Processing

Java Based Programming Environment

Originated 2001 by Two MIT Grad. Students
Ben Fry and Casey Reas

MIT Media Lab within John Maeda's Aesthetics and Computation research group

2012 Processing Foundation Formed along with Dan Shiffman who Then formally joined as a project lead

Procesing SpinOffs

- The Wiring and Arduino projects, in turn, grew out of Processing while Casey Reas was teaching at the Interaction Design Institute Ivrea in Italy.
- Processing and its sister projects have inspired over twenty educational books.

Transitioning from C to Java

- Low level syntax very similar
- Java low level datatypes support signed numbers only – some care needed.
  - byte signed 8 bit
  - short signed 16 bit
  - int signed 32 bit
  - long singed 64 bit
  - float (32 bit floating point) double (64 bit floating pt.)

Arrays in Java

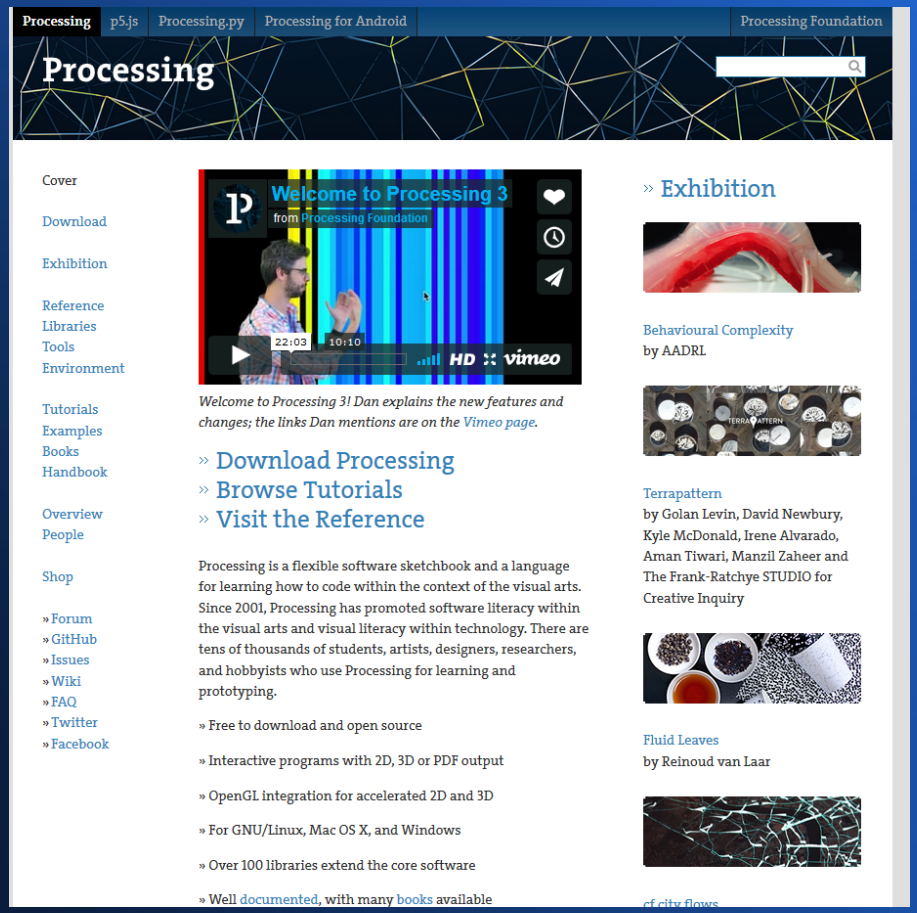
- One dimensional arrays directly supported
  - byte[] byteTable = new byte[32];
- Multi-dimensional arrays supported as arrays of arrays, not directly stored in memory – e.g. a 2D array ends up being list of 1D arrays.

  More on this later...

2D Arrays in Java

- Of course web searches render much goodness on any Java topic of interest. e.g. searched “2D Arrays Java”
  - http://www.java67.com/2014/10/how-to-create-and-initialize-two-dimensional-array-java-example.html
  - https://www.cs.cmu.edu/~mrmiller/15-110/Handouts/arrays2D.pdf

Processing Environment

- go to Processing.org and check out all the topics.
  - Download the software
  - Web based examples very easy to browse quickly
    - Even faster than loading and running examples
- Many video tutorials if you like to sit back and soak in information. Hands on is the ultimate way to learn of course.
- I favor learning from simple examples, then later combining many topics into a larger program – bottom up approach to meet perhaps top down.

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