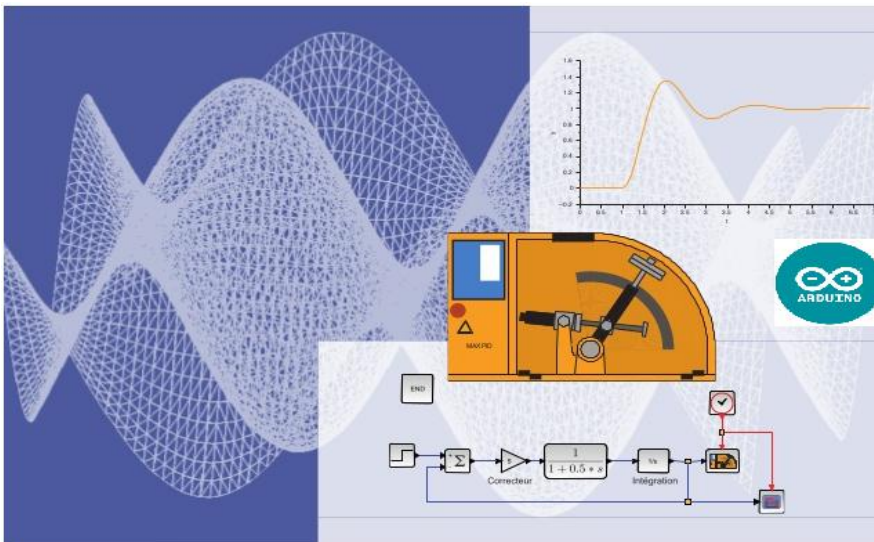


# 2016

## Accessing serial port in scilab

Tenet Technetronics is official Training Partners for



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## Contents

Introduction .....	2
How to access serial port through Scilab .....	2
Scilab workshop .....	6



## Introduction

Scilab is an open source, cross-platform numerical computational package and a high-level, numerically oriented programming language. It can be used for signal processing, statistical analysis, image enhancement, fluid dynamics simulations, numerical optimization and modeling, simulation of explicit and implicit dynamical systems and (if the corresponding toolbox is installed) symbolic manipulations.

