



- Eclipse

- Integrated Development Environment (IDE)
- Version:
- can use the gcc compiler and gdb debugger
 - and Makefiles
- Requires a Java Runtime Environment

<http://www.eclipse.org/downloads>

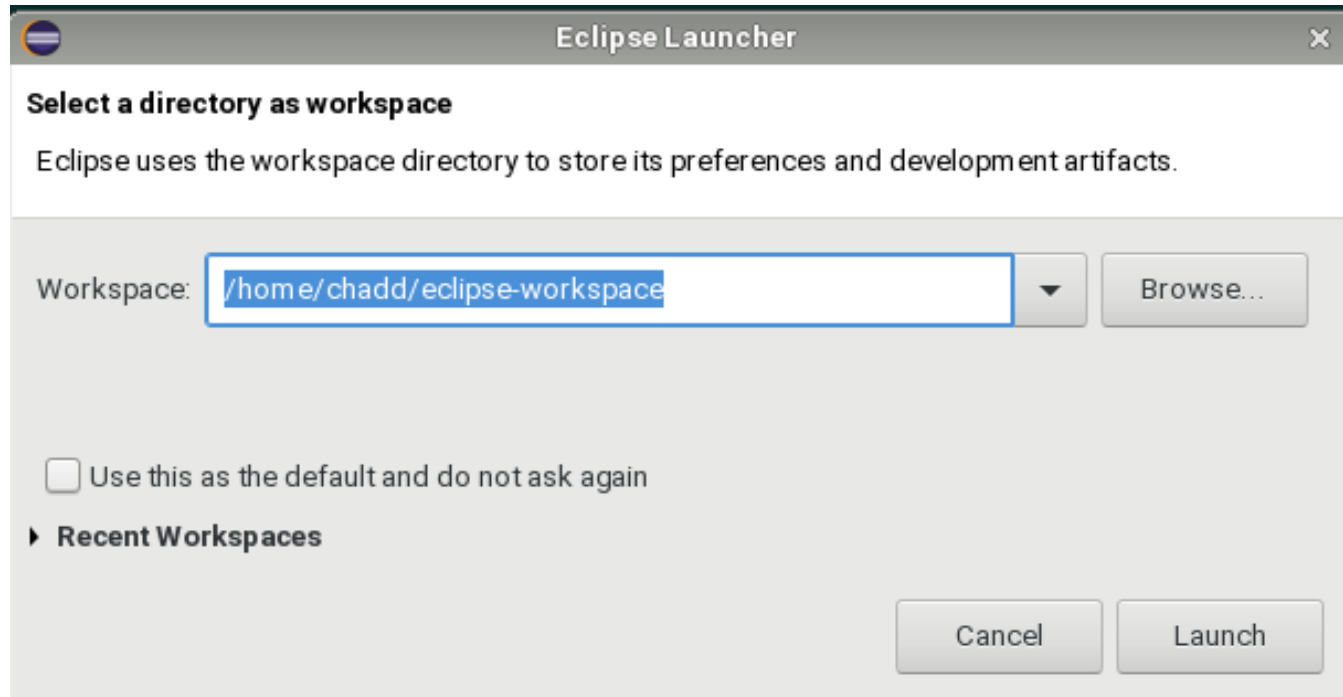
- Eclipse IDE for C/C++ Linux Developers

<http://www.eclipse.org/cdt/>

DANGER!

- Does Eclipse run on Windows?
 - Yes
- Can I write C code on Windows?
 - Yes, with the Cygwin suite installed
- Can I write C code on Windows for this class?
 - No

Workspace Launcher



Welcome 

Welcome to the Eclipse IDE for C/C++ Developers

**Tutorial: Import an existing project**

A guided walk-through how to import an existing project

**Review IDE configuration settings**

Review the IDE's most fiercely contested preferences

**Create a new C/C++ project**

Create a new Eclipse project for C/C++ source code

**Import a project with a working Makefile**

Open the New item wizard

**Checkout projects from Git**

Checkout Eclipse projects hosted in a Git repository

**Import existing projects**

Import existing Eclipse projects from the filesystem or archive

**Overview**

Get an overview of the features

**Tutorials**

Go through tutorials

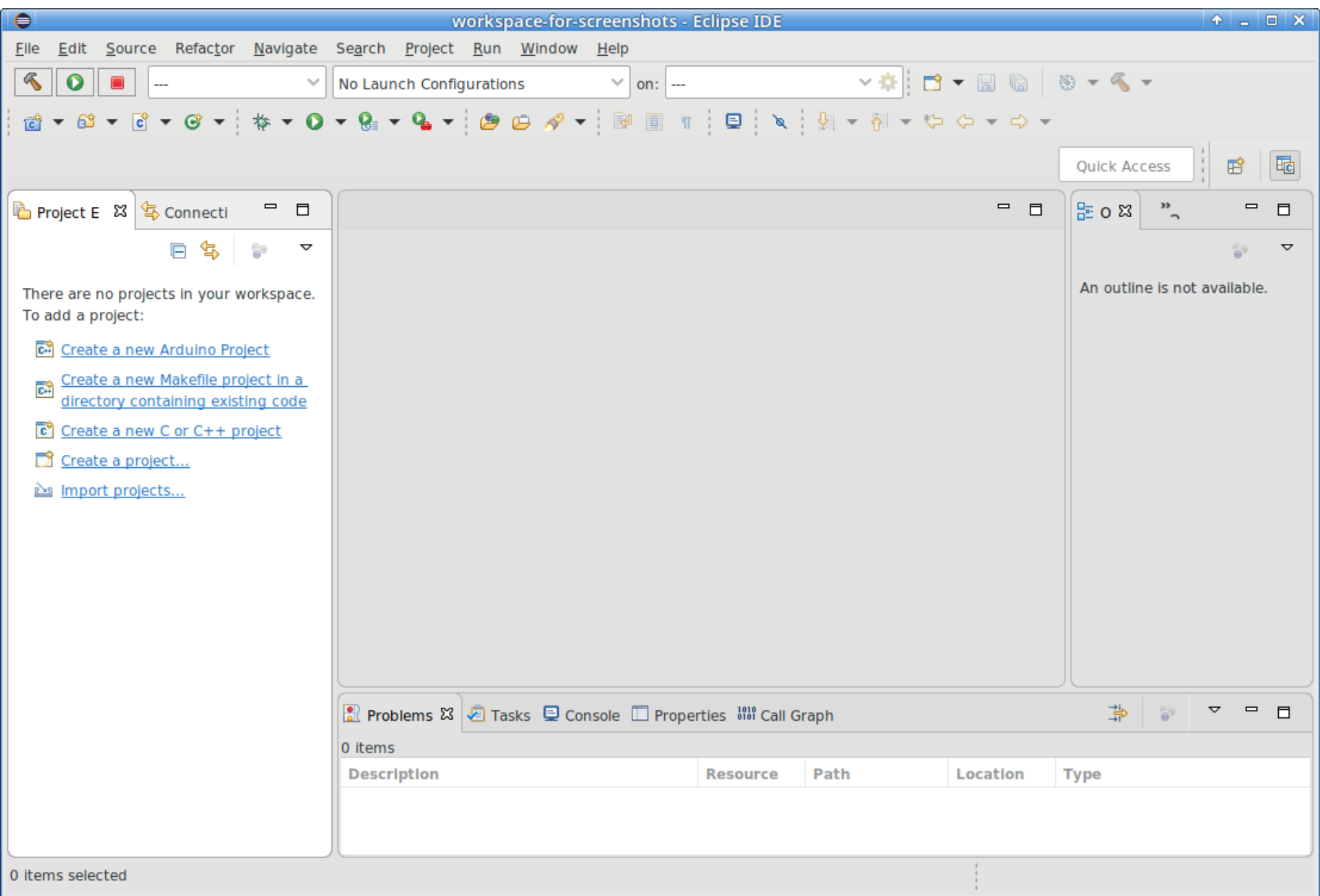
**Samples**

Try out the samples

**What's New**

Find out what is new

☒ Always show Welcome at start up



There are no projects in your workspace.
To add a project:

- [Create a new Arduino Project](#)
- [Create a new Makefile project in a directory containing existing code](#)
- [Create a new C or C++ project](#)
- [Create a project...](#)
- [Import projects...](#)

An outline is not available.

0 items

Description	Resource	Path	Location	Type
-------------	----------	------	----------	------

--	--	--	--	--

Create Project

File Edit Source Refactor Navigate Search Project Run Window Help

New Shift+Alt+N ▶

Open File...

Open Projects from File System...

Recent Files ▶

Close Ctrl+W

Close All Shift+Ctrl+W

Save Ctrl+S

Save As...

Save All Shift+Ctrl+S

Revert

Move...

Rename... F2

Refresh F5

Convert Line Delimiters To ▶

Print... Ctrl+P

Import...

Export...

Properties Alt+Enter

Switch Workspace ▶

Restart

Exit

Arduino Project

Makefile Project with Existing Code

C/C++ Project

Project...

Convert to a C/C++ Autotools Project

Convert to a C/C++ Project (Adds C/C++ Nature)

Source Folder

Folder

Source File

Header File

File from Template

Class

Task

Example...

Other... Ctrl+N

Quick Access

An outline is not available.

Problems Tasks Console Properties Call Graph

0 items

Description

Resource

Path

Location

Type

Templates for New C/C++ Project

All

Arduino

CMake

Make

Meson

Qt



Arduino C++ Sketch

A single C++ file with empty `setup()` and `loop()` functions.



C Managed Build

A C Project build using the CDT's managed build system.



C++ Managed Build

A C++ Project build using the CDT's managed build system.



CMake Project

A CMake project with a Hello World executable to get started.



Empty or Existing CMake Project

Create a CMake project with no files. Can be used to create one over existing content.



Empty or Existing Meson Project

Create a Meson project with no files. Can be used to create one over existing content.



Makefile Project

(Experimental) Create a new project that builds with the 'make' build tool using CDT's new Core Build System.



Meson Project

A Meson project with a Hello World executable to get started.



Qt C++/QML Application



< Back

Next >

Cancel

Finish

C Project
Create C project of selected type

Project name:

☒ Use default location

Location:

Choose file system:

Project type:

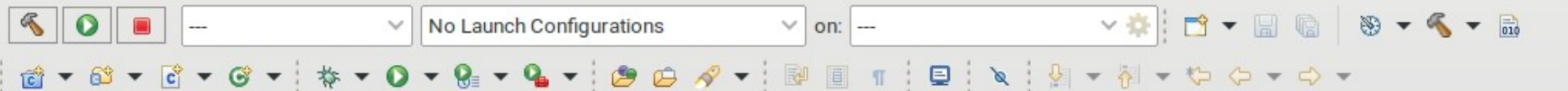
- ▶ GNU Autotools
- ▼ Executable
 - Empty Project
 - Hello World ANSI C Project
- ▶ Shared Library
- ▶ Static Library
- ▼ Makefile project
 - Empty Project

Toolchains:

- Other Toolchain --
- Cross GCC
- GNU Autotools Toolchain
- Linux GCC

☒ Show project types and toolchains only if they are supported on the platform

File Edit Source Refactor Navigate Search Project Run Window Help



Quick Access



An outline is not available.

Problems Tasks Console Properties Call Graph

0 items

Description	Resource	Path	Location	Type

Quick Access

Project Connect

CS300_TestProject

Includes

New

Go Into

Open in New Window

Show in Local Terminal

Copy Ctrl+C

Paste Ctrl+V

Delete

Remove from Context

Source

Move...

Rename... F2

Import...

Export...

Build Project

Clean Project

Refresh F5

Close Project

Close Unrelated Project

Build Targets

Index

Build Configurations

Project...

File

File from Template

Folder

Class

Header File

Source File

Source Folder

C/C++ Project

Convert to a C/C++ Project (Adds C/C++ Nature)

Example...

Other... Ctrl+N

Properties Call Graph

Resource	Path	Location	Type
----------	------	----------	------

New Source Folder

Source folder

 Exclusion patterns of 1 source folder(s) updated to solve nesting.

Project name:

Folder name:

☒ Update exclusion filters in other source folders to solve nesting.



New Source Folder

Source folder

 Exclusion patterns of 1 source folder(s) updated to solve nesting.

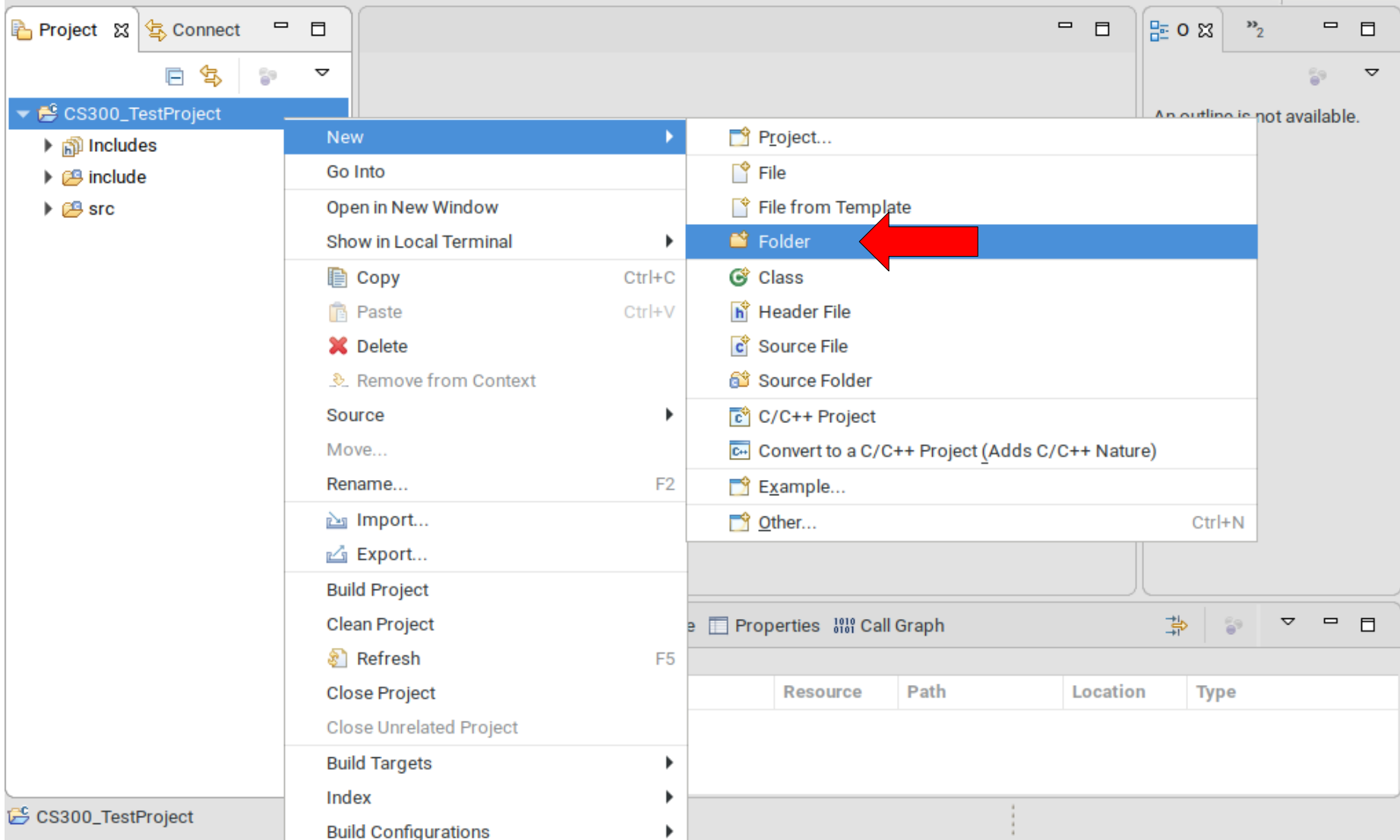
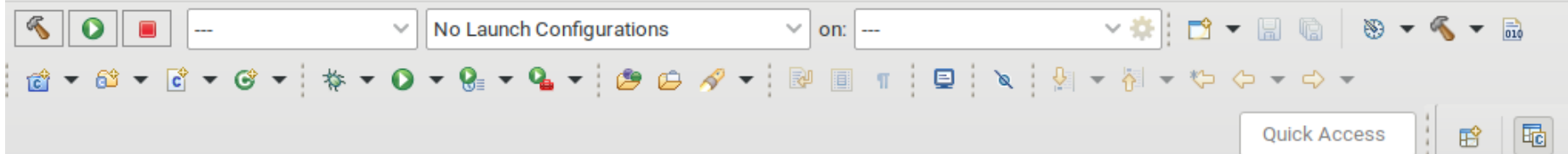
Project name:

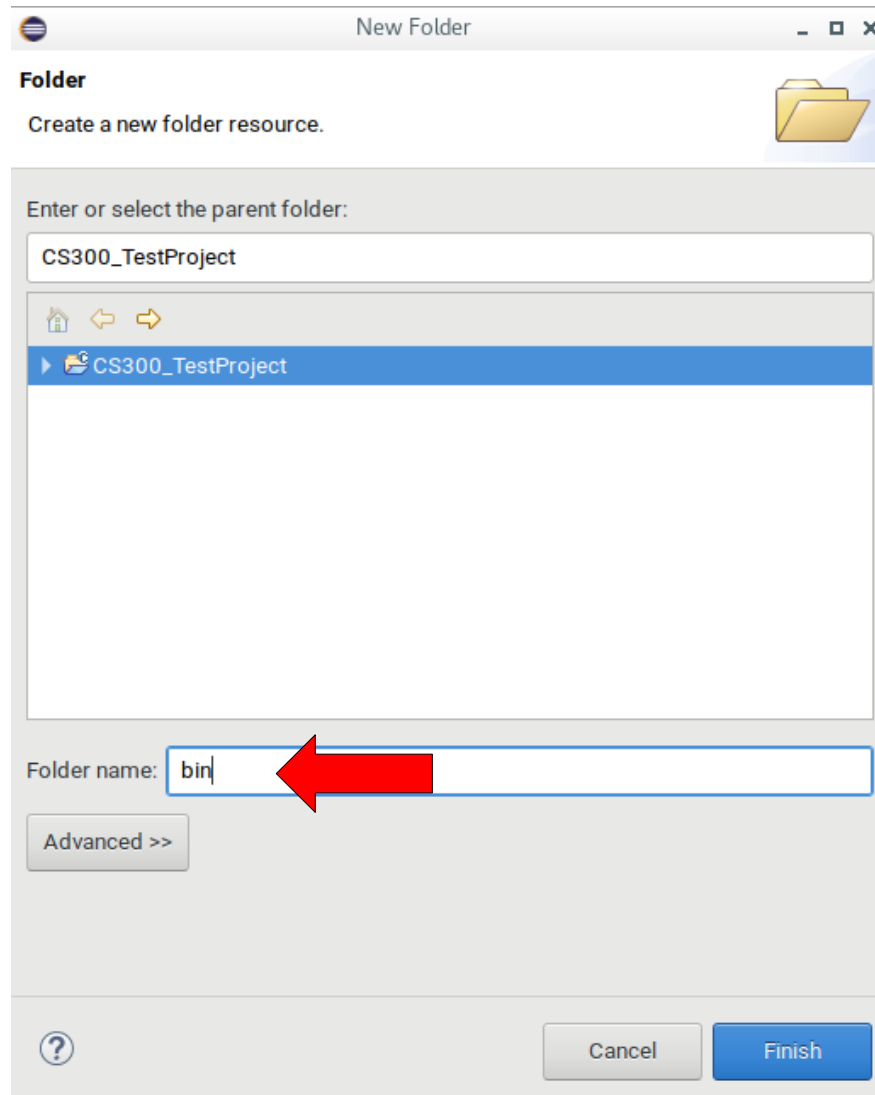
Folder name:

☒ Update exclusion filters in other source folders to solve nesting.



File Edit Source Refactor Navigate Search Project Run Window Help





Note: bin is special and might get automatically created later in the semester!



