

M A Y 9

USER GUIDE

N E X T

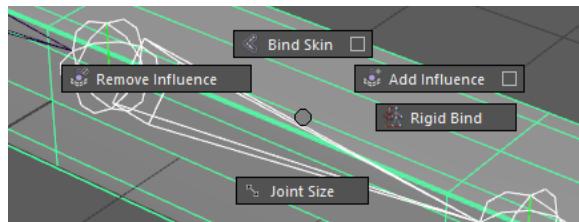
TABLE OF CONTENTS

| | |
|--|-----------|
| What is May9 Next | 3 |
| Basic usage..... | 3 |
| May9 Next Layouts | 3 |
| May9 Next drop-down menu..... | 4 |
| All MM | 4 |
| Maya Window MM | 4 |
| Contextual single selection MM..... | 5 |
| Contextual multi selection MM | 5 |
| Contextual multi selection of the same object type MM | 5 |
| Contextual panel MM..... | 6 |
| Contextual node selection in editor panels | 6 |
| Contextual Tool MM..... | 6 |
| Contextual single selection Hotkey | 7 |
| Contextual multi selection of the same object type Hotkey..... | 7 |
| Contextual multi selection of different object type Hotkey | 7 |
| Contextual panel Hotkey..... | 7 |
| Hotkeys added to standard ones | 7 |
| Hidden tools exposed | 8 |
| Changed Preferences..... | 8 |
| Custom Scripts | 9 |
| da_curveToPoly | 9 |
| da_interactiveBooleans..... | 9 |
| da_BooleanFullIntersect | 9 |
| da_PlaneCutter | 10 |
| da_AutoBevel..... | 10 |
| da_ClothAsDeformer..... | 10 |
| da_perspToggle | 11 |
| da_shell..... | 11 |
| da_MetaBalls..... | 11 |
| da_MashVoxelizer..... | 12 |
| da_RivetMash | 12 |
| da_CurveDistributionMash..... | 12 |
| da_EdgesToLoopToCurve | 13 |
| da_SurfaceScatterMash | 13 |
| da_CurveLength..... | 13 |
| da_MouseTrack..... | 14 |
| da_FacesFollicles..... | 14 |
| da_Compass..... | 14 |
| da_CombineCurves | 15 |
| da_SepareCurves..... | 15 |
| da_pivotKeyable..... | 15 |
| da_MapFacesUV..... | 16 |
| da_KeyKeyedOnly (Set Smart Keyframe) | 16 |
| Control Constraint..... | 16 |
| Custom Presets..... | 17 |
| Installation | 18 |
| Update from previous release | 18 |
| Uninstallation..... | 18 |
| Release notes..... | 19 |
| Useful links..... | 19 |
| Credits and license..... | 19 |
| ChangeLog..... | 20 |

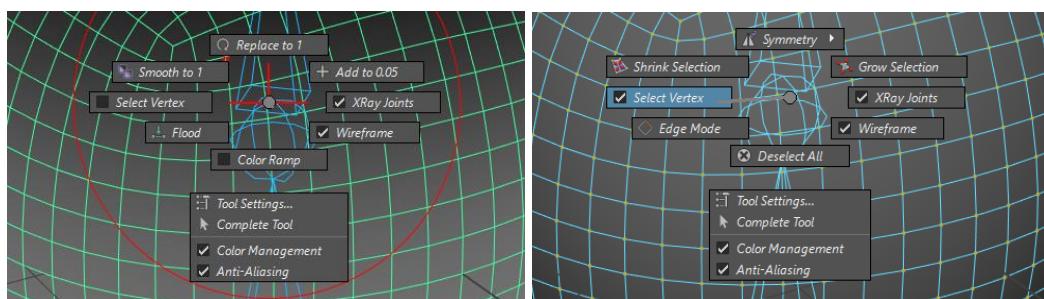
What is May9 Next

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 Autodesk Maya 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:



The most advanced included MM are programmed to be polymorphic, so their design can change in base of: [selection type or size](#), [UI panel](#), [tool preferences](#) or [application preferences](#).

