

# Computer Graphics Shaders 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!**

**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 have no other options, you should be able to access one of our limited Citrix systems.
- Read on for more details on compiling and running these programs.



## Running Your Projects on Windows

- Get the **ShaderSampleWindows.zip** file from our Class Resources Page
- Un-zip it
- Double-click on the .sln file
- Select **Build**→**Clean Solution**
- Select **Build**→**Build Sample**
- Select **Debug**→**Start Without Debugging**



## Compiling and Running Your Projects on Windows via Citrix

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- You will need to be given special access to do this. Let me know and I will request it for you.
- Warning: our use of Citrix is very limited. Only a small number of people will be able to do it at a time. This is not an optimal solution because, if other people are currently using this small number of machines, you will be locked out until they are done.
- 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](mailto: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

## Getting Visual Studio for your own Windows System

If you are on your own Windows system, you can get Visual Studio 2022 by going to:  
<https://azureforeducation.microsoft.com/devtools>  
and following the instructions.

The account you want to enter is your **onid@oregonstate.edu** account.

The version you should get is ***Visual Studio Enterprise 2022***.

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



## Compiling and Running on Your own Linux System

- Get the **ShaderSampleLinux.tar** file
- Un-tar it: **tar -xvf SampleLinux.tar**
- Then **cd ShaderSampleLinux**
- Then **make sample**
- Then **./sample**

**If your system does not have GLEW or GLUT, do this:**

```
sudo apt-get install libglut-dev  
sudo apt-get install libglew-dev
```



## Compiling and Running on Your own Mac System

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Get the **ShaderSampleMac.tar** file

Un-tar it: **tar -xvf SampleMac.tar**

Then **cd ShaderSampleMac**

Then **make sample**

Then **./sample**





## Project Turn-in Procedures

Your project turnins will all be electronic.

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


1. Source files of everything (.cpp, .vert, .frag, .geom)
2. A report in PDF format.
3. **Don't zip anything. Just submit it all as separate files.**

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

Your PDF report will 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 **that we can access** showing your program in action

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

 If you did not get full credit, there will be a Canvas grade note telling you why.

## Project Video

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 our 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.* The best way to do this is to go to <http://media.oregonstate.edu> , then:
  1. Login
  2. Go to My Media
  3. Click on the video
  4. Using the **ACTIONS** pull-down menu on the right, select **Publish**
  5. Select **Unlisted**
  6. Select Save
- 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 your code!!** If we want to see it, we will go look at it.
- Be sure that you include the web-link to your video in your PDF report!

## Silly Ways to Lose Points on Your Project

- 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)



## Bonus Days

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

Each of you has been granted **5** Bonus Days, which are no-questions-asked one-day extensions which may be applied to any project, subject to the following rules:

- No more than **2** Bonus Days may be applied to any one project
- Weekends and holidays count as “days late”
- Don’t worry if *teach* tells you it’s late because it is between 23:30:00 and 23:59:59. But, *after* 23:59:59 on the posted due date, **it’s late!**
- 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.
- Bonus Days cannot be applied to tests or quizzes
- Bonus Days cannot be applied to the Final Project Proposal, the Final Project, or the CS 557 Paper Project

If you turn in a project three or more days late, your score is a zero.

If you turn in a project late and you don't have enough Bonus Days left to cover it, your score is a zero.

You don't need to ask me, or even tell me, that you are using Bonus Days. Just turn your project in two-or-less days late. I have a script that will check your turn-in date and deduct the Bonus Days.

It is up to you to track how many Bonus Days you have used up. However, I also keep a spreadsheet of your Bonus Days. If you lose track, send me an email and ask.

