MAY 9

USER GUIDE

NEXT

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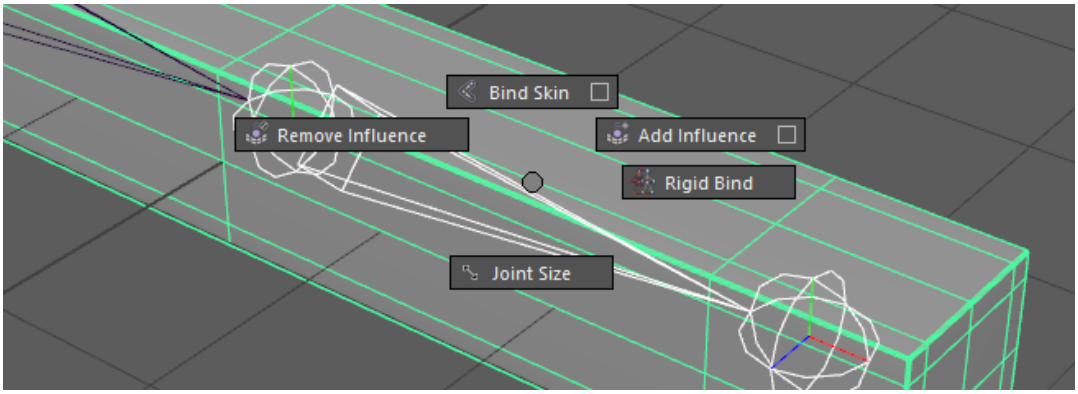
What is May9 Next

May9 Next is a plug-in aim to offer an alternative user experience for *Autodesk Maya* designed to improve the speed of daily workflow and maximize new tools learning.

May9 Next streamline the most common 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 the follow *Marking Menu* (*MM* form now):

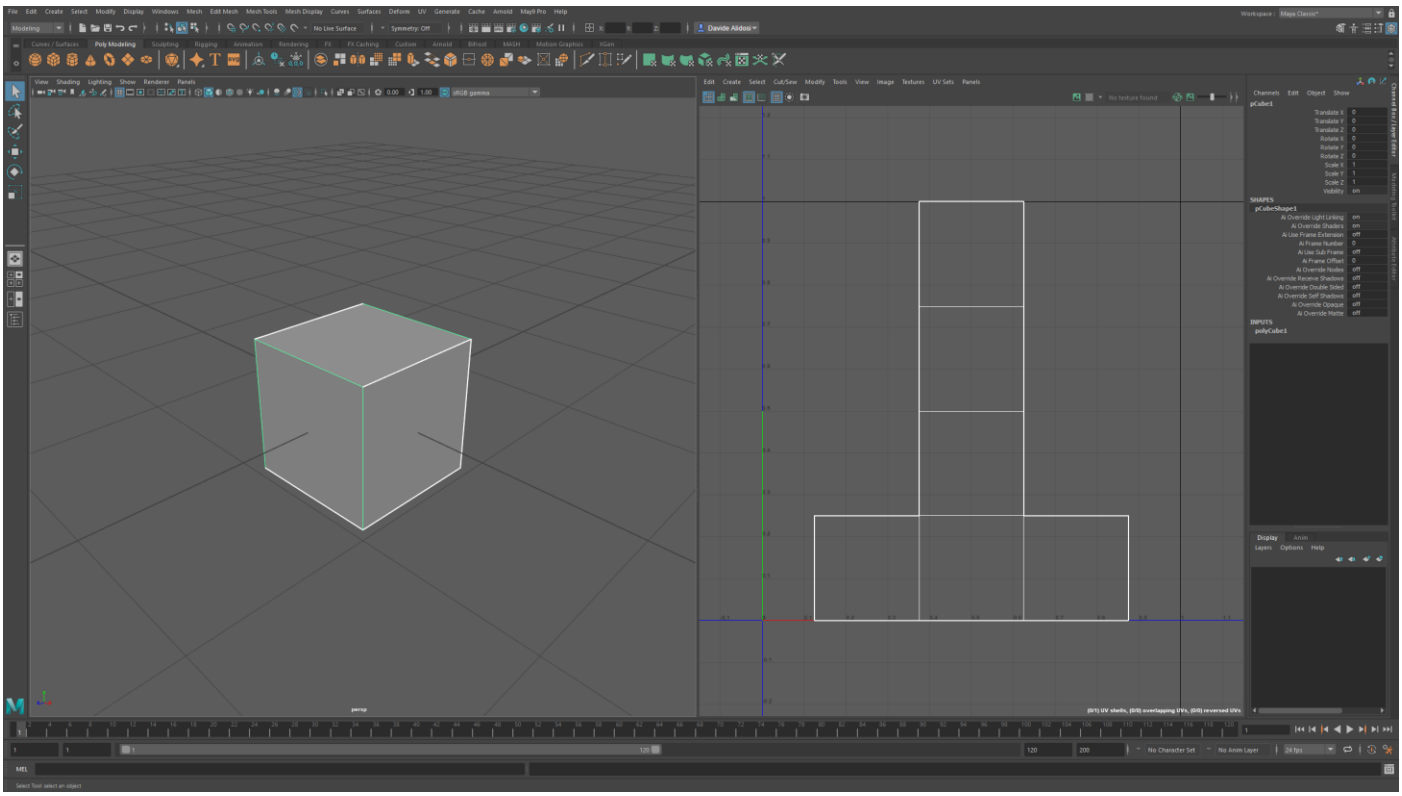


In addition to the contextual workflow describe above, *May9 Next* include: contextual hotkeys, layouts, scripts, presets, and optional hotkeys.

Basic usage

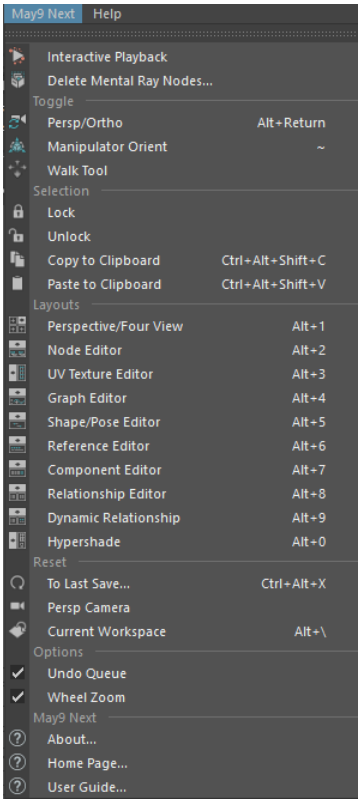
May9 Next Layouts

The *May9 Next* Layouts are designed to be integrated in the *Maya Classic* Workspace, for open one of the ten Layout available just use a Hotkey from *ALT + 1* to *ALT + 0* or use *May9 Next* drop-down menu:



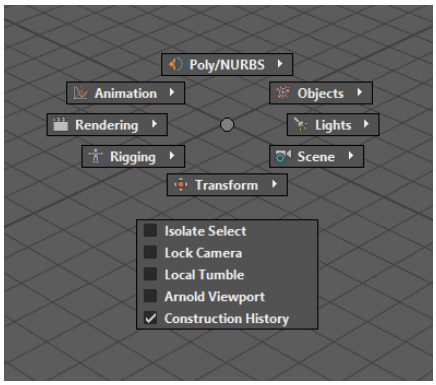
May9 Next drop-down menu

A conventional drop-down is provided to provide a quick access to layouts and *May9 Next* not contextual commands:



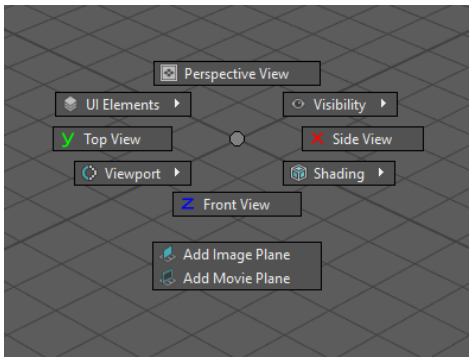
All MM

All MM (*menu_All_MM.mel*) is the foundation of *May9 Next*, is available by pressing *Z + Middle Mouse Button* (from now *MMB*) and use **bold** font style:



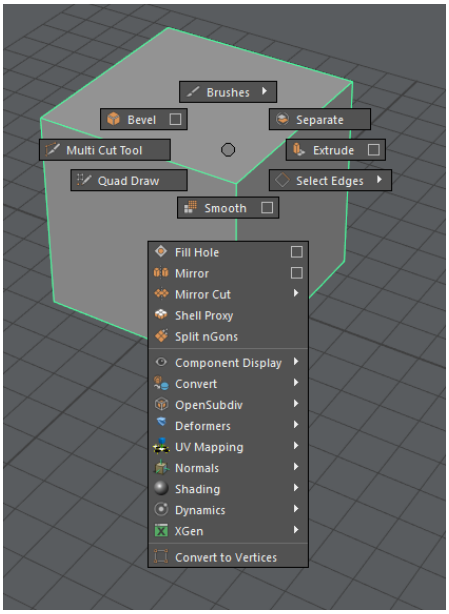
Maya Window MM

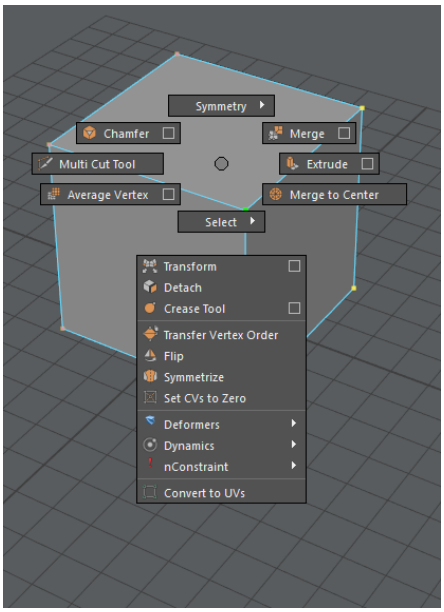
Maya Window MM (*menu_MayaWindow_MM.mel*) is available over the Viewport and there isn't selection, is available by pressing *Z + LMB*:

