

OMRON Tag Creator for Wonderware InTouch WindowMaker

**User Manual
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OMRON Tag Creator for Wonderware InTouch WindowMaker

Overview

The Klinkmann **OMRON Tag Creator** is an add-on module for Wonderware InTouch WindowMaker, used to expand the functionality and capability of InTouch at design time. The Omron PLC programs created by the OMRON CX-Programmer Windows Programming Software (CX-Programmer) can be saved as binary (.cpx) files or text (.cxt) files. Based on information about all PLC program variables included in .cxt files, the OMRON Tag Creator uses .cxt files created by CX-Programmer to help you create tags within InTouch quickly and easily.

The Klinkmann OMRON Tag Creator supports the following types of OMRON PLCs:

- CS1/CJ1 Series PLCs,
- CV-Series PLCs,
- C/CPM2x PLCs,
- C200HX/C200HG/C200HE PLCs,
- CQM1 PLCs.

The following Klinkmann OMRON Communication Servers are supported by OMRON Tag Creator:

- Klinkmann OMRON Hostlink Communication Server (**OMRHLINK**), using the Host Link protocol to communicate with OMRON PLCs directly via serial RS-232/RS-422/RS-485 interface;
- Klinkmann OMRON FINS Gateway Communication Server (**OMRONFGV**), using FINS communications protocol to communicate with OMRON PLCs over Ethernet, Controller Link, Sysmac Link, Sysmac Bus or Serial networks; the OMRON FinsGateway software must be installed on MS Windows (NT, 2000 or XP) to run the OMRONFGV Server;
- Klinkmann OMRON Ethernet Communication Server (**OMRONETH**), using FINS communications protocol to communicate with OMRON PLCs directly over Ethernet network; the OMRONETH Server does not need the OMRON FinsGateway software to be installed on computer where OMRONETH Server is running.

Installing the OMRON Tag Creator

The Klinkmann OMRON Tag Creator installation package can be supplied:

1. As a self-extracting archive (P12510xxx.EXE if downloaded from Klinkmann's web site (the xxx is the current (latest) version of the OMRON Tag Creator).
2. From installation on CD.
3. On two or three distribution disks (floppies).

To **install** the OMRON Tag Creator from the self-extracting archive, run the P12510xxx.EXE and proceed as directed by the S7ETHMPI Server Setup program.

To **install** the OMRON Tag Creator from CD or distribution disks, on MS Windows:

1. Insert the CD with Klinkmann Software into CD drive or insert the OMRON Tag Creator Disk1 into a floppy drive A: or B:.
2. Select the **Run** command under the **Start** menu.
3. Run STARTUP.EXE if installing from CD or SETUP.EXE if installing from distribution disks (floppies).
4. If installing from CD: select "Protocol Servers (DDE, SuiteLink, OPC)", find "Additional and support software/OMRON Tag Creator" and click on "Setup...".
5. Proceed as directed by the OMRON Tag Creator Setup program.

Note:

*Omron Tag Creator needs the **InTouch 7.11 Patch04** (or newer) to be installed on PC where Wonderware WindowMaker is running. If InTouch 7.11 Patch04 is not installed, the Omron Tag Creator installation will be rejected.*

