

#PROCJAM!

ASSIGNMENT 3 ~ CS 4150/5150 ~ FALL 2014

This is a group assignment. You may work with up to 3 people. You may work with people outside of the class. If you work in a group, you must state **clearly** in the assignment writeup what each person's contribution was. If you work in a group with non-class members, your contribution is **required** to be the PCG component of the project. **Groups with graduate students must use one of the extra "challenges" listed in the assignment description.**

Jam Ends: November 16, 11:59pm
Deadline: November 19, 11:59pm

DESCRIPTION

For this assignment, you will be contributing a game, tool, or other interactive piece for the procedural content generation game jam. You will have one full week to work on this project (including two weekends), and you will be working alongside people from all over the world. You must have something that works uploaded to the jam site, and you will be demo-ing this in class on Monday. However, you will then have three more days (plus late days, if you choose) to write up the assignment and do some final polishing/fixing before turning it in.

You will be turning in:

1. Full source code.
2. An assignment writeup, in PDF format.
3. A link to a short video that describes your project.
4. A readme text file containing: your name(s), the names of any people who helped you with the assignment, references to any external sources you used, complete instructions necessary for getting your code to work, and how many late days (if any) you wish to apply to the assignment. **And don't forget to include the link to your video!**

Only one team member is required to submit the assignment.

WHY #PROCJAM?

#procjam is the first procedural content generation-themed game jam. The event is being hosted in London, UK and livestreamed to the rest of the world.

It would be entirely possible to give a PCG assignment that doesn't involve #procjam, so why are we doing this? Because a game jam is exciting and gives you the chance to see what others are doing in the same period of time, forces you to push yourself a bit to complete a project in a short time frame,

and **most importantly** gives you the opportunity to interact with others from all around the world who are participating in the same event. There are a lot of people from the games industry and independent development communities participating in #procjam, this is a chance for you to get to know them a bit! Follow and participate in the twitter feed, I hope it will be enlightening, educational, and entertaining.

PROJECT REQUIREMENTS

The rules of #procjam are to “make something that makes something”. You may make a game, a tool, or some other interactive piece that deeply depends upon procedural content generation for the experience. For example, you could make a rogue-like dungeon exploration game with procedurally generated dungeons, or a tool that incorporates procedural generation and lets a user interact with it, or an interactive art piece with PCG elements. The only requirement for this portion is that you may **not** use a simple constructive method that just randomly puts together large, pre-authored pieces (e.g. the Robot Unicorn Attack approach). You may choose to use any of the algorithms and approaches we have talked about in class (rule-based, grammars, evolution, constraint solving). You must be able to talk about the approach you took and why you took it in the writeup (see below).

EXTRA CHALLENGES (REQUIRED FOR GRAD)

For a bit of added spice and challenge, you may want to incorporate one or more of the following challenges into your project. Graduate student teams are required to do one of these:

1. **Answer set programming for PCG.** Use ASP for your generator. You can use the clingo solver and associated language, which is available here: <http://potassco.sourceforge.net/>
2. **Multi-layer PCG.** Integrate two different PCG systems. For example, you might have one system that generates levels, and another system that generates characters, and you integrate them into a single game. Or you might have one system that makes fireworks, and another that makes city skylines, and there is some link between them. One system per in-class group member.
3. **Adaptive PCG.** Create a system that tries to adapt content to a particular player’s experience. I encourage you to think beyond just adapting for difficulty.
4. **Multiplayer PCG.** Create a multiplayer game where the PCG system meaningfully understands that there are two players (perhaps it gives them different content, or creates content based on what both players are doing).
5. **Game PCG.** Make something that makes something that makes a game.

PRESENTATION AND WRITEUP

In class on November 17th, each group will be given 5 minutes to present their #procjam submission to the class. This presentation will make up 10% of your assignment grade.

The writeup will be absolutely crucial to this assignment. Because the programming portion is so open-ended, the writeup will be what explains why you made the decisions you did, what you think was successful and what was a failure, and your overall reflection on the experience of participating in the game jam. Your writeup should include, in clearly labeled sections:

1. The objective of the project, what your goal was with this experience, what you hoped to achieve and how you planned to implement it
2. What you ended up creating, how it differed from your initial hopes, and how you actually implemented it
3. Why you chose the implementation you did, what you think the strengths and weaknesses are of that approach, and how you would do things differently
4. What you feel you learned from the experience of making your project
5. What you feel you learned from participating in the game jam – this portion should also include a reading reflection-style response to the talks that were given at the game jam

EVALUATION

This assignment will be graded according to the following rubric. **In order to earn partial credit, your code must compile. Code that does not compile will earn a failing grade on this assignment.**

Any evidence of copying or cheating on this assignment will result in a grade of zero and a report being filed with OSCCR.

	Excellent (9-10)	Good (6-8)	Not Good (3-5)	Poor (0-2)
Playable Experience (50%)	Good, bug-free implementation of the approach specified in the main writeup. Well-integrated into experience. Either excellent execution of a moderate difficulty project, or a strong attempt at a ambitious project.	Some bugs, but they aren't experience-breaking. Clear effort has been put into creating a project of appropriate difficulty for the class.	Lightweight use of PCG (e.g. just linking together pre-authored chunks purely randomly).	No PCG, code that is incomprehensible, work that does not meet the goals of the assignment.
Video (5%)	A well-produced showcase of what you created.	A video that shows some but not all of what you made.	A video that does not show what you did very well, but it's clear there was effort.	No video, or a video so poor that it does not show what you created.
Presentation (10%)	Clear, concise, engaging, adequately shows what you did and what you learned, and fits within the time limit.	Shows what you did but offers very little reflection on the process or the product. Exceeds or goes under the time limit.	Shows what you did but offers no reflection. Drastically exceeds or goes drastically under the time limit.	No or incomprehensible presentation.
Main Writeup (35%)	Excellent writeup that includes all required sections with very good explanation and clear language.	Includes all required parts, but some may be underdeveloped.	Does not include all required parts.	No writeup.

RESOURCES

1. #procjam tumblr, including links to videos and tutorials for getting started:
<http://procjam.tumblr.com/>
2. #procjam game submission site: <http://itch.io/jam/procjam>
3. Follow @procjam and the #procjam hashtag on Twitter.

SUBMISSION INSTRUCTIONS

Turn in a .zip file on Blackboard containing:

- All of your source code, including the original framework code.
- Your readme file, including a link to your video and a link to your #procjam submission
- Your project writeup.

Assignments must be turned in via Blackboard. **Emailed assignments will not be accepted.**