

JuliaPro

(v1.0.2.1)

Installation Manual and Quickstart Guide

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1. Objective

This guide details the installation procedure and usage of the base JuliaPro package and JuliaPro's Juno IDE.

2. Prerequisites

- `JuliaPro-1.0.2.1.sh` file (This file can be downloaded from <https://juliacomputing.com/>)
- An installation of CentOS 7, Ubuntu 14.04, or Ubuntu 16.04, RHEL 7
- 5 GB of disk space
- Installation of required system libraries using Administrator or sudo privileges
- Active Internet connection
- LinkedIn or Gmail or GitHub account (Either one of these accounts are required for authentication)

- `token.toml` , this file is required only if you're using a Linux machine that does not have GUI, instructions to download this file can be found in section [Using JuliaPro in a non-GUI environment](#)

2.1 System Library Prerequisites

2.1.1 Prerequisites for Installation on CentOS 7

Following libraries are required only if you're installing JuliaPro on an environment which has GUI , if your Linux machine does not have a GUI environment or if you're not planning on using the JuliaPro IDE, then you don't need to install any of these prerequisites.

```
xclip  
libXScrnSaver
```

These libraries need to be installed by a user with appropriate Administrator or sudo privileges using the built-in yum package manager.

```
sudo yum -y install xclip  
sudo yum -y install libXScrnSaver
```

2.1.2 Prerequisites for Installation on Ubuntu

Following libraries are required only if you're installing JuliaPro on an environment which has GUI , if your Linux machine does not have a GUI environment or if you're not planning on using the JuliaPro IDE, then you don't need to install any of these prerequisites.

```
xclip  
libgconf-2-4
```

This library need to be installed by a user with appropriate Administrator or sudo privileges using the built-in apt package manager.

```
sudo apt-get -y install xclip  
sudo apt-get -y install libgconf-2-4
```

3. Installing JuliaPro

Once the system requirements are met, you can start the JuliaPro installation using the installation script.

To execute the `JuliaPro-1.0.2.1.sh` script, you might first need to change the execution permissions on the script. Use following command to change the execution permission

```
chmod 777 JuliaPro-1.0.2.1.sh
```

The `JuliaPro-1.0.2.1.sh` script takes one argument; The absolute path to the directory into which you wish to install JuliaPro.

Example:-

```
./JuliaPro-1.0.2.1.sh /home/julia/
```

Immediately after the execution of JuliaPro script, you will be prompted with following question

```
Do you want to configure your JuliaPro to work with your private JuliaTeam package server? (
```

This question is applicable only for JuliaTeam customers, if you're an individual or your company or organization is not using JuliaTeam, then you can answer "No" and continue with the installation. If you press "No", the default package server <https://pkg.juliacomputing.com/> will be used for all package and registry operations. You can download (Or update) packages and registries from this server even if you're not a JuliaTeam customer.

If your organization is using JuliaTeam, then you can configure JuliaPro to work with your private package server (JuliaTeam enables you to create private package server) by answering "Yes". Subsequently, you will be promoted to enter your private package server URL with following question.

```
Please enter your JuliaTeam package server URL through which JuliaPro should download packag
```

Once you enter your private JuliaTeam package server URL, the installer will configure JuliaPro to download all the packages and registries from your private JuliaTeam server.

Upon completion of the installer, the contents of the JuliaPro installation directory can be viewed.

