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# Twiki For the Opcua Ltdb Peripheral server

All download links are given for CentOS 7

To download the last compiled version (download packages artifact) :

<https://gitlab.cern.ch/atlas-dcs-opcua-servers/opcularltdbserver/pipelines>

For sources:

Gitlab link for the server [\(don't forget the --recursive flag when cloning\)](#)

## Ltdb Error

LTDLErrorSpreadSheet

## Ltdb configuration at emf and P1

LtdbConfigurationEmfPeripheral

LtdbConfigurationP1Peripheral

LtdbMappingGenerationEmfPeripheral

LtdbPowerCutResolution

LtdbChangeLatomeVersion

## Description of the peripheric server

procedurePeriphericServer (Document written by Daniele LAUGIER)

## Conversion xlsx to csv

With libreoffice configured with language english !!!! To have dot as decimal converter

```
libreoffice --headless --convert-to "csv:Text - txt - csv (StarCalc):44,,UNICODE,1,1" "ADC_consta
```

## How to compile

Now the peripheral use CI, but if you want to compile by "hand":

```
source setup.sh
./quasar.py enable_module open62541-compat
./quasar.py set_build_config open62541_config.cmake
./quasar.py prepare_build
./quasar.py build
```

## Design

See the design.xml files on the packages artifacts

How to write the design.xml file

## Access with WinCCOA

Link to the gitlab of the WinCCOA project [peripheral\\_server](#) branch

With WinCCOA it's impossible to call directly a method. To passthrough this issue the peripheral server implement register to call the methods.

- For each method there is registers (method\_parameter) with the needed parameter of the method
- A boolean register to call the method (callMethod)
- Registers with the output of the method (method\_output)
- Register with the value of the error code (method\_error)

All the registers name are written on the design diagram

Now only 3 error code are implemented:

- 0- METHOD\_NOT\_CALLED
- 1- METHOD\_IN\_PROGRESS
- 2- METHOD\_GOOD
- 3- METHOD\_BAD

## Development tools

For the development of the peripheral server many tools are needed

InstallPath

Trainings for the development of peripheric servers have been provided by Piotr Nikiel [Link to training](#)

Link to the OpcUAScaServer 1.2.1 [Link](#)

Link to the simulator [Link](#) => download the last artifact

How to setup the simulator

Link to the uhal library [Link](#)

## Other informations

**library 62541**

The quasar tool can use two different library for OpcUa: the open source 62541 and the OpcUa developed by unified automation. Because the license for unified automation is linked to a developer we can't use this library for development, so we will use the open source. But this open source don't have all the functions implemented (can't have source variable or asynchronous method) and they will be useful for production version of OpcUaLtdbPeripheralServer. So for the production version the compilation will be done by Piotr Nikiel who have a valid license.

**QuasarCommmands**

**UaoClientForOpcUaSca**

Description [Link](#)

## HowToConfigureSubscription

### Where to compile

- pcatllartest

### EssaiStandaloneConfigure

Gitlab configuration of kai [↗](#)

### HowToProgramFelix

### usefull script

#### Clean log files

```
sed -i 's/2019.*INF] //g' test.txt
```

### Shell latome at USA15

```
#reload the firmware
cd /det/lar/project/firmware/LATOME/config_test/LATOME_FW-v2.3/LATOME/projects/firmware_control
./switch_application.latome.sh LATOME_ID
#Reset to load mapping
cd /det/lar/project/firmware/LATOME/LATOME_config/LATOME_config-v2.3
./reset_latome.sh LATOME_ID
#shell to
cd /det/lar/project/firmware/LATOME/config_test/LATOME_FW-v2.3/LATOME/projects/firmware_control
./shell.latome.sh LATOME_ID
```

-- Main.etfortin - 2018-11-29

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This topic: Main > OpcUaLtdbPeripheralServer

Topic revision: r26 - 2020-09-16 - DanieleLaugier



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