



EDUCATION FOR NEW TECHNOLOGIES "E_NET"



13. siječnja 2017., Slavonski Brod

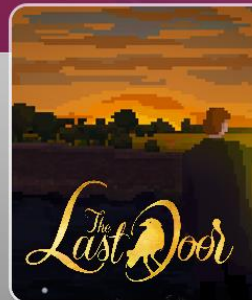
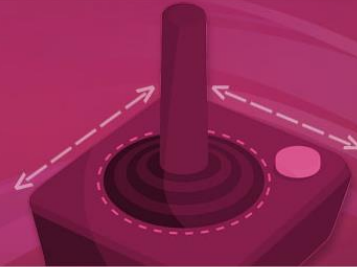


3D MODELLING



Independent video game studio

cooking your games



The Last Door

Free to play, Horror adventure. Developed episodically alongside the community, has won several prizes. Praise by players and press, frequently called an indie gem and "A love letter to H.P. Lovecraft"

[Play for free \(Browser\)](#)

[Special edition \(Steam\)](#)

Point-and-click | Psychological Horror

Got any **question?**

Email address:

Your question:

Send



INTRODUCTION TO 3D MODELLING



- 3D modelling
- 3D modelling- process of developing a mathematical representation of any three dimensional surface of an object via specialized software-> 3D model
- 3D model is often displayed as a two-dimensional image through a proces
- It can be created automatically or manually
- models represent a physical body using a collection of points in 3D space, connected by various geometric entities such as triangles, lines, curved surfaces

▪



- 3D models can be created by hand, algorithmically or scanned
- Model can be used as a graphic or printed using 3D printing devices
- Three way to represent a model:
 - Polygonal model: points in 3D space, called vertices, are connected by line segments to polygon mesh
 - Curve modeling: surfaces are defined by curves, which are influenced by weight control points. Increasing weight to the point will pull the curve closer to the point. Curve points include NURBS, splines, patches and geometric primitives
 - Digital sculpting: Oftenly used in past few years. There are three types of sculpting: displacement, volumetric and dynamic tessellation



- Complex materials such as blowing sand, clouds and liquid sprays are modeled with particle system
- Model representation:
 - solid: models are define volume of the object they represent-
E.g. rock
 - Sheel/boundary-models represent the surface, not it's volume-
E.g. eggshell
-



AUTODESK MAYA

- 3D computer graphics software used to create interactive 3D applications
- Developed in February 1998, 18 years ago
- Maya has been used to create graphics for many Pixar's and Disney's animated movies (Monsters Inc., The Matrix, Avatar, Finding Nemo, Frozen, Shrek, Ice Age, Madagascar, Kung Fu Panda, Minions), visual effects for television programs including Game of Thrones, The Walking Dead, South Park
- Maya is involved in creating the visual effects for video games, including Halo and Resident Evil



AUTODESK 3DS MAX



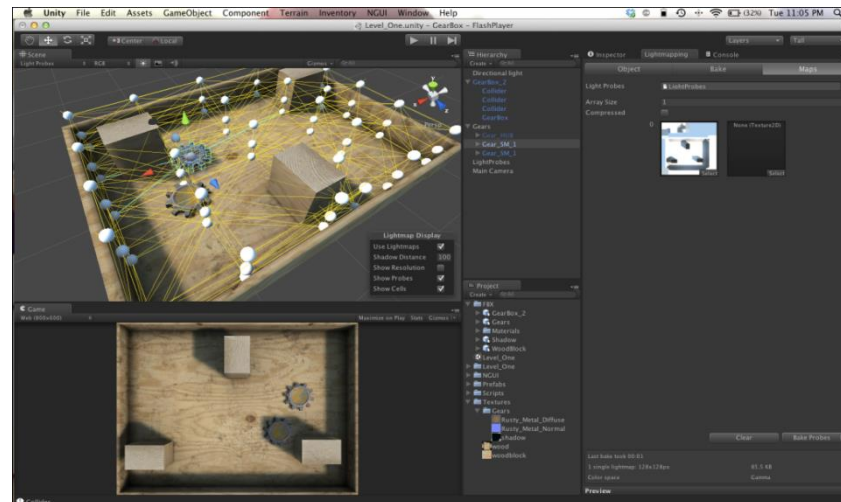
- professional 3D computer graphics program for making 3D animations, models, games and images
- developed and produced by Autodesk Media and Entertainment
- It has modelling capabilities and a flexible plugin architecture and can be used on the Microsoft Windows platform.
- It is frequently used by video game developers, many TV commercial studios and architectural visualization studios.
- It is also used for movie effects and movie pre-visualization.



