An Introduction to Processing

The Processing Development Environment (PDE)

Produced by: Dr. Siobhán Drohan

Mairead Meagher

Waterford Institute of Technology
INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE

Department of Computing and Mathematics
http://www.wit.ie/

Topics list

- What is Processing?
- Why are we using Processing?
- Downloading the Processing Development Environment (PDE)
- Opening the PDE
- The PDE sketchbook
- Some Processing Resources

Topics list

- What is Processing?
- Why are we using Processing?
- Downloading the Processing Development Environment (PDE)
- Opening the PDE
- The PDE sketchbook
- Some Processing Resources

What is Processing?

"Processing is a programming language, development environment, and online community."

Source: https://processing.org/

- Some online examples developed using Processing:

  http://www.thesheepmarket.com/

  http://balldroppings.com/js/

  http://www.openprocessing.org/browse/

What is Processing?

Processing…

...can be used to develop static or interactive online material and data visualisations.

...is often used by visual artists.

...produces visual and interactive representations of programming code.

What is Processing?

- Three different programming languages can be used with Processing:

  – Java: we will use this language.

  – JavaScript.

  – Python.

Topics list

- What is Processing?
- Why are we using Processing?
- Downloading the Processing Development Environment (PDE)
- Opening the PDE
- The PDE sketchbook
- Some Processing Resources

Why are we using Processing?

Processing is increasingly used

to teach computer

programming fundamentals

(https://processing.org/)

Topics list

- What is Processing?
- Why are we using Processing?
- Downloading the Processing Development Environment (PDE)
- Opening the PDE
- The PDE sketchbook
- Some Processing Resources

Downloading the PDE

- You use the Processing Development Environment (PDE) to write programming code.

- If you have your own computer, the PDE can be downloaded from https://processing.org/. It is free, but you can choose to make a donation if you wish.

Downloading the PDE

- Choose the version applicable for the Operating System you are using. A zip file will start to download.

Downloading the PDE

- Decide where you are going to store your Programming applications on your computer. It is a good idea to create a folder called dev on your C:\ and store all your applications in there.

- Unzip the downloaded processing file to your chosen location. Note: if you don't have unzipping software, 7-zip is a good choice and can be downloaded from here: http://www.7-zip.org/ .