4. Using JuliaPro in a GUI environment

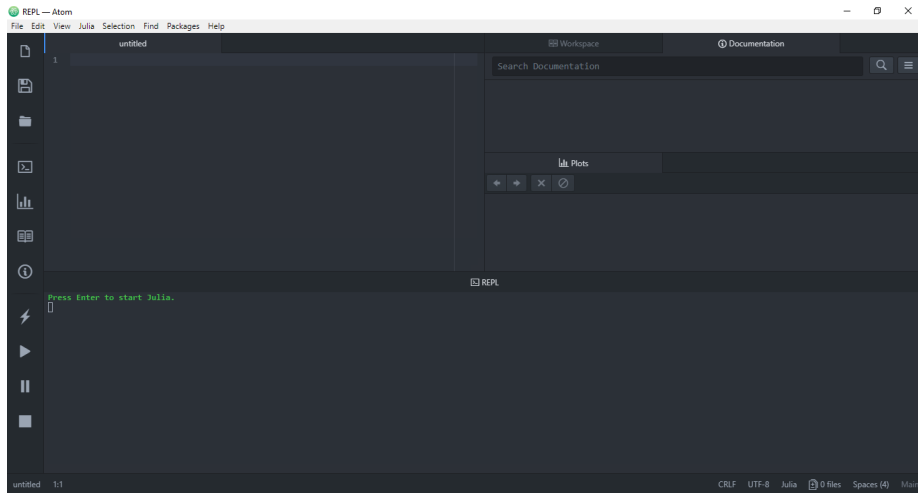
4.1 Launching JuliaPro

JuliaPro can be launched from the JuliaPro installation directory as shown below:

```
$ cd <juliapro>/JuliaPro-1.0.2.1
$ ./Launch_JuliaPro
```

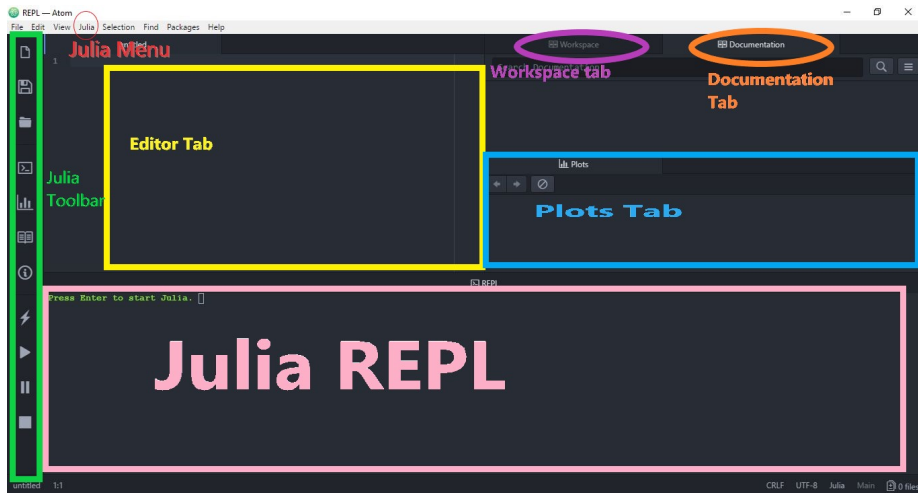
Where `<juliapro>` has to be replaced with the JuliaPro installation path.

Upon initially launching Juno, you will be presented with the following window.

