

M A Y 9

USER GUIDE

N E X T

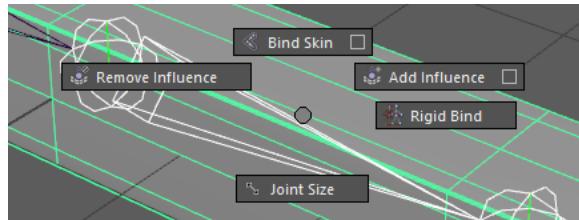
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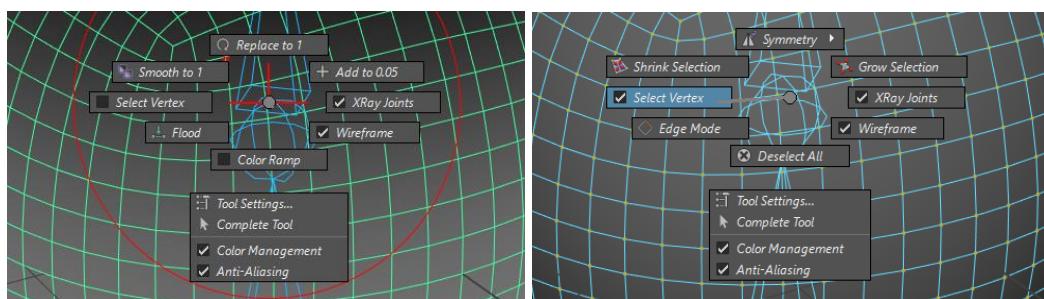
## What is May9 Next

*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 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 change in base of: [selection type or size](#), [UI panel](#), [tool preferences](#) or [Autodesk Maya preferences](#).

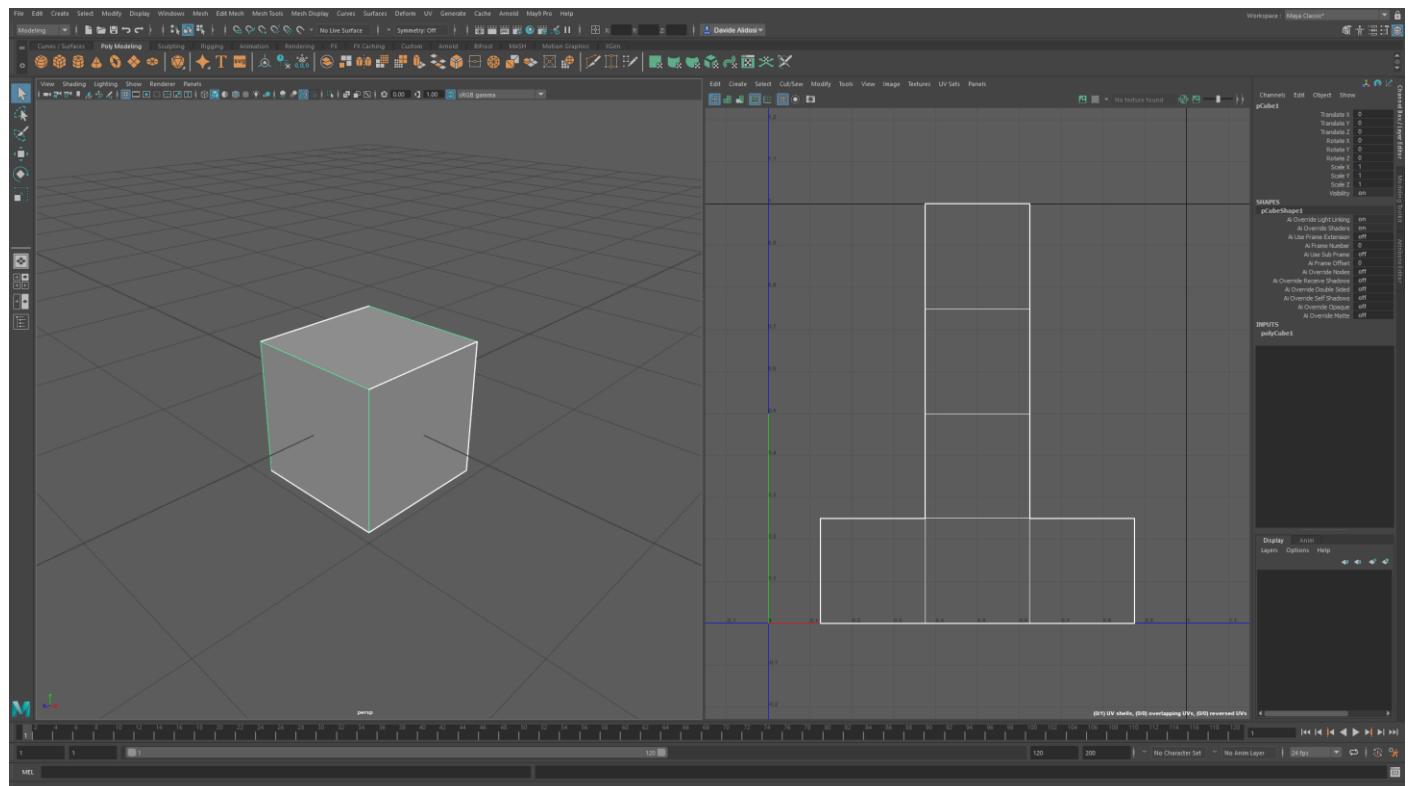


In addition to the contextual workflow describe above, *May9 Next* include: [contextual hotkeys](#), [layouts](#), [scripts](#), [presets](#), and [optional hotkeys](#).