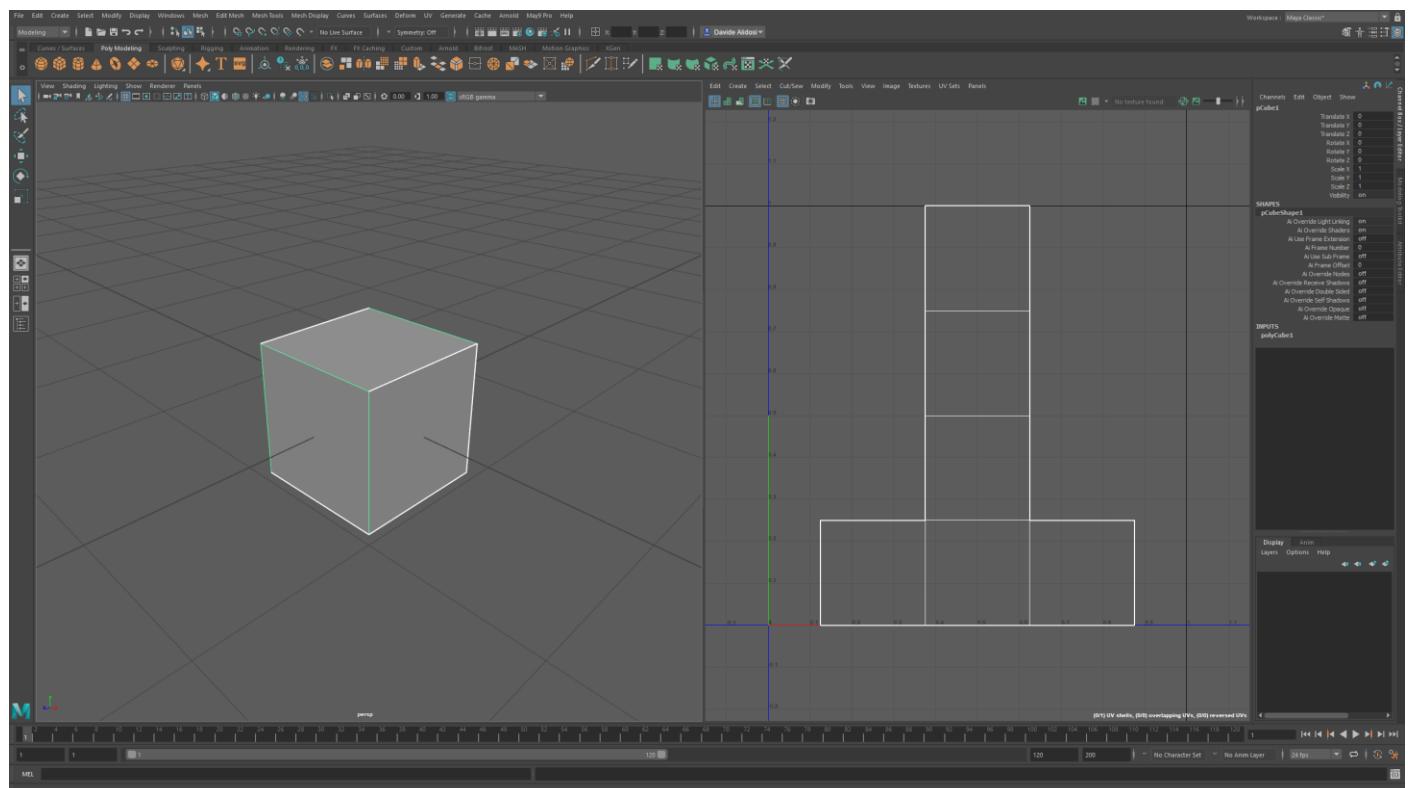


In addition to the contextual workflow describe above, *May9 Next* include: [contextual hotkeys](#), [layouts](#), [scripts](#), [presets](#), and [optional hotkeys](#).

Basic usage

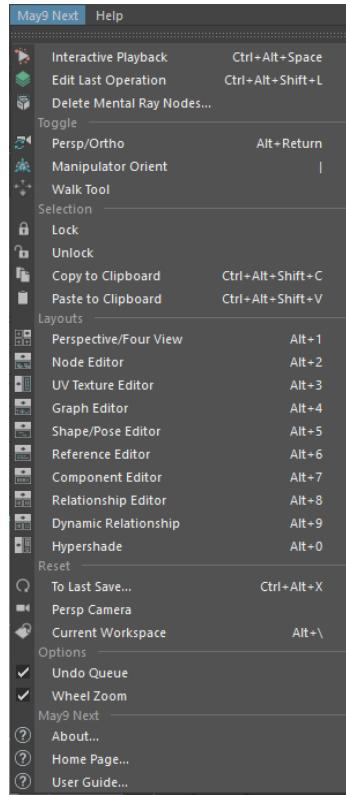
May9 Next Layouts

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:



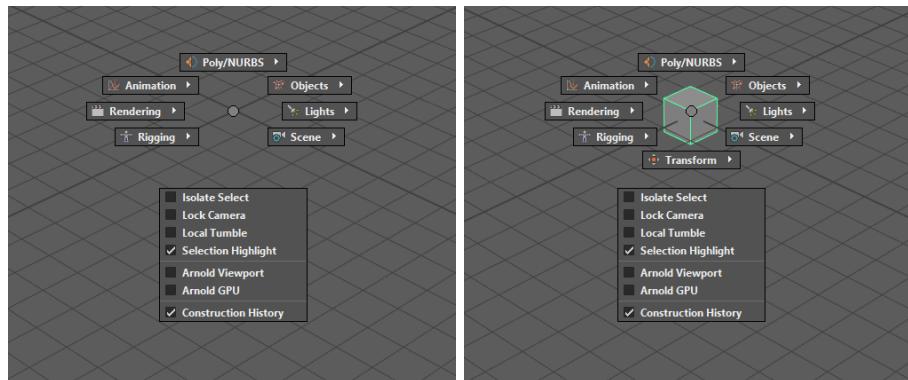
May9 Next drop-down menu

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



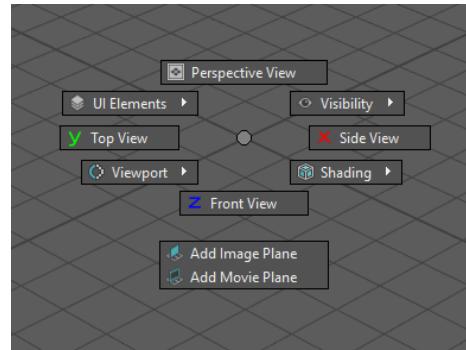
All MM

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



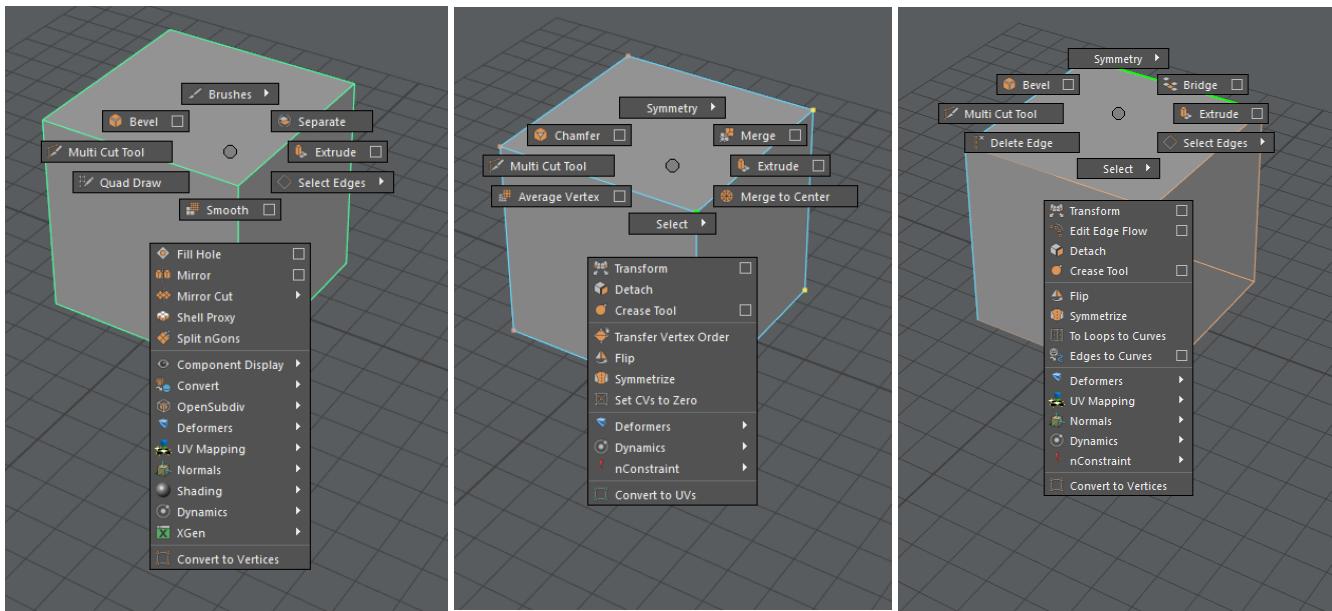
Maya Window MM

Maya Window MM (*menu_MayaWindow_MM.me*) 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**:



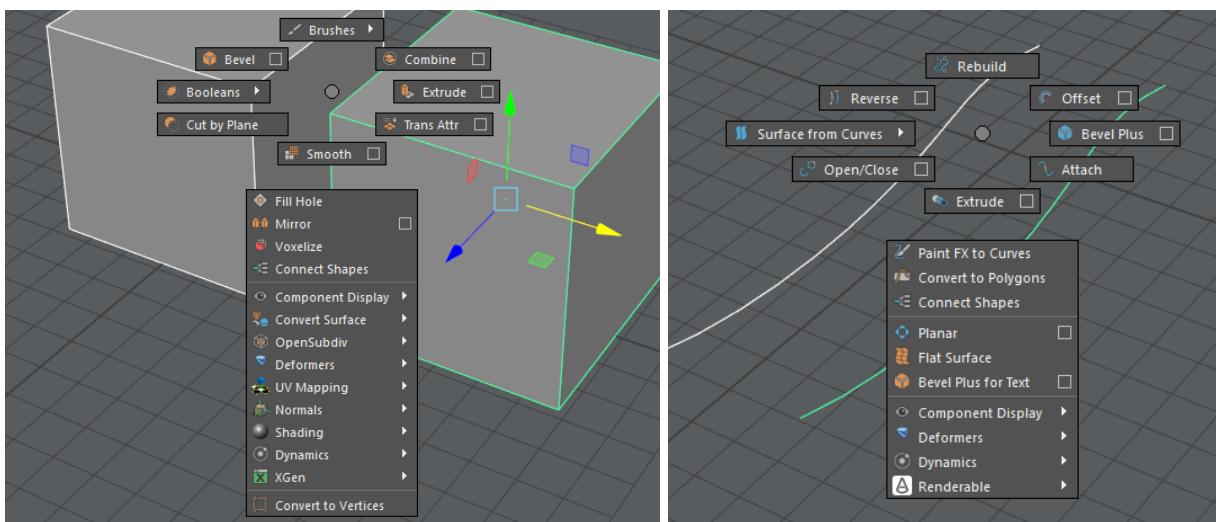
Contextual multi selection MM

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**:



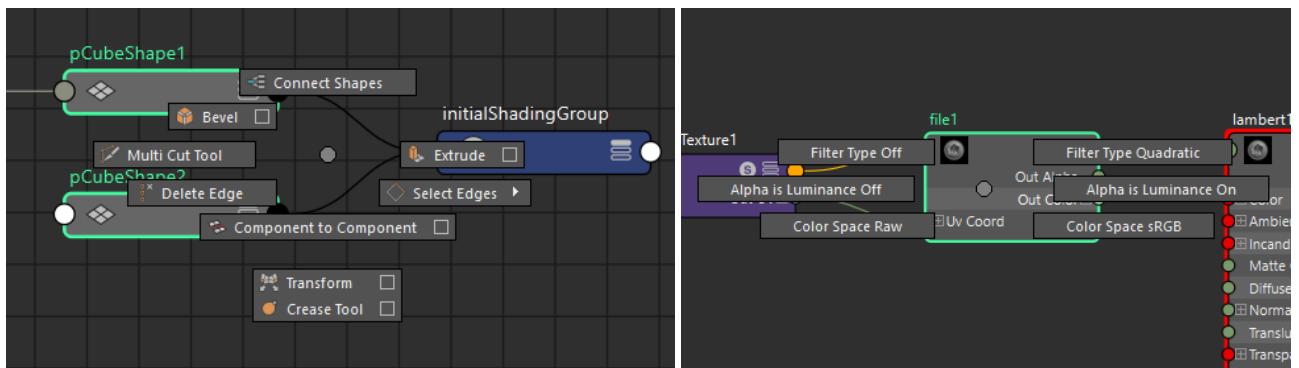
Contextual panel MM

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



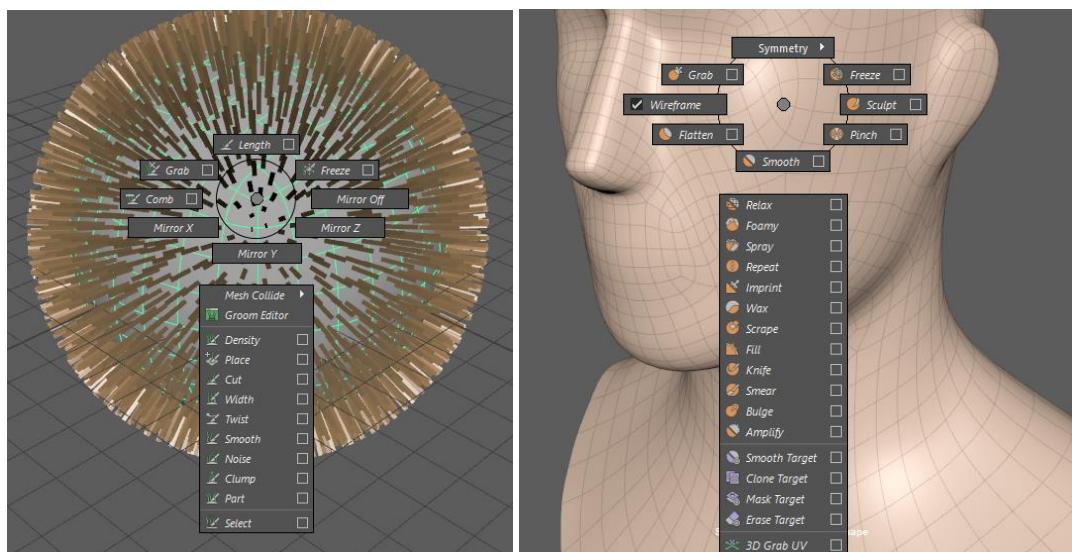
Contextual node selection in editor panels

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*, *Edit Membership*, *Walk* 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 + L = Edit Last Operation

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 deformator
- 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

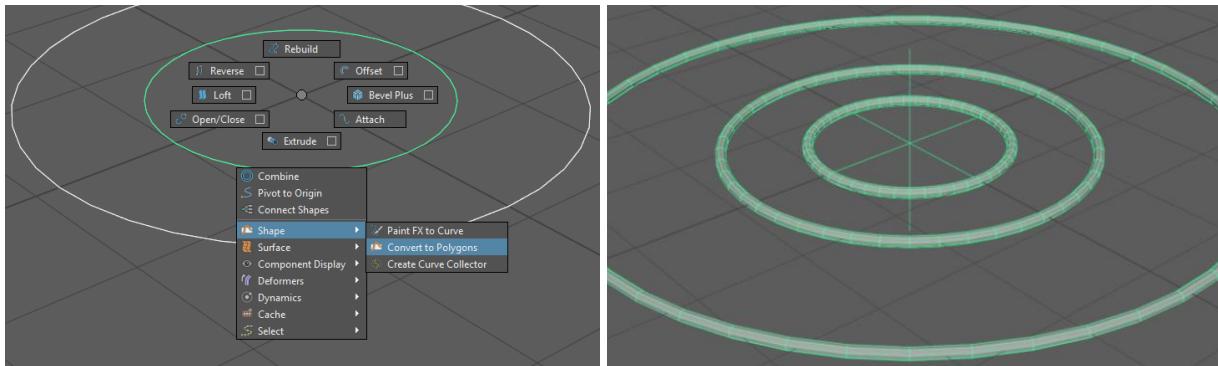
Under the hood of *May9 Next* there are hundreds of MEL scripts that support the contextual workflow, but there's also some ones that add new features to *Autodesk Maya*.

