Impara a **modellare in 3D!**
Introduciti nel mondo del
Design, Characters,
Automotive,
Prototipazione per stampa
3D e tanto altro!

18-19-20 Maggio 2018
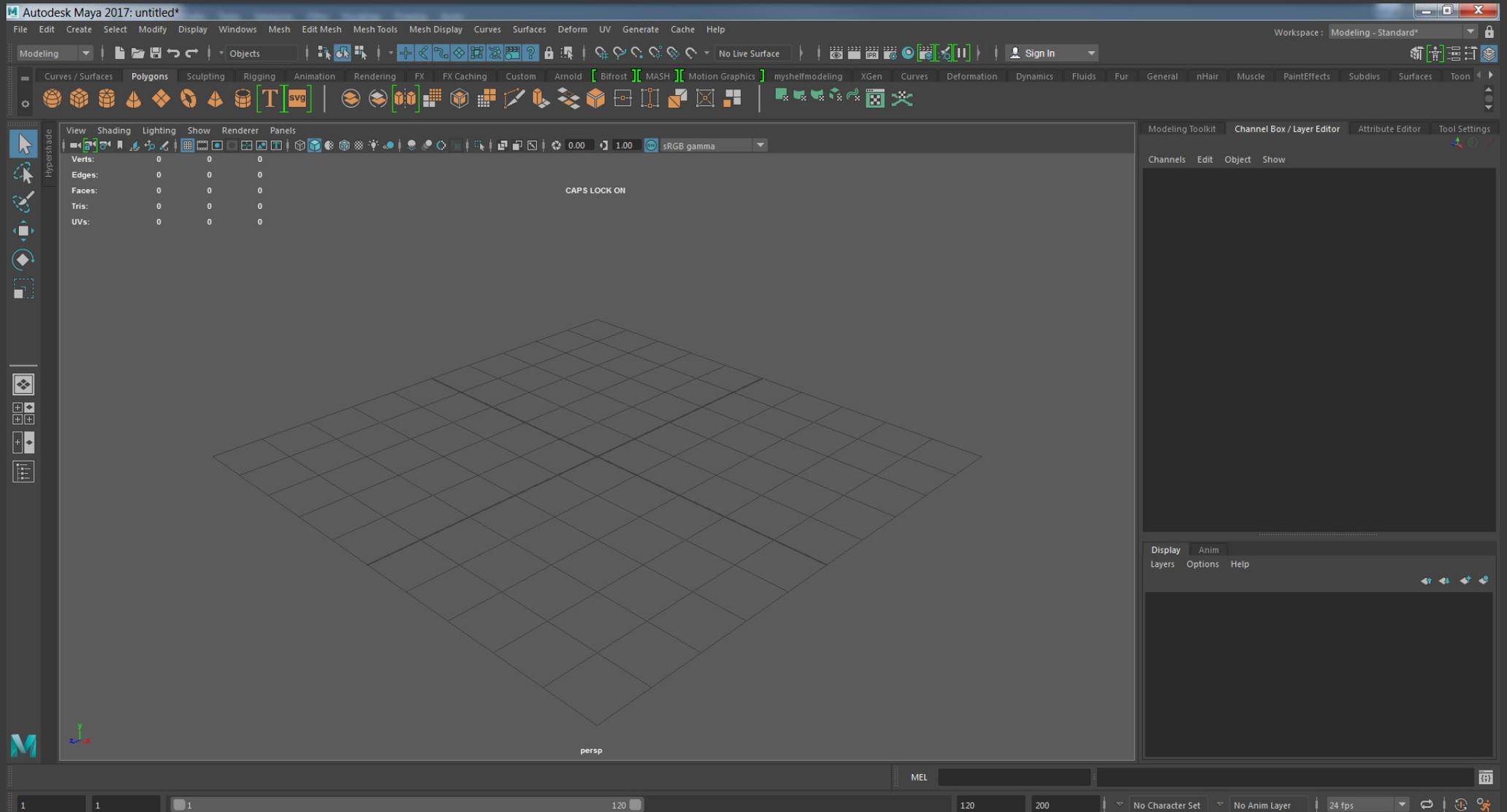
WORKSHOP BASE
MODELLAZIONE POLIGONALE

ore 16:00

FAB LAB
MESSINA

AUTODESK MAYA

Autodesk Maya è un software di modellazione, animazione e rendering.
È il software di riferimento per la produzione cinematografica, commercial in tutto il mondo.