## Basic usage

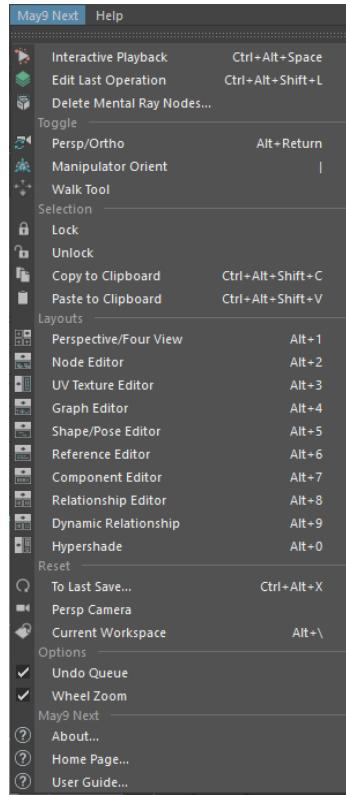
### May9 Next Layouts

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:



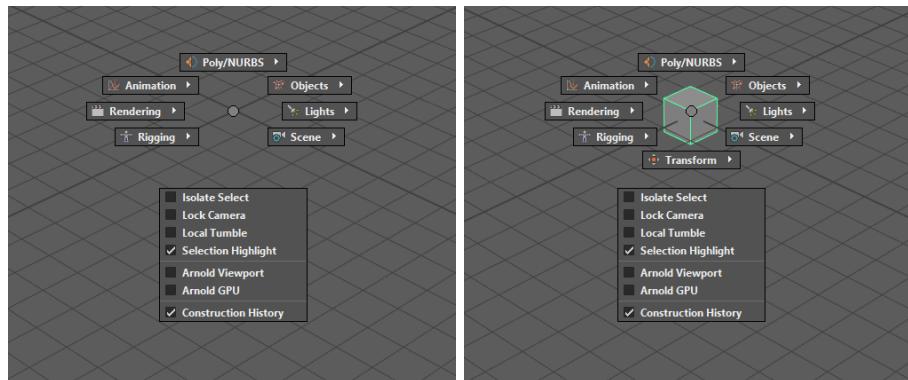
## May9 Next drop-down menu

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



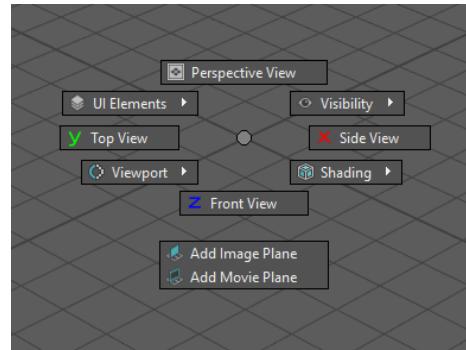
## All MM

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:



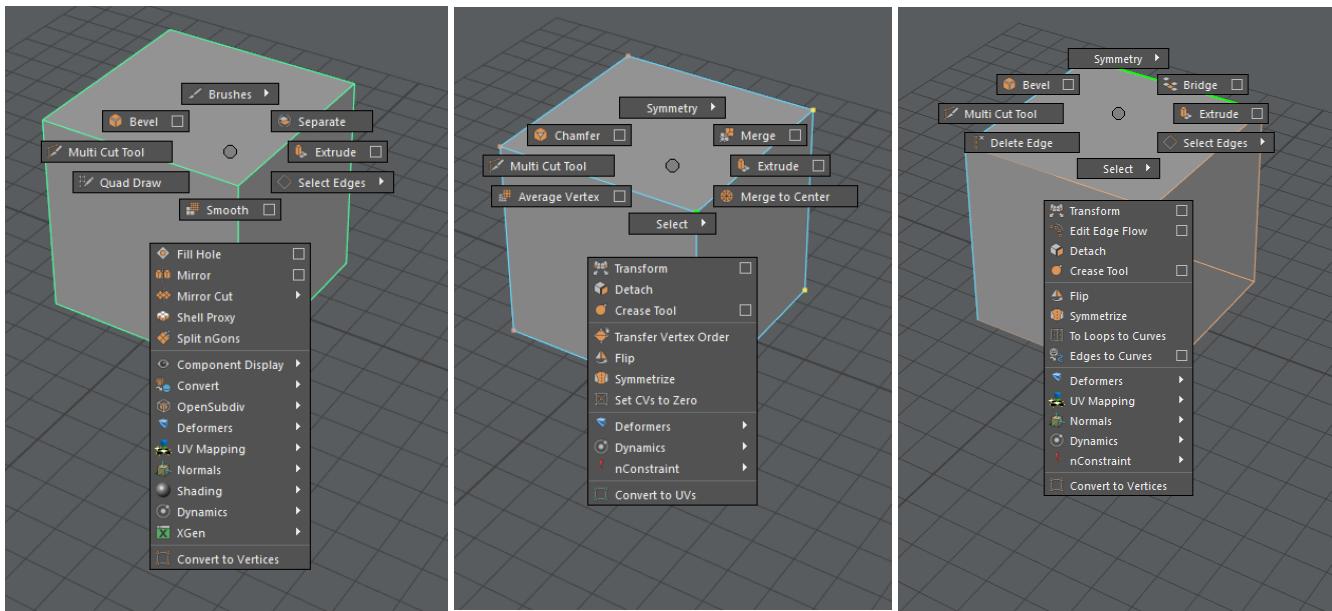
## Maya Window MM

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**:



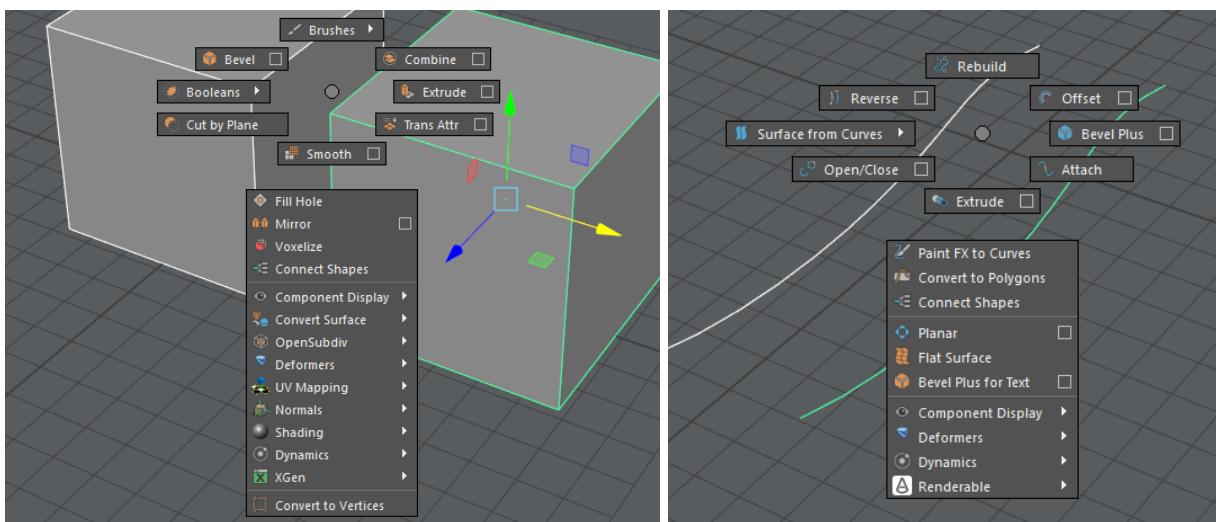
## Contextual multi selection MM

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**:



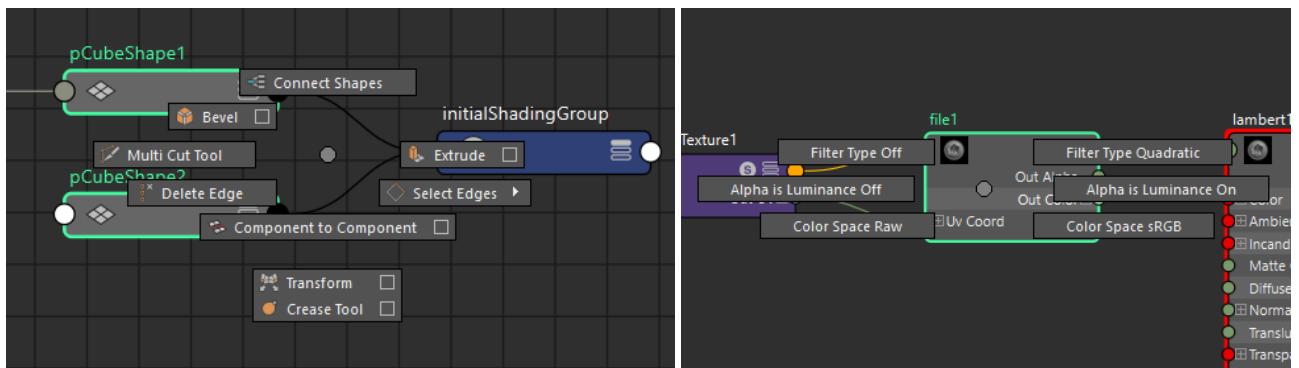
## Contextual panel MM

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



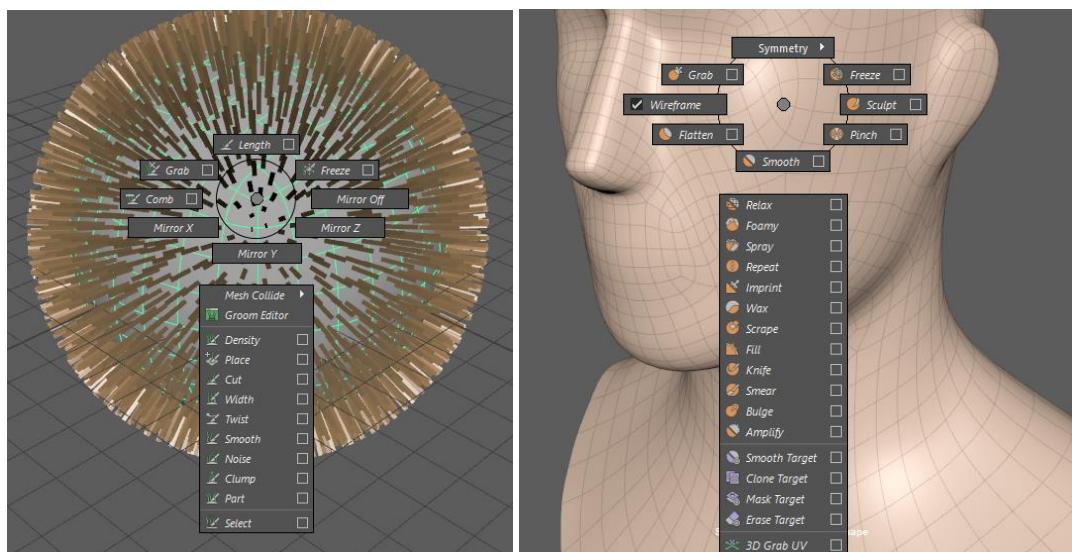
## Contextual node selection in editor panels

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

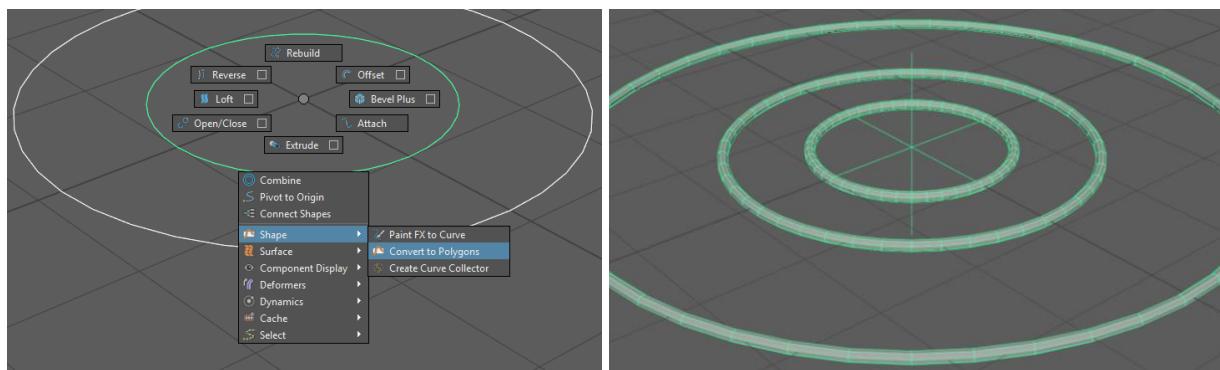
Under the hood of *May9 Next* there are hundreds of MEL scripts that support the contextual workflow, but there's also some ones that add new features to *Autodesk Maya*.