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:

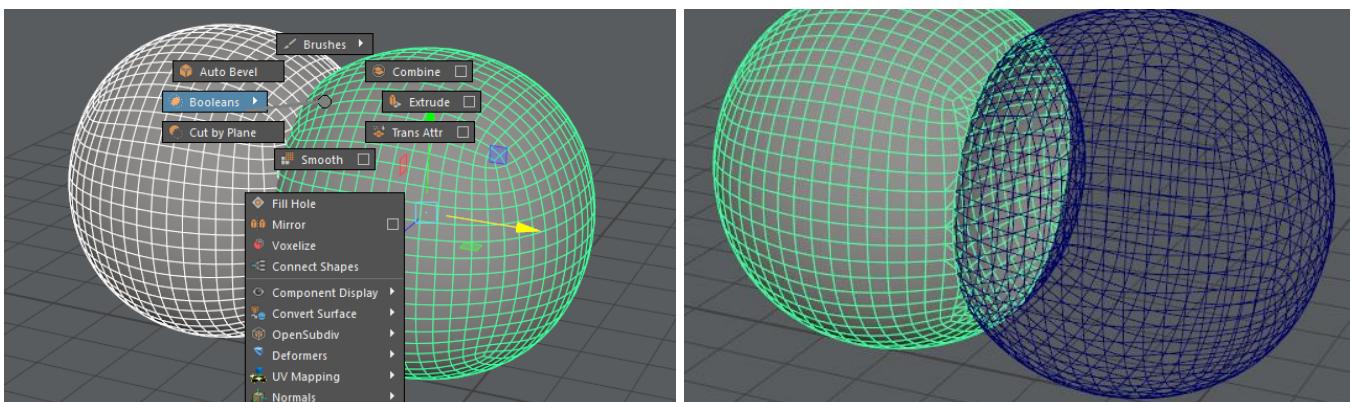
- 1) Select a curve or multiple curves
- 2) **Z + LMB > Shape > Convert to Polygons**



[da_interactiveBooleans \(video\)](#)

This script makes the Polygonal Boolean process more interactive:

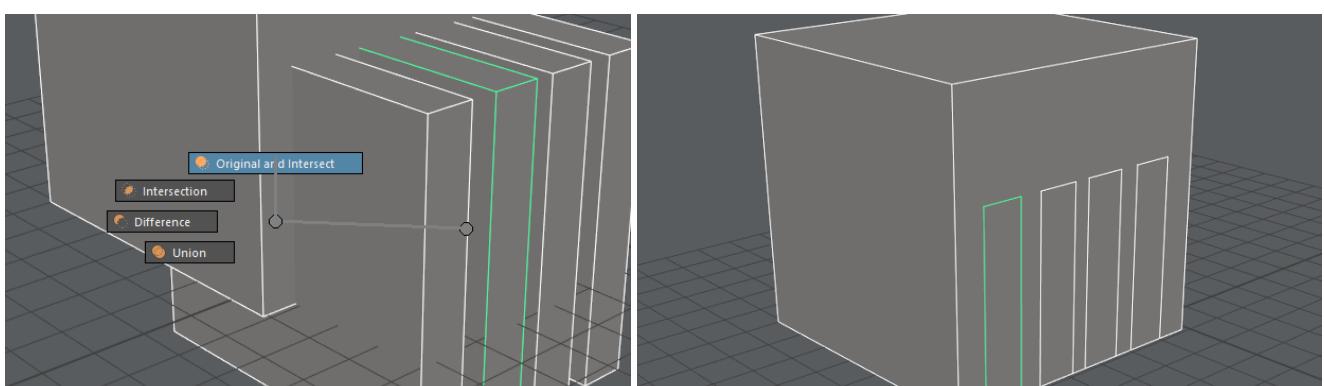
- 1) Select two or more polygons objects
- 2) **Z + LMB > Booleans**



[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:

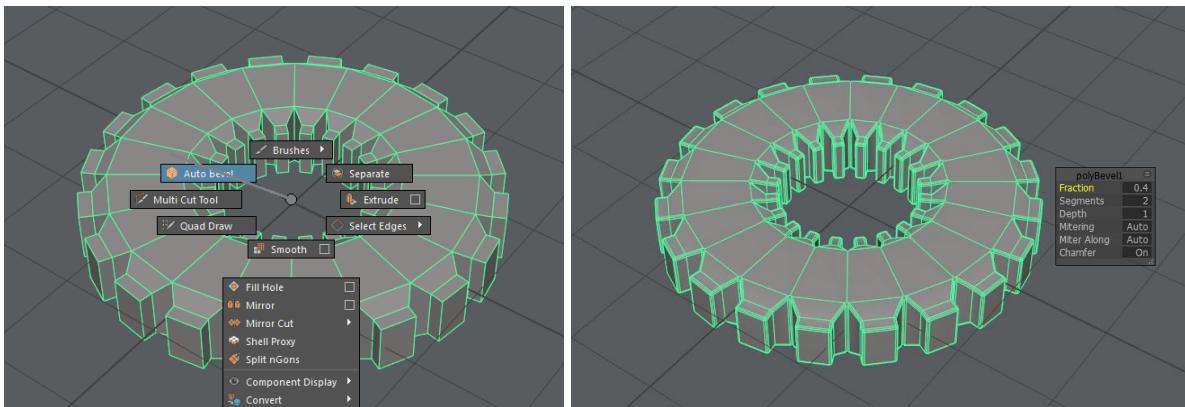
- 1) Select first the main object and after the cutter ones
- 2) **Z + LMB > Cut by Plane**
- 3) Select the single or double operator
- 4) Move the cutter or the cutters plane



[da_AutoBevel \(video\)](#)