UNITY (GAME ENGINE)



- cross-platform game engine developed by Unity Technologies
- It is used to develop 2D and 3D video games for PC, consoles, mobile devices and websites
- Released on June 8, 2005 (11 years ago)
- Popular games Temple run and Uberstrike are made with Unity program

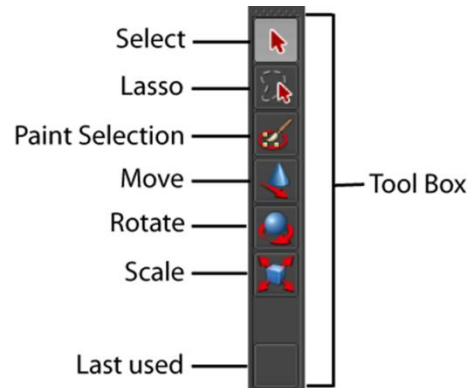


■ COMMANDS

- There are a lot of commands that can help us create different shapes or change view point of camera.
- Some of them are:
 - Alt + left button
 - Move/rotate view (rotate grid)
 - Space + left button + middle button
 - Zoom
 - Space button
 - Main menu
 - Create – Cameras – Create a camera
 - Create a camera
 - Create – Polygon primitives – E.g. cube
 - Enables creating shapes (E.g cube)
 - Drag the base on the grid, then put up for height
 - Creates shape (E.g cube)

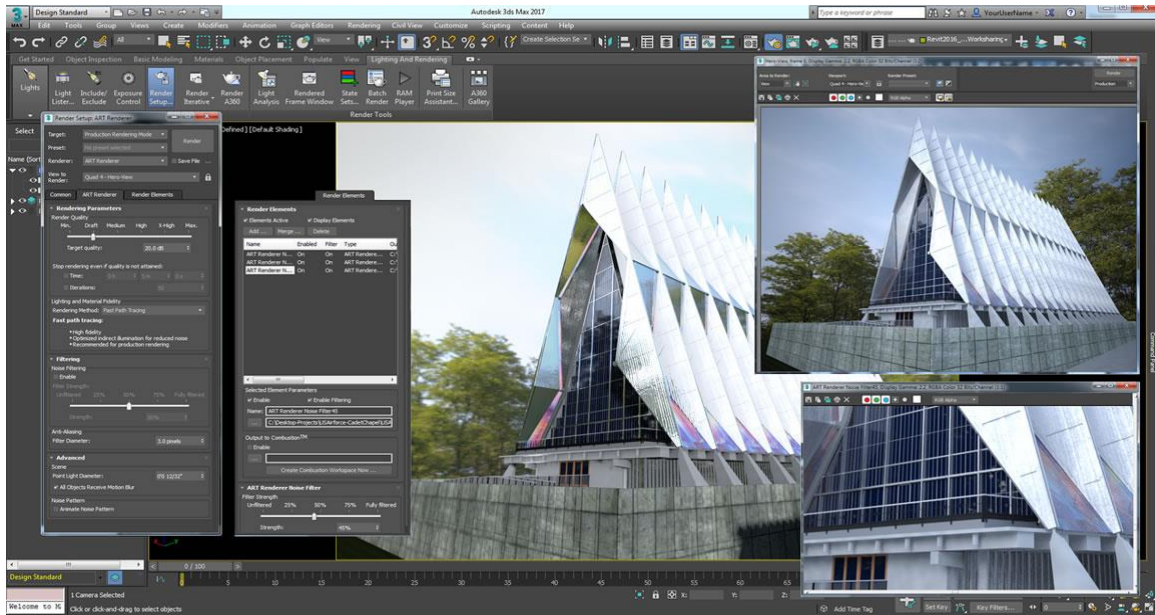
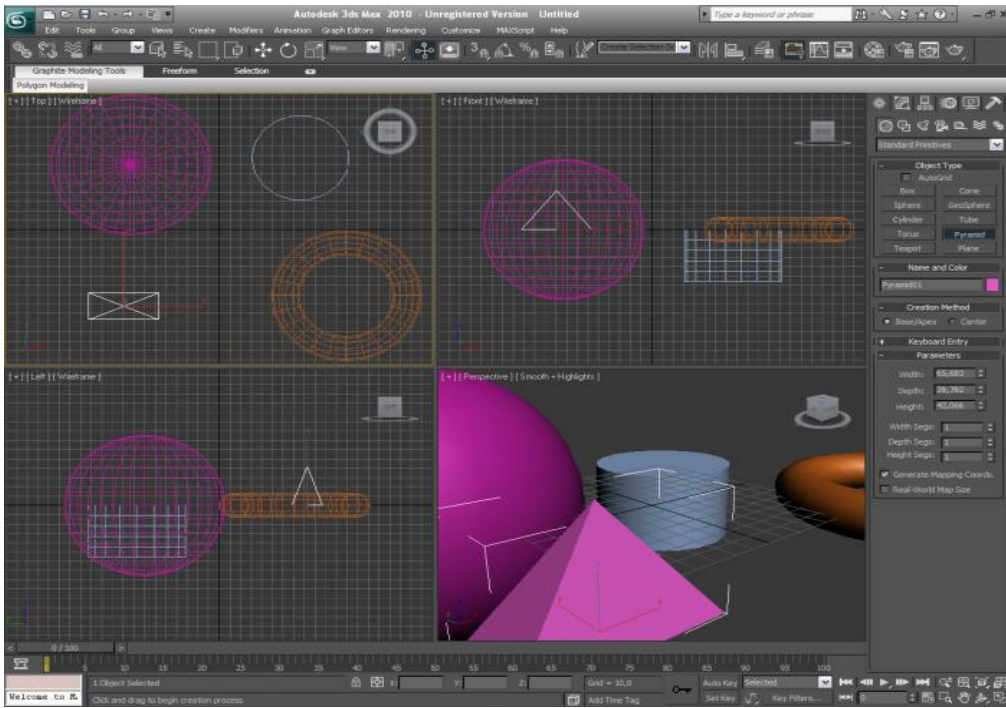


