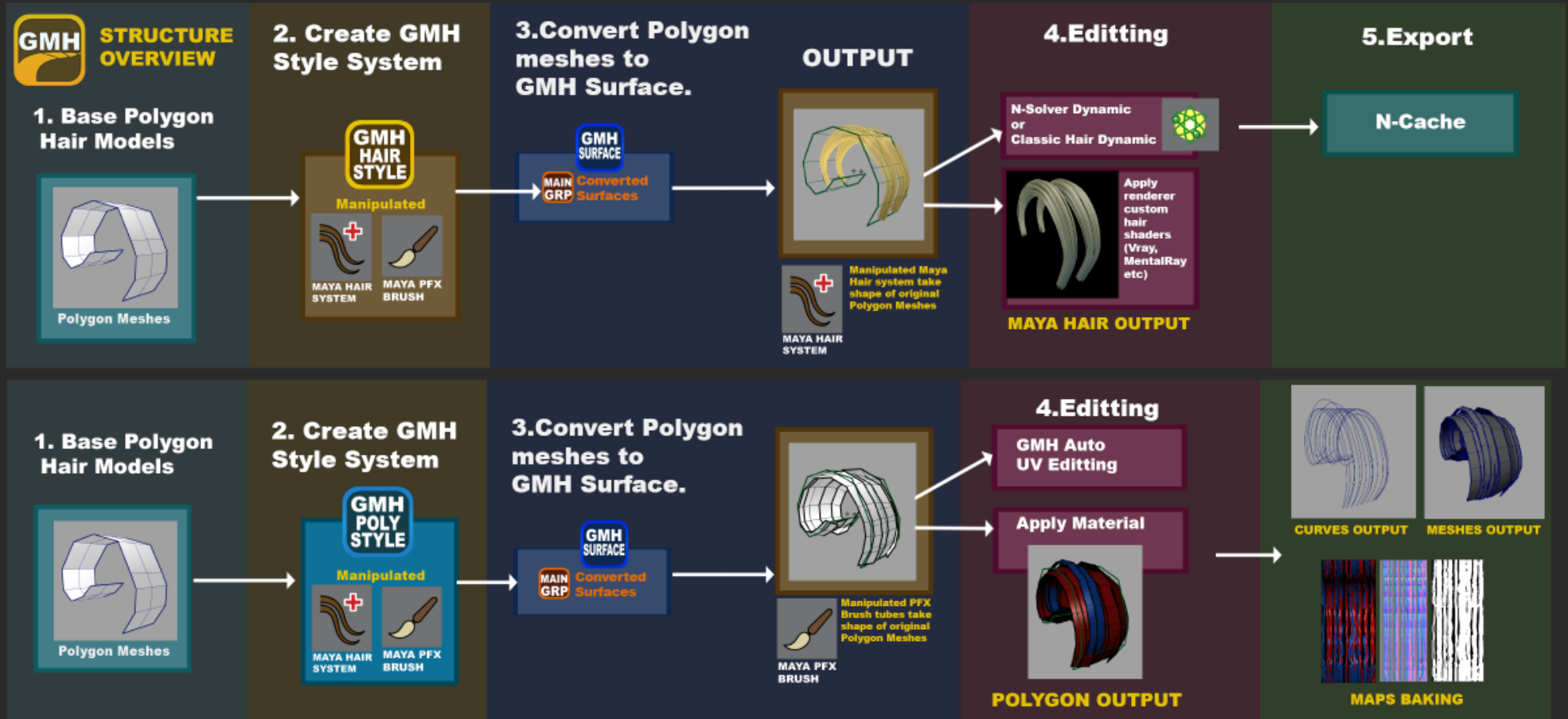
Running GMH2.6 first time will set the hot key for GMH2 as **Ctrl + Shift +1** , you can press this combination next time you want to start GMH2.6.

