



# OpenOpcUa

## Open Source C/C++ OPC UA implémentation

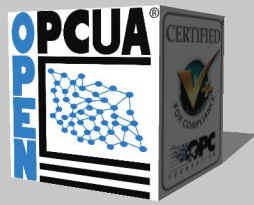


### Michel Condemine

- ◆ OpenOpcUa Project leader
- ◆ OPC Foundation TAC member
- ◆ CEO at 4CE Industry
- ◆ [MichelC@4CE-Industry.com](mailto:MichelC@4CE-Industry.com)
- ◆ +33 467 790 737



Looking for North-America partner



# OpenOpcUa project

## Les membres

**OpenOpcUa** est le nom d'une communauté d'utilisateurs qui poursuit depuis 2009 plusieurs objectifs :

1. Réaliser une souche technologique open source de qualité industrielle s'appuyant sur la technologie **OPC UA**
2. Contribuer par des actions ciblées à la diffusion de la technologie **OPC UA** en s'appuyant sur la souche **OpenOpcUa**
3. Aider les utilisateurs à appréhender cette technologie grâce aux solutions de sponsoring d'**OpenOpcUa**

CERTIFIED FOR COMPLIANCE  
OPC FOUNDATION

Fiable

Adopté

Sûre

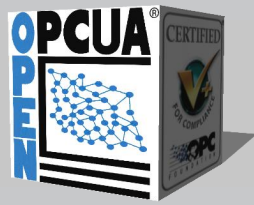
Multiplateforme

Flexible



### Quelques chiffres :

- +500 observateurs
- +200 contributeurs
- +50 financeurs
- +100 projets réalisés



# OpenOpcUa project

## License

- L'ensemble du projet OpenOpcUa est développé sous licence **CeCill-C. (LGPLV3 with a NO-FORK option)**
- La Licence **CeCILL-C** est bien adaptée au cas de composants logiciels.
- CeCILL** Acronyme pour Ce(A)C(nrs)I(NRIA)L(ogiciel)L(ibre)
- Bien que la dérivation du projet soit interdite les Vpi et les Vfi peuvent faire partie du projet OpenOpcUa ou appartenir à leurs auteurs.

La Licence libre de droit français CeCill-C est compatible avec la licence [LGPL V3](https://www.gnu.org/licenses/lgpl-3.0.html) Plus de détails sur le site <http://www.cecill.info>



REVOLUTION PI



OpenController OC8-S



Raspberry Pi



BeagleBone



Moxa IA241, UC8100, UC7101







# OpenOpcUa project

## Collaborative project

URL : <http://www.openopcua.org/redmine>



# OpenOpcUa project

## Public area

## OpenOpcUa

### Overview

#### OpenOpcUa

OpenOpcUa literally Open Source for OpcUa. OpenOpcUa is usually called OOUA. First, remember that Open is different than Free. OpenOpcUa is open not free. OpenOpcUa is an initiative launched in 2009 by a consortium of international companies led by Michel Condemine (4CE Industry). The objectives of this consortium are multiple:

- Create a professional quality codebase implementing OpcUa concept
- Help users understand OpcUa technology
- OpenOpcUaCoreServer is the first Certified Open Source OPC UA Server.

A is a reference implementation for OPC UA. This project contains both client and server.

- The client is an API for both Windows and Linux.
- The server is reference implementation available for Windows, Linux and many Embedded systems.
- Homepage: [www.OpenOpcUa.org](http://www.OpenOpcUa.org)

#### Issue tracking

	open	closed	Total
Anomalie	0	22	22
Evolution	0	3	3
Assistance	0	9	9

[View all issues](#) | [Summary](#) | [Calendar](#)

#### Latest news

##### File missing in the last demo

*SSL layer was missing in the last SimulationBasic\_2023\_Release-IPV4\_\_x64 Demo*  
Added by **Michel Condemine Admin** 6 days ago