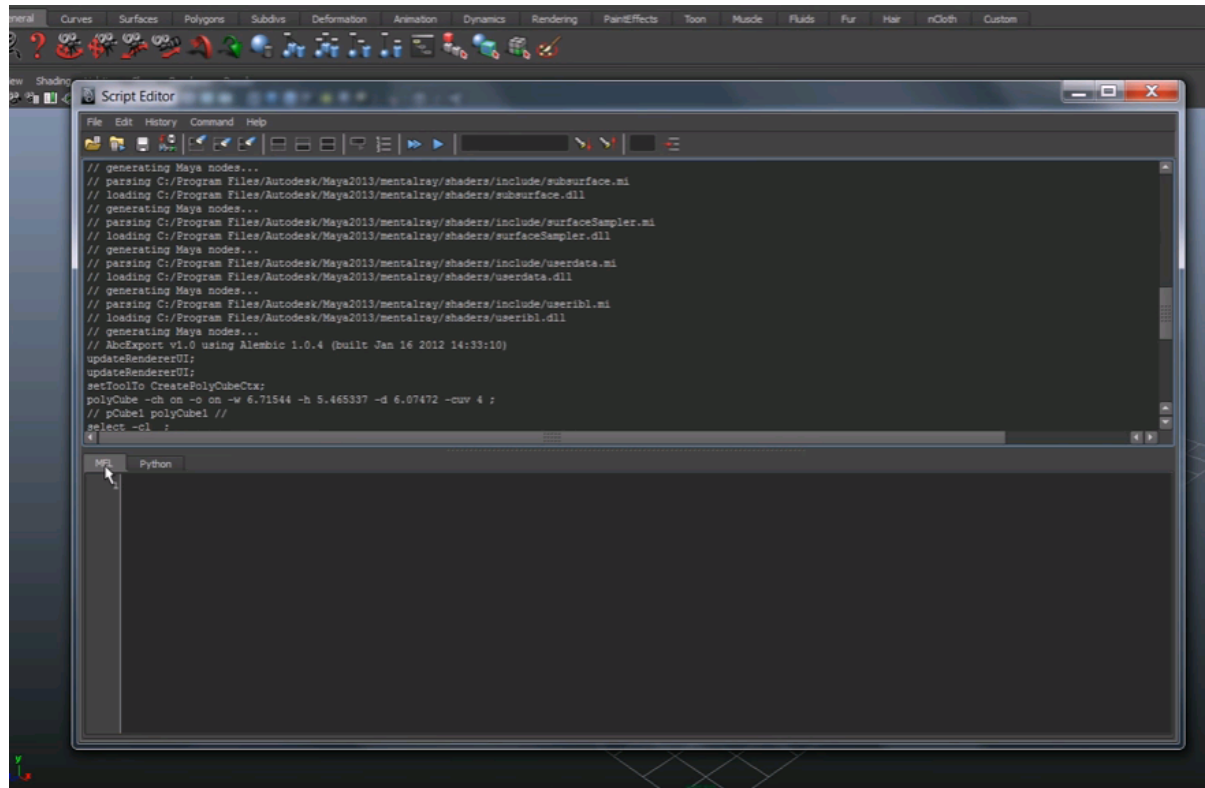
- We get red line on the timeline which is telling us that there is a key set.
- Select frame, then rotate model and press the play button-animation
- If we do a mistake we can go backwards and continue at some point.
- Lasso tool-selecting objects by drawing



