User Manual

TeamAFK - Project Predire in Grafana

gruppoafk15@gmail.com

Informations about the document

Version	3.0.0
Approval	
Drafting	Alessandro Canesso
Check	
Use	External
Addressed to	Prof. Vardanega Tullio Prof. Cardin Riccardo TeamAFK

Description

User manual made by *TeamAFK* for the project *Predire in Grafana*.

Changelog

Version	Date	Description	Name	Role

Contents

1 Introduction **5**
1.1 Descrizione generale 5
1.2 Purpose of the document 5
1.3 Predire in Grafana's Purpose 5
1.4 Glossary 5

2 System Requirements **6**
2.1 Minimum Hardware Requirements 6
2.2 Compatible Operating Systems 6
2.3 Compatible Browsers 6

3 Installation **7**
3.1 Instruments installation 7
3.1.1 Node.js installation 7
3.1.2 Git installation 7
3.2 Grafana installation 7
3.2.1 WEB Grafana execution 7
3.3 Plugin installation 8
3.3.1 GitHub repository clone 8
3.3.2 Plugin 8

List of Figures

3.2.1 WEB Grafana page at `http://localhost:3000` 8

List of Tables

1 Introduction

1.1 Descrizione generale

This document is “Predire in Grafana”’s user manual, a project developed by “Team AFK” for use on the Grafana platform.

1.2 Purpose of the document

This document’s purpose is to demonstrate how to use Predire in Grafana’s two software components: the training tool and the prediction plug-in for Grafana itself.

1.3 Predire in Grafana’s Purpose

Predire in Grafana is a platform which allows users to train linear regression or support vector machine algorithms using machine learning, and then use these algorithms to monitor and predict the behaviour of various systems of their choosing. In more detail: Users can supply a CSV file to the training tool and receive a JSON file containing values which can then be used to set and calibrate SVM or RL algorithms by coupling the values contained in the JSON file with data streams coming from a database.

1.4 Glossary

At the end of the document an appendix is available where explanations for new or ambiguous terms can be found. These are marked with a subscript G.

2 System Requirements

Here the requirements for use of the product are listed.

2.1 Minimum Hardware Requirements

Here the requirements for use of the product are listed.

- 2GB of RAM;
- 5GB of space on a drive;
- Dual core processor.

2.2 Compatible Operating Systems

The software was developed and tested on the following:

- Windows 10;
- MacOS 10.15;
- Ubuntu 18, 20.

2.3 Compatible Browsers

Predire in Grafana can be accessed through the following browsers:

- Google Chrome version 58 or newer;
- Mozilla Firefox version 54 or newer;
- Apple Safari version 10 or newer;
- Microsoft Edge version 14 or newer;
- Opera version 55 or newer.

3 Installation

3.1 Instruments installation

3.1.1 Node.js installation

The installation of the runtime JavaScript Node.js can be done by visiting Node.js page at https://nodejs.org/en/download/. In this site the developer can download the most suitable version of Node.js for his operative system. For Linux user is also possible to use the package manager provided by the OS_G and exclusively for **Ubuntu/Debian** developers can run in terinal this code:
`apt-get install nodejs`

3.1.2 Git installation

For the installation of the version control system, the developer needs to reach Git site's at https://git-scm.com/downloads. Inside the 'Download' section are available the links to download the compatible version with his operative system. Also Linux base system can install Git from their package manager or running from **Ubuntu/Debian** terminal this line:
`apt-get install git`

3.2 Grafana installation

Developers can install Grafana by reaching its download page at https://grafana.com/grafana/download. There they can download compatible version for MacOs, Windows and Linux base system. Furthermore, the most common Unix base systems can install Grafana running terminal lines showed in the same page.

3.2.1 WEB Grafana execution

Depending from which OS the developer is working on,the execution of WEB Grafana can be done by:

- **Windows**: opening "bin" folder in Grafana installation folder (it should be xxxxxxxxx), and doubl-clicking the "grafana-server" file;
- **Linux and MacOS**: running on terminal the following line:
  `systemclt start grafana-server`.

After that, the developer needs to reach the address http://localhost:3000/ through a browser. For the first access, the developer needs to fill the fields username with "admin"

and password with "admin", and once he is in, he will need to register himself/herself into the system for next accesses.

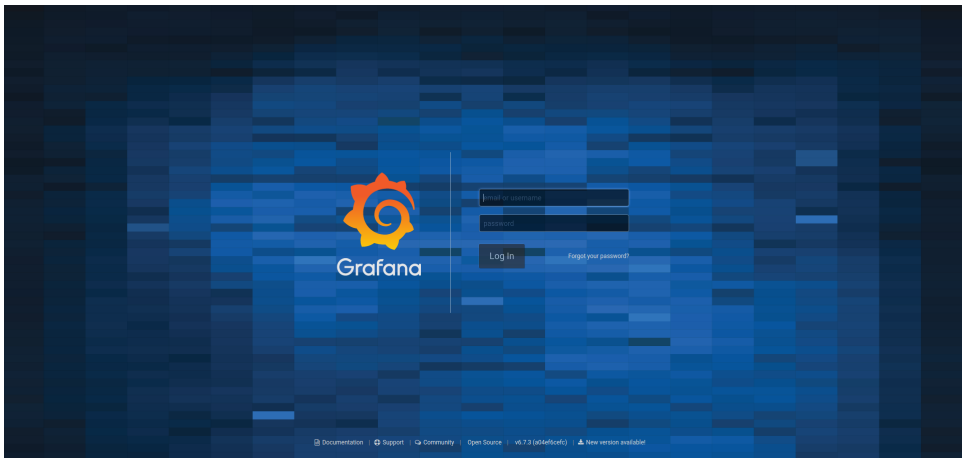

Figure 3.2.1: WEB Grafana page at http://localhost:3000

3.3 Plugin installation

3.3.1 GitHub repository clone

Dependency

Developer dependency

3.3.2 Plugin