

Introduction to Python Coding:
Using jGRASP

PowerPoint Presentation
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Section 3.1

Introduction

Introduction

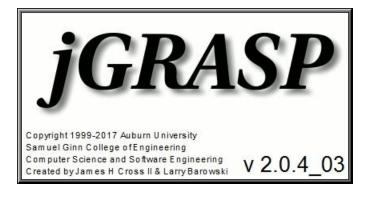
This chapter will start by showing you the necessary tools to write simple programs. Keep in mind that you will be creating your programs in a high-level language, Python. This means you need some type of editing environment in which to write your programs. After the program is written you need to translate and execute your program. For now, learning those fundamental program-writing skills is your primary concern.

Section 3.2 Using jarasp for Python

Required Software

In Chapter 2 you installed the **Java**, **jGRASP** and **Python** in order to write and execute Python programs. You may wonder why you had to install <u>Java</u> to run <u>Python</u> programs. The answer is **jGRASP** was written in **Java** and cannot execute without it.







The LearnIntroCS Folder











This chapter assumes that the **LearnIntroCS** folder has been been copied to your **Desktop**. If you have this folder in a different location, (**Documents** for example) then you will need to go to that location anytime the directions say to go to the **Desktop**. If you do not have this folder at all, you will need to get a copy of it from your teacher before you can do anything else.























What is an IDE?

IDE stands for Integrated Development Environment.

An IDE is an "environment" that contains everything you need to "develop" programs all "integrated" together.

Features of an IDE	
Text Editor	A full screen editor for writing your programs
	A file manager to save programs and load them again later
Translator	Used to translate your source code into machine code. Most languages use a compiler. Python uses an interpreter.
Output/Message Window	Show the output of your programs or displays error messages

jGRASP

The IDE that we will be using is **jGRASP**.

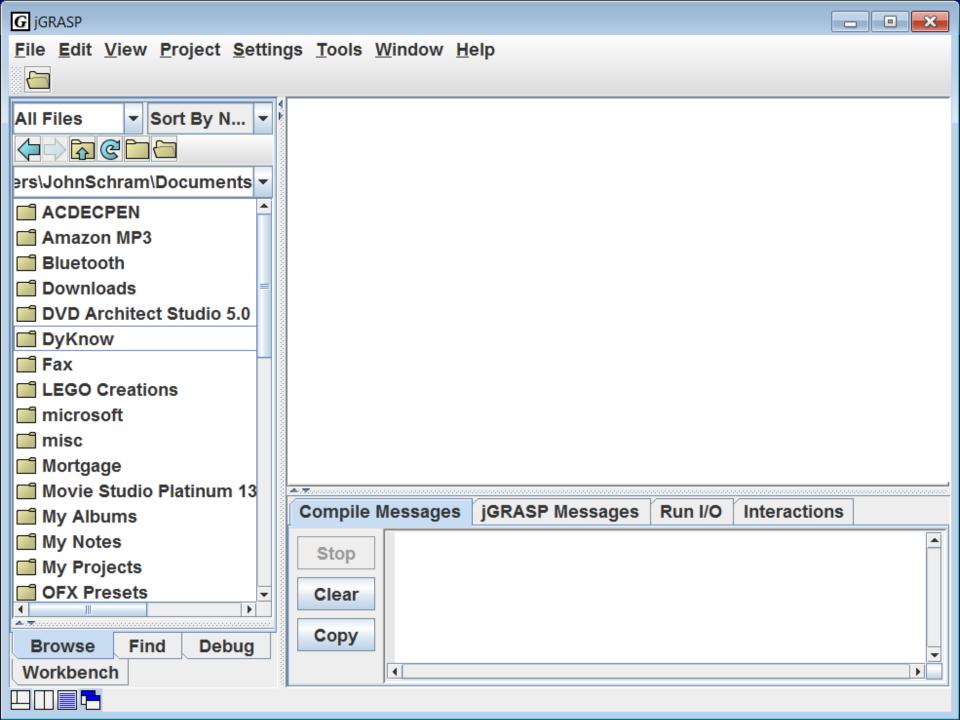
One of the main reasons that we are using **jGRASP** is that it is *freeware*.

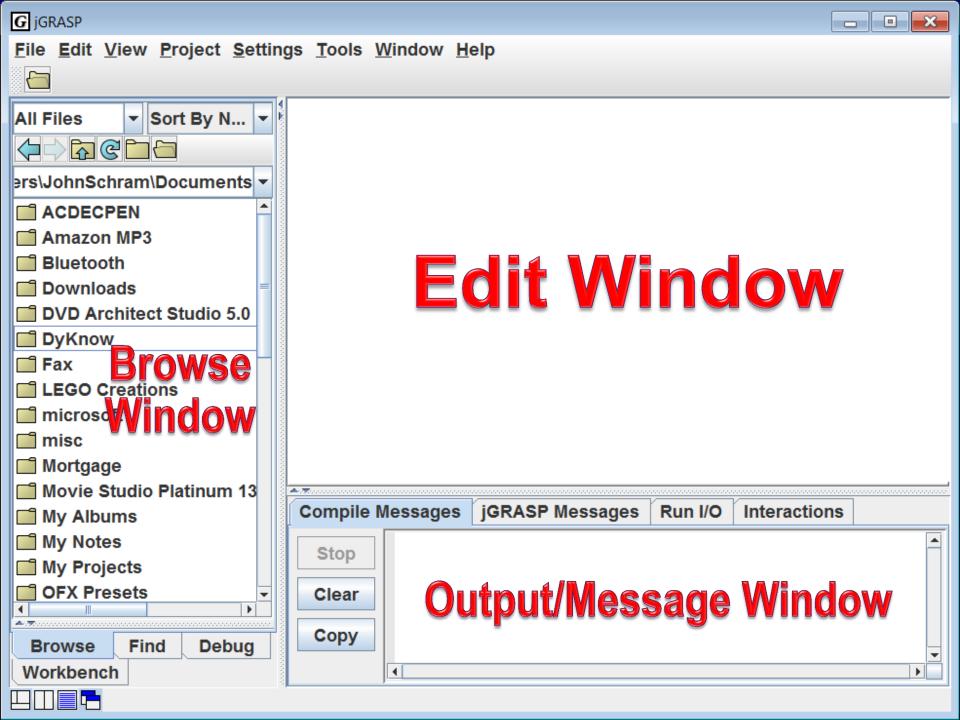
jGRASP also has other features that make it work well for our lab lectures and lab assignments.

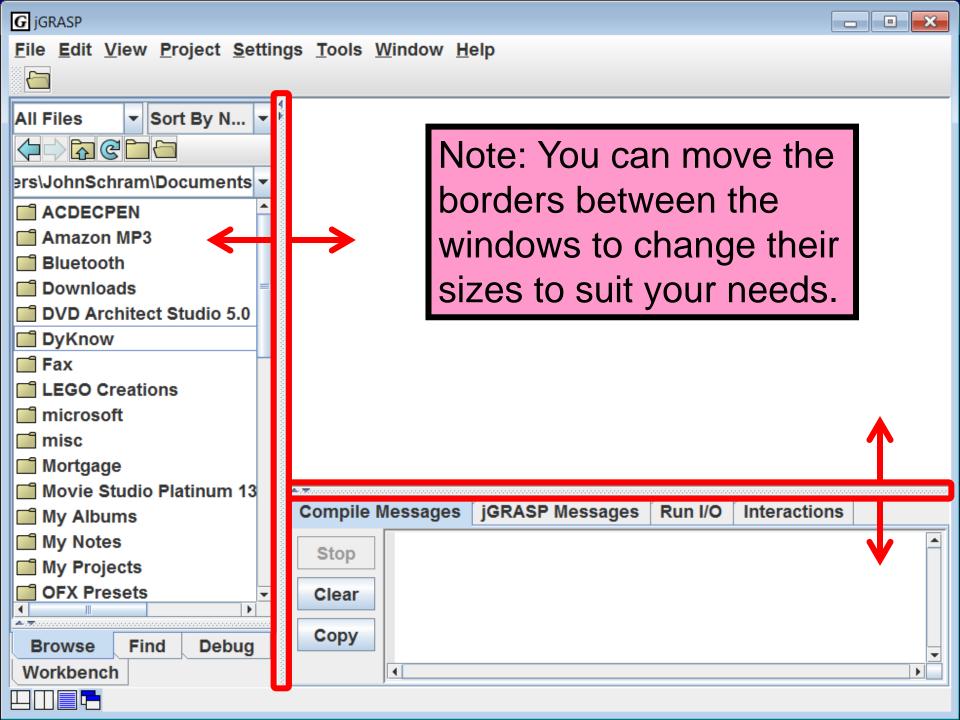
You will find the **jGRASP** icon either on your Desktop, Start menu, Taskbar, Dock, or amoung other apps in the Launcher.



