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# **Python OPC-UA Documentation**

***Release 1.0***

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## Contents

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<b>1</b>	<b>OPC-UA Server Class</b>	<b>3</b>
<b>2</b>	<b>OPC-UA Client Class</b>	<b>5</b>
<b>3</b>	<b>High level Functions and Node Class</b>	<b>7</b>
<b>4</b>	<b>Subscription Class</b>	<b>9</b>
<b>5</b>	<b>opcua package</b>	<b>11</b>
5.1	Subpackages . . . . .	11
5.2	Submodules . . . . .	13
5.3	opcua.tools module . . . . .	13
5.4	Module contents . . . . .	13
<b>6</b>	<b>Indices and tables</b>	<b>15</b>



Pure Python OPC-UA / IEC 62541 Client and Server Python 2, 3 and pypy . <http://freeopcua.github.io/>, <https://github.com/FreeOpcUa/python-opcua>

OPC-UA implementation is quasi complete and has been tested against many different OPC-UA stacks. API offers both a low level interface to send and receive all UA defined structures and high level classes allowing to write a server or a client in a few lines. It is easy to mix high level objects and low level UA calls in one application.

Most code is autogenerated from xml specification using same code as the one that is used for freeopcua C++ client and server, thus adding missing fonctionnality to client and server should be trivial.

Some documentation is available at <http://python-opcua.readthedocs.org/en/latest/>

A simple GUI client is available: <https://github.com/FreeOpcUa/opcua-client-gui>

Examples: <https://github.com/FreeOpcUa/python-opcua/tree/master/examples>

Minimal client example: <https://github.com/FreeOpcUa/python-opcua/blob/master/examples/client-minimal.py> Minimal server example: <https://github.com/FreeOpcUa/python-opcua/blob/master/examples/server-minimal.py>

Contents:



# CHAPTER 1

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## OPC-UA Server Class

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## CHAPTER 2

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### OPC-UA Client Class

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## CHAPTER 3

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### High level Functions and Node Class

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## CHAPTER 4

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Subscription Class

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## 5.1 Subpackages

### 5.1.1 opcua.client package

#### Submodules

opcua.client.client module

opcua.client.ua\_client module

#### Module contents

### 5.1.2 opcua.common package

#### Submodules

opcua.common.event module

opcua.common.instantiate module

opcua.common.manage\_nodes module

opcua.common.methods module

opcua.common.node module

opcua.common.subscription module

opcua.common.uaerrors module

`opcua.common.utils` module

`opcua.common.xmlimporter` module

`opcua.common.xmlparser` module

Module contents

### 5.1.3 `opcua.crypto` package

Submodules

`opcua.crypto.security_policies` module

`opcua.crypto.uacrypto` module

Module contents

### 5.1.4 `opcua.server` package

Subpackages

`opcua.server.standard_address_space` package

Submodules

`opcua.server.standard_address_space.standard_address_space` module

`opcua.server.standard_address_space.standard_address_space_part10` module

`opcua.server.standard_address_space.standard_address_space_part11` module

`opcua.server.standard_address_space.standard_address_space_part13` module

`opcua.server.standard_address_space.standard_address_space_part3` module

`opcua.server.standard_address_space.standard_address_space_part4` module

`opcua.server.standard_address_space.standard_address_space_part5` module

`opcua.server.standard_address_space.standard_address_space_part8` module

`opcua.server.standard_address_space.standard_address_space_part9` module

Module contents

Submodules



`opcua.server.address_space` module

`opcua.server.binary_server` module

`opcua.server.binary_server_asyncio` module

`opcua.server.internal_server` module

`opcua.server.internal_subscription` module

`opcua.server.server` module

`opcua.server.subscription_service` module

`opcua.server.uaprocessor` module

`opcua.server.users` module

Module contents

### 5.1.5 opcua.ua package

Submodules

`opcua.ua.attribute_ids` module

`opcua.ua.extension_objects` module

`opcua.ua.object_ids` module

`opcua.ua.status_codes` module

`opcua.ua.uaprotocol_auto` module

`opcua.ua.uaprotocol_hand` module

`opcua.ua.uatypes` module

Module contents

## 5.2 Submodules

### 5.3 opcua.tools module

### 5.4 Module contents

All:

modules



## CHAPTER 6

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### Indices and tables

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- `genindex`
- `modindex`
- `search`