

# An Introduction to Processing

## The Processing Development Environment (PDE)

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# Topics list

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

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# What is Processing?

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“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?

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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?

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- Three different programming languages can be used with Processing:
  - Java: we will use this language.
  - JavaScript.
  - Python.

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# Why are we using Processing?

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Processing is increasingly used  
to teach computer  
programming fundamentals  
(<https://processing.org/>)



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# Downloading the PDE

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- 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.



The screenshot shows the Processing.org download page. The URL in the browser is <https://processing.org/download/?processing>. The page has a dark blue header with the Processing logo and a search bar. Below the header, there is a sidebar with links: Cover, Download, Exhibition, Reference, Libraries, Tools, Environment, and Tutorials. The main content area features the text "Download Processing. Processing is available for Linux, Mac OS X, and Windows. Select your choice to download the software below." and a large blue square with a white 'P' logo. To the right of the logo, the version "2.2.1 (19 May 2014)" is displayed. Below the version, there are links for "Windows 64-bit", "Linux 64-bit", "Mac OS X", "Windows 32-bit", and "Linux 32-bit". A red rectangle highlights the version and the operating system links.

<https://processing.org/download/?processing>

Processing p5.js Processing.py Processing Foundation

Processing

Cover

Download

Exhibition

Reference

Libraries

Tools

Environment

Tutorials

Download Processing. Processing is available for Linux, Mac OS X, and Windows. Select your choice to download the software below.



2.2.1 (19 May 2014)

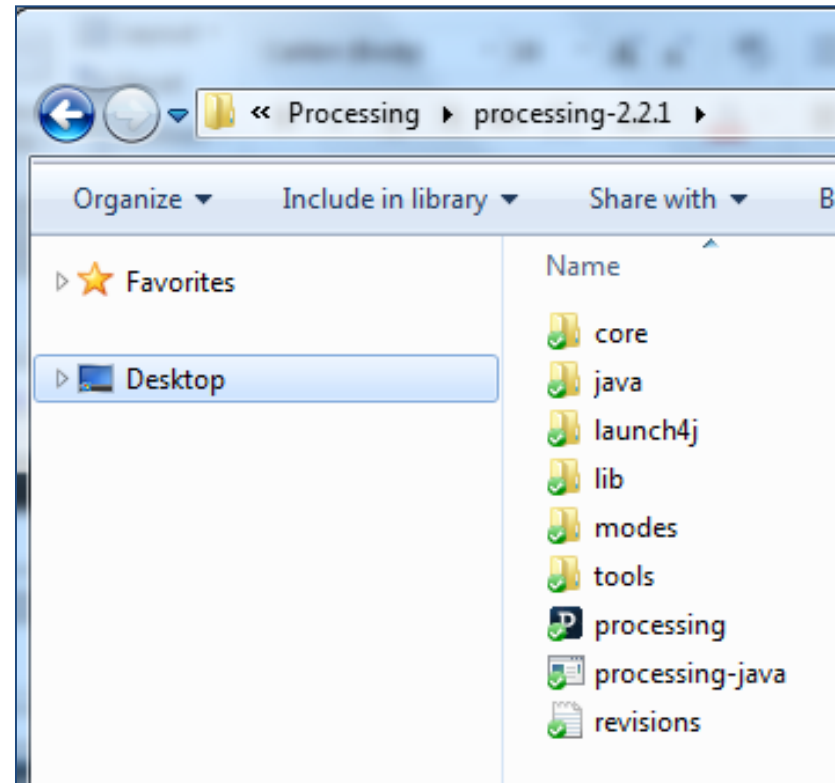
Windows 64-bit Linux 64-bit Mac OS X

Windows 32-bit Linux 32-bit

# Downloading the PDE

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- 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:



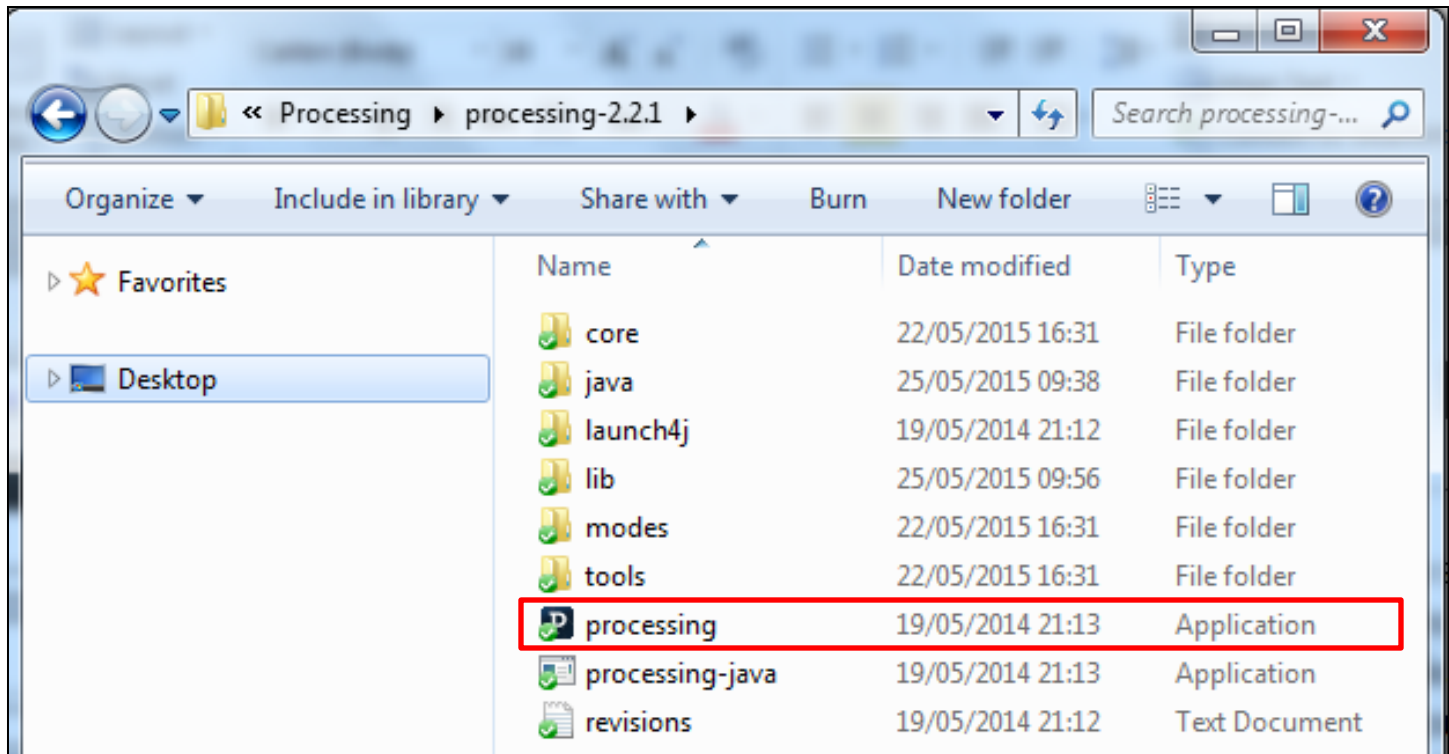
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# Opening the PDE

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



# The PDE

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There is a very good introduction to the PDE here:

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

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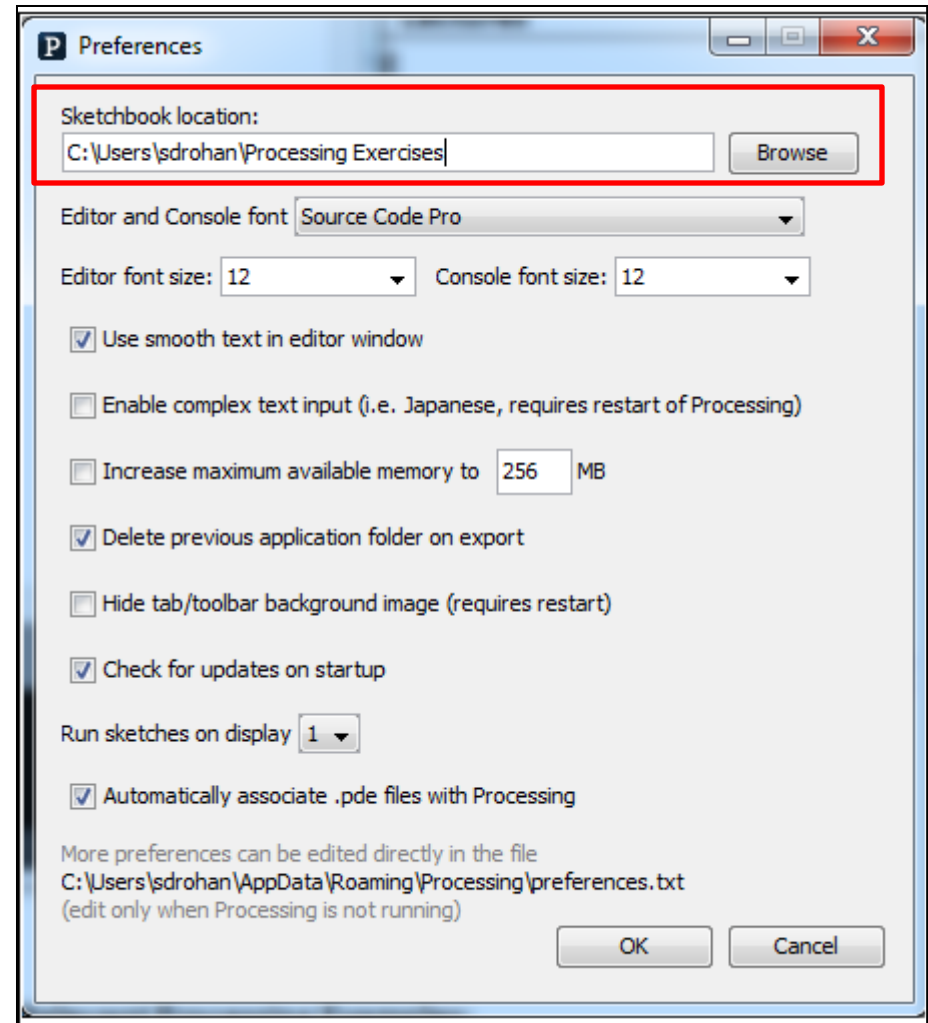
# The PDE Sketchbook

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- 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

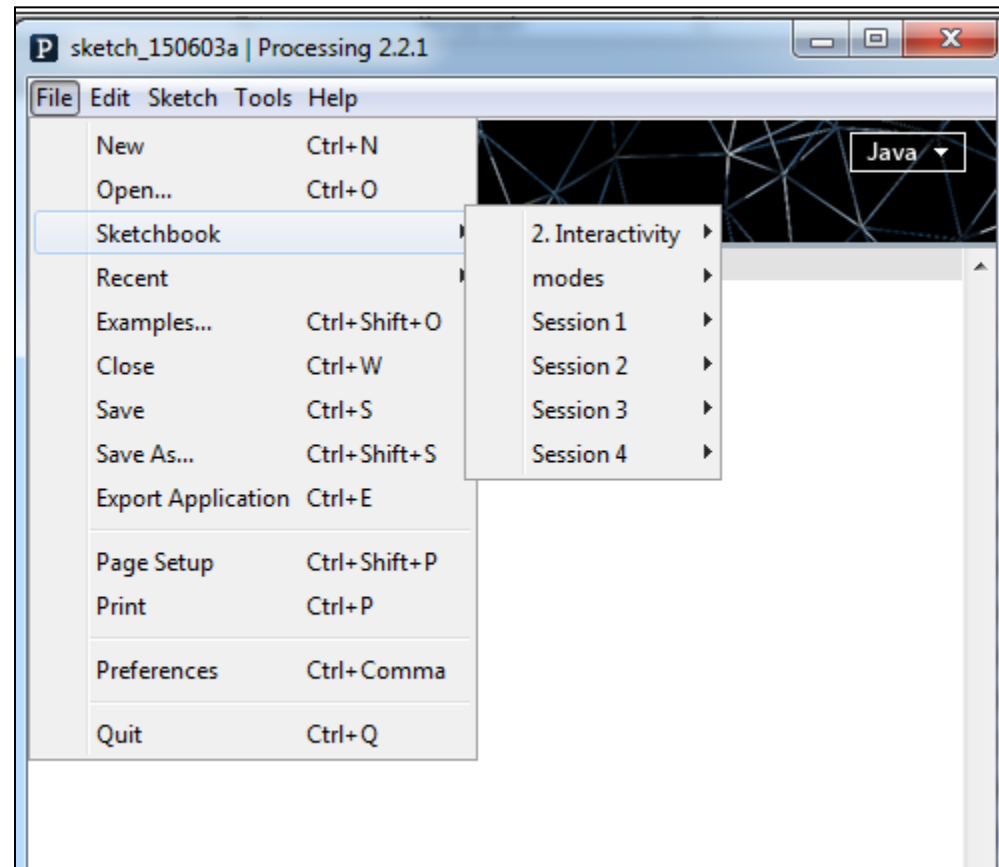
- To update your Sketchbook location, select **Preferences** from the **File** menu.
- The window appears, you can change the **sketchbook location** to another folder.
- It is a good idea to have a folder called **workspace** on your C:\