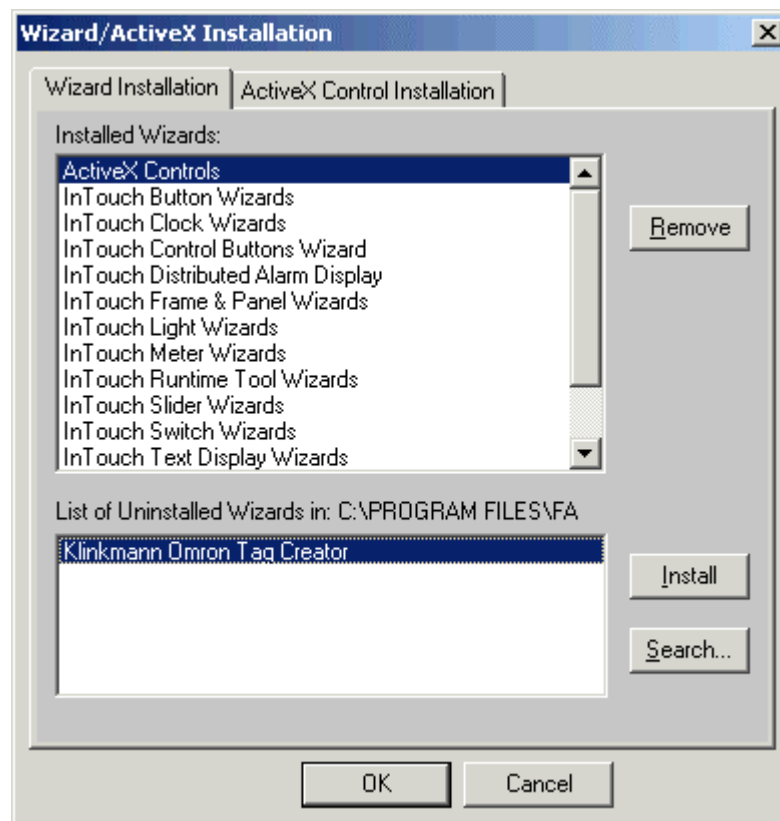
When installation is finished, the following files will be added to InTouch subdirectory (e.g. C:\Program Files\FactorySuite\InTouch):

OMRONTAGC.WZU	The OMRON Tag Creator wizard (DLL) file. This file will be renamed to OMRONTAGC.DLL by WindowMaker when configuring/adding new OMRON Tag Creator wizard.
OMTAGCR.DLL	Dynamic Link Library necessary for OMRON Tag Creator.
SYSTAGS.DAT	Data file used by OMRON Tag Creator.

The subdirectory specified as a folder where to install the OMRON Tag Creator files will contain the following files:

P12510Mxx.PDF	The OMRON Tag Creator User manual (this file), where xx is the current (latest) version of manual.
EXAMPLE.CXT	Example OMRON CX-Programmer PLC program file.
LICENSE.TXT	Klinkmann Automation software license file.

When installation is finished, start WindowMaker, from WindowMaker Main Menu select *Special / Configure / Wizard/ActiveX Installation* and open the "Wizard/ActiveX Installation" dialog box:



Select the "Klinkmann Omron Tag Creator" from the List of Uninstalled Wizards and press **Install** - "Klinkmann Omron Tag Creator" will be added to Installed Wizards.

To **uninstall** the OMRON Tag Creator:

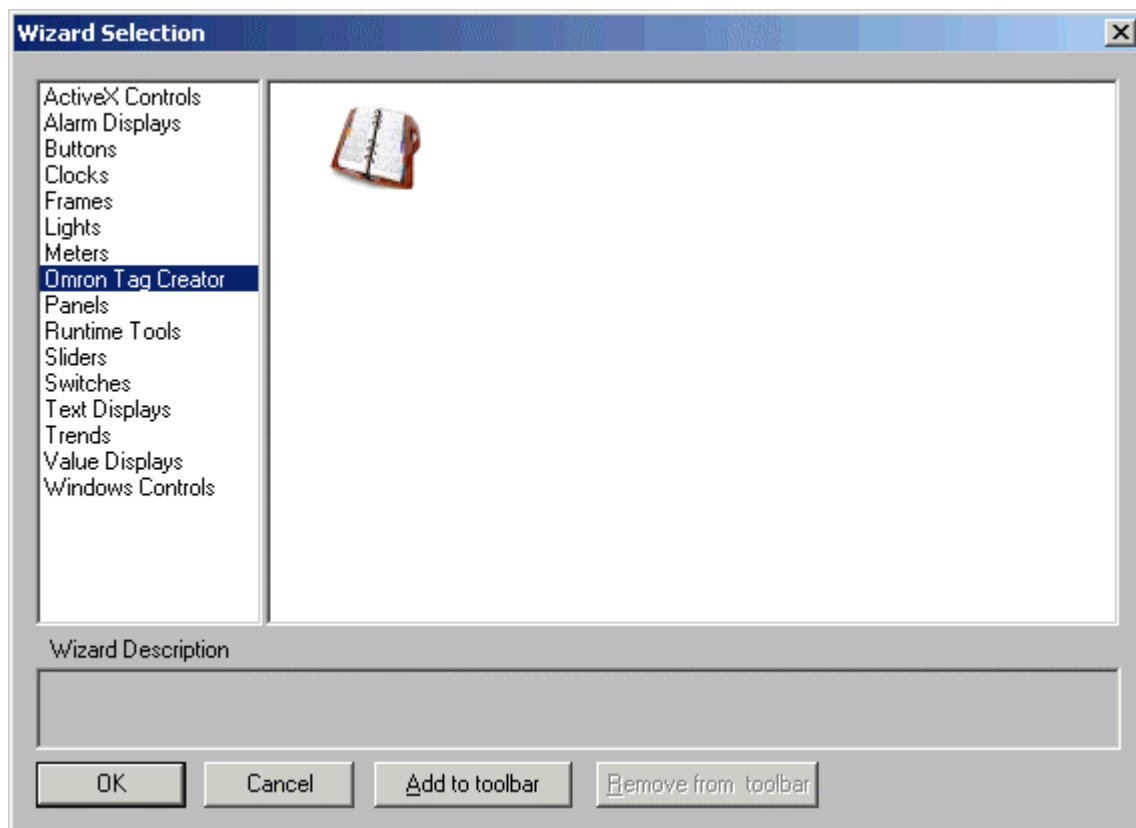
1. Remove it from Installed Wizards by selecting the "Klinkmann Omron Tag Creator" WindowMaker in "Wizard/ActiveX Installation" dialog box and clicking Remove.
2. Start Control Panel, select "Add/Remove Programs" and select the "Omron Tag Creator" from the list of available software products. Click on "Add/Remove..." and proceed as directed by the UnInstallShield program.