Click/Double-click the icon to load **jGRASP**.



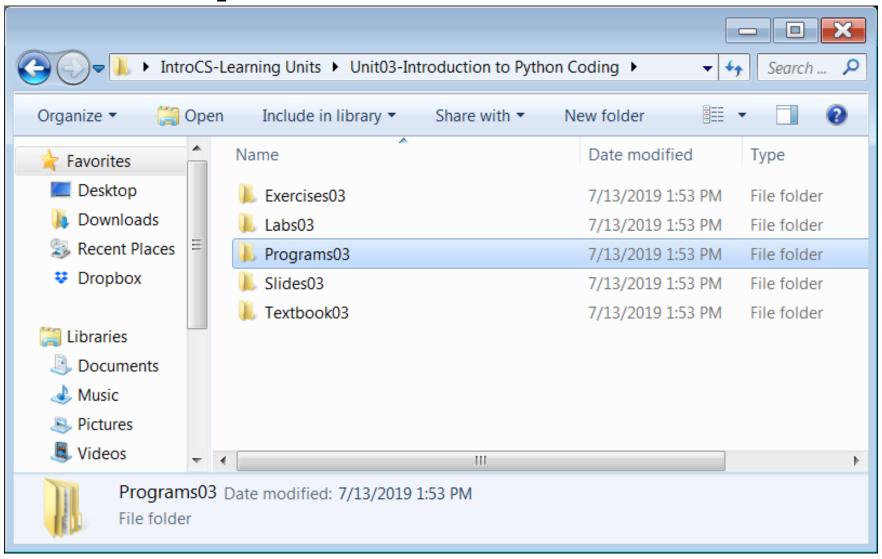




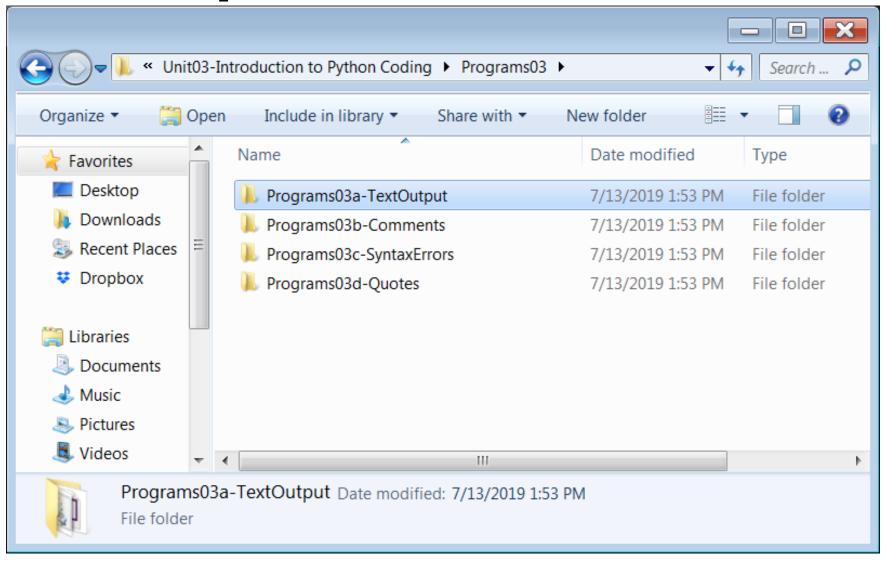
Organization of

Program Examples

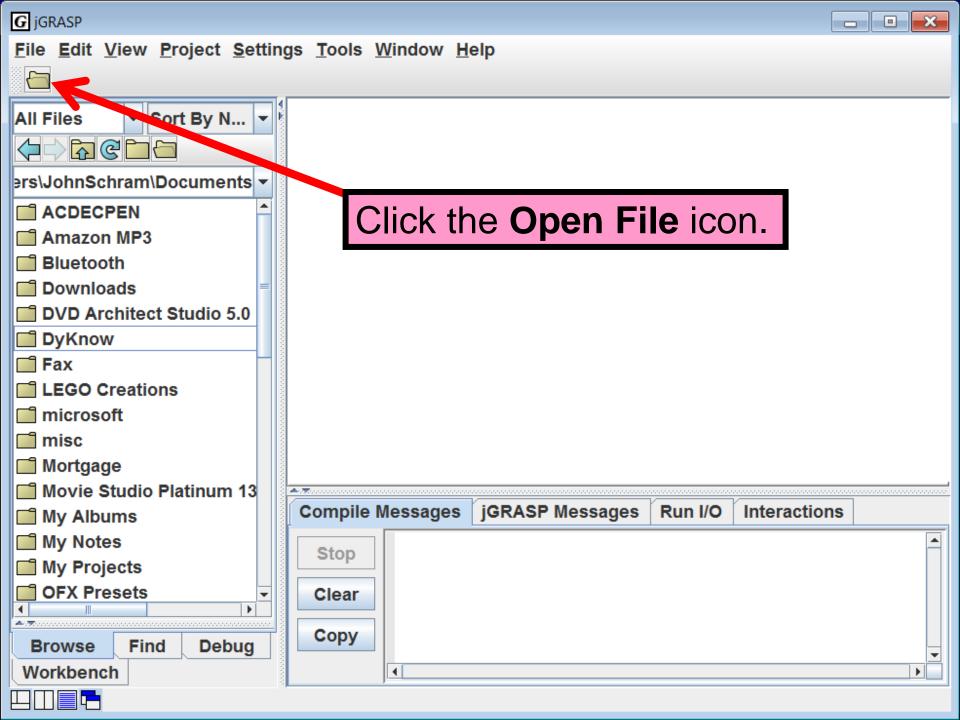
Organization of Program Examples in LearnIntroCS