##### OOUA Docker image

*OpenOpcUa was Dockerized.*  
Added by **Michel Condemine Admin** 12 days ago

##### OOUAVpi Sdk

*Changes in Vpi Sdk*  
Added by **Michel Condemine Admin** 11 months ago

##### ws.reputation.1

*SEP issue*  
Added by **Michel Condemine Admin** 11 months ago

##### MQTT JSON PUBLISHER for OpenOpcUa

*OOUA MQTT JSON PUBLISHER*  
Added by **Michel Condemine Admin** almost 2 years ago

[View all news](#)

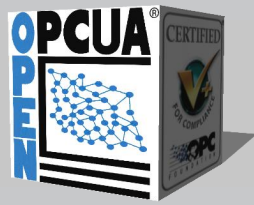
#### Members

Manager : **Michel Condemine Admin**

Développeur : **Michel Condemine Admin**

Rapporteur : **denis Bonnet, Michel Condemine Admin**

Observateur: **Adrien Bourdet, Alejandro Santana, Alois Zoitl, Andrew Cullen, Anthony Floyd, Atle Haugan, beau trepp, Bernard Bony, Bernat Coromina, bradley hops, CALA Mickael, carlos mtz, Catherine Dingeon, Cedric TINARD, Christophe Castigue, Christophe MOZZATI, Christophe VOISIN, Costantino Pipero, Daniel Cardille, daniela pala, Delcio Prizon, denis Bonnet, Denis Francesconi, Eliceo CARFAGNA, Elodie Julien, Franz Hofer, Frederic Bouvier, Gabriel Feron, Hans Wilmers, Iulian Mateias, J Cos, Jacques Anthoine, Jakub Strych, jean-marc ribault, Jeffrey Harding, Jens-Peter Hillers, JIHUA LI, Jim Luth, jimmy huang, Joachim Mammele, Joakim Skjefstad, Joel Haggar, Jordi Espada, Kapil Rakh, Ken Johnson, lefteris banos, Lionel Debroux, Loc Tran, M. Hertog, Marc BERGER, Marcos Ludwig, Martin Kaltental, Matthew Moss, Matthew Smith, Matthias Isele, Maung Bandu, Maxime COROYER, Michael Pasquini, Michel Condemine Admin, nathan litt, Niklaus Hersche, nir geller, Olivier Jolet, Ovidiu Adam, Patrick Bellot, Patrick Gansterer, Peter Speybrouck, philippe gresoviac, Robert Szefer, sam sun, spam sink, Star Loff, The God, Thomas B., Tony Knight, Vilem Srovnal, Vincent Yu, Zeg Acc, Жељко Аврамовић**

