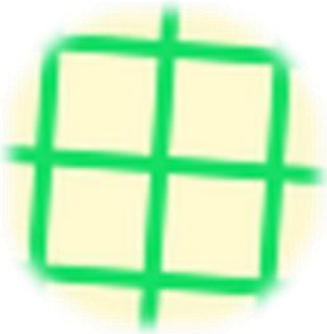
Program Grapher Version 1.0.0



User Manual

- Publication and Distribution Information -

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- Overview -

Program Grapher generates a simple program graph from formal sequential without using objects or functions in Java code written according to Sun Microsystems' Java Guidelines. These guidelines can be found in the included CodeConventionsJava.pdf

Program graphs are developed to help design and understand data flow within a piece of software. For further information on the topic, please consult Mark New's excellent description of Data Flow Testing found at:
http://www.cs.swan.ac.uk/~csmarkus/CS339/presentations/20061202_New_Data_Flow_Testing.pdf

- Table of Contents -

- I. System Requirements -

Program Grapher requires Windows XP, Windows Vista or Windows 7 with at least 2 gigabytes of a RAM and a video card providing 512 or greater memory. **! WARNING ! Attempting to run the Program Grapher with less than the recommended amount of dedicated video memory has been observed to reboot the system.**

- II. Installation and Setup –

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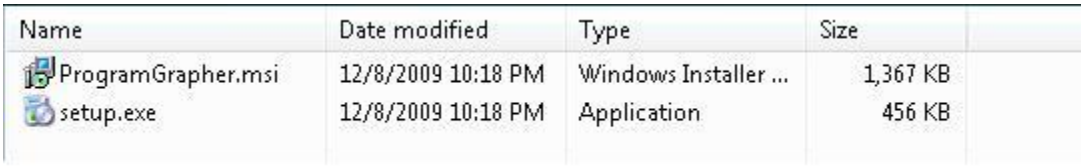
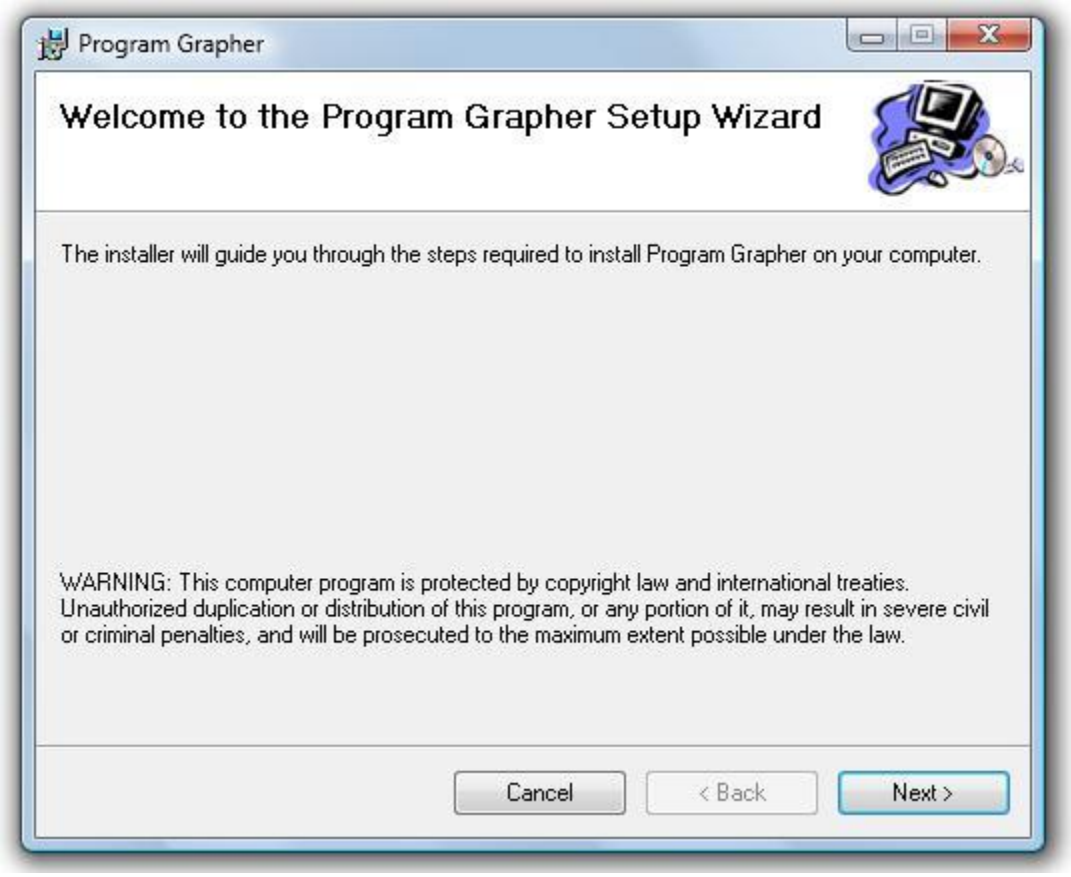
Installing Program Grapher on Windows XP, Windows Vista and Windows 7:

Run the file setup.exe from the Program Grapher CD or folder.