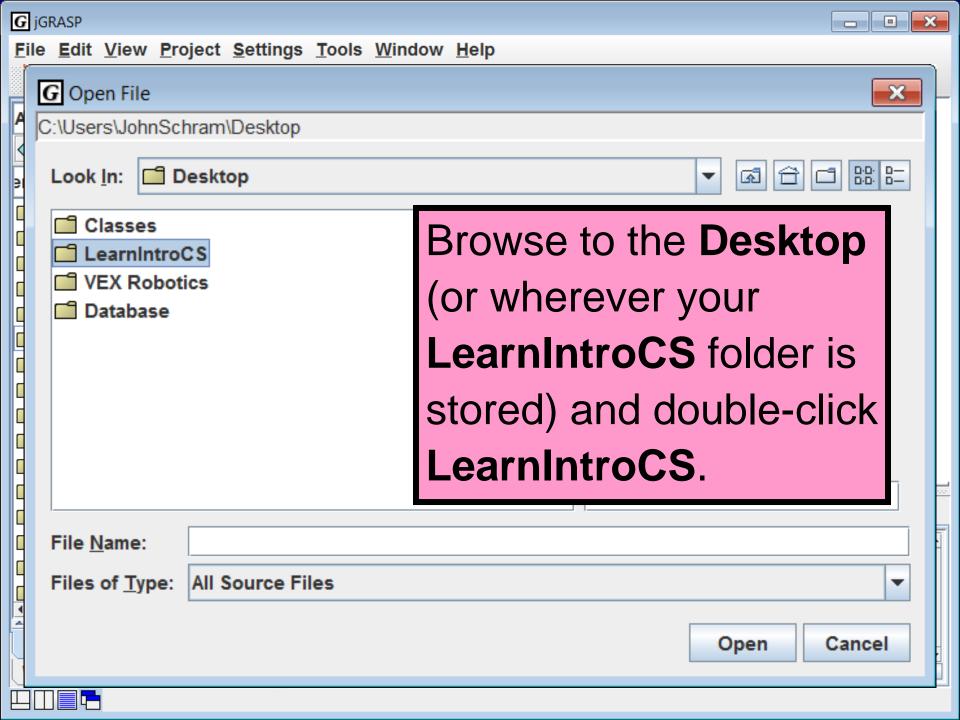


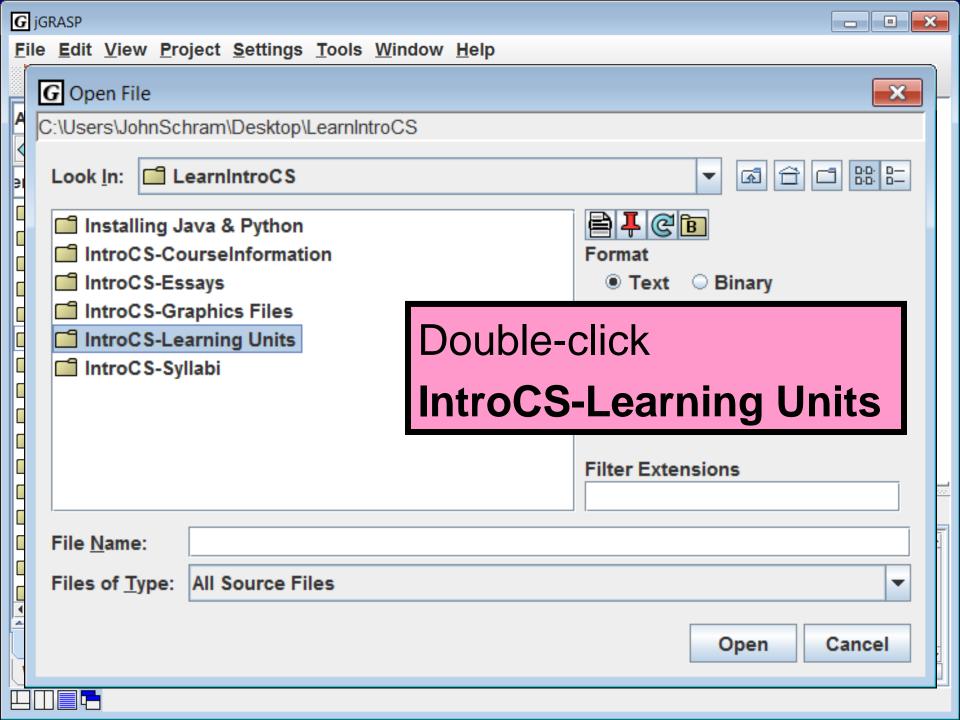
Organization of Program Examples in LearnIntroCS

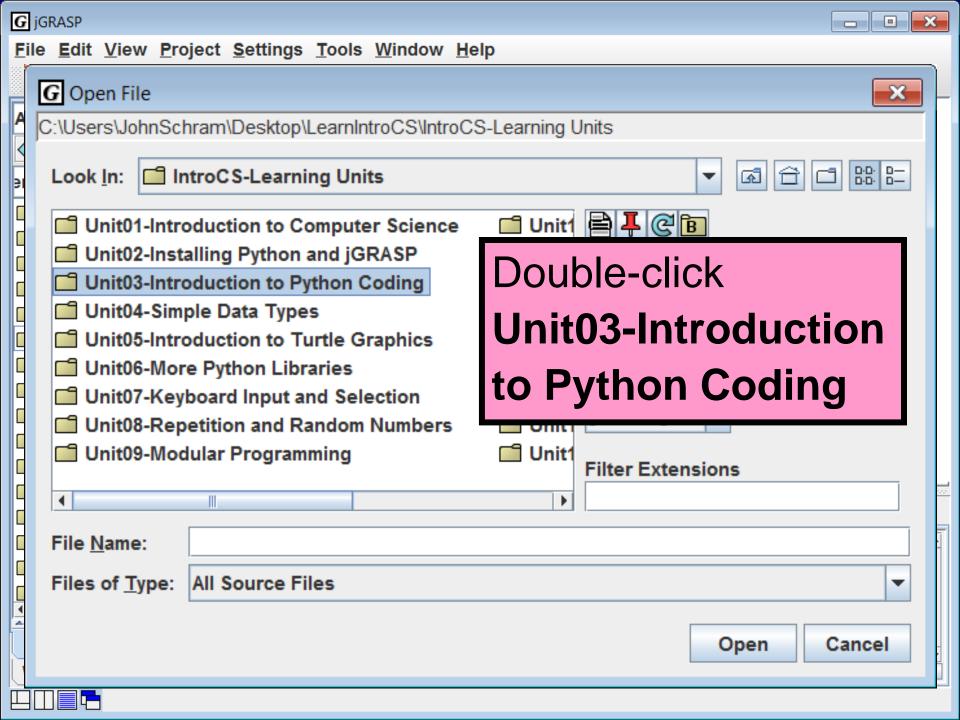


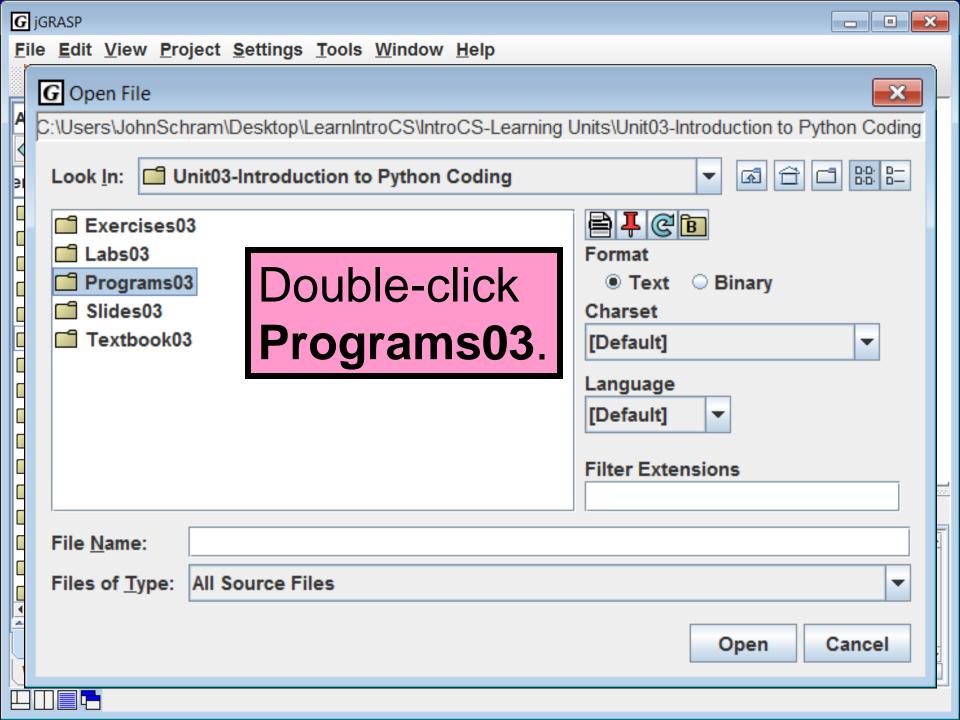
Loading, Executing & Editing Python Files in jarasp