--- No Launch Configurations on: ---

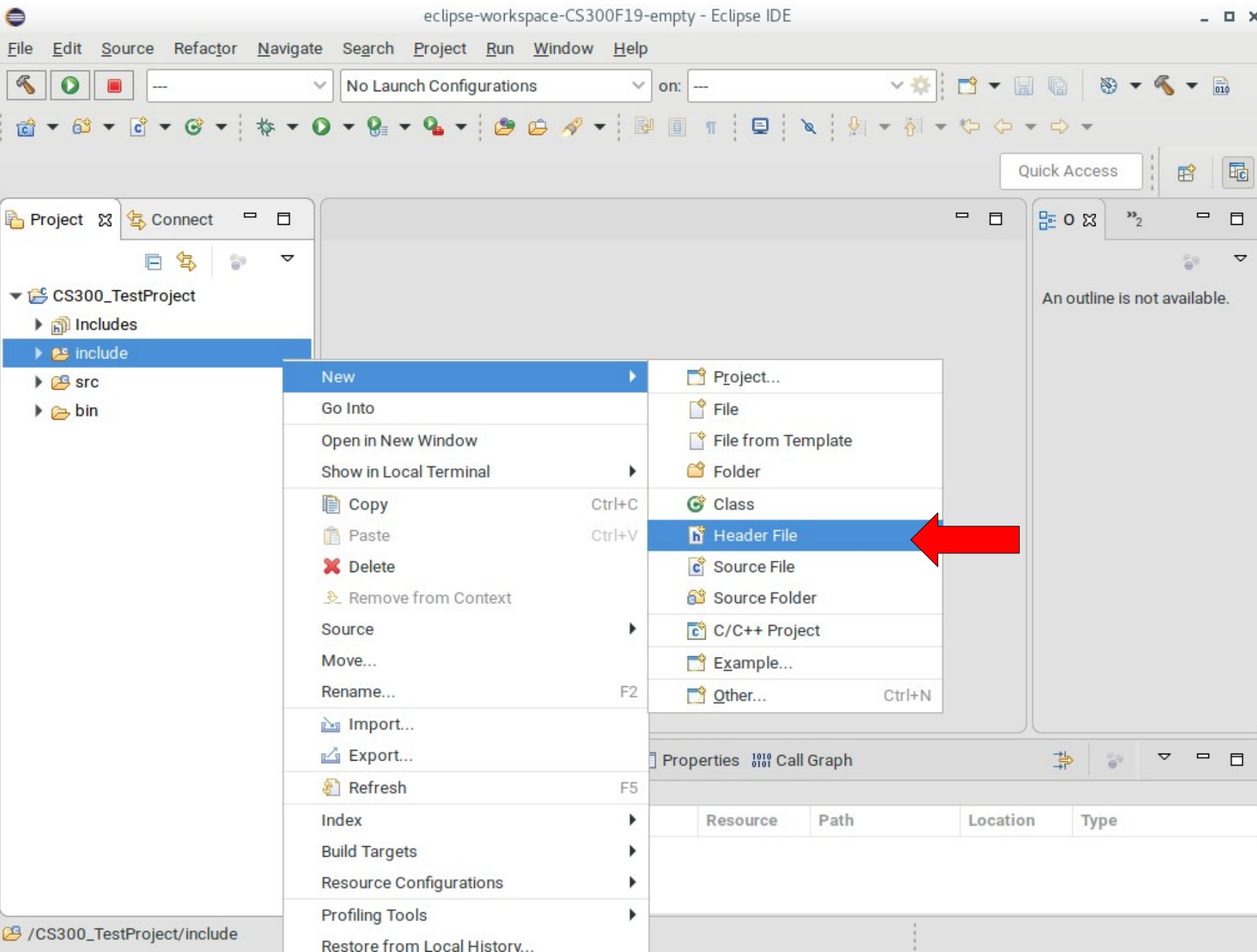


- Includes
- include
- src
- bin



Description	Resource	Path	Location	Type

 /CS300_TestProject/bin



New

Go Into

Open in New Window

Show in Local Terminal

Copy

Ctrl+C

Paste

Ctrl+V

Delete

Remove from Context

Source

Move...

Rename...

F2

Import...

Export...

Refresh

F5

Index

Build Targets

Resource Configurations

Profiling Tools

Restore from Local History...

Project...

File

File from Template

Folder

Class

Header File

Source File

Source Folder

C/C++ Project

Example...

Other...

Ctrl+N

Properties Call Graph

Resource

Path

Location

Type

/CS300_TestProject/include

New Header File

Header File
Create a new header file.

Source folder: CS300_TestProject/include Browse...

Header file: example.h

Template: Default C header template Configure...

?

Cancel Finish

File Edit Source Refactor Navigate Search Project Run Window Help



No Launch Configurations

on: ---





Quick Access

Project Connect



CS300_TestProject

- Includes
- include
 - example.h
- src
- bin

```
1 /*
2  * example.h
3  *
4  * Created on: Jul 30, 2019
5  * Author: chadd
6  */
7
8 #ifndef EXAMPLE_H_
9 #define EXAMPLE_H_
10
11
12
13 #endif /* EXAMPLE_H_ */
14
```



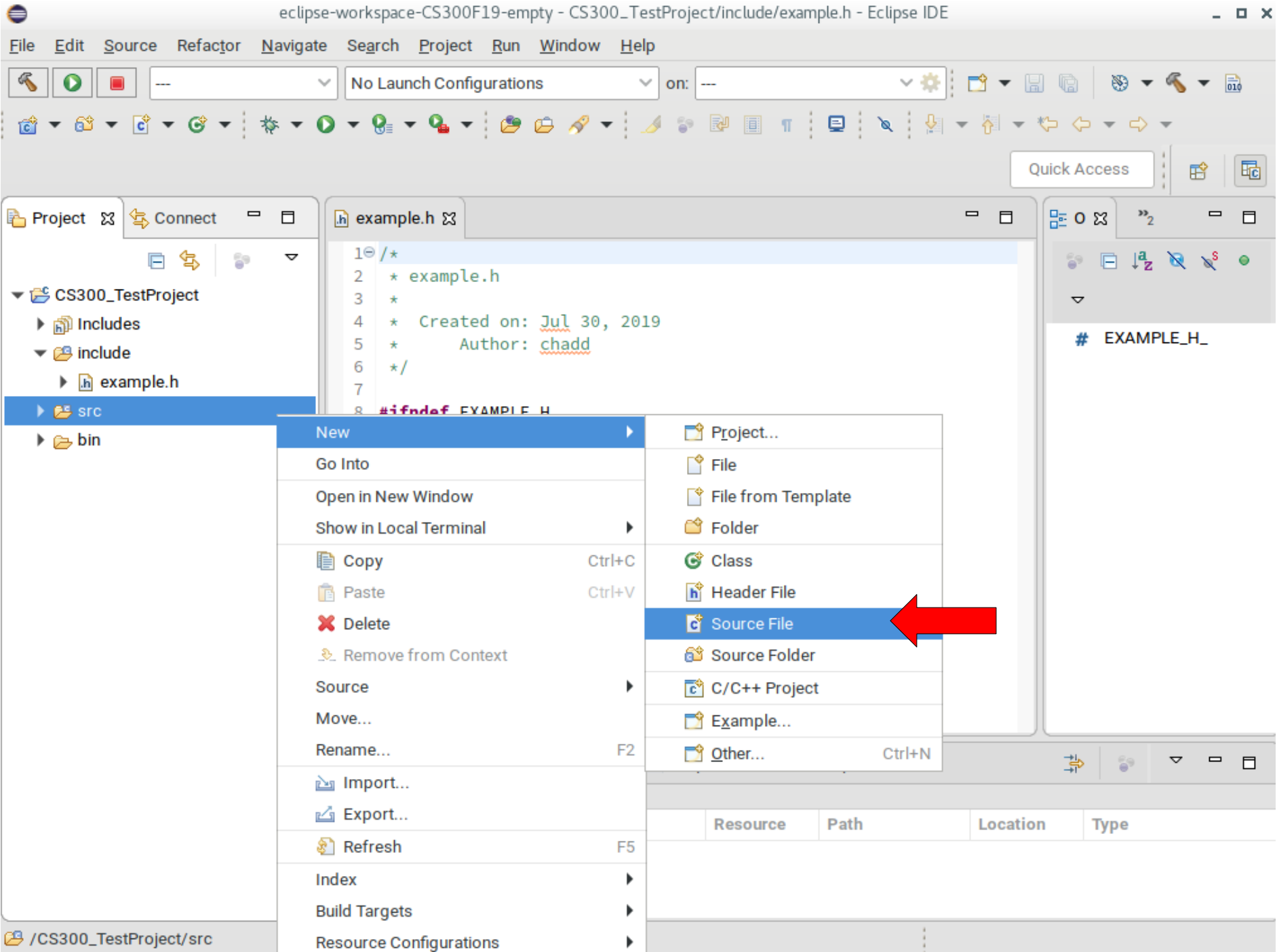
2

```
# EXAMPLE_H_
```

Problems Tasks Console Properties Call Graph

0 items

Description	Resource	Path	Location	Type



New Source File

Source File

Create a new source file.

Source folder: CS300_TestProject/src

Source file: example.c 

Template: Default C source template

New Source File

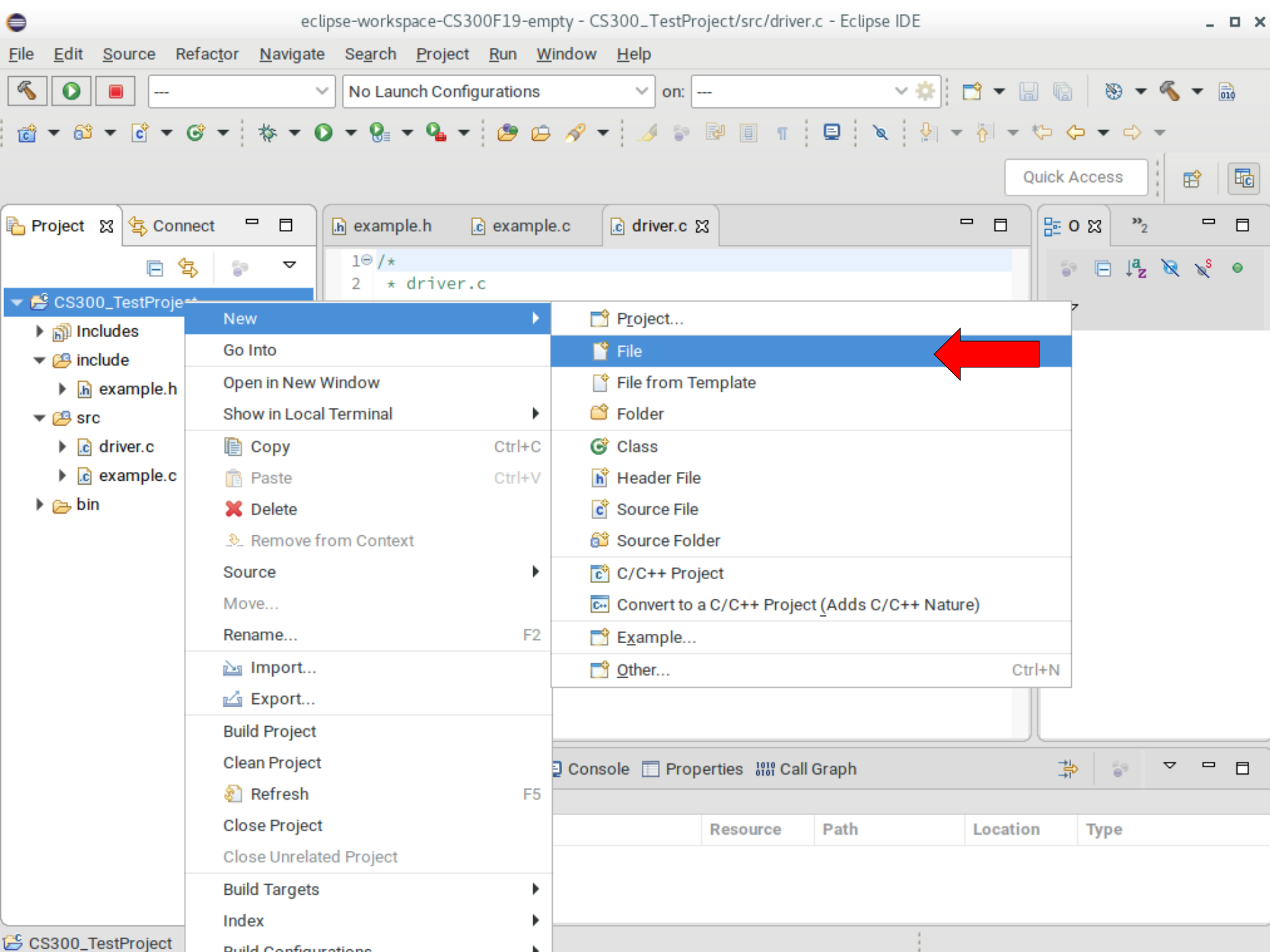
Source File

Create a new source file.

Source folder: CS300_TestProject/src

Source file: driver.c 

Template: Default C source template





New File



File

Create a new file resource.



Enter or select the parent folder:

CS300_TestProject



▶ CS300_TestProject

File name: Makefile

Advanced >>



Cancel

Finish



CS300_TestProject

Includes

include

src

bin

Makefile

example.hexample.cdriver.cMakefile

1



2

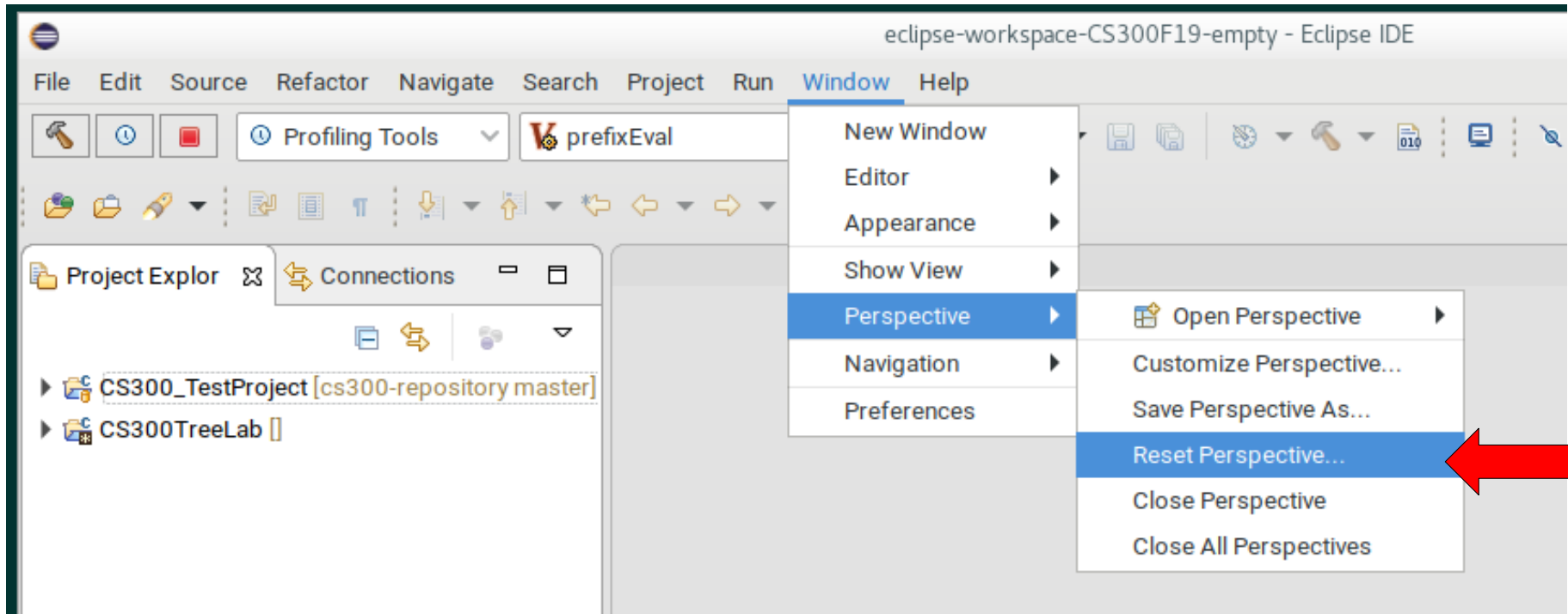


ProblemsTasksConsolePropertiesCall Graph

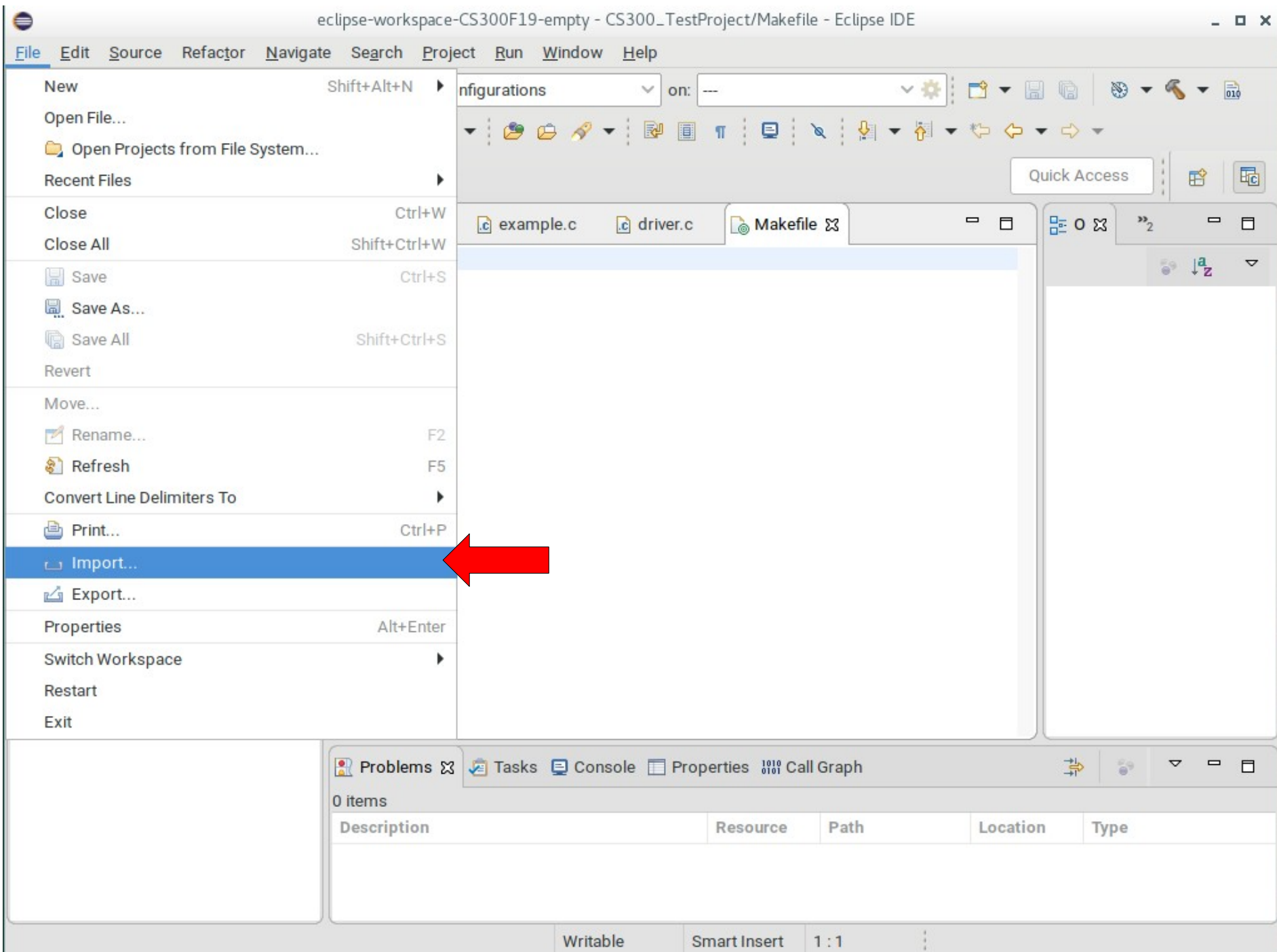
0 items

Description	Resource	Path	Location	Type
-------------	----------	------	----------	------

