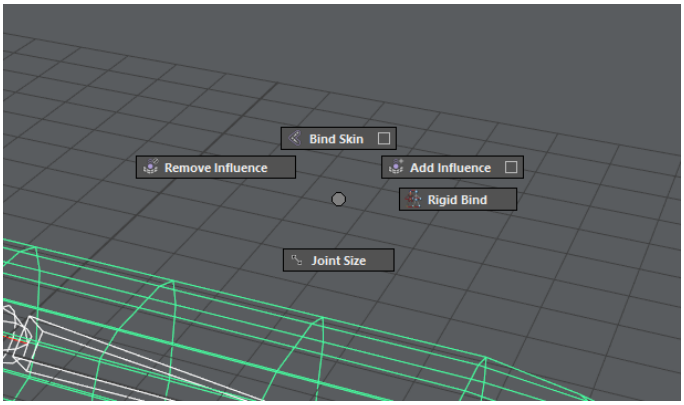
May9 Pro 2.0 User Guide

What is May9 Pro

May9 Pro is an alternative user experience for *Autodesk Maya*, is designed to improve the daily workflow and minimize the needed to learn the native position of commands.

The main concept of *May9 Pro* is streamline useful commands into a single keyboard button (*Z*), by predicting them from the context. For example, if you have in selection a Mesh and a Joint by pressing *Z + Left Mouse Button* (*MMB* from now) it's appear this *Marking Menu* (*MM* form now):



In addition to the contextual workflow describe above, *May9 Pro* contain a set of preferences, layouts and hotkeys.

May9 Pro is targeted to anyone, from beginner to expert, from schools to studios.

May9 Pro is an open source project based on MEL and released under MIT license. In addition, *May9 Pro* contains Andrey Menshikov' s *MMtoKey* to manage Marking Menus.

Installation

There is two way to install *May9 Pro*, the first is the more easy and common and is recommend to anyone that not have already custom preferences. The second one is more technical and is indicated to anyone want use *May9 Pro* over an existing configuration.

The easy way

Windows

1) If is open close Maya
2) Go to folder: \Users\<username>\Documents\maya\
3) If exist rename folder 2017 or 2018 in to 2017_Bak or 2018_Bak
4) Copy folder 2017 or 2018 of this archive in: \Users\<username>\Documents\maya\

OS X

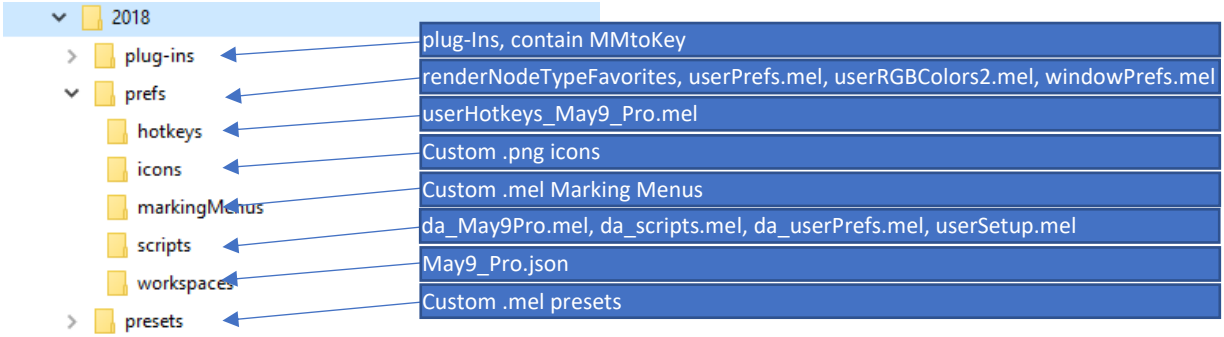
1) If is open close Maya
2) Go to folder: /Users/<username>/Library/Preferences/Autodesk/maya/
3) If exist rename folder 2017 or 2018 in to 2017_Bak or 2018_Bak
4) Copy folder 2017 or 2018 of this archive in: /Users/<username>/Library/Preferences/Autodesk/maya/

Linux

1) If is open close Maya
2) Go to folder: ~<username>/maya/
3) If exist rename folder 2017 or 2018 in to 2017_Bak or 2018_Bak
4) Copy folder 2017 or 2018 of this archive in: ~<username>/maya/

The custom way

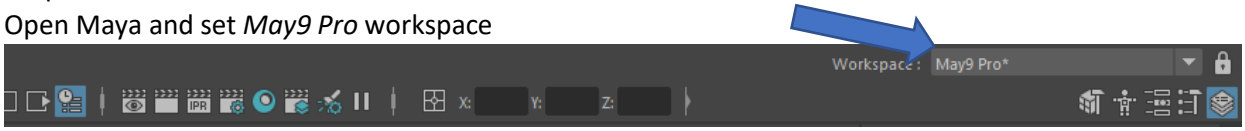
For better understand how to merge *May9 Pro* to an already existing configuration, is needed to know the actual project structure:



- plug-Ins, contain MMtoKey
- prefs
    - renderNodeTypeFavorites, define the favourites shaders and can be replaced
    - userPrefs.mel, contain optional preferences and can be replaced
    - userRGBColors2.mel, contain optional viewport background colour and can be replaced
    - windowPrefs.mel, contain Maya full screen window setup and can be replaced
- hotkeys
    - userHotkeys_May9_Pro.mel, contain the May9 Pro hotkey scheme, it loads only if May9 Pro workspace is in use
- icons, contains May9 Pro custom icons
- markingMenus, contains May9 Pro custom Marking Menus
- scripts, the content of this folder can't be replaced
    - da_May9Pro.mel, the core of the system, contain a set of Maya tweak and the boot up for da_scripts.mel and da_userPrefs.mel
    - da_scripts.mel, contain some core script for extend Maya feature set
    - userRunTimeCommands.mel in main prefs folder after the first May9 Pro load
    - userSetup.mel, contain the code to boot up da_May9Pro.mel, the content of this file must be manually add to an existing userSetup.mel
- workspaces
    - May9_Pro.json, contain the May9 Pro workspace
- presets, contain node presets needed for May9 Pro script

A practical case

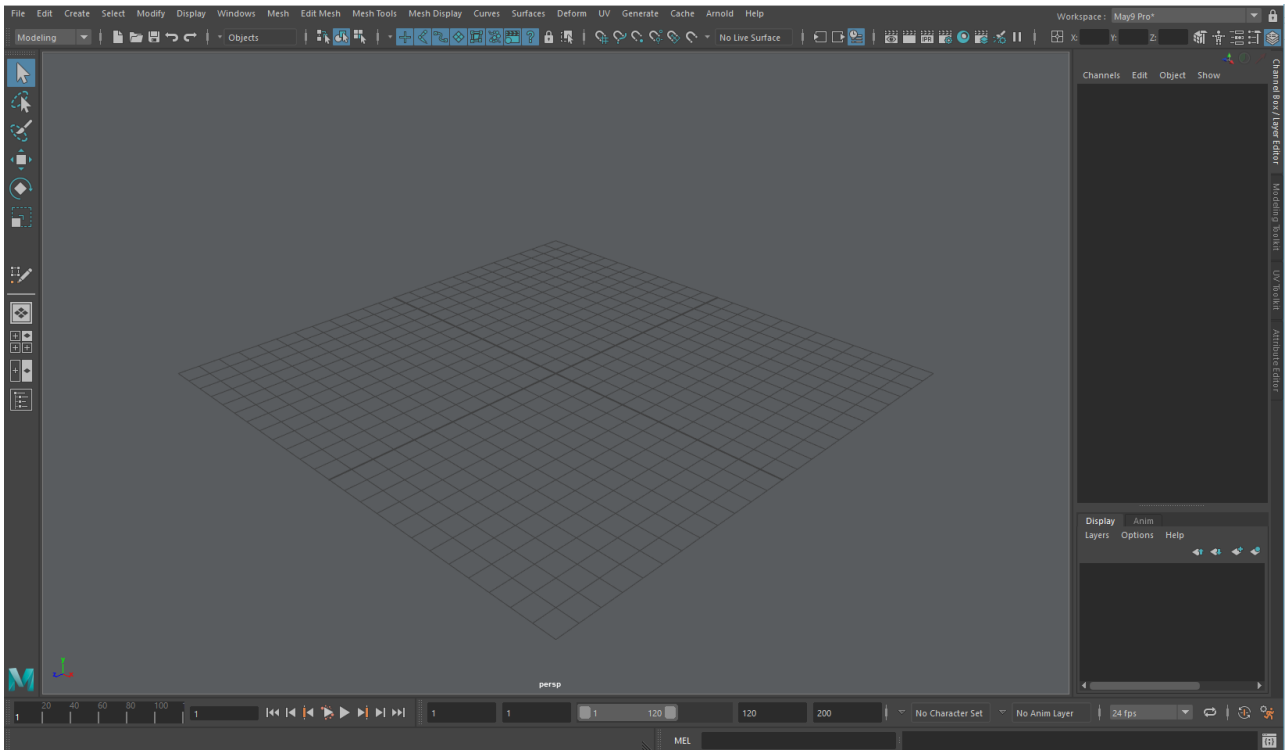
1. If Maya is open close it
2. Copy presets and plug-Ins folder in Maya 2017 or 2018 directory
3. Copy these folders: hotkeys, icons, markingMenus, workspace in your prefs directory
4. Copy these files: da_May9Pro.mel, da_scripts.mel and da_userPrefs.mel in your scripts directory
5. Add this line *source da_May9Pro.mel* to your userSetup.mel file, or if the file not exist copy it from *May9 Pro* scripts folder
6. Open Maya and set *May9 Pro* workspace