### 3 GMH 2.6 OVERVIEW STRUCTURE

There are two main workflows in GMH2.6

- **GMH Hair style system** manipulate and output Maya Hair system. After convert Polygon Meshes to GMH Surface user can carry on usual Maya hair workflows like assigning N-solver, N-caching, colliding with passive object etc.

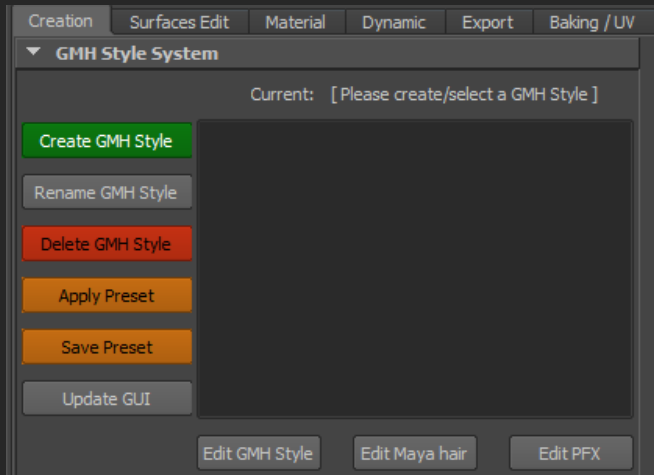
- **GMH Poly style system** manipulate and output PFX brush geometry tubes which can be exported to meshes and curves or bake onto textures of original polygon base mesh.



## 4 GMH2 MANUAL

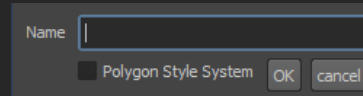
### 4.1 CREATION TAB

#### GMH Style System Managing GMH Style system



#### Create GMH Style

- Create a GMH Style System Node.



#### Polygon Style System Check Box

- Option to create polygon style system.

#### Rename GMH Style

- Rename current selected GMH Style System.

#### Delete GMH Style

- Delete current selected GMH Style System.

#### Apply Preset

- Choose a GMH preset file to apply preset to current selected GMH Style System.

#### Save Preset

- Save GMH Preset of current selected GMH Style System.

#### Update GUI

- refresh GMH2 Window.

#### Edit GMH Style

- Select the GMH Style Node to edit in attribute editor.

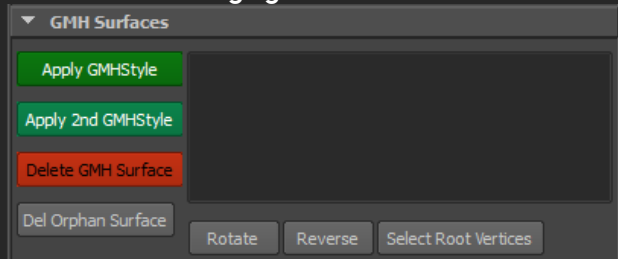
#### Edit Maya Hair

- Select Maya Hair Node of current GMH Style System.

#### Edit PFX

- Select PFX Brush Node of current GMH Style System.

#### GMH Surface Managing GMH Surfaces



#### Rotate

Rotate hair direction of selected GMH Surfaces.

#### Reverse

- Reverse hair direction of selected GMH Surfaces.

#### Select Root Vertices

- Select Root Vertices of selected GMH Surfaces.

#### Apply GMH Style

- Apply current selected GMH Style System to selected surfaces

#### Apply 2nd GMH Style

Apply current selected GMH Style System as extra style system on top of selected GMH surface.

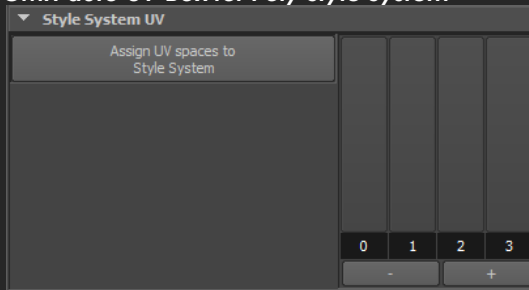
#### Delete GMH Surface

Delete current selected GMH Surface

#### Del Orphan Surface

Delete all GMH Surfaces that are not associated with a base surface.