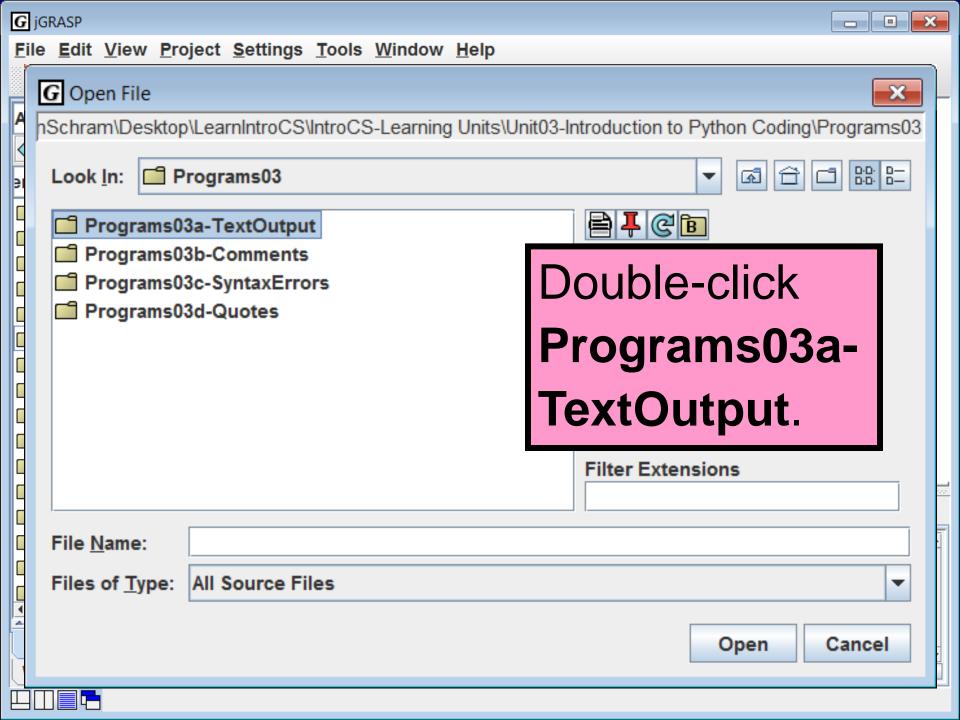


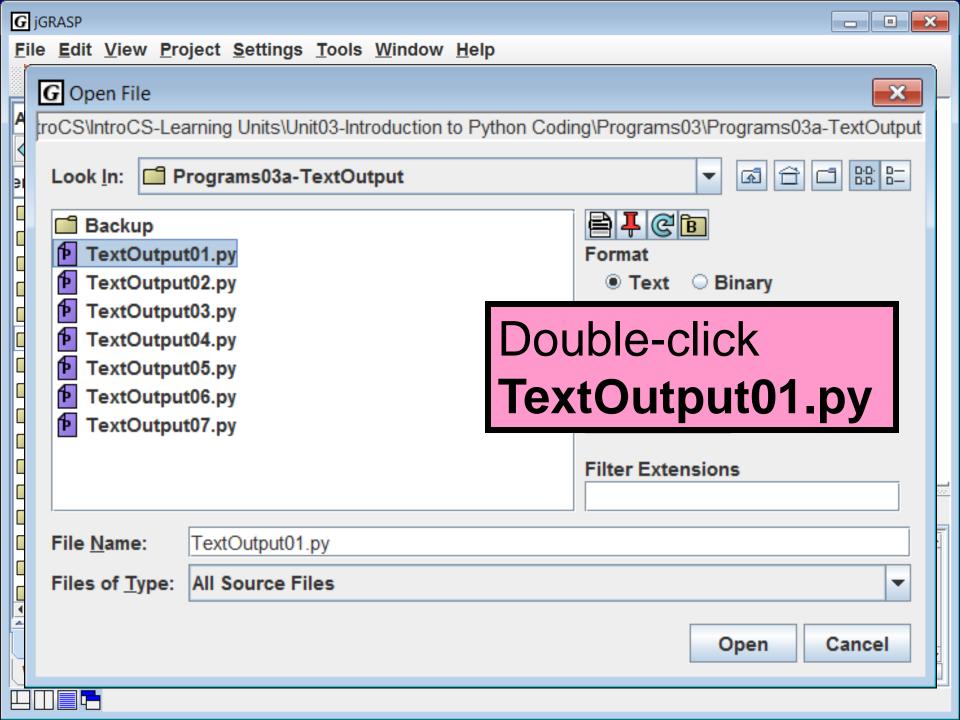


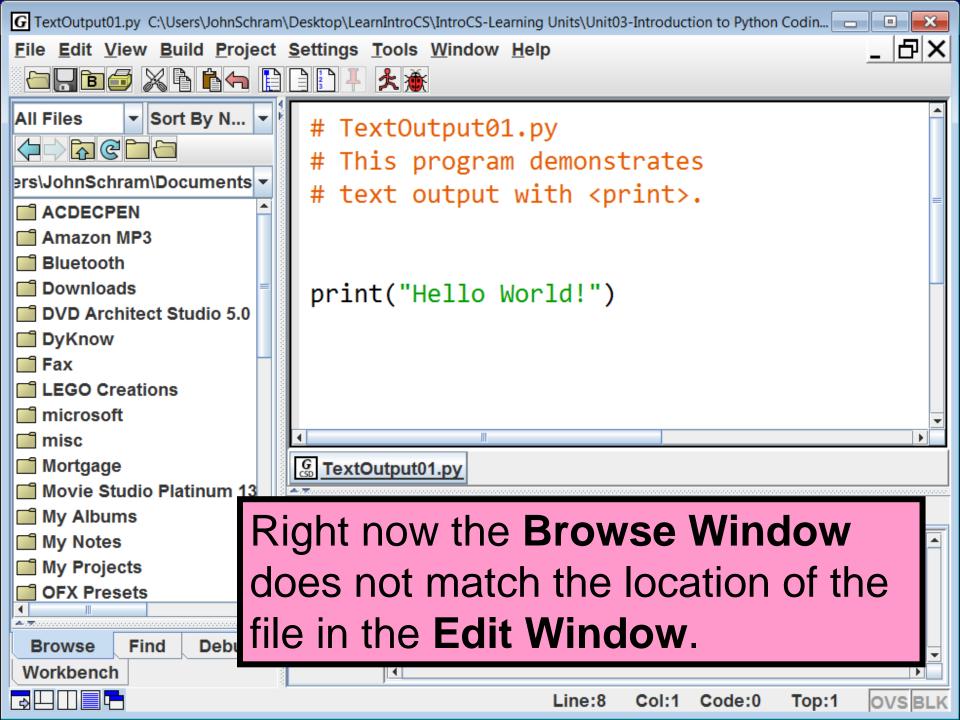


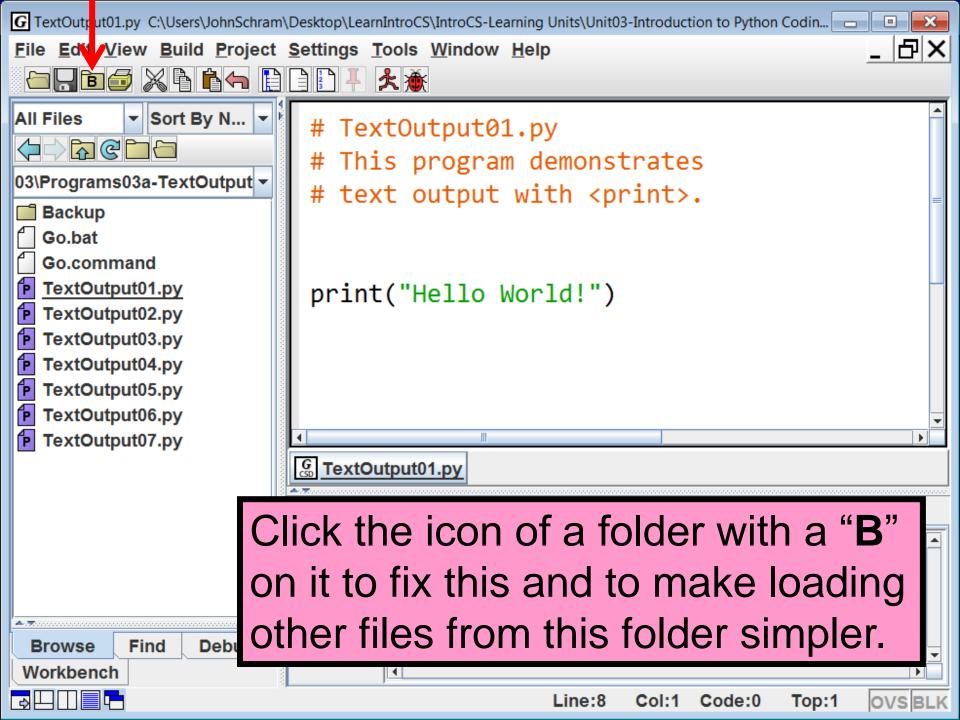


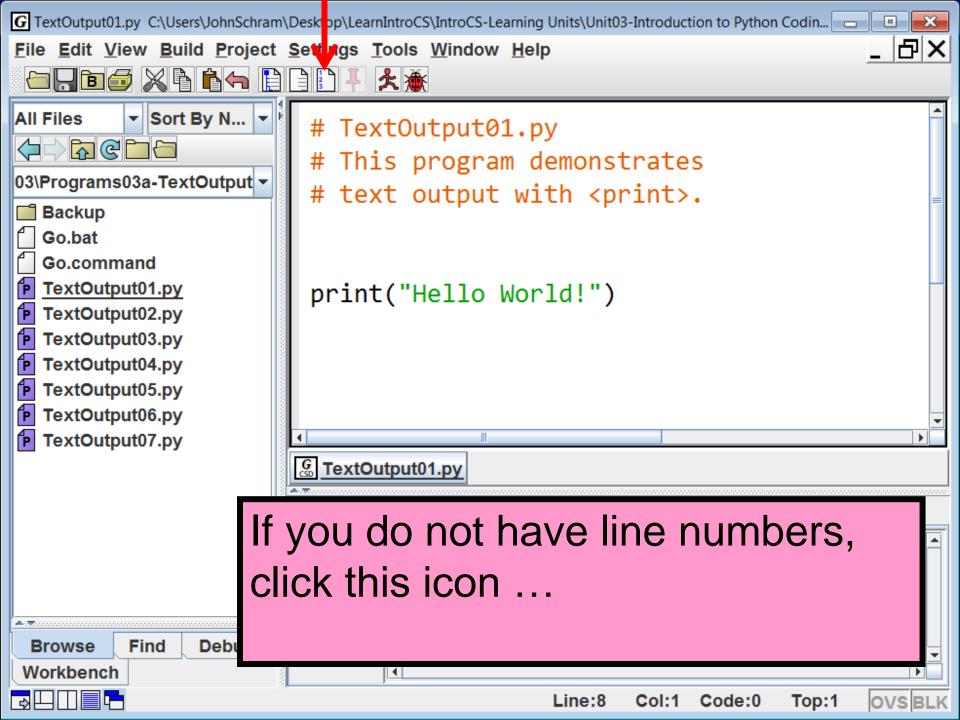


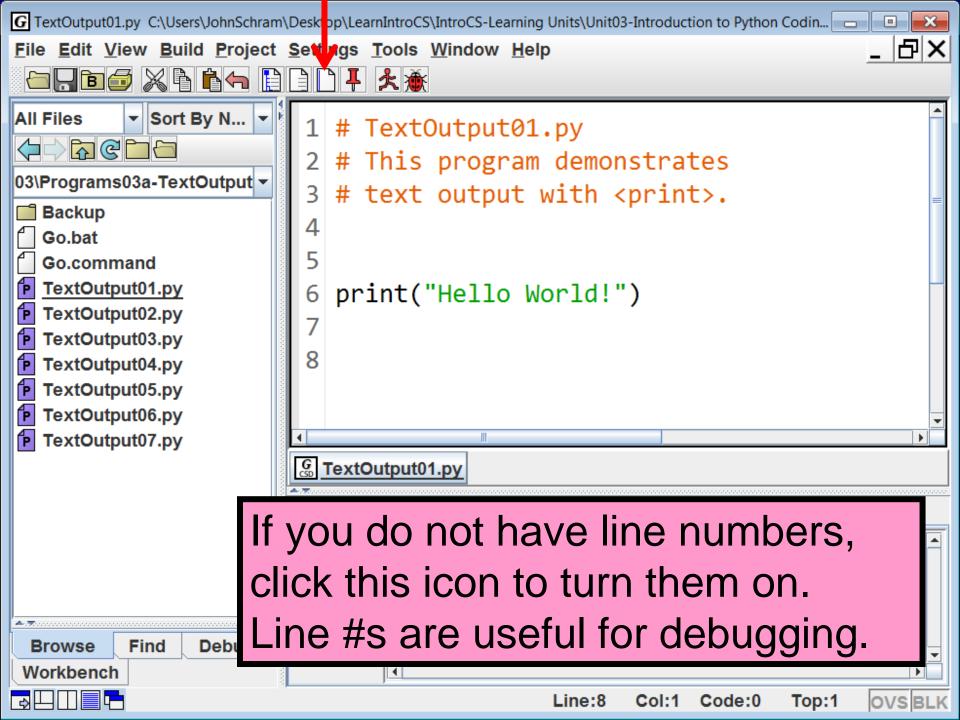


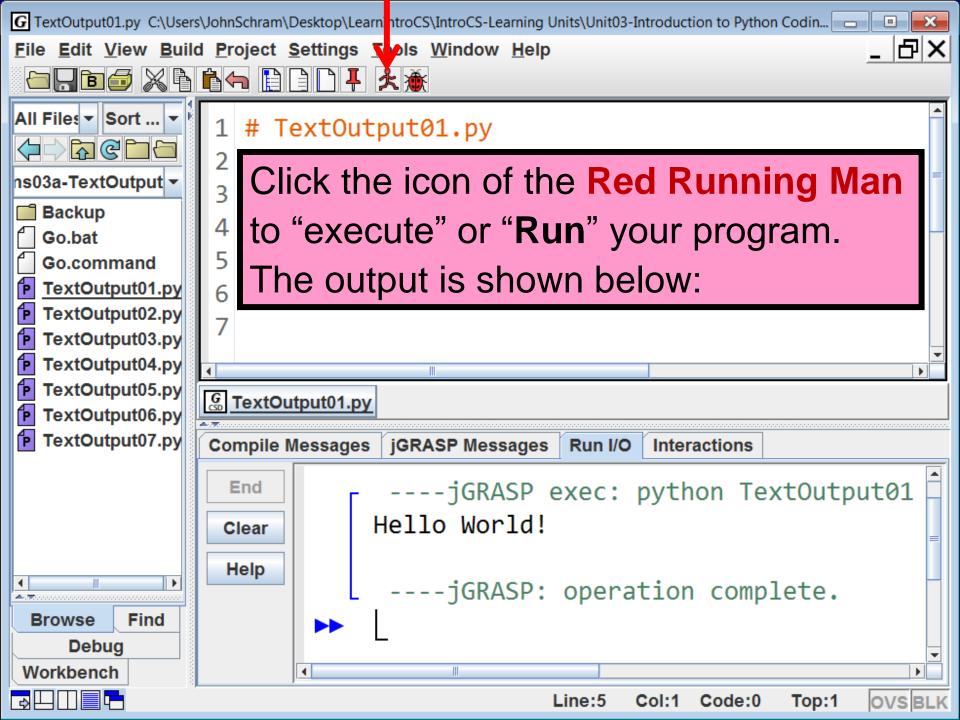


