AUTODESK UNIVERSITY FTV00004

# Create storyboards to short animated films with Autodesk Maya

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Designated Specialist, Autodesk



#### **About Me...**



#### Viveka Devadas

- Design Technologist and Designated Specialist for AEC/VR products at Autodesk
- Assist customers adopt advanced visualizations and Extended Reality VR/AR/MR solutions into their everyday design workflows
- A trusted advisor for enterprise priority customers
- Help in minimizing downtime by troubleshooting specific technical issues

# **Today's Objectives**

What am I going to talk about?

#### **LEARNING OBJECTIVE 1**

Learn how to generate animations from simple 2D visual drawings

#### **LEARNING OBJECTIVE 2**

Explore advanced tools and high-end plugins in Maya

#### **LEARNING OBJECTIVE 3**

Generate simple characters to enhance your short animated films

#### **LEARNING OBJECTIVE 4**

Implement custom workflows to enhance your short film with music and special effects

## What should every Designer's Toolset contain?

- Sketch tools
- 2. Custom templates
- 3. Modelling tools (2D/3D)
- 4. Art/Image/Texturing tools
- 5. Lighting/ Rendering tools
- 6. Compositing/Special effects tools
- 7. Voice/Music files
- 8. 3D printers/ scanners/ cameras/ drones
- 9. VR/AR/MR tools + equipment





#### Why Autodesk Maya®

- Modeling
- Animation
- Rendering
- Simulation
- Character creation
- Visual effects (VFX)
- Advanced features





#### Award Winners that used Autodesk Maya®

Inspiring visionaries to create cinematic storytelling...

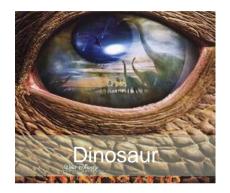












Image courtesy: Wikipedia, Behance

#### Interface overview Maya 2022 Maya 2022 **Menus Workspace User Status Line Selector** Account **™Sidebar** Menu Sets **Icons** (8) Channel Box Tool Box (11) 10 View Panel Outliner (1) **Buttons Layer Editor Animation Playback** /Character Menu Range Slider Time Slider (3) (15) Controls **Help Line** Playback 17 **Options Command Line** Image courtesy: Autodesk Knowledge Network

#### **Interface Customization**

Adapt user interface to your needs – Maya 2022

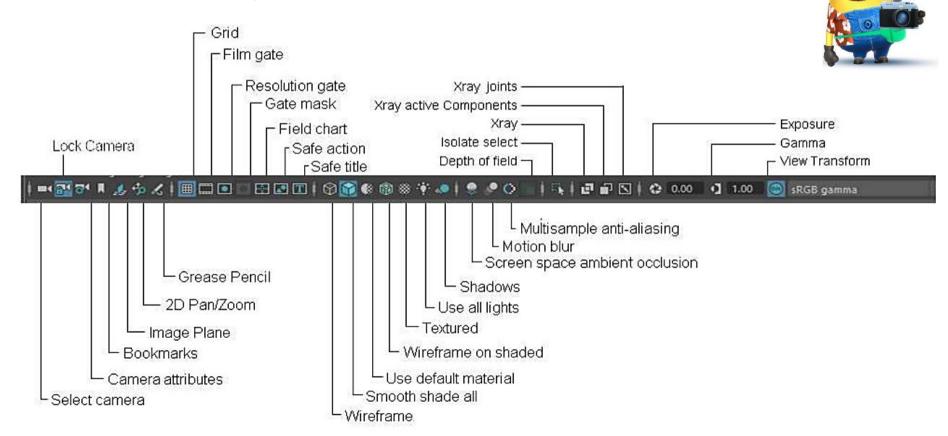


- Customize your interface
  - Panels and Layouts
  - Change user interface resolution (scale)
  - Change user interface colors
  - Change the view panel background color
  - Color Settings
  - Customize the Time Slider
  - Change the length (scale) of normals in the display
  - Change working units from cms to inches
  - Change the operating language of Maya

- Customize how Maya works
- Customize shelves
- Custom menu sets
- Customize Maya hotkeys
- Customize Search
- Customize ToolClips
- Customize marking menus / the hotbox
- Advanced customization

#### **Panel Toolbar**

Panel Menu of All viewports

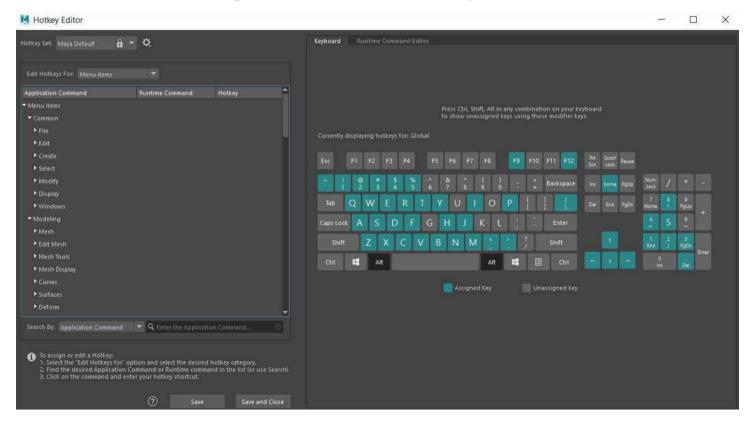


## **Navigating viewports**

- ALT+Middle mouse button +Drag
  Helps to pan the viewport
- ALT+Right mouse button +Drag
  Helps to zoom in and out the viewport.
  (You can also use the scroll wheel to zoom in and out.)
- ALT +Left mouse button+Drag
  Rotates or orbits the camera in the perspective window
- Ctrl + SpacebarFull viewport view
- F Center view on selected object
- Hold Alt + LMB Click and Drag (After center view to rotate around selected object)