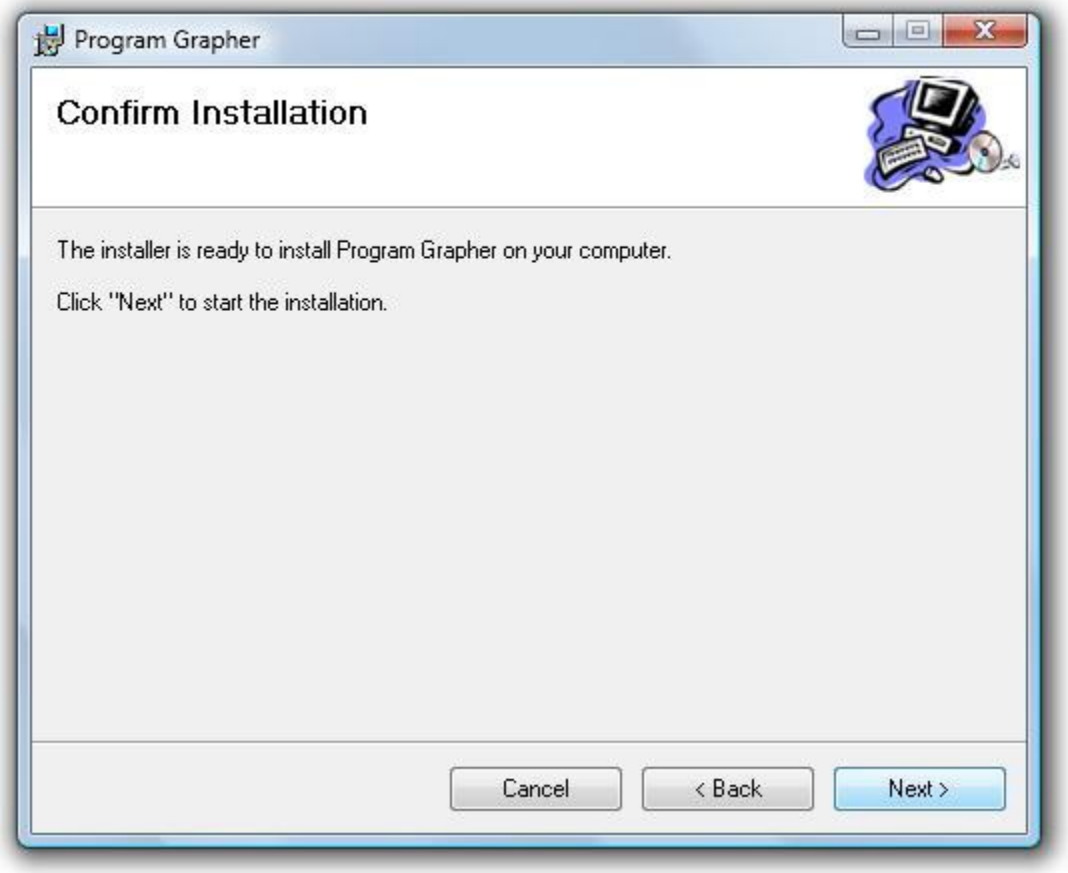
This will open the installation wizard. If you agree to install the software, click Next to continue.

- Note: the Cancel button is available on each window of the installation wizard and may be used to end the installation at any time.
- NOTE: Depending on your display settings your window may appear differently.
- NOTE: Depending on your security settings you may be prompted to allow this software to be installed.

