**Workshop Environment Requirements**

# The Servers

**Master: 54.202.243.56 >** Login and create with **user phusecss, pswd: Phuse1!**

Clone: ~~54.218.88.212~~

Clone: 54.187.150.55 - exercises completed on this machine. 2017-02-17

# Master Creation Procedures

Create desktop shortcuts to:

Protégé

Shortcut: C:\PhUSECSS\Tools\Protege-5.1.0-win\Protege-5.1.0

name it Protégé

Neo4j

Shortcut: C:\Program Files\Neo4j CE 3.1.1\bin\neo4j-ce

Name it : Neo4j

Obtain the scripts and data from my PhUSE account google drive, place them in:

C:\PhUSECSS\scripts

C:\PhUSCSS\data

### Notepad++

Download the 64 bit installer from here:

https://notepad-plus-plus.org/download/v7.3.1.html

Accept all defaults during the install. Check the box for create desktop shortcut.

### Explorer & File Environ

* Select option to show known file extension (Explorer, View | options, check box for file extensions)
* Right click on a .cql file and select Notepad++ and include for future open-with.
* Right click on a .rq file and select Notepad++ and include for future open-with.

### Chrome

* Add bookmark to: http://linkeddata.finki.ukim.mk/sparql and name it FINKI SPARQL
* Add Display of bookmarks bar

### Neo4j

* Start and use default database location.

Problems encountered during initial launch required copy over of the database and conf file from timwilliams user to phusecss user (database and app Roaming information)

* Run the createSimpsons.cql srcript.
* Drag and drop all \scripts\\*.cql files into the favorites.

### Protege

* Start Protégé and UNCHECK the "Check for updates to plugins" window.
* Close DL query tab.
* Add VOWL and Ontograf plugin tabs to the view
* Add Snap-SPARQL plugin:
  + Create new tab named : Snap SPARQL
  + with that tab active, select View | …| Snap SPARQL. pointer turns to a dot. Double click within the new tab to activate this plugin on that window.

## Cleanup

PURGE all history from Chrome

OPTIONAL

### Virtuoso Opensource Edition 7.2.4

Binary from:

https://virtuoso.openlinksw.com/dataspace/doc/dav/wiki/Main/VOSDownload#Pre-built binaries for Windows

Extract files to : C:\Virtuoso

Add the following to the system Path: c:\virtuoso;c:\virtuoso\bin;

Create a .bat file on the desktop that contains the text:

cd c:\virtuoso\database

virtuoso-t -f virtuoso.ini

Copy the file from: C:\msvcr100.dll to c:\Virtuoso\bin

Create bookbar bar shortcut Virtuoso to: http://localhost:8890

### Apache Jena

[installed!]

Install Apache Jena

Includes command line tools like RIOT

Apache Jena is a separate installation package from Jena Fuseki.

1. Obtain install file from: <http://jena.apache.org/>
2. Current version (2017-02-05) is Jena 3.1.1.
3. Download the ZIP file apache-jena-3.1.1.zip
4. Create a folder named C:\ApacheJena
5. Unzip to the new folder, resulting in:

C:\ApacheJena\apache-jena-3.1.1

1. Set JENA\_HOME system variable:

In  **Advanced system settings**

Select **Environment Variables**.

Under System Variables, click **New**.

Variable name: JENA\_HOME

Variable value: JENA\_HOME= C:\ApacheJena\apache-jena-3.1.1

Click **OK**., OK to clear window.

1. While in System Properties, edit the PATH variable to add:

C:\ApacheJena\apache-jena-3.1.1.\bat

This will enable RIOT and ARQ from the command line.

Java 8 JRE

**[NOT INSTALLED]**

Jena requires Java 8.

http://www.oracle.com/technetwork/java/javase/downloads/jre8-downloads-2133155.html

Run the .exe

Add the following to the system path:

C:\ProgramData\Oracle\Java\javapath

Confirm install at powershell: java -version

Confirm Riot at shell: riot --version

### R

**Base R**

https://cran.r-project.org/bin/windows/base/

**RStudio**

https://www.rstudio.com/products/rstudio/download/

Linkathon:

Files for R

Transfer to :

C:\PhUSECSS\Linkathon\R

Double click on one of the R files and make R studio the default open application.