**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:

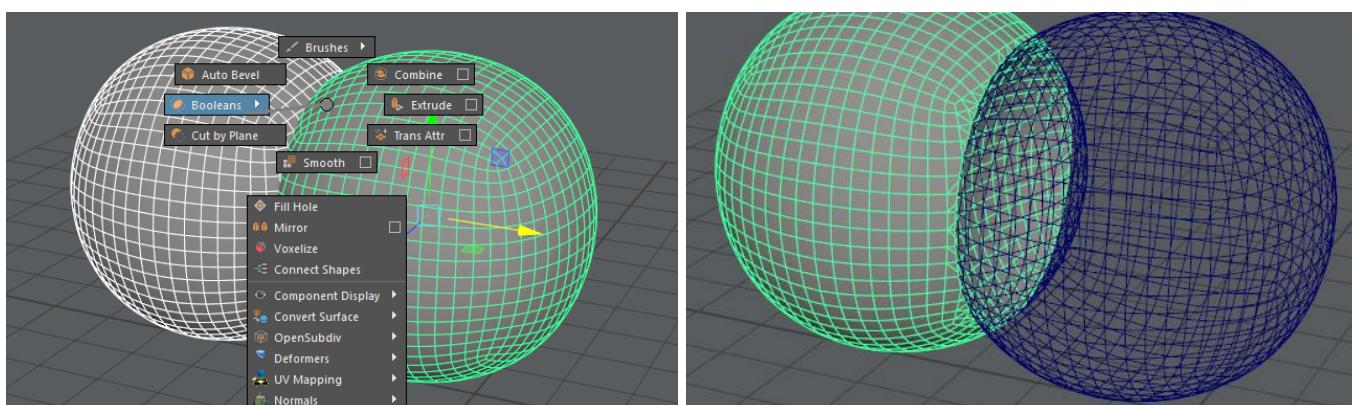
- 1) Select a curve or multiple curves
- 2) **Z + LMB > Shape > Convert to Polygons**



### [da\\_interactiveBooleans \(video\)](#)

This script makes the Polygonal Boolean process more interactive:

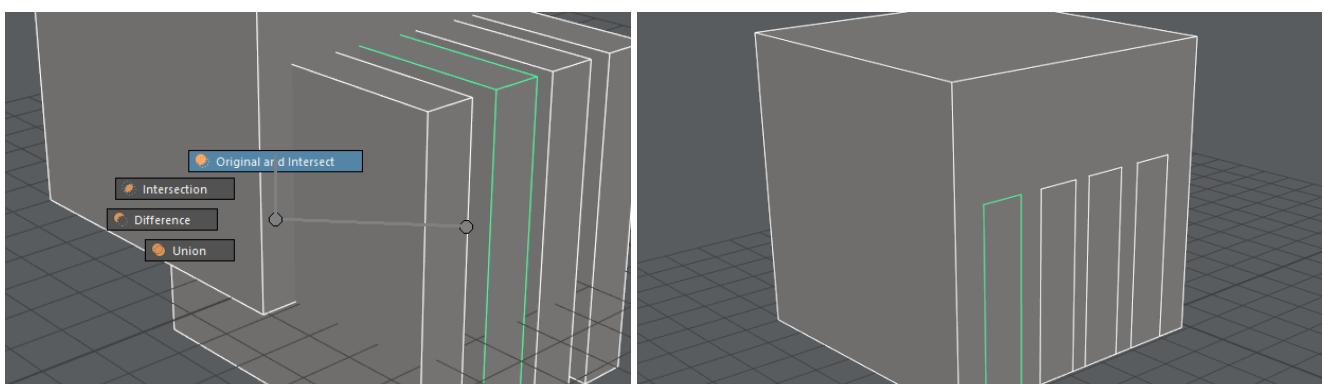
- 1) Select two or more polygons objects
- 2) **Z + LMB > Booleans**



### [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:

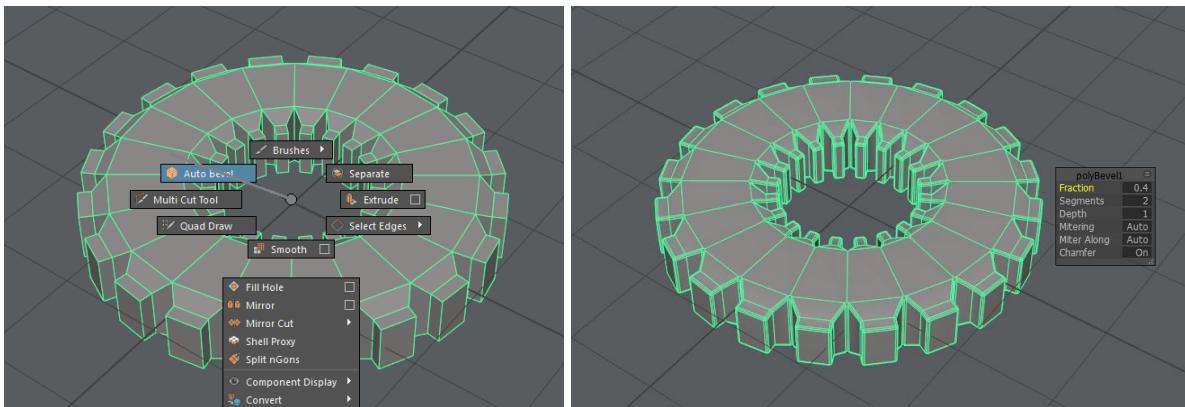
- 1) Select first the main object and after the cutter ones
- 2) **Z + LMB > Cut by Plane**
- 3) Select the single or double operator
- 4) Move the cutter or the cutters plane