Usage

May9 Pro Workspace

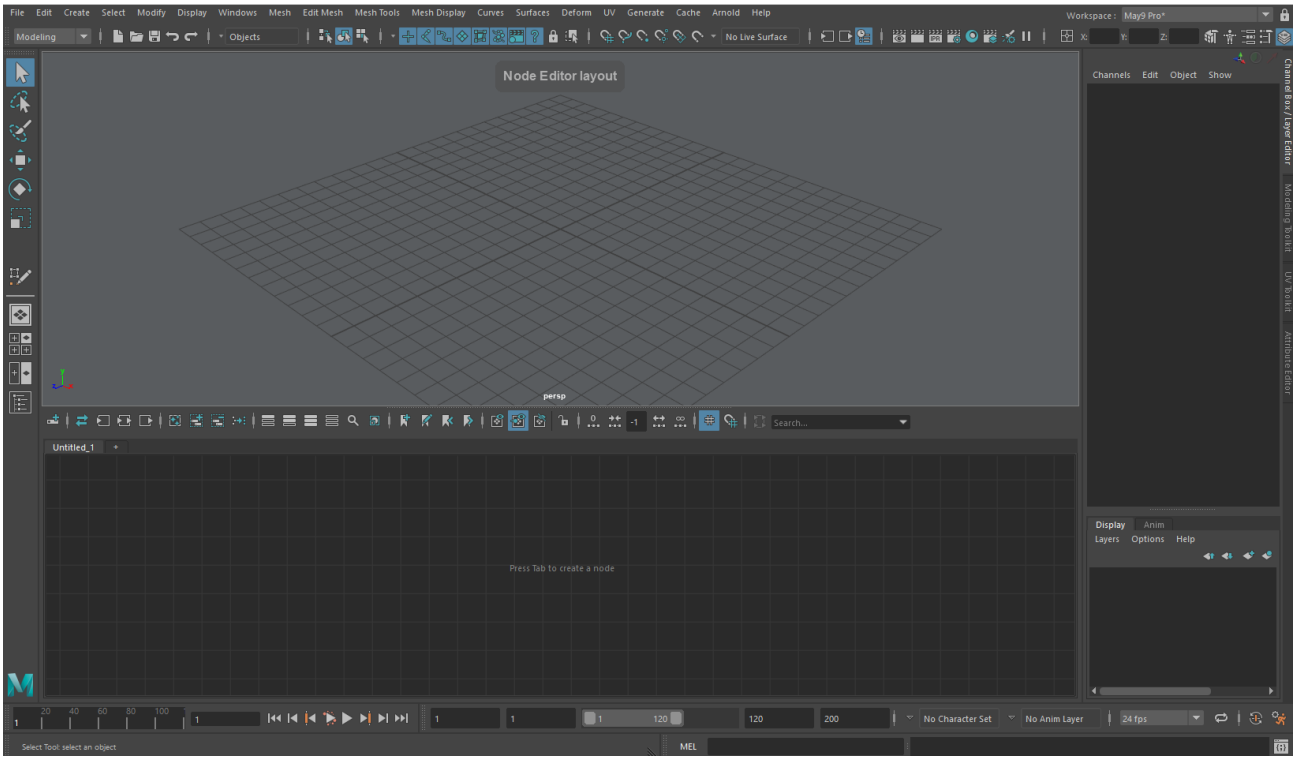
The *May9 Pro* Workspace is designed to maximize the Viewport area and for work on a single display, so all the UI element are docked to maintain the work area organized and clean.



An important note: *the feature set of May9 Pro work only inside of it's workspace*.

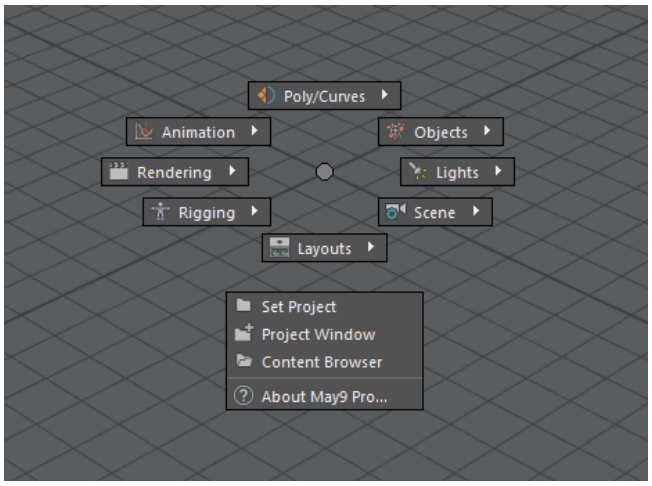
May9 Pro Layouts

The *May9 Pro* Layouts are designed to be integrated in the *May9 Pro* Workspace, for open up one of the ten Layout available just use an Hotkey from *ALT + 1* to *ALT + 0*, or use the *All MM*:



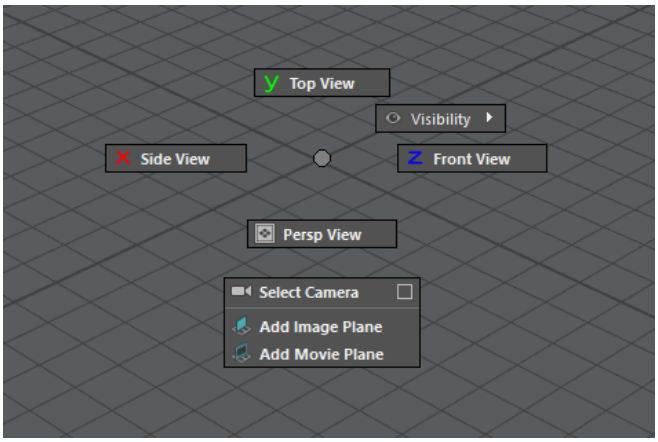
All MM

The *All Marking Menu* (menu_All_MM.mel) is the foundation of *May9 Pro*, is available if there aren't supported Tools active by press *Z + Middle Mouse Button* (from now *MMB*):



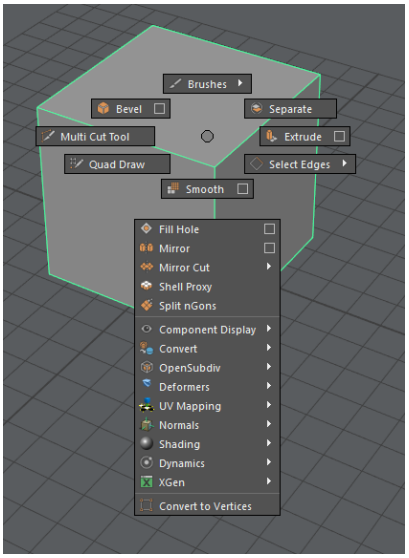
Maya Window MM

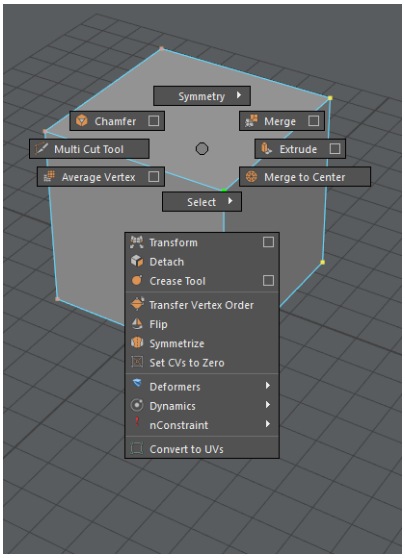
The *Maya Window Marking Menu* (menu_MayaWindow_MM.mel), is available when mouse is over the Viewport and there is no selection scene by press *Z + LMB*:

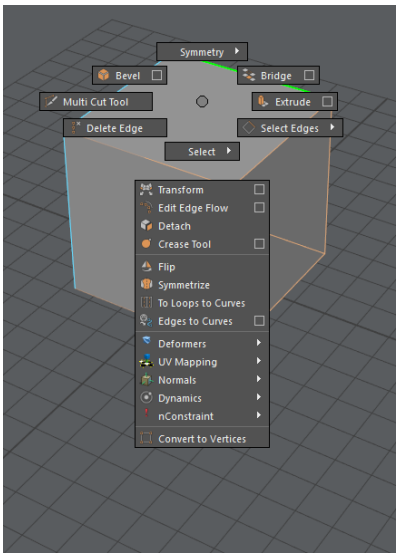


Contextual single selection MM

When a single object or component type are selected is possible enable the relative Marking Menus by pressing *Z + LMB*:

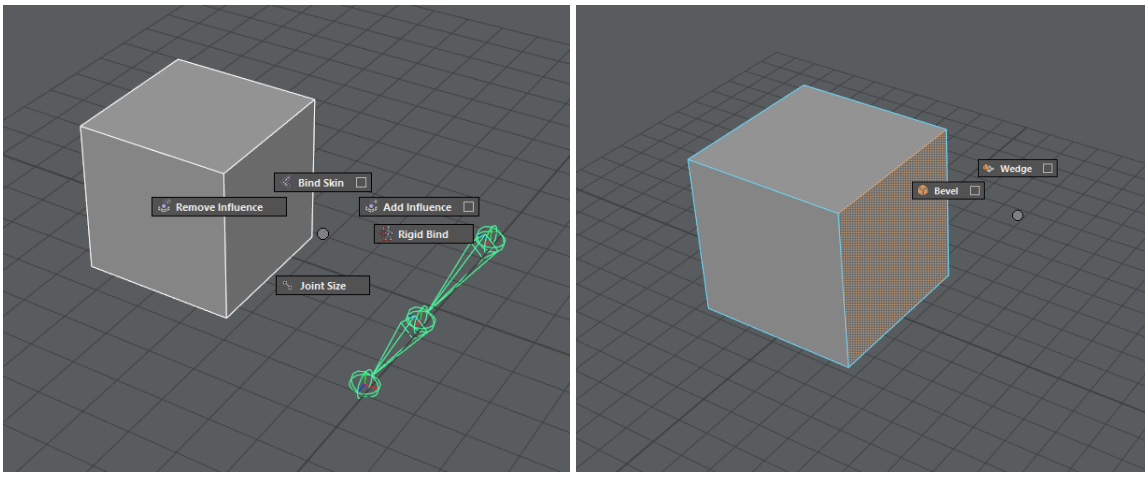






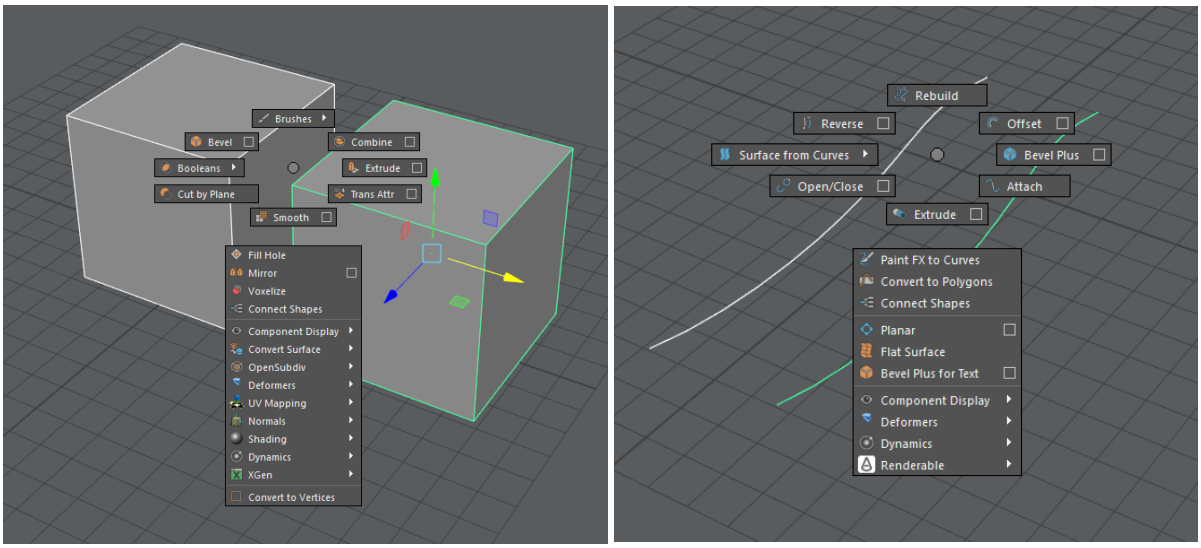
Contextual multi selection MM

When a multiple object type or component type are selected is possible enable the relative Marking Menus by pressing *Z + LMB*:



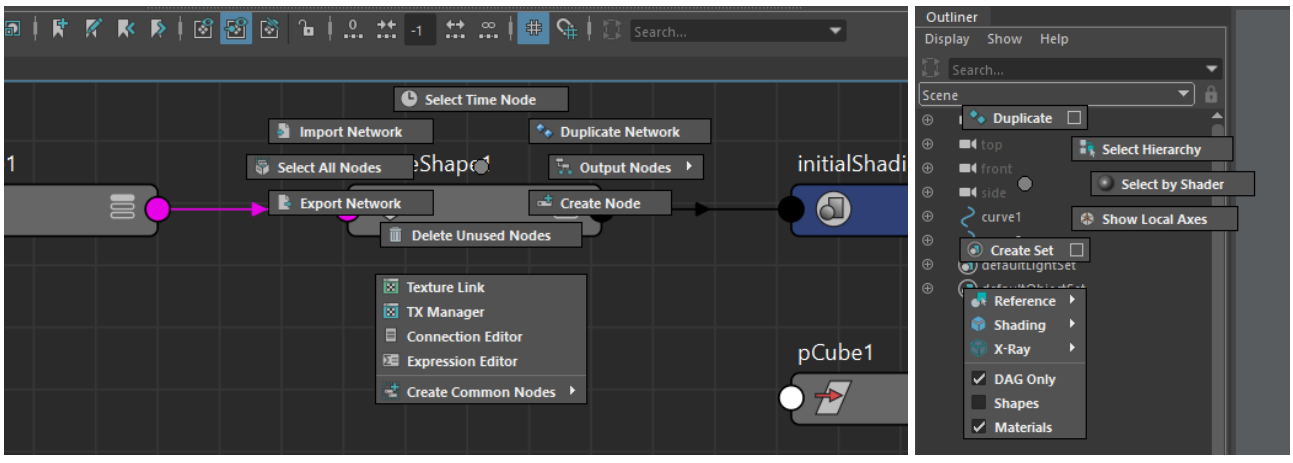
Contextual multi selection of the same object type MM

When a multiple object of the same type is selected is possible enable the relative Marking Menus by pressing *Z + LMB*:



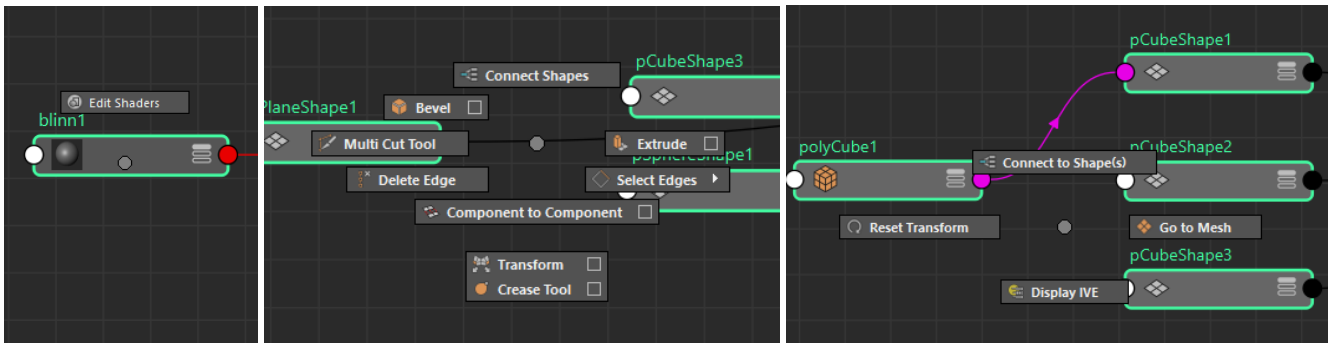
Contextual panel MM

When the mouse is over a panel is possible enable the relative Marking Menus by pressing *Z + LMB*:



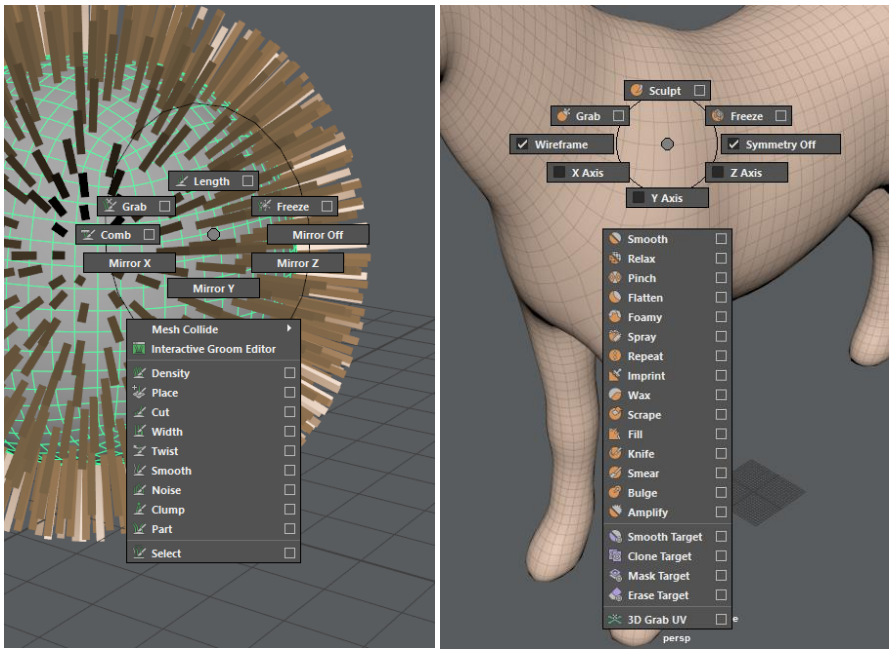
Contextual node selection in Node Editor MM

When a single node, a combination of the same type nodes or a combination of different type nodes are selected in the Node Editor is possible enable the relative Marking Menus by pressing *Z + LMB*:



Contextual Tool MM

When a supported Tool is selected, is possible enable the relative Marking Menus by pressing *Z + MMB*:



These are the tool supported: *3D Paint tool*, *Paint Attribute*, *Paint Skin Tool*, *Legacy Artisan Sculpt tool*, *Create Particle tool*, *Paint FX tool*, *Grease Pencil tool*, *Multi Cut tool*, *Quad Draw tool*, *Poly Crease tool*, *Sculpt tools*, *XGen Groom Paint tools*, *Create Particle tool* and *UV Brushes*.

Contextual single selection Hotkey

If a single object or component type are selected is possible enable the relative Hotkey by pressing and release *Z*.

Contextual multi selection Hotkey

If a multiple object type or component type are selected is possible enable the relative Hotkey by pressing and release *Z*.

Contextual multi selection of the same object type Hotkey

If a multiple object of the same type is selected is possible enable the relative Hotkey by pressing and release *Z*.

Contextual panel MM

If the mouse is over a panel is possible enable the relative Hotkey by pressing and release *Z*.

Contextual node selection in Node Editor Hotkey

If a single node, a combination of the same type nodes or a combination of different type nodes are selected in the Node Editor is possible enable the relative Hotkey by pressing and release *Z*.

Custom Script

Under the hood of *May9 Pro* there are hundreds of small MEL scripts that's support the contextual workflow, but there's also some big ones that add new features to *Autodesk Maya*.

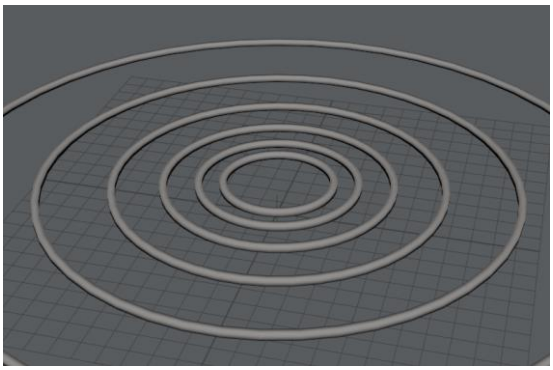
da_intPlay (video)

This script add the interactive play button directly to Time Slider

da_curveToPoly (video)

This script make possible the conversion of curves in polygons:

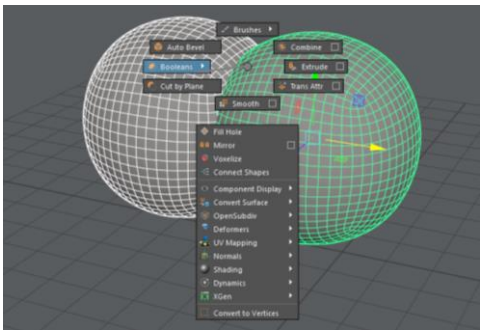
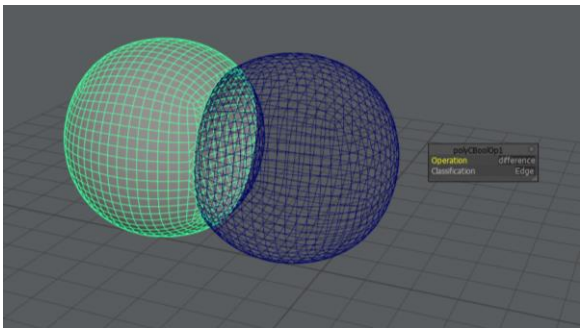
1. Select a curve or multiple curves
2. Z + LMB > Convert to Polygons

da_interactiveBooleans (video)

This script make the Polygonal Boolean process more interactive:

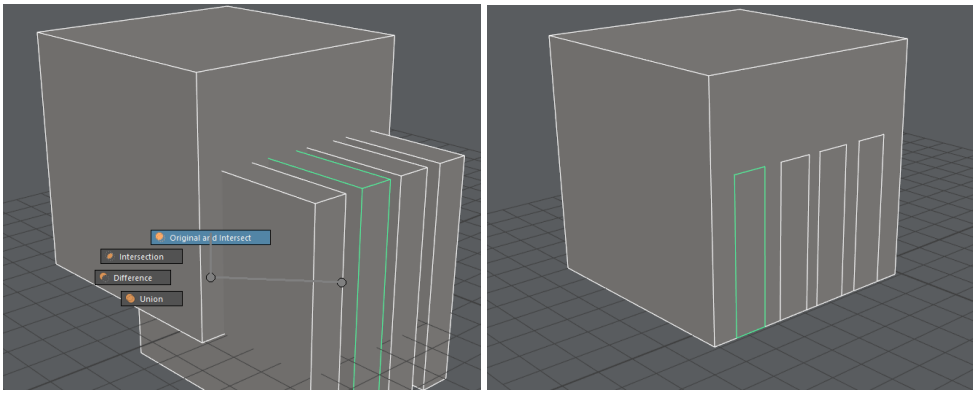
1. Select two or more polygons objects
2. Z + LMB > Booleans

da_BooleanFullIntersect (video)

This script make a full intersect, so this execute a mesh subtraction but maintain subtracted part as separate object:

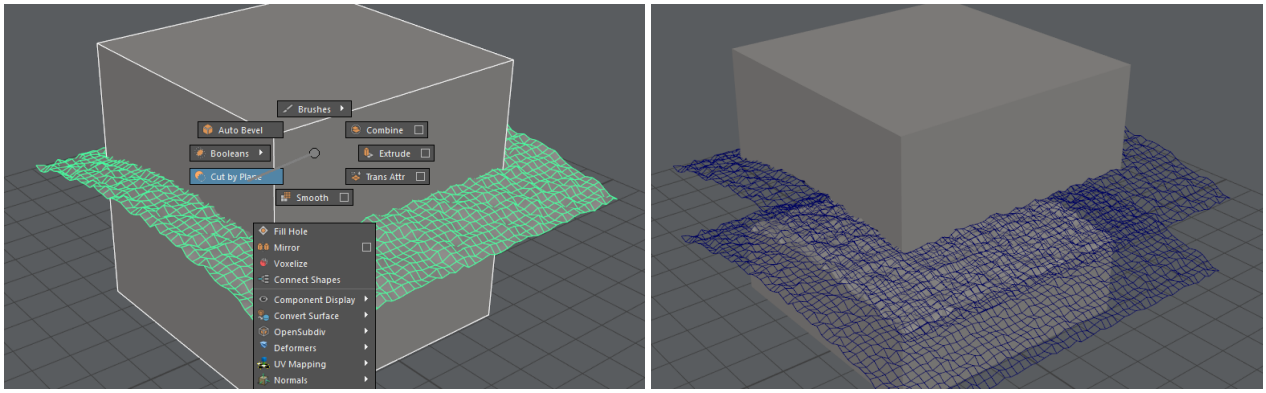
1. Select first the main object and after the cutters ones
2. Z + LMB > Booleans > Original and Intersect



da_PlaneCutter (video)