Python

The problem seemed to be linked to **Windows installer**

"The system administrator has set policies to prevent this installation"

After much searching I found this solution that worked

**start > run regedit**

Browse the registry to**HKLM\Software\Policies\Microsoft\Windows**

Right click under \Windows. Create new key: **Installer**

Create new QWord: **DisableMSI**

Create value: **value=0**

<https://www.python.org/ftp/python/3.6.0/python-3.6.0-amd64.exe>

Install Import module

Start -> Run -> Command

2. pip install xport

3. Start interactive python, >>> import xport

# For the users

Ability to remote-desktop connect to server.

# Environment Configuration

OS: MS Windows (unfortunately)

Each user has:

* their own work area on the hard drive that contains:
  + Files for the exercises, including .OWL , TTL files for exercises, SPARQL and CYPHER files supplied by the instructor. TTL files from CDISC for breakout sessions.
  + Neo4j database with the abbreviated "Simpsons" data loaded. The users points to that path and loads the data. Any changes they make are their own!
  + Can we have saved Cypher scripts already loaded for each person so they appear within the application? (not mandatory - a nice to have).
  + Protégé SPARQL tab configured for display (not mandatory: Exercises will show how to do it.
  + Protégé Snap SPARQL plugin installed and visible at startup for each user (as well as the OntoGraf, VOWL, SPARQL tabs in addition to the standards tabs : Active Ontology, Entities, Individuals by class).
* The applications listed below. Each user runs their own version of these applications independent of the other users on the system.

Files for the Linkathon

SDTM domain data: DM, VS as .XPT, .CSV.

Other files TBD by the teams prior to conference.

# Environment Capability

Minimum 30 simultaneous logon (plan for 35?). Performance requirements are minimal (no large data processing) but must support all users launching Neo4j, Protégé and running simultaneously.

Internet Access. [not mandatory. used to demo federated query]

## Applications

**MUST HAVE:**

### 1. Neo4j Community Edition

3-0-1 or latest version.

### 2. Protégé Ontology Editor

Version 5.1.0

With the following plugins installed:

* OntoGraf, VOWL
* Snap SPARQL (Extra download and special instructions)

### 3. Google Chrome

Prefer with plugin: **Allow-Control-Allow-Origin: (CORS)**

**Optional** but preferred for the breakouts. In order of priority.

### 4. Virtuoso Open Source Edition

https://virtuoso.openlinksw.com/dataspace/doc/dav/wiki/Main/

### 5. Apache Jena

*[NOT INSTALLED]*

*For RIOT and an alternative to Virtuoso.To use RIOT, jena must be in the path. Confirm with riot --version*

### 6. Visualization Libraries

[NOT INSTALLED]

d3.js, d3.v3.min.js, d3.v4j.s

Other libraries are TBD in advance of workshop. May include jquery.js, topojson.js, node.js and others.

### 7. R

version 3.2.2 or higher (latest, at time of install)

#### RStudio

1.x or higher

#### R Packages

* install.packages ("car")
* install.packages ("Hmisc")
* rrdf/rrdflibs:
  + install.packages("rJava") # if not present already
  + > install.packages("devtools") # if not present already
  + > library(devtools)

Following may be needed to install from github:

library(httr)

set\_config(config(ssl\_verifypeer = 0L))

* + > install\_github("egonw/rrdf", subdir="rrdflibs")
  + > install\_github("egonw/rrdf", subdir="rrdf", build\_vignettes = FALSE)
* install.packages ("shiny")
* install.packages("visNetwork")
* install.packages("plotly")
* install.packages("reshape")
* ….others TBD prior to workshop

#### 8. Misc & Prep

* Java 7 or higher (rrdf package)

#### 9. Python

3.6.0 Latest version.

Python for http server as localhost unless another option used. Python may be needed for use with Neo4j demos?

Obtain the executable installer from:

https://www.python.org/downloads/release/python-360/

Run the EXE. Ensure you check the box for "Add Python 3.6 to path"