## Let us see, How to access serial port through Scilab

### Step 1: Install 'serial port toolbox' and 'plotting library'

Open Scilab console window -> Module manager-ATOMS

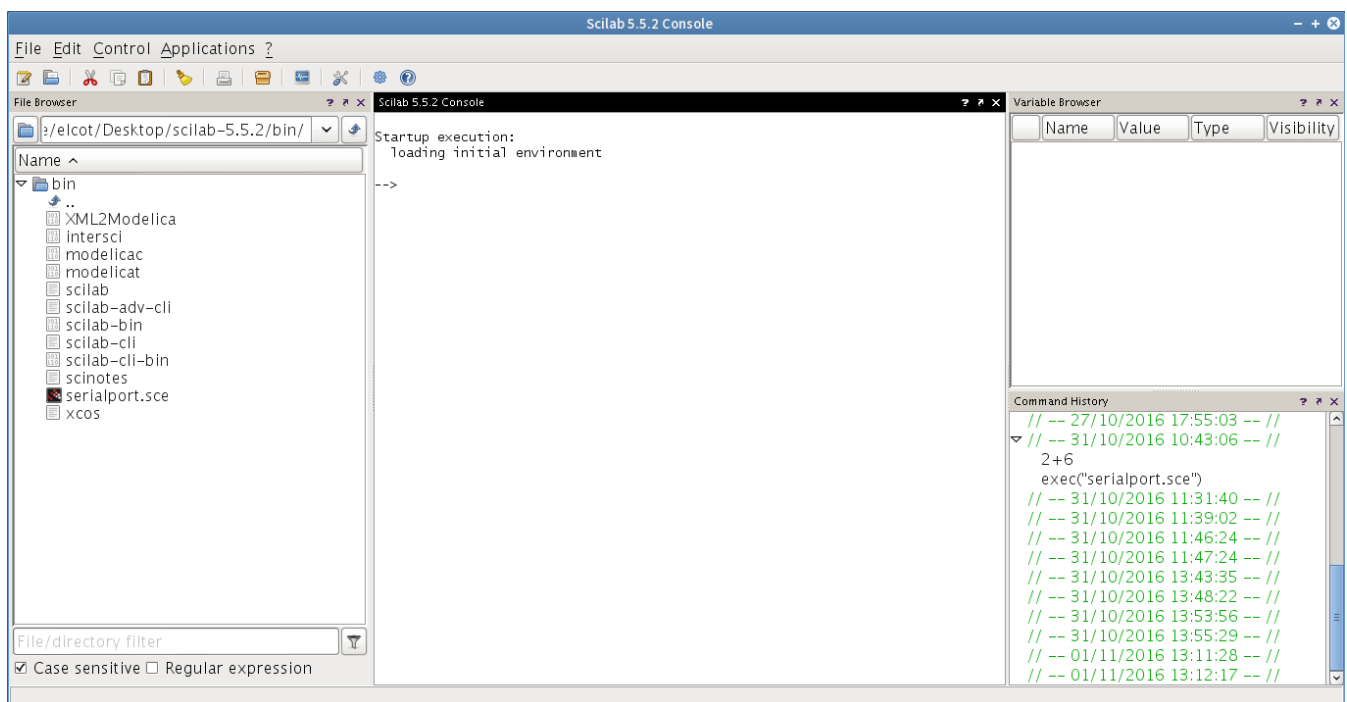


Fig (1). Scilab console window

**Step 2:** Module manager -> Instruments control -> Serial port Click to install

Module manager -> graphics -> Plotting library, Click to install

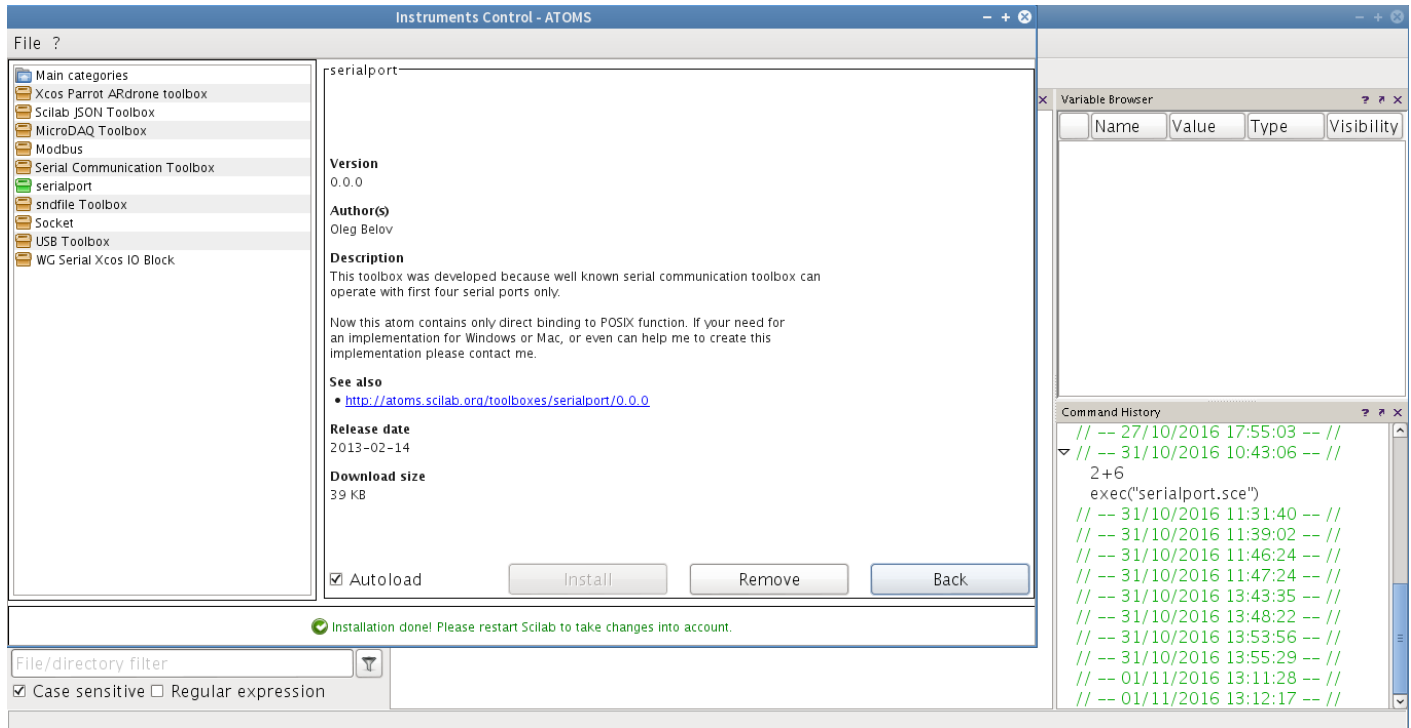


Fig (2). Instrument control-ATOMS

**Step 3:** After installation is done, restart the Scilab to take changes into account.

**Step 4:** Write arduino code and upload into arduino board.

```
File Edit Sketch Tools Help
[Icons] Upload
ses1
1 void setup() {
2   Serial.begin(9600);
3 }
4
5 void loop() {
6   for (int i=0; i<=100; i++)
7   {
8     Serial.println(i);
9     delay(100);
10  }
11
12 }
```