INTERFACE

Menù Bar

Status Line

Shelf

Panel Toolbar
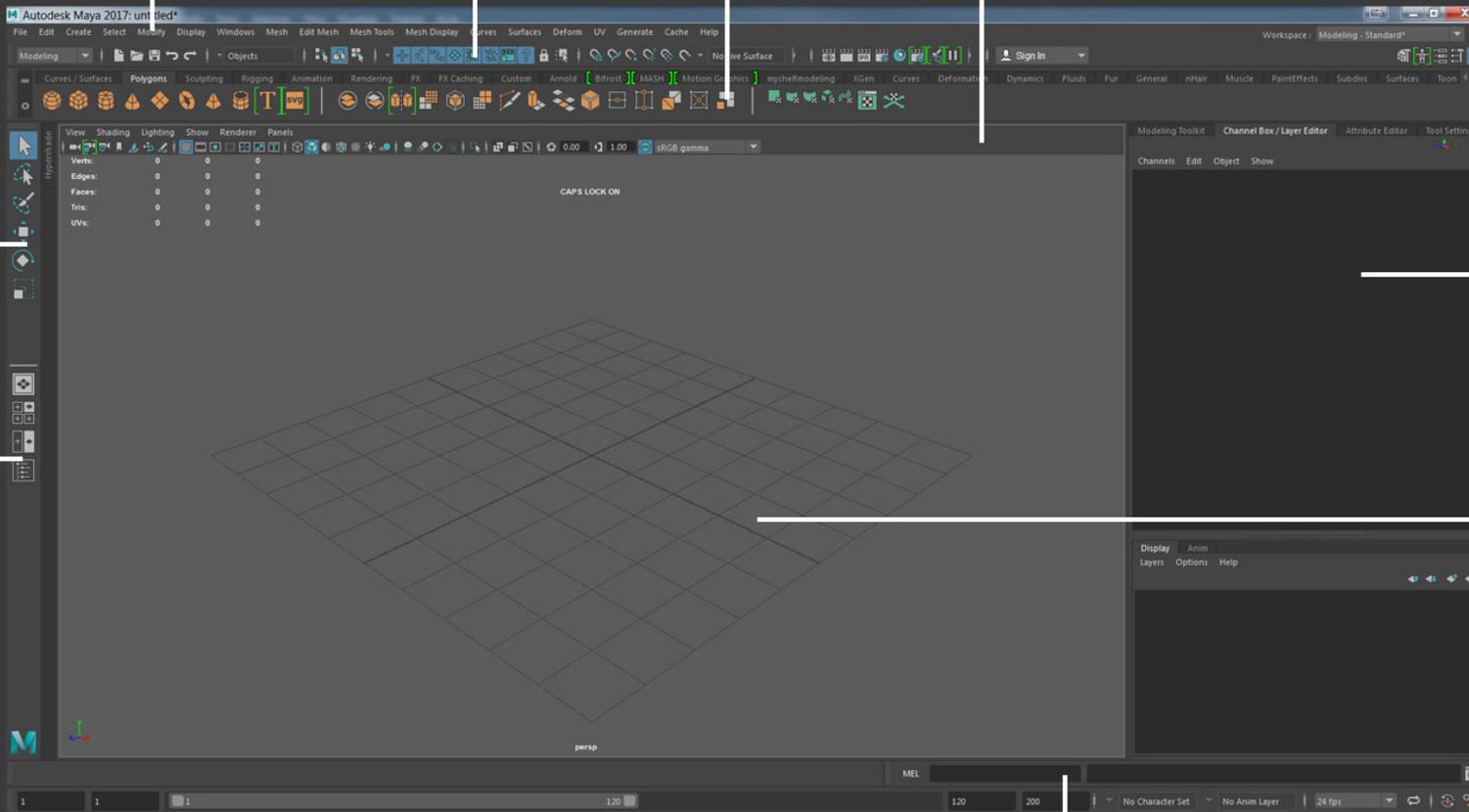
Tool Box

Attribute Editor

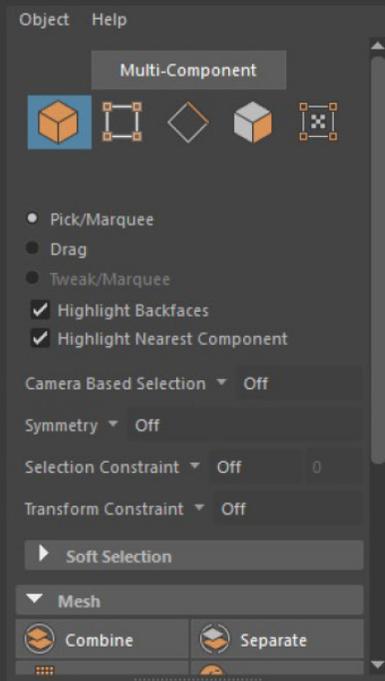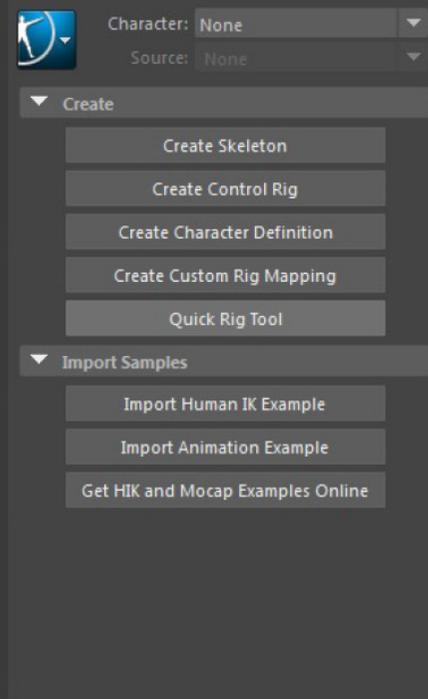Layout Buttons

