

Faculty of Mathematics and Physics  
Charles University in Prague  
11<sup>th</sup> May 2015



OpenGL 3.3 Unleashed!

# HW for Computer Graphics

Workshop 6 – OpenGL 3.3 Tutorial – Part 6

# Workshop 5

## Outline

1. Workshop Terms
2. *Resources* (permanent slide)
3. Assignments



# Workshop Terms

## Score-based Grading

Workshop Number	Tuesdays [C.ODD]					In-time bonus
	Topic	Assignment	Scoring	Bonus deadline		
1	24.2.2015 OpenGL 3.3 Tutorial 1	Sierpinsky Triangle	4	9.3.2015 23:59	2	
		Animated S. Triangle	5	9.3.2015 23:59	2	
		Cube Madness	6	9.3.2015 23:59	2	
2	10.3.2015 OpenGL 3.3 Tutorial 2	Camera Rotation	5	23.3.2015 23:59	2	
		Standard Shading	5	23.3.2015 23:59	2	
		Light Adjustments	5	23.3.2015 23:59	2	
		Model Animation	5	23.3.2015 23:59	2	
3	24.3.2015 OpenGL 3.3 Tutorial 3	Textured Cube	5	6.3.2015 23:59	2	
		VBO Indexing	10	6.3.2015 23:59	2	
4	7.4.2015 OpenGL 3.3 Tutorial 4	Normal Mapping	5	20.4.2015 23:59	2	
		Render To Texture	10	20.4.2015 23:59	2	
5	28.4.2015 OpenGL 3.3 Tutorial 5	Spot Light	10	11.5.2015 23:59	5	
		Shadow Acne	10	11.5.2015 23:59	5	
6	OpenGL 3.3 Tutorial 6 + 12.5.2015 Object Clicking	OpenGL Game	15	18.5.2015 23:59	2	
7	19.5.2015					
<b>SUM</b>			<b>100</b>		<b>34</b>	
<b>Total workshops</b>	<b>7</b>					
<b>Max Practice Score</b>	<b>134</b>					

Check the full version [HERE!](#)

# Resources

## Permanent Slide

- Lectures web
  - <http://cgg.mff.cuni.cz/~pepca/lectures/npgro19.current.cz.php>
- Workshops web
  - [http://pogamut.cuni.cz/pogamut-devel/doku.php?id=hardware\\_for\\_computer\\_graphics\\_2014-15\\_summer\\_term](http://pogamut.cuni.cz/pogamut-devel/doku.php?id=hardware_for_computer_graphics_2014-15_summer_term)
- OpenGL 3.3 Tutorials
  - <http://www.opengl-tutorial.org/>
- OpenGL 3.3 Reference
  - <https://www.opengl.org/sdk/docs/man3/>
- GLSL 3.3 Specification
  - <https://www.opengl.org/registry/doc/GLSLangSpec.3.30.6.pdf>
- OpenGL Superbible Book
  - <http://www.openglsuperbible.com/>
  - <http://www.openglsuperbible.com/previous-editions/>

# Assignment 06

## OpenGL Game

1. Follow the tutorial 18 – Billboards + Particles
  - <http://www.opengl-tutorial.org/>
2. And read Object Clicking
  - <http://www.opengl-tutorial.org/miscellaneous/clicking-on-objects/picking-with-an-opengl-hack/>
3. Use Tutorial 18 code (preferable Particles) as your base and:
  - Do not let mouse to rotate screen
  - Implement appearance of cubes with certain “healths”
  - Clicking on cubes will “damage them” and trigger particles
  - Can you keep the screen clean? (Not having more than 10 cubes?)
  - 20 (+5) points

# Assignment 06

## Send me an email!

- Email: [gemrot@gamedev.cuni.cz](mailto:gemrot@gamedev.cuni.cz)
- Subject: **HWGR – 2015 – Assignment 06**
- Content:
  - Assignment code (zipped tutorial project folder)
  - Screenshot(s)
  - *If you have trouble sending zip with "executable", just rename x.zip into x.zi\_;- ) to fool the almighty Google*
- Award:
  - Up to 10 (+ 2) points
  - Use correct email subject or face -2 penalty per mail!

# Questions?

I sense a soul in search of answers...

- Sadly, I'm far from OpenGL-experienced-guy
- But I will try to help you with any serious problem you might encounter during the workshops so don't hesitate to contact me!
  - Jakub Gemrot
    - [gemrot@gamedev.cuni.cz](mailto:gemrot@gamedev.cuni.cz)