**SNIA Installation Steps**

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# 1.Prerequisites

Node.js and npm are essential to run the SNIA basic Web Client. Node powers client development and build tools. The npm package manager, itself a node application, installs JavaScript libraries.

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| **Operating System** | Windows/Linux |
| **Node.js** | v.8.1.1 |
| **Npm** | v5.0.3 |
| **Angular/cli** | 1.4.5 |
| **Express** | 4.15.5 |
| **IDE** | WebStorm (optional) |

# 2. Environment Set up

## 2.1 Windows

1. Download the node.js from <https://nodejs.org/en/download/>
2. Install node.exe file

**note**: npm will be installed along with node

1. Express and angular/cli installation commands are provided in a batch (commands.bat) file
2. Run the batch file for successful installation of Express and angular/cli

[Image: commands.bat](#_4_Batch_Commands)

## 2.2 Linux

* 1. **Prerequisites**
* **Install Ruby** and **GCC**. Versions (Ruby 1.8.6 or newer and GCC 4.2 or newer.)
* For **Ubuntu** or **Debian**-based Linux distributions, run the following command in your terminal

**sudo apt-get install build-essential curl git m4 ruby texinfo libbz2-dev libcurl4-openssl-dev libexpat-dev libncurses-dev zlib1g-dev**

* Then select **Y** to continue and wait for the packages to be installed.
* For **Fedora** based Linux distributions run the following command in your terminal application

**sudo yum groupinstall 'Development Tools' && sudo yum install curl git m4 ruby texinfo bzip2-devel curl-devel expat-devel ncurses-devel zlib-devel**

* Then select Y to continue and wait for the packages to be installed.
* **Homebrew**. Homebrew is a package manager originally for the Mac, but it’s been ported to Linux as Linux brew, making installing most open-source software (like Node) as simple as writing: brew install node
* To install Homebrew for Linux, open your terminal application and paste in the command

**ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/linuxbrew/go/install)"**

* Follow the instructions in the terminal to complete the installation process.
* Once Linux brew is installed, you’ll need add the following 3 lines to your .bashrcor .zshrc file:

export PATH="$HOME/.linuxbrew/bin:$PATH"

export MANPATH="$HOME/.linuxbrew/share/man:$MANPATH"

export INFOPATH="$HOME/.linuxbrew/share/info:$INFOPATH"

* 1. **Node and npm installation**
* Open the terminal and run the following command

**brew install node**

* To Test for successful installation if node and npm go to terminal and type

**node -v**

**npm -v**

* This should print the version numbers of node and npm
* For installation of angular-cli and express, go to terminal and run the following commands

**brew install angular-cli** or **npm install -g @angular/cli@latest**

**brew install angular-cli** or **npm install -g express**

# 3. Web Client Installation

Run the below commands in terminal/console window, if you are running the application for the first time.

1. **cd views && npm install**

* cd views change the current working directory(project) path to views folder where angular application resides
* npm install will install all modules listed as dependencies in package. json in to the local node modules folder, which are required to run the angular application.

1. **ng build**
   * The ng build command is intended for building the app and deploying the build artifacts.
   * The build artifacts will be stored in the dist directory
2. **cd .. && npm install**

* cd .. reverts the path from views folder to project folder
* npm install install all modules listed as dependencies in project's package. json in to the local node modules folder required to run the node application.

1. **npm start**

* This runs an arbitrary command specified in the package. json’s "start" property of its "scripts" object.
* Npm scripts let you group together and run logically related commands and establishes a development server to execute the code, launches the application on browser.

1. Open **http://localhost:3000/** in your browser to access the Web Client.   
   npm start will launch the application on browser's http protocol and localhost as IPaddress on port 3000

\*\* Note: build to angular application is required upon any new pull request or if any changes are detected. So, follow the below steps to build and run the application

1. cd views && ng build
2. cd .. && npm start

Or

Directly run the application using npm start.

\*\* If the application is already build, then run **npm start** from the command prompt where your application resides

# 4. Error/Exception Handling For port numbers

* Allow access for firewall while installing NodeJS
* Specified port number **3000** is busy or used by some other application, change the port number to user defined one
* PS: refer Developer guide on how to change the port number

# 5. Batch Commands