#### GMH auto UV Box for Poly Style System



#### Assign UV spaces to Style System 's hair tubes.

- Assign current set of UV to current Poly Style System 's hair tubes.

+

- Add one slot to UV Space

-

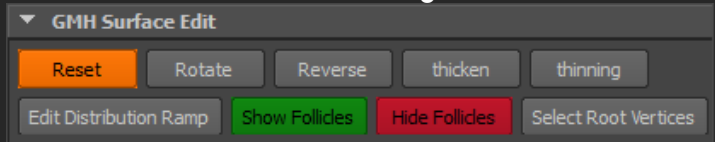
- Minus one slot to UV Space

#### 0 1 2 3 4 etc

- UV Space hair tubes will take.

## 4.1 SURFACE EDIT TAB

### GMH Surface Edit Edit override settings of each GMH Surface



#### Reset

-Reset all GMH Surface attributes to default values

#### Rotate

-Rotate hair direction of selected GMH Surfaces.

#### Reverse

-Reverse hair direction

#### Thicken

-Increase the number of hair clumps

#### Thinning

-Decrease the number of hair clumps

#### Edit Distribution Ramp

-Edit the distribution intensity of hair clumps across GMH Surfaces.

#### Show Follicles

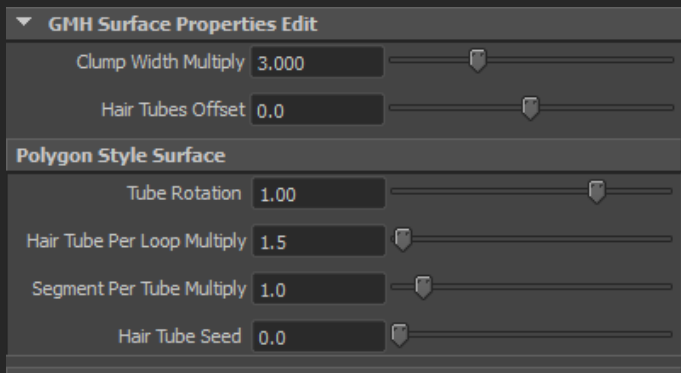
Show follicles visibility of selected GMH Surfaces

#### Hide Follicles

Hide follicles visibility of selected GMH Surfaces

#### Select Root Vertices

- Select Root Vertices of selected GMH Surfaces.



#### Clump Width Multiply

( Apply for both Hair Style and Poly Style System)

-Adjust hair clump width of each GMH Surface

#### Clump Width Multiply

( Apply for both Hair Style and Poly Style System)

-Adjust hair tubes offset distance from GMH Surfaces base mesh.

#### Polygon Style Surface Edit

( Apply for GMH Polygon Style Surface only )

#### Tube Rotation

- Rotate hair mesh tubes facing direction

#### Hair Tube Per Loop Multiply

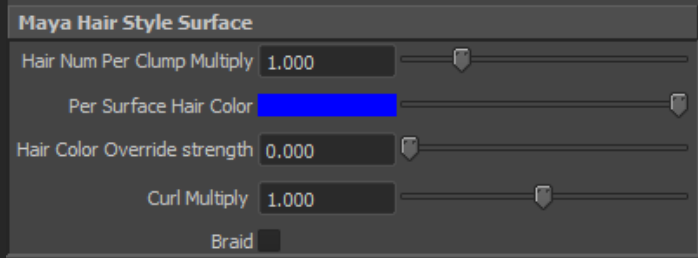
-Adjust number of hair mesh tubes

#### Segment Per Tube Multiply

-Adjust hair mesh tube segment numbers

#### Hair Tube Seed

-Random Seed number of hair tubes.