Viewport

Command Line
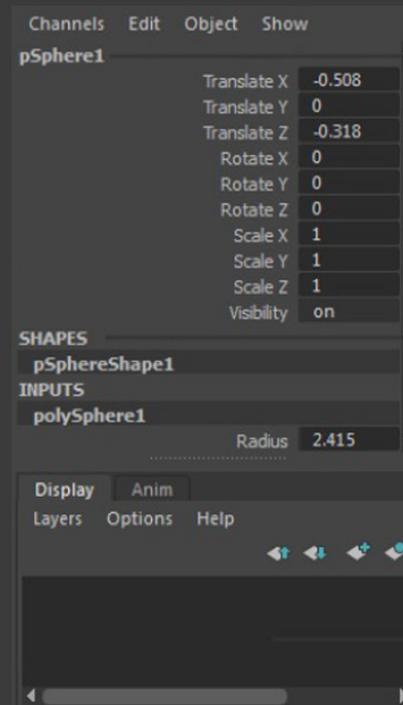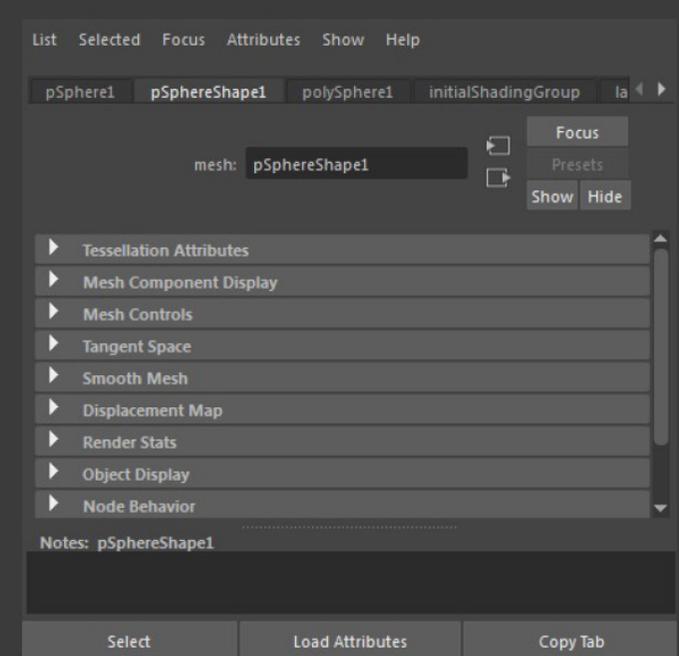
Modeling Toolkit

Human IK

Tool Settings

Attribute Editor

Modeling Toolkit

Object   Help

Multi-Component

- Pick/Marquee
- Drag
- Tweak/Marquee

☑ Highlight Backfaces
☑ Highlight Nearest Component

Camera Based Selection ▾ Off

Symmetry ▾ Off

Selection Constraint ▾ Off   0

Transform Constraint ▾ Off

▶ Soft Selection

▼ Mesh

Combine | Separate

Human IK

Character: None

Source: None

▼ Create

Create Skeleton

Create Control Rig

Create Character Definition

Create Custom Rig Mapping

Quick Rig Tool

▼ Import Samples

Import Human IK Example

Import Animation Example

Get HIK and Mocap Examples Online

Tool Settings

Channels   Edit   Object   Show

pSphere1

Translate X	-0.508
Translate Y	0
Translate Z	-0.318
Rotate X	0
Rotate Y	0
Rotate Z	0
Scale X	1
Scale Y	1
Scale Z	1
Visibility	on

SHAPES
pSphereShape1

INPUTS
polySphere1

Radius   2.415

Display   Anim

Layers   Options   Help

Attribute Editor

List   Selected   Focus   Attributes   Show   Help

pSphere1 | pSphereShape1 | polySphere1 | initialShadingGroup | la

mesh: pSphereShape1

Focus
Presets
Show   Hide

▶ Tessellation Attributes
▶ Mesh Component Display
▶ Mesh Controls
▶ Tangent Space
▶ Smooth Mesh
▶ Displacement Map
▶ Render Stats
▶ Object Display
▶ Node Behavior

Notes: pSphereShape1

Select | Load Attributes | Copy Tab

Tool Settings

Shielf

Shielf Editor

Autodesk Maya 2017: untitled*

File Edit Create Select Modify Display Windows Mesh Edit Mesh Mesh Tools Mesh Display Curves Surfaces Deform UV Generate Cache Help