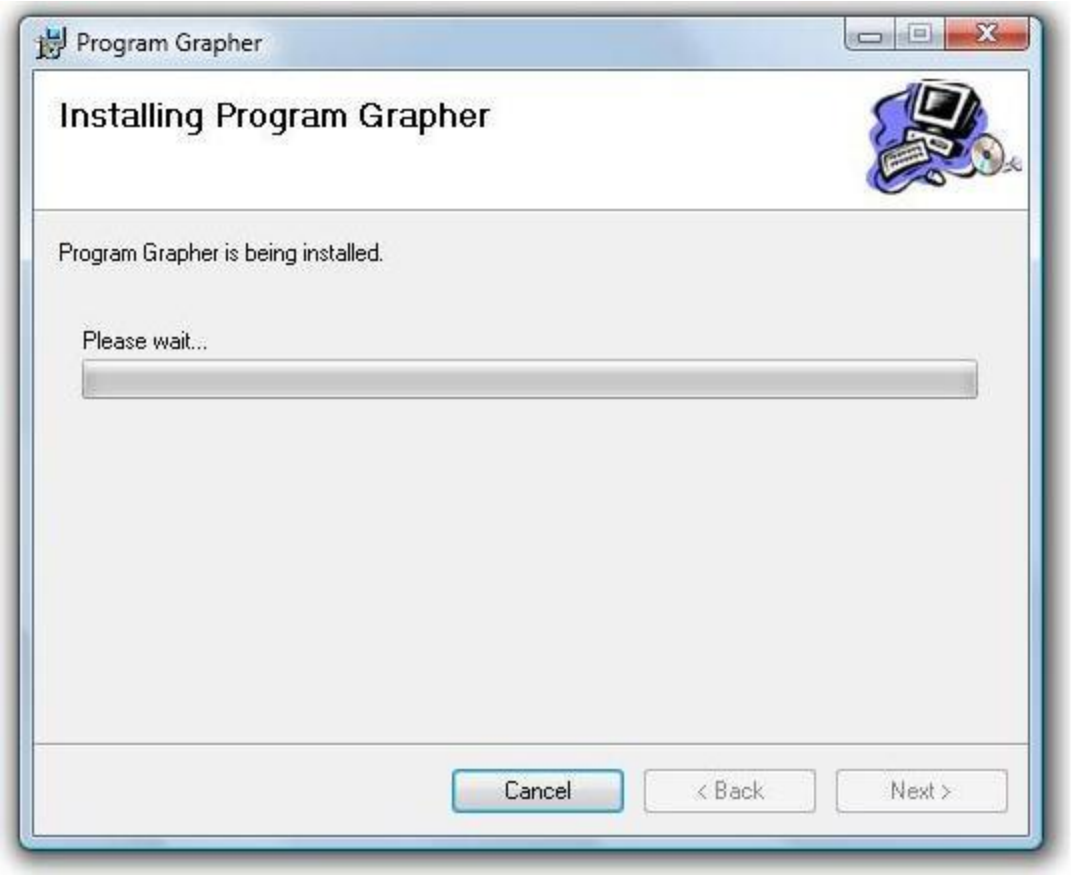


On the next screen you will be prompted to select an installation directory and users. You may enter a new location in the text box or use the Browse button to change the installation directory. Click Next when you are ready to proceed.

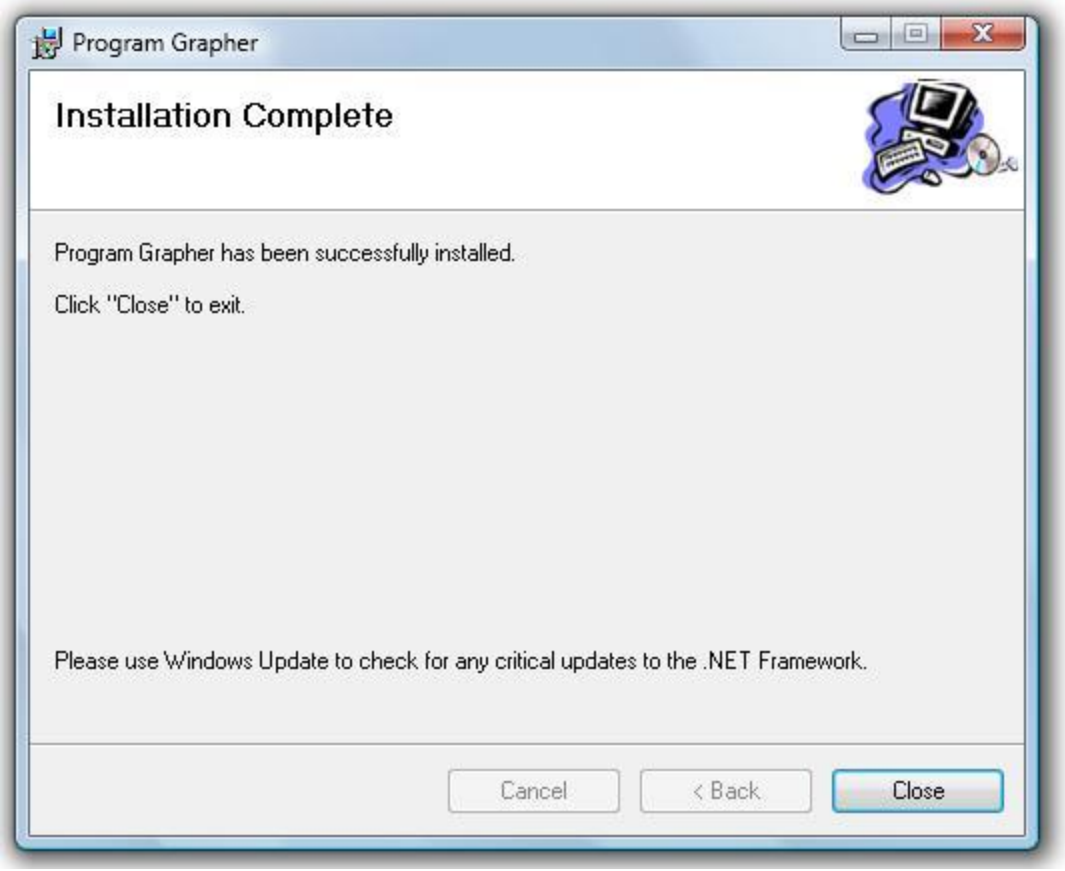
Confirm the Installation by clicking Next. To change the directory or user permissions, click Back. To end the installation, click Cancel.



Once confirmed, a window with a status bar will appear as the application is installed. You may still click the Cancel button to end the installation at this time.

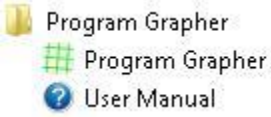


Once installation is complete, the confirmation window will appear. Click close to end the installation process.



A shortcut should now appear on your desktop for the Program Grapher application.

Links to the application and user manual will also appear in the start menu under Program Grapher.