Fix your Windows



Import Existing Project



- New Shift+Alt+N
- Open File...
- Open Projects from File System...
- Recent Files
- Close Ctrl+W
- Close All Shift+Ctrl+W
- Save Ctrl+S
- Save As...
- Save All Shift+Ctrl+S
- Revert
- Move...
- Rename... F2
- Refresh F5
- Convert Line Delimiters To
- Print... Ctrl+P
- Import...
- Export...
- Properties Alt+Enter
- Switch Workspace
- Restart
- Exit

Configurations on: ---

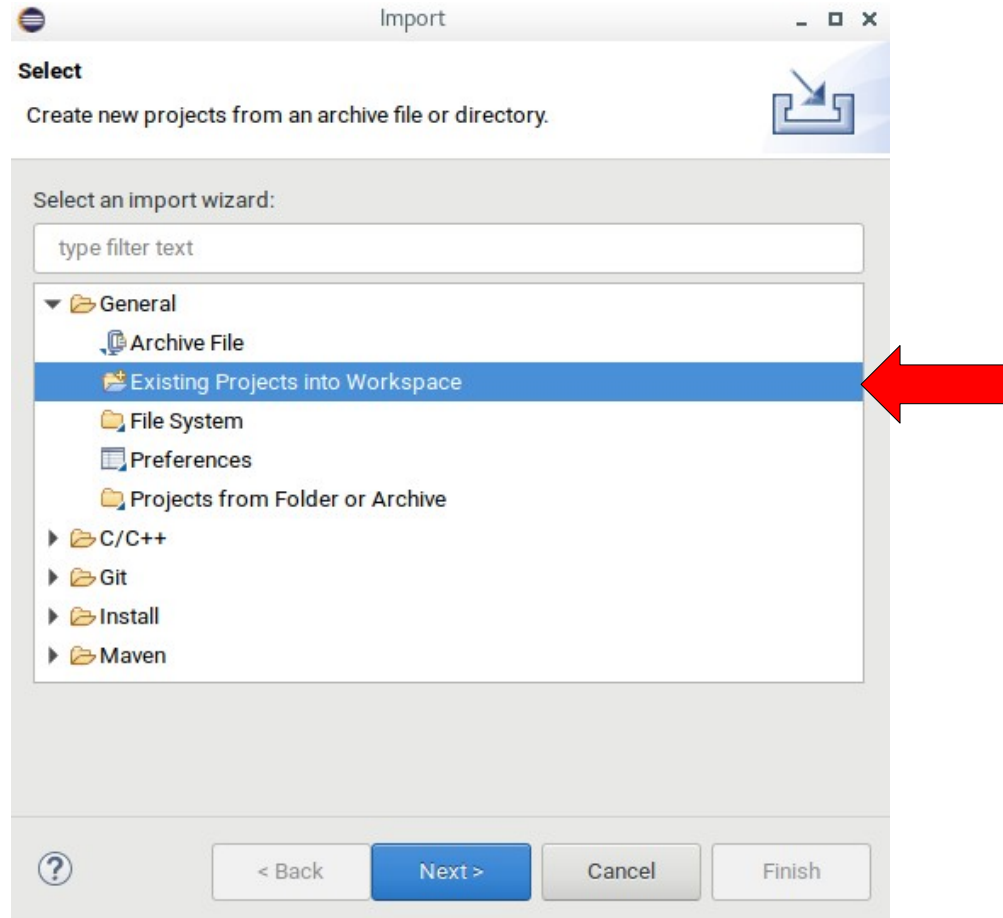
Quick Access

example.c driver.c Makefile

Problems Tasks Console Properties Call Graph

0 items

Description	Resource	Path	Location	Type



General | Existing Projects into Workspace

Import

Import Projects

Select a directory to search for existing Eclipse projects.

☒ Select root directory: /home/chadd/CS300TreeLab

☐ Select archive file:

Projects:

☒ CS300TreeLab (/home/chadd/CS300TreeLab)

Options

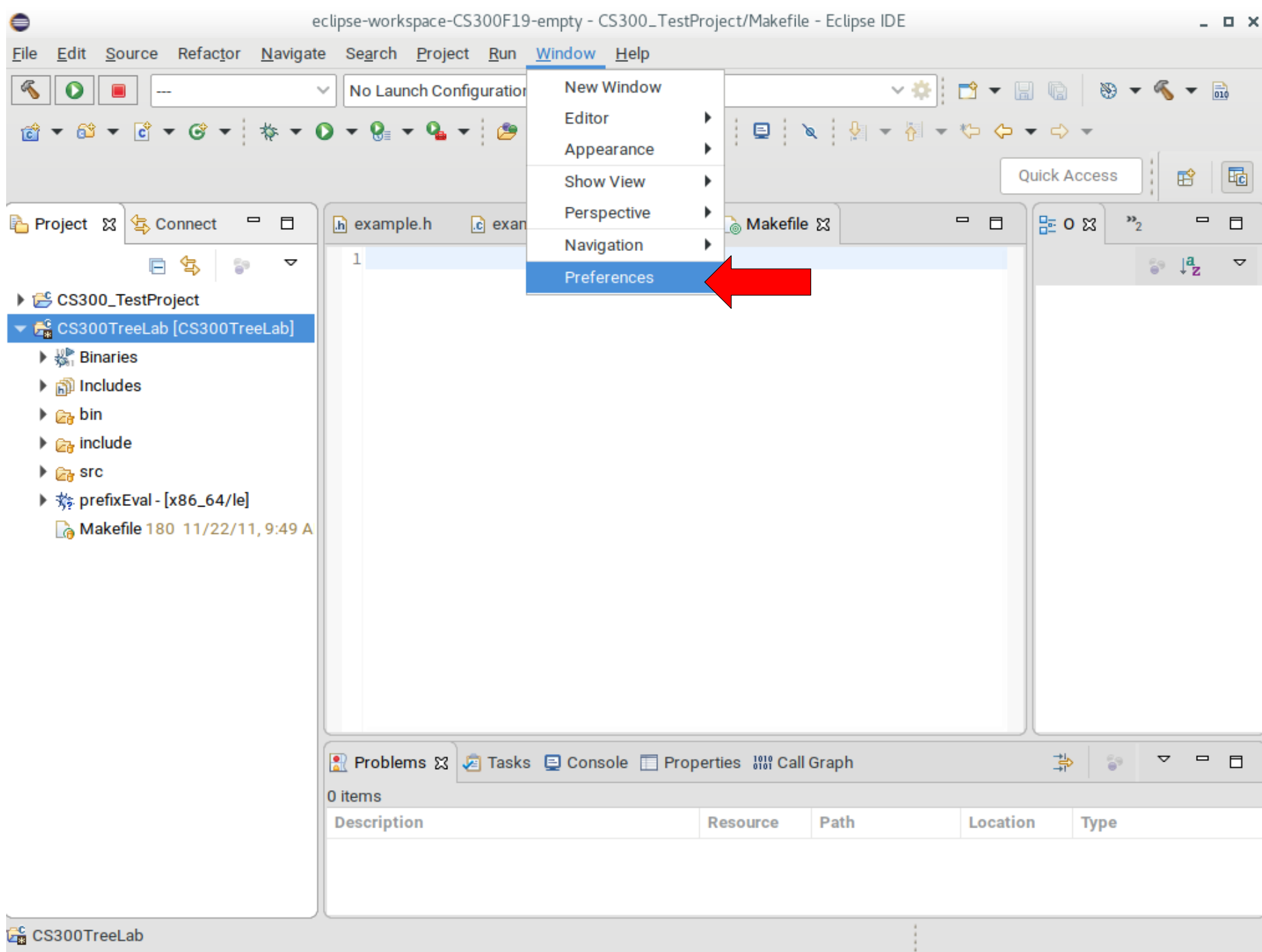
☐ Search for nested projects
☒ Copy projects into workspace
☐ Close newly imported projects upon completion
☐ Hide projects that already exist in the workspace

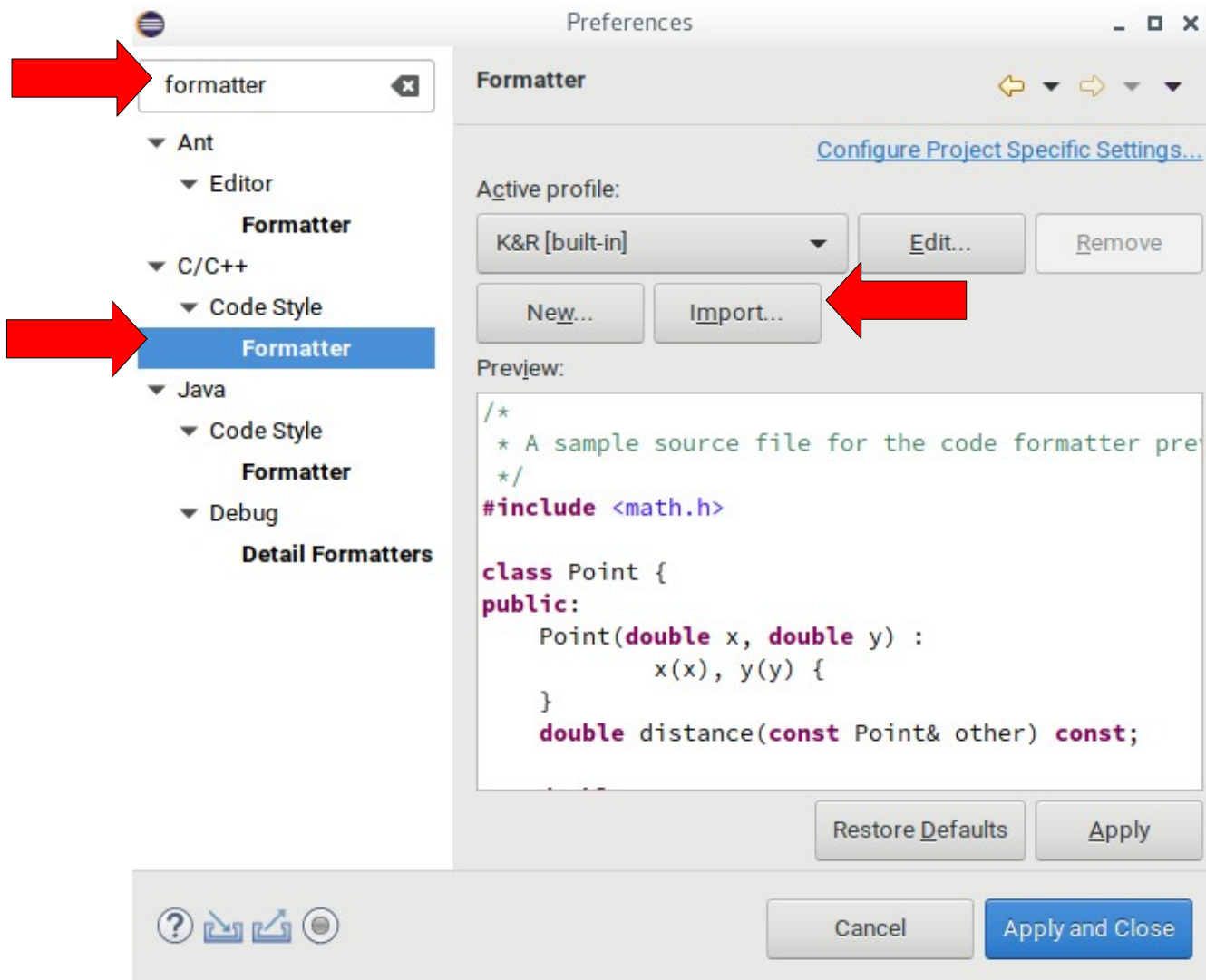
Working sets

☐ Add project to working sets

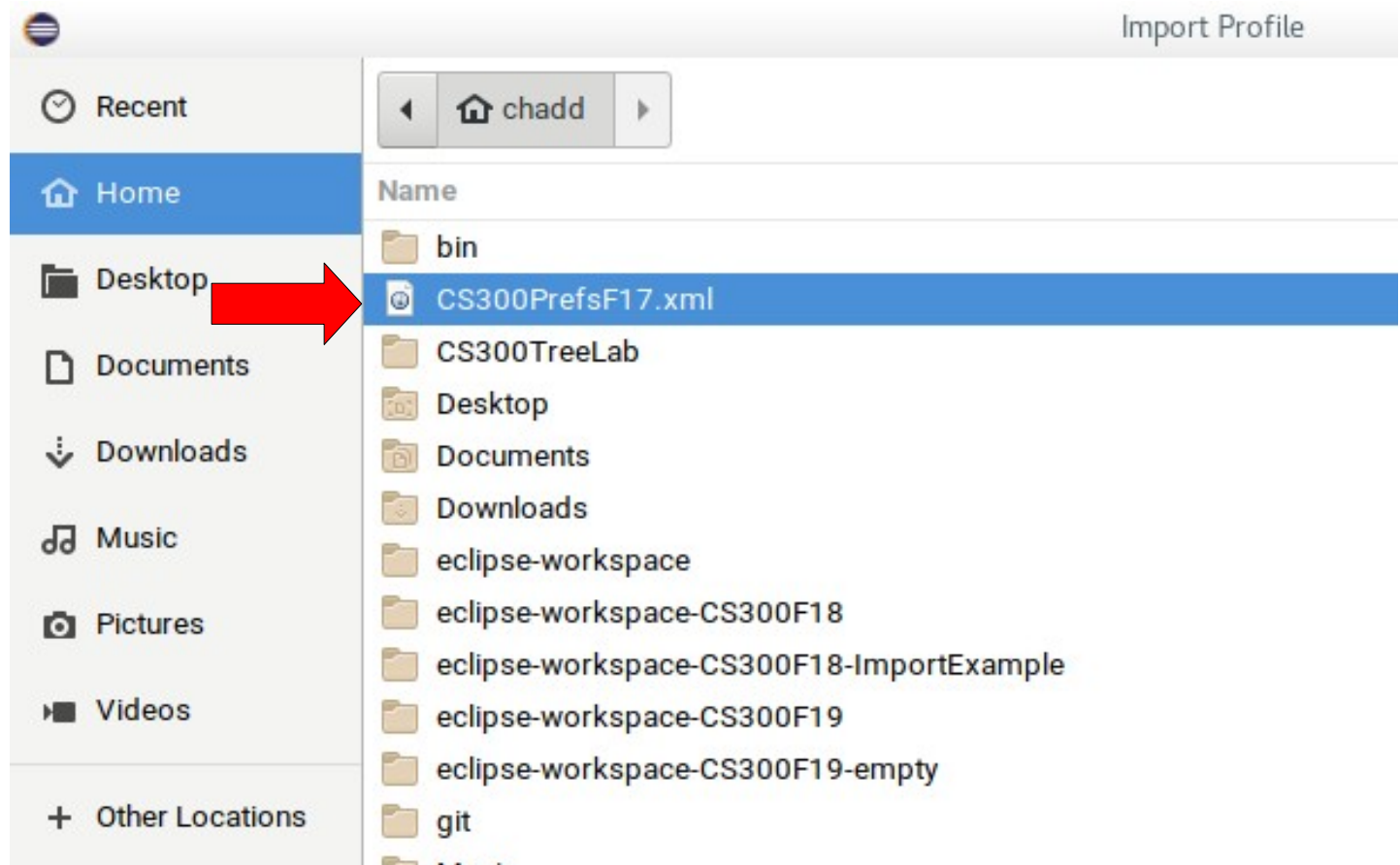
Working sets:

Configure Preferences

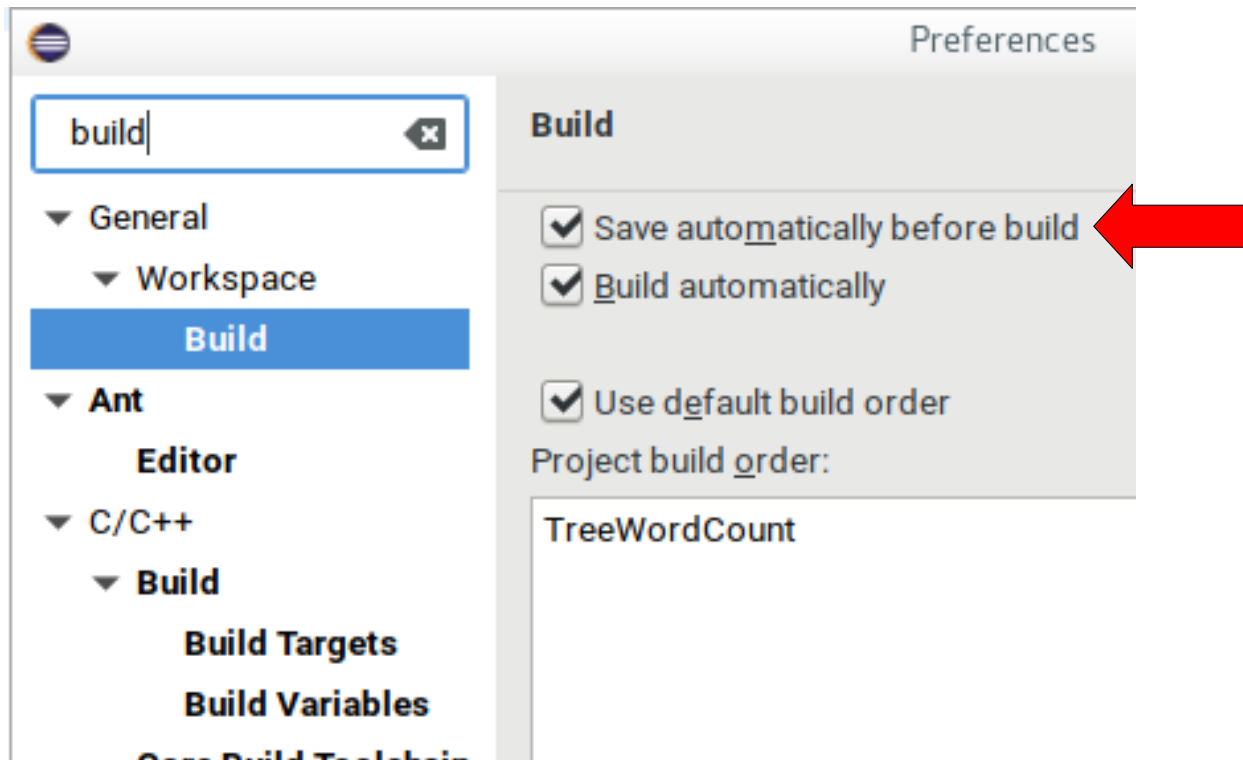




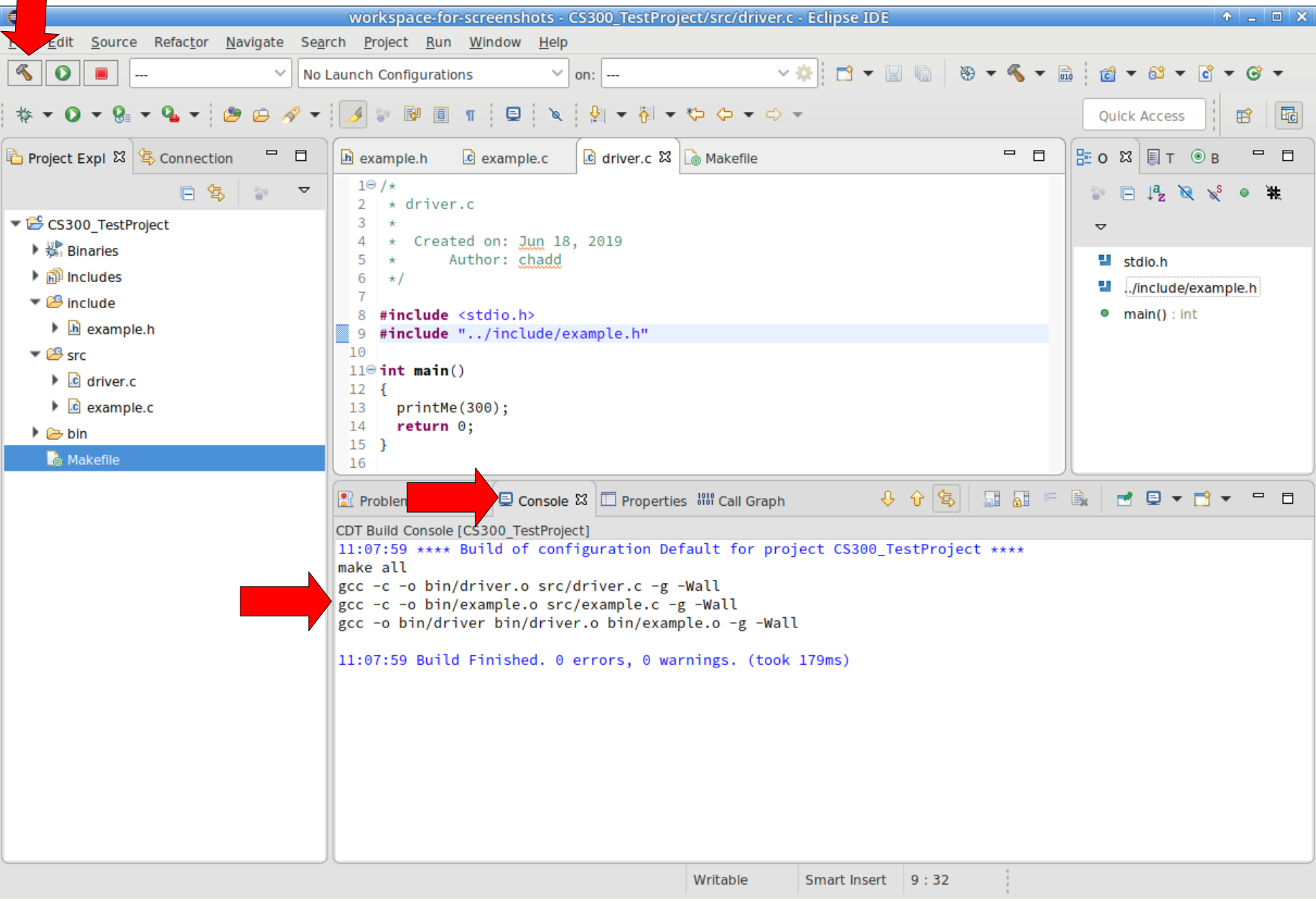
<http://zeus.cs.pacificu.edu/chadd/cs300f18/CS300PrefsF17.xml>