- Single space bar tap-from 4 view to single perspective
- Range slider-allows you to change timeline (we chose how many numbers will be on timeline)

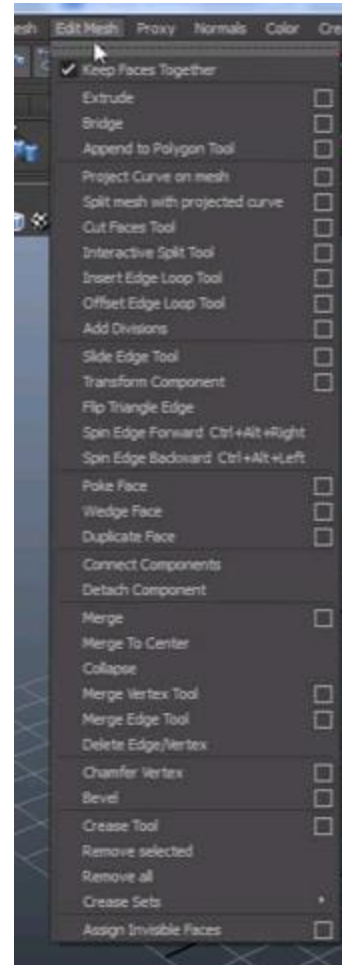
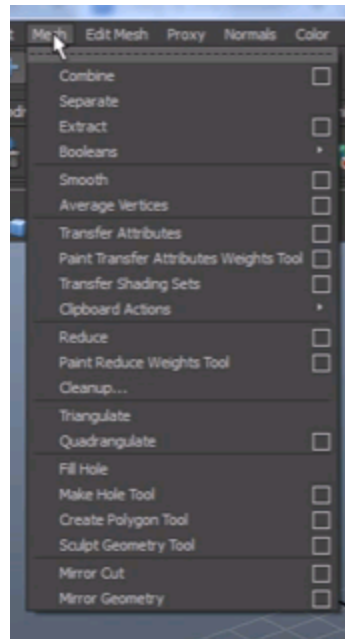