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

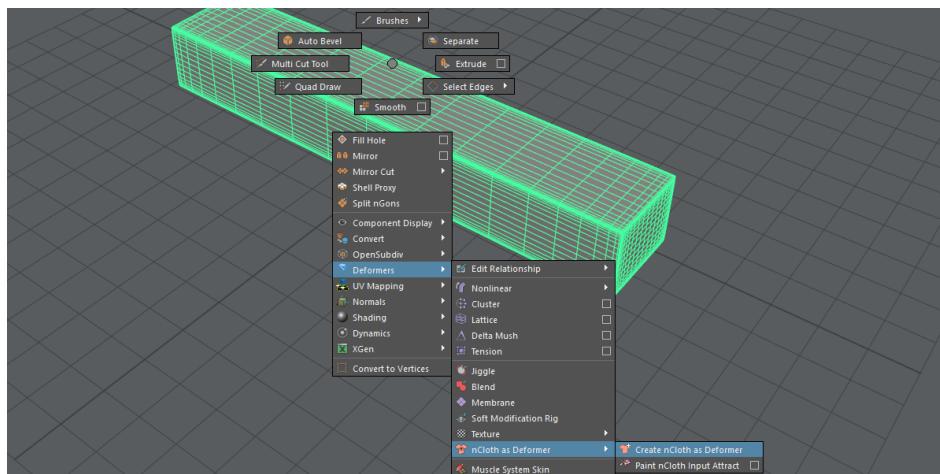
- 1) Select a polygonal object
- 2) **Z + LMB > Auto Bevel**



[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 \(video\)](#)

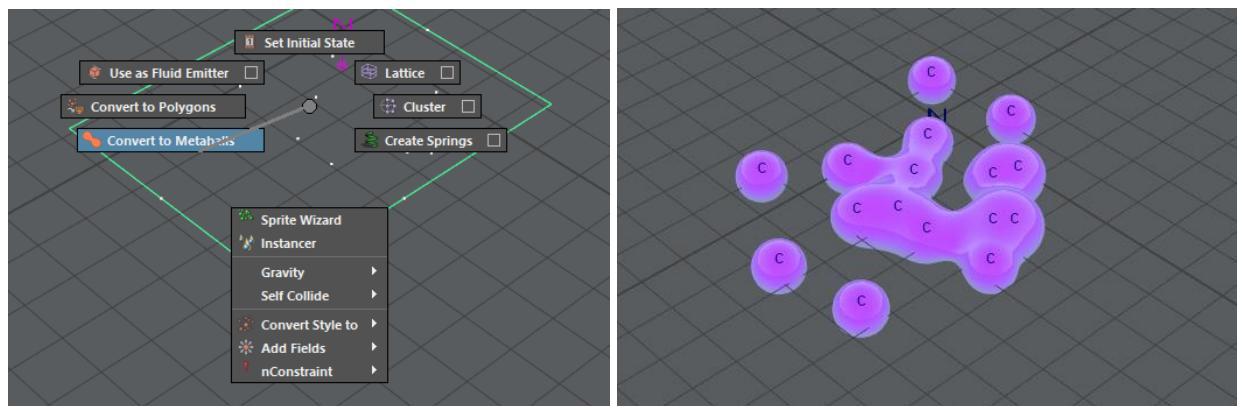
This script emulates Shell deformer of Autodesk 3D Studio Max, by adding a thickness to flat polygons:

- 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:

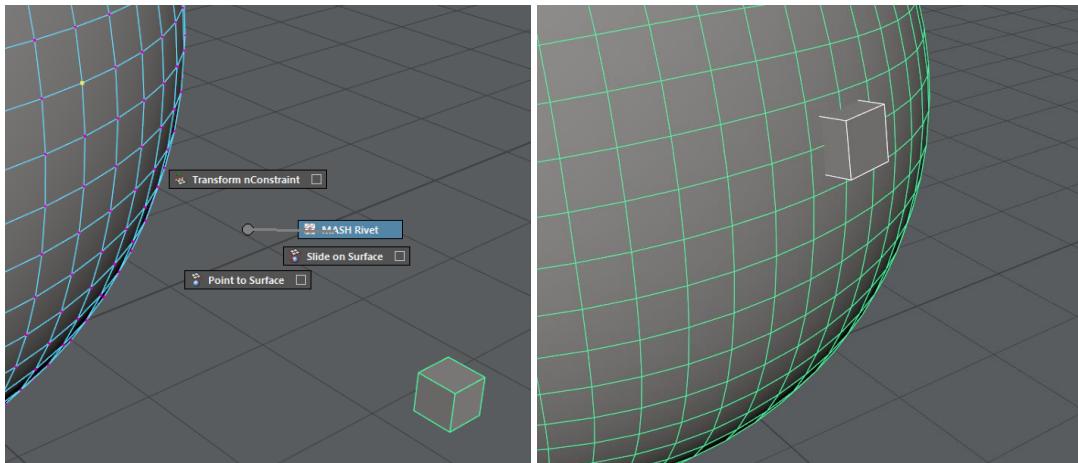
- 1) Select first the filler mesh then the volume mesh
- 2) **Z + LMB > MASH >Voxelize in a Volume**



[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:

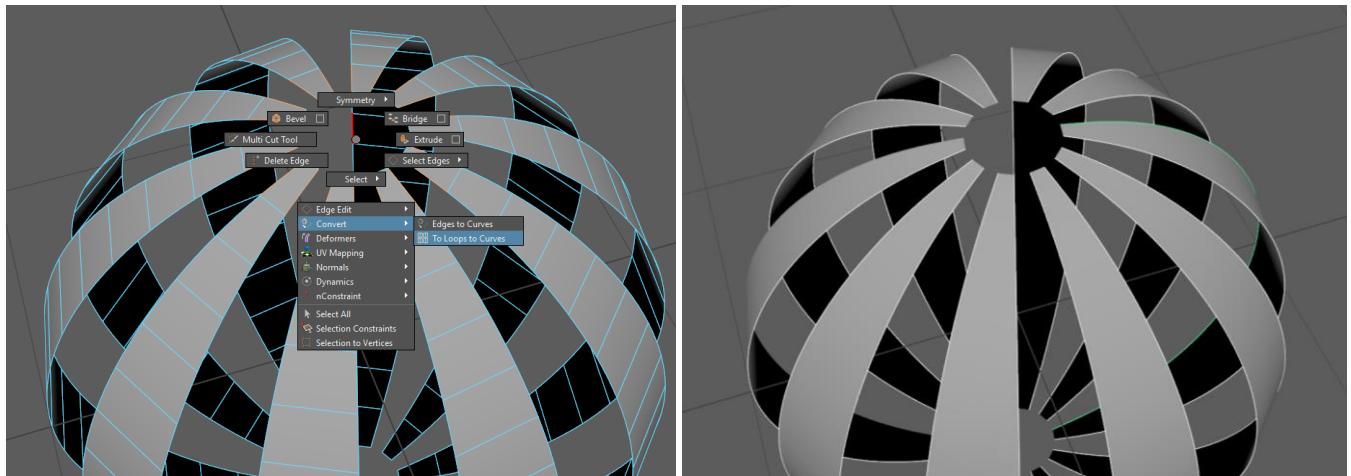
- 1) Select a polygon and then a curve
- 2) **Z + LMB > Instance Along Curve**