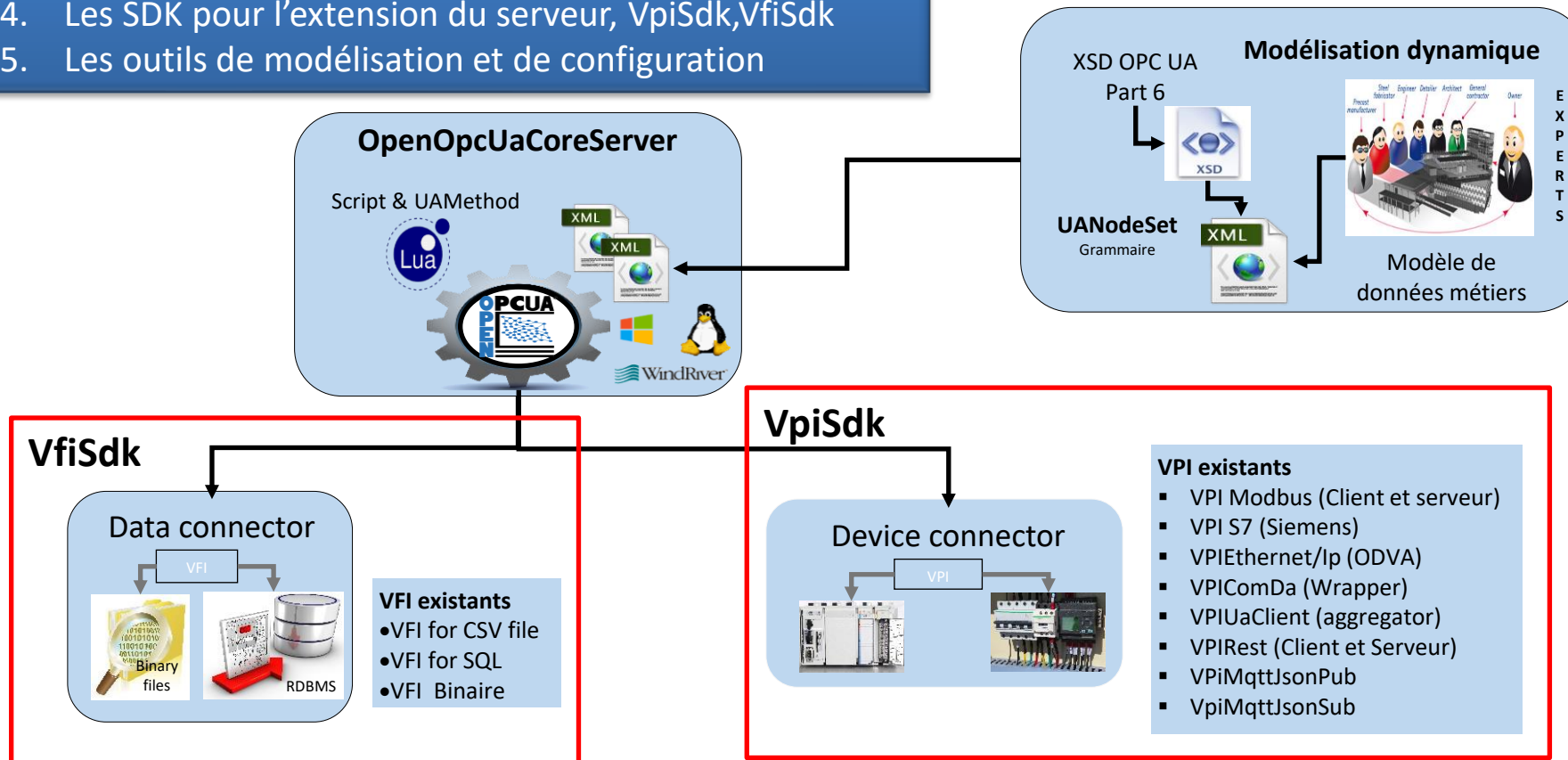


# OpenOpcUa project

## Project component

### OpenOpcUa est divisé en cinq composants principaux

1. La pile de bas niveau OpenOpcUa.
2. Le SDK client OpenOpcUa (API Windows, Linux, MACOS)
3. **OpenOpcUaCoreServer** (Serveur OPC UA de référence)
4. Les SDK pour l'extension du serveur, VpiSdk, VfiSdk
5. Les outils de modélisation et de configuration





# Le projet OpenOpcUa

## Bug report and evolution requests

### Suivi de bugs/ Demandes d'évolution/Assistance

L'outil de suivi de bugs intégré à Redmine a pour but de gérer d'une façon plus globale l'avancement, l'ajout de fonctionnalités sur un projet et les demandes de support.

Pour signaler un bug :

- Connectez-vous à notre Redmine.  
<http://www.openopcua.org/redmine>
- Choisissez le projet pour lequel vous souhaitez faire un rapport
- Sélectionnez « Nouvelle demande »
- Remplissez le formulaire en fonction de la demande que vous souhaitez formuler, Anomalie, Evolution ou Assistance.