This script cut a mesh by using a flat mesh, this can be useful for simulate surface cracks:

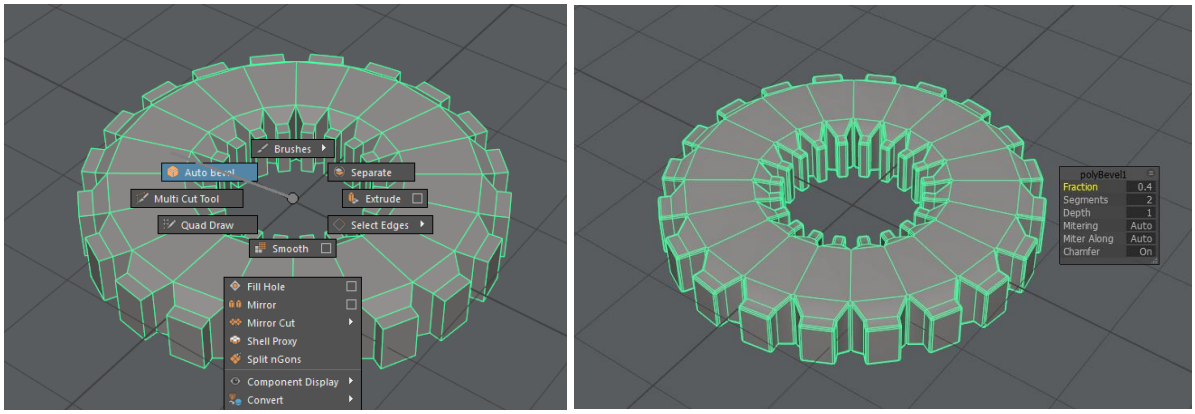
1. Select first the main object and after the cutter ones
2. Z + LMB > Cut by Plane
3. Select the single or double operator
4. Move the cutter or the cutters plane



da_AutoBevel (video)

This script analyse the angle between faces and try to add a Bevel node only on needed edges:

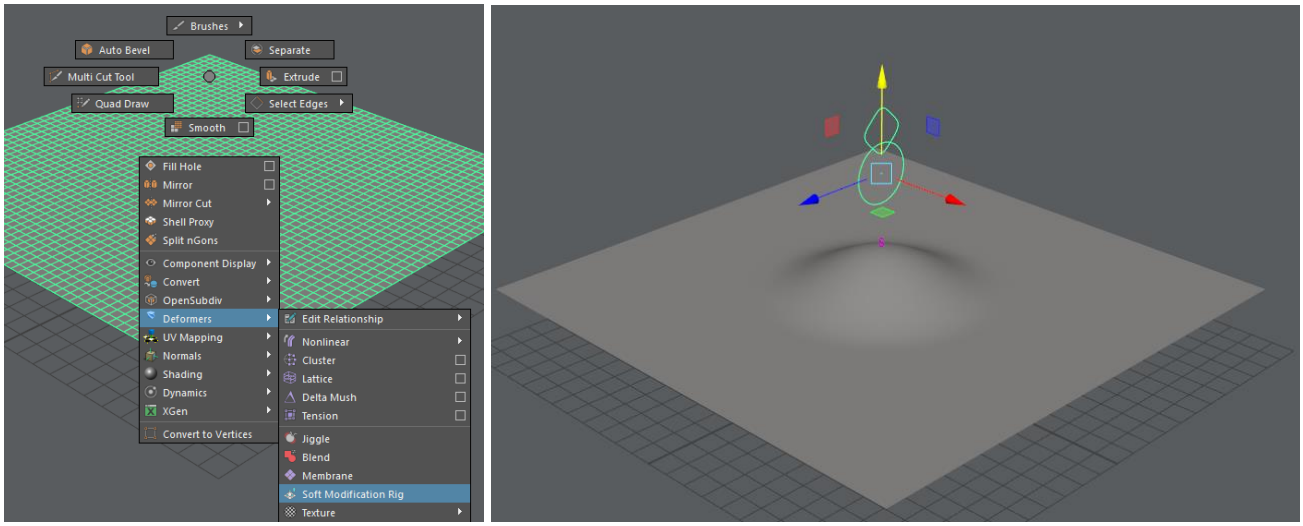
1. Select a Polygon
2. Z + LMB > Auto Bevel



da_SoftSelectionRig (video)

This script create a rig on a soft selection deformer, to make it animable:

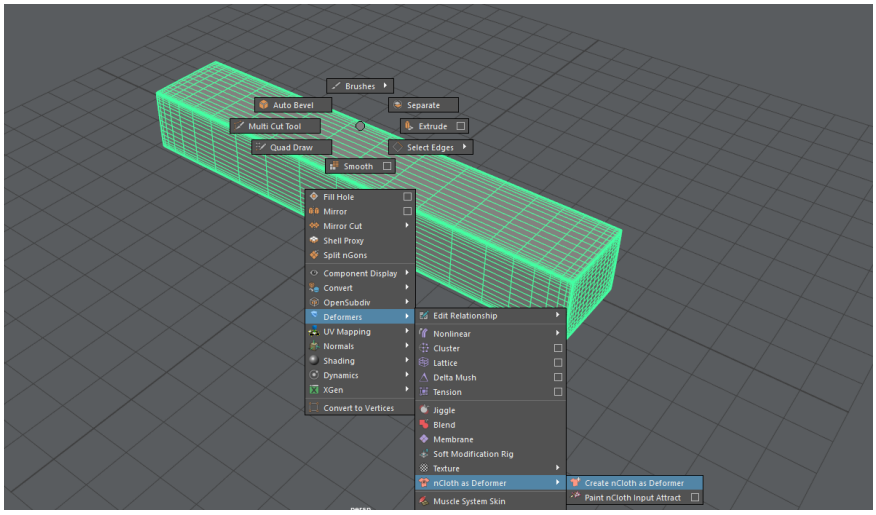
1. Select a Polygon
2. Z + LMB > Deformers > Soft Modification Rig



da_ClothAsDeformer (video)

This script set up the current mesh to be deformed by nCloth solver, this can be useful for simulate character self-collision skin or muscle dynamics:

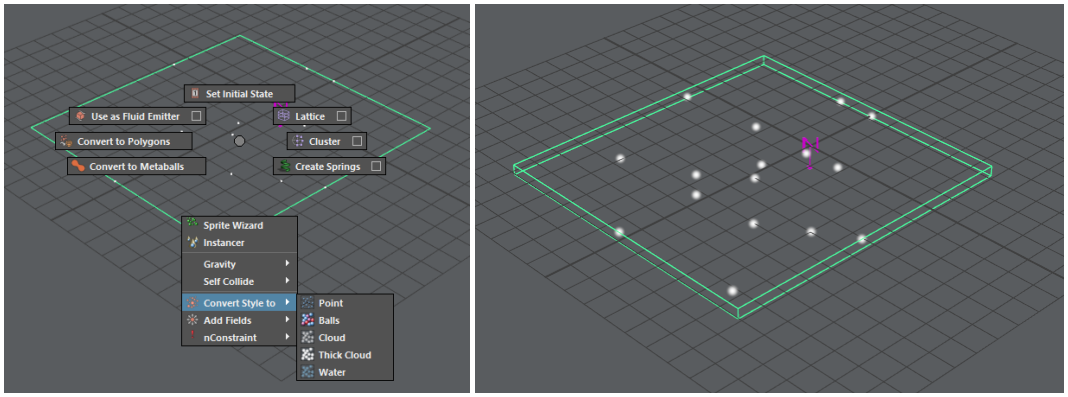
1. Select the polygons to deform, it can be the character skin
2. Z +LMB > Deformers >nCloth as Deformer > Create nCloth as Deformer



da_nParticleConverter (video)

This script add the ability to convert particle to a specific type after their creation:

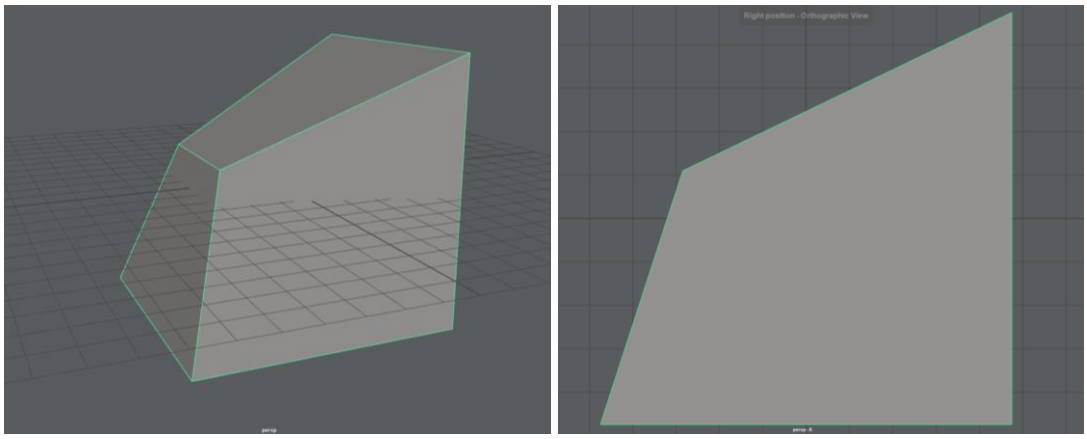
1. Create some particle
2. Z + LMB > Convert Style to



da_perspToggle (video)

This script convert the current persp view to the closest ortho, and vice versa:

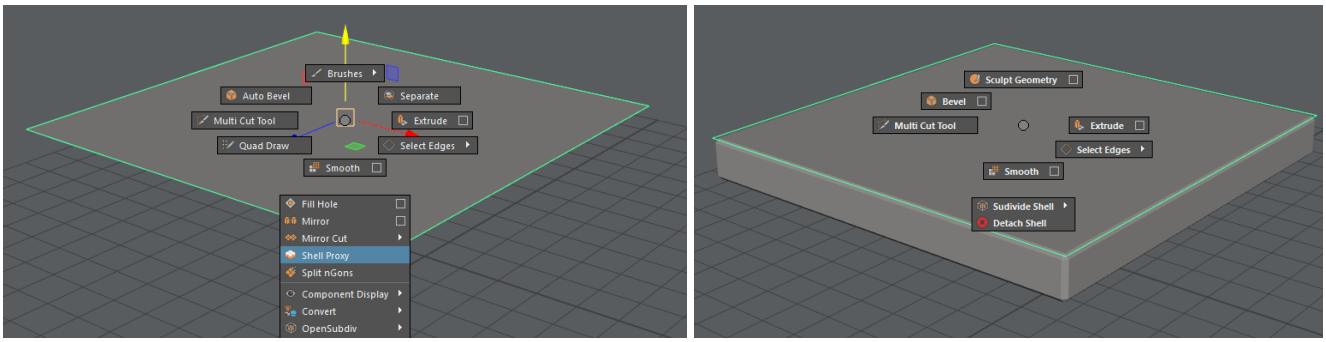
1. Move camera
2. Press ALT + Enter



da_shell (video)

This script emulates Shell deformer of *Autodesk 3D Studio Max*, by adding a thickness to flat polygons:

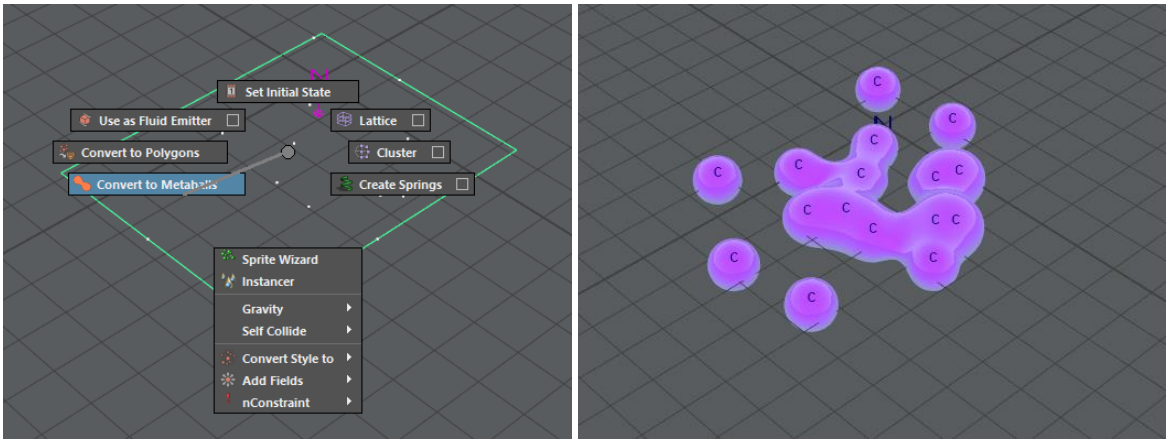
1. Select a flat polygon
2. Z + LMB > Shell Proxy
3. Continue to model or open tool option by using Z + LMB



da_ConvertToMetaballs (video)

This script convert particles to polygonal Metaballs:

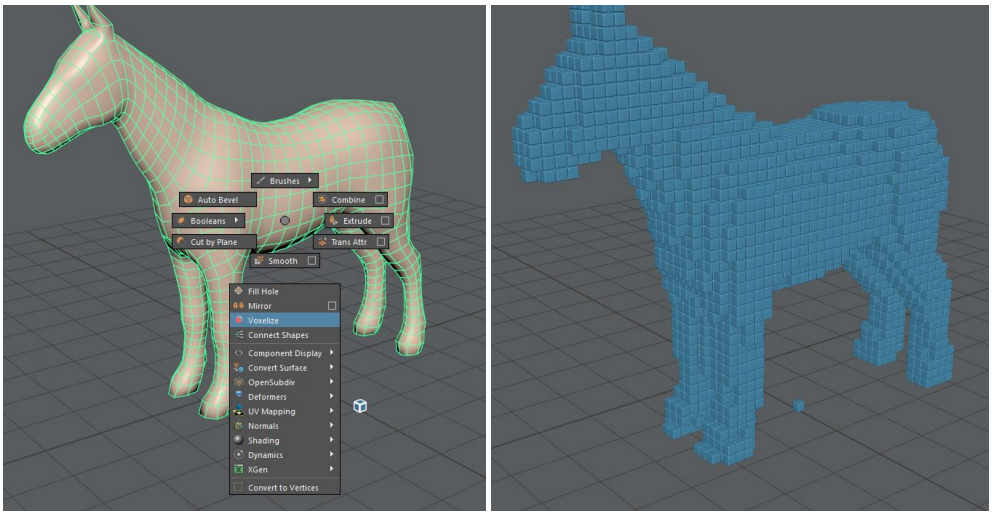
1. Select some particles
2. Z + LMB > Convert to Metaballs
3. Move single Metaballs by selecting relative cluster



da_MashVoxelizer (video)

This script use MASH to voxelize an arbitrary mesh in the volume of another mesh:

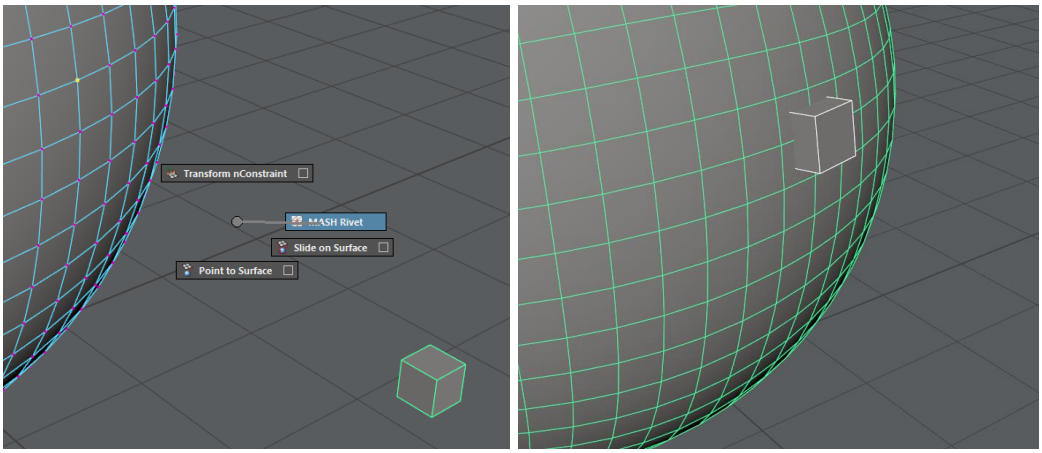
1) Select first the filler mesh then the volume mesh
2) Z + LMB > Voxelize in a Volume



da_RivetMash (video)