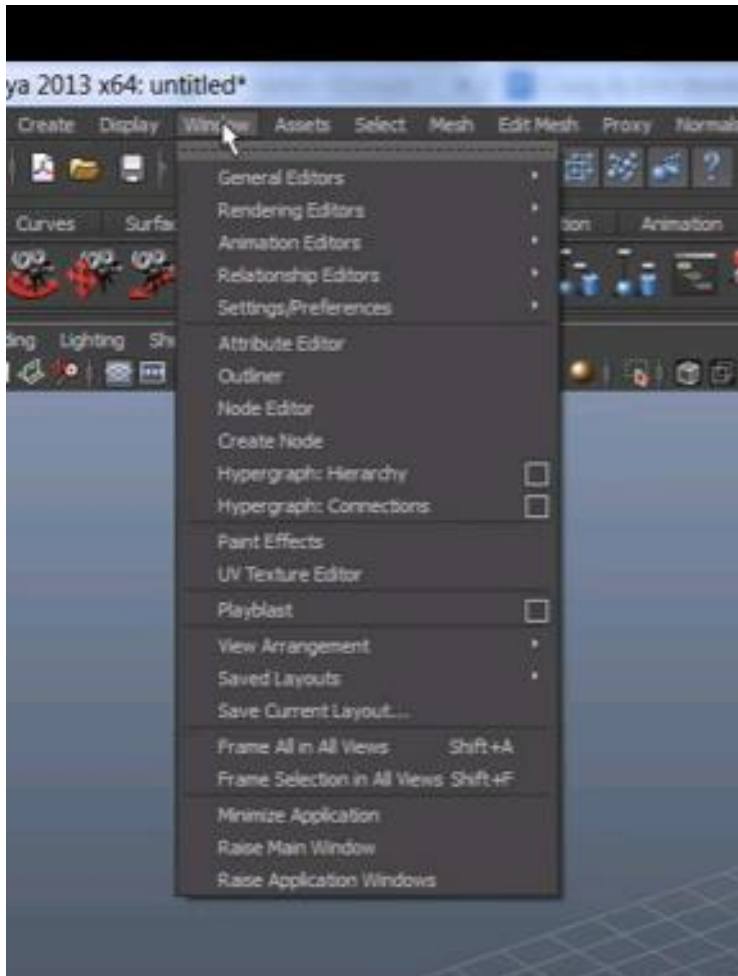
Upper part is where your history is showed and
bottom part is where you can type comands



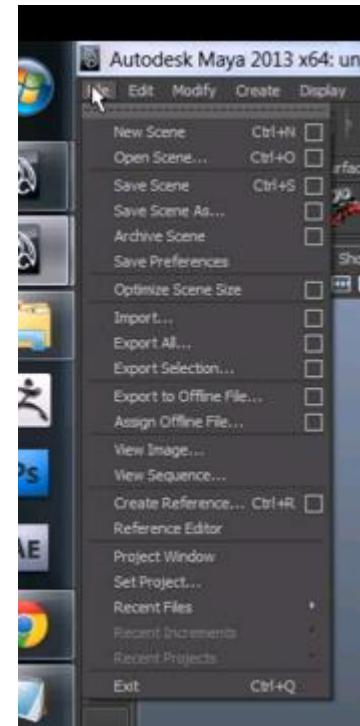


Match are used to manipulate polygonal objects that we created and edit mesh is actually for editing this things





A window menu brings up all kinds of graphic user interfaces that are used in Maya