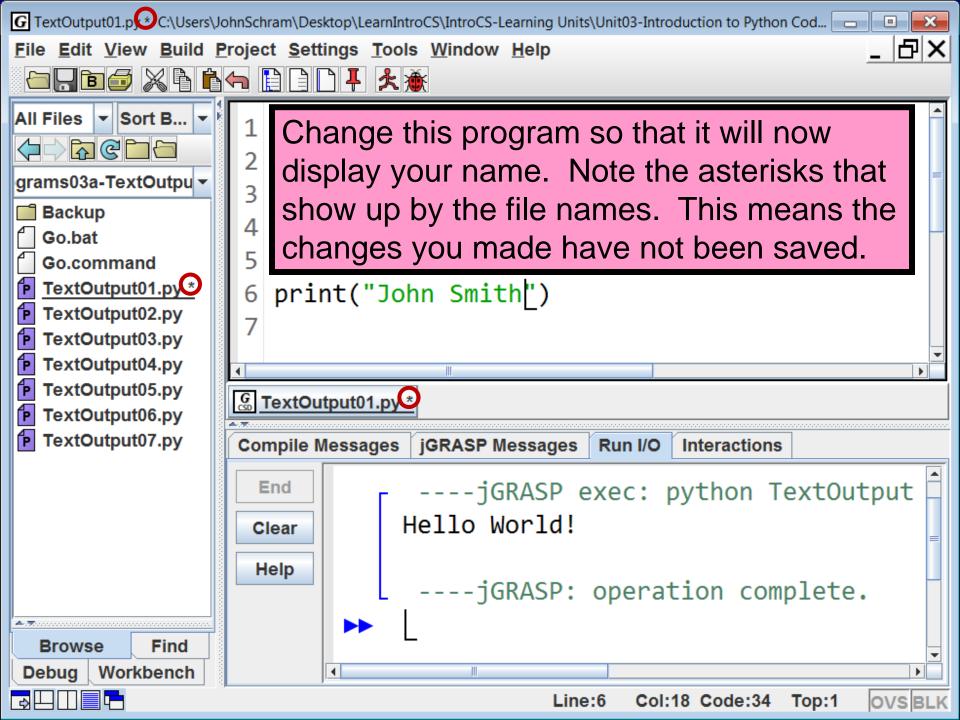


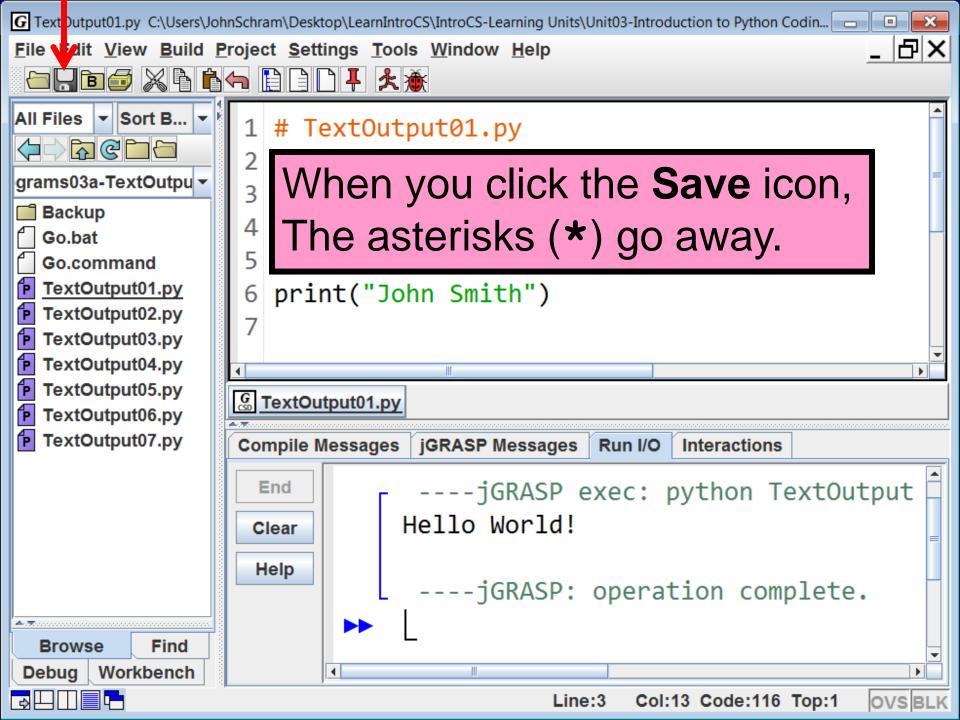


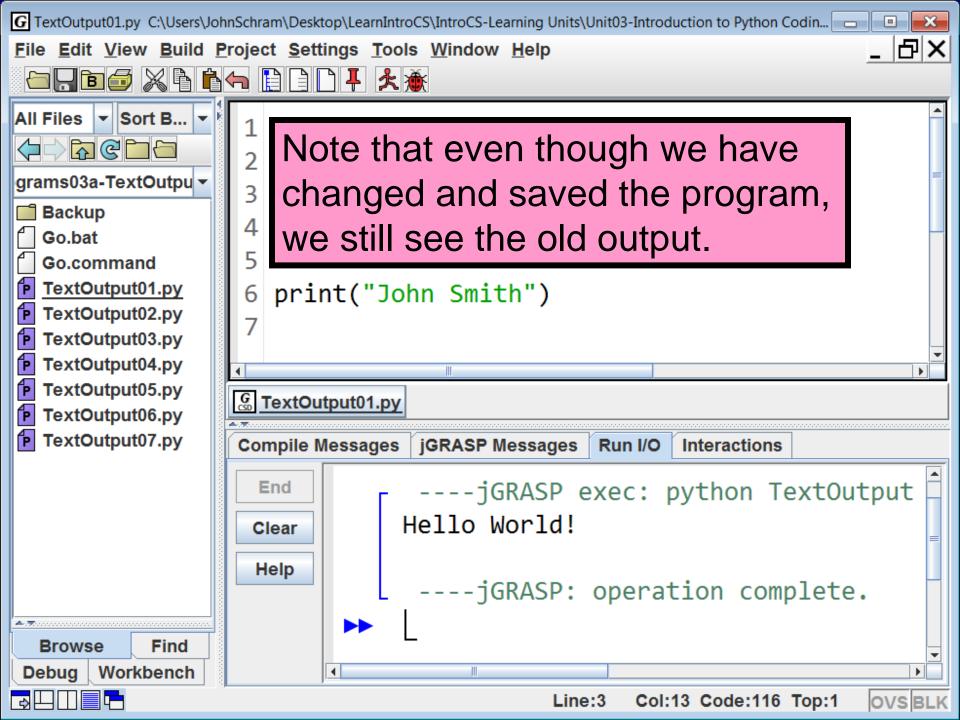


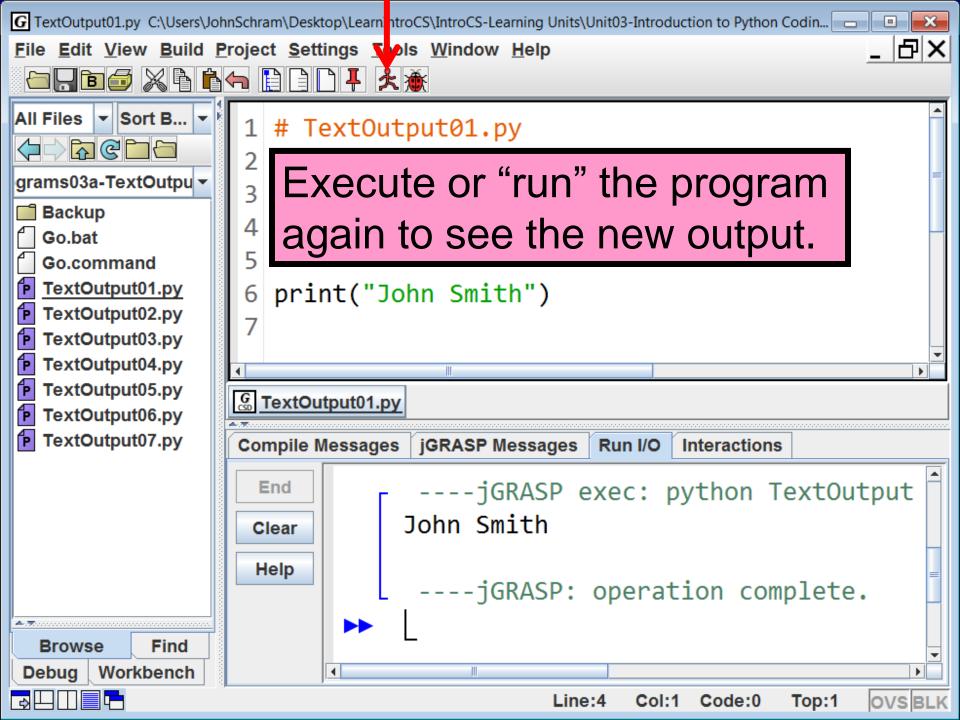


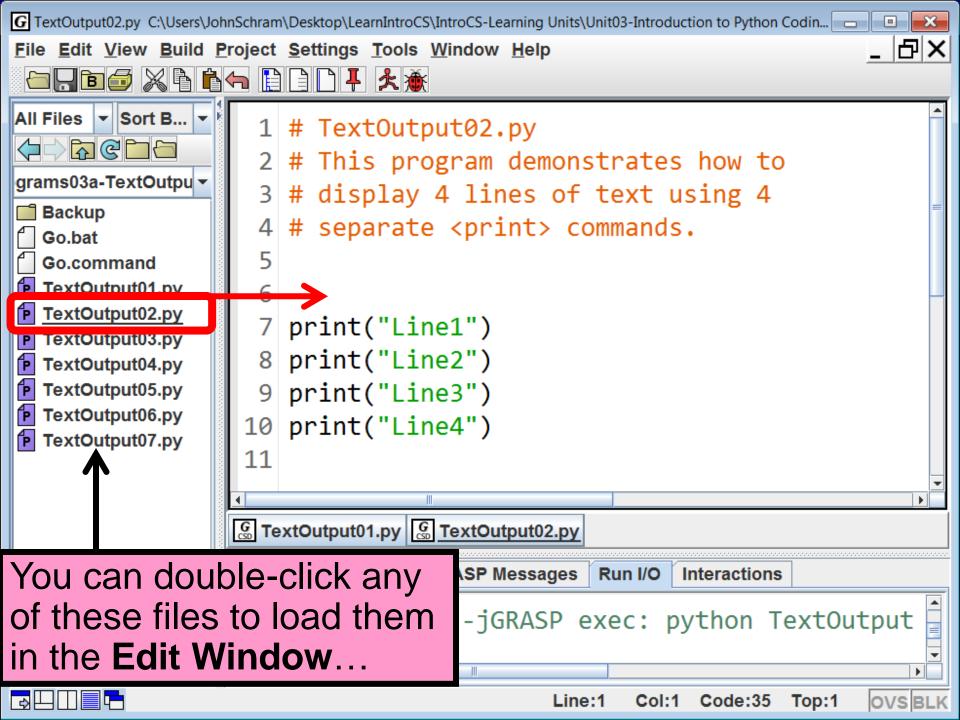


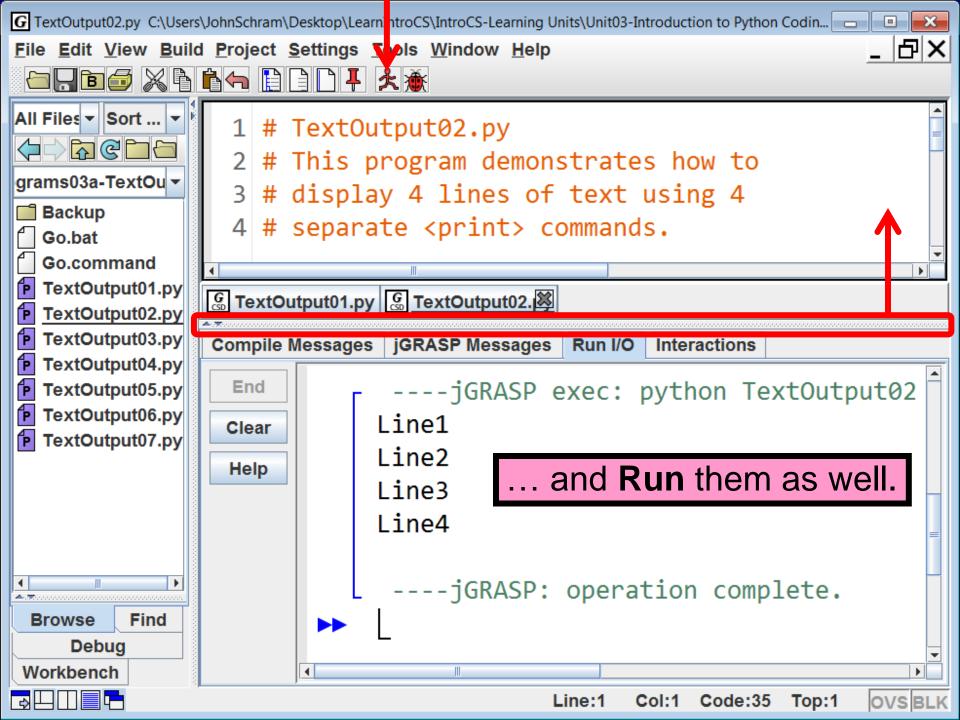


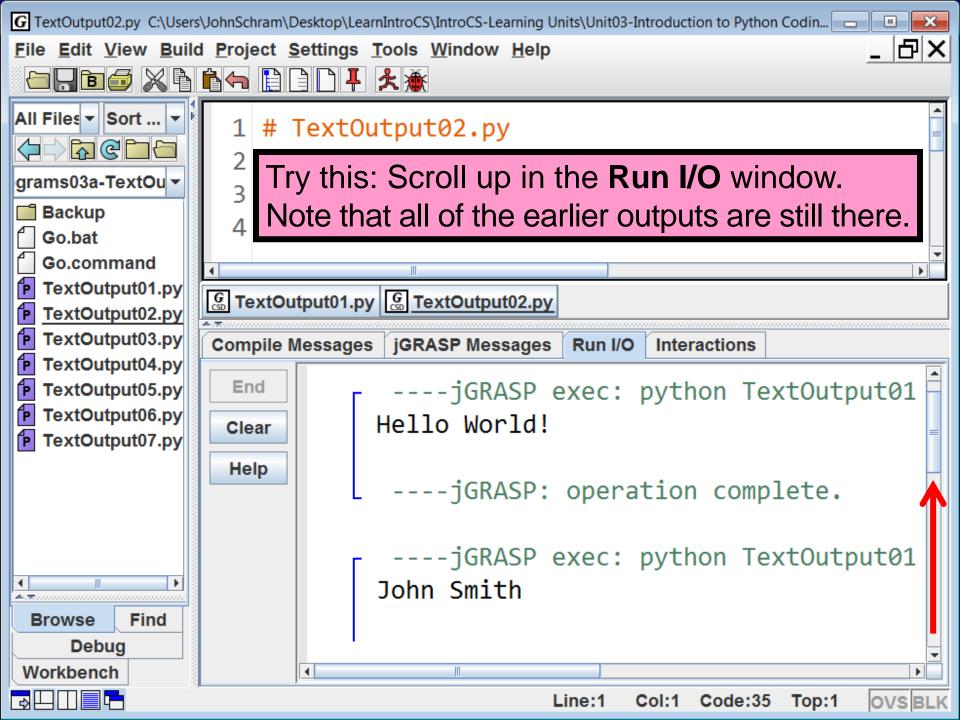


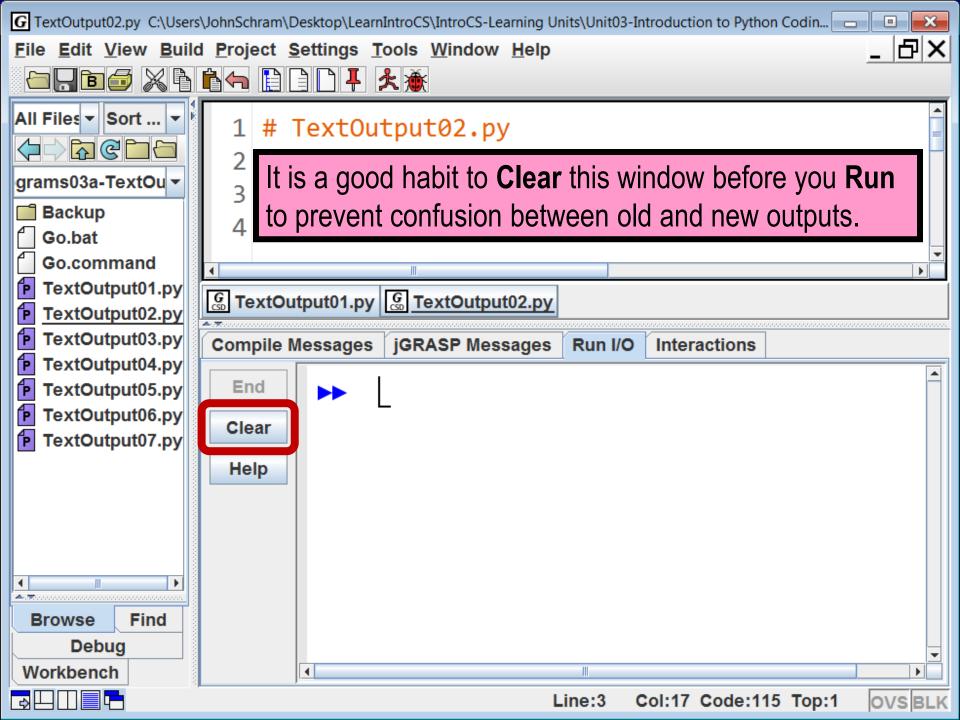