Modeling   Objects   No Live Surface   Sign In   Workspace: Modeling - Standard

Curves / Surfaces Polygons Sculpting Rigging Animation Rendering FX FX Caching Custom Arnold Bifrost Curves Deformation Dynamics Fluids Fur General nHair Muscle PaintEffects Subdivs Surfaces Toon nCloth TURTLE GoZBrush UVLayout

View Shading Lighting Show Renderer Panels

Verts: 8   0   0
Edges: 12   0   0
Faces: 6   0   0
Tris: 12   0   0
UVs: 14   0   0

General Editors
Attribute Editor
Channel Box / Layer Editor
[Content Browser]
Tool Settings
Hypergraph: Hierarchy
Hypergraph: Connections
[Viewport]
[Adobe(R) After Effects(R) Live Link]
Asset Editor
Attribute Spread Sheet
Component Editor
Connection Editor
Channel Control
Display Layer Editor
File Path Editor
Namespace Editor
Script Editor
Command Shell
Profiler
[Evaluation Toolkit]

Relationship Editors
Animation Layers
Camera Sets
Character Sets
Deformer Sets
Display Layers
Dynamic Relationships
Light Linking
Partitions
Render Pass Sets
Sets
UV Linking

Windows
[Workspaces]
Editors
General Editors
Modeling Editors
Animation Editors
Rendering Editors
Relationship Editors
UI Elements
Settings/Preferences
Outliner
Node Editor
Playblast
Minimize Application
Raise Main Window
Raise Application Windows

Modeling Editors
Modeling Toolkit
Paint Effects
UV Editor
XGen Editor
Crease Sets

UI Elements
Status Line
Shelf
Time Slider
Range Slider
Command Line
Help Line
Tool Box
Hide All UI Elements
Show All UI Elements
Restore UI Elements

Preferences
Edit Help
Interface: General Interface Preferences
Categories
Interface
  UI Elements
  ViewCube
  Help
Display
  Kinematics
  Animation
  Manipulators
  NURBS
  Polygons
  Subdivs
  Font
Settings
  Animation
  Assets
  Cameras
  Color Management
  Dynamics
  Files/Projects
  File References
  Modeling
  Node Editor
  Rendering
  Selection
  Snapping
  Sound
  Time Slider
  Undo
  XGen
  GPU Cache
  Save Actions
Modules
Applications

Interface
Menu set: Modeling
Show menubar: In main window
              In panels
Show panel toolbar:
Show title bar: In main window
                 In Script Editor
Windows: Remember size and position
Show icons in menus:
Command Line: Hold focus
Expression Editor: Expression Editor

Highlight What's New
Highlight what's new in this release
Show: What's New Highlight Settings window at startup
Highlight Color:

Devices
Mouse scroll wheel: Enable
Multi-Touch Gestures: Enable

Interface Scaling
Set interface scaling and relaunch the application to take effect
Scale interface using system setting: [96 ppi]
Use custom scaling:
100%
Do not scale.

Save   Cancel

Animation Editors
[Graph Editor]
[Time Editor]
Trax Editor
Camera Sequencer
Dope Sheet
[Quick Rig]
HumanIK
[Shape Editor]
[Pose Editor]
Expression Editor

Settings/Preferences
Preferences
Performance Settings
Hotkey Editor
Color Settings
Marking Menu Editor
Shelf Editor
Panel Editor
Plug-in Manager

Rendering Editors
Render View
Render Settings
Hypershade
[Render Setup]
[Light Editor]
Custom Stereo Rig Editor
Rendering Flags
Shading Group Attributes
Hardware Render Buffer

Modeling Toolkit Channel Box / Layer Editor Attribute Editor Tool Settings
Channels Edit Object Show

persp

MEL

120   200   No Character Set   No Anim Layer   24 fps

File

New Scene — Ctrl+N
Open Scene... — Ctrl+O
Save Scene — Ctrl+S
Save Scene As... — Ctrl+Shift+S
Increment and Save — Ctrl+Alt+S
Archive Scene
Save Preferences
Optimize Scene Size

Import/Export
Import...
Send to 3ds Max
Export All...
Export Selection...
Game Exporter
Cloud Import/Export...
Send To Unity
Send To Unreal
Adobe(R) After Effects(R) Live Link
Send To Print Studio
Export to Offline File...
Assign Offline File...
ATOM

References
Create Reference... — Ctrl+R
Reference Editor

View
View Image...
View Sequence...

Project
Project Window
Set Project...

Recent
Recent Files
Recent Increments
Recent Projects

Exit — Ctrl+Q

Edit

Undo "PreferencesWindow" — Ctrl+Z
Redo — Ctrl+Y
Repeat "SelectAll" — G
Recent Commands List
Cut — Ctrl+X
Copy — Ctrl+C
Paste — Ctrl+V
Keys

Delete
Delete
Delete by Type
Delete All by Type

Duplicate
Duplicate — Ctrl+D
Duplicate Special — Ctrl+Shift+D
Duplicate with Transform — Shift+D
Transfer Attribute Values

Hierarchy
Group — Ctrl+G
Ungroup
LOD (Level of Detail)
Parent — P
Unparent — Shift+P

Create

NURBS Primitives
Polygon Primitives
Volume Primitives
Lights
Cameras
Curve Tools
Type
SVG
Adobe(R) Illustrator(R) Object...