## [da\\_AutoBevel \(video\)](#)

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

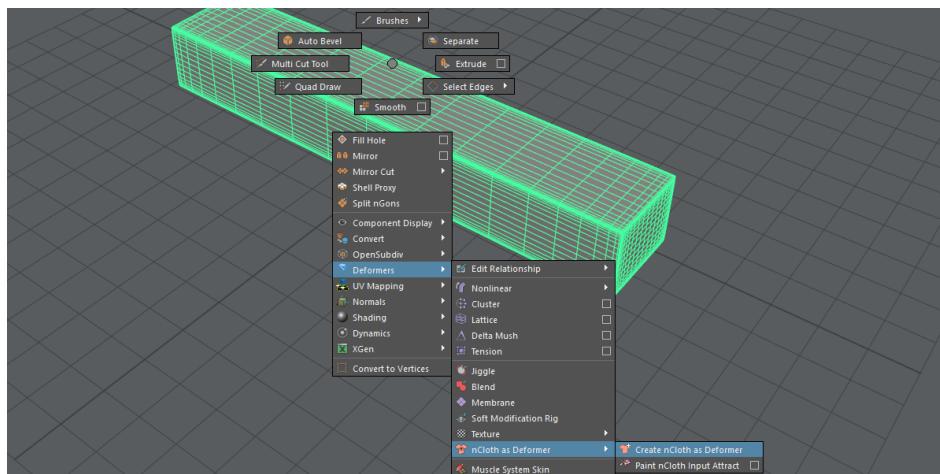
- 1) Select a polygonal object
- 2) **Z + LMB > Auto Bevel**



## [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:

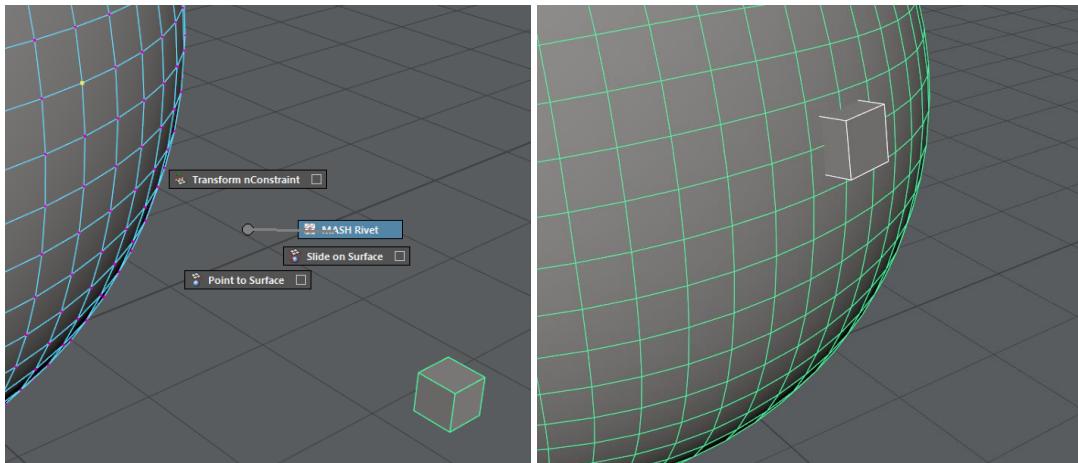
- 1) Select first the filler mesh then the volume mesh
- 2) **Z + LMB > MASH >Voxelize in a Volume**



## [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:

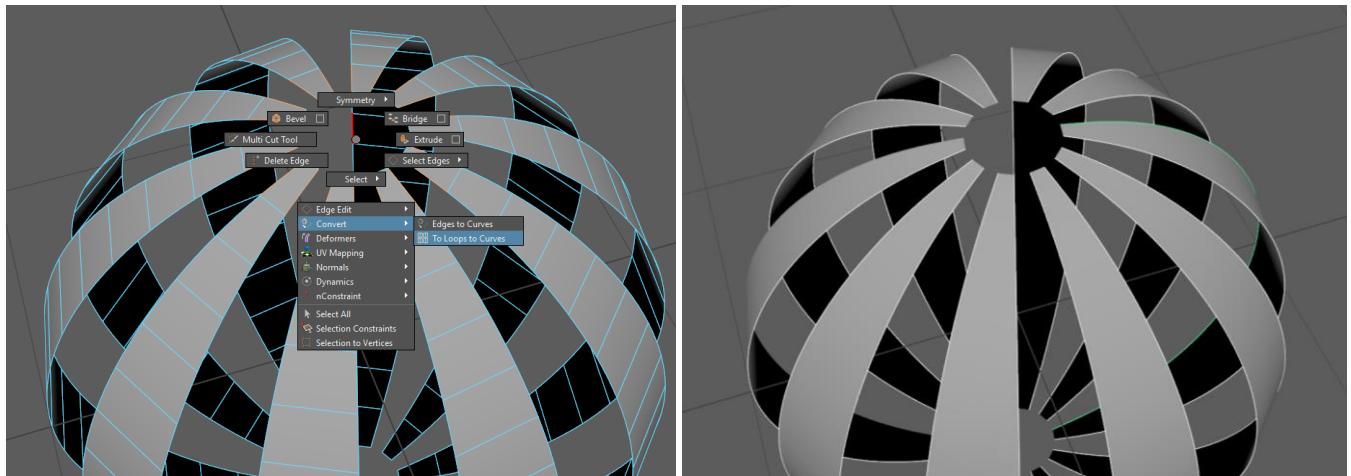
- 1) Select a polygon and then a curve
- 2) **Z + LMB > Instance Along Curve**