Identifiant :

Mot de passe:

Rester connecté

Mot de passe perdu

Accueil Ma page Projets Aide

## OpenOpcUa

Aperçu Activité Demandes **Nouvelle demande** Gantt Calendrier Annonces Wiki

**Aperçu**  
Developpement d'une implementation OpcUa de reference.

- Site web : [www.OpenOpcUa.org](http://www.OpenOpcUa.org)

**Suivi des demandes**

- Anomalie: 0 ouvert sur 0
- Evolution: 0 ouvert sur 0
- Assistance: 2 ouverts sur 2

[Voir toutes les demandes](#) | [Calendrier](#) | [Gantt](#)





# OpenOpcUa project

## Demos

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# OpenOpcUa

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Wiki >

## How to use OpenOpcUa Docker image

### Overview

This docker image is based on Debian linux/amd64. It contains an OpenOpcUa (OOUA) demo. The demo simulate a tank with a bunch of methods and variables. There is a Tank01 instance (UAObject) of TankType (UAObjectType). You can play with method StartPump, StopPump, Drain, GetCurrentLevel, etc. The server is listening on port 2407.

### Introduction

The docker image is hosted on a public Docker Repository on Docker Hub. Do you can pull it and use it as long as you want.

### Requirements

- 1) A valid docker account
- 2) Docker Desktop installed [Download here](#)
- 3) An OPC UA client to connect to the server

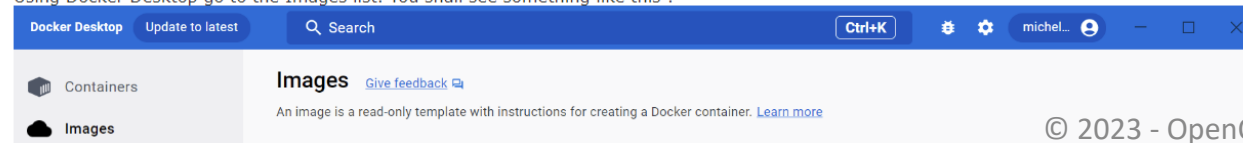
### How to use it ?

- 1) Get the image from Docker hub from a command line
  - 2) Start a commande line (CMD)
  - 3) To get the image from Docker hub.
- From the command line enter the following command:  
>docker pull michel4ce/oouasimulationtank:0.0.1

1. To run the image From the commande line enter the following command: >docker container run -dp 2407:2407 -t michel4ce/oouasimulationtank:0.0.1

### Verify the container was receive properly.

Using Docker Desktop go to the Images list. You shall see something like this :



...  
mulate a tank with a bunch of methods and variables.  
ank01 instance (UAObject) of TankType (UAObjectType). You can play with method StartPump, StopPump, Drain, GetCurrentLevel, etc.  
s listening on port 2407.

X

load server binaries from the OpenOpcUa website. [Download:SimulationTank\\_2023\\_Linux](#)  
ict **SimulationTank\_2023\_Linux.tar.gz** into a local folder  
: a shell  
: to the folder where you extracted files  
the following command : sh StartOpenOpcUaCoreServer.sh Note : OpenOpcUaCoreServer depends on 3 dynamic libraries that the  
ar need to retrieve in its path.  
you can connect with your preferred UA client using the following URL :  
cp://localhost:2407/OpenOpcUaCoreServer

γ it !!!

### lows

load and install the Local Discovery Server (LDS) OPC Foundation LDS - Need to be registered **The LDS is optional.**  
load server binaries from the OpenOpcUa website. [Download:Simulation\\_2023\\_Release](#)  
ict Simulation\_2023\_Release-IPV4\_\_x64.zip in a local folder  
: a command line (CMD) in the folder where you extracted the demo.  
the command : StartServer.bat and hit Enter  
you can connect with your UA client using the following URL :  
cp://localhost:2407/OpenOpcUaCoreServer

γ it !!!