Autosave when Building



Build



The screenshot shows the Eclipse IDE interface with the workspace for 'workspace-for-screenshots - CS300_TestProject/src/driver.c'. The top toolbar includes buttons for Run, Build, and other IDE functions. The left sidebar shows the Project Explorer with the project structure: CS300_TestProject, Binaries, Includes, include (containing example.h), src (containing driver.c and example.c), bin, and Makefile. The central editor displays the contents of driver.c, which includes a comment block with creation and author information, and a main function that prints '300' and returns 0. The right sidebar shows the Outline view with the project's structure. The bottom console window shows the output of the build process, indicating that the build was successful with no errors or warnings.

```
workspace-for-screenshots - CS300_TestProject/src/driver.c - Eclipse IDE
```

Run Build

Project Explorer: CS300_TestProject

- Binaries
- Includes
- include
 - example.h
- src
 - driver.c
 - example.c
- bin
- Makefile

Editor: driver.c

```
1 /*
2  * driver.c
3  *
4  * Created on: Jun 18, 2019
5  * Author: chadd
6  */
7
8 #include <stdio.h>
9 #include "../include/example.h"
10
11 int main()
12 {
13     printMe(300);
14     return 0;
15 }
16
```

Console Output:

```
CDT Build Console [CS300_TestProject]
11:07:59 **** Build of configuration Default for project CS300_TestProject ****
make all
gcc -c -o bin/driver.o src/driver.c -g -Wall
gcc -c -o bin/example.o src/example.c -g -Wall
gcc -o bin/driver bin/driver.o bin/example.o -g -Wall

11:07:59 Build Finished. 0 errors, 0 warnings. (took 179ms)
```

Status Bar: Writable Smart Insert 9 : 32

workspace-for-screenshots - CS300_TestProject/src/driver.c - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

No Launch Configurations on: ---

Project Explorer

- CS300_TestProject
 - Binaries
 - driver - [x86_64/le]
 - Includes
 - include
 - example.h
 - src
 - driver.c
 - example.c
 - bin
 - Makefile

Connection

example.h example.c driver.c Makefile

```
1 /*
2  * driver.c
3  *
4  * Created on: Jun 18, 2019
5  * Author: chadd
6  */
7
8 #include <stdio.h>
9 #include "../include/example.h"
10
11 int main()
12 {
13     printMe(300);
14     return 0;
15 }
16
```

stdio.h
../include/example.h
main() : int

Problems Tasks Console Properties Call Graph

CDT Build Console [CS300_TestProject]

```
11:07:59 **** Build of configuration Default for project CS300_TestProject ****
make all
gcc -c -o bin/driver.o src/driver.c -g -Wall
gcc -c -o bin/example.o src/example.c -g -Wall
gcc -o bin/driver bin/driver.o bin/example.o -g -Wall

11:07:59 Build Finished. 0 errors, 0 warnings. (took 179ms)
```

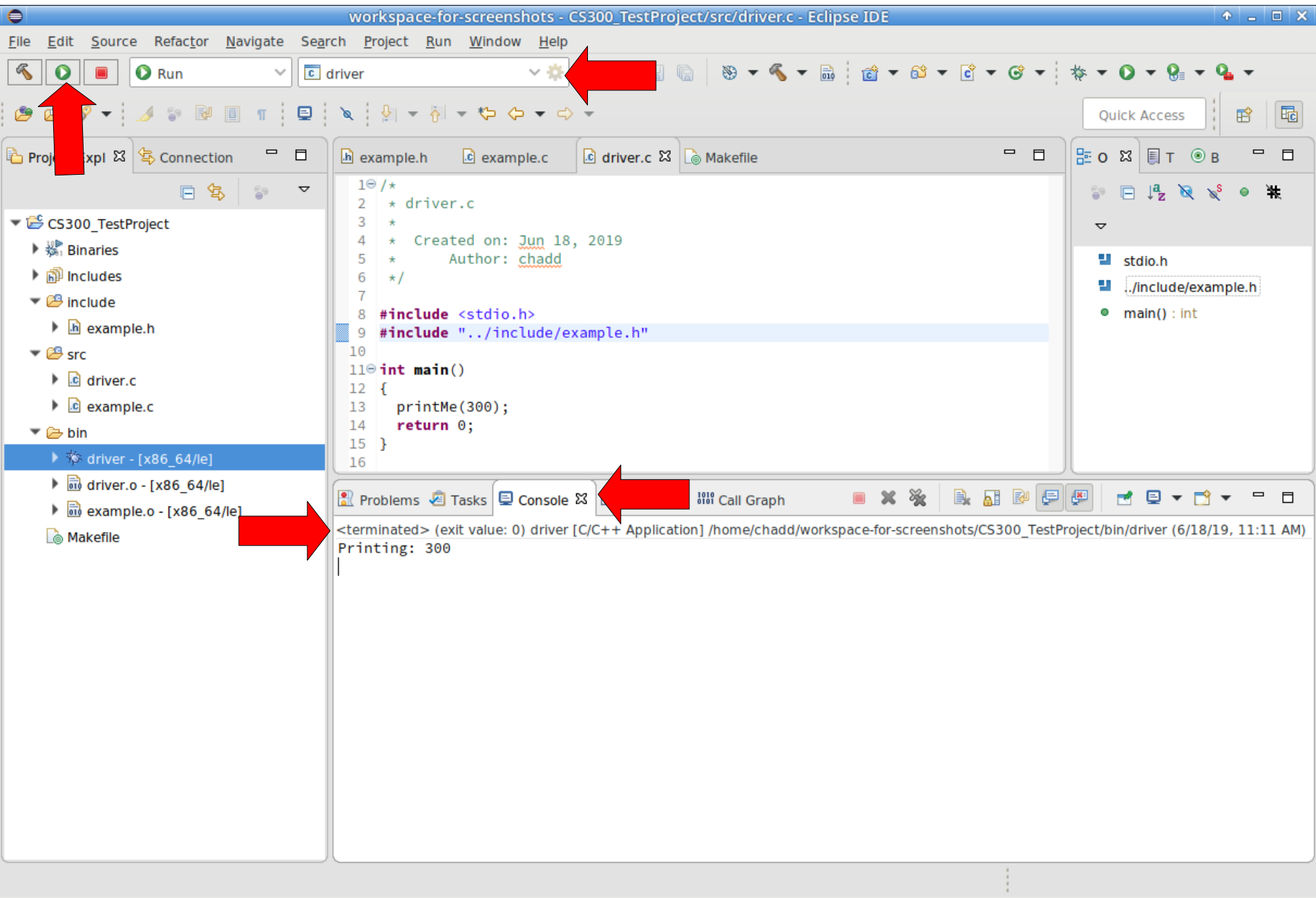
Makefile - CS300_TestProject

Run

The screenshot shows the Eclipse IDE interface with the following components:

- Top Bar:** workspace-for-screenshots - CS300_TestProject/src/driver.c - Eclipse IDE
- Menu Bar:** File, Edit, Source, Refactor, Navigate, Search, Project, Run, Window, Help
- Toolbar:** Includes icons for Run, Stop, and other development actions.
- Project Explorer:** Shows the project structure for CS300_TestProject, including Binaries, Includes, include, src, bin, and Makefile. The 'driver' binary is selected.
- Editor:** Displays the contents of driver.c, which includes a comment: "Created on: Jun 18, 2019" and "Author: chadd".
- Properties View:** Shows the properties for the selected driver binary, including the main function signature: main() : int.
- Run Context Menu:** A context menu is open over the driver binary, showing options like New, Open, Copy, Paste, Delete, Move, Rename, Import, Export, Refresh, Run As, Debug As, Profile As, Profiling Tools, Run C/C++ Code Analysis, Team, Compare With, Replace With, and Validate. The 'Run As' option is selected, and a sub-menu is open showing '1 C/C++ Container Application' and '2 Local C/C++ Application'. A red arrow points to the '2 Local C/C++ Application' option.
- Properties View (Bottom):** Shows the build configuration for the project, including the compiler flags: -g -Wall.

Run



Run vs Debug

The screenshot shows the Eclipse IDE interface for a project named "workspace-for-screenshots - CS300_TestProject/src/driver.c - Eclipse IDE". The top toolbar contains icons for Run (a green play button) and Debug (a green bug icon). A red arrow points to the Run button. Below the toolbar, the "Run" button is highlighted in blue, and a dropdown menu is visible with options: "Run", "Debug", and "Profile". The "Run" option is selected. The left sidebar shows the "Project Explorer" with the project structure: "CS300_TestProject" containing "Binaries", "Includes", "include" (with "example.h"), "src" (with "driver.c" and "example.c"), "bin" (with "driver - [x86_64/le]", "driver.o - [x86_64/le]", and "example.o - [x86_64/le]"), and "Makefile". The "bin" folder is expanded, and "driver - [x86_64/le]" is selected. The main editor displays the source code for "driver.c":

```
1 /*  
2  * driver.c  
3  *  
4  * Created on: Jun 18, 2019  
5  * Author: chadd  
6  */  
7  
8 #include <stdio.h>  
9 #include "../include/example.h"  
10  
11 int main()  
12 {  
13     printMe(300);  
14     return 0;  
15 }  
16
```

The right sidebar shows the "Quick Access" panel with a list of files: "stdio.h", "../include/example.h", and "main() : int". The bottom status bar shows the console output: "<terminated> (exit value: 0) driver [C/C++ Application] /home/chadd/workspace-for-screenshots/CS300_TestProject/bin/driver (6/18/19, 11:11 AM) Printing: 300".

workspace-for-screenshots - CS300_TestProject/src/driver.c - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Run

driver

Run

Debug

Profile

Project Explorer

CS300_TestProject

- Binaries
- Includes
- include
 - example.h
- src
 - driver.c
 - example.c
- bin
 - driver - [x86_64/le]
 - driver.o - [x86_64/le]
 - example.o - [x86_64/le]
- Makefile

example.h example.c driver.c Makefile

```
1 /*  
2  * driver.c  
3  *  
4  * Created on: Jun 18, 2019  
5  * Author: chadd  
6  */  
7  
8 #include <stdio.h>  
9 #include "../include/example.h"  
10  
11 int main()  
12 {  
13     printMe(300);  
14     return 0;  
15 }  
16
```

stdio.h
../include/example.h
main() : int

Problems Tasks Console Properties Call Graph

<terminated> (exit value: 0) driver [C/C++ Application] /home/chadd/workspace-for-screenshots/CS300_TestProject/bin/driver (6/18/19, 11:11 AM)
Printing: 300

/CS300_TestProject/bin/driver

workspace-for-screenshots - CS300_TestProject/src/driver.c - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Debug driver

Quick Access

CS300_TestProject

- Binaries
- Includes
- include
 - example.h
- src
 - driver.c
 - example.c
- bin
 - driver - [x86_64/le]
 - driver.o - [x86_64/le]
 - example.o - [x86_64/le]
- Makefile

example.h example.c driver.c Makefile

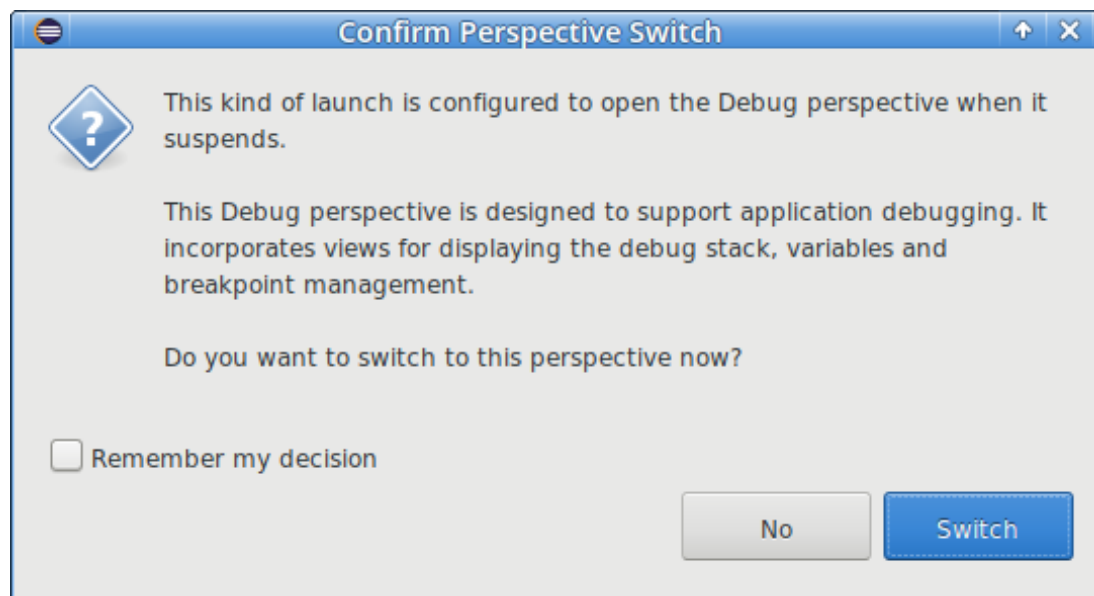
```
1 /*
2  * driver.c
3  *
4  * Created on: Jun 18, 2019
5  * Author: chadd
6  */
7
8 #include <stdio.h>
9 #include "../include/example.h"
10
11 int main()
12 {
13     printMe(300);
14     return 0;
15 }
16
```

stdio.h
../include/example.h
main() : Int

Problems Tasks Console Properties Call Graph

<terminated> (exit value: 0) driver [C/C++ Application] /home/chadd/workspace-for-screenshots/CS300_TestProject/bin/driver (6/18/19, 11:11 AM)
Printing: 300

/CS300_TestProject/bin/driver



This kind of launch is configured to open the Debug perspective when it suspends.

This Debug perspective is designed to support application debugging. It incorporates views for displaying the debug stack, variables and breakpoint management.

Do you want to switch to this perspective now?

☐ Remember my decision

No

Switch

workspace-for-screenshots - CS300_TestProject/src/driver.c - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Debug driver

Debug Project Explorer

driver [C/C++ Application]

driver [21300] [cores: 6]

Thread #1 [driver] 21300 [core: 6] (S)

main() at driver.c:13 0x40050f

gdb (8.2)

example.c driver.c

```
1 /*
2  * driver.c
3  *
4  * Created on: Jun 18, 2019
5  * Author: chadd
6  */
7
8 #include <stdio.h>
9 #include "../include/example.h"
10
11 int main()
12 {
13     int value = 42;
14
15     printMe(300);
16     return 0;
17 }
```

(x)= Variables Breakpoints Expressions Modules

Name	Type	Value
(x)= value	int	0

Console Problems Executables Debug Shell Debugger Console Memory

driver [C/C++ Application] driver

The screenshot shows the Eclipse IDE interface with the following components and annotations:

- Top Menu Bar:** File, Edit, Source, Refactor, Navigate, Search, Project, Run, Window, Help.
- Toolbar:** Contains icons for various IDE functions. A red arrow points to the **Debug** button.
- Project Explorer:** Shows the project structure. The **main()** function is selected under the **driver** application. A red arrow points to this selection.
- Source Editor:** Displays the code for **driver.c**. The line **int value = 42;** is highlighted. A red arrow points to this line.
- Variables View:** Shows the current state of variables. The variable **(x)= value** is of type **int** and has a value of **0**. A red arrow points to the value **0**.
- Console:** The **Console** tab is selected. A red arrow points to the **Console** tab itself.

workspace-for-screenshots - CS300_TestProject/src/example.c - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Debug driver

Debug Project Explorer

driver [C/C++ Application]

- driver [21300] [cores: 2]
 - Thread #1 [driver] 21300 [core: 2] (S)
 - printMe() at example.c:12 0x40053
 - main() at driver.c:15 0x400520
- gdb (8.2)

example.c driver.c

```
1 /*
2  * example.c
3  *
4  * Created on: Jun 18, 2019
5  * Author: chadd
6  */
7
8 #include <stdio.h>
9
10 void printMe(int x)
11 {
12     printf("Printing: %d\n", x);
13 }
14
15
```

(x)= Variables Breakpoints Expressions Modules

Name	Type	Value
(x)= x	int	300

Console Registers Problems Executables Debug Shell Debugger Console Memory

driver [C/C++ Application] driver

workspace-for-screenshots - CS300_TestProject/src/example.c - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Debug driver

Quick Access

Debug Project Explorer

driver [C/C++ Application]

driver [21300] [cores: 3]

Thread #1 [driver] 21300 [core: 3] (S)

printMe() at example.c:13 0x40054

main() at driver.c:15 0x400520

gdb (8.2)

example.c driver.c

```
1 /*
2  * example.c
3  *
4  * Created on: Jun 18, 2019
5  * Author: chadd
6  */
7
8 #include <stdio.h>
9
10 void printMe(int x)
11 {
12     printf("Printing: %d\n", x);
13 }
14
15
```

