

Introduction to Computer Graphics Project Notes



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Why Are These Notes Here?

These notes are here to:

1. Help you setup and run your projects
2. Help you get everything in the right format for submission
3. Help you get a **better grade** by doing all of this correctly!
better grade!
better grade!
better grade!
better grade!



Running Your Projects

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- As this is a computer graphics course, you need to find *somewhere* to run your programs that have graphics display hardware on them. **flip is not one of these places.**
- If you don't have access to your own graphics system, then you can use what we have at OSU. **On-campus users** will have access to Windows and Linux systems on-campus.
- **Off-campus users** can access our Citrix system. See the next slide.
- As of right now, the situation with what buildings, rooms, or equipment we will all have safe access to still somewhat fluid due to Covid-19. Stay tuned.



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Compiling and Running Your Projects via Citrix

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Citrix allows you to get remote desktop access to other systems. To put Citrix on your own machine, go to <https://citrix.com/downloads>, select your operating system, and click on **Download**

Click **Add Account** and enter your ONID email (e.g., jgraphics@oregonstate.edu)

Click on **Continue** to configure your account

Enter your ONID email and password in the dialog box, and click **Logon**

When you run Citrix, click on the **Desktops** icon at the top

Go to: <https://it.engineering.oregonstate.edu/citrix/> for more information



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If you are on your own **Windows system**, you can get Visual Studio 2019 by going to:

<https://azureforeducation.microsoft.com/devtools>

Click the blue **Sign In** button on the right.

Login using your onid@oregonstate.edu username and password.

Once you have Visual Studio, download the file **Sample2019.zip**, unzip it on your system, and double-click on the **.sln** file



If you are on your own **Linux system**, compile using g++:

The typical g++ compile sequence is:

```
g++ -o proj proj.cpp -lGL -lm
```

Note that the second character in the 4-character sequence “-lGL” is an ell, i.e., a lower-case L. This is how you link in the **OpenGL** library.

Note that the second character in the 3-character sequence “-lm” is an ell, i.e., a lower-case L. This is how you link in the **math** library.



Download the file **SampleLinux.tar**, un-tar it on your system (tar -xvf SampleLinux.tar), and then type **make**

If you are on your own **Apple Mac system**, compile using g++:

The typical g++ compile sequence is:

```
g++ -framework OpenGL -framework GLUT sample.cpp -o sample -Wno-deprecated
```

Download the file **SampleMac.tar**, un-tar it on your system (tar -xvf SampleMac.tar), and then type **make**



Your project turnins will all be electronic.

Your project turnins will be done at <http://engr.oregonstate.edu/teach> and will consist of:

1. Source files of everything (.cpp, .vert, .frag)
2. A report in PDF format. ***You can .zip everything else if you want, but leave the PDF as a separate file.***

Electronic submissions are due at 23:59:59 on the listed due date.

Your PDF report will need to include:

1. A title area on the first page: your name, email, project number, and project name.
2. A couple of screen captures to show your program in action
3. A web link to a video showing your program in action

Your project will be graded and the score posted to Canvas.



If you did not get full credit, you will receive a Canvas note telling you why.



Project Video

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In order to get your project graded, you need to make a video of your program in action:

- You can use any video-capture tool you want
- If you have never done this before, I recommend **Kaltura**, for which OSU has a site license for you to use
- You can get a Kaltura noteset here:
<http://cs.oregonstate.edu/~mjb/cs557/Handouts/kaltura.1pp.pdf>
- If you use Kaltura, be sure your video's permissions are set to **Unlisted**.
You need to proactively do this -- this is not what the default setting is.
- If the permission isn't set to **Unlisted**, then we won't be able to see it and we can't grade your project
- Don't make your video overly long! Show what we need to see to grade it. Do not walk us through any of your code!!
- Be sure that you include the web-link to your video in your PDF report!

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Simple Ways to Lose Points on Your Project

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- You didn't put your name on the title page of the PDF report (-5)
- You submitted some other file type for your report other than a PDF (-5)
- You buried your PDF in a .zip file instead of leaving it outside (-5)
- You didn't put a link to your video in your PDF report (-5)
- You didn't change your Kaltura video permission to *Unlisted* (-5)

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Projects are due at 23:59:59 on the listed due date, with the following exception:

Each of you has been granted **five** Bonus Days, which are no-questions-asked one-day project extensions which may be applied to any project, subject to the following rules:

1. No more than **2** Bonus Days may be applied to any one project
2. Weekends and holidays count as “days late”
3. Really what I do is look at your turnin *date*. Your turnin date minus the due date is how many “days late” your project is.

To use one or more Bonus Days on a given project:

- You don't need to let me know ahead of time.
- Turn-in promptness is measured **by date, not by time**. Don't worry if *teach* tells you it's late because it is between 23:30:01 and 23:59:59. But, **after 23:59:59** on the posted due date, **it's late!**
- *teach* has been instructed to accept your turn-in, no matter when you do it.
- I will run a script to identify the projects that will have Bonus Days deducted
- I keep my own spreadsheet of who has used what Bonus Days. If you are not sure how many you have left, send me an email and ask.