

OPC UA – RASPBERRY PI - CODESYS

The image displays two software interfaces side-by-side. On the left is the CODESYS environment, showing a project tree under 'Appareils' with 'OPCUA' expanded. It lists various components like 'Logique API', 'Application [exécuter]', 'GVL', 'Gestionnaire de bibliothèque', 'PLC_PRG (PRG)', 'Symbol configuration', 'Configuration de tâche', 'MainTask', 'PLC_PRG', 'VISU_TASK', 'VisuElems.Visu_Prg', 'Gestionnaire de visualisation', 'Visualisation Web', 'Visualization', and 'Visualization_1'. Below these are hardware-related items like 'SoftMotion General Axis Pool', '<Leer> (<Vide>)', 'I²C', 'SPI', 'Onewire', 'Camera device', and '<Empty> (<Vide>)'. An arrow points from the 'Symbol configuration' entry in the tree to the 'Symbol configuration' window on the right. This window shows a list of symbols: 'Constants', 'ExceptionFlags', 'GVL', 'IoConfig_Globals', and 'PLC_PRG'. The 'PLC_PRG' entry is checked and circled in red. Below the symbol list, there are sections for 'Total messages', 'Compiler', 'Description', and 'Size of generated code'. On the right is the 'Unified Automation UaExpert' window, titled 'The OPC Unified Architecture Client - OpcRasp*'. It shows a project tree with 'Project' expanded, containing 'Servers' and 'Documents'. The 'CODESYS_OPC_UA_Server - None - None (uatcp-u)' server is selected. Below the project tree is the 'Address Space' view, showing a hierarchy: 'Root' -> 'Objects' -> 'DeviceSet' -> 'Raspberry Pi' -> 'Resources' -> 'Application'. The 'Application' node is circled in red. At the bottom of the UaExpert window is a 'Log' section showing messages like '14/04/2016 23:4... AddressSpaceModel'.

global var not check > not full tree

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global var check > full tree

The screenshot displays the Siemens SIMATIC Manager interface, illustrating the visibility of a global variable in a PLC program. The main components shown are:

- Symbol configuration window:** The 'Symboles' tab is active, showing a list of symbols. The 'PLC_PRG' symbol is highlighted with a red circle, indicating it is the source of the global variable.
- PLC_PRG program editor:** The program code is visible, showing the declaration of the global variable 'iCounter' as an integer (INT) and its subsequent use in a program.
- Unified Automation UaExpert - The OPC Unified Architecture Client - OpcRasp*:** This window shows the project structure. The 'PLC_PRG' program is highlighted with a red circle, and the 'iCounter' variable is also highlighted with a red circle, indicating its visibility in the global variable list.
- Data Access View:** This window shows the 'Server' list, where the 'iCounter' variable is listed with its Node Id and Display Name, also highlighted with a red circle.

The program code in the PLC_PRG editor is as follows:

```
1 PROGRAM PLC_PRG
2 VAR
3     iCounter: INT;
4     iValue: INT;
5 END_VAR
6
7 iValue:=iValue;
8 iCounter := iCounter + iValue;
9
10 IF iCounter >=100 THEN iCounter:=0;
11 END_IF
12
13 GVL.a:=GVL.a;
```

global var is visible, because a variable exists