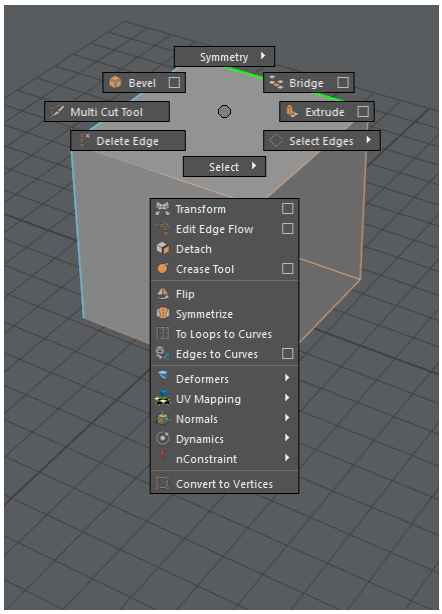


Contextual single selection MM

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

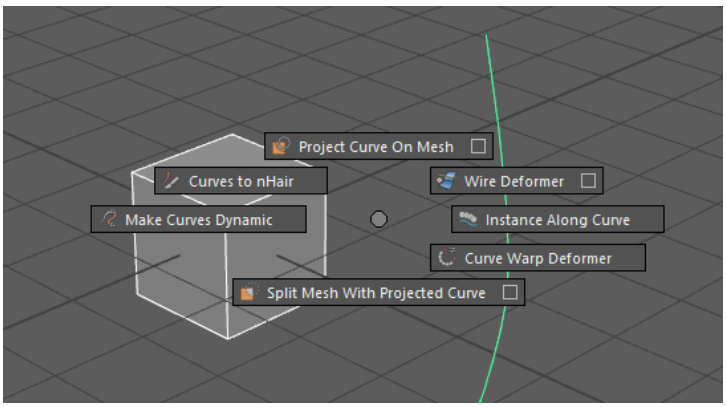


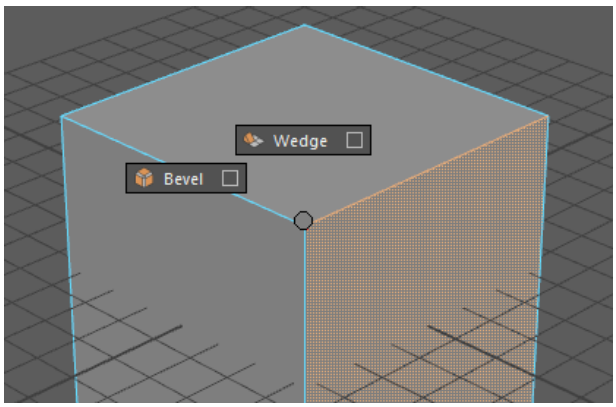




Contextual multi selection MM

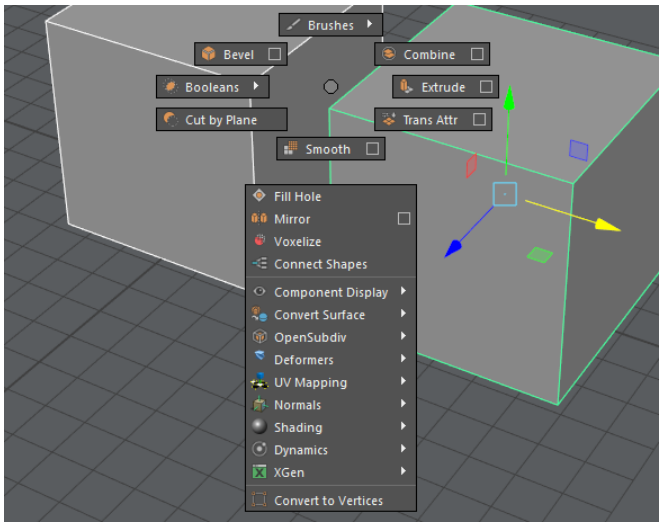
When a multiple object type or component type is selected is possible enable the relative contextual MM by pressing *Z + LMB*:

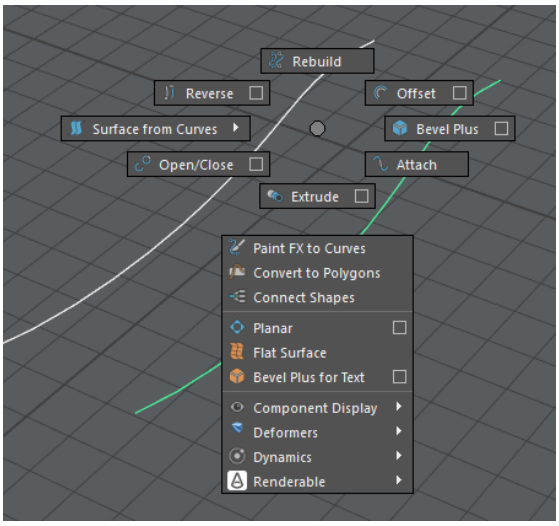




Contextual multi selection of the same object type MM

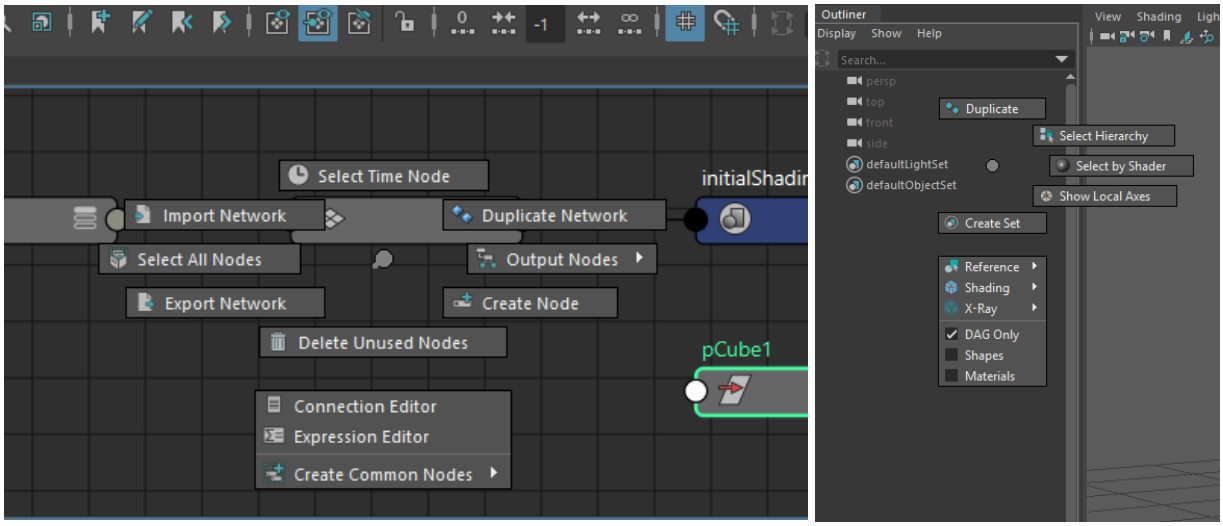
When a multiple object of the same type is selected is possible enable the relative contextual MM by pressing *Z + LMB*:





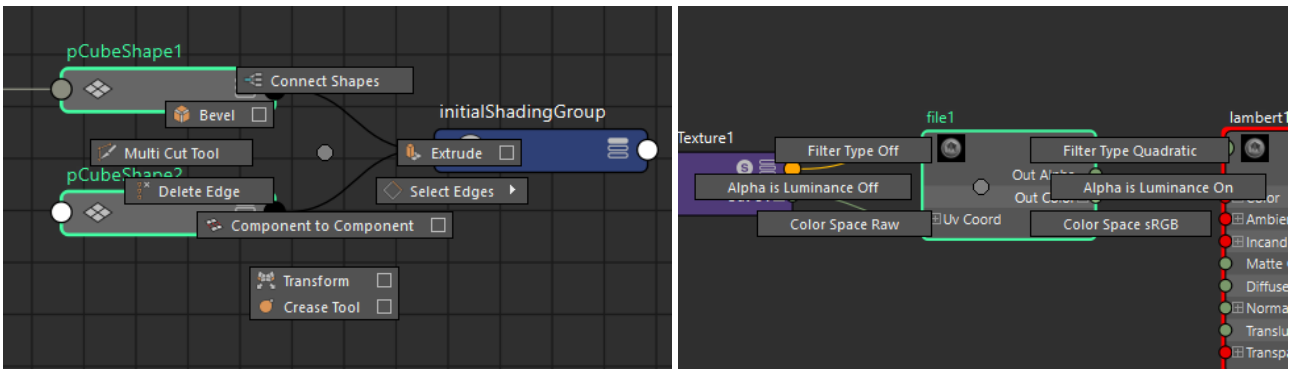
Contextual panel MM

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



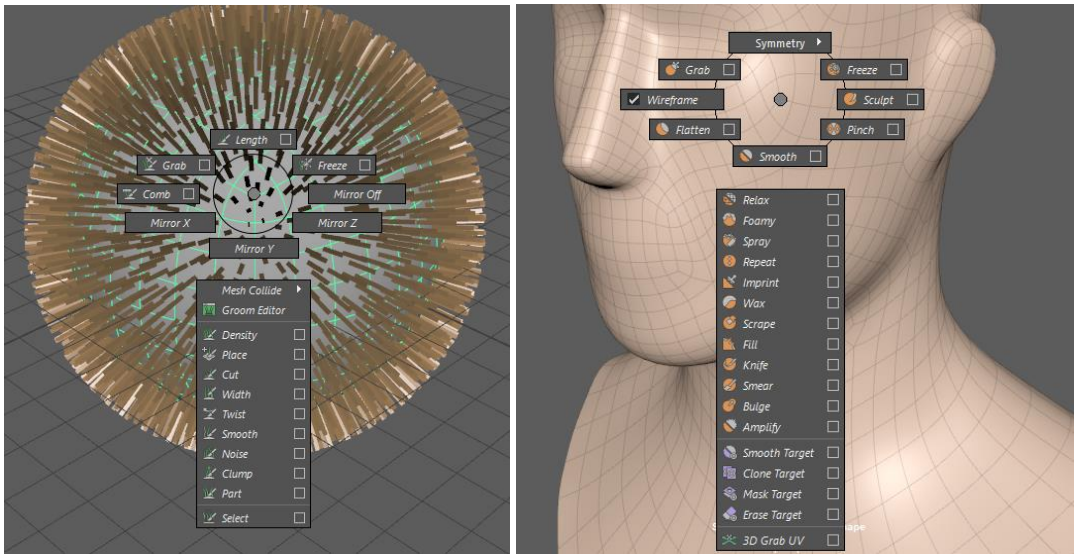
Contextual node selection in editor panels

