

# JAKE'S DECLASSIFIED 125 SURVIVAL GUIDE

How to make awesome games  
and not go crazy

# ABOUT ME

Jake Maskiewicz – [jake@cs.ucsd.edu](mailto:jake@cs.ucsd.edu)

- 4<sup>th</sup> Year BS/MS Student
- Spring 2014 – Vein: Rivers of Blood
- Summer 2014 – Xbox: Team HEMI



# MY GOD! WHAT HAVE I DONE?

CSE 125 is Hard (But totally worth it)!

- One of the most work-intensive undergrad CS courses
- No Base Code, No right or wrong answers
- You get out what you put in
  - There's always something to do
  - The game is never done until it's done
- It's a group effort

GOOD NEWS



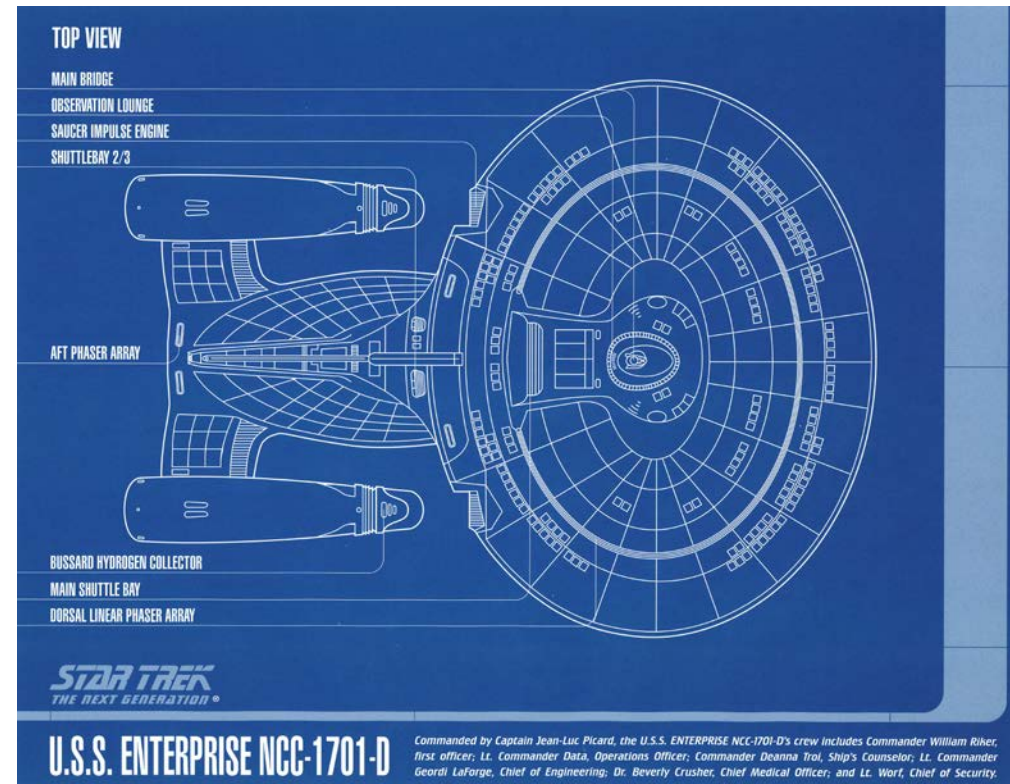
# LET'S GET IT STARTED

## Brainstorm

- Come up with a few ideas
- Discuss them, pros, cons
- Pick something everyone likes