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:

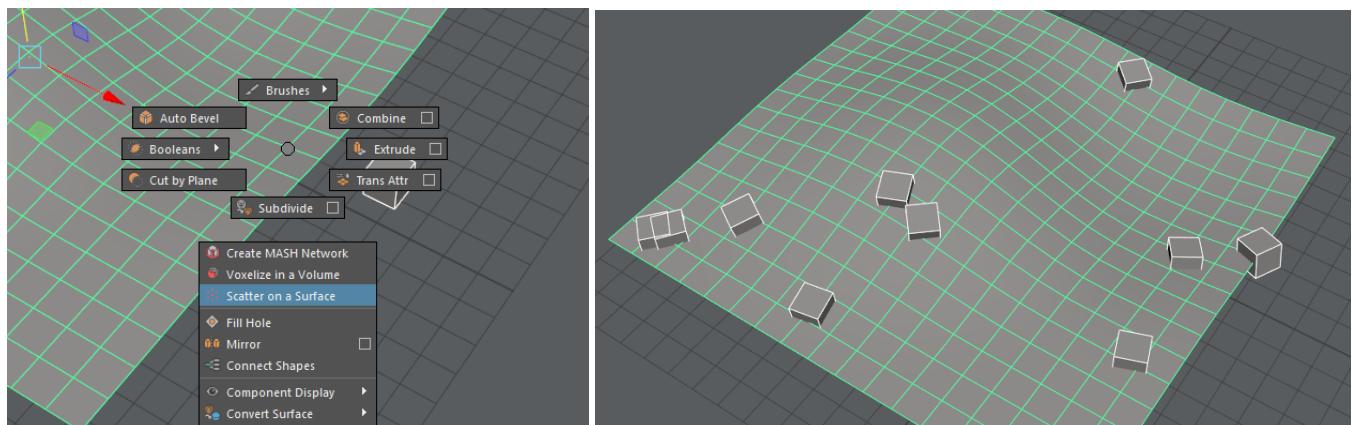
- 1) Select an edge for loop, sometimes this is easier to do in UV texture editor
- 2) **Z + LMB > Convert > To Loops to Curves**



da_SurfaceScatterMash

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

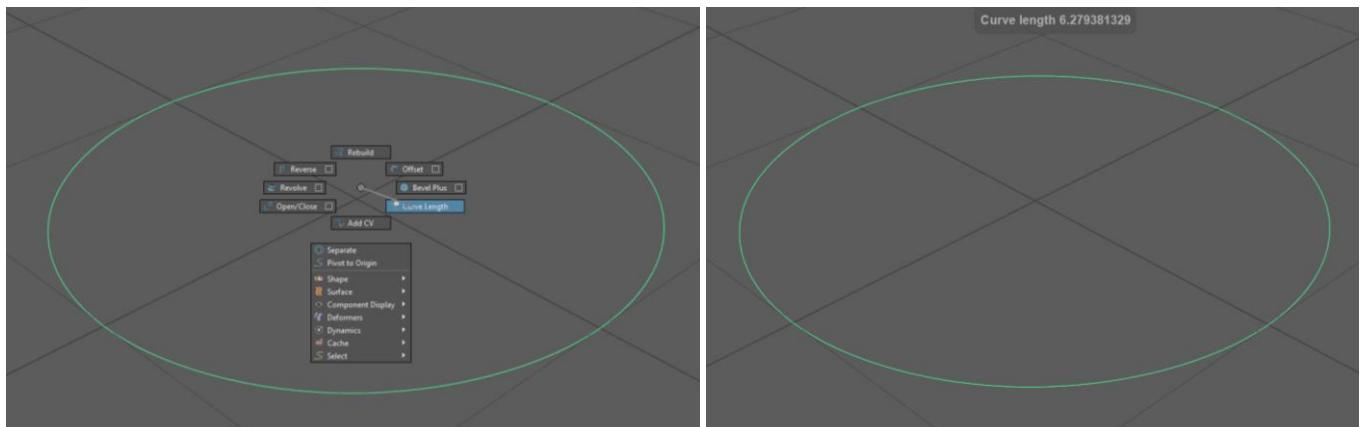
- 1) Select a mesh object then a mesh surface
- 2) **Z + LMB > Scatter on a Surface**



da_CurveLength

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

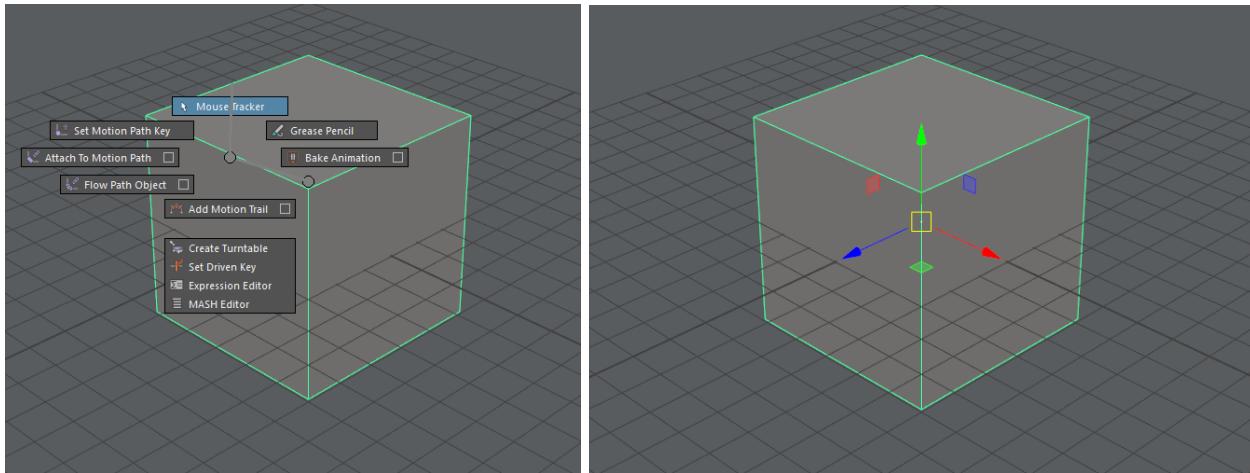
- 1) Select the curve you want to measure
- 2) **Z + LMB > Curve Length**



da_MouseTrack

This script tracks the mouse movement and create an animation:

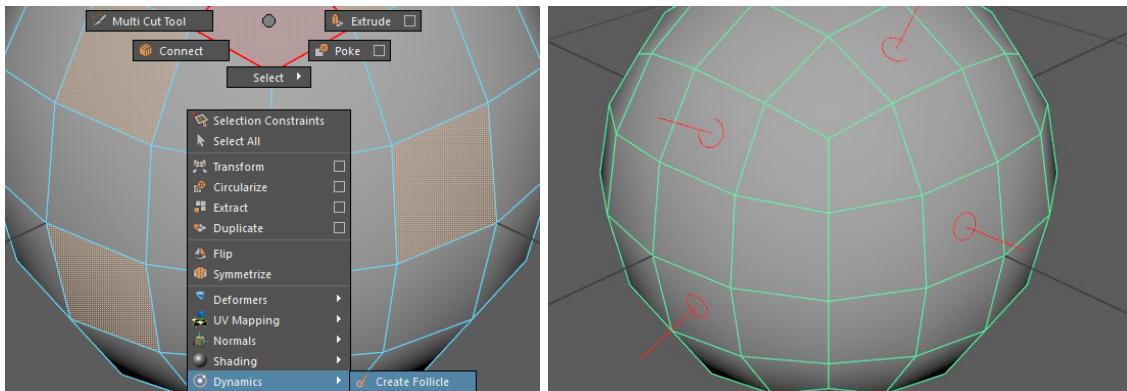
- 1) Select an object
- 2) **Z + MMB > Animation > Mouse Tracker**
- 3) Manipulate the object by using manipulators
- 4) Press **Esc** for stop the tracking



da_FacesFollicles

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

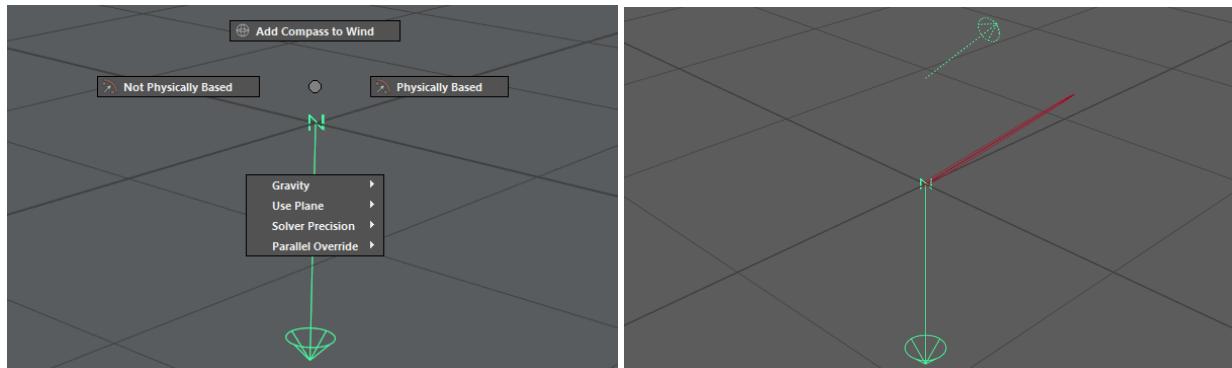
- 1) Select one or more faces
- 2) **Z + LMB > Dynamics > Create Follicle**



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**

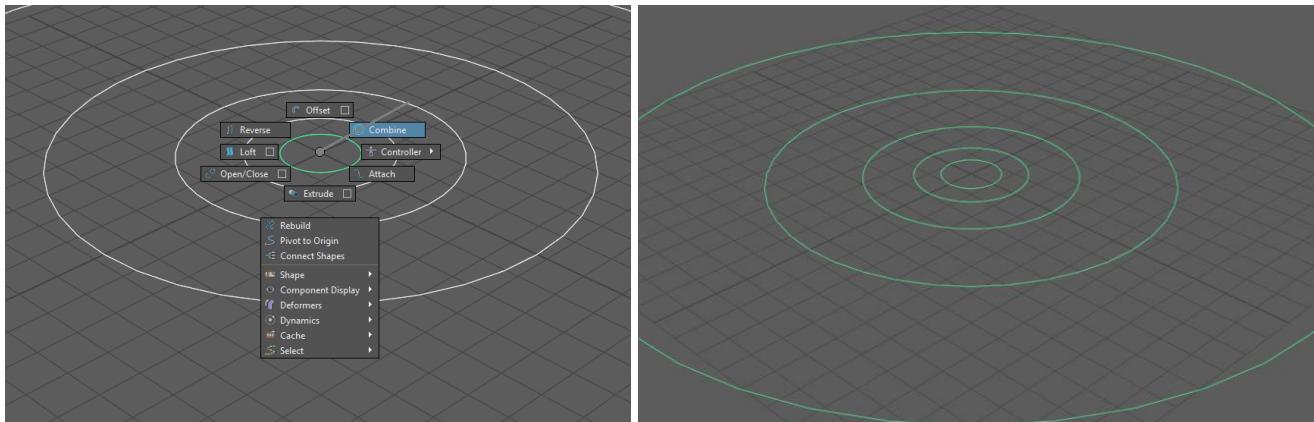


Alternatively, is possible generate a standalone compass by using **Z + MMB > Compass**

da_CombineCurves

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

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

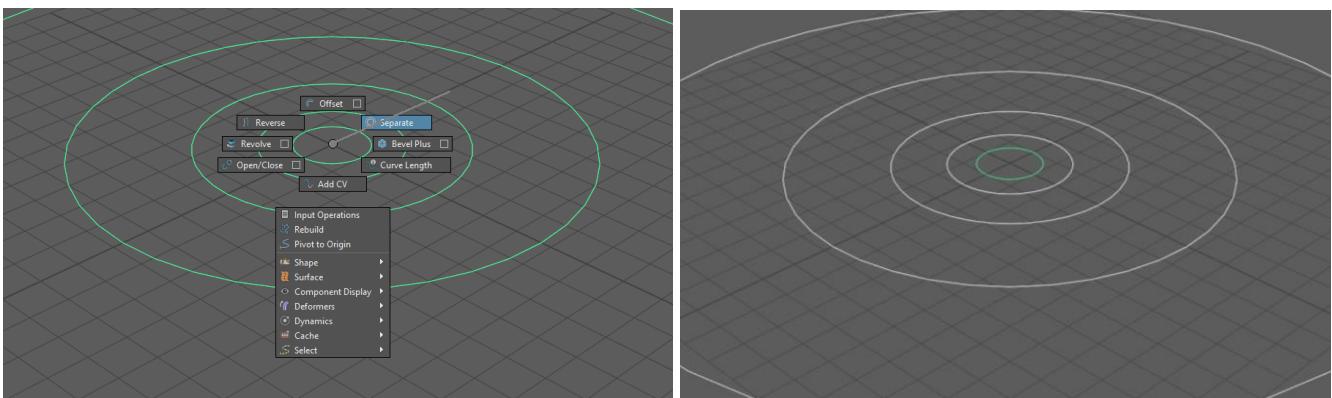


Note: do not combine already combined curves, always first separate the combined curves then combining the curves again.