## 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:

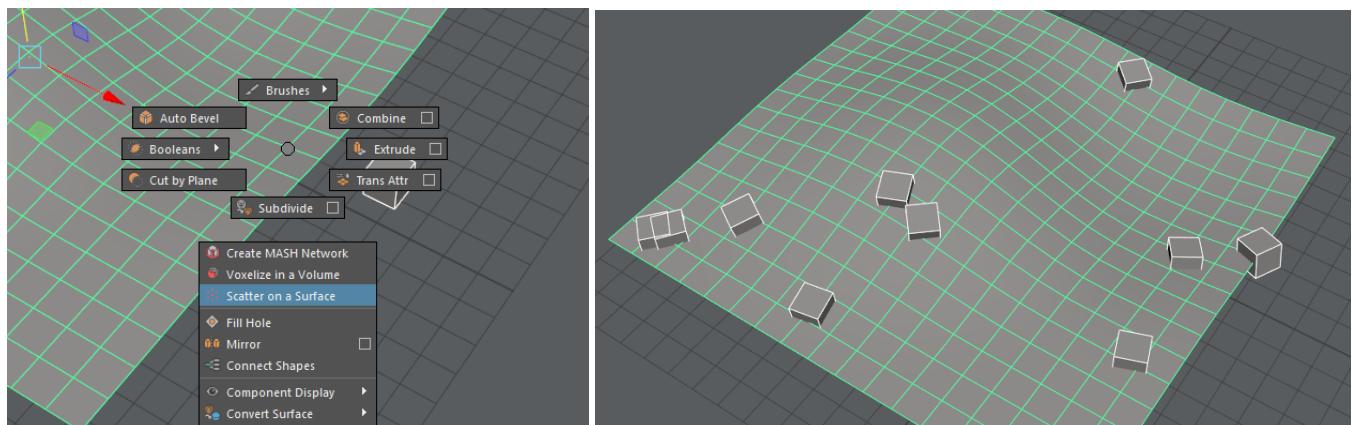
- 1) Select an edge for loop, sometimes this is easier to do in UV texture editor
- 2) **Z + LMB > Convert > To Loops to Curves**



## da\_SurfaceScatterMash

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

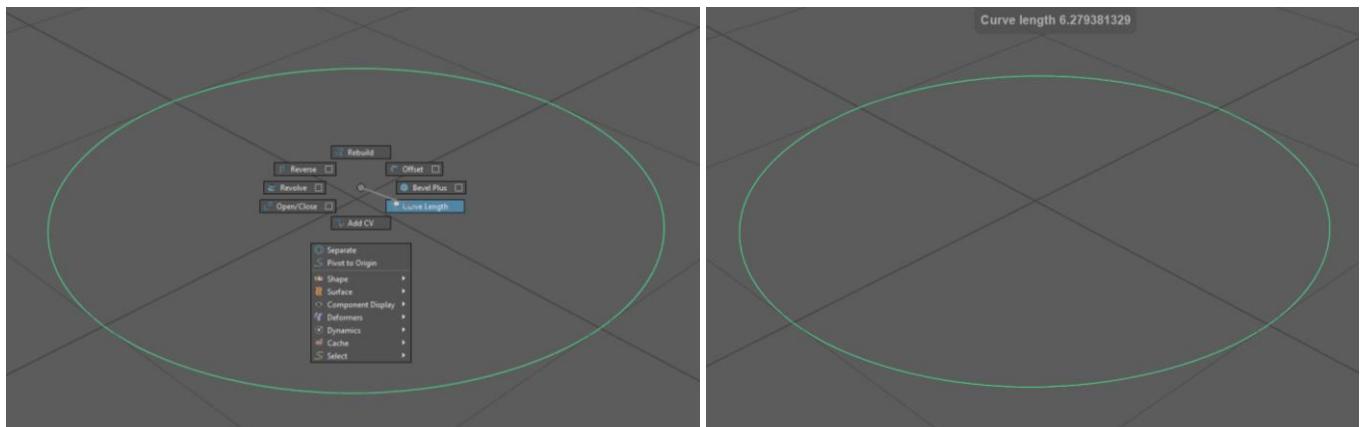
- 1) Select a mesh object then a mesh surface
- 2) **Z + LMB > Scatter on a Surface**



## da\_CurveLength

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

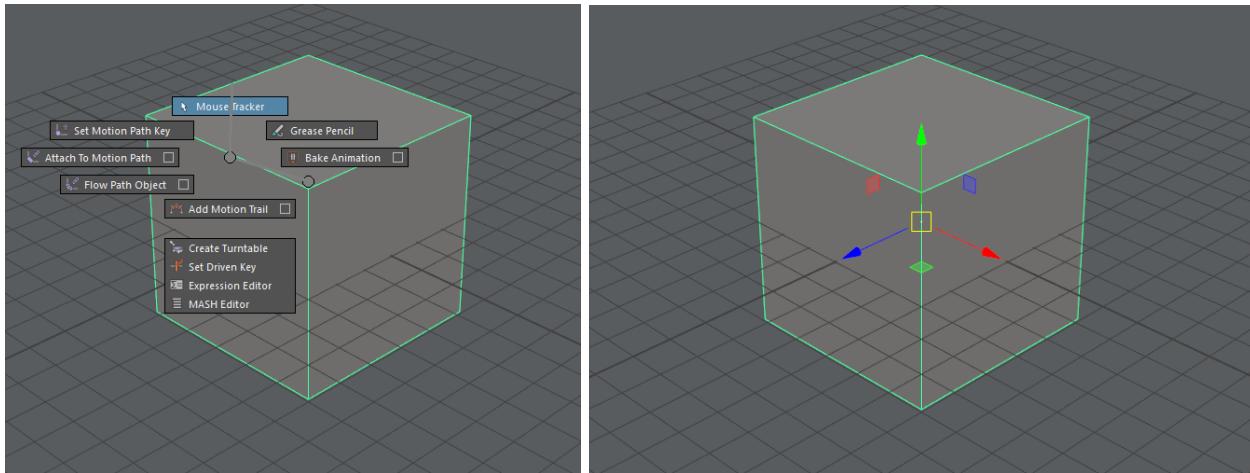
- 1) Select the curve you want to measure
- 2) **Z + LMB > Curve Length**



## da\_MouseTrack

This script tracks the mouse movement and create an animation:

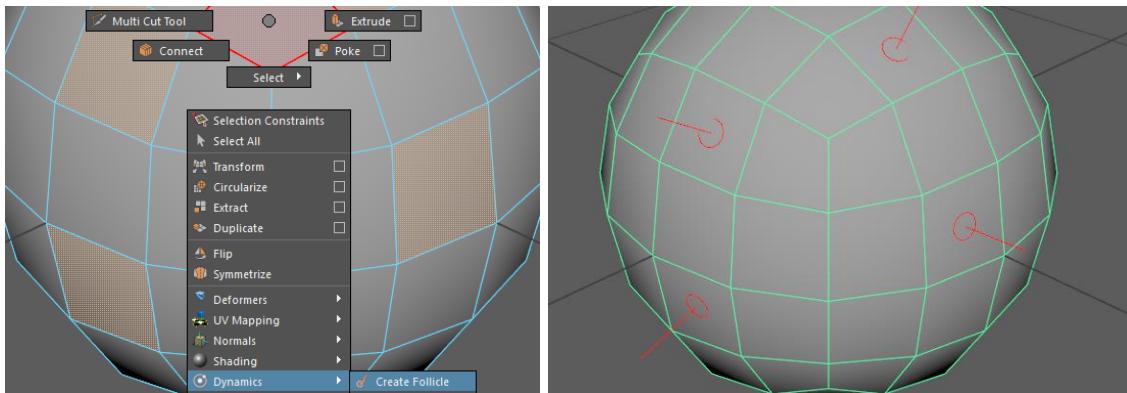
- 1) Select an object
- 2) **Z + MMB > Animation > Mouse Tracker**
- 3) Manipulate the object by using manipulators
- 4) Press **Esc** for stop the tracking



## da\_FacesFollicles

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

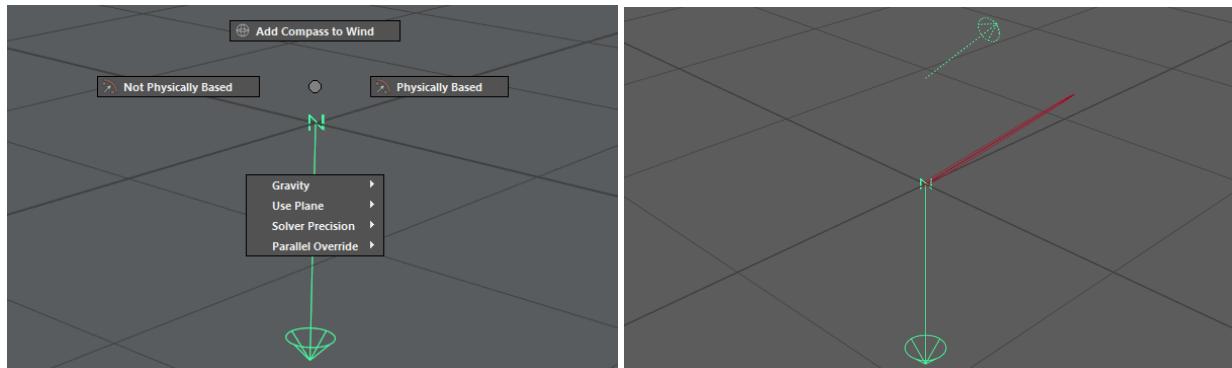
- 1) Select one or more faces
- 2) **Z + LMB > Dynamics > Create Follicle**



## 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**

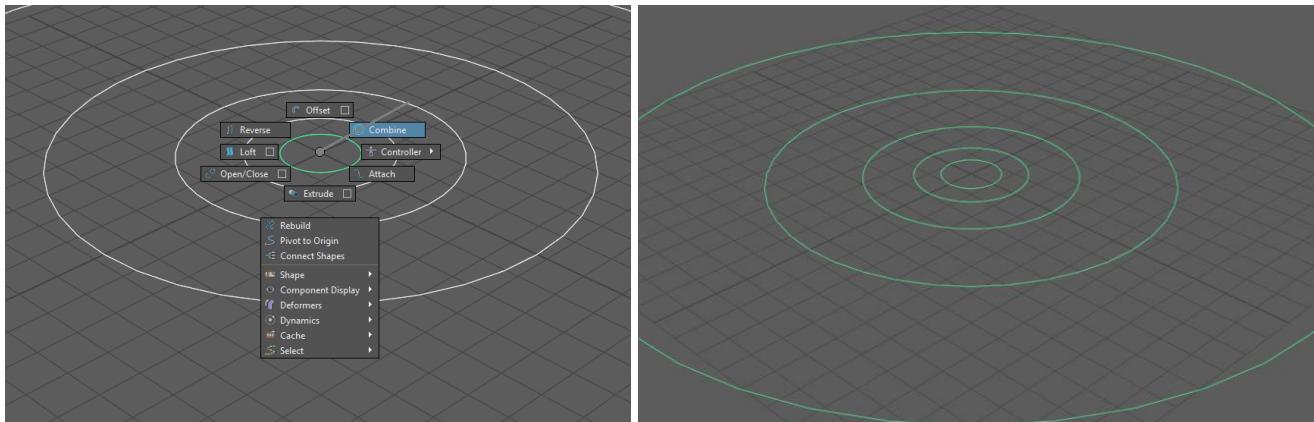


Alternatively, is possible generate a standalone compass by using **Z + MMB > Compass**

## da\_CombineCurves

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

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

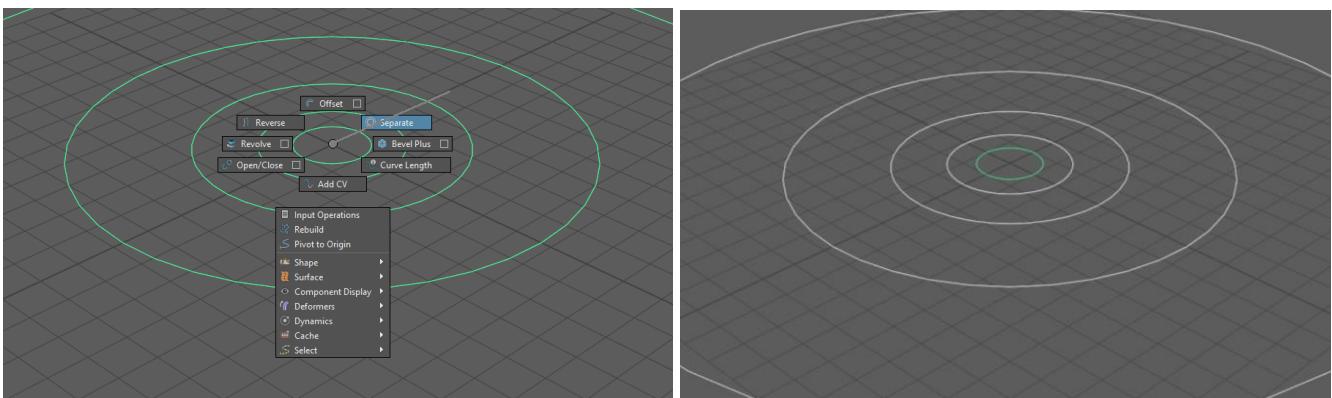


Note: do not combine already combined curves, always first separate the combined curves then combining the curves again.