- III. Using the Program Grapher -

Limitations and Considerations:

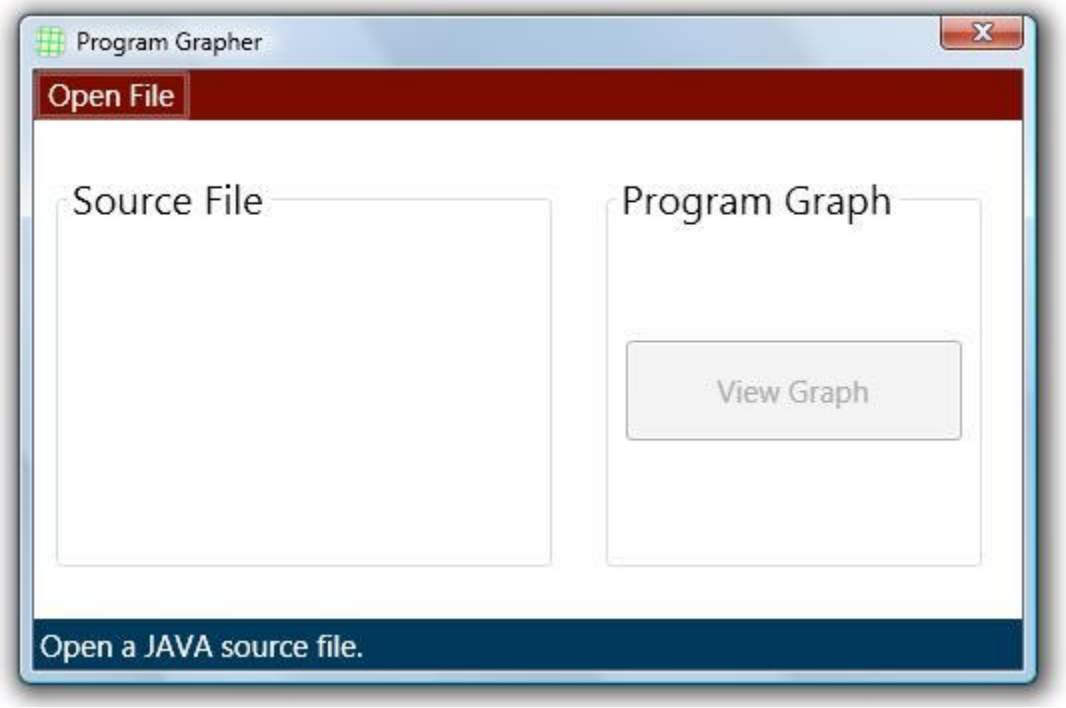
The Program Grapher is only intended to handle *.java files programmed in a formal sequential format without using objects or functions in Java code written according to Sun Microsystems' Java Guidelines.

- NOTE: Attempting to generate graphs from source code using objects or functions will cause application failure.
- NOTE: Attempting to generate graphs from source code which does not conform to Sun Microsystems' Java Code Conventions may result in flawed graphs or application failure.

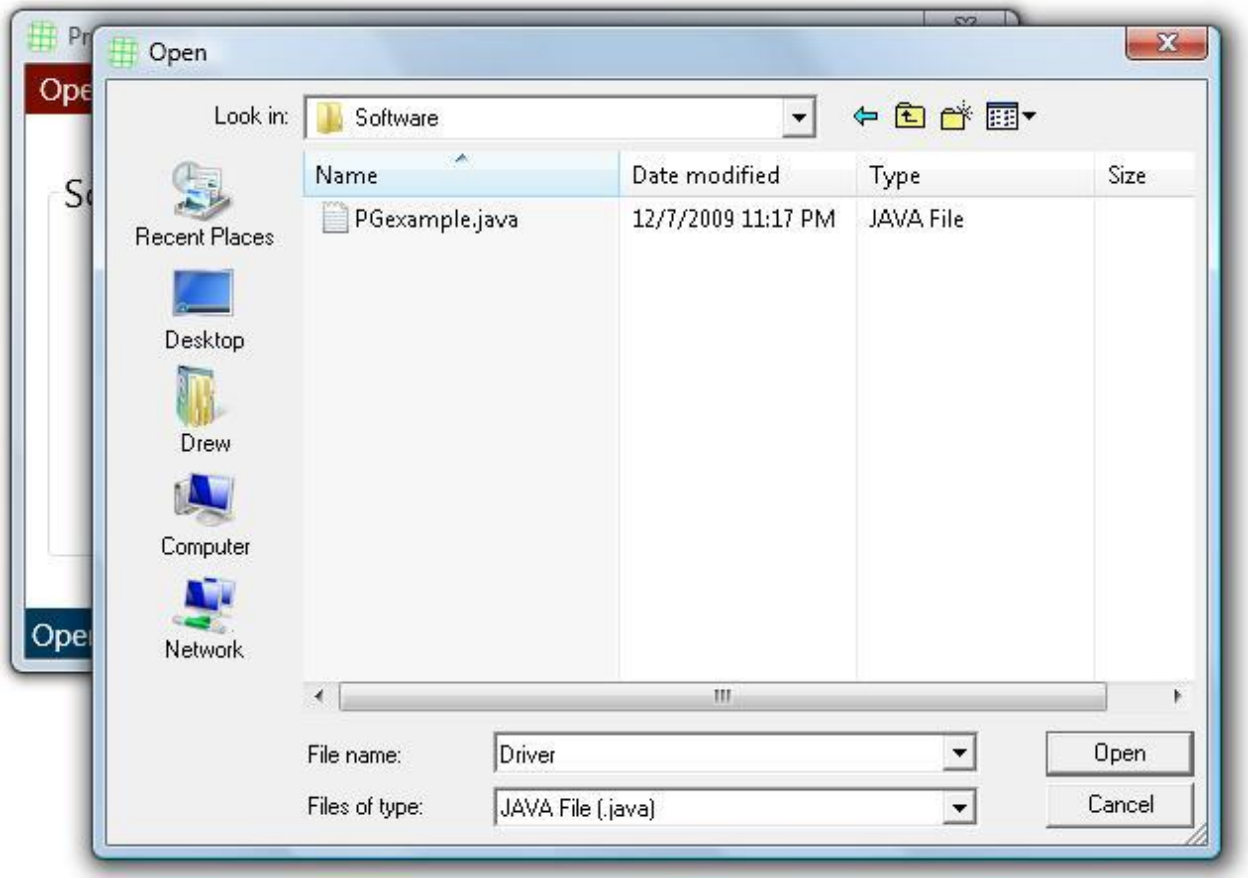
Starting the Application:

Open the Program Grapher from the Start Menu or short cut.

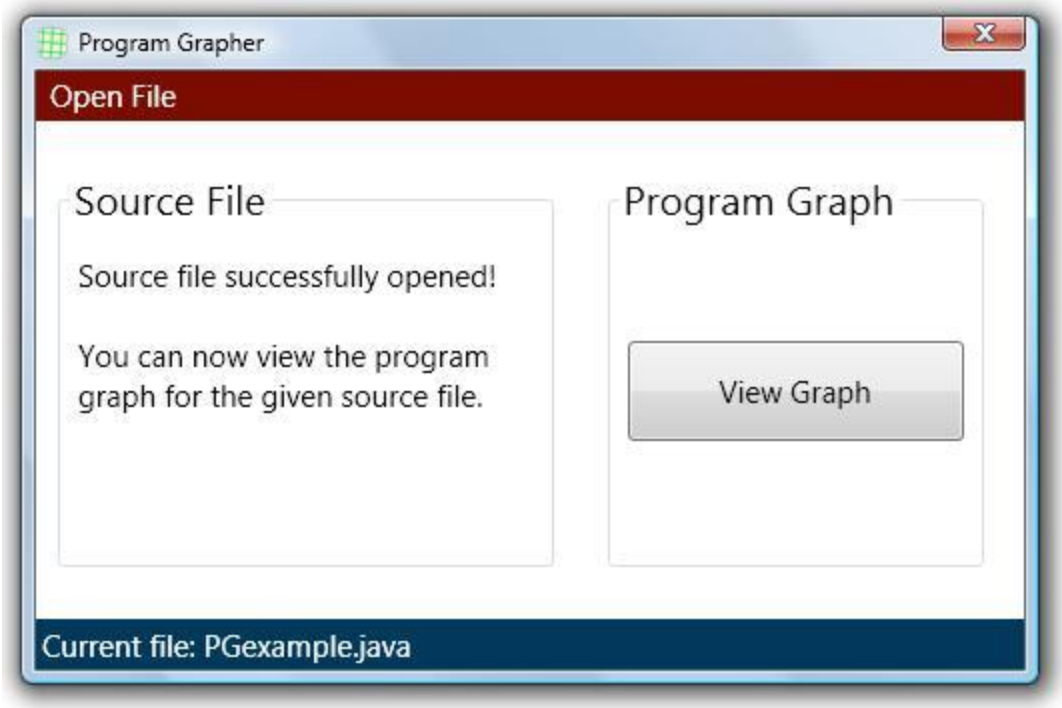
Selecting a Source File:
Click the button "Open File" at the top left of the Program Grapher application window.