Setting up the OMRON Tag Creator

Starting the OMRON TagCreator

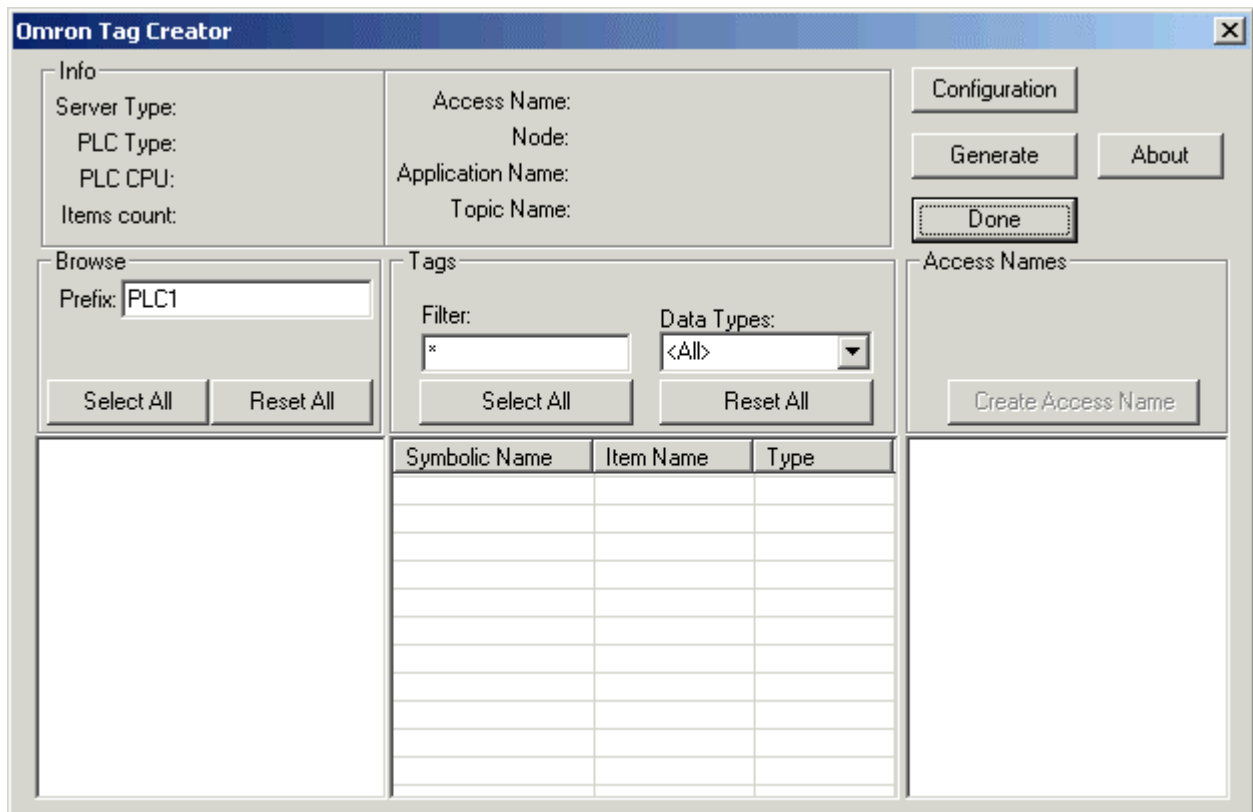
To start the OMRON Tag Creator, in WindowMaker:

1. Open the “Wizards/ActiveX Toolbar” (by clicking on “Wizards/ActiveX Toolbar” button) from WindowMaker Toolbars (if “Wizards/ActiveX Toolbar” button is not visible, enable it by selecting *View / Wizards/ActiveX Toolbar* from WindowMaker Main Menu) - the “Wizard Selection” window displays:



Select “Omron Tag Creator” and press OK. The Omron Tag Creator icon will appear somewhere on WindowMaker currently opened Window.

2. Locate the Omron Tag Creator icon by clicking on it and then double click on it to open the Omron Tag Creator main window:



Initially, all the fields in this window are empty except “Browse” area “Prefix:” field has default value “PLC1” and “Tag” area “Filter:” and “Data Types:” fields have their default values “*” and “<All>”.

The next step using the Omron Tag Creator is to configure the Omron Tag Creator settings.

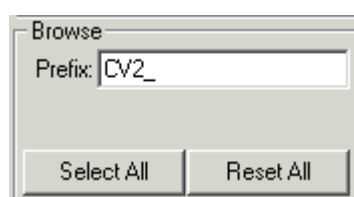
Note:

The Omron Tag Creator is used only by WindowMaker and is not needed at InTouch runtime – when InTouch application is ready, the Omron Tag Creator icon can be simply removed from WindowMaker window where it was located.

Configuring the OMRON Tag Creator Settings

To configure the OMRON Tag Creator settings, at first you must enter the suitable **tagnames prefix** for new tagnames to be created from memory addresses and global and local variables used in Omron PLC program (contained in the current .cxt file). This tagnames prefix will precede the Omron PLC program memory address or symbolic name (for global and local variables) when generating new WindowMaker tagnames (see *Creating tags by OMRON Tag Creator* section below). There are two opportunities how to enter this tagnames prefix:

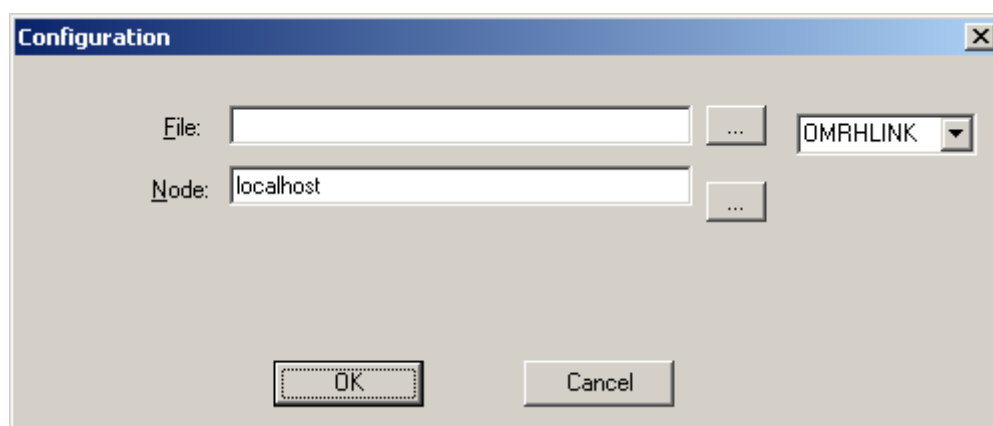
1) Enter the prefix text directly in the “Browse” area “Prefix:” field, like following:



In this case prefix **CV2_** will be added to memory address or symbolic name. For example, for PLC program memory address **168.02** new tagname will be generated as **CV2_168.02** or for PLC program global variable **High_temp_val2** the new tagname will be generated as **CV2_High_temp_val2**.