da_SepareCurves

This script separates combined curves:

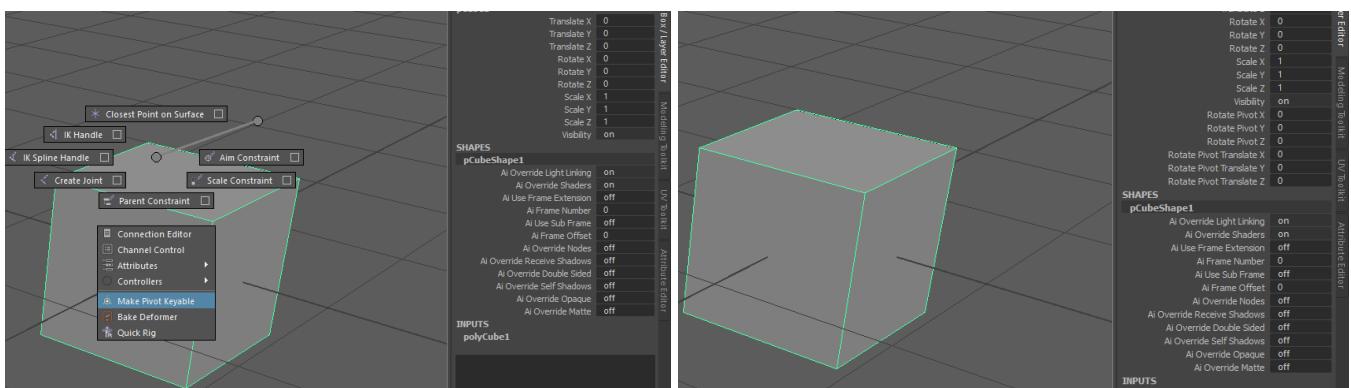
- 1) Select combined curves
- 2) **Z + LMB > Separate**



da_pivotKeyable

This script exposes pivot position values to make it possible to 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

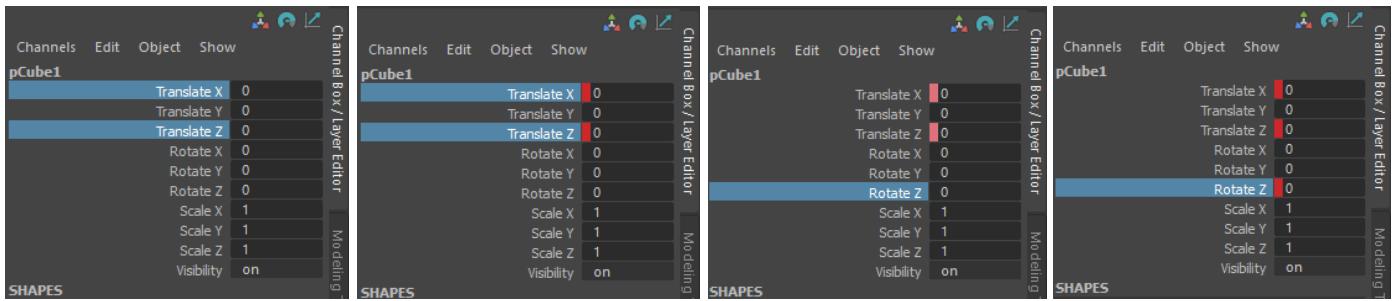
This script maps any single faces of a mesh as separate planar UV shell:

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



da_KeyKeyedOnly (Set Smart Keyframe)

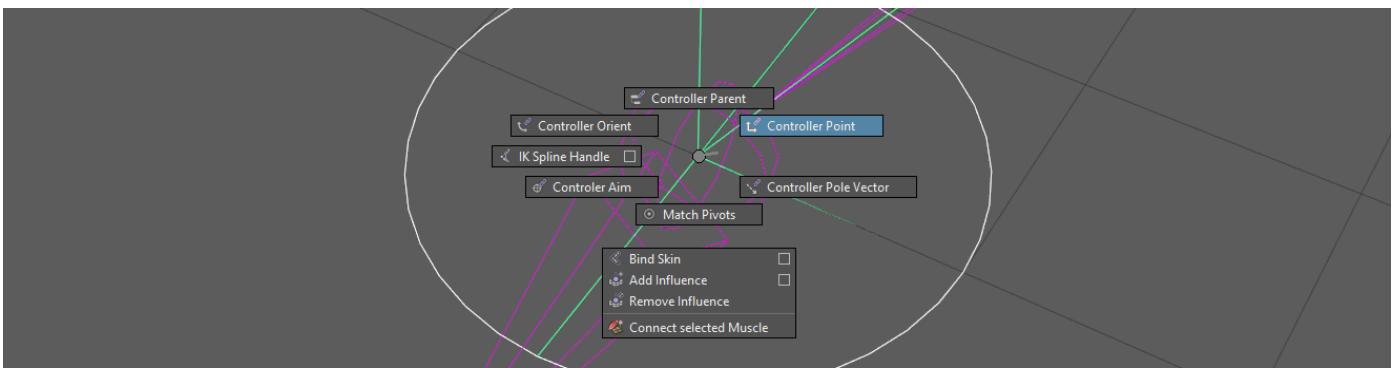
This script creates animation keys on selected or already animated channels in Channel Box, when **CTRL + SHIFT + ALT + S** is pressed. In alternative is possible call the script from **Z + MMB > Animation > Set Smart Keyframe**.



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**.



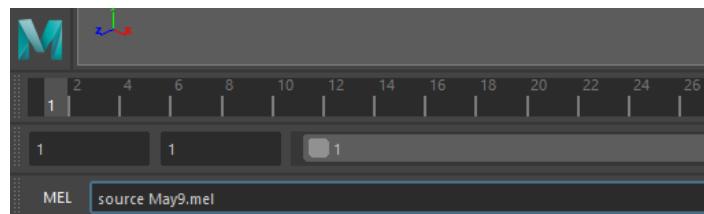
Custom Presets

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

Tested and develop on Autodesk Maya 2019, Autodesk Maya 2018.5 and Autodesk Maya 2017.5.

Autodesk Arnold MtoA 3.2.0 is not a requirement but is highly suggested.

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.1.0 (2019/03/29)

- All_MM is now a polymorphic Marking Menu
- Add support to Arnold MtoA 3.2
- Add Toggle Pivot Visibility script
- Assign Edit Last Operation to CTRL + SHIFT + ALT + L
- Improved May9 installation and update procedures
- Improve UV support
- Minor fixes and improvements

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
- 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