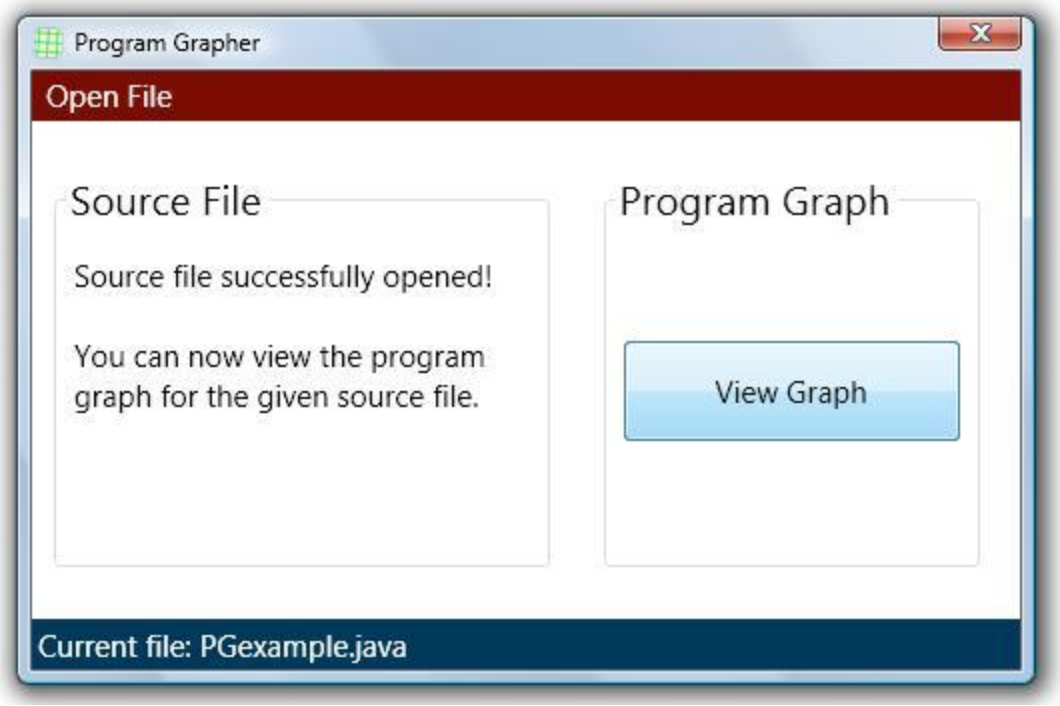
Select the file you wish to graph and click Open.



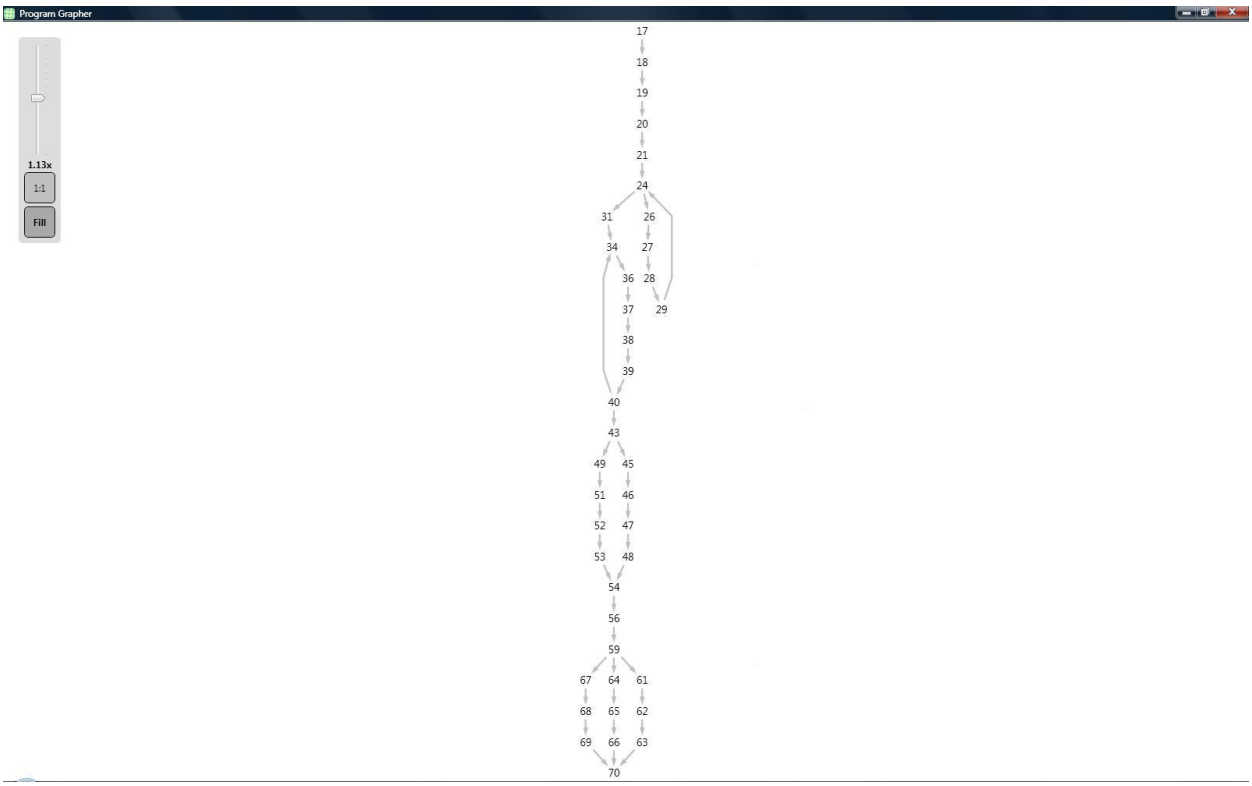
After you have selected a file to graph, the file name will be visible in the blue bar at the bottom of the application window.



Viewing the Program Graph:
Click the View Graph button on the right panel of the application window.

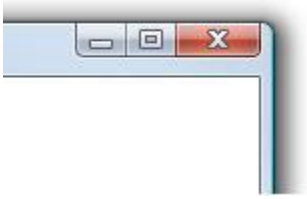


The program graph will appear in a separate window. This window can be resized by grabbing and dragging the edges. The graph will automatically resize to fit the window.