When a single node, a combination of the same type nodes or a combination of different type nodes are selected in some editor panel is possible enable the relative contextual MM by pressing *Z + LMB*:



Contextual Tool MM

When a supported Tool is selected, is possible enable the relative contextual MM by pressing *Z + MMB*, this kind of MMs use *italic* font style:



These are the tool supported by Contextual Tool MM: *3D Paint*, *Paint Attribute*, *Paint Skin*, *Legacy Artisan Sculpt*, *Create Particle*, *Paint FX*, *Grease Pencil*, *Multi Cut*, *Quad Draw*, *Connect*, *Poly Crease*, *Sculpt Brushes*, *XGen Groom Paint*, *Create Particle*, *Target Weld*, *IK Handle*, *IK Spline Handle* and *UV Brushes*.

Contextual single selection Hotkey

If a single object or component type is selected is possible enable the relative contextual Hotkey by pressing and release *Z*. For example: almost every object types toggle to component mode by using *contextual hotkey*.

Contextual multi selection of the same object type Hotkey

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

Contextual multi selection of different object type Hotkey

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

Contextual panel Hotkey

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

Hotkeys added to standard ones

F1 = Type to find (Maya 2019 only)

SHIFT + ALT + Z = Zero Transformations (move objects to world center)
SHIFT + ALT + Space = Playback toggle

CTRL + ALT + R = Start IPR or Arnold Render View
CTRL + ALT + 1 = Smooth Off
CTRL + ALT + 2 = High Quality Smooth
CTRL + ALT + 8 = Paint Effects Panel
CTRL + ALT + X = Reverse to save
CTRL + ALT + M = Toggle Shelf Tabs
CTRL + ALT + T = Toggle Title Bar
CTRL + ALT + I = Toggle Isolate Select
CTRL + ALT + L = List of Input Operation
CTRL + ALT + . = move a keyframe to the next frame
CTRL + ALT + , = move a keyframe to the previous frame
CTRL + ALT + Space = Interactive playback

CTRL + SHIFT + ALT + C = Copy selection to clipboard
CTRL + SHIFT + ALT + V = Paste selection to clipboard
CTRL + SHIFT + ALT + G = Save selection in to a Set
CTRL + SHIFT + ALT + M = Toggle Shelf
CTRL + SHIFT + ALT + R = Toggle Resolution Gate
CTRL + SHIFT + ALT + S = Set Smart Keyframe
CTRL + SHIFT + ALT + P = Controller Parent
CTRL + SHIFT + ALT + T = Controller Point
CTRL + SHIFT + ALT + O = Controller Orient
CTRL + SHIFT + ALT + A = Controller Aim
CTRL + SHIFT + ALT + I = Controller Pole Vector

CTRL + SHIFT + ALT + MMB = Mouse Over MM

CTRL + ALT + SHIFT + D = Match Pivot
CTRL + ALT + D = Reset Pivot
CTRL + ALT + O = Tag as Controller
CTRL + ALT + P = Parent Controller
CTRL + Return = Delete Non-Deformer History and Freeze Transform

CTRL + F = Ignore the child and frame only the selected object
CTRL + P = Parent and position
CTRL + J = Connection Editor
CTRL + K = Channel Control

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

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/Pose Editor
ALT + 6 = Set Layout Reference Editor
ALT + 7 = Set Layout Component Editor
ALT + 8 = Set Layout Relationship Editor
ALT + 9 = Set Layout Dynamic Relationship Editor
ALT + 0 = Set Layout Hypershade

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 Current Workspace
ALT + L = Open Color Picker
ALT + Enter = Toggle perspective to orthographic camera

~ = Orient Manipulators Toggle
Home = Reset Transformations
End = Select Hierarchy
K + Drag = Smooth playback mode
CMD + Space = Toggle Full Screen (Mac OS only)

Changed Hotkeys
CTRL + ALT + 3 = High Quality Displacement
CTRL + ALT + ~ = Smoothing Display Show Both
CTRL + ALT + Return = Toggle Pan Zoom

ALT + - = Toggle Color Feedback
ALT + I = Toggle Wireframe in Artisan

SHIFT + N = Full Hotbox Display

SHIFT + F1 = Maya Help (Maya 2019 only)

Hidden tools exposed

The flowing is the *Autodesk Maya* hidden tools exposed in *May9 Next*:

- Membrane deformer
- Mirror Cut tool
- Legacy curves-based text
- Remesh command
- Retopo command (only on Maya 2018 and Maya 2019)
- Paint Effects 2D Panel
- Rigid skin bind
- Legacy Light Editor (on Maya 2018 and Maya 2019, is the default one on Maya 2017)

Changed Preferences

The flowing is the *Autodesk Maya* preferences changed in *May9 Next*:

- Double variable warning is disable
- Connection Editor display hidden attributes
- Custom Hypershade layout

Important note: after uninstallation previous preferences are restored.

Custom Scripts

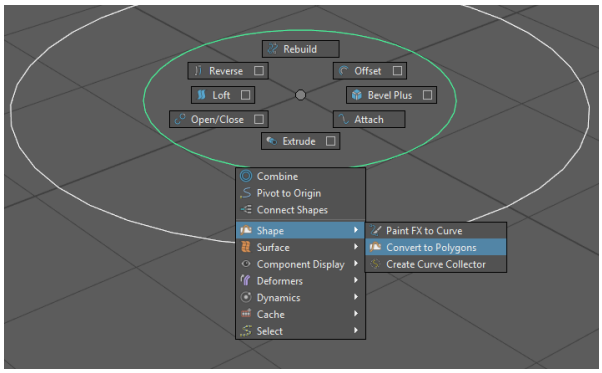
Under the hood of *May9 Next* there are hundreds of MEL scripts that's support the contextual workflow, but there's also some ones that add new features to *Autodesk Maya*.

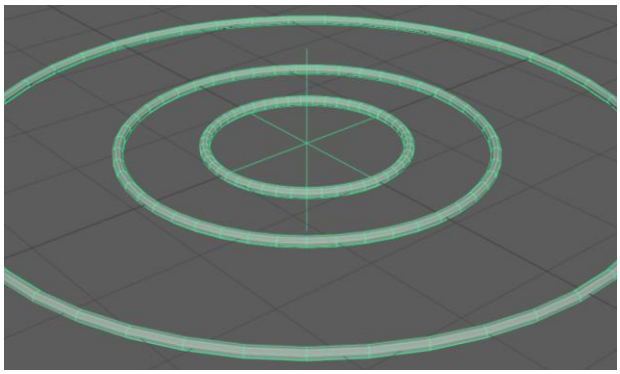
Important note: All the custom scripts are customizable by user under *Windows > Settings\Preferences > Hotkey Editor*.

da_curveToPoly (video)

This script makes possible the conversion of curves in polygons:

1) Select a curve or multiple curves
2) *Z + LMB > Shape > Convert to Polygons*

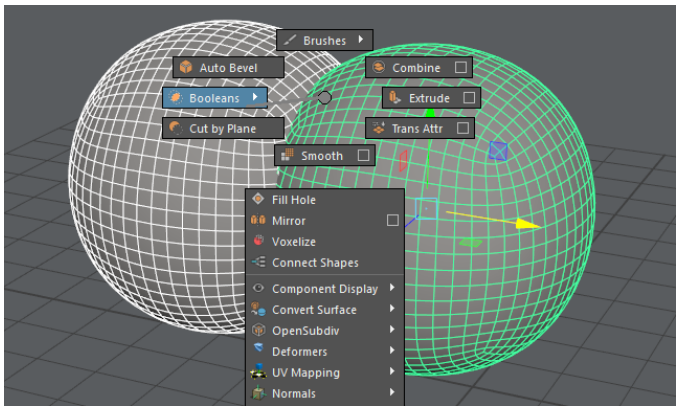


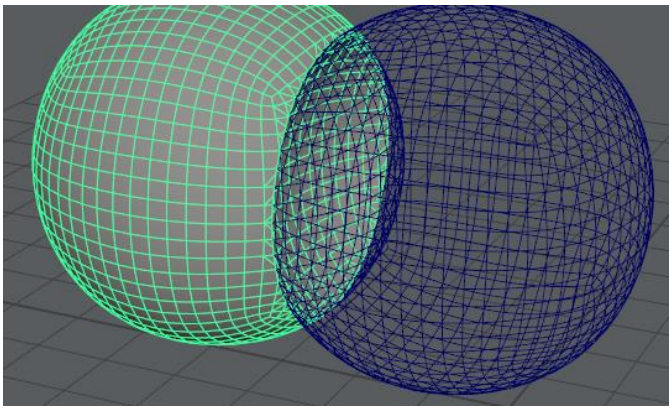


da_interactiveBooleans (video)