2) Leave the “Browse” area “Prefix:” field empty - in this case the prefix will be generated automatically from .cxt file “PLC Type” information plus underscore “_”. For example, if “PLC Type” in .cxt file is **CVM1-V2** then new tagnames like following will be generated: **CVM1-V2_168.02** or **CVM1-V2_High_temp_val2**.

After suitable tagnames prefix is selected, click the **Configuration** button - the “Configuration” dialog box will appear:



Here the **File** and **Node** fields are used to select the .cxt file to be used as a new source from where to generate new WindowMaker tags. The combo box at right part of “Configuration” dialog box is used to select some of Klinkmann Omron Servers (OMRHLINK, OMRONFGV or OMRONETH) to be used as current Application Name (for InTouch data base Access Name definition).

For example, select local node (**Node** field can be empty), default example.cxt file supplied with OMRON Tag Creator installation and select **OMRHLINK** as current Application Name:

After filling fields in “Add Access Name” dialog box and pressing **OK**, the Omron Tag Creator main window will re-appear with new Access Name displayed in the in Access Names list box - **CVM** in our case. By selecting CVM from Access Names list box, the current Access Name information will be displayed in the **Info** area:

To **edit** the already existing Access Name, double click on some existing one from Access Names list box – the “Edit Access Name” dialog box will be invoked.

Notes:

1. The **Server Type** and **Application Name** (both displayed in general **Info** area) must be same, e.g. OMRHLINK as in above example.
2. The **Topic Name** entered in “Add Access Name” or “Edit Access Name” dialog box must match with some of existing Topic Names configured for corresponding Klinkmann Omron Server (OMRHLINK, OMRONFGV or OMRONETH). For above example, the Topic Name **CVM** must present in OMRHLINK Server configuration.

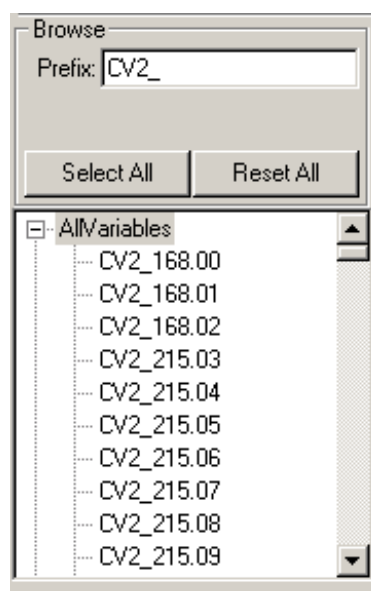
Now the configuring of OMRON Tag Creator settings for current .cxt file (example.cxt) is finished and creation of tags can be done.

Creating tags by OMRON Tag Creator

There are two OMRON Tag Creator areas used to create tags for WindowMaker: the “**Browse**” area and the “**Tags**” area. The **Generate** button is used to add the selected tags to InTouch data base.

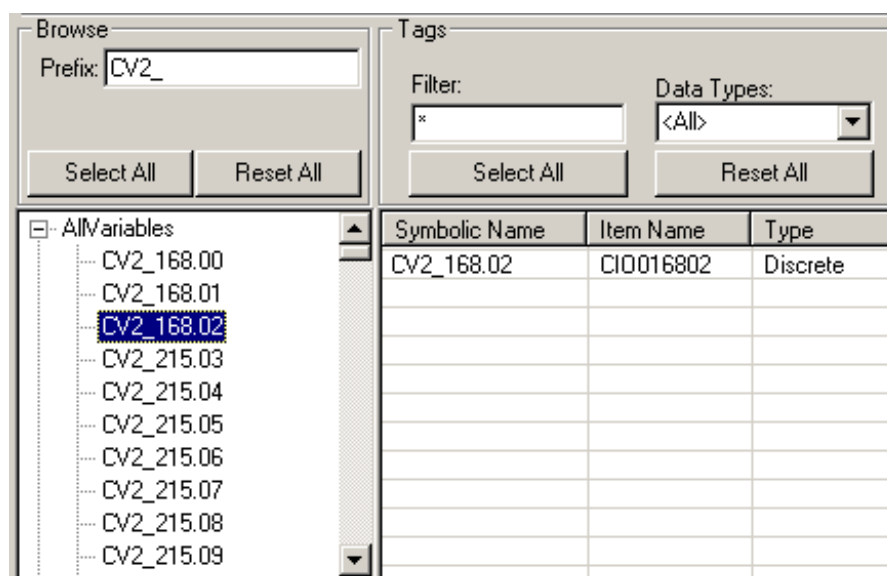
Browsing the Omron PLC program variables