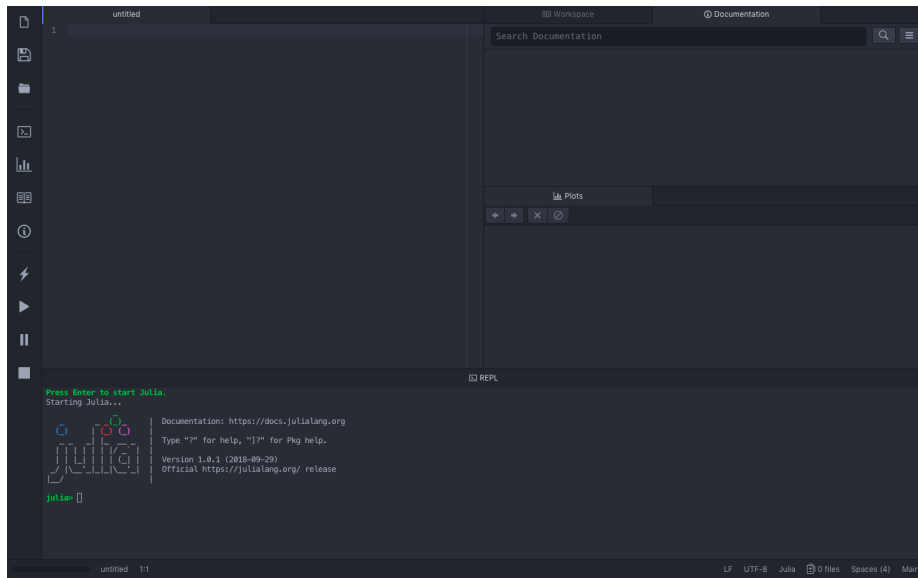


4.2 Getting Started with JuliaPro

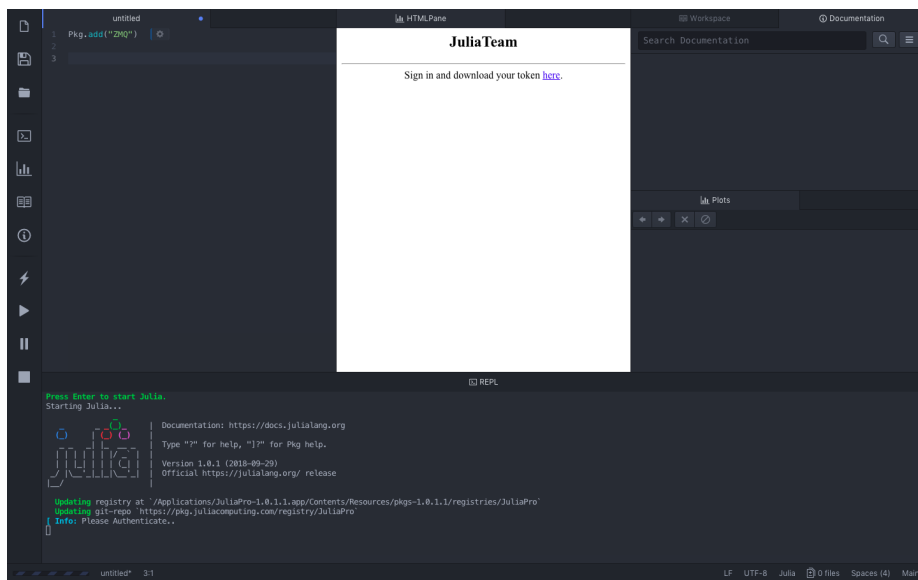
Naming convention for different layout (Panels) in Juno IDE can be seen below



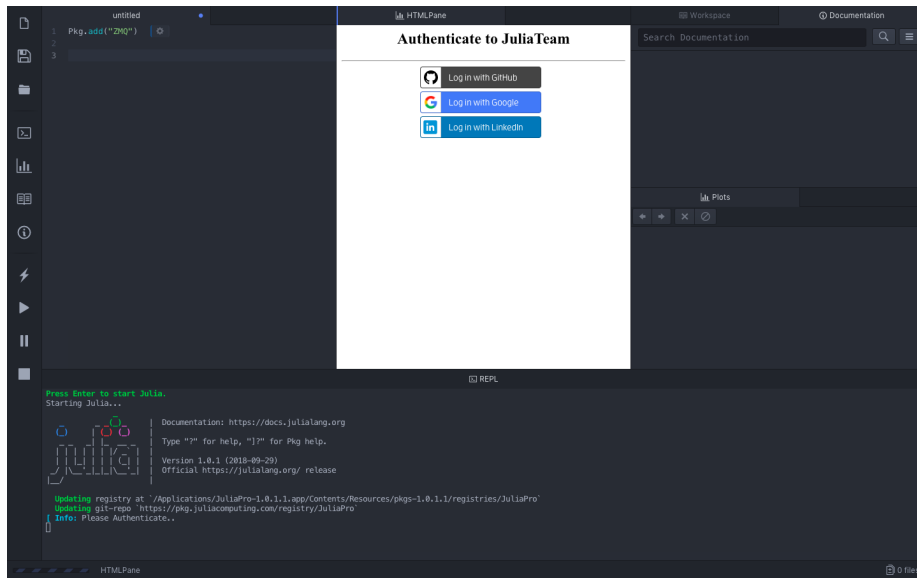
You can start Julia by pressing enter in “Julia REPL” pane