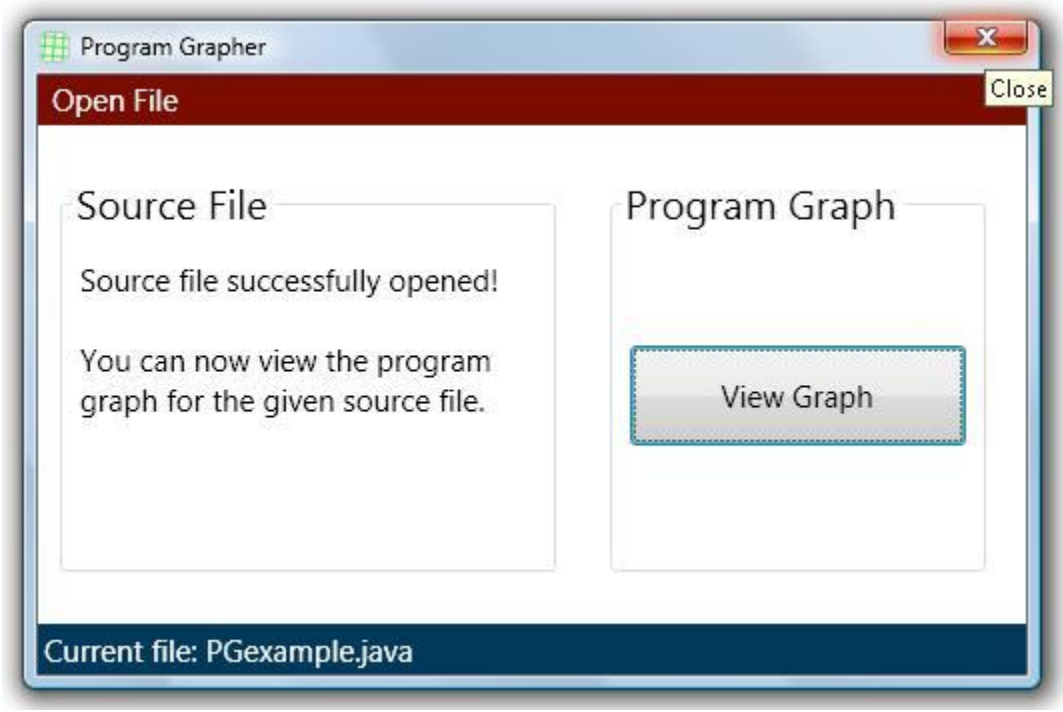
You can use the controls at the left to zoom in or out by dragging the slider up and down. The 1:1 button will draw the graph at scale and the Fill button will fit the graph to the current window size.

Click the x in the top right of the program graph window to close.

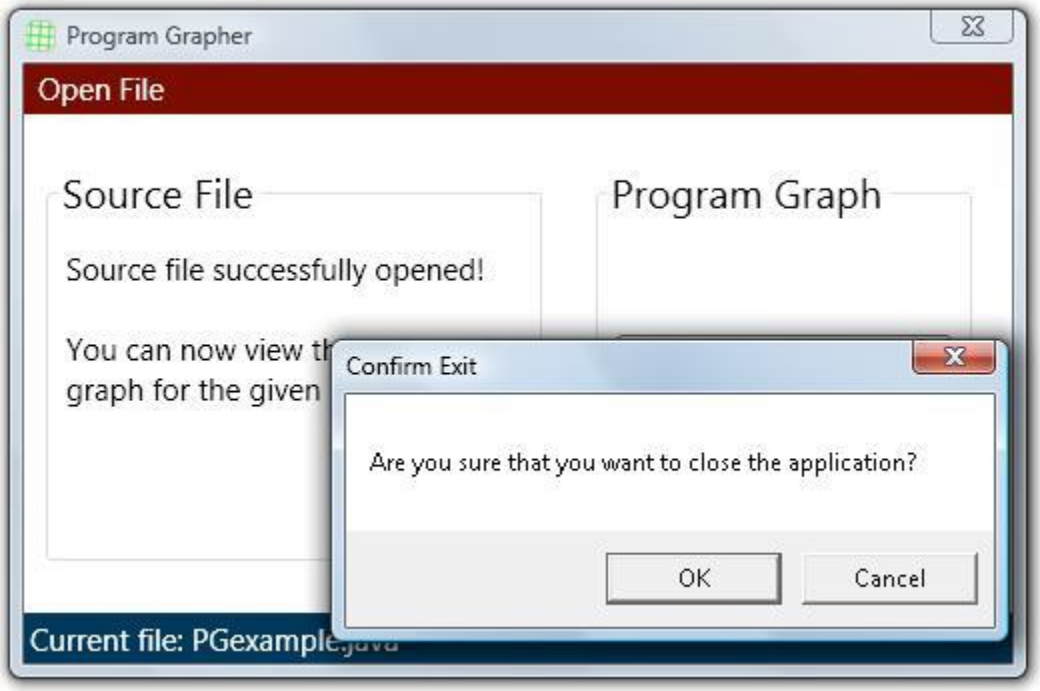


Exiting the Application:

Click the x in the top right of the Program Grapher Application to exit the application.