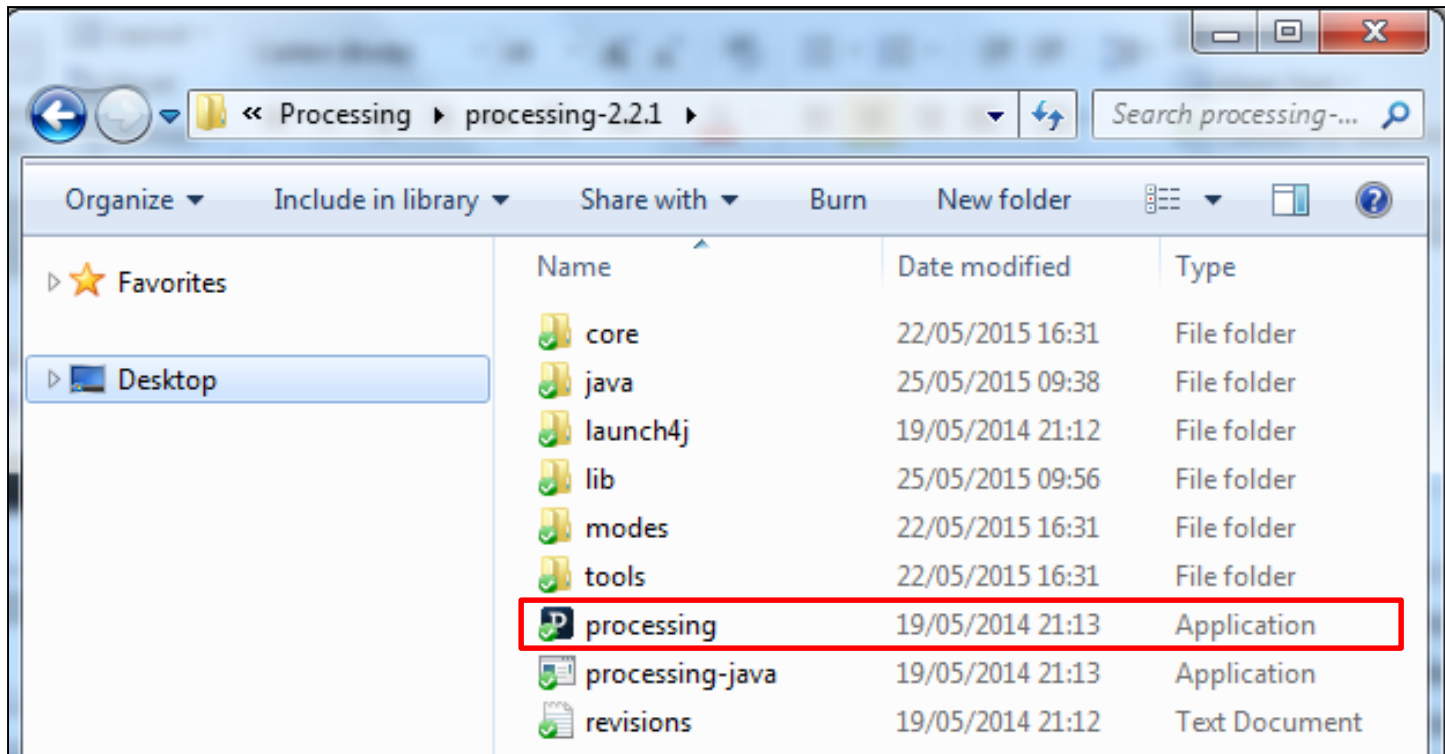- You will now have a folder structure resembling this picture:
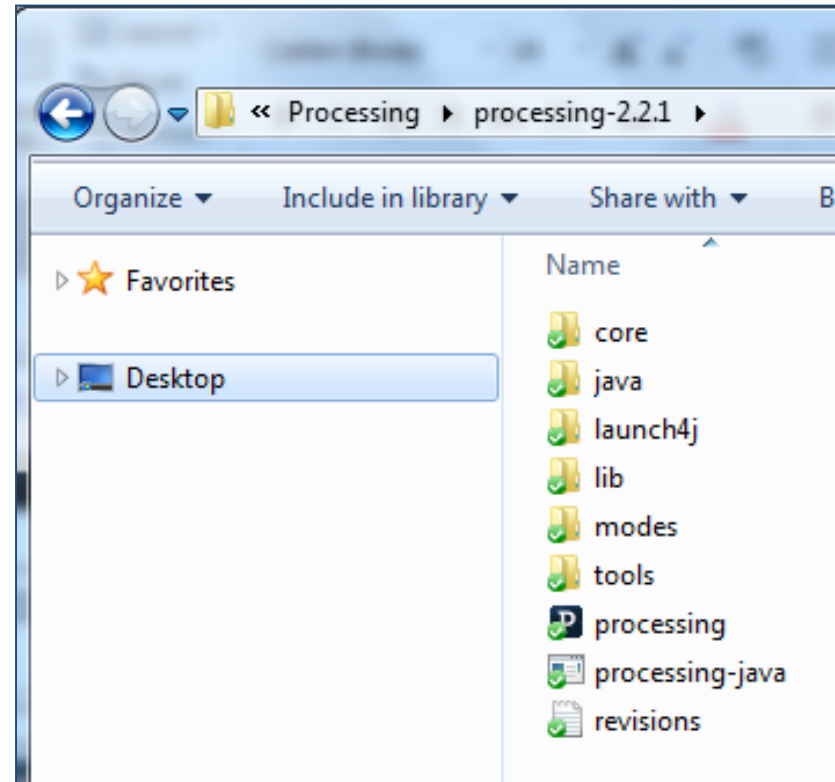
Topics list