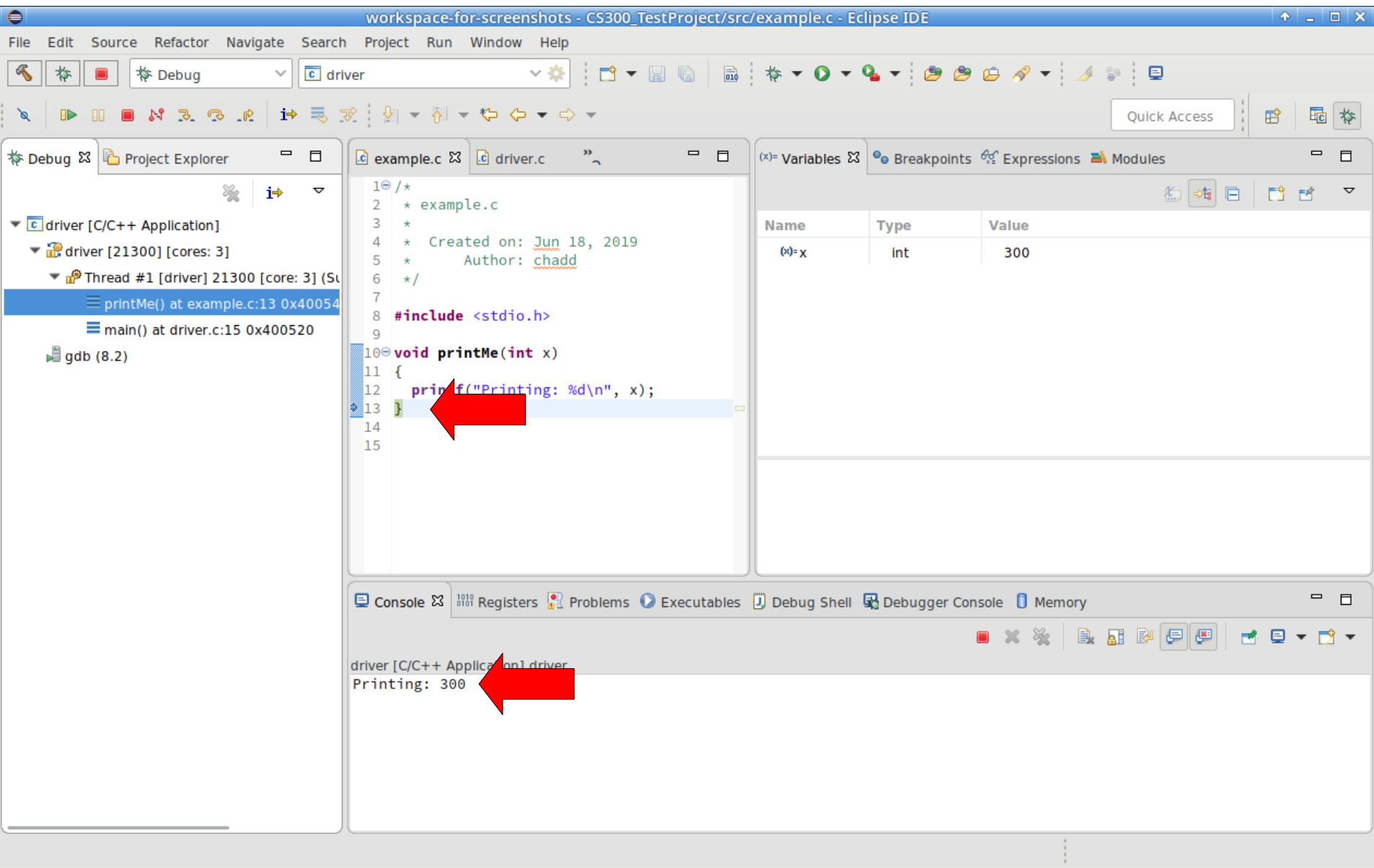
(x)= Variables Breakpoints Expressions Modules

Name	Type	Value
(x)= x	int	300

Console Registers Problems Executables Debug Shell Debugger Console Memory

driver [C/C++ Application] driver

Printing: 300



workspace-for-screenshots - CS300_TestProject/src/driver.c - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Debug driver

Quick Access

Debug Project Explorer

<terminated>driver [C/C++ Application]

<terminated, exit value: 0>gdb (8.2)

example.c driver.c

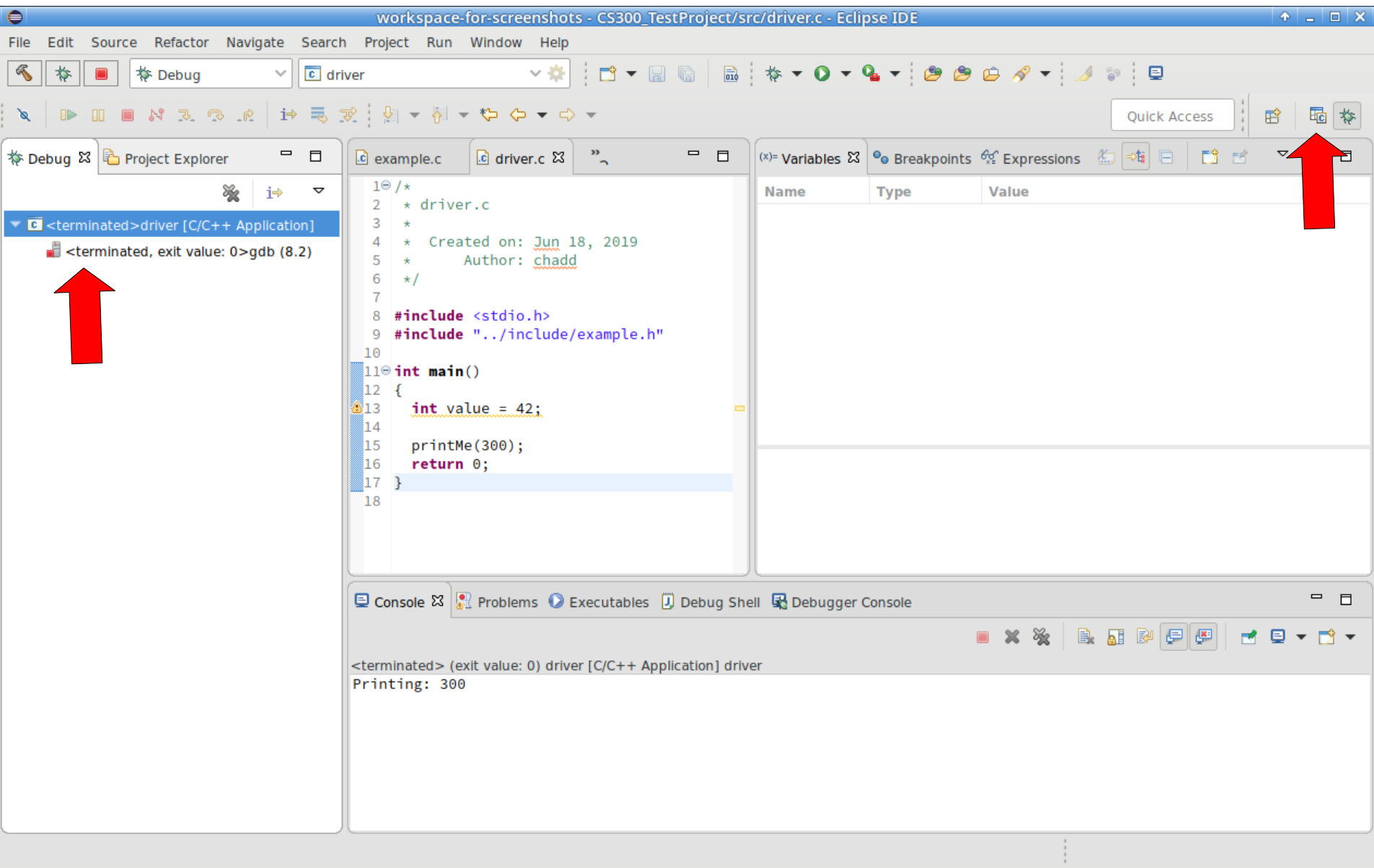
```
1 /*
2  * driver.c
3  *
4  * Created on: Jun 18, 2019
5  * Author: chadd
6  */
7
8 #include <stdio.h>
9 #include "../include/example.h"
10
11 int main()
12 {
13     int value = 42;
14
15     printMe(300);
16     return 0;
17 }
18
```

(x)= Variables Breakpoints Expressions

Name	Type	Value
------	------	-------

Console Problems Executables Debug Shell Debugger Console

<terminated> (exit value: 0) driver [C/C++ Application] driver
Printing: 300



Create a new HelloWorld project

File → New → C/C++ Project

C Managed Build

Project Name: HelloWorldAgain

Executable → Makefile Project → Empty Project

Toolchains → Linux GCC

Next, Next, Next, Finish

Printing

- Windows | Preferences
- General | Appearance | Colors and Fonts
- C/C++ | Editor | C/C++ Editor Text Font
 - Use Courier 10 Pitch, Size 8
- This changes the font on the screen!
 - You may want to change back after printing
- Print doubled sided!

Coding Standards

- Download CodingStandardsProfile
 - CS300PrefsF17.xml
 - sets tabs, newlines, spacing
 - Does not fix everything!
- Window | Preferences | C/C++ | Code Style | Formatter | Import
- Open your .c file
 - Source | Format
 - Shift+Control+F

Helpful Commands

- F3 while cursor on function call
 - go to that function
- Control-L
 - go to line
- Control-A
 - select all
- Control-I
 - correct indentation

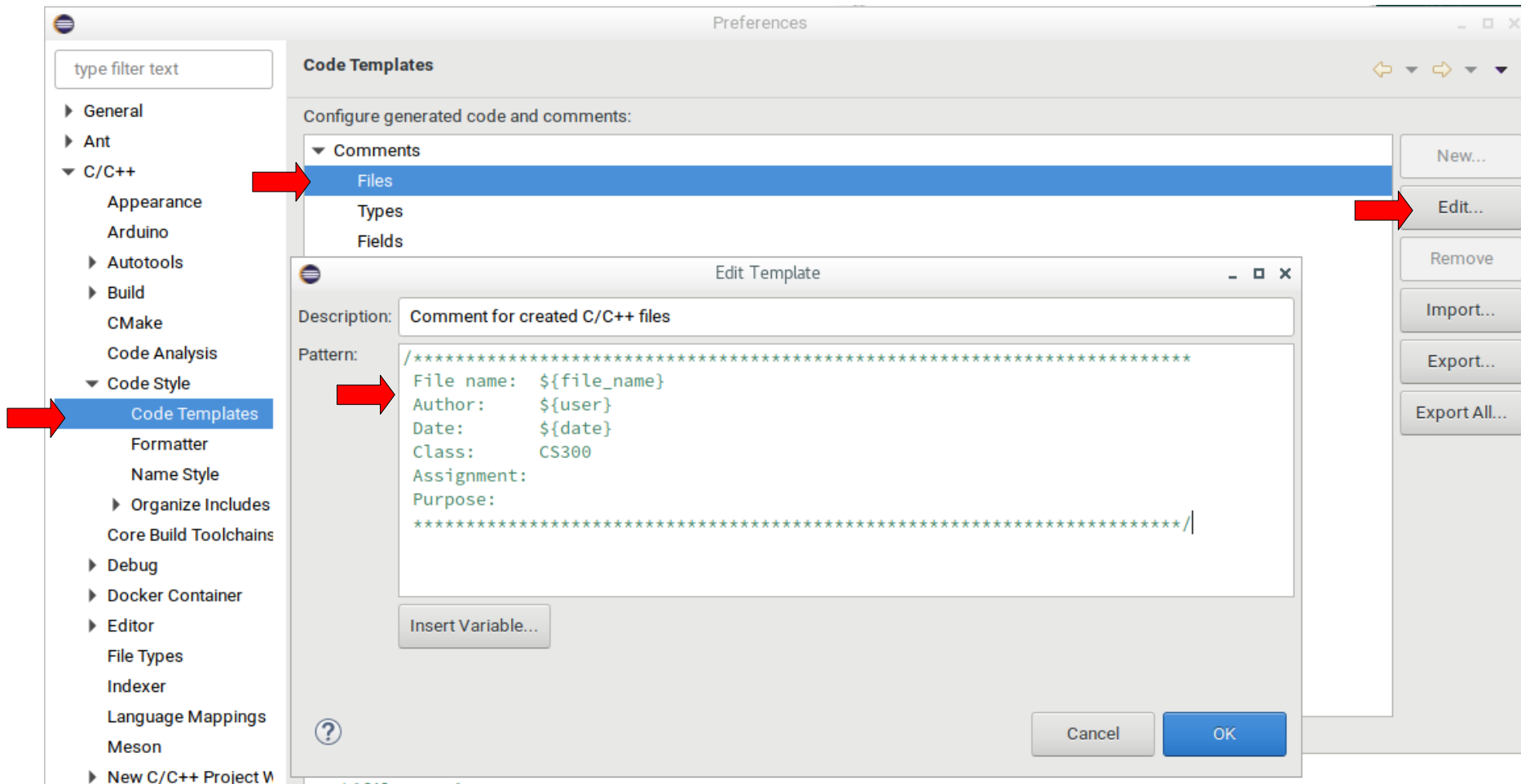
Be sure to look through the
Source and Navigate menu!

Other tips

- Window | Preferences
 - search for template to setup .c and .h file templates
 - you can add the file comment header automatically!
 - search for margin
 - set the print margin column to 75!
 - search for name style
 - to set naming conventions
 - search for code analysis
 - setup error/warnings in code style

Setup file header comments

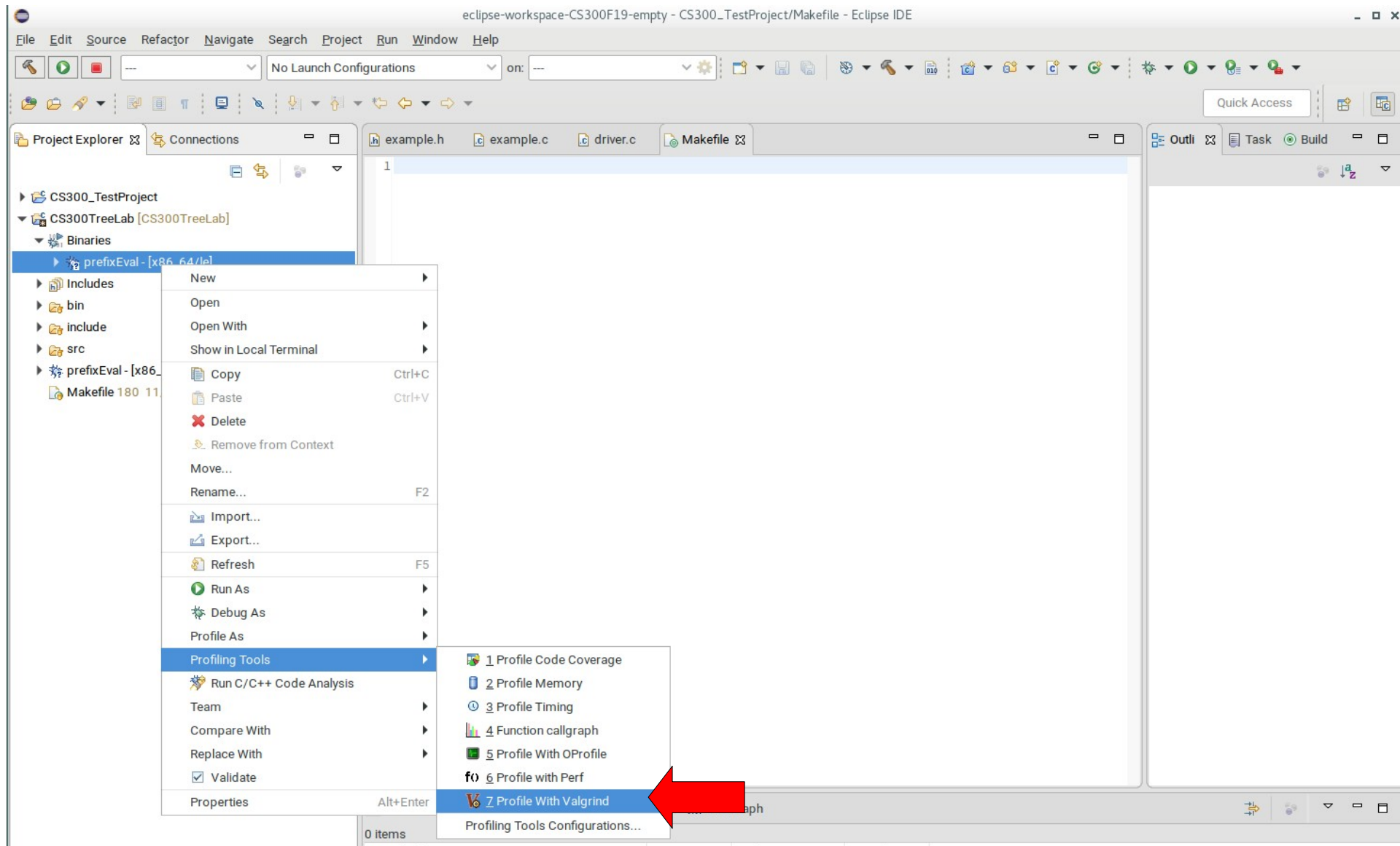
- Header comments
 - Window | Preferences | C/C++ | Code Style | Code Templates
- In the top, center box
 - Comments | Files
- Press Edit on the right.

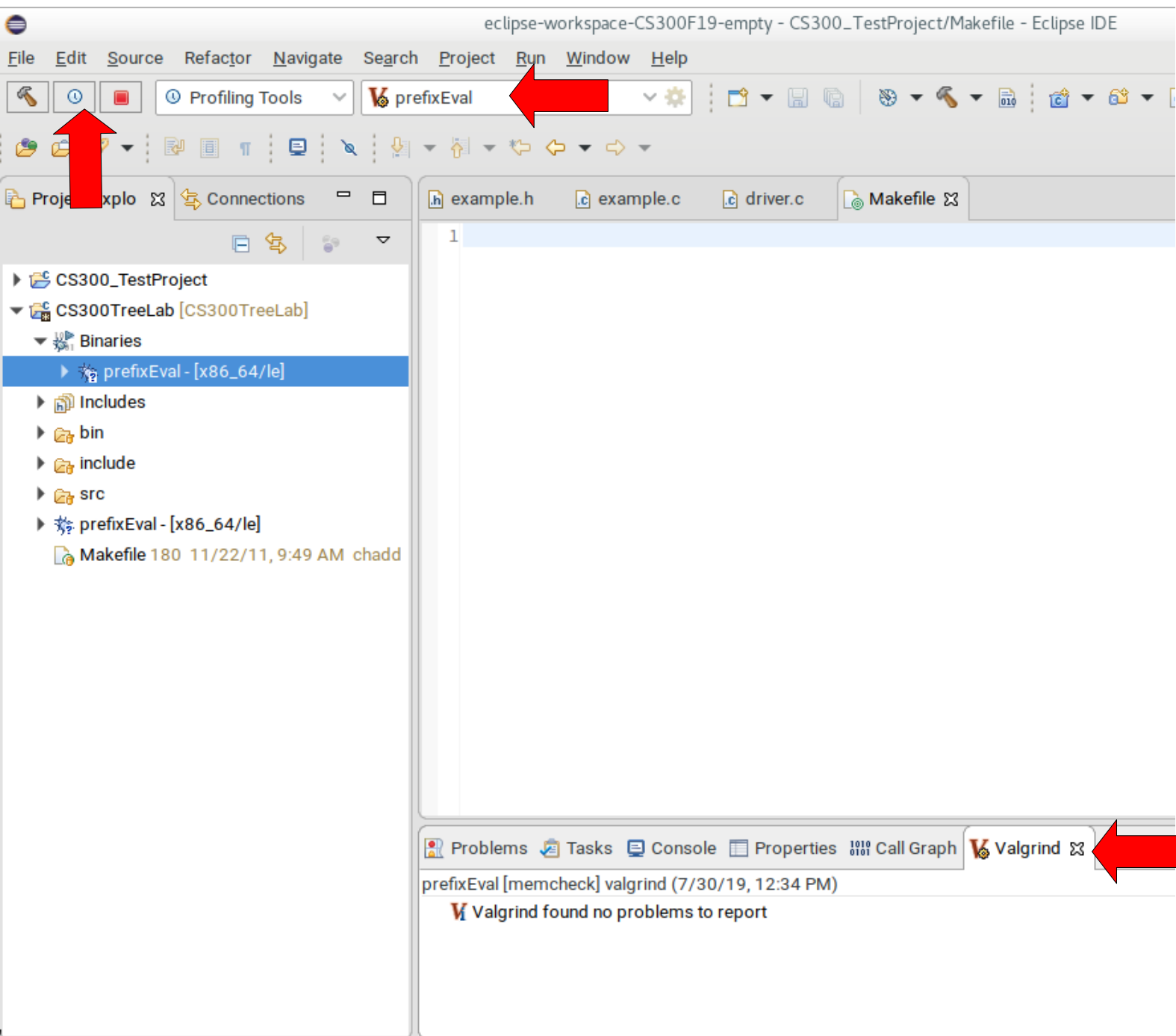


`${file_name}` will fill in the file name automatically
`${user}` `${date}` are also useful variables

September 16

Profiling with Valgrind





September 9

Create an account on GitHub
github.com

Set up SSH keys.