#### Maya Hair style Surface

( Apply for GMH Hair Style Surface only )

#### Hair Num Per Clump Multiply

-Decrease the number of hair clumps

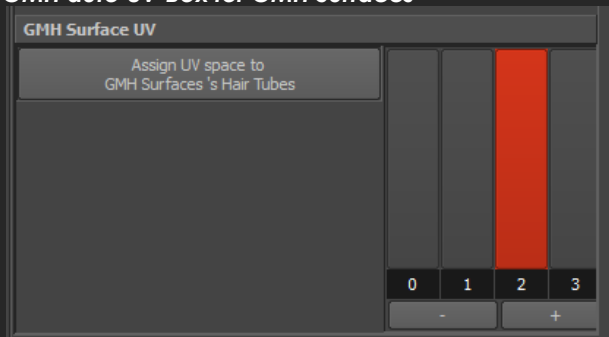
#### Per Surface Hair Color

-Decrease the number of hair clumps

#### Hair Color Override

-Decrease the number of hair clumps

### GMH auto UV Box for GMH Surfaces



### Assign UV spaces to hair tubes of selected GMH Surface.

+

- Add one slot to UV Space

-

- Minus one slot to UV Space

0 1 2 3 4 etc

- UV Space hair tubes will take.

## 4.2 MATERIAL TAB

**GMH Shaders Manage materials apply to GMH Polygon Style**



**Add GMH Shader**

-Set selected shader as GMH Shader

**Remove Shader**

-Remove selected shader .

**Apply Shader To GMH Style**

-Assign selected shader to GMH Poly Style System

**Apply Shader To Current GMH Surface**

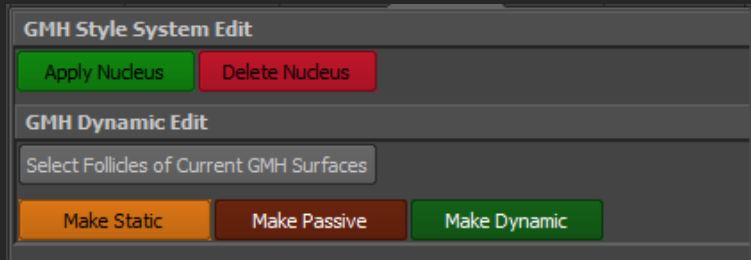
-Assign selected shader to selected GMH Surfaces

**Remove override**

-Decrease the number of hair clumps

## 4.3 DYNAMIC TAB

**Dynamic: Support buttons to work with Maya Hair 's dynamic**



**Apply Nucleus**

-Apply Nucleus solver to selected GMH Style System

**Delete Nucleus**

-Remove Nucleus solver from selected GMH Style System

**Select Follicles of Current GMH Surfaces**

-Select follicles of selected GMH Surfaces.

**Make Static**

-Make selected GMH surface static ( no dynamic applied)

**Make Passive**

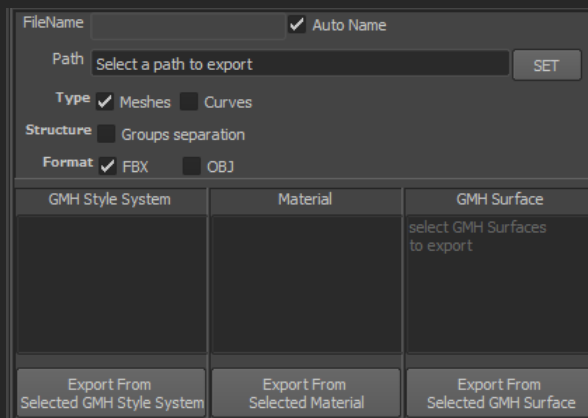
-Make selected GMH surface passive

**Make Dynamic**

-Make selected GMH surface dynamic

## 4.4 EXPORT TAB

**Export: Functions to export output from GMH Poly Style System**



**FileName**

-File name to export

**Auto Name**

-Auto name file base on export type

**Path**

-Path to export file

**SET**

-Set path to export file

**Type**

-Type of data to export

**Meshes:** Export Hair mesh tubes

**Curves:** Export Hair curves

**Structure**

**Group separation:** Group data into separated groups

**Format**

-file type to export

**Export from Selected GMH Style System**

-Export data base on selected GMH Style Systems.