# The PDE Sketchbook

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- 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:



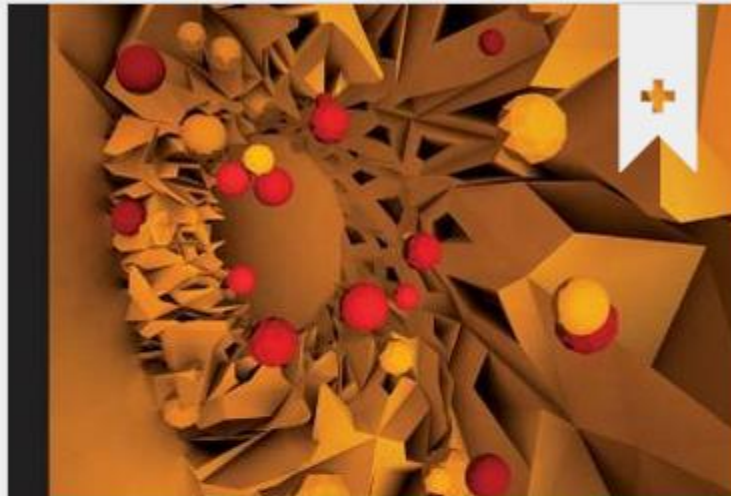
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# Some useful eBooks in WIT library

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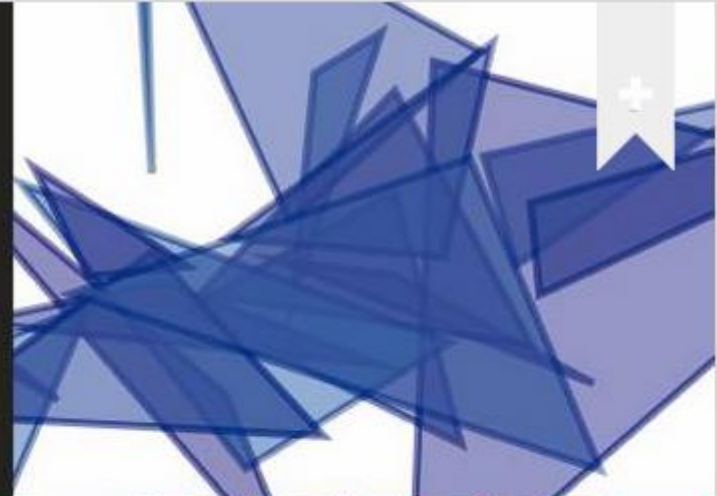
Quick answers to common problems

## 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\*  
PUBLISHING



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

# HOTSHOT

Nikolaus Gradwohl

**[PACKT]** open source\*  
PUBLISHING