On your local linux machine:

```
ssh-keygen -t ed25519 -C "punetid@pacificu.edu"
```

Accept all defaults. Two files are created:

~/.ssh/id_ed25519 your private key

~/.ssh/id_ed25519.pub your public key

Add key to GitHub

<https://help.github.com/en/enterprise/2.15/user/articles/adding-a-new-ssh-key-to-your-github-account>

Add keys to Eclipse:

https://wiki.eclipse.org/EGit/User_Guide#Eclipse_SSH_Configuration

Windows | Preferences | ssh in search box

SSH2

Add **Private** Key

choose id_ed25519

Create a private repository.

Find the `git@gitlab.com:USER/REPOS.git` name

Create a **private** repository named `cs300f19_punetid`

<https://help.github.com/en/articles/create-a-repo>

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

Owner

 chaddcw ▾

Repository name *

cs300f19_punetid ✓

Great repository names are short and memorable. Need inspiration? How about **urban-chainsaw**?

Description (optional)

☐



Public

Anyone can see this repository. You choose who can commit.

☒



Private

You choose who can see and commit to this repository.

Skip this step if you're importing an existing repository.

☐

Initialize this repository with a README

This will let you immediately clone the repository to your computer.

Add .gitignore: **None** ▾

Add a license: **None** ▾

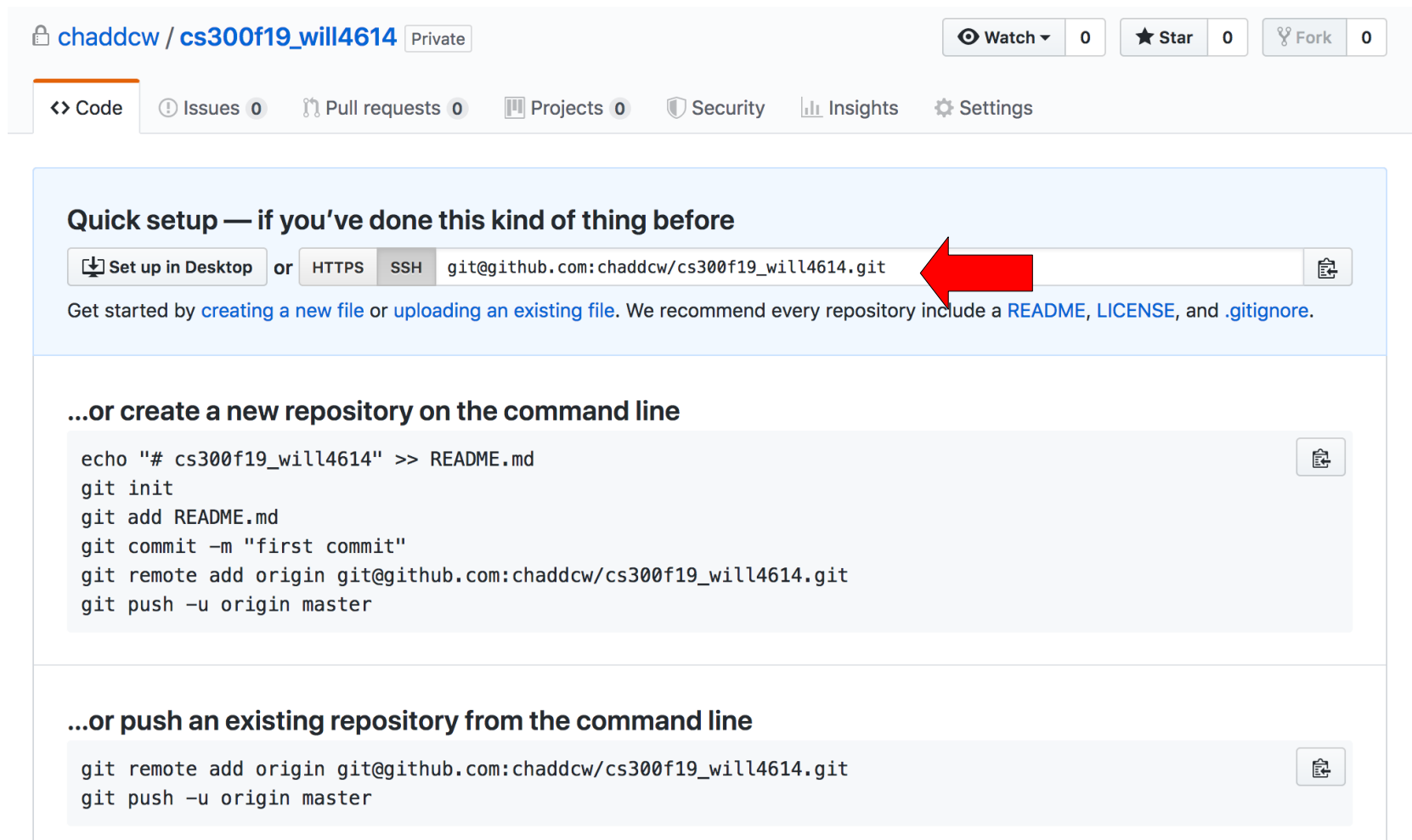


Create repository

Success!

Stop here.

Note the SSH address given: `git@github.com:chaddcw/cs300f19_will4614.git`



The screenshot shows the GitHub interface for a repository named 'cs300f19_will4614' by user 'chaddcw'. The repository is marked as 'Private'. At the top, there are buttons for 'Watch' (0), 'Star' (0), and 'Fork' (0). Below these are tabs for 'Code', 'Issues' (0), 'Pull requests' (0), 'Projects' (0), 'Security', 'Insights', and 'Settings'. The 'Code' tab is selected, showing a 'Quick setup' section. This section includes a 'Set up in Desktop' button, an 'or' separator, and three buttons for 'HTTPS', 'SSH', and a text input field containing the SSH address 'git@github.com:chaddcw/cs300f19_will4614.git'. A large red arrow points to this SSH address. Below the buttons, there is a note: 'Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).' Below the 'Quick setup' section, there are two sections for command-line setup. The first is '...or create a new repository on the command line' with a list of commands: 'echo "# cs300f19_will4614" >> README.md', 'git init', 'git add README.md', 'git commit -m "first commit"', 'git remote add origin git@github.com:chaddcw/cs300f19_will4614.git', and 'git push -u origin master'. The second is '...or push an existing repository from the command line' with commands: 'git remote add origin git@github.com:chaddcw/cs300f19_will4614.git' and 'git push -u origin master'. Both command sections have a copy icon on the right.

chaddcw / cs300f19_will4614 Private

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Security Insights Settings

Quick setup — if you've done this kind of thing before

Set up in Desktop or HTTPS SSH git@github.com:chaddcw/cs300f19_will4614.git

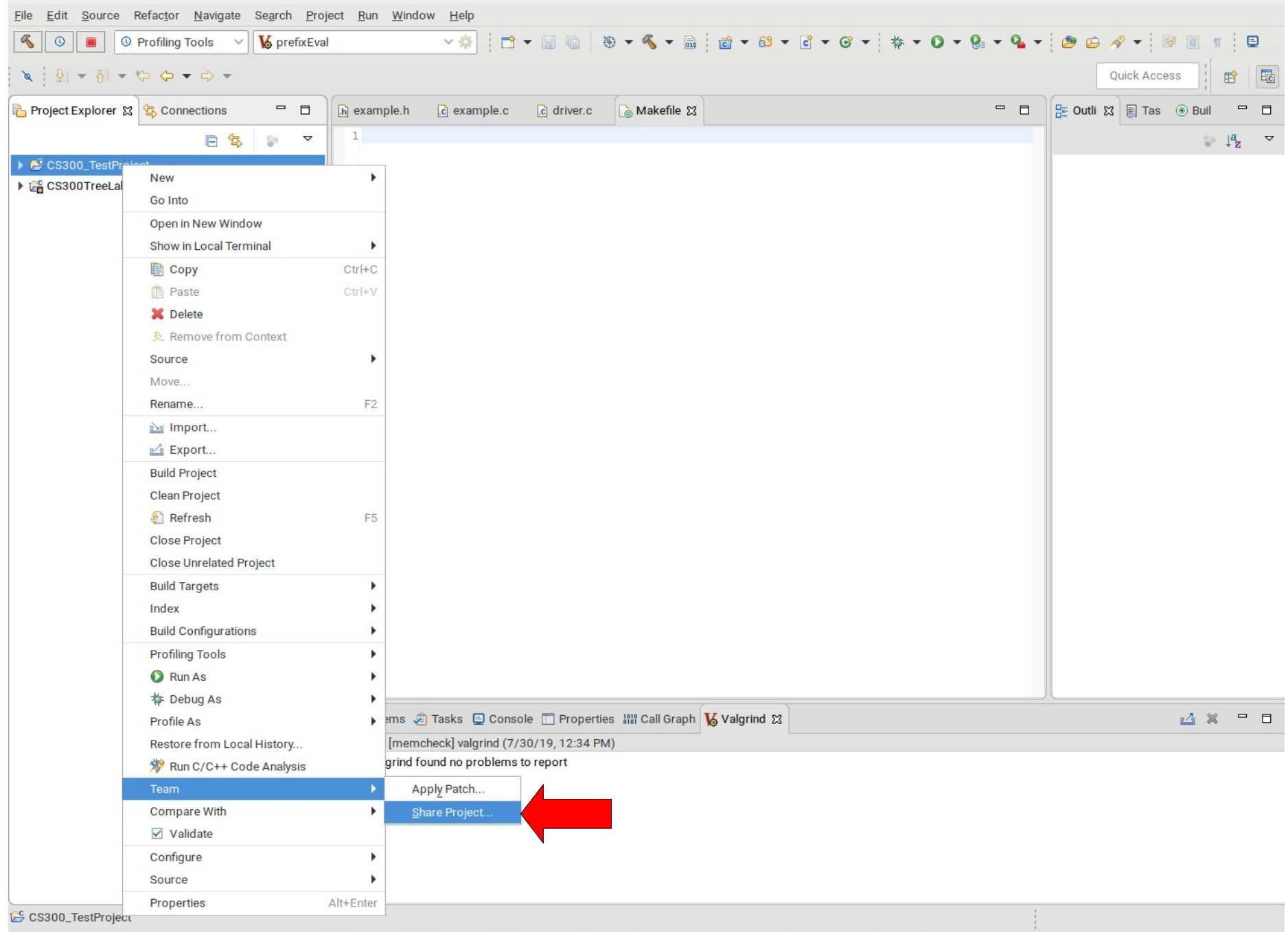
Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

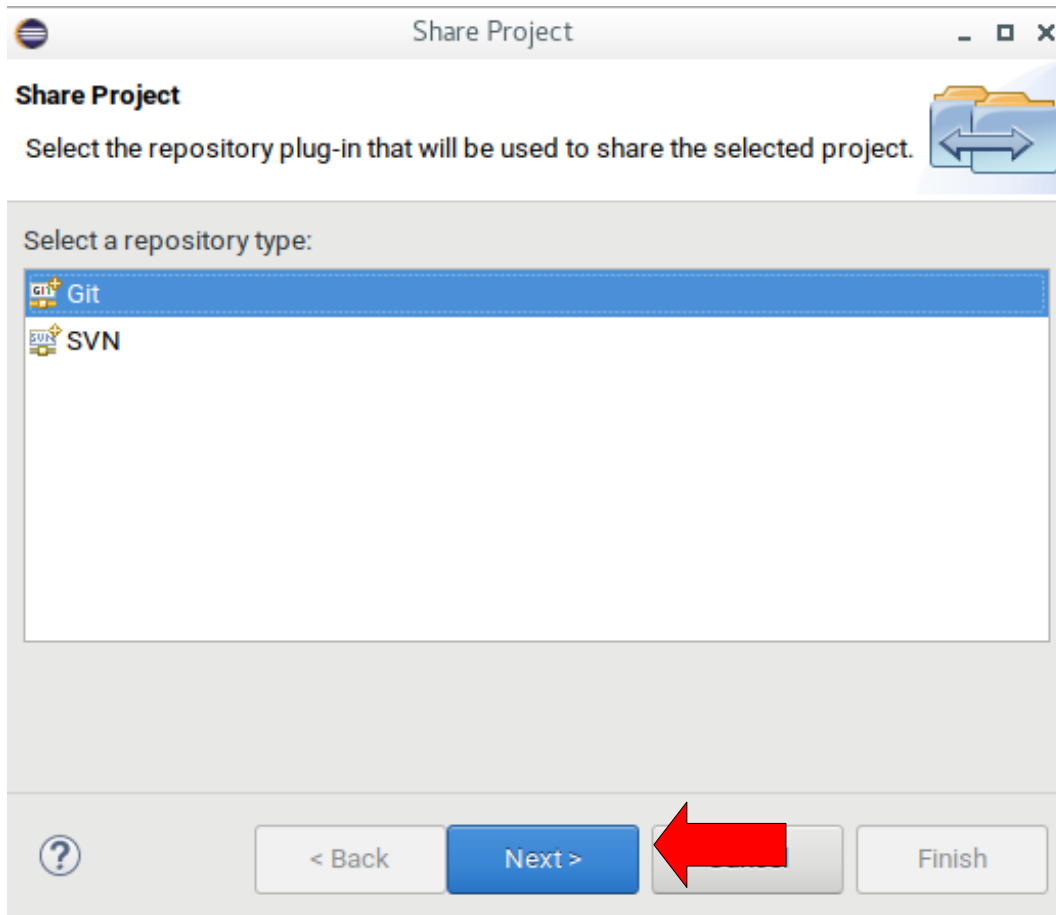
...or create a new repository on the command line

```
echo "# cs300f19_will4614" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin git@github.com:chaddcw/cs300f19_will4614.git
git push -u origin master
```

...or push an existing repository from the command line

```
git remote add origin git@github.com:chaddcw/cs300f19_will4614.git
git push -u origin master
```







Share Project





Configure Git Repository

Select an existing repository or create a new one

☐ Use or create repository in parent folder of project

Repository:

Working tree:

Path within repository:

Create...

Browse...

Project	Current Location	Target Location
☒	 CS300_Te	/home/chadd/eclipse-workspace-CS300

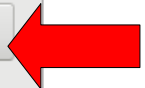


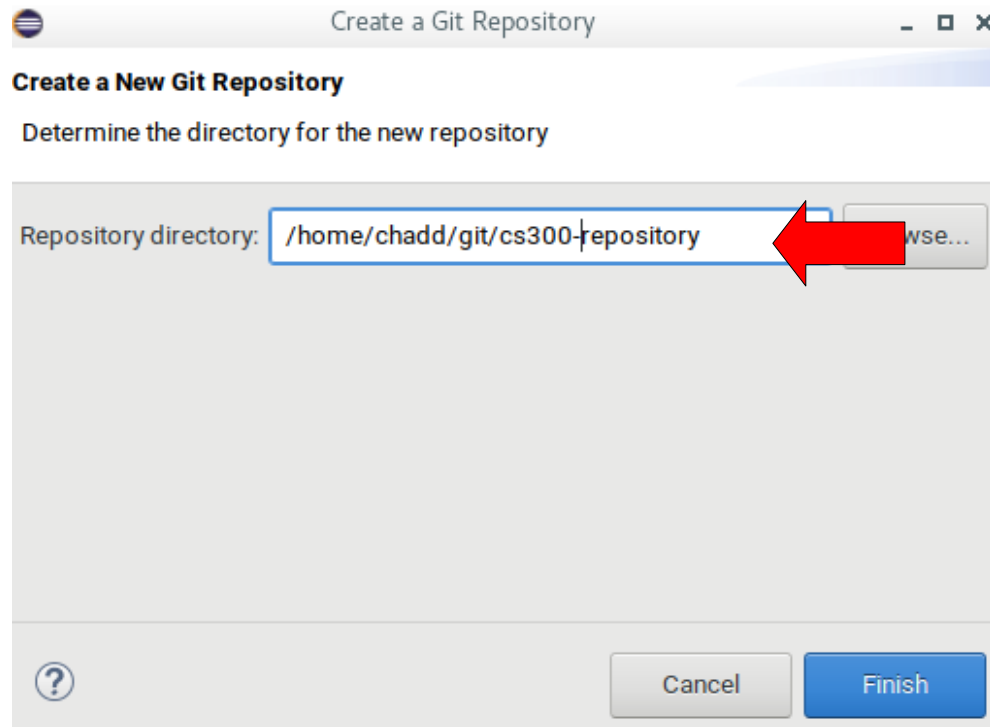
< Back

Next >

Cancel

Finish





Share Project

Configure Git Repository
Select an existing repository or create a new one

☐ Use or create repository in parent folder of project

Repository:

cs300-repository - /home/chadd/git/cs300-repository/.git

Create...

Working tree:

/home/chadd/git/cs300-repository

Path within repository:

Browse...