**Export from Selected Material**

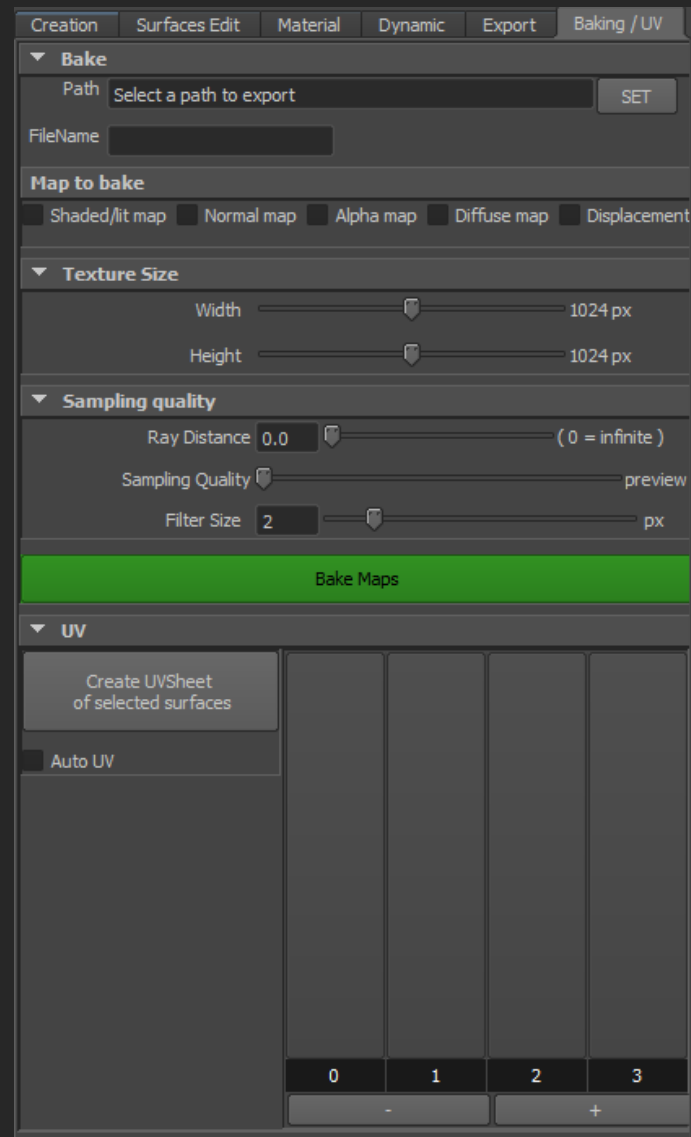
-Export data from base on selected materials

**Export from Selected GMH Surface**

-Export data from selected GMH Surfaces.

## 4.5 BAKING/UV TAB

### BAKING/UV: Baking & UV functions of GMH System



#### **Path**

-Path to export file

#### **SET**

-Set path to export file

#### **File Name**

-file name

#### **Map To Bake**

Type of map to bake

#### **Texture Size**

-texture size to bake

#### **Ray Distance**

-max distance to sample surfaces

#### **Sampling Quality**

-Quality of baking.

#### **Filter Size**

- filter size

#### **Create UVSheet of selected surfaces:**

- Assign current set of UV to current selected Poly Style System.

#### **Auto UV**

-auto assign UV space of selected surfaces (auto assign UV if multiple surfaces is selected )

**+**

- Add one slot to UV Space

**-**

- Minus one slot to UV Space

#### **0 1 2 3 4 etc**

- UV Space hair tubes will take.