- What is Processing?
- Why are we using Processing?
- Downloading the Processing Development Environment (PDE)
- Opening the PDE
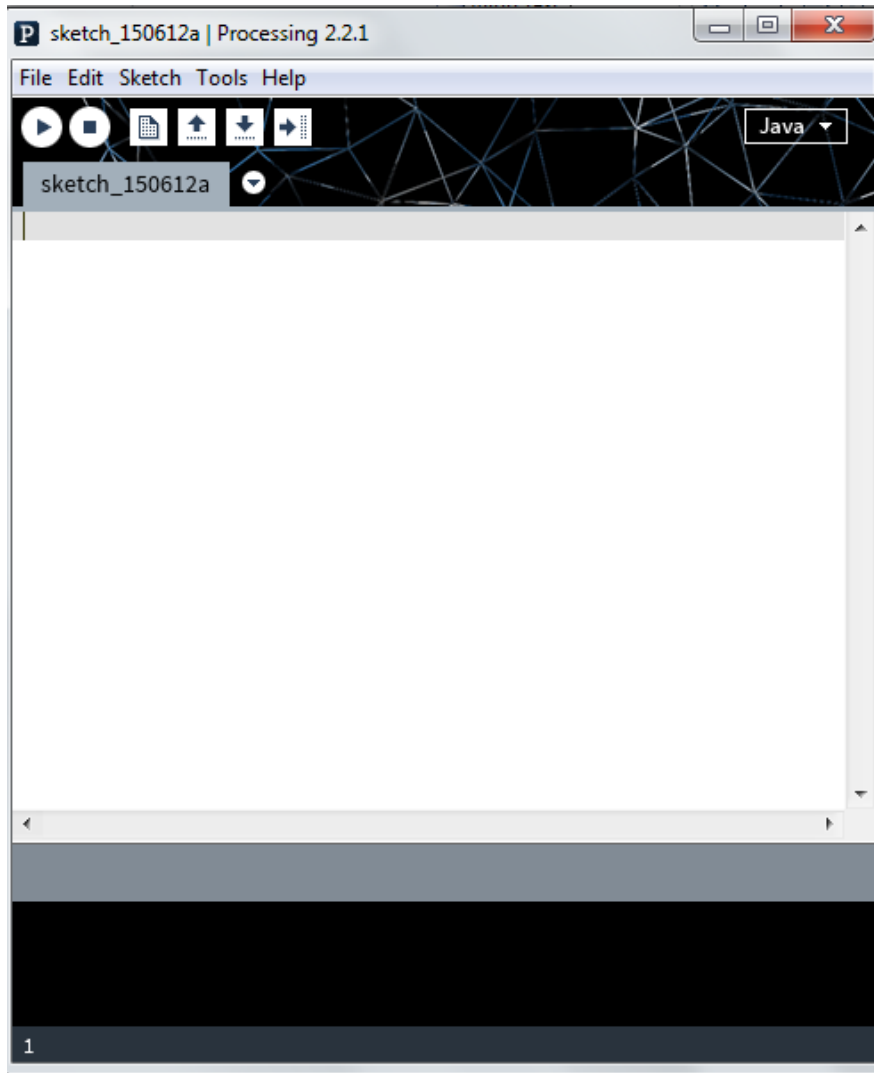- The PDE sketchbook
- Some Processing Resources

Opening the PDE

- Once the PDE is installed, you can start the application by clicking on the processing application:

The PDE

There is a very good introduction to the PDE here:

https://processing.org/reference/environment/

Topics list

- What is Processing?
- Why are we using Processing?
- Downloading the Processing Development Environment (PDE)
- Opening the PDE
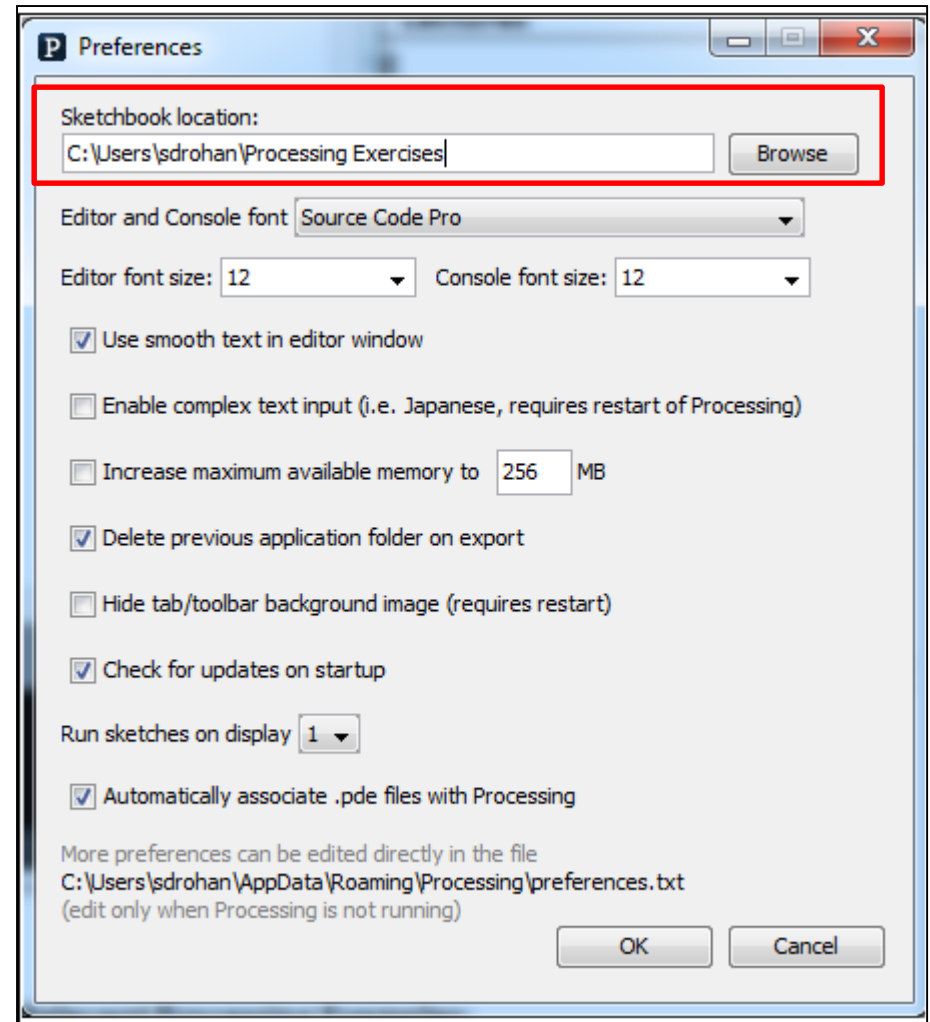- The PDE sketchbook
- Some Processing Resources

The PDE Sketchbook

- You write programming code in the PDE Sketchbook and this code is stored on your computer.