## Think about

- Gameplay
- Presentation (15 Minutes)
- Ease of Development



# WE'RE ALL IN THIS TOGETHER

Split up Roles

- Graphics
- Networking
- Gameplay

Don't get married to one job

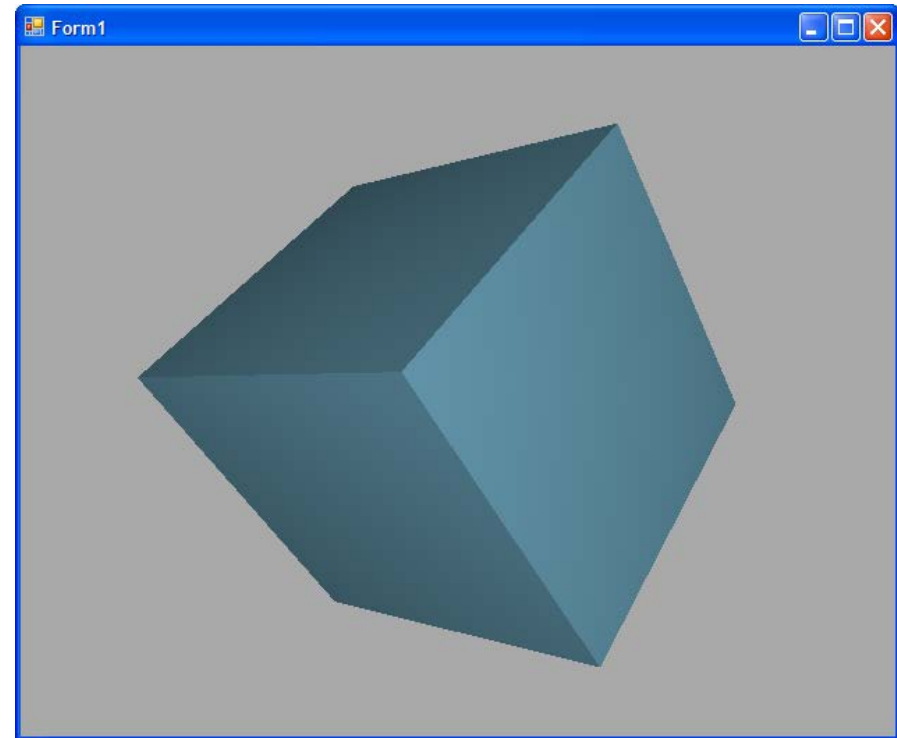
Pair programming is great!

# LIFE IN THE FAST LANE

Get the core working ASAP

- Render a primitive
- Network two clients
- Load a model

Ideally want fast iteration cycles, add things quickly





# TAKING CARE OF BUSINESS



## Version Control:

- Work Locally, store remotely
- Commit early, commit often
- ALWAYS have a stable branch, do changes in feature branches and merge them in

## Work in the Labs

- Schedule time when several team members can all work in the labs together



# THE SECRET

Have meetings often and keep them short

- Meet multiple times per week (in person)
- Discuss plans and issues
- Reassign jobs or even roles
- Have concrete work items after every meeting
- Don't get sidetracked
- Don't let anyone fall behind

# THE WORLD'S SIMPLEST GAME

```
while (true) {  
    update();  
    draw();  
}
```

# GRAPHICS

## DirectX

Windows Only (also Xbox, but that's not really an option)

Industry Standard

Lots of support and examples

Built into Visual Studio (great tools)

Does more than just graphics

Better Shader system (Compute!)

Quirky if you've taken 167

## OpenGL

Cross Platform

Wrappers for every language

You probably used it in 167/5

Only option for Mobile or Web

Lots of new attention with Steambox

# PRO TIPS

Use Vertex Buffers for speed

Pass by Reference

Use meaningful names and have meaningful comments

Use config files so you don't have to recompile for small tweaks

Code warning-free

Load everything when the game starts, free it when the game ends (don't call new in the game loop if you can help it)

Keep track of hacky fixes so you can go back and fix them later

# HELP! I'M STUCK!

Talk to your teammates

Talk to your classmates

Talk to me!

Talk to Geoff!

Lots of great online resources (graphics, collisions, game logic, asset management, etc.)





**HAVE FUN!**

You have awesome teammates and are working on an awesome project, make the most of it!

**GOOD LUCK!**