

## 1. Introduction

Systems-Level Interactive Data Exploration (SLIDE) is a user-driven interactive visualization tool for large-scale –omics data. SLIDE can organize and visualize quantitative –omics data in expression based heatmaps on a standard web browser. It allows users to interactively navigate through the heatmaps and create sub-analyses of selected feature sets. It can be used to visualize the data at different levels of granularity through multiple simultaneous views.

This manual is a step-by-step installation and configuration guide for running SLIDE on Microsoft Windows.

## 2. Installation

### 2.1 System requirements

SLIDE has been tested on various systems. The table below shows a typical system configuration that would work well with SLIDE:

Operating System	Windows 10 or Windows 7
CPU	Intel Xeon CPU E5-1620 v4 @ 3.50 GHz Intel Core i7-6700HQ CPU @2.60 GHz Intel Core i7-4600U CPU @2.10 GHz
Memory	16 GB RAM
Web browser	Microsoft Internet Explorer (recommended)

### 2.2 Prerequisites

SLIDE requires the following software to be available on the system before it can be configured to run:

Java Development Kit (JDK)	<a href="http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html">http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html</a>
GlassFish Server	<a href="http://download.oracle.com/glassfish/4.1.1">http://download.oracle.com/glassfish/4.1.1</a>
MongoDB	<a href="https://www.mongodb.com/download-center#community">https://www.mongodb.com/download-center#community</a>
Python	<a href="https://anaconda.org/anaconda/python">https://anaconda.org/anaconda/python</a>
Numpy	<a href="https://anaconda.org/anaconda/numpy">https://anaconda.org/anaconda/numpy</a>
Scipy	<a href="https://anaconda.org/anaconda/scipy">https://anaconda.org/anaconda/scipy</a>
fastcluster	<a href="https://anaconda.org/conda-forge/fastcluster">https://anaconda.org/conda-forge/fastcluster</a>

SLIDE has been tested on the following versions of these dependencies:

Java Development Kit (JDK)	1.8
GlassFish Server	4.1.1
MongoDB	3.4
Python	3.5.2

If the dependencies are already installed, go to Section 2.3 for instruction on how to download and configure SLIDE, otherwise go to Section 2.4 to see instructions on how to install the dependencies.

## 2.3 SLIDE Download and Configuration

SLIDE can be downloaded from <https://github.com/soumitag/SLIDE>. To install SLIDE locally on your PC (without the source code), download only the *application\slide* folder. Let the *slide* folder be located on your PC at *C:\my favourite software\slide*.

To setup SLIDE:

1. Open a Command Prompt (preferably as administrator)
2. Run the *configure\_slide.bat* file located in the *slide* folder
3. To run the .bat file from command prompt issue the following command:  
“*C:\my favourite software\slide\configure\_slide.bat*” assuming that the *slide* folder was downloaded on your PC to *C:\my favourite software\slide*
4. On running the .bat file you will be prompted to enter the following information:
  - a. Path to Java Installation Directory  
If the path to the target java.exe on your system is *C:\Program Files\Java\jdk1.8.0\_102\bin\java.exe*, provide the Java Installation Path as *C:\Program Files\Java\jdk1.8.0\_102*
  - b. Path to GlassFish Server Installation Directory  
Do the same as above
  - c. Path to the *bin* folder in MongoDB Installation Directory  
If the path to the *bin* folder in the target MongoDB installation is *C:\Program Files\MongoDB\Server\3.4\bin*, provide this as the path.  
Note: Unlike the paths for Java, GlassFish Server and Python installation directories, the path for MongoDB must include the bin folder
  - d. Path to Python Installation Directory  
Provide the directory which contains python.exe
5. Add the JDK path in asenv.bat file of GlassFish Server  
By adding the following line to the *asenv.bat* file  
*SET AS\_JAVA=C:\Program Files\Java\jdk1.8.0\_102*  
(where *C:\Program Files\Java\jdk1.8.0\_102* is the path to your JDK installation)  
The asenv.bat file can be found in the *glassfish\config* folder inside GlassFish installation directory. For instance, if GlassFish is installed on your PC at: *C:\Program Files\glassfish-4.1.1* the asenv.bat file can be found at *C:\Program Files\glassfish-4.1.1\glassfish\config\asenv.bat*  
Note: The location of asenv.bat can vary with different versions of GlassFish.

## 2.4 Installing Dependencies

Instructions for JDK installation for Microsoft Windows are available [here](#).

GlassFish server installation guide can be found [here](#).

Instructions for Windows MongoDB installation can be found [here](#).

Installation instructions for Anaconda’s implementation of Python are available [here](#).

To install fastcluster using Anaconda follow the instructions given [here](#).

### 3. Quick Start Guide

To start SLIDE run `slide\bin\start-slide.bat`. To start using SLIDE open Microsoft Internet Explorer and go to <http://localhost:8080/VTBox/>.

To stop SLIDE run `slide\bin\stop-slide.bat`.