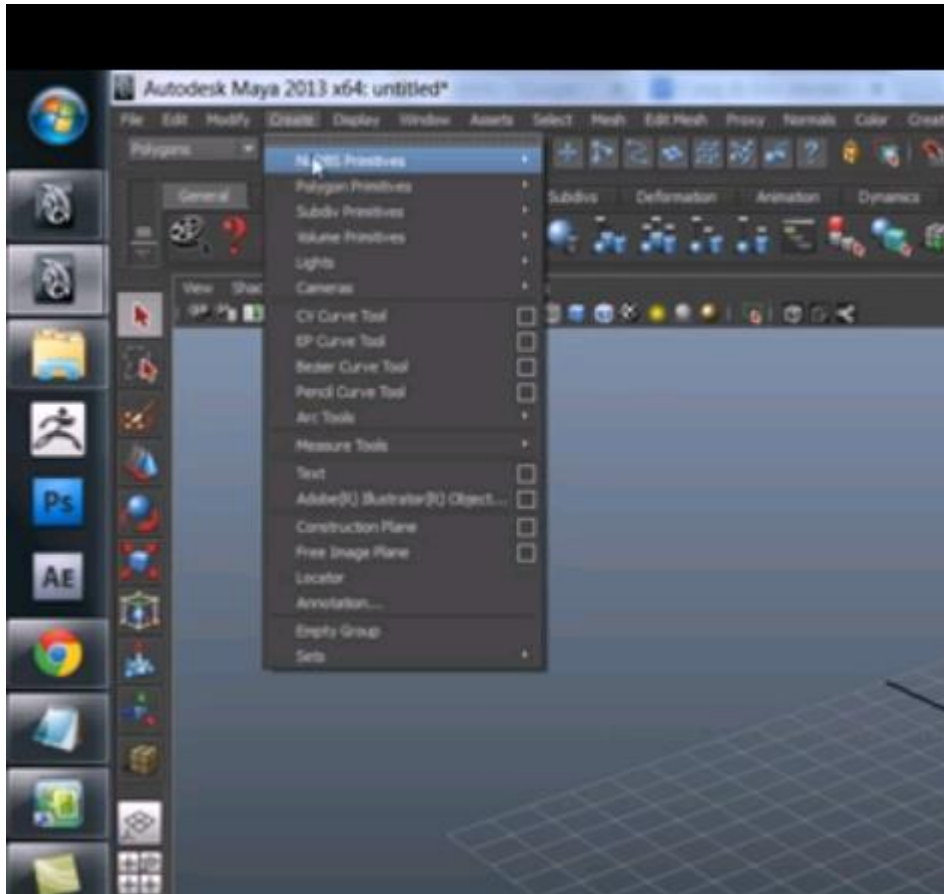


It was used for managing files (saving , opening, importing...)





E.NET



Here we create everything what goes to our scene.