Construction Aids
Construction Plane
Free Image Plane
Locator
Annotation...
Measure Tools

Scene Management
Scene Assembly
Empty Group
Sets
Asset

Select

All — Ctrl+Shift+A
All by Type
Deselect All — Alt+D
Hierarchy
Inverse — Ctrl+Shift+I
Similar
Grow
Grow Along Loop — Ctrl+>
Shrink
Shrink Along Loop — Ctrl+<
Quick Select Sets

Type
Object/Component — F8

Polygons
Components
Contiguous Edges
Shortest Edge Path Tool
Convert Selection
Use Constraints...

NURBS Curves
Components
All CVs
First CV
Last CV
Cluster Curve

NURBS Surfaces
Components
CV Selection Boundary
Surface Border

View Shading Lighting Show Renderer Panels

sRGB gamma

Autodesk Maya 2017: untitled*

File Edit Create Select Modify Display Windows Mesh Edit Mesh Mesh Tools Mesh Display Curves Surfaces Deform UV Generate Cache Help

Modeling

Objects

No Live Surface

X: Y: Z:

Sign In

Curves / Surfaces Polygons Sculpting Rigging Animation Rendering FX FX Caching Custom Arnold Bifrost MASH Motion Graphics myshelfmodeling XGen Curves Deformation Dynamics Fluids Fur General nHair Muscle

View Shading Lighting Show Renderer Panels

0.00   1.00   sRGB gamma

Verts:
Edges:
Faces:
Tris:
UVs:

Modify
- Transformation Tools ▸
- Reset Transformations ☐
- Freeze Transformations ☐
- Match Transformations ▸

Pivot
- Center Pivot
- Bake Pivot ☐

Align
- Snap Align Objects ▸
- Align Tool
- Snap Together Tool ☐

Nodes
- Evaluate Nodes ▸

Naming
- Prefix Hierarchy Names...
- Search and Replace Names...

Attributes
- Add Attribute...
- Edit Attribute...
- Delete Attribute...

Objects
- Make Live
- Replace Objects ☐
- Convert ▸

Paint Tool
- Paint Scripts Tool ☐
- Paint Attributes Tool ☐

Assets
- Asset ▸

Display
- ✓ Grid ☐
- Heads Up Display ▸

Object
- Hide ▸
- Show ▸
- Toggle Show/Hide ☐
- Per Camera Visibility ▸
- Wireframe Color...
- Object Display ▸
- Transform Display ▸
- Polygons ▸
- NURBS ▸
- Animation ▸
- Rendering ▸
- Frame All in All Views   Shift+A
- Frame Selection in All Views   Shift+F
- Frame Selection with Children in All Views   Ctrl+Shift+F

Windows
- Workspaces ▸

Editors
- General Editors ▸
- Modeling Editors ▸
- Animation Editors ▸
- Rendering Editors ▸
- Relationship Editors ▸
- UI Elements ▸
- Settings/Preferences ▸
- Outliner
- Node Editor
- Playblast ☐
- Minimize Application
- Raise Main Window
- Raise Application Windows

Mesh
- Booleans ▸
- Combine ☐
- Separate

Remesh
- Conform ☐
- Fill Hole
- Reduce ☐
- Smooth ☐
- Triangulate
- Quadrangulate ☐

Mirror
- Mirror ☐

Transfer
- Clipboard Actions ▸
- Transfer Attributes ☐
- Transfer Shading Sets ☐
- Transfer Vertex Order

Optimize
- Cleanup...
- Smooth Proxy ▸

Surfaces

- Loft
- Planar
- Revolve
- Birail
- Extrude
- Boundary
- Square
- Bevel
- Bevel Plus

Edit NURBS Surfaces
- Duplicate NURBS Patch
- Align
- Attach
- Attach Without Moving
- Detach
- Move Seam
- Open/Close
- Intersect
- Project Curve on Surface
- Trim Tool
- Untrim
- Extend
- Insert Isoparms
- Offset
- Round Tool
- Stitch
- Surface Fillet
- Sculpt Geometry Tool
- Surface Editing
- Booleans
- Rebuild
- Reverse Direction

Deform

- Blend Shape
- Cluster
- Curve Warp
- Delta Mush
- Tension
- Lattice
- Wrap
- ShrinkWrap
- Wire
- Wrinkle
- Pose Space Deformation
- Muscle
- Nonlinear
- Soft Modification
- Sculpt
- Texture
- Jiggle
- Point On Curve

Edit
- Blend Shape
- Lattice
- Wrap
- ShrinkWrap
- Wire
- Edit Membership Tool
- Prune Membership
- Mirror Deformer Weights
- Display Intermediate Objects
- Hide Intermediate Objects

