

# IO Template Documentation Manual

**IO-Aero Team** 

#### Table of Contents

1	Introduction	1
2	Requirements	3
3	Installation	5
4	Configuration 4.1 settings.io_autonomy.toml	7.7
5	First Steps	9
6	Advanced Usage	11
7	iotemplate package7.1Submodules7.2iotemplate.io_config module7.3iotemplate.io_glob module7.4iotemplate.io_utils module7.5Module contents	13 13 13
8	Release Notes8.1Version 1.0.08.2Detailed Open Issues	15 15 15
9	End-User License Agreement 9.1 End-User License Agreement (EULA) of IO-Aero Software	17 17
	Python Module Index	19
	Index	21

Chapter	1
Ullupici	

# Introduction

# Requirements

The required software is listed below. Regarding the corresponding software versions, you will find the detailed information in the Release Notes.

• Operating System

Continuous delivery / integration (CD/CI) runs on **Ubuntu** and development is done with **Windows 10**. For the Windows operating systems, only additional the functionality of the "**make**" tool must be made available, e.g. via Make for Windows.

• Python

Because of the use of the new typing features, at least version 3.10 is required.

• GDAL

GDAL is an open source MIT licensed translator library for raster and vector geospatial data formats.

• Rasterio

Geographic information systems use GeoTIFF and other formats to organize and store gridded, or raster, datasets. Rasterio reads and writes these formats and provides a Python API based on N-D arrays.

Cha	pter	3

# Installation

# Configuration

# 4.1 settings.io\_autonomy.toml

This file controls the behaviour of the IO-TEMPLATE library.

The customisable entries are:

Parameter	Default	Description	
is_verbose	true	Display progress messages for processing.	

The configuration parameters can be set differently for the individual environments (dev, prod and test).

#### **Examples**:

```
[default]
is_verbose = true
[dev]
[prod]
[test]
is_verbose = true
...
```

Cha	pter	5

# **First Steps**

Cha	pter	6

# **Advanced Usage**

## iotemplate package

#### 7.1 Submodules

# 7.2 iotemplate.io\_config module

Managing the application configuration parameters.

# 7.3 iotemplate.io\_glob module

Global constants and variables.

# 7.4 iotemplate.io\_utils module

```
Miscellaneous helper functions.
```

```
\label{eq:continuity} \mbox{iotemplate.io\_utils.initialise\_logger ( )} \rightarrow \mbox{None} 
 \mbox{Initialise the root logging functionality}.
```

iotemplate.io\_utils.progress\_msg (  $is\_verbose: bool, msg: str$  )  $\rightarrow$  None Create a progress message.

**Parameters** • **is\_verbose** (bool) – If true, processing results are reported.

• msg (str) – Progress message.

```
iotemplate.io_utils.progress_msg_core ( msg: str ) \rightarrow None Create a progress message.
```

Parameters msg(str) – Progress message.

iotemplate.io\_utils.terminate\_fatal (  $error\_msg: str$  )  $\rightarrow$  None Terminate the application immediately.

**Parameters error\_msg** (str) – Error message.

# 7.5 Module contents

IO-TEMPLATE.

#### **Release Notes**

## 8.1 Version 1.0.0

Release Date: dd.mm.2023

#### 8.1.1 1 New Features

• TODO

#### 8.1.2 2 Modified Features

• TODO

#### 8.1.3 3 Deleted Features

• TODO

## 8.1.4 4 Applied Software

TODO

Component	Version	Remark	Status
XXX	9.9.9	XXX	xxx

#### Windows-specific Software

Component	Version	Remark	Status
xxx	9.9.9	XXX	XXX

## 8.1.5 5 Open Issues

• TODO

# 8.2 Detailed Open Issues

• TODO

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- genindex
- modindex

Python Module Index

```
i
iotemplate,14
    iotemplate.io_config,13
    iotemplate.io_glob,13
    iotemplate.io_utils,13
```

```
initialise\_logger() \ (in \ module \ iotemplate.io\_u-
         tils), 13
iotemplate
    module, 14
iotemplate.io_config
    module, 13
iotemplate.io_glob
    module, 13
iotemplate.io_utils
    module, 13
M
module
    iotemplate, 14
    iotemplate.io_config, 13
    iotemplate.io_glob, 13
    iotemplate.io_utils, 13
Р
progress_msg() (in module iotemplate.io_utils),
progress_msg_core() (in module iotem-
         plate.io_utils), 13
Τ
terminate_fatal() (in module iotemplate.io_u-
         tils), 13
```