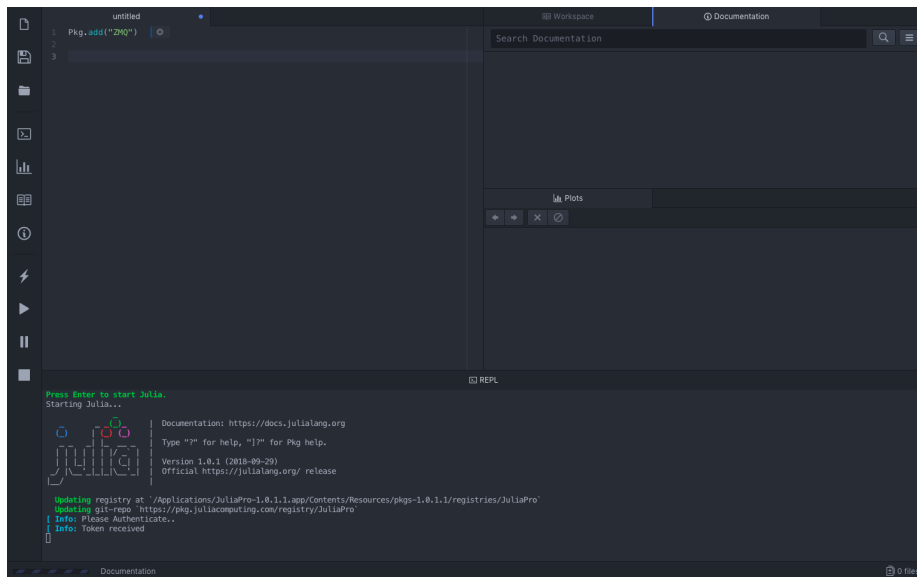
By default, JuliaPro will download all the packages from `pkg.juliacomputing.com`, this website requires authentication, hence, you will go through the authentication process the first time you perform a `Pkg` operation in JuliaPro, JuliaPro will download a token for you once you successfully authenticate, this token will be reused in your subsequent `Pkg` operations



Once you click on “here” URL link, you will be directed to authenticate by signing into either one of these accounts : LinkedIn or Gmail or GitHub account.



Once the authentication is done, you will get a message in Julia REPL saying “Token received”



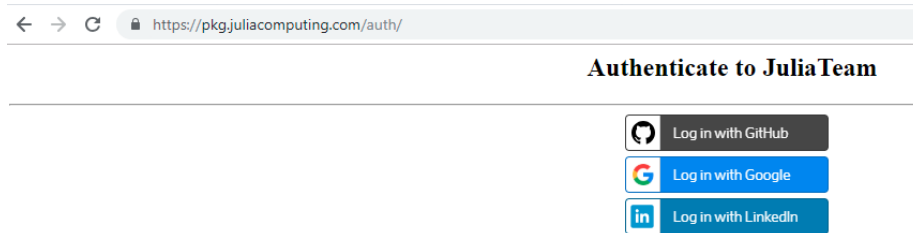
Your `Pkg` operation should continue as is, all your subsequent `Pkg` operations will use the token that JuliaPro just downloaded.

5. Using JuliaPro in a non-GUI environment

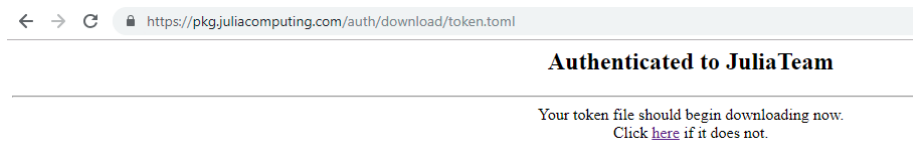
By default, JuliaPro will download all the packages from `https://pkg.juliacomputing.com/`, this website requires authentication, hence, you have to download `token.toml` file to authenticate any requests from your JuliaPro installation to the server. This file can be downloaded by visiting following website in your browser `https://pkg.juliacomputing.com/`



Once you click on “here” URL link, you will be directed to authenticate by signing into either one of these accounts : LinkedIn or Gmail or GitHub account.



Once the authentication is done, your `token.toml` file download should begin immediately , if your download doesn't begin automatically, you can always click on “here” URL link to download the token



Once you have `token.toml` , you can move this file to the machine where you have installed JuliaPro, the default location to place this file is `~/.julia/token.toml` i.e create a `.julia` folder in your home directory and place `token.toml` in your

~/`.julia` folder. If this location is not feasible for you, you can always change the default location by editing following file (Please take a backup before editing this file)

```
vi JuliaPro-1.0.2.1/Julia/etc/julia/startup.jl
```

In `startup.jl`, we are assigning the default location for `token.toml` using following line

```
ENV["JULIA_PKG_TOKEN_PATH"] = joinpath(homedir(), ".julia", "token.toml")
```

Once you place the file in `ENV["JULIA_PKG_TOKEN_PATH"]` location, all subsequent `Pkg` and `BinaryProvider.jl` operations will use this token to authenticate the download from <https://pkg.juliacomputing.com/>