- It is important that you pick a convenient location to save these sketchbook files to.
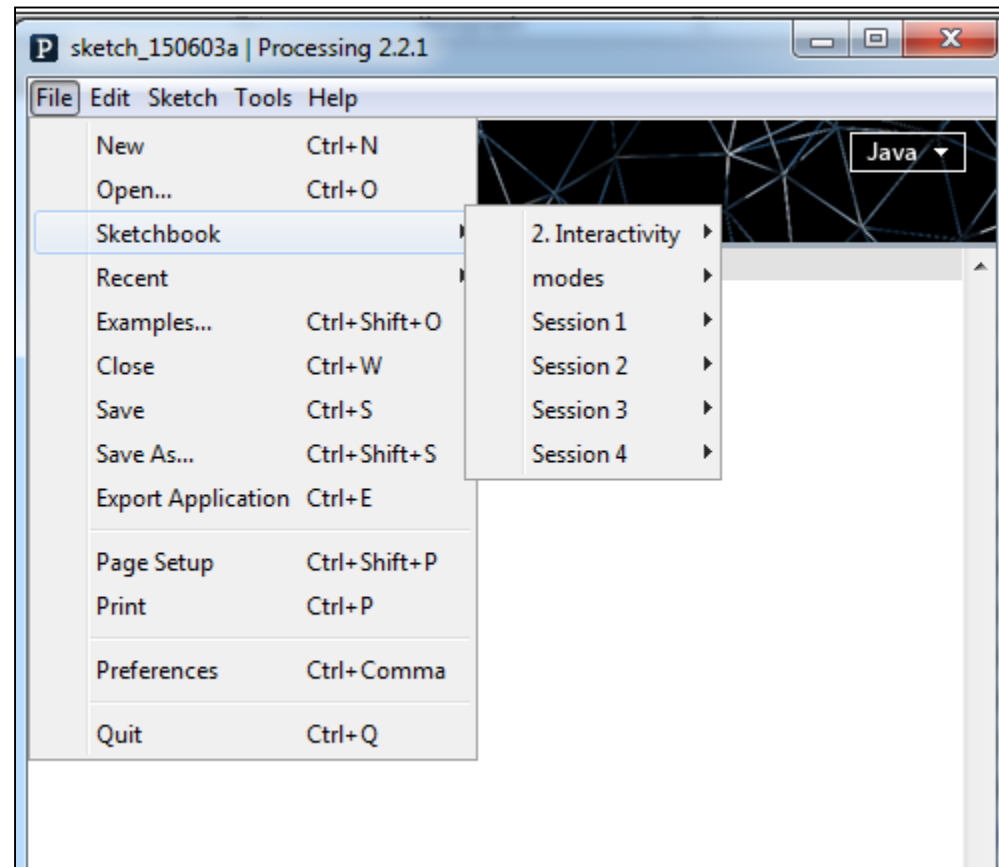
The PDE Sketchbook

- To update your Sketchbook location, select **Preferences** from the **File** menu.

- The window appears, you can change the **sketchbook location** to another folder.

- It is a good idea to have a folder called workspace on your C:\

The PDE Sketchbook

- All your work can now be accessed easily by selecting the **Sketchbook** option from the **File** menu.

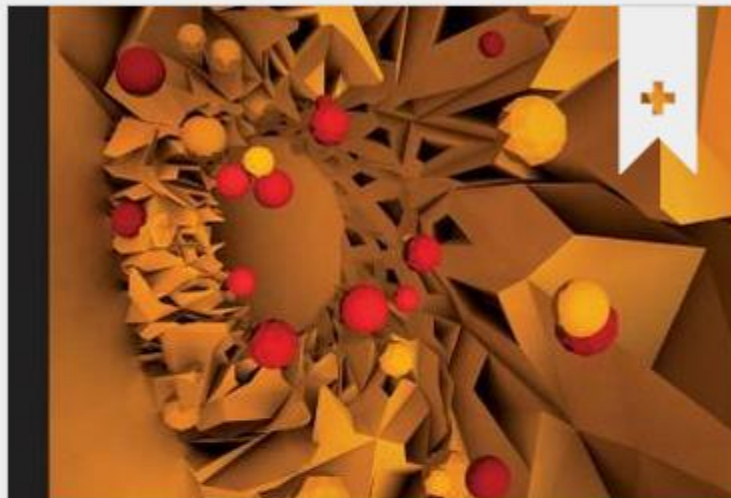- An example of previous Sketchbook work could look like this:

Topics list

- What is Processing?

- Why are we using Processing?

- Downloading the Processing Development Environment (PDE)

- Opening the PDE

- The PDE sketchbook

- Some Processing Resources

Some useful eBooks in WIT library

Quick answers to common problems

Processing 2: Creative Programming Cookbook

Over 90 highly-effective recipes to unleash your creativity with interactive art, graphics, computer vision, 3D, and more

Jan Vantomme

[PACKT] open source*

Cool projects that will push your skills to the limit

Processing 2: Creative Coding

Learn Processing with exciting and engaging projects to make your computer talk, see, hear, express emotions, and even design physical objects

HOTSH T

Nikolaus Gradwohl

[PACKT] open source*

Questions?