This script makes the Polygonal Boolean process more interactive:

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

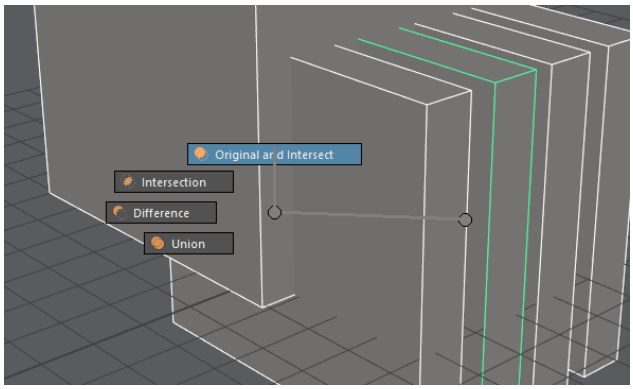


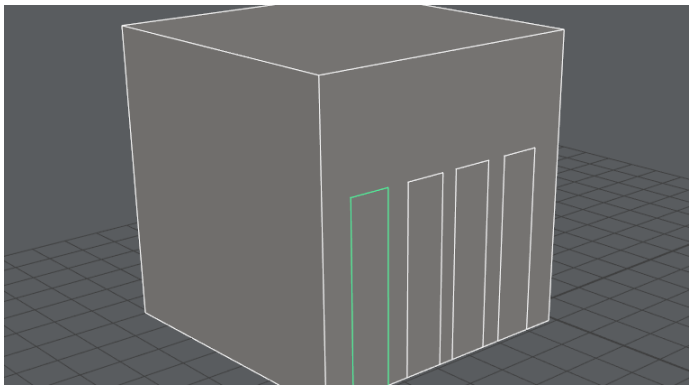


da_BooleanFullIntersect (video)

This script makes 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*

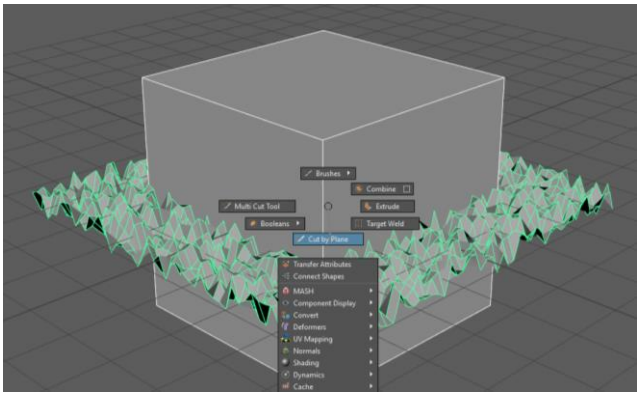


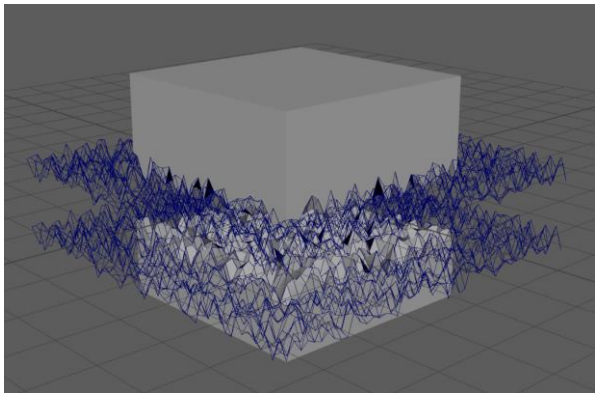


da_PlaneCutter (video)

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

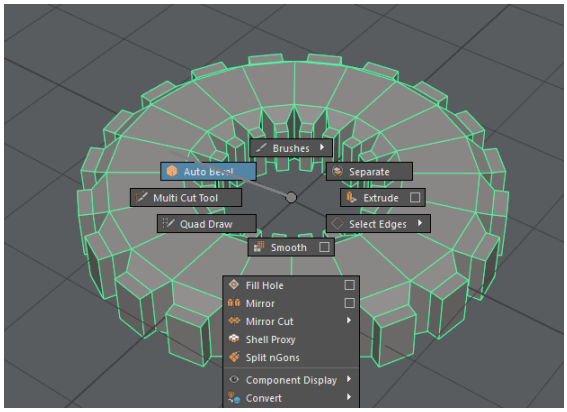


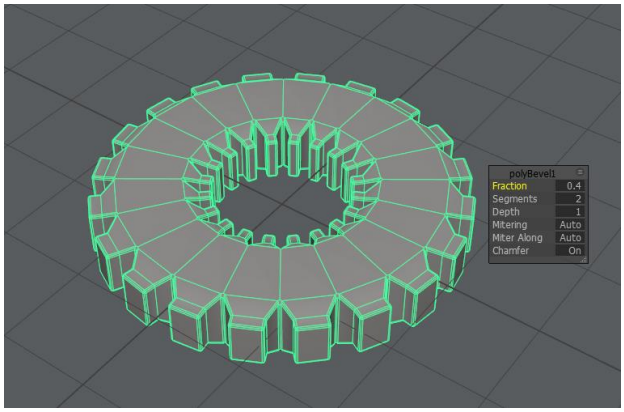


da_AutoBevel (video)

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

1) Select a polygonal object
2) *Z + LMB > Auto Bevel*

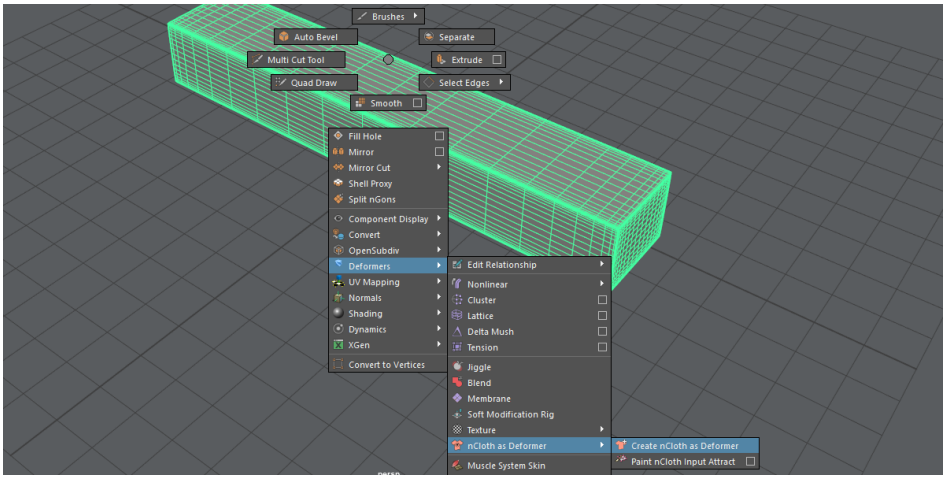




da_ClothAsDeformer (video)

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:

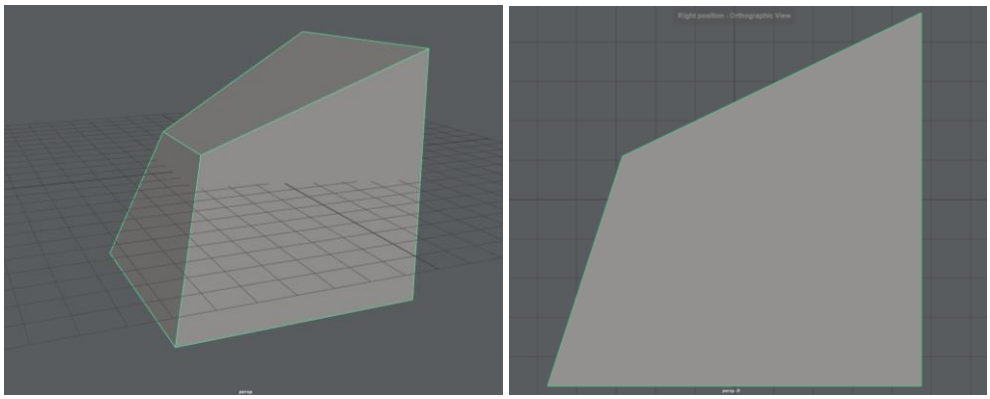
1) Select the polygons to deform, it can be the character skin
2) *Z +LMB > Deformers >nCloth as Deformer > Create nCloth as Deformer*



da_perspToggle (video)

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

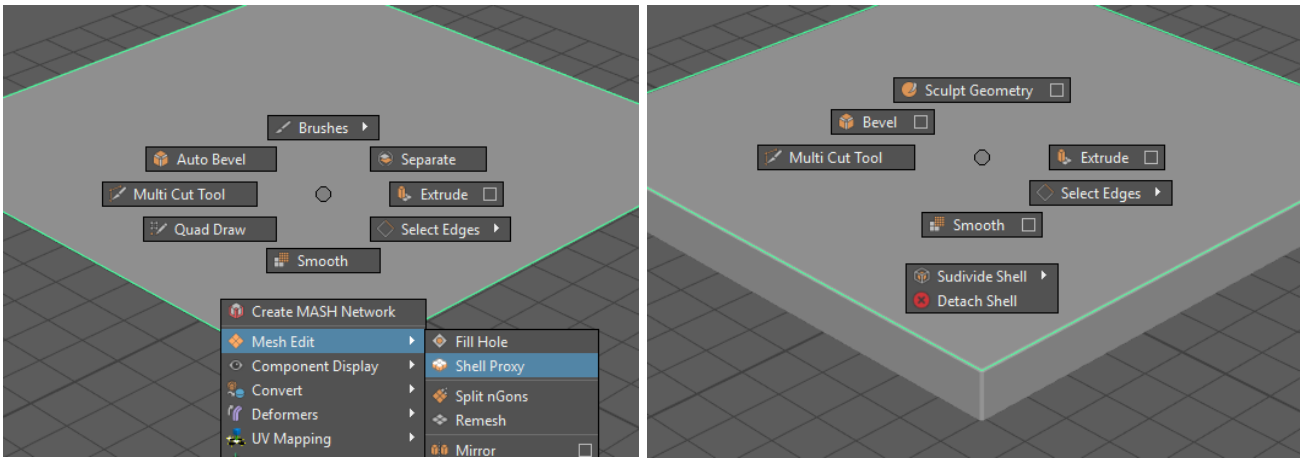
1) Move camera
2) *Press ALT + Enter*



da_shell (video)