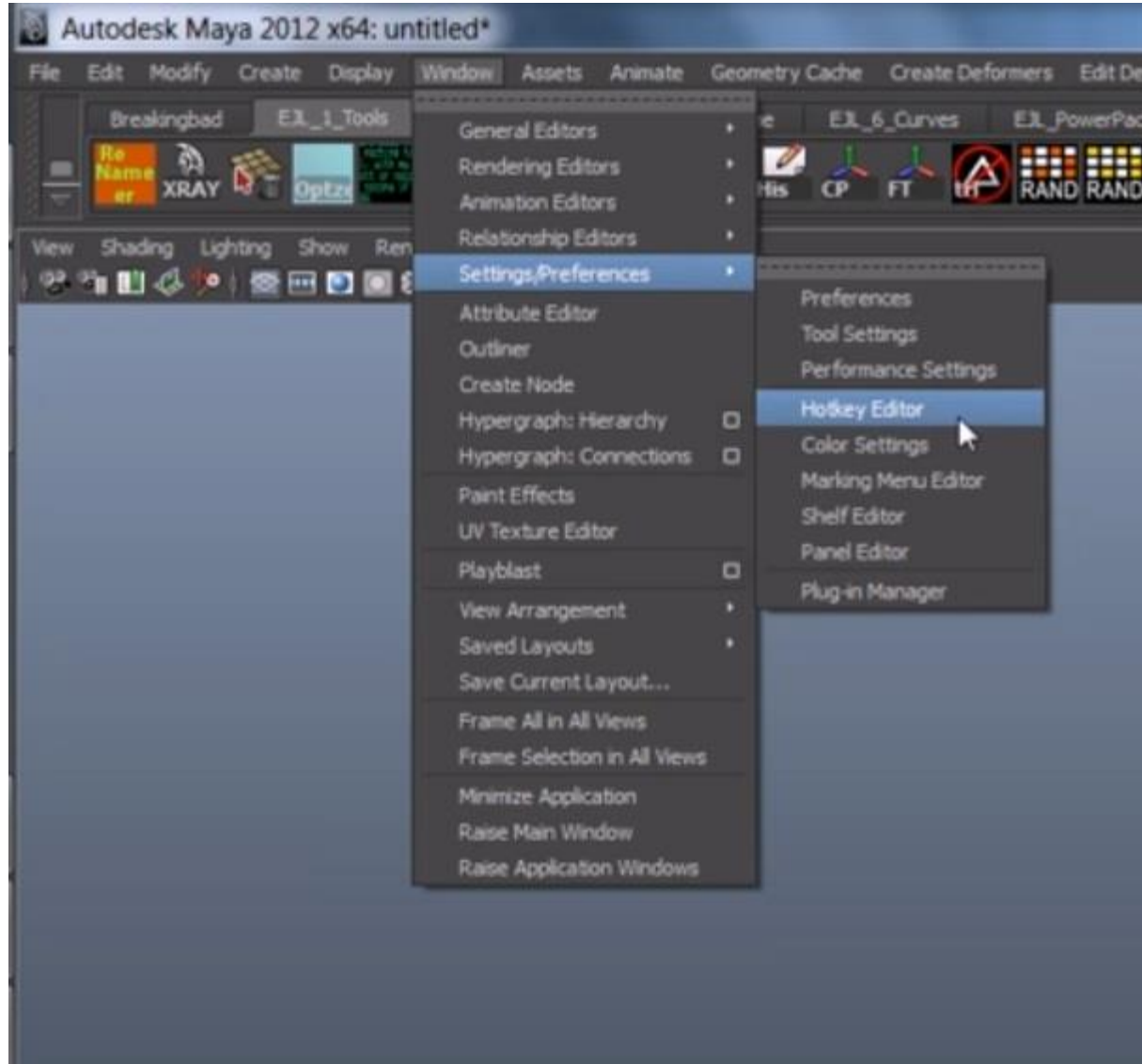


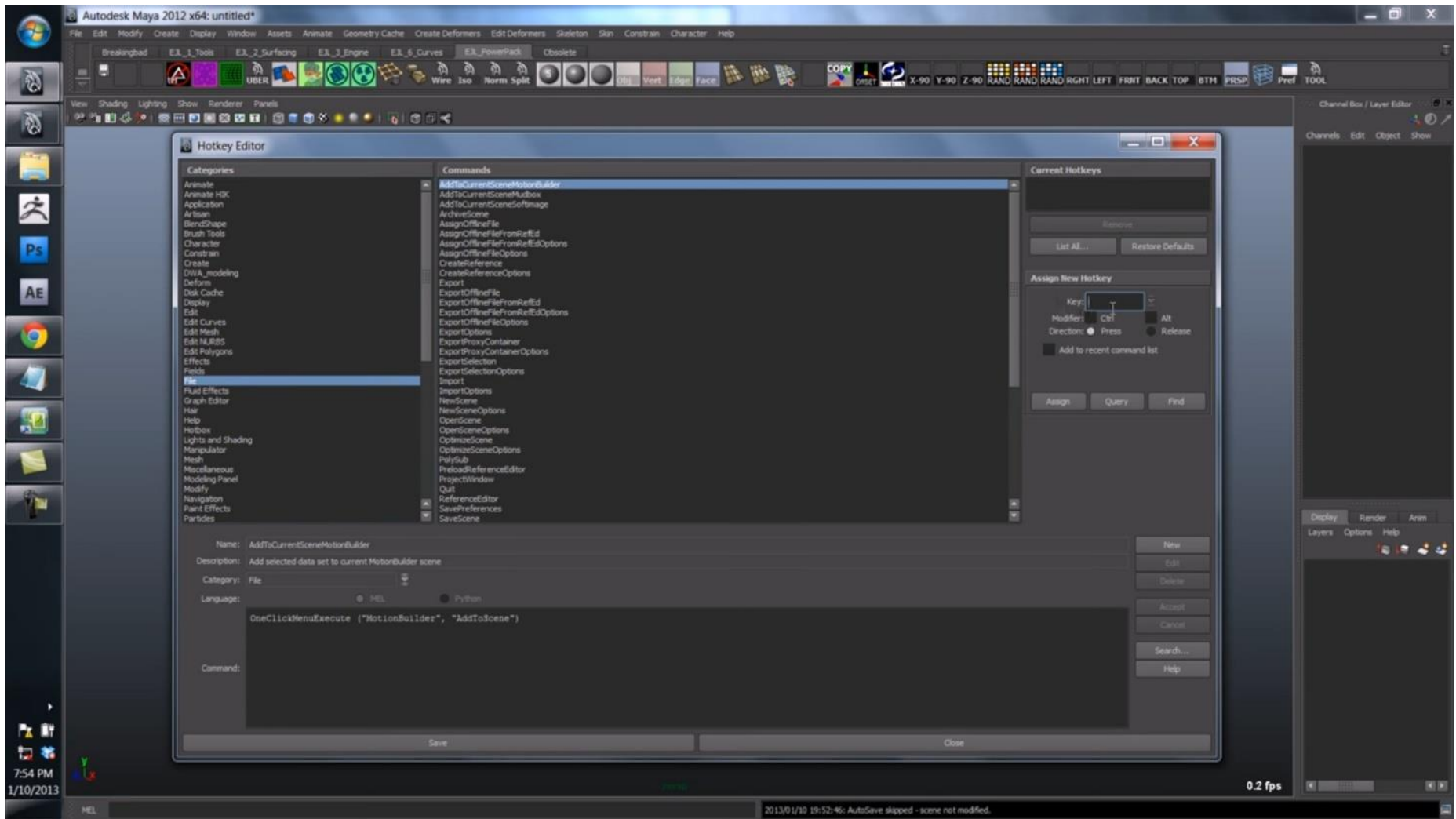
Display menu is for toggeling and viewing Maya scenes



Hotkeys

It's important to develop a system of working that is fast and efficient and hotkeys are a good way of doing so.