## da\_SepareCurves

This script separates combined curves:

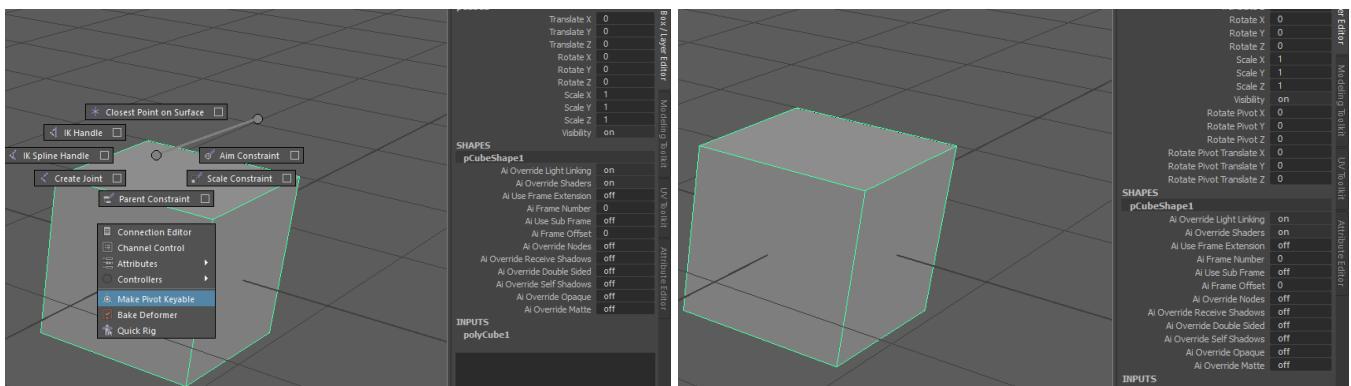
- 1) Select combined curves
- 2) **Z + LMB > Separate**



## 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

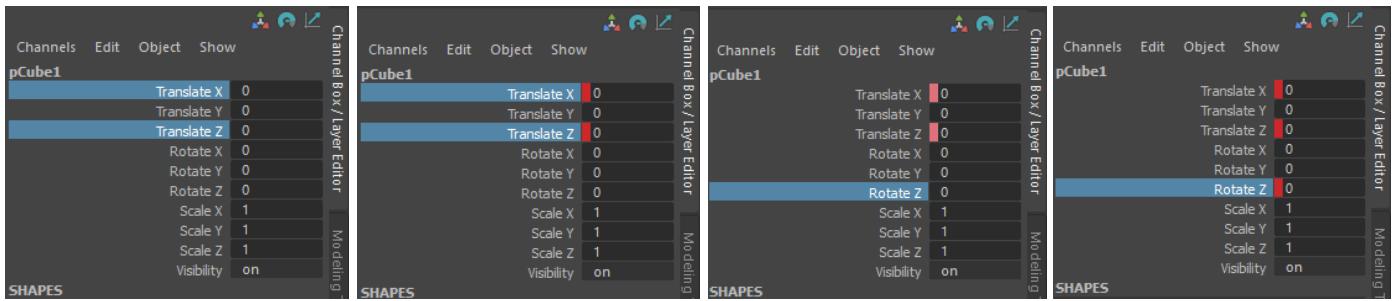
This script maps any single faces of a mesh as separate planar UV shell:

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



## da\_KeyKeyedOnly (Set Smart Keyframe)

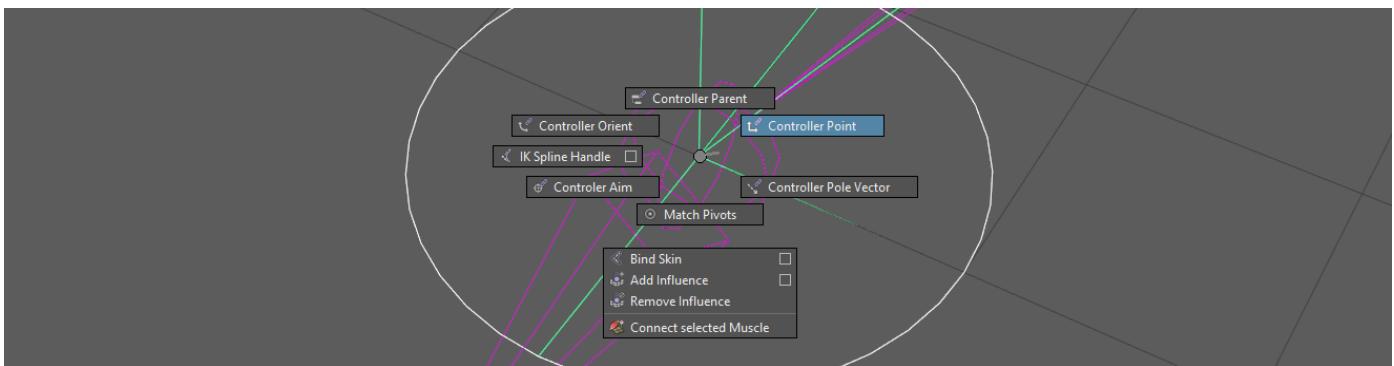
This script creates animation keys on selected or already animated channels in Channel Box, when **CTRL + SHIFT + ALT + S** is pressed. In alternative is possible call the script from **Z + MMB > Animation > Set Smart Keyframe**.



**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](https://fb.com/May9Next)

YouTube channel: [youtube.com/c/May9](https://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