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

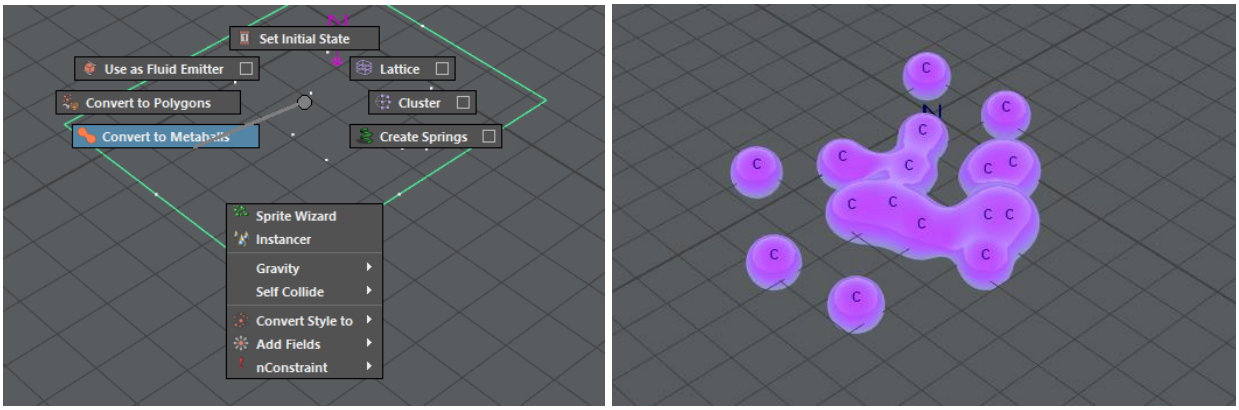
1) Select a flat polygon
2) *Z + LMB > Mesh Edit > Shell Proxy*
3) Continue to model or open tool option by using *Z + LMB*



da_MetaBalls (video)

This script converts particles to polygonal Metaballs:

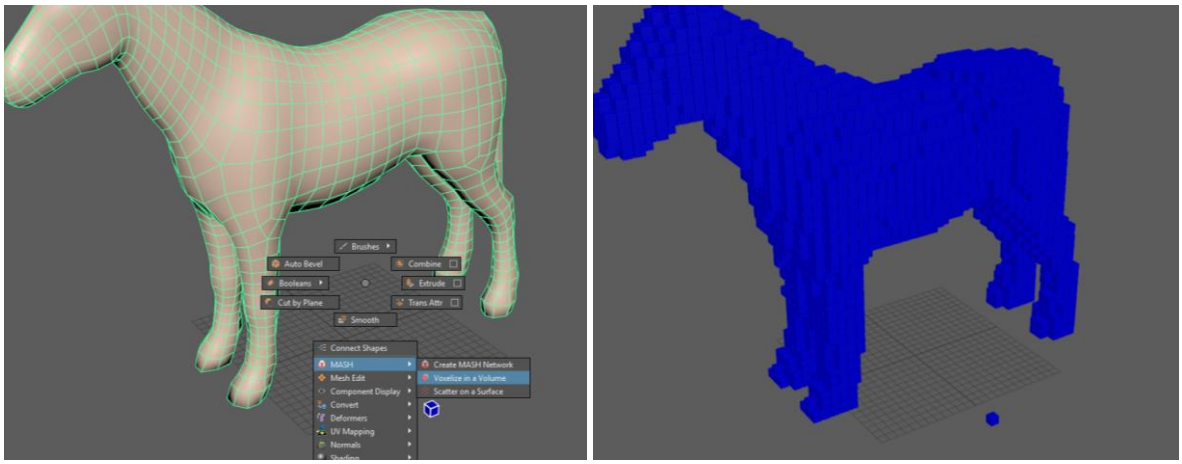
1) Select some particles
2) *Z + LMB > Convert to Metaballs*
3) Move single metaballs by selecting relative cluster



da_MashVoxelizer (video)

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

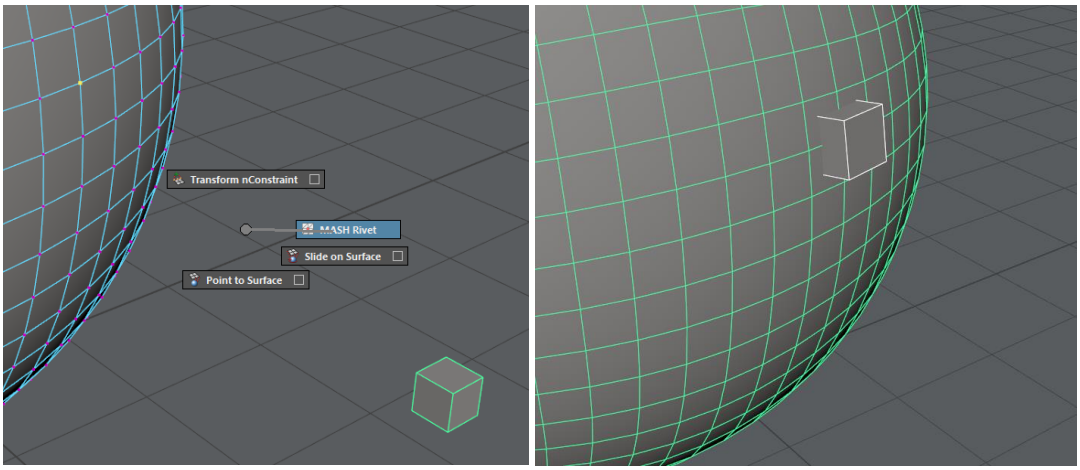
1) Select first the filler mesh then the volume mesh
2) *Z + LMB > MASH >Voxelize in a Volume*



da_RivetMash (video)

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

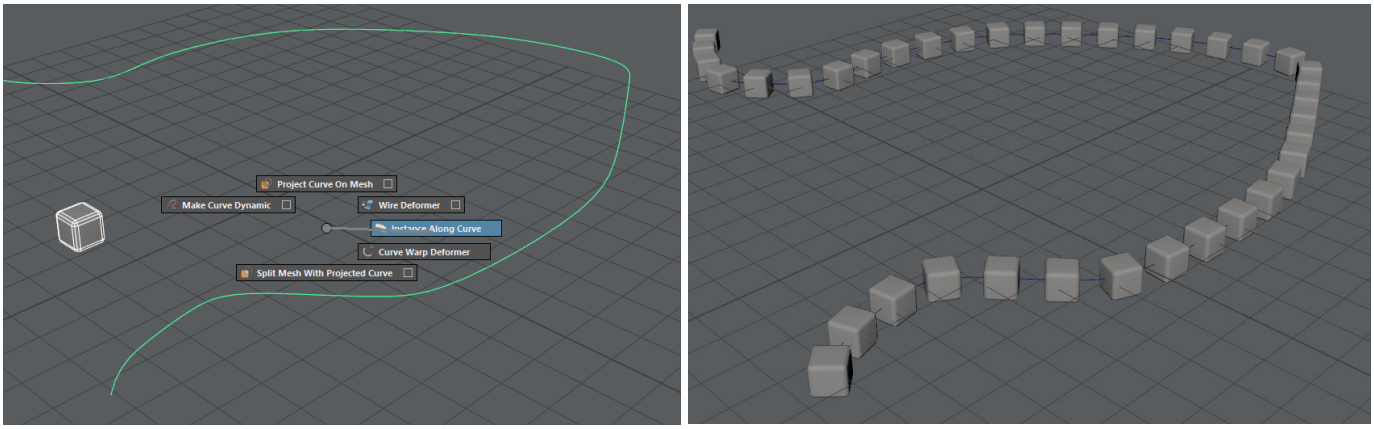
1) Select single or multiple components then a polygon
2) *Z + LMB > Rivet*



da_CurveDistributionMash (video)

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

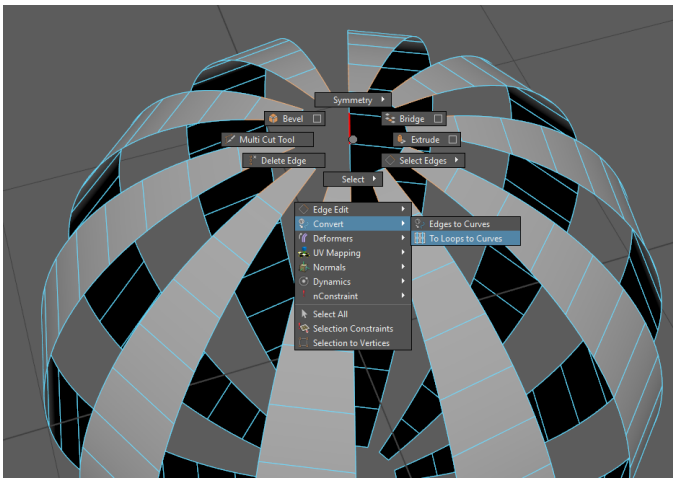
1) Select a polygon and then a curve
2) *Z + LMB > Instance Along Curve*