The hotkey editor will pop up and there you can choose different categories of tools as well as a specified command in that category. On the right of the box you can assign a hotkey you want.

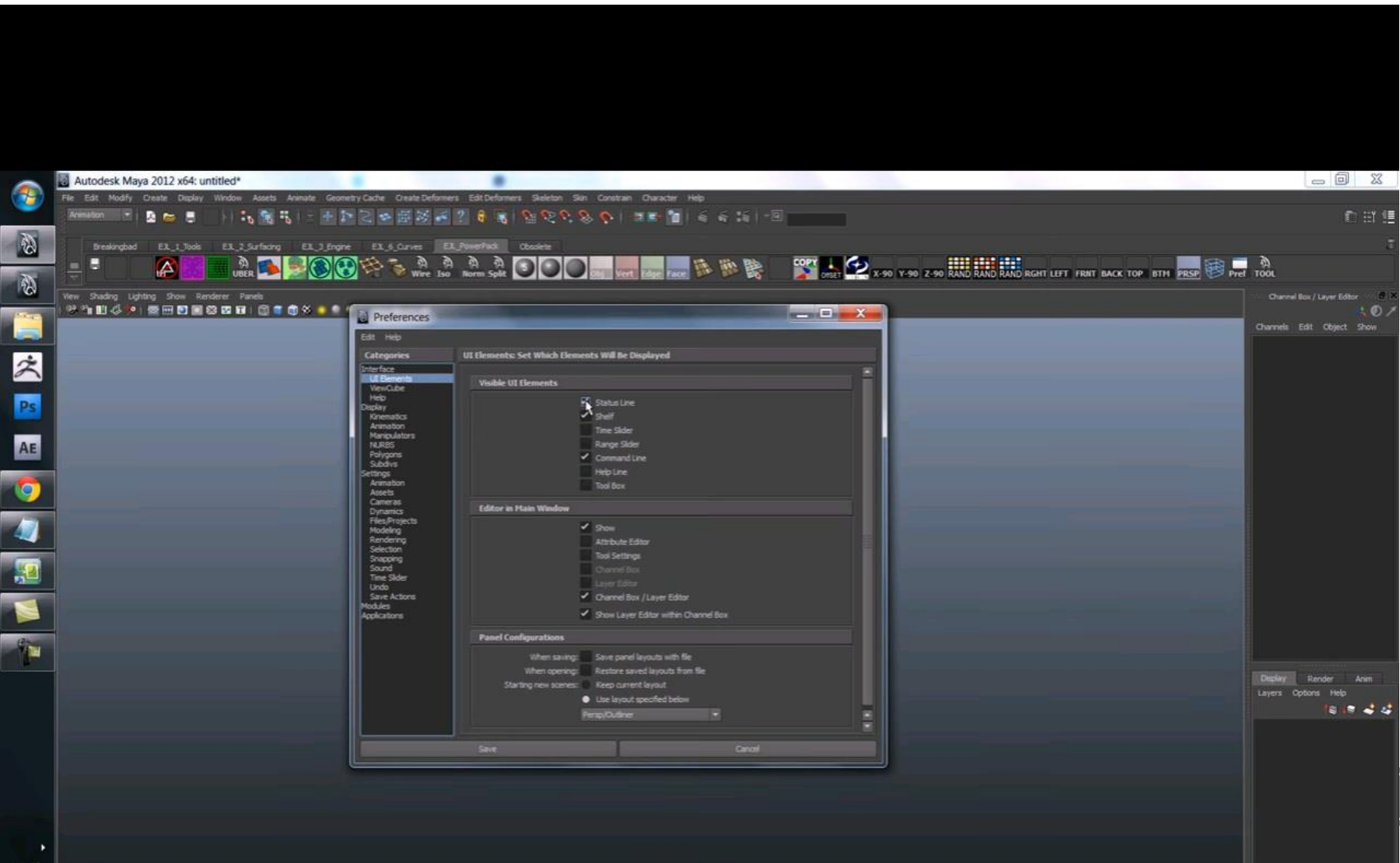


Preferences

Preferences are used to modify your workspace the way you like it.

Path to preferences box: Window>Preferences/Settings>Preferences

In this box you can edit your user interface settings, display, settings, modules and applications.



HVALA NA POZORNOSTI.



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