## **Hotkeys**

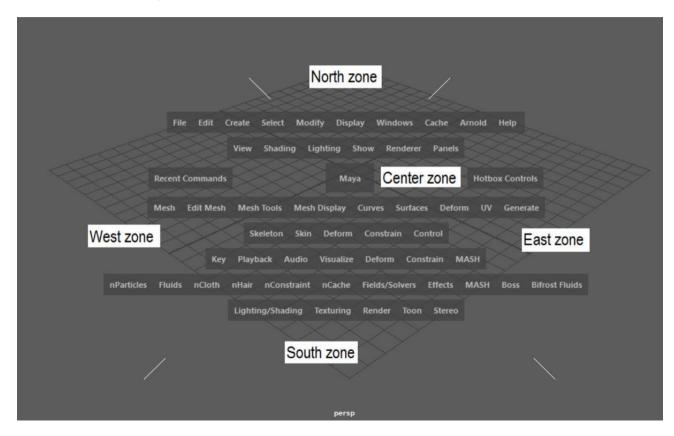
Windows > Editors > Settings/Preferences > Hotkey Editor





#### The Hotbox

Access Menu Items in a viewport



# Learning Objective 1

Learn how to generate animations from simple 2D visual drawings

#### **2D Visuals to Animations**



#### 2D to 3D Animations







esh\_alb.01



esh\_mtl





MarioCapHighM

MarioCapHighM

esh\_rgh.00



MarioCapHighM

esh\_rgh.01











































MarioHandHigh

















MarioHandHigh

Mesh alb





ghMesh\_alb

MarioHandHigh

Mesh nrm













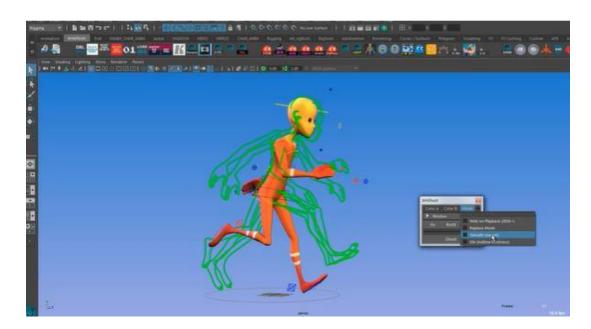
## **Learning Objective 2**

Explore advanced tools and high-end plugins in Maya

## **Explore Plugins**

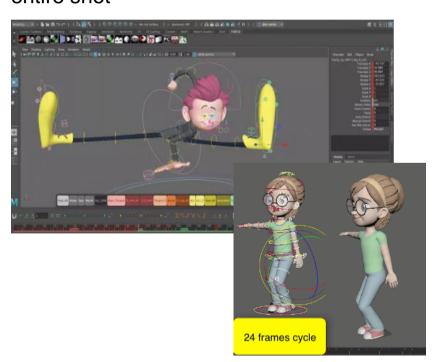
- Crowd Simulation
- Dynamics
- Fluid
- Import/Export
- Modeling
- Rendering

