VG101 — Introduction to Computer and Programming

Lab 1

Manuel — UM-JI (Fall 2016)

Goals of the lab

- Undertsand the basics of MATLAB

- Write basic MATLAB scripts

Ex. 1 — *Basic MATLAB knowledge*

Let $x = \begin{pmatrix} 3 \\ 2 \\ 6 \\ 8 \end{pmatrix}$ and $y = \begin{pmatrix} 4 \\ 1 \\ 3 \\ 5 \end{pmatrix}$

1. Define x and y in MATLAB

2. Add the sum of the elements in x to y

3. Raise each element of x to the power specified by the corresponding element in y

4. Divide each element of y by the corresponding element in x

5. Multiply each element in x by the corresponding element in y, and store the result in a variable z

6. Add up the elements in z and assign the result to a variable w

7. Compute $x' * y - w$ and explain the result

Ex. 2 — *Simple scripting in MATLAB*

Write a simple MATLAB script which converts durations from seconds into days. The input should be represented as a vector of 1000 durations from 60 to 12345987 seconds.