Paint Weights
- Blend Shape
- Cluster
- Delta Mush
- Tension
- ShrinkWrap
- Wire
- Nonlinear
- Jiggle
- Texture Deformer
- Set Membership

Weights

UV

- UV Editor
- UV Set Editor

Create
- Assign Checker Shader
- Automatic
- Best Plane Texturing Tool
- Camera-based
- Contour Stretch
- Normal-Based
- Cylindrical
- Planar
- Spherical

Cut/Sew
- Auto Seams
- Cut UV Edges
- Sew UV Edges
- Split UVs
- Delete UVs
- Merge UVs

Tools
- 3D Cut and Sew UV Tool
- 3D Grab UV Tool

Generate

- XGen Editor
- XGen Library
- Create Description...
- Import Collections or Descriptions...
- Export Collections or Descriptions...
- Export Selection as Archive(s)...
- Batch Convert Scenes to Archives...
- Convert XGen Primitives to Polygons...
- Convert to Interactive Groom...
- Import Preset...
- Export as Preset...
- Create Interactive Groom Splines
- Interactive Groom Editor
- Interactive Grooming Tools
- Cache
- Convert Interactive Groom to Polygons...
- Display HUD

Cloud Services
- Character Generator
- ReCap

Paint Effects
- Paint Effects Tool
- Make Paintable
- Get Brush...
- Template Brush Settings...   Ctrl+B
- Reset Template Brush
- Flip Tube Direction
- Make Collide
- Paint on Paintable Objects
- Paint on View Plane
- Apply Settings to Last Stroke
- Get Settings from Selected Stroke
- Apply Settings to Selected Strokes
- Share One Brush
- Remove Brush Sharing
- Select Brush/Stroke Names Containing...
- Create Modifier
- Set Modifier Fill Object
- Brush Animation
- Curve Utilities

Panel Toolbar

View   Shading   Lighting   Show   Renderer   Panels

sRGB gamma

View

Select Camera

[Lock Camera   ]

Create Camera From View   Ctrl+Shift+C
Cycle Through Cameras

Undo View Change   Alt+Z
Redo View Change   Alt+Y
Default View   Alt+Home
[View Along Axis   ►]

Look at Selection
[Center View of Selection   ]
Frame All
[Frame Selection   F]
[Frame Selection with Children   Ctrl+F   ]
Align Camera To Polygon

Predefined Bookmarks   ►
Bookmarks   ►

Camera Settings   ►
Camera Attribute Editor...
Camera Tools   ►

Image Plane   ►

View Sequence Time

Shading

● Wireframe   4
● Smooth Shade All
● Smooth Shade Selected Items
● Flat Shade All
● Flat Shade Selected Items
● Bounding Box
● Points

☐ Use default material
☐ Wireframe on Shaded
☐ X-Ray
☐ X-Ray Joints
☐ X-Ray Active Components
☑ Object Transparency Sorting
☐ Polygon Transparency Sorting
☐ Interactive Shading   ☐

☐ Backface Culling
☐ Smooth Wireframe

☐ Hardware Texturing   ☐
☐ Hardware Fog   ☐
☑ Depth of Field

Apply Current to All

Lighting

● Use Default Lighting
● Use All Lights   7
● Use Selected Lights
● Use Flat Lighting
● Use No Lights

☐ Two Sided Lighting
☐ Shadows

File   Edit   Create   Modify   Display   Windows   Mesh   Edit Mesh   Mesh Tools   Mesh Display   Curves   Surfaces   Deform   UV   Generate   Cache   Help

Modeling

Objects

No Live Surface   X: Y:

Curves / Surfaces   **Polygons**   Sculpting   Rigging   Animation   Rendering   FX   FX Caching   Custom   Arnold   [Bifrost][MASH][Motion Graphics]   myshelfmodeling   XGen   Curves   Deformation   Dynamics

View   Shading   Lighting   Show   Renderer   Panels

Verts: 8   0   0

Edges:

Faces:

Tris:

UVs:

0.00   1.00   sRGB gamma

Show   ☒

Isolate Select   ▶
All
None
✔ NURBS Curves
✔ NURBS Surfaces
✔ NURBS CVs
✔ NURBS Hulls
✔ Polygons
✔ Subdiv Surfaces
✔ Planes
✔ Lights
✔ Cameras
✔ Image Planes
✔ Joints
✔ IK Handles
✔ Deformers
✔ Dynamics
✔ Particle Instancers
✔ Fluids
✔ Hair Systems
✔ Follicles
✔ nCloths
✔ nParticles
✔ nRigids

Renderer   ☒

⦿ Viewport 2.0   ☐
◯ Legacy Default Viewport
◯ Legacy High Quality Viewport   ☐

Perspective   ▶
Stereo   ▶
Orthographic   ▶
Look Through Selected   ☐

Panel   ▶
Hypergraph Panel   ▶
Layouts   ▶
Saved Layouts   ▶

Tear Off...
Tear Off Copy...