Project	Current Location	Target Location
☒  CS300_Te	/home/chadd/eclipse-workspace-CS300	/home/chadd/git/cs300-repository/CS300_TestProject

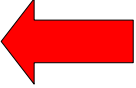


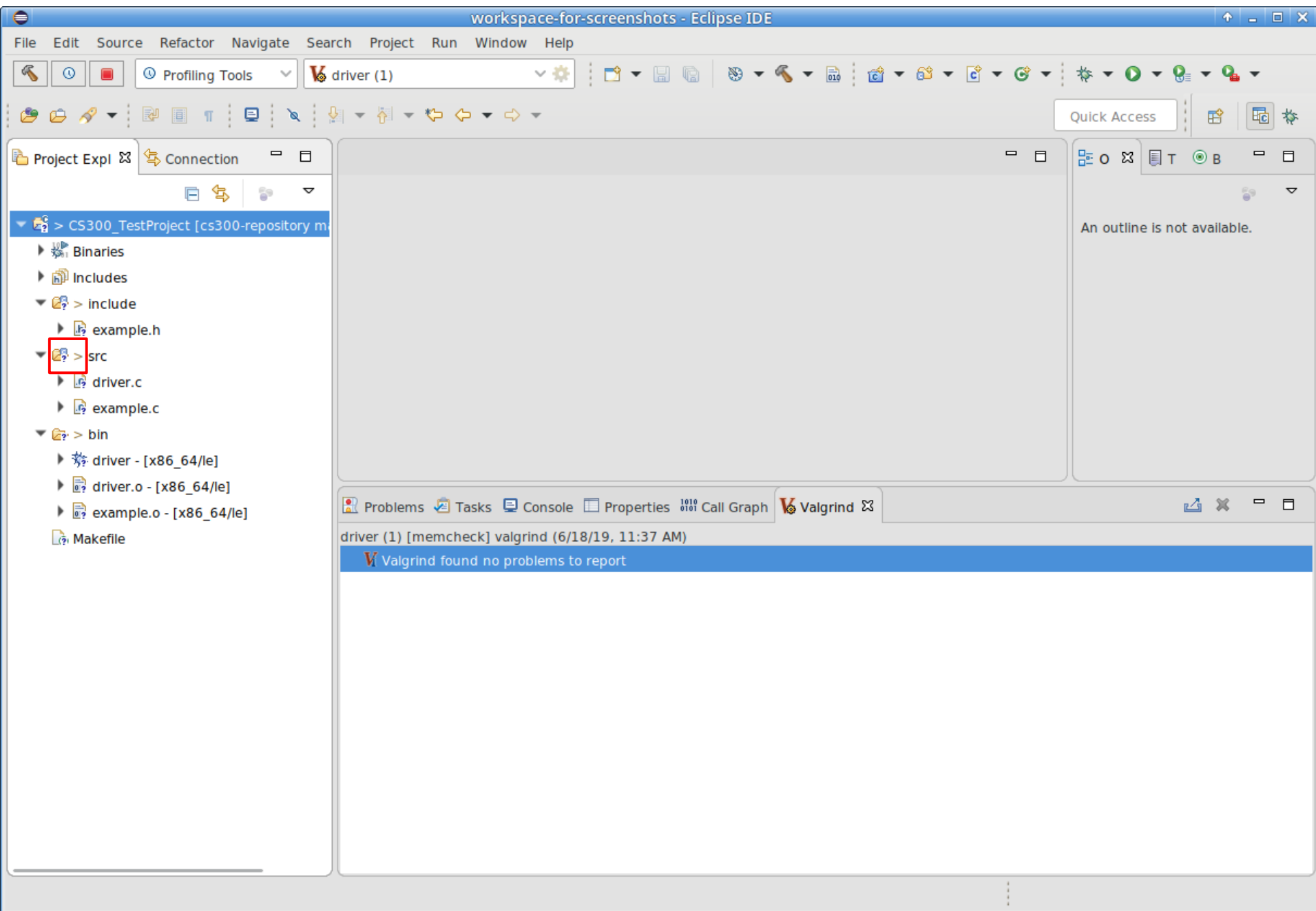
< Back

Next >

Cancel

Finish





Dash Big Oh



```
chadd@coffee:~> cd ~/git/cs300-repository/CS300_TestProject
chadd@coffee:~/git/cs300-repository/CS300_TestProject (master #)> wget zeus.cs.pacificu.edu/chadd/Eclipse.gitignore -O .gitignore
--2019-06-18 11:56:11-- http://zeus.cs.pacificu.edu/chadd/Eclipse.gitignore
Resolving zeus.cs.pacificu.edu (zeus.cs.pacificu.edu)... 64.59.233.197
Connecting to zeus.cs.pacificu.edu (zeus.cs.pacificu.edu)|64.59.233.197|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 699
Saving to: '.gitignore'

.gitignore                100%[=====>]                699  --.-KB/s    in 0s
2019-06-18 11:56:11 (175 MB/s) - '.gitignore' saved [699/699]

chadd@coffee:~/git/cs300-repository/CS300_TestProject (master #)>
```

Do this once per project

Note how the directory name is related to the directory
from two slides ago

Git Setup – Once Per Computer

At the command line:

```
git config --global user.name "chadd williams"
```

```
git config --global user.email "will4614@pacificu.edu"
```

Git Setup – Once per repository
(should be once per semester).

At the command line, inside the project:

```
chadd@coffee:~/git/cs300-repository/CS300_TestProject (master)>
```

```
git remote add origin git@github.com:chaddcw/cs300f19_will4614.git
```

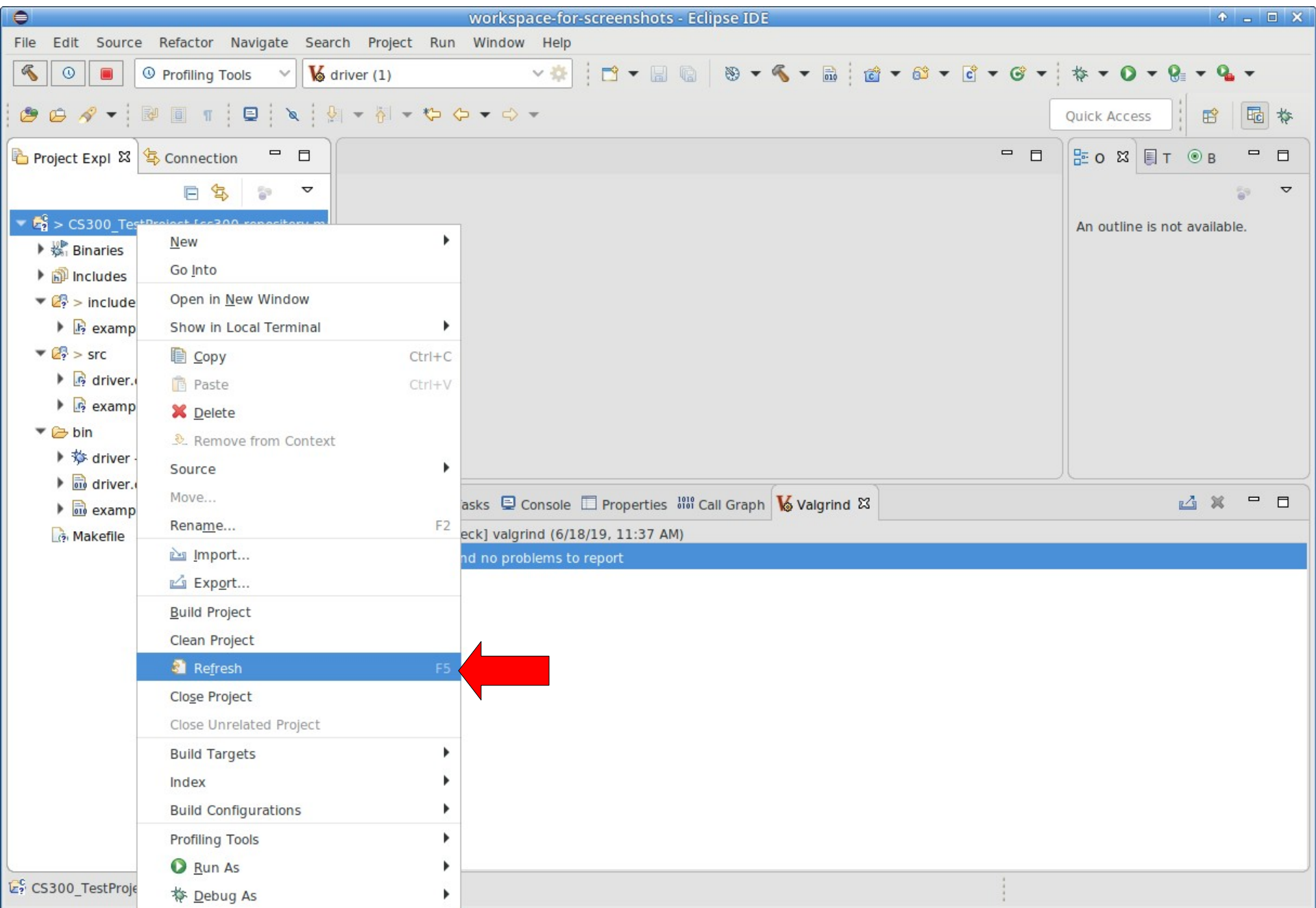
SSH Address from GitHub

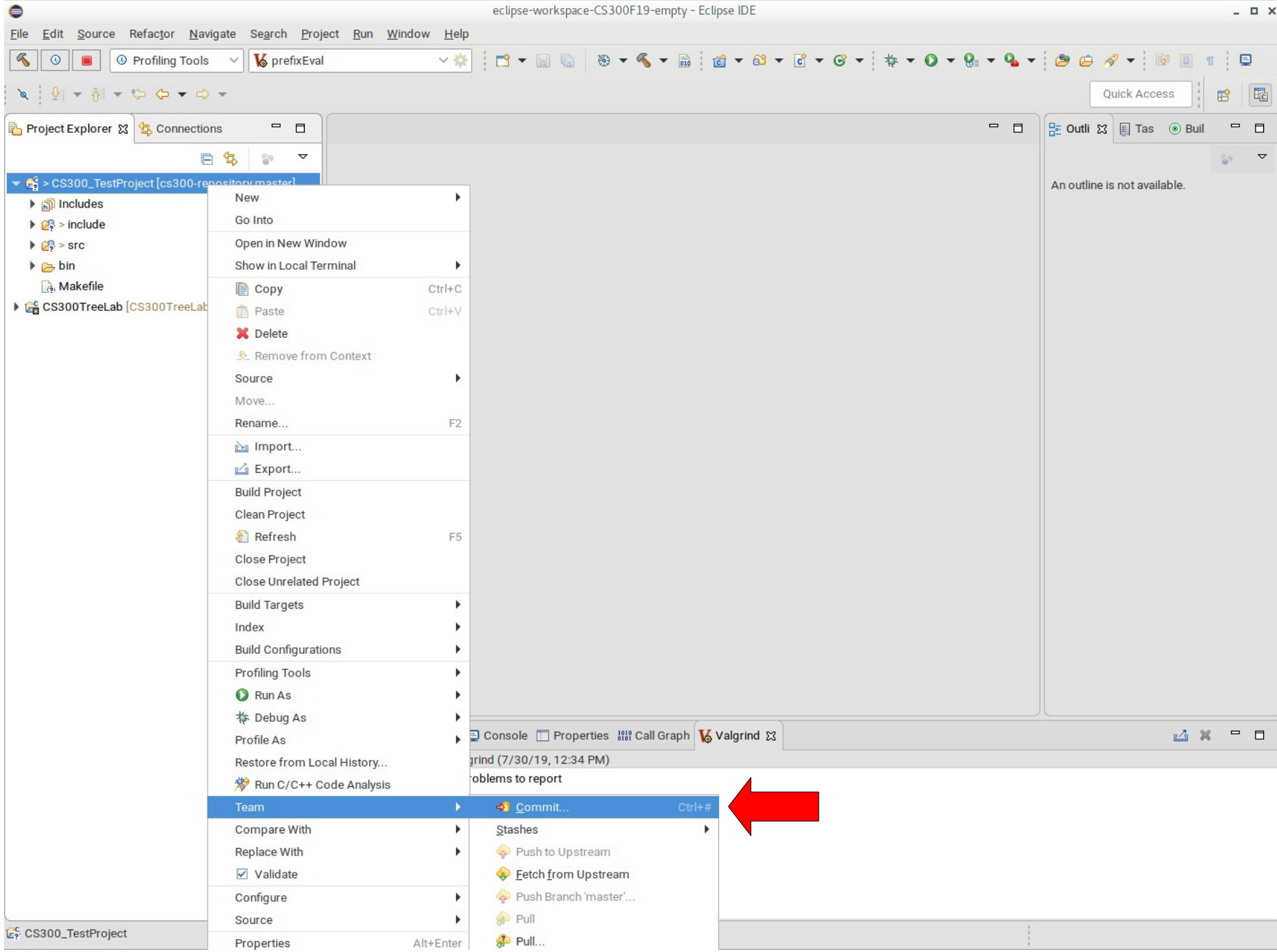
Check to make sure it worked:

```
git remote -v
```

```
origin  git@github.com:chaddcw/cs300f19_will4614.git (fetch)
```

```
origin  git@github.com:chaddcw/cs300f19_will4614.git (push)
```





> CS300_TestProject [cs300-repository master]

- Includes
- > include
- > src
- bin
- Makefile

CS300TreeLab [CS300TreeLab]

An outline is not available.

Filter files

> cs300-repository [master]

Unstaged Changes (7)

- .cproject - CS300_TestProject
- .gitignore - CS300_TestProject
- .project - CS300_TestProject
- driver.c - CS300_TestProject/src
- example.c - CS300_TestProject/src
- example.h - CS300_TestProject/include
- Makefile - CS300_TestProject

Staged Changes (0)

Commit Message

Unborn branch: this commit will create the branch 'master'.

Author: chadd williams <chaddcw+gitlab@gmail.com>

Committer: chadd williams <chaddcw+gitlab@gmail.com>

Commit and Push...

Commit

eclipse-workspace-CS300F19-empty - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Profiling Tools prefixEval

Project Explorer CS300_TestProject [cs300-repository master]

- Includes
- include
- src
- bin
- Makefile
- CS300TreeLab [CS300TreeLab]

Connections

Outline Task L Build

An outline is not available.

Problems Tasks Console Properties Call Graph Valgrind Git Staging

Filter files

> cs300-repository [master]

Unstaged Changes (0)

Staged Changes (7)

- .cproject - CS300_TestProject
- .gitignore - CS300_TestProject
- .project - CS300_TestProject
- driver.c - CS300_TestProject/src
- example.c - CS300_TestProject/src
- example.h - CS300_TestProject/include
- Makefile - CS300_TestProject

Commit Message

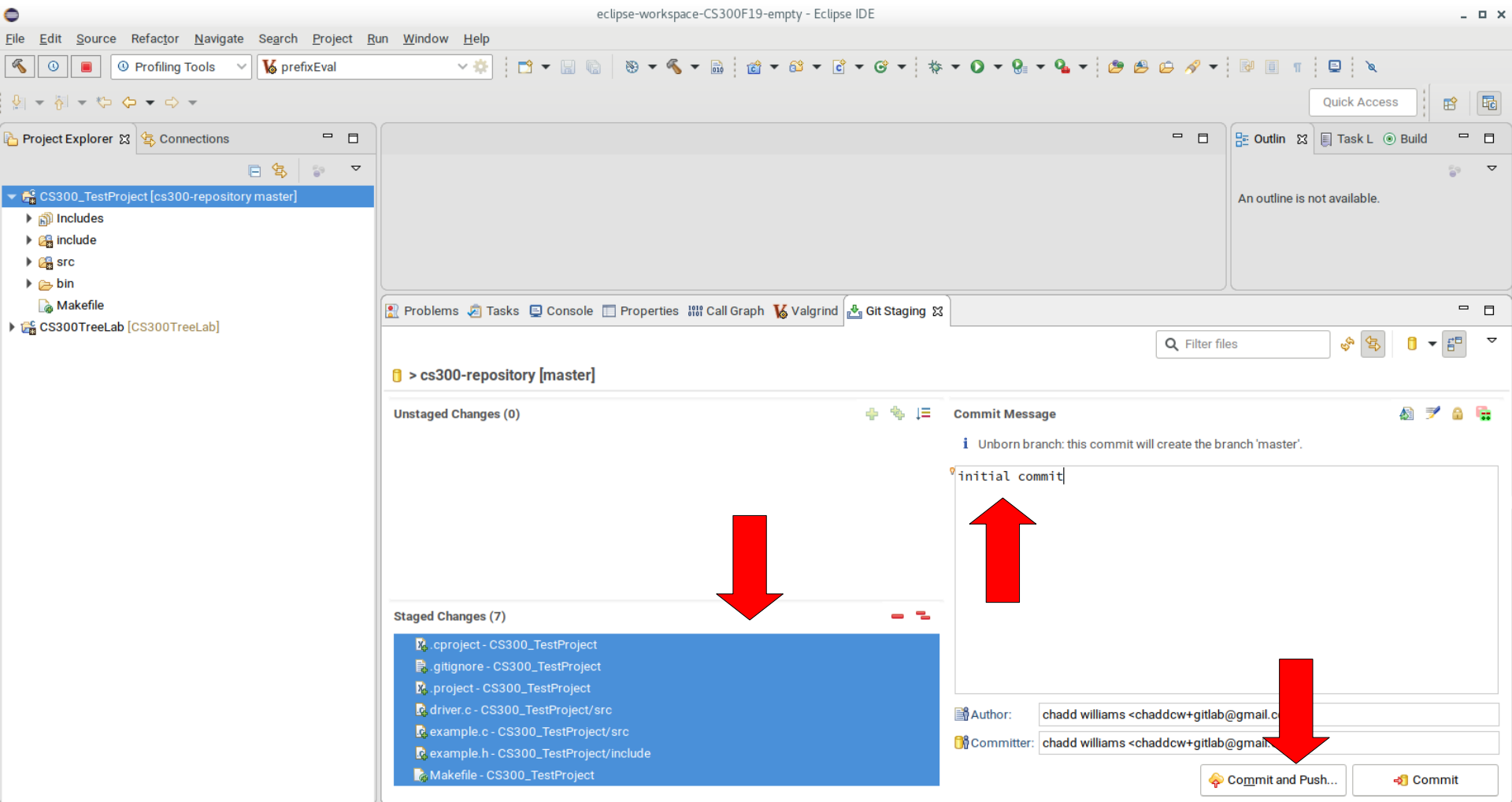
Unborn branch: this commit will create the branch 'master'.

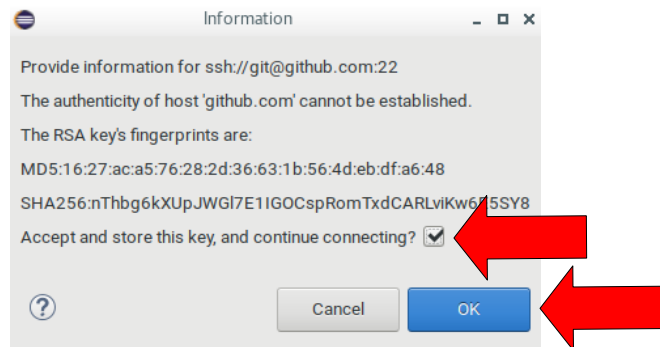
initial commit

Author: chadd williams <chaddcw+gitlab@gmail.com>

Committer: chadd williams <chaddcw+gitlab@gmail.com>

Commit and Push... Commit







Push Branch master



Push to branch in remote

Select a remote and the name the branch should have in the remote.