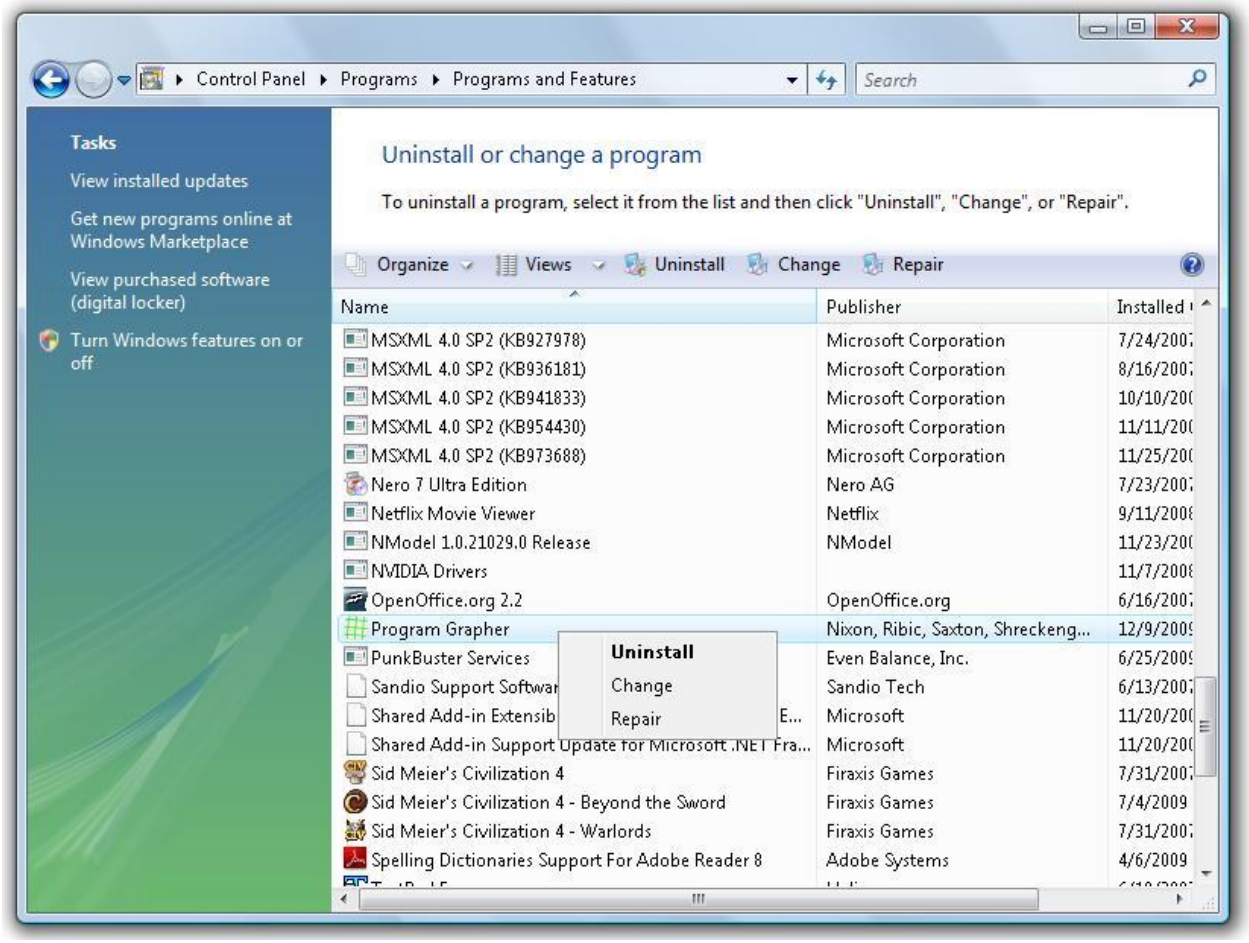


Click OK to confirm exit or cancel to continue graphing.



- IV. Uninstalling Program Grapher -

Uninstalling Program Grapher on Windows Vista:
Go to Control Panel, then to Programs and Features, then to Uninstall a program. Right click and select Uninstall.



- NOTE: Depending on your display settings your window may appear differently.
- NOTE: Depending on your security settings you may be prompted to allow this software to be uninstalled.

- V. Troubleshooting -

Issue: System reboots when trying to view the program graph.
Solution: Please make sure your system meets the software's minimum requirements. This issue usually occurs due to inadequate video memory.

Issue: Graph displays unattached lines while testing an If statement.
Solution: Program Grapher can currently only handle balanced If Else statements containing the same amount of functional code within each statement.

Issue: Declaration of variables does not appear as a node on the graph generated.
Solution: Please make sure all formal coding standards are followed, including the use of white space between = signs and surrounding variables and assignments. For further information about Sun Microsystems' formal Java coding standards, please consult the included file CodeConventionsJava.pdf

- VI. Feedback –

Feedback should be directed to programgrapher@gmail.com

- VII. Acknowledgments -

The Program Grapher was developed for Dr. Frank Xu's CIS 310/GCIS 567 Software Design and Test course at Gannon University in the fall semester of 2009 by Terry Nixon, Haris Ribic, K. Drew Saxton and Gabe Schreckengost.