Panel Editor...
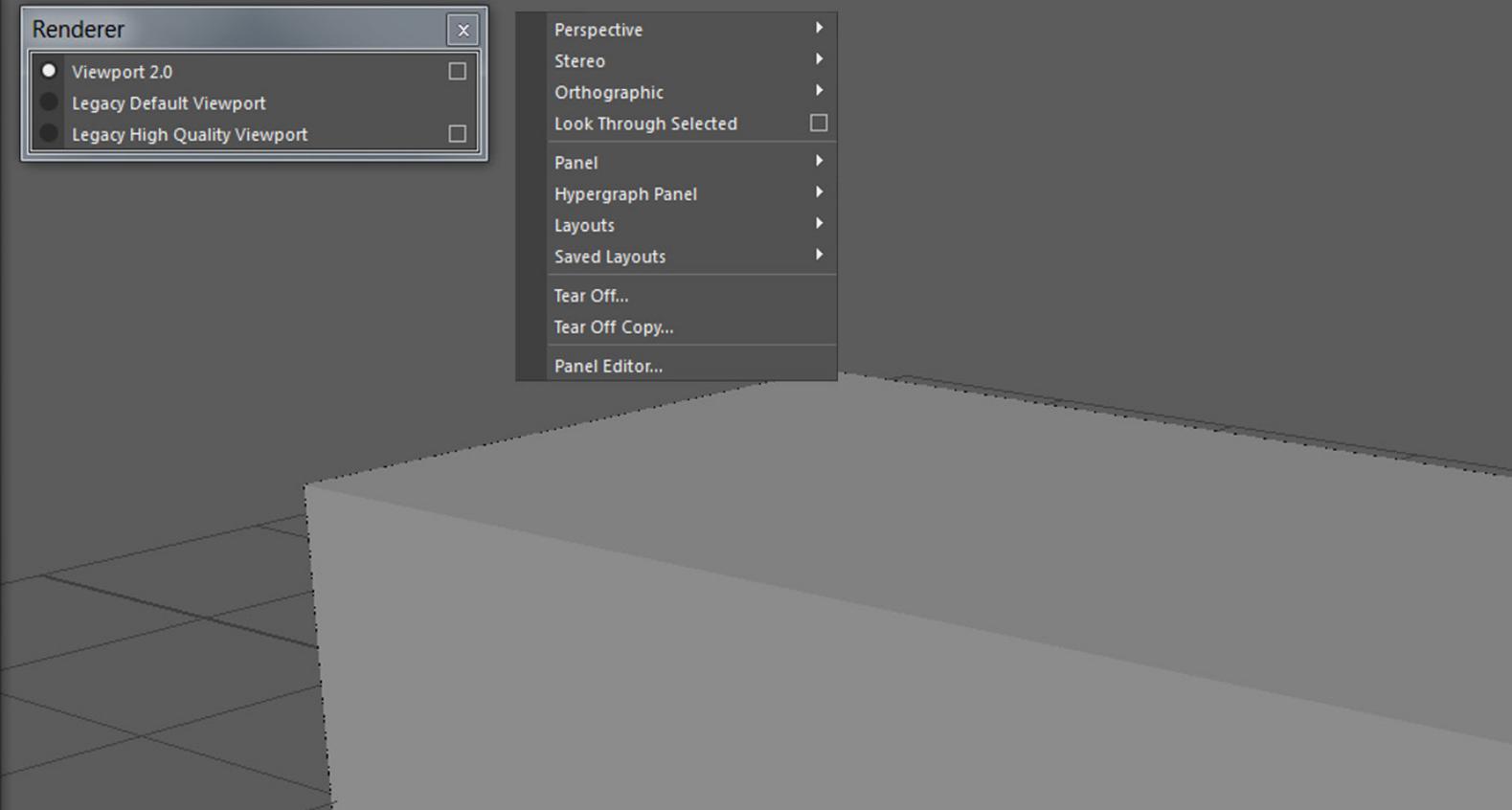
Panel Toolbar

HOTKEY

DISPLAY SMOOTH: 1, 2, 3

MOVE: w

ROTATE: e

SCALE: r

ZOOM: Alt + dx

PAN: Alt + cx

ROTATE: Alt + sx

EDIT PIVOT: d

SNAP TO GRID: x

DUPLICATE: Ctrl + d

DUPLICATE SPECIAL: Maiusc + d

CHANGE VIEW: Space

LAST COMMAND: g

ZOOM ON SELECTION: f

SWEEP ATTRIBUTE EDITOR/CHANNEL BOX: Ctrl + a

MESH

EDIT MESH

Vertex   Edge   Face

Triangle (tri)

