Introduction to Scilab

Funded by the National Mission on Education through ICT Indian Institute of Technology Bombay, Organised by FOSSEE Group, IIT Bombay, http://scilab.in

(The sequence of spoken tutorials to be listened/followed is same as that of exercise sets below.)

2. Vector Operations

Solve the following examples on the Scilab Console <u>as soon as</u> the relevant topic is explained in the tutorial.

- 1. Define two vectors A,B with 1,5,8,19 and 19,8,5,1 elements respectively. Calculate A'*B-B'*A Calculate A*A'+B*B'
- 2. In Scilab, enter the following Matrices:

$$A = \begin{bmatrix} 1 & 1/2 \\ 1/3 & 1/4 \\ 1/5 & 1/6 \end{bmatrix}$$

$$B = \begin{bmatrix} 5 & 2 \end{bmatrix}, \quad C = \begin{bmatrix} 4 & 5/4 & 9/4 \\ 1 & 2 & 3 \end{bmatrix}$$

Using Scilab commands, compute each of the following, <u>if possible</u> and explain the errors, if any.

$$3. A * C - C * A$$

$$4.2 * C - 6 * A$$

$$5.(2 * C - 6 * A') * B'$$

$$6.(2 * C - 6 * A') * C'$$