The “**Browse**” area is used to select Omron PLC program data (memory addresses and global and local variables) available from currently selected .cxt file. In “Browse” area all Omron PLC program data are displayed by their new tagnames generated by OMRON Tag Creator, based on .cxt file contents and current tagnames prefix entered in “Browse” area “Prefix:” field (Omron PLC program memory addresses are put into “AllVariables” group). For example, for our example.cxt program “AllVariables” can be expanded like following:

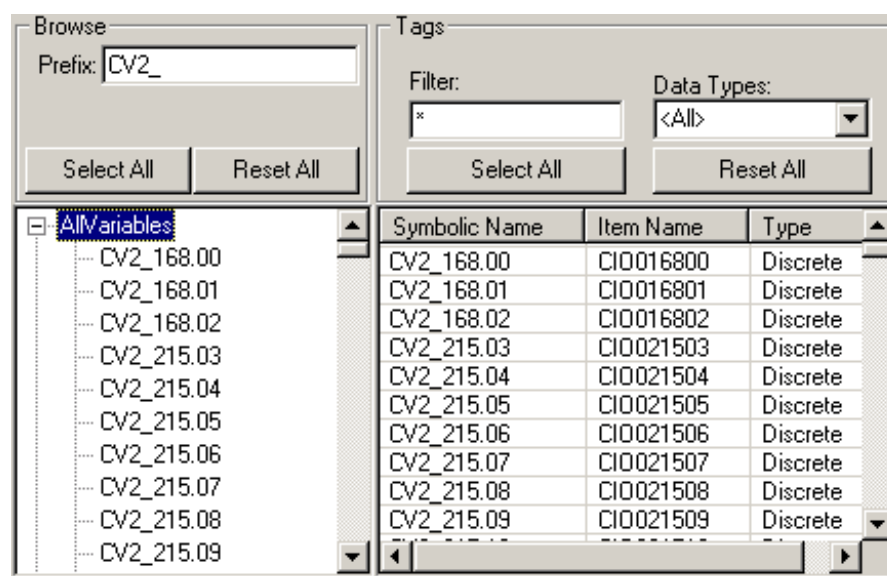


The selection of variables in “Browse” area can be done in following different ways:

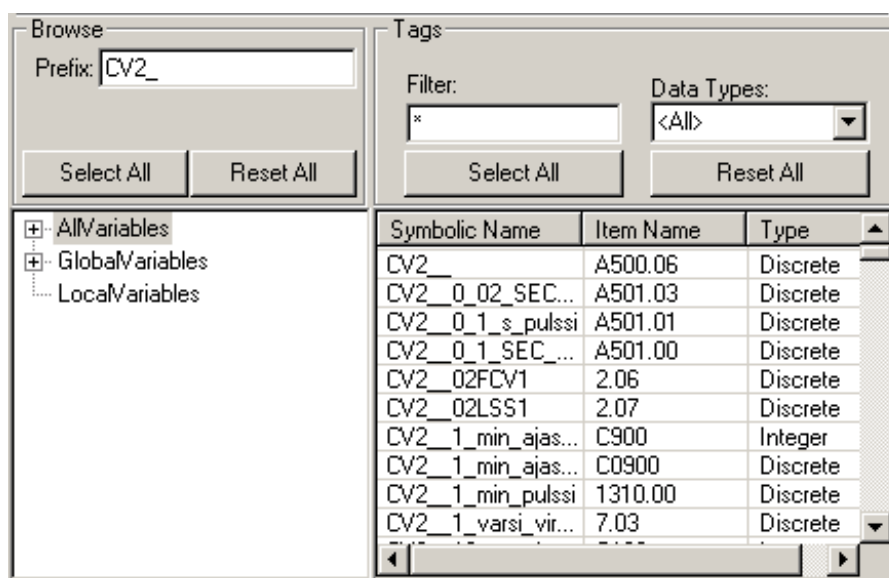
1. Single variable can be selected by double-clicking on it. For example, variable **CVM1-V2_168.02** can be selected by double-clicking on it in “Browse” area - this variable will be added to “Tags” area:



2. All group of variables can be selected by double-clicking on the group name. For example, all “AllVariables” can be selected by double-clicking on it in “Browse” area – all “AllVariables” will be added to “Tags” area:



3. All Omron PLC program variables (all groups) can be selected by pressing “Browse” area **Select All** button:



By pressing “Browse“ area **Reset All** button, all currently selected variables will be deleted from “Tag” area.

Note - variables in “Browse“ and “Tag” areas are listed in alphabetical order.

Creating new tags

The “**Tags**” area is used to create new WindowMaker tags from Omron PLC program variables previously added to “Tags” area by browsing and selecting in “Browse” area. In “Tags” area each selected variable is located in one row, consisting of three fields:

- 1) “Symbolic Name” - new tagname generated by OMRON Tag Creator; this name will be used as **Tagname** in Window Maker Tagname Dictionary;
- 2) “Item Name” - item name associated with “Symbolic Name” by OMRON Tag Creator depending on corresponding Klinkmann Communication Server (OMRHLINK, OMRONFGV or OMRONETH) item naming system; this name will be used as **Item** in Window Maker Tagname Dictionary;
- 3) “Type” - the type of variable (Discrete, Integer or Real); this will be used as tag Type (I/O Discrete, I/O Integer or I/O Real) in Window Maker Tagname Dictionary.

In general, the creation of new WindowMaker tags is done the following way: necessary variables are selected in “Tags” area and then by pressing the **Generate** button new tags are added to Window Maker Tagname Dictionary. There are several ways how to select variables in “Tags” area:

- by pressing “Tags“ area **Select All** button - all current “Tags“ area variables will be selected:

Symbolic Name	Item Name	Type
CV2_168.00	CIO016800	Discrete
CV2_168.01	CIO016801	Discrete
CV2_168.02	CIO016802	Discrete

- by selecting several consecutive variables (by holding **Shift** key and at first clicking mouse left button on variable and then on last variable) or non-consecutive variables (by holding **Ctrl** key and clicking mouse on variables to be selected):

Symbolic Name	Item Name	Type
CV2_168.00	CIO016800	Discrete
CV2_168.01	CIO016801	Discrete
CV2_168.02	CIO016802	Discrete

- by using **Filter** feature: by entering the filtering mask in the **Filter** edit box and pressing <Enter> - the variables matching the filtering mask will be selected, like following (the filtering is performed on Symbolic Names):

Tags

Filter: Data Types:

Symbolic Name	Item Name	Type
CV2_217.15	CI0021715	Discrete
CV2_D1051	D1051	Integer
CV2_D1052	D1052	Integer
CV2_D16012	D16012	Integer
CV2_D16013	D16013	Integer
CV2_D16014	D16014	Integer
CV2_D16015	D16015	Integer
CV2_D2615	D2615	Integer
CV2_D2616	D2616	Integer
CV2_D2620	D2620	Integer
CV2_D2621	D2621	Integer

- by using **Data Types** feature: by selecting some data types available (<All>, Discrete, Integer, Real) from the **Data Types** combo box - all this data type variables will be selected, like following:

Tags

Filter: Data Types:

Symbolic Name	Item Name	Type
CV2_217.14	CI0021714	Discrete
CV2_217.15	CI0021715	Discrete
CV2_D1051	D1051	Integer
CV2_D1052	D1052	Integer
CV2_D16012	D16012	Integer
CV2_D16013	D16013	Integer
CV2_T300	T300	Discrete
CV2_T302	T302	Discrete
CV2_T310	T310	Discrete
CV2_T312	T312	Discrete

By pressing "Tags" area **Reset All** button, all currently selected variables will become unselected.

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OMRON Tag Creator
Revision History

Feb 2003	Rev 1.0	First Release
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