Fig (3). Arduino Program

**Step 5:** Open SciNotes and write the following code

```
serialport.sce (/home/elcot/Desktop/scilab-5.5.2/bin/serialport.sce) - SciNotes
File Edit Format Options Window Execute ?
[Icons]
serialport.sce (/home/elcot/Desktop/scilab-5.5.2/bin/serialport.sce) - SciNotes
serialport.sce x
1 sp=serialport('/dev/ttyACM0','9600');
2 for i=1:100
3   answer=sp.readln();
4   answer=strtod(answer);
5   plot2d3('gnn',i,answer);
6   drawnow();
7 end
8 sp.close();
9
```

Fig (4). Serial port Program

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**Step 6:** After writing code -> Execute -> save and execute

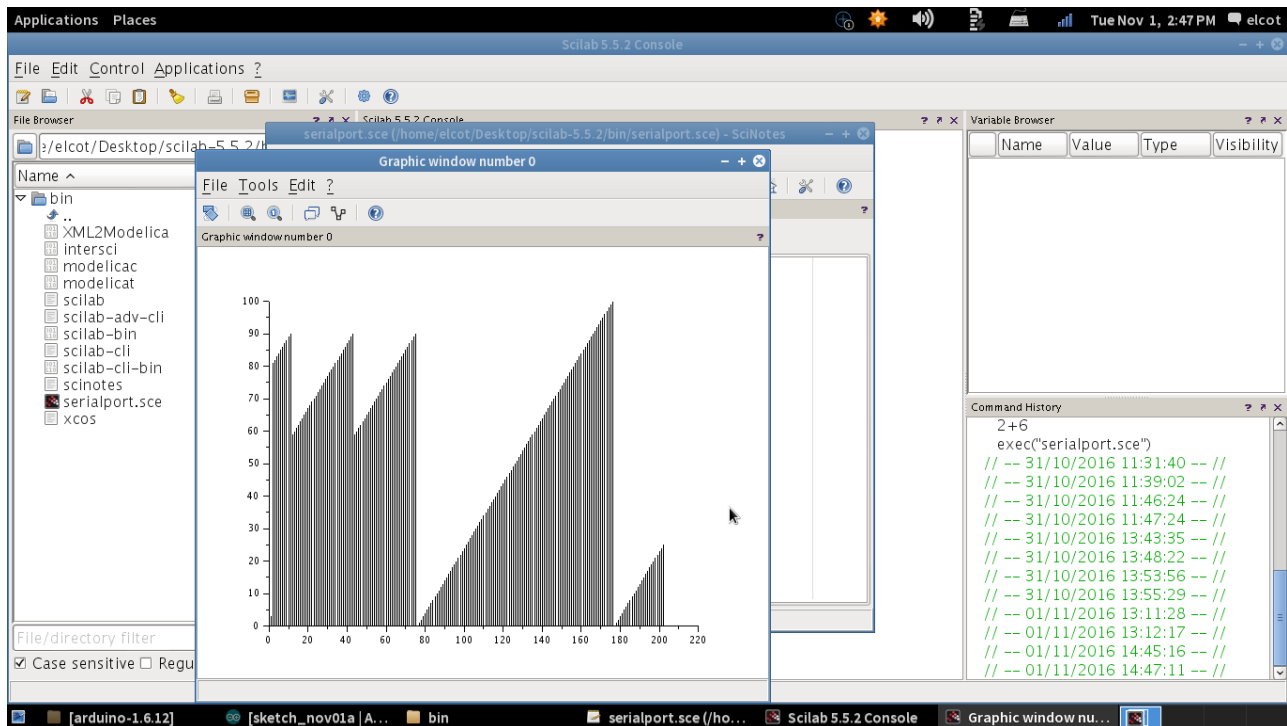


Fig (5). Graphic window

## Scilab workshop:

Tenet Technetronics offers Training services with varied course offerings on Scilab as well as offer customized training on various domains using the Scilab software.

For more info on the Scilab consulting offerings please email us at [info@tenettech.com](mailto:info@tenettech.com).



For more information please visit: [www.tenettech.com](http://www.tenettech.com)

For technical query please send an e-mail: [info@tenettech.com](mailto:info@tenettech.com)