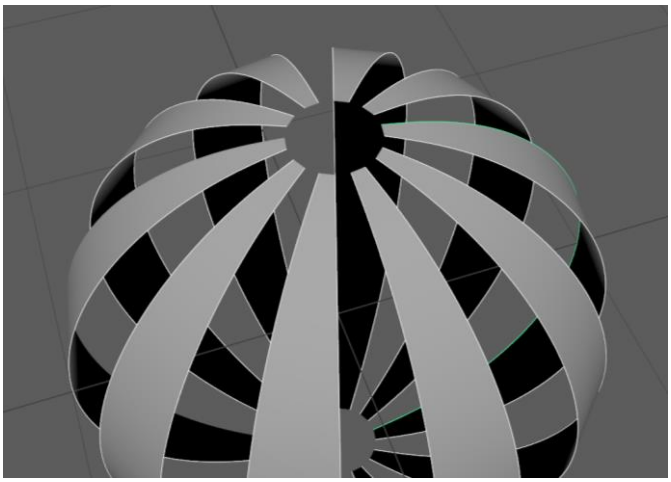


da_EdgesToLoopToCurve (video)

This script converts 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 easier to do in UV texture editor
2) *Z + LMB > Convert > To Loops to Curves*

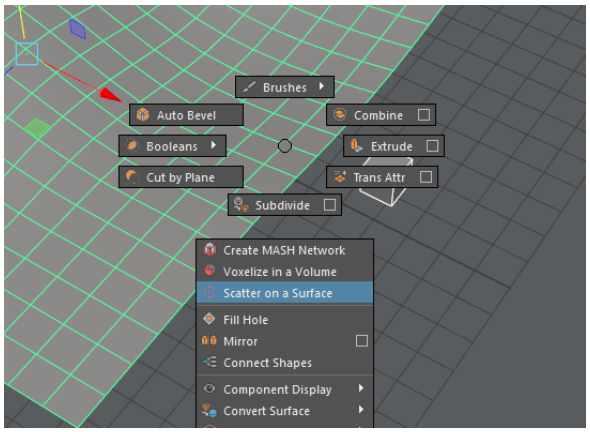


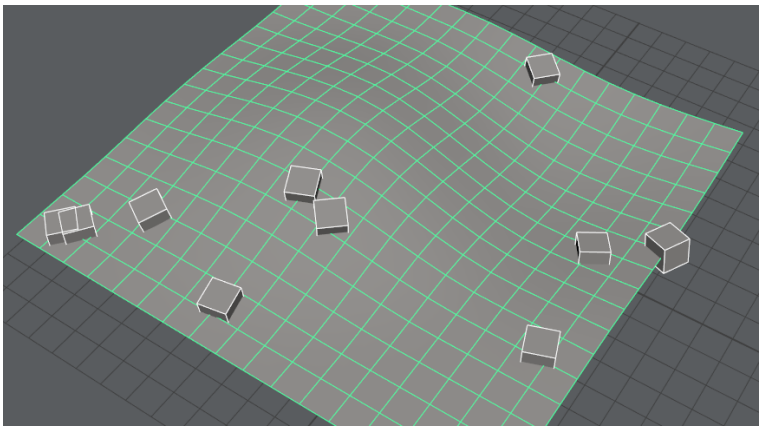


da_SurfaceScatterMash

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*

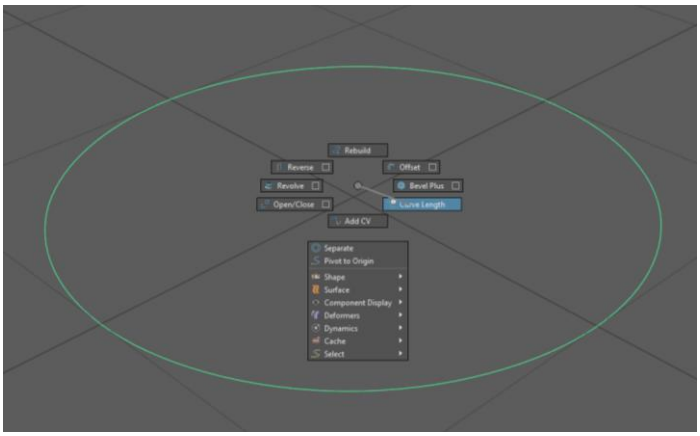


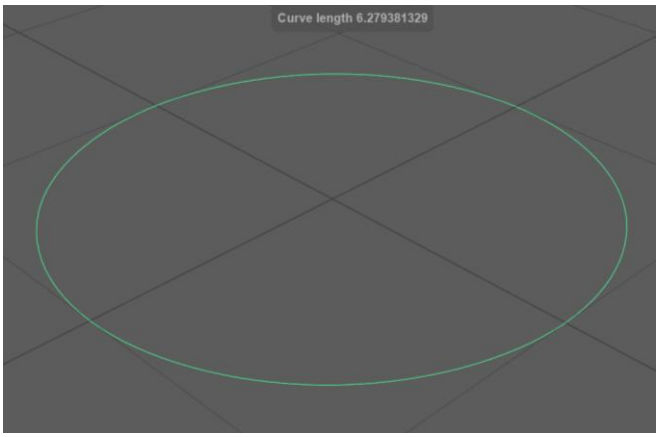


da_CurveLength

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

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

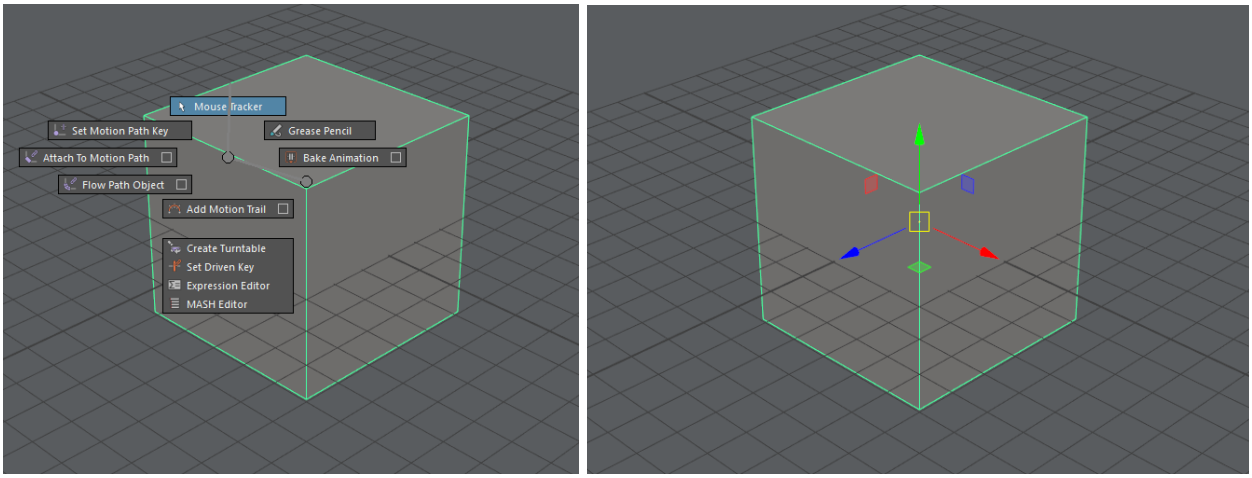




da_MouseTrack

This script tracks the mouse movement and create an animation:

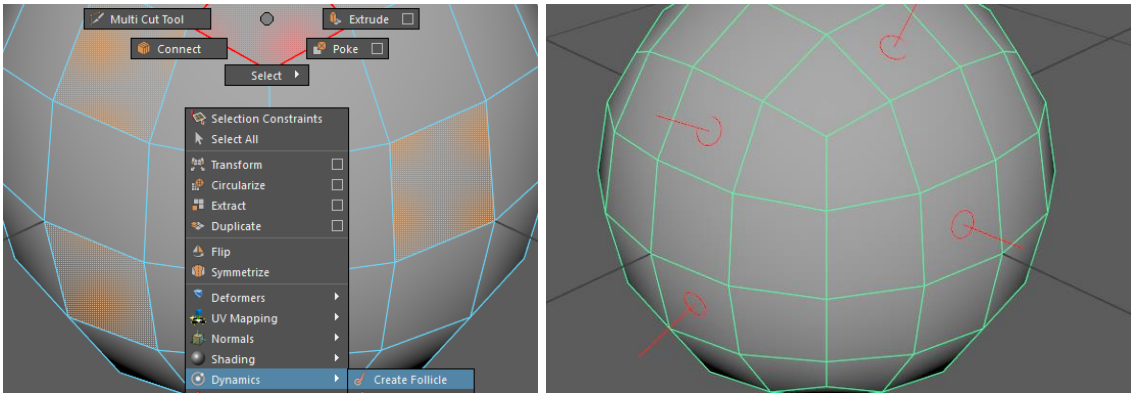
1) Select an object
2) *Z + MMB > Animation > Mouse Tracker*
3) Manipulate the object by using manipulators
4) Press *Esc* for stop the tracking



da_FacesFollicles

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

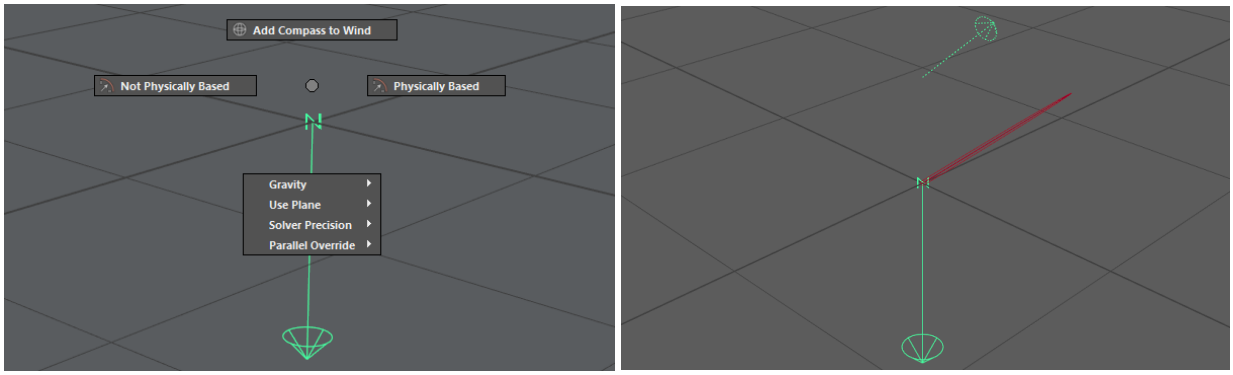
1) Select one or more faces
2) *Z + LMB > Dynamics > Create Follicle*



da_Compass

This script converts Euler angle into a XYZ vector, for drive Nucleus, Air Filed and nCloth:

1) Select Nucleus icon, Air Filed icon or nCloth icon
2) *Z + LMB > Compass to Wind or Local Wind or Local Force*

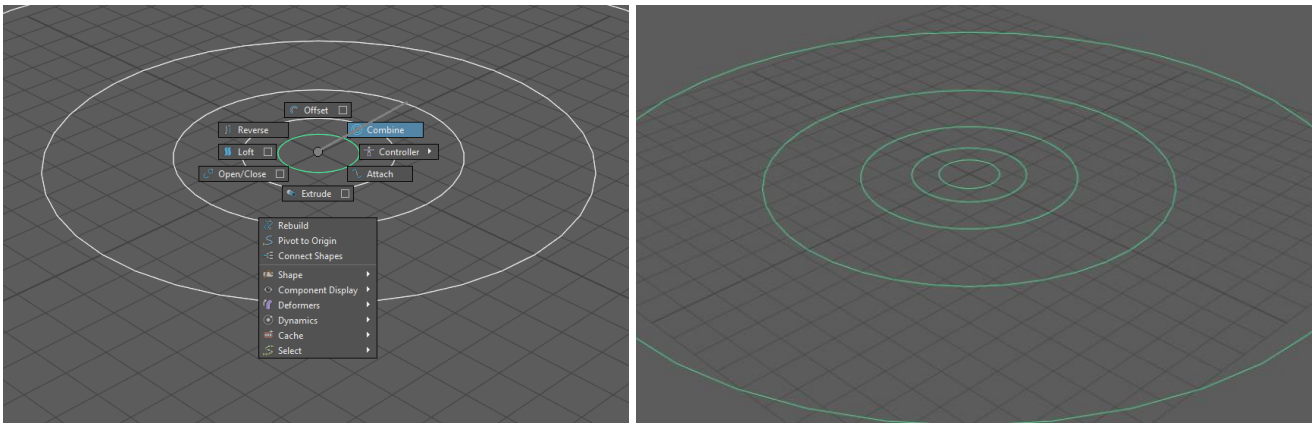


Alternatively, is possible generate a standalone compass by using *Z + MMB > Compass*

da_CombineCurves

This script combines two or more curves in one transform node:

1) Select two or more curves
2) *Z + LMB > Combine*

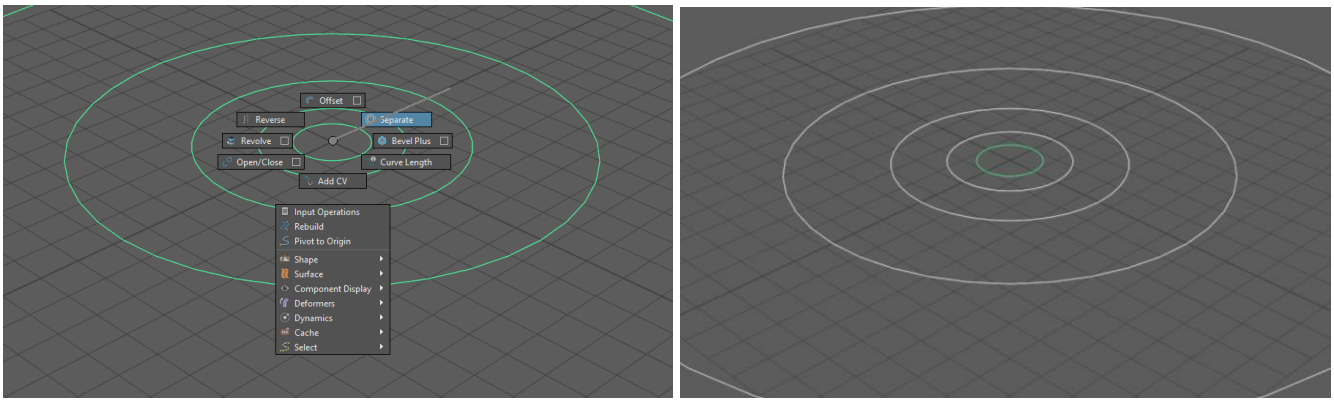


Note: do not combine already combine curves, always first separate the combined curves then combining the curves again.

da_SepareCurves

This script separate combined curves:

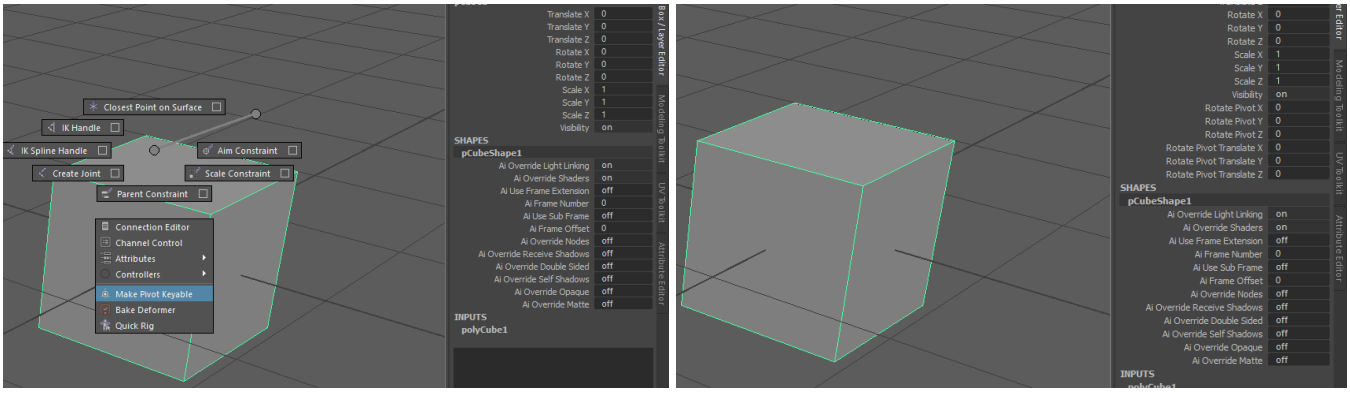
1) Select combined curves
2) *Z + LMB > Separate*



da_pivotKeyable

This script expose pivot position value to make possible animate it by using *S* hotkey:

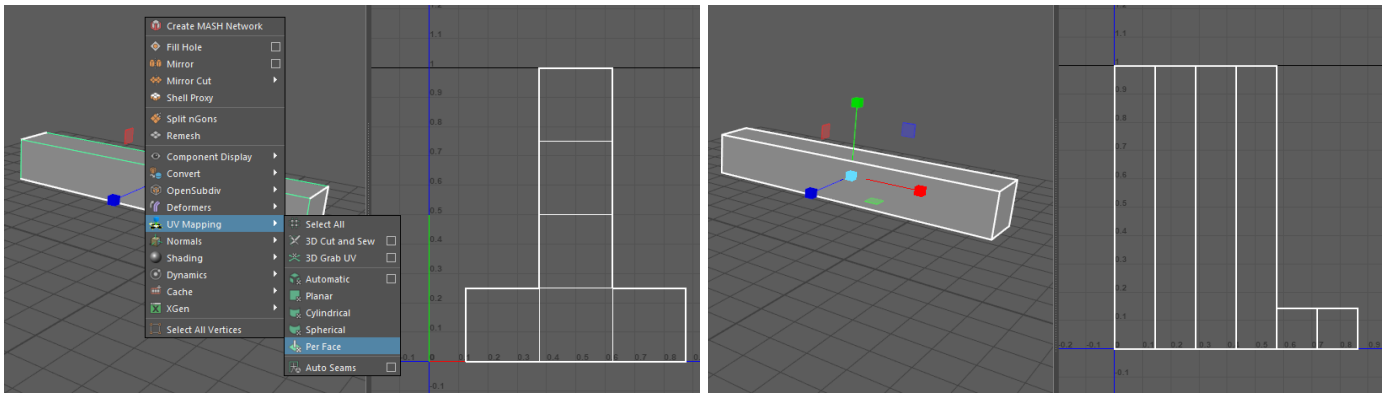
1) Select an object
2) *Z + MMB > Rigging > Make Pivot Keyable*
3) Animate the object as usual



da_MapFacesUV

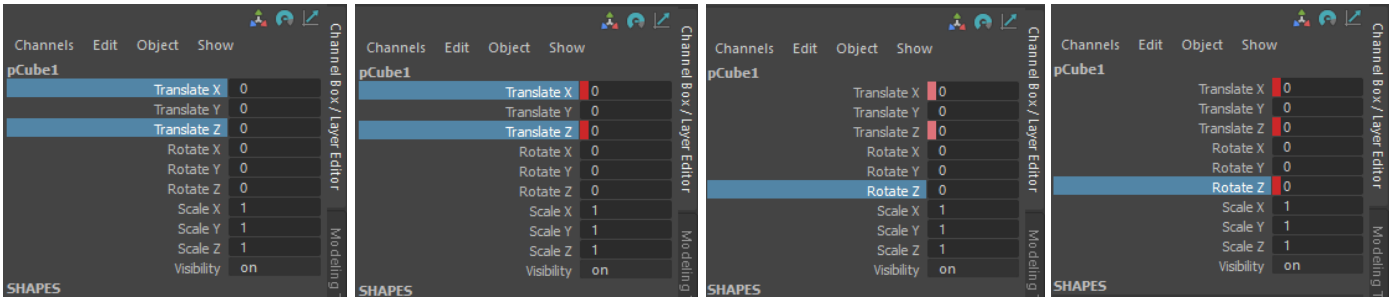
This script maps any single faces of a mesh as separate planar UV shell:

1) Select one or multiple meshes, or one or multiple faces
2) *Z + LMB > UV Mapping > Per Face*



da_KeyKeyedOnly (Set Smart Keyframe)

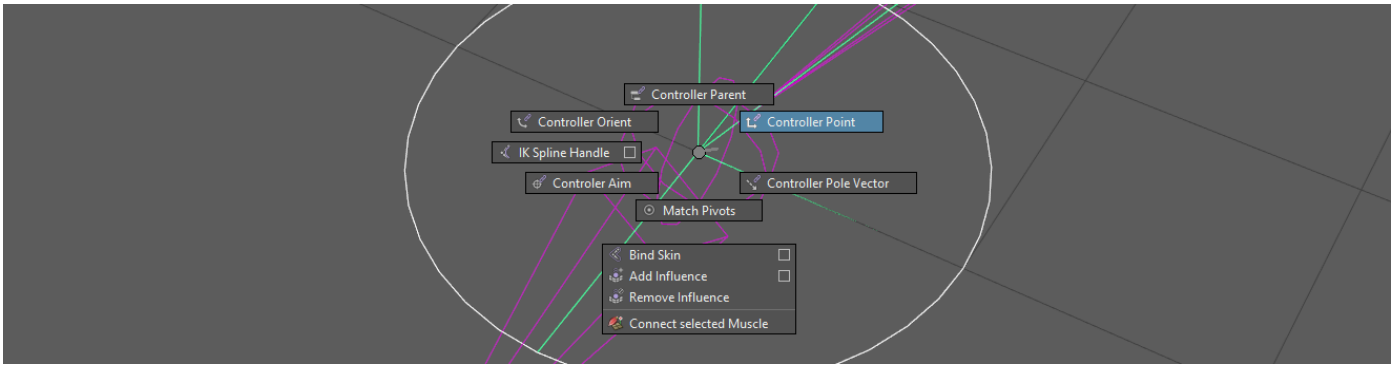
This script creates animation keys on selected or already animated channels in Channel Box, when *CTRL + SHIFT + ALT + S* is pressed. In alternative is possible call the script from *Z + MMB > Animation > Set Smart Keyframe*.



Important note: If no channel are already keyed or selected an animation key will be added to all exposed ones

Control Constraint (video)

This set of scripts constraint a controller to a single or multiple controlled object(s). To use it select first a Locator or Curve object and after one or multiple target, so press *Z + LMB*.



Custom Presets

May9 Next contains custom *Presets* for the following nodes:

- Fluid FX, *fluidEmitter*
  - *da_KillVolume*, convert fluid emitter into a kill volume
- nHair, *hairSystem*
  - *da_RealScale*, define a hair clamp in real cm unit
  - *da_RealScale_Dynamics*, define a hair clamp in real cm unit and make it dynamic
- *nCloth*
  - *da_Muscle*, define muscle behaviour for an nCloth
- *nParticle*
  - *da_Balls*, convert particle into Balls style
  - *da_Cloud*, convert particle into Cloud style
  - *da_Point*, convert particle into Point style
  - *da_ThickCloud*, convert particle into Thick Cloud style
  - *da_Water*, convert particle into Water style
- Paint FX, *stroke*
  - *da_TemplateBrush*, revert a Paint FX stroke to original default

Installation (video)

1. If is open close *Autodesk Maya*
2. Copy *modules* folder present in this archive in:
    a. Windows: *\Users\<username>\Documents\maya*
    b. Mac OS: */Users/<username>/Library/Preferences/Autodesk/maya*
    c. Linux: *~<username>/maya*
3. Run *Autodesk Maya* and execute *source May9.mel* as *MEL* command

Update from previous release

From May9 Next to May9 Next

1. Close *Autodesk Maya* if open
2. Copy *modules* folder present in this archive in:
    a. Windows: *\Users\<username>\Documents\maya*
    b. Mac OS: */Users/<username>/Library/Preferences/Autodesk/maya*
    c. Linux: *~<username>/maya*
3. Open *Autodesk Maya*

Important note: after the update any customization made to May9 Pro by the user will be removed.

From May9 Pro 3.2 or 3.2.1 to May9 Next

1. In *Autodesk Maya* run *source May9_uninstall.mel* as *MEL* command
2. Close *Autodesk Maya*
3. Copy *modules* folder present in this archive in:
    a. Windows: *\Users\<username>\Documents\maya*
    b. Mac OS: */Users/<username>/Library/Preferences/Autodesk/maya*
    c. Linux: *~<username>/maya*
4. Open *Autodesk Maya* and run *source May9_uninstall.mel* as *MEL* command

Important note: after the update any customization made to May9 Pro by the user will be removed.

Uninstallation

1. In *Autodesk Maya* run *source May9_uninstall.mel* as *MEL* command
2. Restart *Autodesk Maya*

Important note: during the uninstallation process the *Hotkey Set* and settings before *May9 Next* installation is restored and *May9 Next* *Hotkey Sets* deleted.

Release notes

Contextual Marking menus are now loaded as command instead of source it.

May9 Next *Hotkey Set* are added over standards ones and do not substitute the user hotkeys.

Incorporate *MMtoKey* into May9 Next Plug-in, now is possible configure a standalone *MMtoKey* aside May9 Next.

Tested and develop on *Autodesk Maya 2019*, *Autodesk Maya 2018.5* and *Autodesk Maya 2017.5* with *MtoA 3.2*.

Useful links

Facebook page: fb.com/May9Next

YouTube channel: youtube.com/c/May9

Credits and license

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

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

ChangeLog

Next.0.7 (2019/03/22)

- Add ellipsis if a command opens an options window
- Add Selection Size script
- Add support to Edit Membership Tool
- Add blue override colour
- Improve All Marking Menu and Main menu
- Improve deformers support
- Improve MMs consistency
- Improve support to Interactive Playback
- Improve Maya Software support
- Improve and Fix Portal Light support
- Fix Dynamic Field support
- Minor fixes and improvements

Next.0.6 (2019/03/10)

- Add Kill Volume for nParticles
- Assign Mouse Over MM to CTRL + SHIFT + ALT + MMB, to avoid transform component hotkey overwrite
- Improve installation and un-installation process
- Improve support to Bifrost
- Improve support to Nucleus
- Improve cache support
- Improve UV support
- Fix critical error that prevent loading of the plug-in after an update on Maya 2018
- Fix long initialization and installation time on Maya 2018
- Minor fixes and improvements

Next.0.5 (2019/03/05)

- Add support to Asset
- Add support to Character Set
- Add Mouse Over MM script
- Add Bind Rigid Skin script
- Add toggle Undo Queue to May9 main menu
- Assign Mouse Over MM to CTRL + MMB
- Improve Node Editor support
- Improve Hypergraph support
- Improve Walk tool support
- Improve Tool Settings support
- Improve Skin Paint support
- Minor fixes and improvements

Next.0.4 (2019/02/15)

- Add support to Walk tool
- Add vertex selection toggle script, under Paint Skin MM
- Assign toggle Isolate selected to CTRL + ALT + I
- Improve Skin Paint support
- Improve Skin Cluster support
- Improve modelling support
- Improve Manipulator orient script
- Revert to legacy Light Editor
- Fix Crease tool MM
- Minor fixes and improvements

Next.0.3 (2019/02/05)

- Add Delta Skin script
- Add Auto Unfold script
- Add UV Mono Shell script
- Improved Mesh light support
- Improved May9 update procedure
- Improved Rigid skin bind support
- Minor fixes and improvements

Next.0.2 (2019/01/27)

- Add Cache playback and Parallel evaluation support directly in All_MM
- Add Edge slide support on Vertex MM
- Add Surface slide support on Edge MM and Face MM
- Add custom Soft selection and Symmetry to supported MMs
- Improve UV support
- Improve installation consistency
- Improve Connect tool support
- Minor fixes and improvements

Next.0.1 (2019/01/20)

- Improve Cache playback support
- Improve curve support
- Improve Clean Topology script
- Improve XGen support
- Fix MMs check boxes errors
- Minor fixes and improvements

Next.0.0 (2019/01/05)

- Add support to Maya 2019
- Add support to Graph editor curve filters (only on Maya 2019)
- Add support to Reset UV Editor tools preferences (only on Maya 2019)
- Add support to Poly Retopo (only on Maya 2018 and 2019)
- Add support to IK Handles tools
- Add Mirror Transform script to All_MM
- Add High Quality Smooth script
- Add support to Target Weld Tool
- Add support to Connect Tool
- Add support to Bounding Box
- May9 Next Hotkey Sets are added over standard ones without overwrite the user ones
- Contextual Marking menus are now loaded as command
- Improved MMtoKey support, now is integrate into May9 Next plug-in and have a better release command
- Improved installer usability and stability
- Improved May9 main menu
- Improved Hotkey scheme
- Improved nCloth as Deformer script, now is more accurate
- Improved Plane Cutter dual plane mode
- Improved mesh and crease support
- Improved curves and NURBS support
- Improved light support
- Improved particles support
- Improved design of some Marking Menu
- Improved custom icons size
- Now Radio Button is used instead of Check Box when needed
- Now Hotbox transparency do not change anymore after May9 Next installation
- Now Input Status Field do not change anymore after May9 Next installation
- Remove support to third party plug-ins
- Remove support to legacy Particles
- Minor fixes and improvements