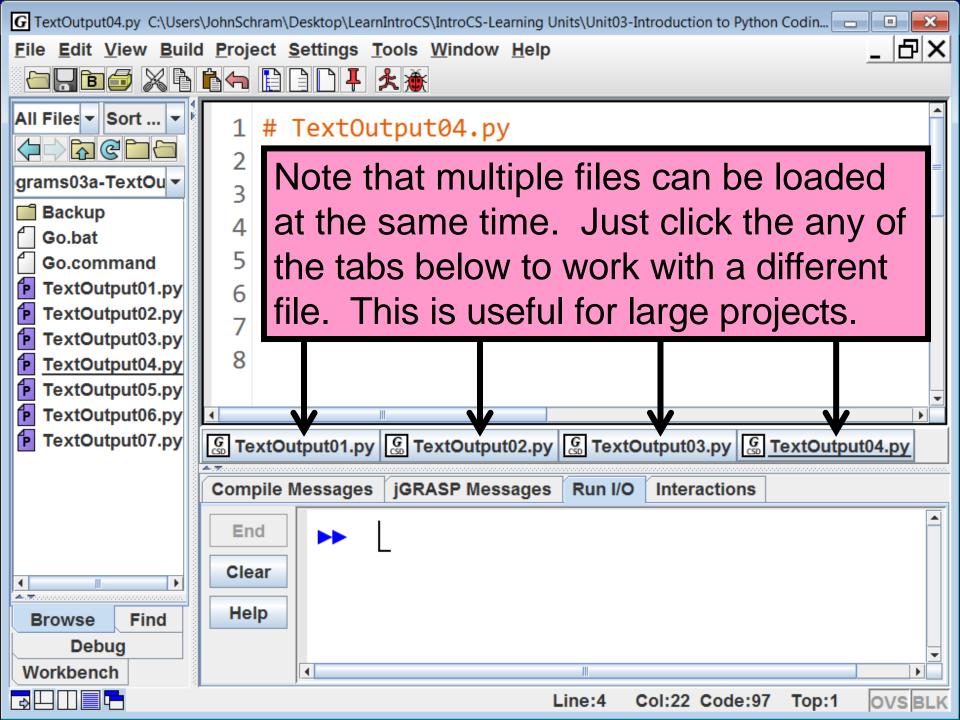


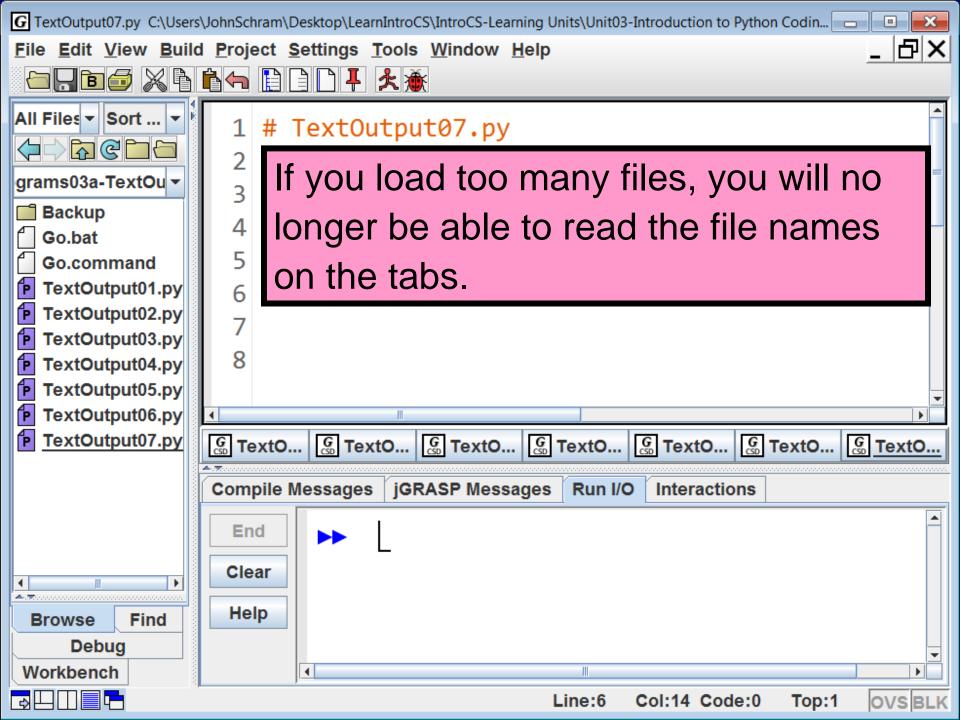


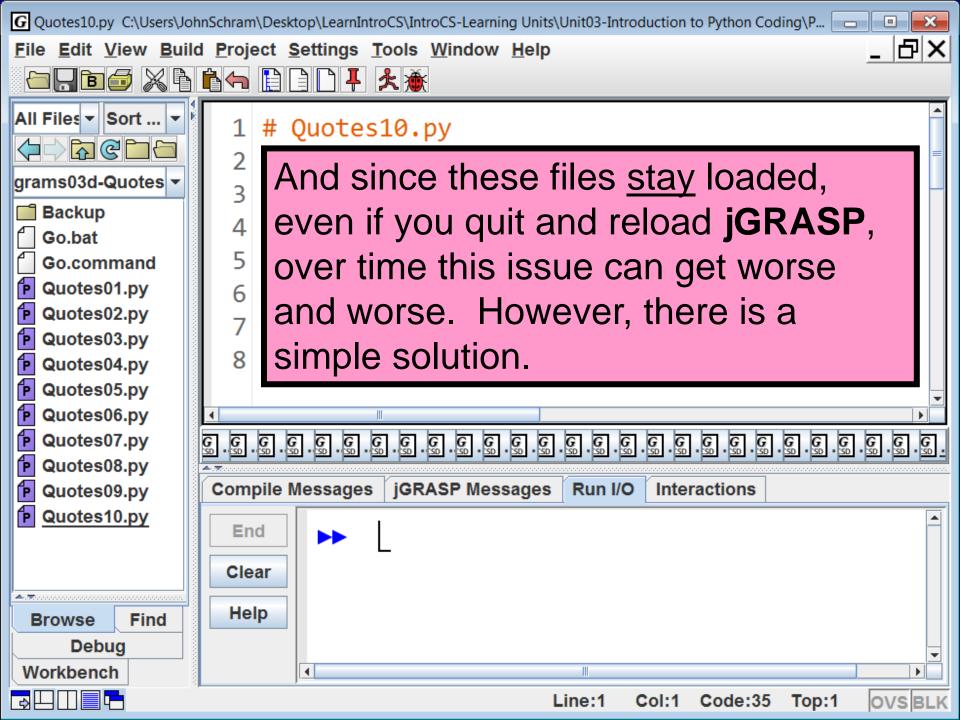


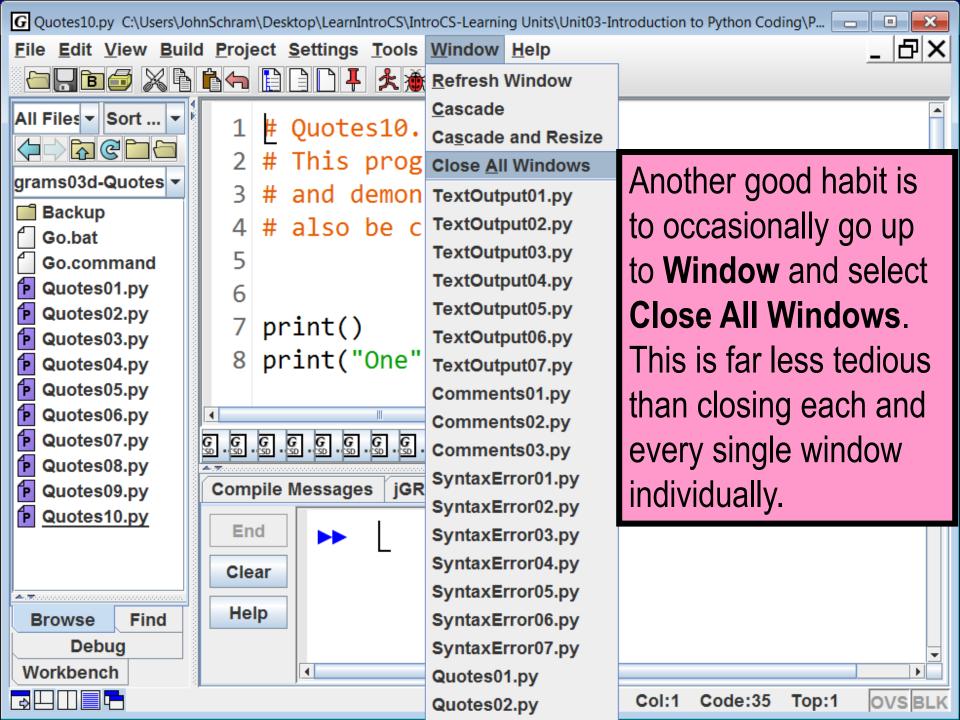


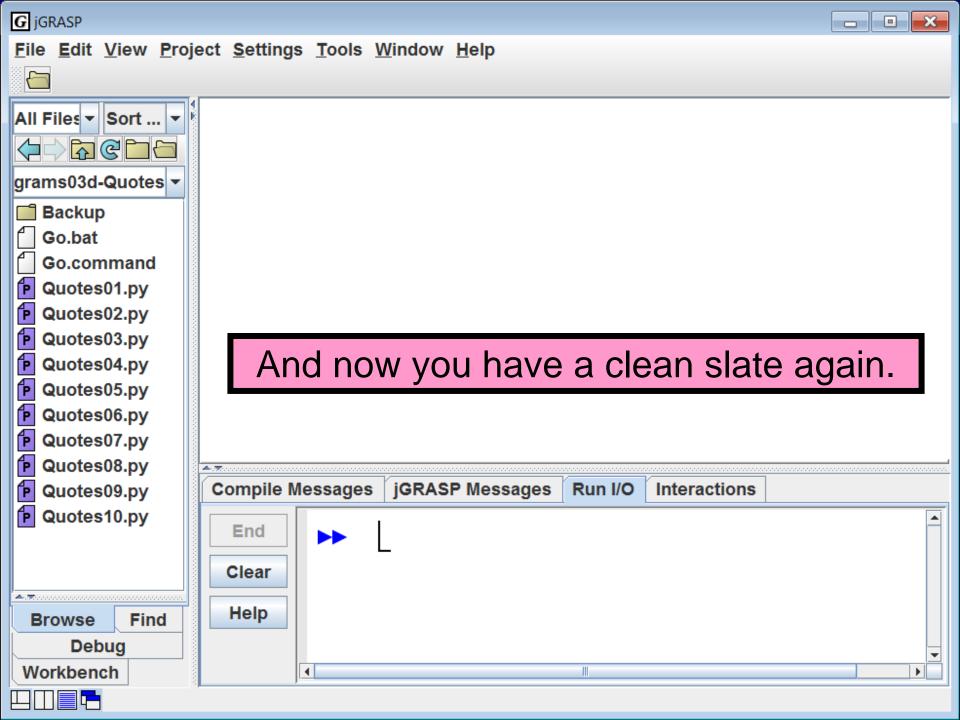












Practice

You need to become proficient in not only loading **jGRASP**, but also loading and executing <u>ANY</u> of our **LearnIntroCS** program examples from **jGRASP**.

Do the following:

- 1. Quit **jGRASP**
- 2. Reload jGRASP

It should <u>NOT</u> take you more than **30** seconds to locate any file in the **LearnIntroCS** folder.

- 3. Load and execute each of the files listed below.
 - From Unit 4: MathOperators07.py & Shortcut06.py
 - From Unit 6: MathLibrary14.py & GraphicsLibrary22.py
 - From Unit 8: Repetition01.py & RandomGraphics03.py
 - From Unit 9: GraphicsProcedures04.py & Functions04.py
 - From Unit 13: Output1303.py & Lab13A.py
 - From Unit 14: Output1414.py & Lab14A.py