This script constraint the pivot of a polygon to a component of another polygon:

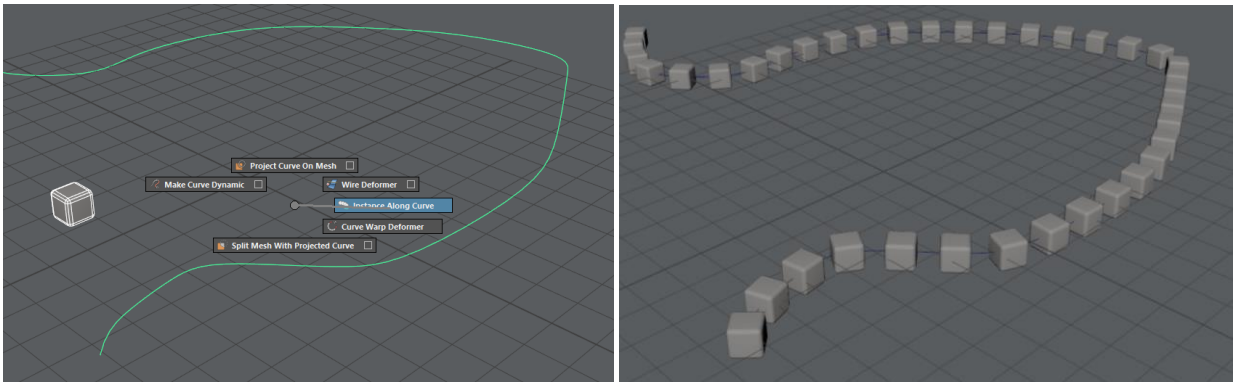
1) Select single or multiple components then a polygon
2) Z + LMB > Rivet



da_CurveDistributionMash (video)

This script scatter and constrain a polygonal object along a curve:

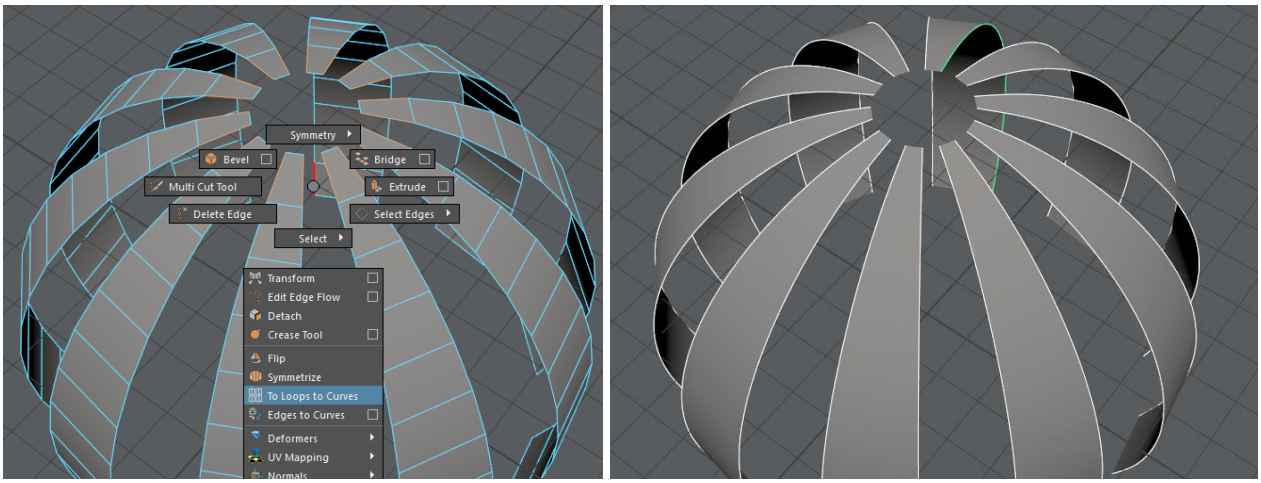
1) Select a polygon and then a curve
2) Z + LMB > Instance Along Curve



da_EdgeToLoopToCurve (video)

This script convert edge selection to loop and then make a batch conversion to curves, this is useful for converting polygonal hair to curve hair:

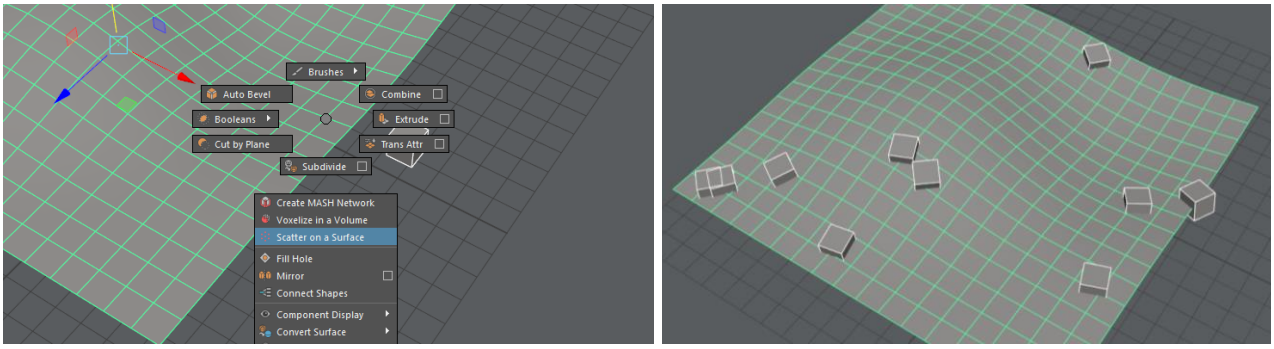
1) Select an edge for loop, sometimes this is more easy to do in UV texture editor
2) Z + LMB > To Loops to Curves



da_SurfaceScatterMash

This script scatter and constrain a polygonal object on a mesh:

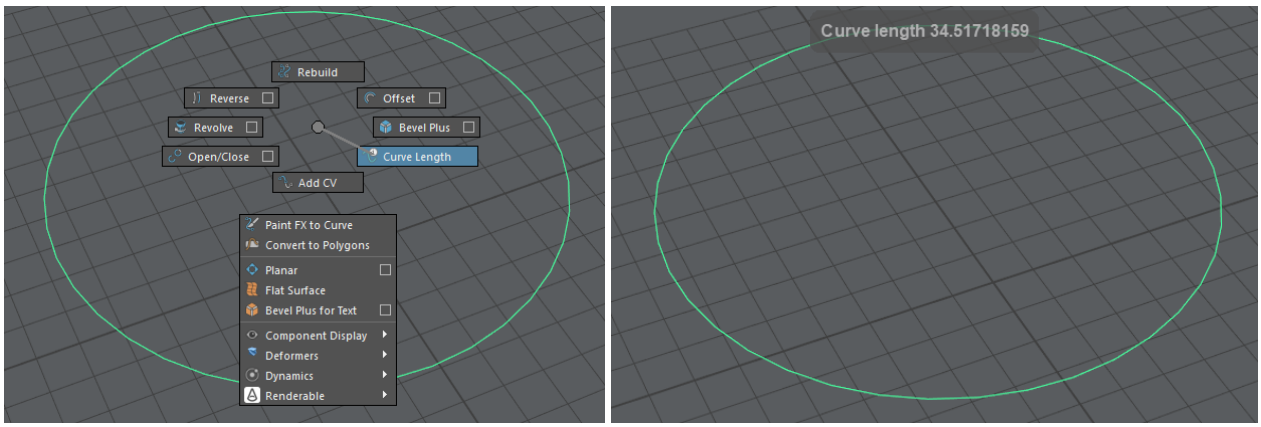
1) Select a mesh object then a mesh surface
2) Z + LMB > Scatter on a Surface



da_CurveLength

This script returns the length of a curve in Maya unit:

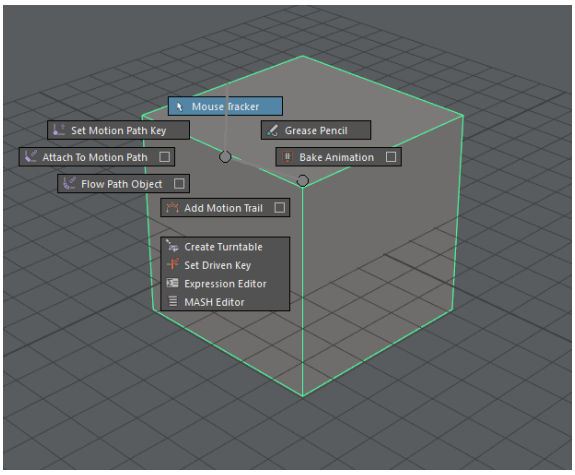
1) Select the curve you want to measure
2) Z + LMB > Curve Length

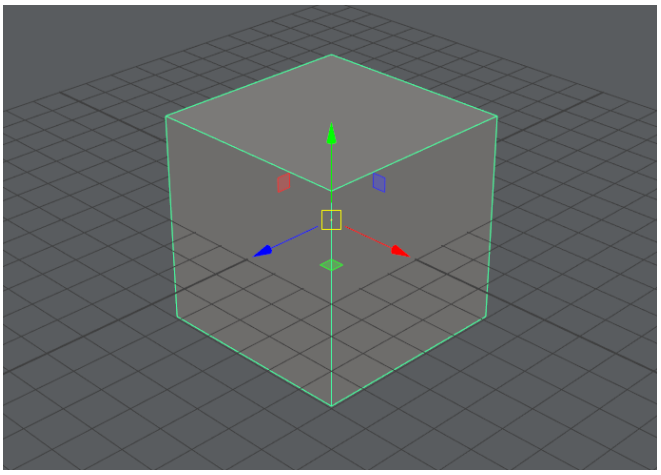


da_MouseTrack

This script tracks the mouse movement and create an animation:

1) Select an object
2) Z + MMB > Animation > Mouse Tracker
3) Manipulate the object by using manipulators
4) Press Esc for stop the tracking

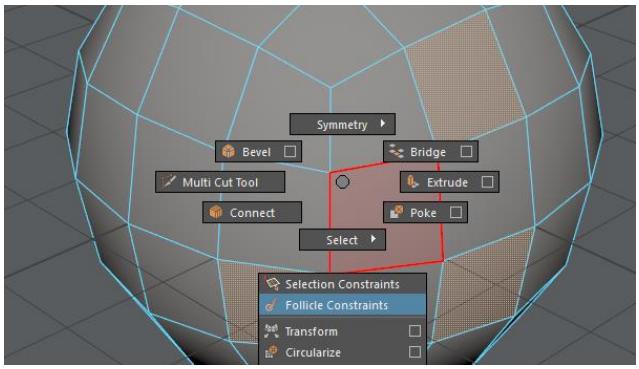


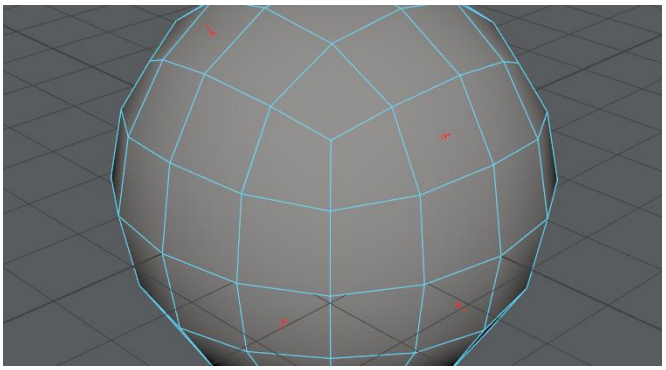


da_FacesFollicles

This script creates a follicle in the centre of selected faces:

1) Select one or more faces
2) Z + LMB > Follicle Constrains





New Hotkeys

CTRL + Enter = Delete History and Freeze Transform
SHIFT + ALT + F = Freeze Transformation
SHIFT + ALT + R = Reset Transformations
SHIFT + ALT + C = Center Pivot
SHIFT + ALT + Z = Zero Transformations (move objects to world center)
SHIFT + ALT + M = Match Transform
SHIFT + ALT + W = Toggle Wireframe on Shaded
SHIFT + ALT + Space = Playback toggle

CTRL + ALT + R = Start IPR or Arnold Render View
CTRL + ALT + 2 = Edit and Graph Shader Based on Selection
CTRL + ALT + 8 = Paint Effects Panel
CTRL + ALT + X = Reverse to save

CTRL + SHIFT + ALT + C = Copy selection to clipboard
CTRL + SHIFT + ALT + V = Paste selection to clipboard
CTRL + SHIFT + ALT + S = Save selection in to a Set
CTRL + SHIFT + ALT + D = Delete Static Channels
CTRL + SHIFT + ALT + M = Toggle Shelf
CTRL + SHIFT + ALT + R = Toggle Resolution Gate
CTRL + SHIFT + ALT + Z = MMtoKey Manager

CTRL + ` = Show the last operation in AE
CTRL + F = Ignore the child and frame only the selected object
CTRL + P = Parent and position
CTRL + J = Context Connector
CTRL + K = Massive Attribute Editor
CTRL + L = List of Input Operation is mapped

ALT + 1 = Set Layout Single Perspective/Four View
ALT + 2 = Set Layout Node Editor
ALT + 3 = Set Layout UV Texture Editor
ALT + 4 = Set Layout Graph Editor
ALT + 5 = Set Layout Shape Editor
ALT + 6 = Set Layout Pose Editor
ALT + 7 = Set Layout Component Editor
ALT + 8 = Set Layout Relationship Editor
ALT + 9 = Set Layout Dynamic Relationship Editor
ALT + 0 = Set Layout Reference Editor

ALT + C = Open Channel Box or toggle it if docked
ALT + A = Open Attribute Editor or toggle it if docked
ALT + M = Open Modelling Toolkit or toggle it if docked
ALT + U = Open UV Toolkit or toggle it if docked (CMD + U on OS X)
ALT + O = Open Outliner or toggle it if docked
ALT + T = Open Tools Preference Settings or toggle it if docked
*ALT + * = Reset May9 Pro Workspace

ALT + L = Color Picker
ALT + G = Toggle grid
ALT + K = Toggle Color Management
ALT + Enter = Toggle perspective to orthographic camera

SHIFT + UP = Side View
SHIFT + RIGHT = Front View
SHIFT + DOWN = Top View
SHIFT + LEFT = Persp View
SHIFT + T = Assign shader if an object is selected or open create node window if not

~ = Orient Manipulators Toggle
? = Find Maya Menu
K + Drag = Smooth playback mode
CMD + Space = Toggle Full Screen (Mac OS only)

Changed hotkeys:

CTRL + ALT + D = Toggle Displacement
CTRL + ALT + ~ = SmoothingDisplayShowBoth
CTRL + ALT + ` = SmoothingDisplayToggle
ALT + - = ToggleColorFeedback
ALT + I = Toggle Wireframe in Artisan
ALT + P = Color Picker
SHIFT + N = Full Hotbox Display

Main preferences change

The flowing is the main standard *Autodesk Maya* preference changed in *May9 Pro*:

- Two side lighting is enable (as in Maya 2014)
- Animate Camera Transition is enable (as in Maya 2014)
- Interactive Creation is enable (as in Maya 2015)
- Anti-aliasing and the Floating Point Render are enable by default in VP 2.0
- Playback Speed is set to Play Every Frame, Max Real-time
- X-Ray Active Component is enable
- Hidden attribute in connections exposed
- Membrane Deformer exposed
- Legacy Subdivision Surface exposed
- Legacy Mirror Cut tool exposed
- Hotbox have no transparency
- Incremental save is enable and limited to 5 increments
- Brush optimization
- Paint Skin Tool now use custom colors
- Script Editor have enable the Command Completition
- Disable Mouse Wheel Zoom
- HDR and EXR file is set to Raw colorspace for prevent Arnold double expose
- Fix PaintFX Preset Blending bug
- Two Bone IK and Spring IK are preload
- PreSelect Highlight is on by default in Graph Editor
- Wireframe visibility on Sculpting Tool is on by default
- Panel tool bar is hidden
- Status line is fully expanded
- Initial Shading Group colour is darker and contrasted
- Enable Highlight connection on selected node in Node editor (only Maya 2018)
- Channel Box settings are set to slow (only Maya 2018)
- Transparent Shadow is on by default (only Maya 2018)

Useful links

Facebook page: *fb.com/May9Prefs*

YouTube channel: *youtube.com/c/May9*

May9 Pro Git repository: *github.com/DavideAlidosi/May9*

Credits and license

May9 Pro design, scripts and preferences are made by *Davide Alidosi* and released under MIT license.

MMtoKey is made by *Andrey Menshikov* and release under a custom non-commercial license.