

# Introduction to Blender

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March 22, 2018

[github.com/hryniuk/blender-intro](https://github.com/hryniuk/blender-intro)

# Outline

- 1 Introduction
- 2 Interface and modes
- 3 Shortcuts and editing
- 4 Rendering

It won't cover texturing and animation

# About me and you

- About me
- About you
- Number of Blender copies?

## Goal

*Blender is not so hard to learn  
and worth trying*

# What's Blender

- **allows Python scripting** (next time)
- beside 3D modelling also video editing (nice example: rotoscoping), game engine and 2d animation (to be improved in Blender 2.8)
- free software
- alternative to e.g. 3DS Max and Maya

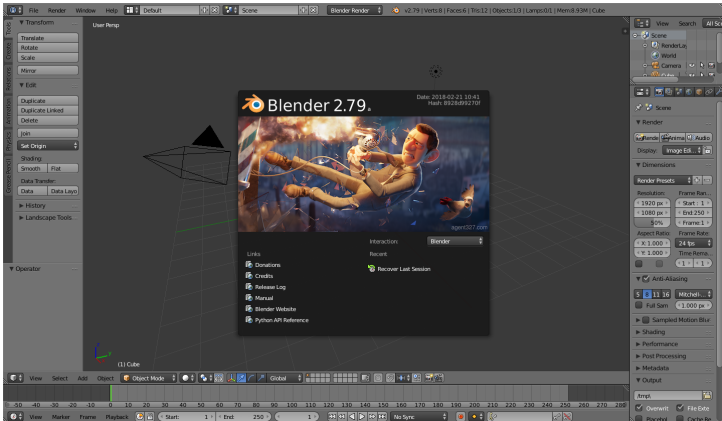


# Motivation

Two examples - how Blender may help you and what's possible:

- 3D Scientific Visualization with Blender - book and tutorials
- Agent 327: Operation Barbershop - “the Netherlands’ answer to James Bond”

# Blender interface



...may be a bit intimidating. We'll go through it in the minute.

## Three essential modes

- Object - object datablock edition
- Edit - parts of the mesh (curves and surfaces) edition
- Sculpt - mesh sculpting (more or less "area-based" mesh edition)



## First demo

*Let's get familiar with it*

# How we can edit objects?

In fact 12 shortcuts + mouse are enough to do most of the things efficiently. Starting from **object mode**:

- **Grab**
- **Scale**
- **Rotate**
- **Shift+A**(dd)
- **X** (Cut, of course)
- Select **All**

## How we can edit objects?

...and in edit mode (switch it with **TAB**):

- Add **F**ace
- **E**xtrude
- **B** - rectangle selection tool
- **C**yclic selection tool
- **K**nife
- **W** - edit mode popup menu (with operations like Subdivide, Smooth, Bevel and Symmetrize)

## How we can edit objects?

Beside that, one can also use modifiers available in a separate tab (under shortcuts too): Array, Boolean, Screw and Soldify to name a few

## Second demo

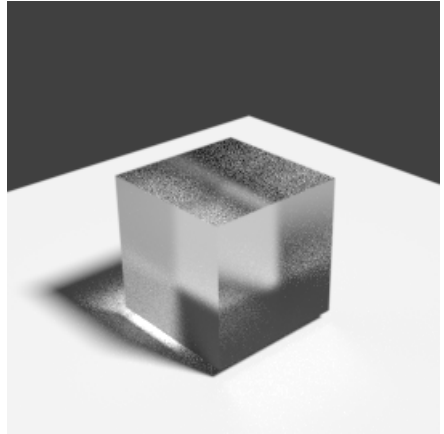
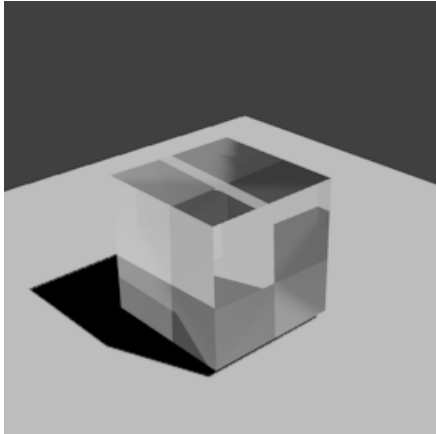
*Back to Blender*

# Rendering engines - how to get an image from the scene?

Just press **F12**. There are three rendering engines in Blender (you can get more with Add-ons):

- Blender Render - the oldest and the simplest
- Blender Game - for the Blender Game Engine; designed for interactive use
- **Cycles Render** - physically based production renderer for photorealistic images

# Blender Render vs Cycles Render



## Third demo

*Let's play with Cycles*



## Learning resources

- Blender Guru tutorials
- Blender.org tutorials
- Polski Kurs Blendera

# *Questions, comments and feedback*

*Thank You*