N-Gon

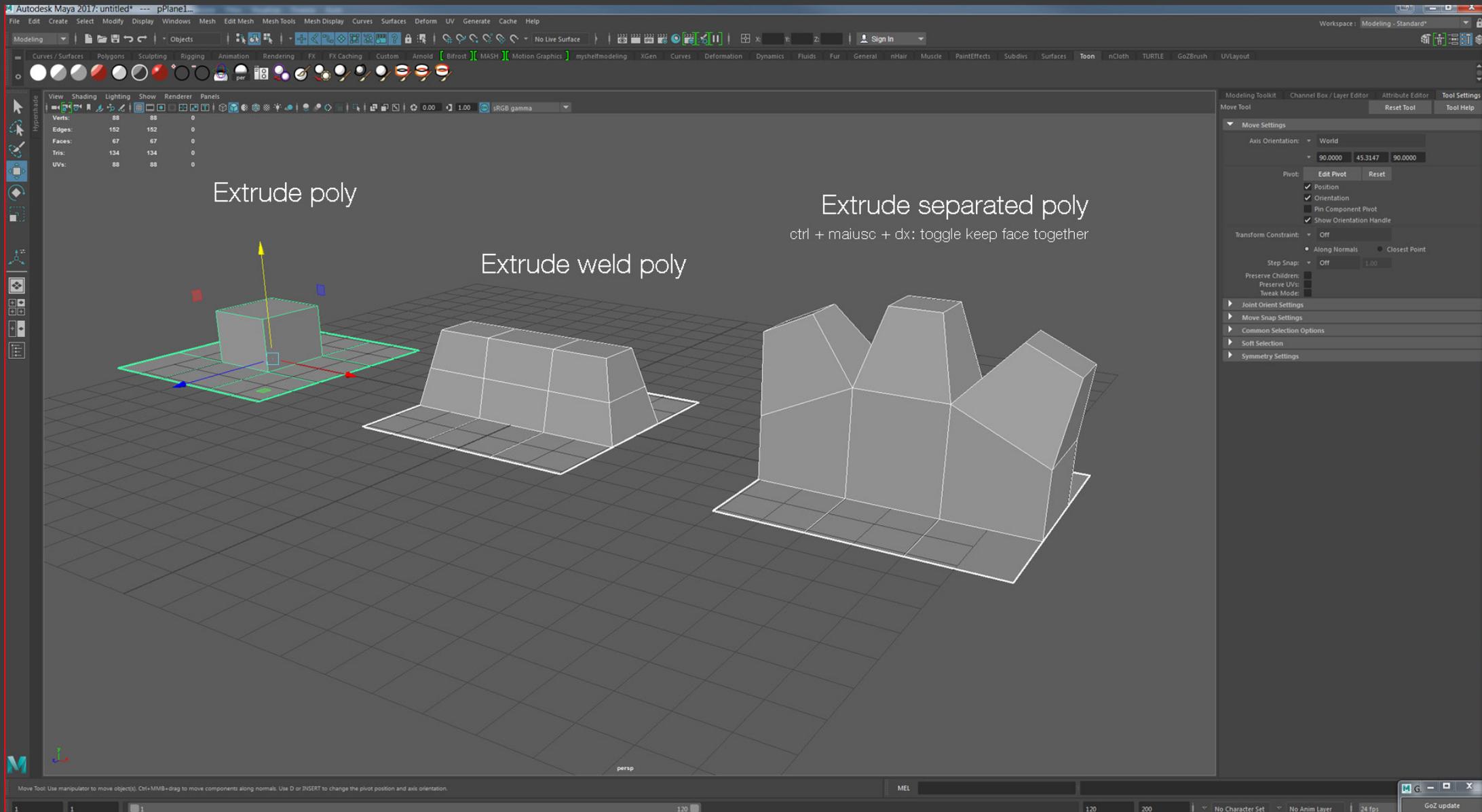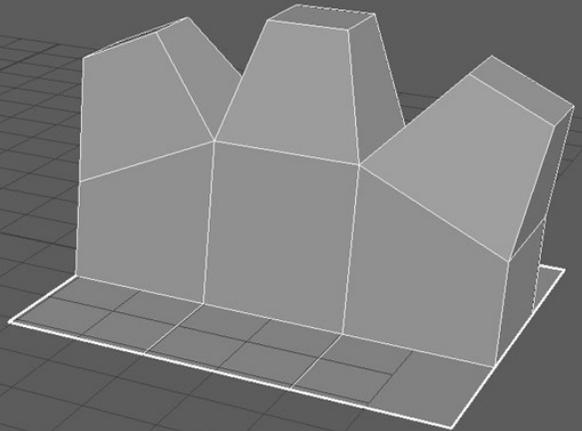Quadrangle (quad)

Blend

Extrude

Extrude poly

Extrude weld poly
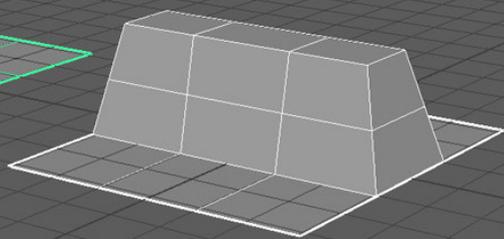
Extrude separated poly

ctrl + maiusc + dx: toggle keep face together

Mirror

To be Continue...