### ion file are the same on Windows and Linux

OpenOpcUa benefit is that you can switch from Windows to Linux or from Linux to Windows with no effort.

ndows Demo.  
one made of a bunch of simulated and static nodes  
asic\_2023\_Release-IPV4\_\_x64 [Download](#)



# Support our project



## Sponsor Gold

- Workshop 4 jours
- Suivi hebdomadaire du projet
- @Support technique sur OPC UA 1 an
- Droit de vote



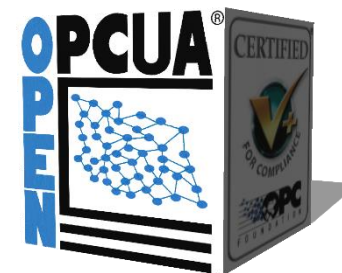
## Sponsor Titanium

- Workshop 4 jours
- Suivi hebdomadaire du projet
- @Support technique sur OPC UA 6 mois
- Droit de vote



## Sponsor Silver

- Workshop 4 jours
- @Support technique sur OPC UA 6 mois





# Support our project



## Sponsor Bronze

- @Support technique sur OPC UA 3 mois
- Participation à 1 webinaire de 1h



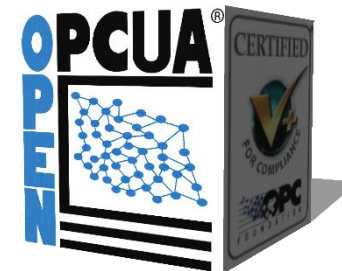
## Supporter bleu

- @Support technique sur OPC UA 1 mois
- Participation à 1 webinaire de 1h



## Supporter vert

- Participation à 1 webinaire de 1h





# Support our project

## Support OpenOpcUa



[www.OpenOpcUa.org](http://www.OpenOpcUa.org)

Sponsorship	Retail Price	License Type/Maintenance Period	Software included	Services included	Notes
Green Sponsor	500,00 €	<ul style="list-style-type: none"> <li>Code received can be kept and used forever without any limitation for none commercial.</li> <li>Access to new version require a new sponsorship.</li> </ul>	<ul style="list-style-type: none"> <li>OpenOpcUa Codebase : Core Server, stack, sharedlib, XML parser, client samples, and Binary</li> <li>OpenOpcUa Binary : Client Library, VPI library, VFI library.</li> <li>Samples source : VpiNull, VpiNullEx, command line client, Qt client, MFC Client.</li> </ul>	1 hour webinar. No support,	Targeted at first look at source, You cannot use code base for commercial product.
Blue Sponsor	1 000,00 €	<ul style="list-style-type: none"> <li>Code received cannot be redistribute to none OpenOpcUa sponsor</li> </ul>		1 hour webinar. One month support	Targeted at first look at source, You cannot use code base for commercial product.
Bronze Sponsor	3000,00 €			1 hour webinar. Three month support	Can be use in commercial product.
Silver Sponsor	8 000,00 €	<ul style="list-style-type: none"> <li>Code received can be kept and used forever without any limitation.</li> <li>Access to new version require a new sponsorship.</li> </ul>	<b>Source code</b> Core Server with simulator, stack, sharedlib, XML parser, client API, client samples, and Modbus binary. Also includes VPI library, library based VPI samples, VFI library and VFI library based samples,	4 day training. Six month support,	Can be use in commercial product.
Titanium Sponsor	11000,00 €	<ul style="list-style-type: none"> <li>Code received can be kept and used forever without any limitation.</li> <li>Access to new version require a new sponsorship.</li> </ul>	<b>PowerTools :</b> <ul style="list-style-type: none"> <li>Configuration tool,</li> <li>VPI Binaries for internal demonstration, but not for distribution.</li> <li>VFI Binaries for internal demonstration, but not for distribution</li> </ul>	4 day training, Six month support, weekly one hour call.	Can be use in commercial product.
Gold Sponsor	15 000,00 €	<ul style="list-style-type: none"> <li>Code received can be kept and used forever without any limitation.</li> <li>Access to new version require a new sponsorship.</li> </ul>		4 day training and weekly one hour call. One year support	Can be use in commercial product.



# Questions ?

OpenOpcUa

[www.OpenOpcUa.org](http://www.OpenOpcUa.org)

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**4CE**  
**INDUSTRY**

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