#### **BHGhost** – onion skins for 3D outlines

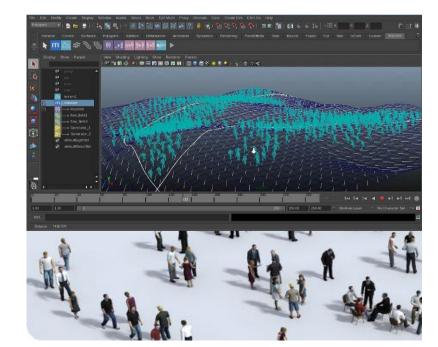


#### **Explore Plugins**

 Animbot – tweak one controller to adjust entire shot



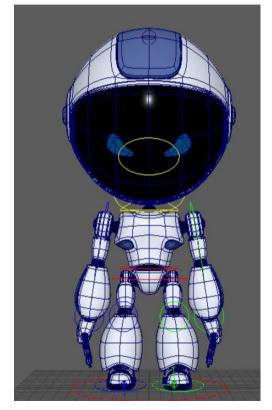
Massive for Maya – generates crowds

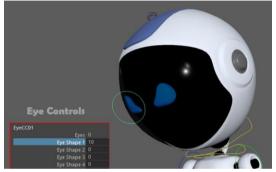


# **Learning Objective 3**

Generate simple characters to enhance your short animated films

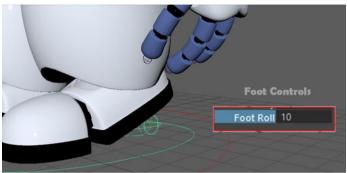
#### **Character Creation**

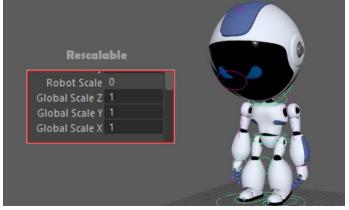




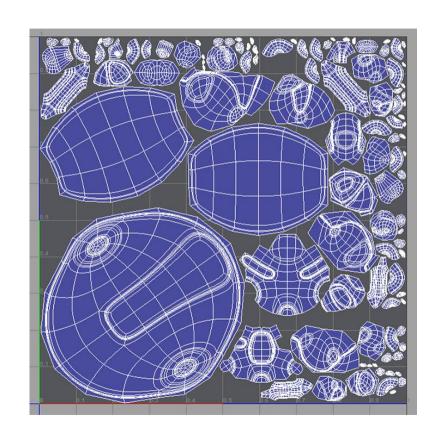


Finger C3 85.4





#### **Character Creation**

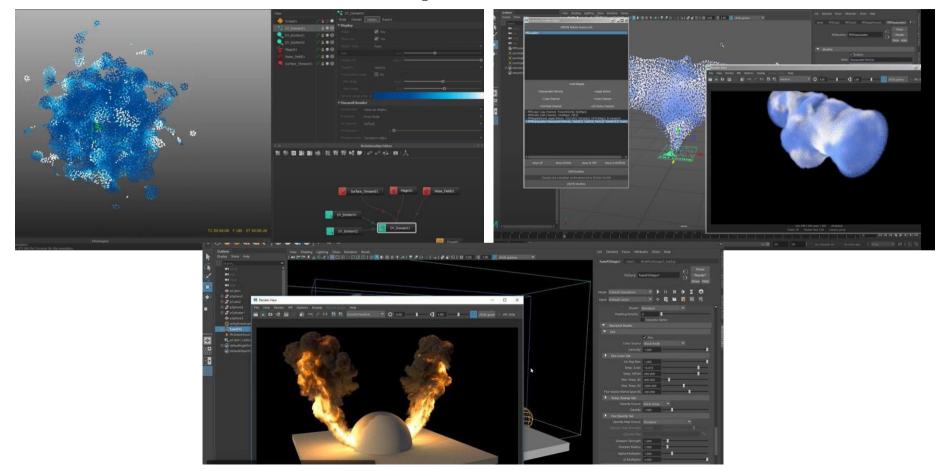




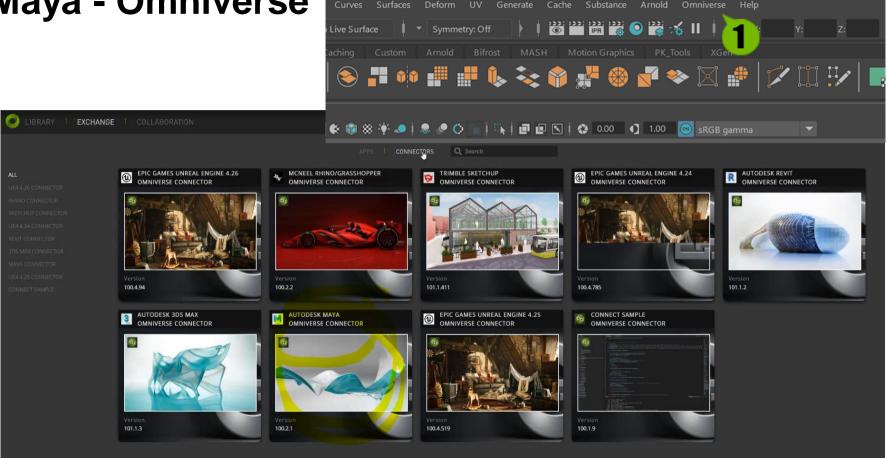
## Learning Objective 4

Implement custom workflows to enhance your short film with music and special effects

#### **Additional Tools and Special Effects**



#### Maya - Omniverse



## **Favorite Tips and Tricks**



- Choose Windows > Editors > Settings & Preferences > Plug-in Manager from the menu bar; the Plug-in Manager window will be displayed.
- Clear the check boxes that you don't need. It will speed up Maya's boot time.
- For copying the polygon objects, select the object and press CTRL +D. Next, press W to activate Move Tool and move the copied object to the desired position. Next, press SHIFT+D to copy the object to the same distance.
- You can increase or decrease the size of gyro using the + and keys, respectively. These keys are displayed on choosing Move Tool, Rotate Tool, or Scale Tool.
- If you want to change the background color of viewport, hold down the ALT key, and press B.
- If you want to smoothen the low poly model without increasing the subdivision level, press 3.

#### Resources

- Autodesk knowledge network Maya Support and Learning
- Maya Documentation- what's new, product updates and installation guides
- Maya 2022 Bonus Tools
- Top Maya plugins
- Maya Omniverse

#### **Acknowledgments**

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- Media and Entertainment cohort

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