Source:

master d2a36de initial commit

Destination:

Remote:

[New Remote...](#)

Branch:

☒ Configure upstream for push and pull

When pulling:

☐ Force overwrite branch in remote if it exists and has diverged

Show [advanced push](#) dialog



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Next >

Finish



Push Branch master



Push Confirmation

Confirm following expected push result.



 master → master [new branch]



Message Details

Repository `git@github.com:chaddcw/cs300f19_will4614.git`

- ☐ Cancel push if result would be different than above because of changes on remote
- ☐ Show dialog with result only when it is different from the confirmed result above



< Back

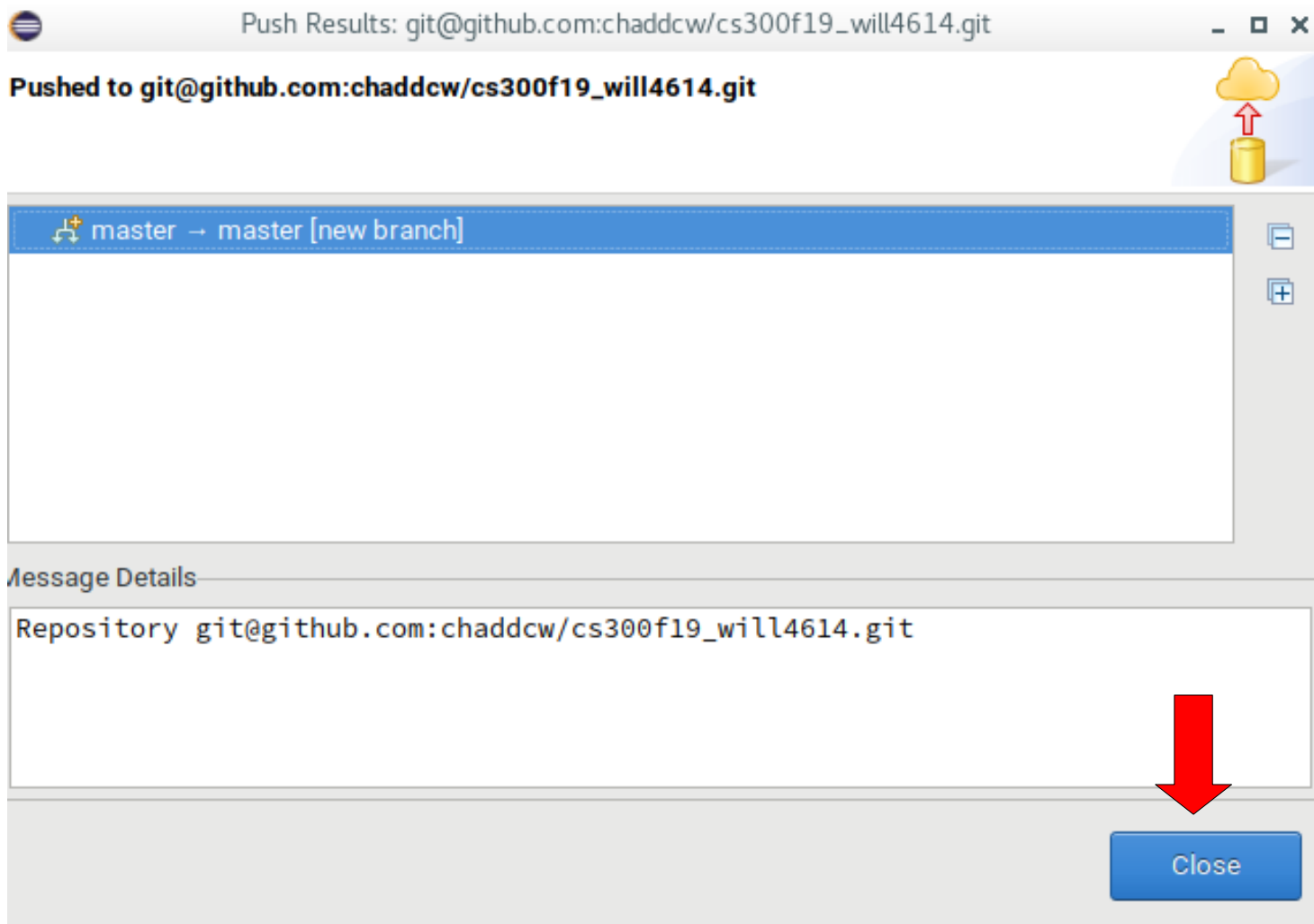
Next >

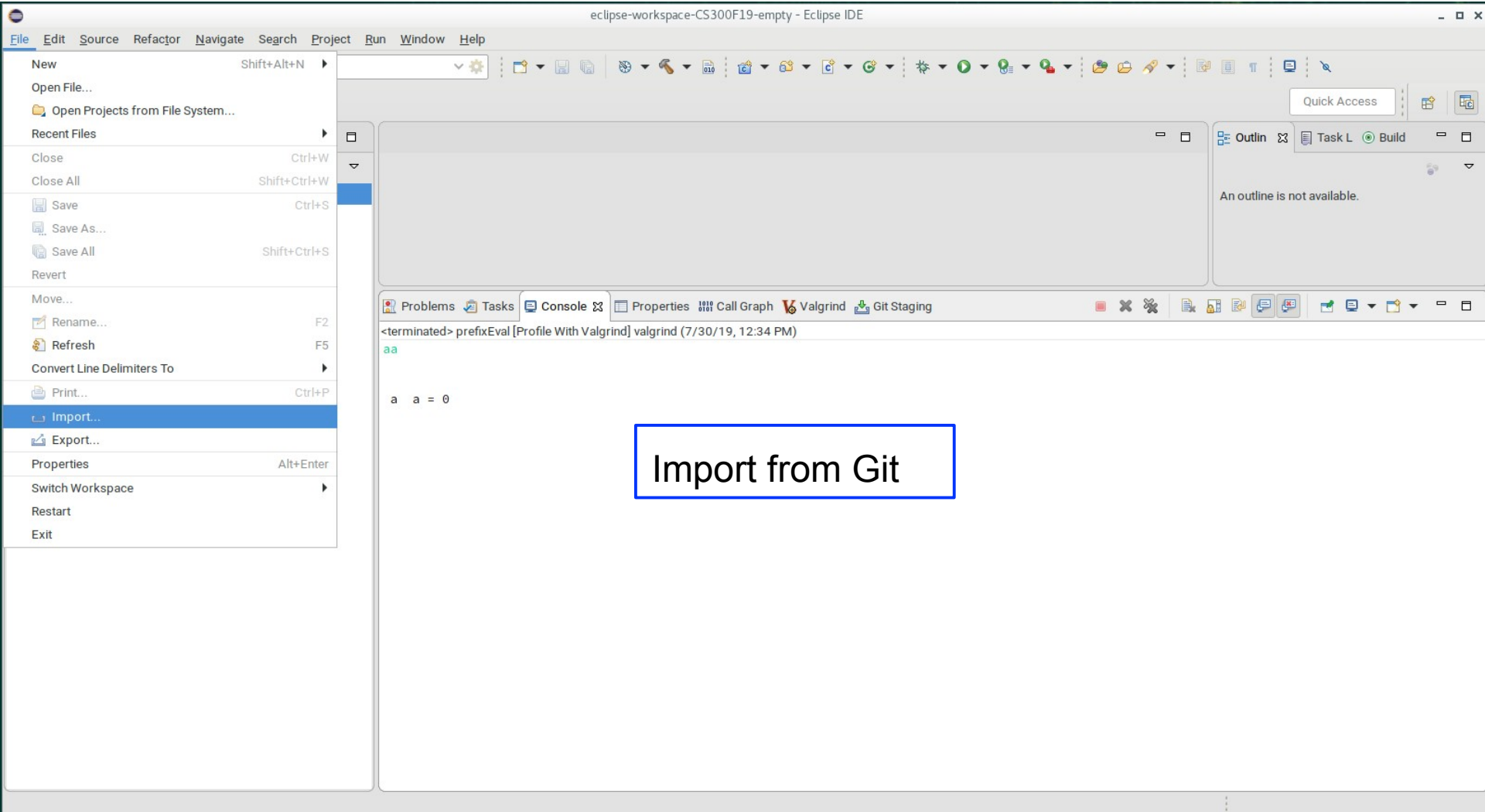
Cancel

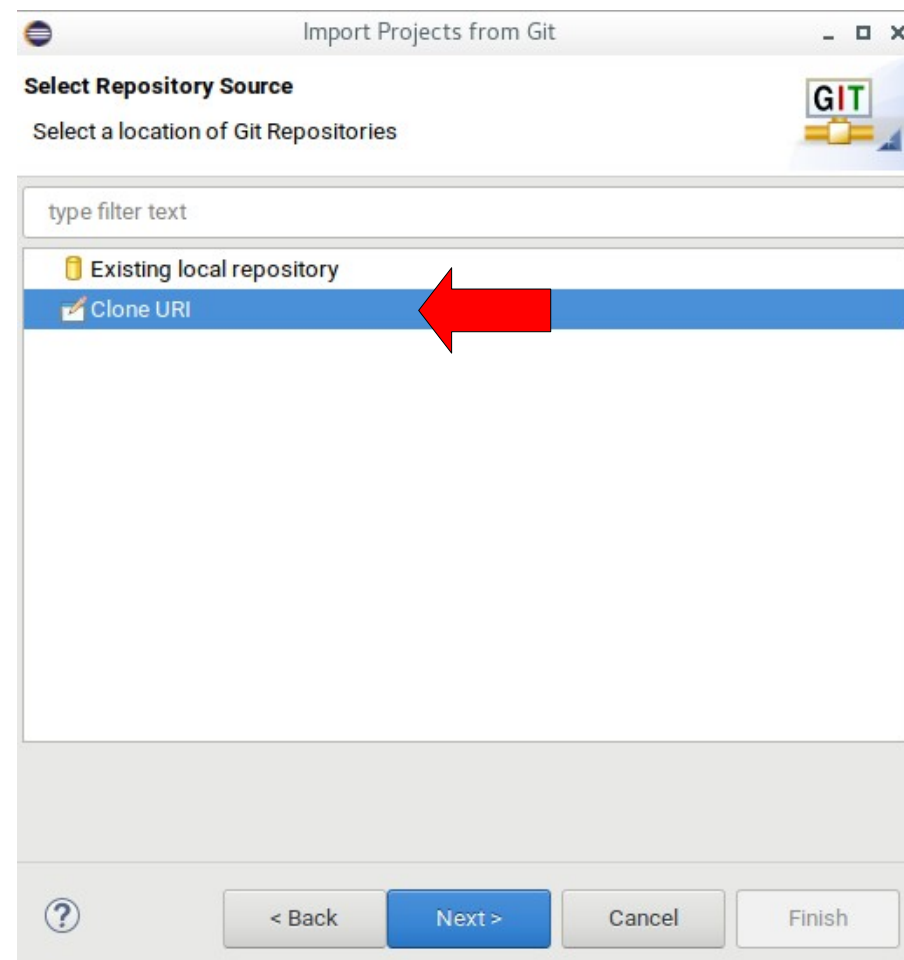
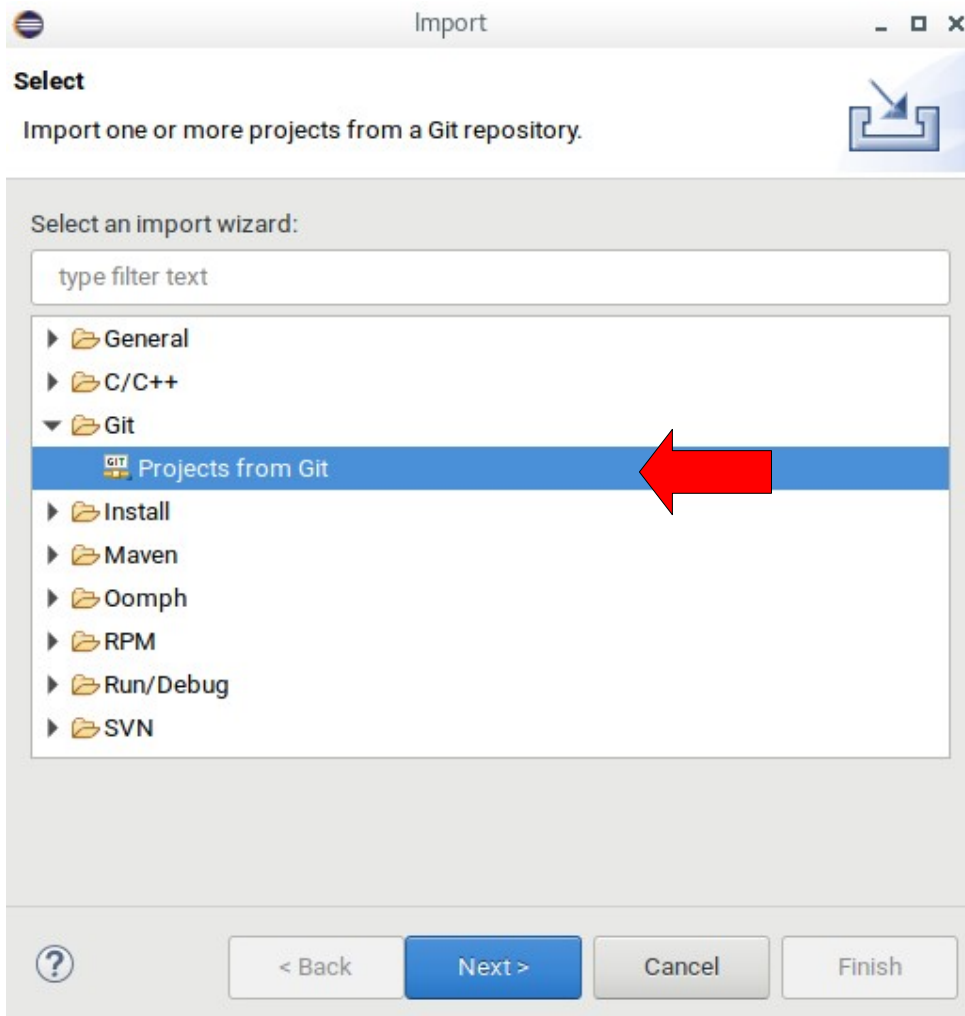
Finish



Success!







**Source Git Repository**

Enter the location of the source repository.



Location

URI:

Host:

Repository path:

Connection

Protocol:

Port:

Authentication

User:

Password:



Store in Secure Store

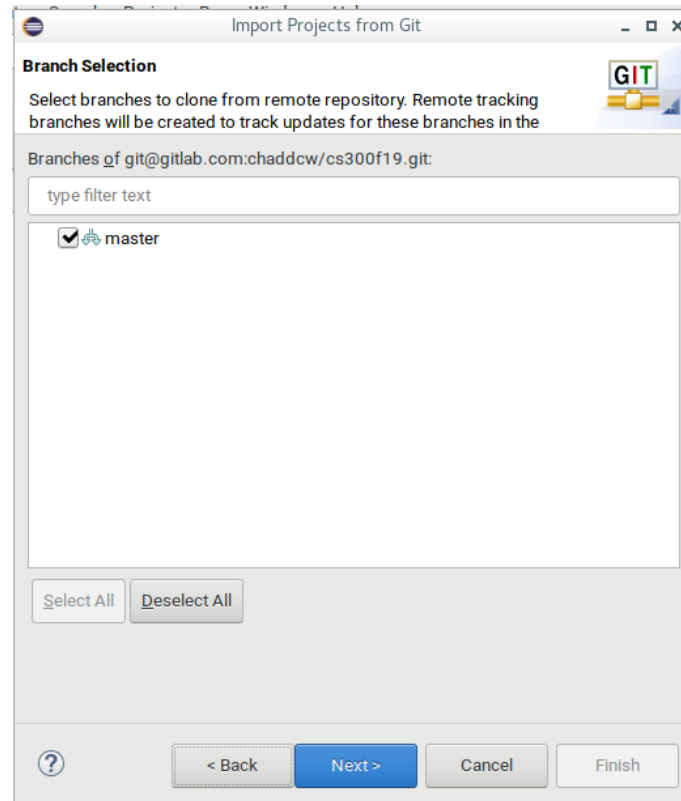


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Next >

Cancel

Finish



 Import Projects from Git ⌵ □ ✕

Local Destination 

Configure the local storage location for cs300f19.

Destination

Directory: 

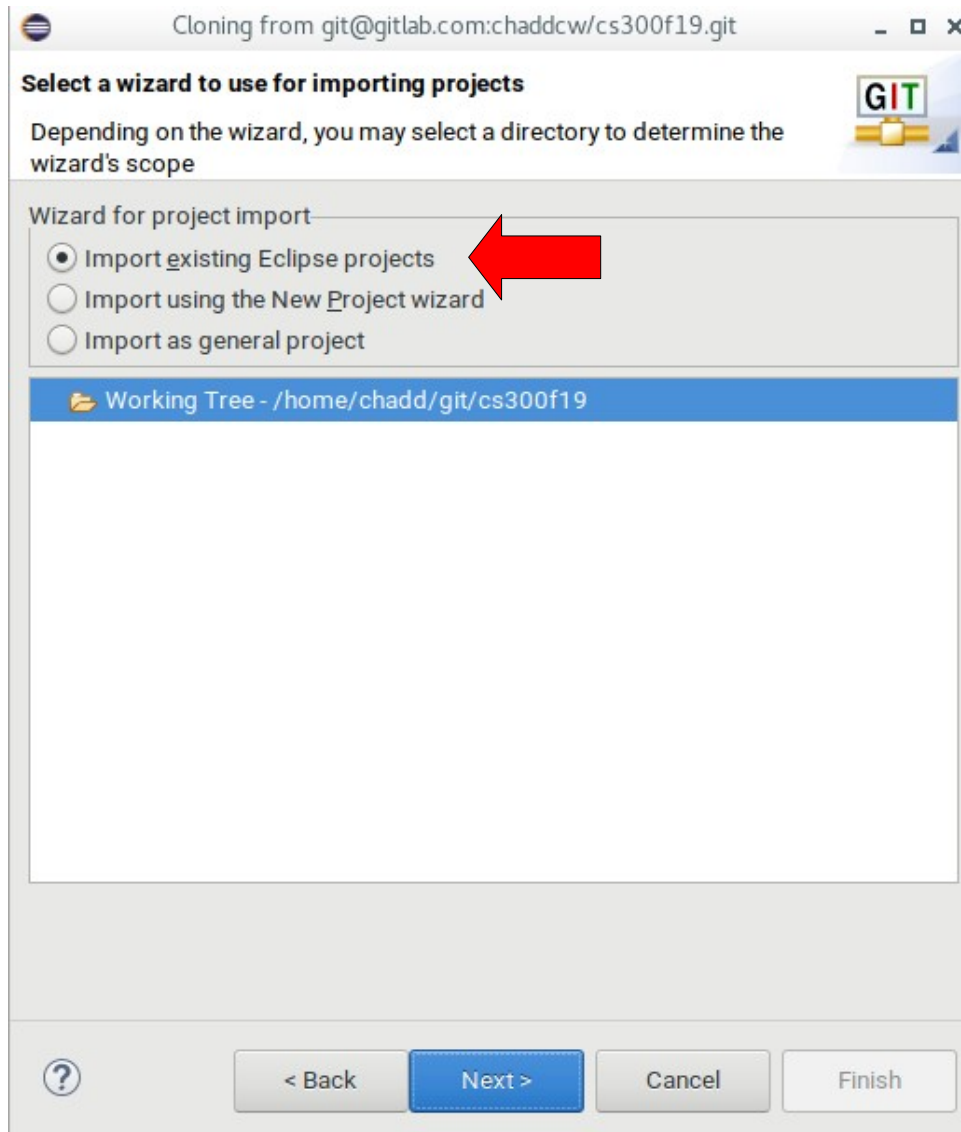
Initial branch:

☐ Clone submodules

Configuration

Remote name:





Import Projects

Import projects from a Git repository



Projects:

type filter text to filter unselected projects

Select All

Deselect All

- ☒ CharacterStaticStack (/home/chadd/git/cs300f19/Charac
- ☒ CharacterStaticStack_Solution (/home/chadd/git/cs300f19
- ☒ GenericLinkedList_Solution (/home/chadd/git/cs300f19/G
- ☒ ListWithHandles (/home/chadd/git/cs300f19/ListWithHan
- ☒ ValgrindLab_Solution (/home/chadd/git/cs300f19/Valgrin
- ☒ ValgrindLinkedListLab (/home/chadd/git/cs300f19/Valari

☒ Search for nested projects

Working sets

☐ Add project to working sets

New...

Working sets:

Select...



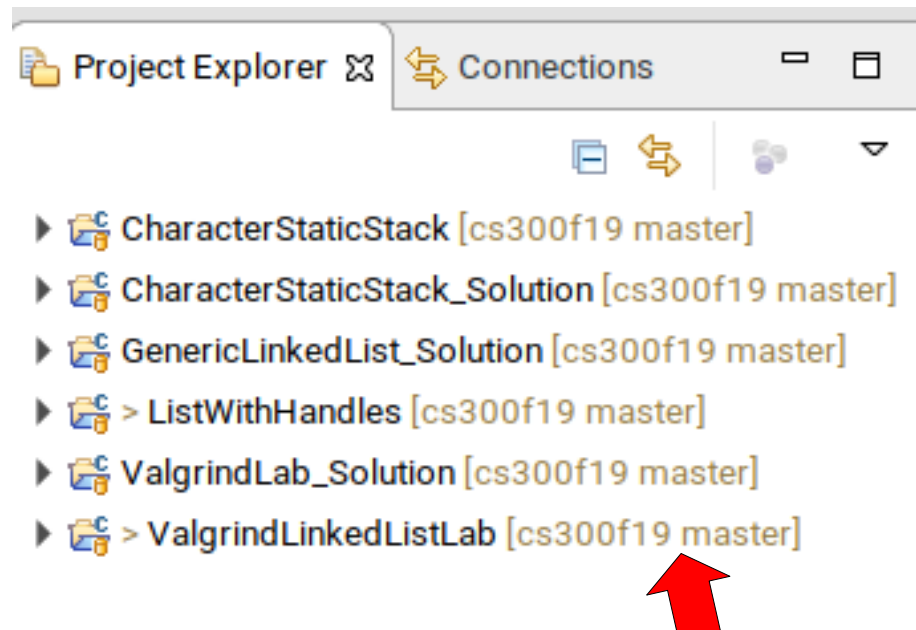
< Back

Next >

Cancel

Finish

Success!



Pull Changes from Git

