

Usage

The Add-on uses the WebIQ Designer web server. That's why it works only if the project is opened in WebIQ Designer.


- Open your project in WebIQ Designer
- Install the Add-On
- Enter URL (e.g.: localhost:10124/addon) in your web browser
Hint: The port must be configured once in WebIQ Designer
- All changes in the Designer must be saved before they can be displayed in the Add-on.

First login

At the first login, or when the login changes, you must provide a system user with password. Use 127.0.0.1 or localhost (which means local PC) instead of the IP address of your PC.

HINT: User name and password are stored in the local storage your web browser.

Selection of rows

- Before a command can be executed, the table rows to which it should be applied must be selected. The following options are available:
- Icons: Select all/Select none/Invert

- Select a range with the mouse:
 - Click first row, hold "Shift" key, Click last row
 - 2x Click first row, Click last row
 - Hold "Ctrl" key and click on a row, to toggle selection

Sort columns

- Increasing and decreasing sort order
- Click on header row of the table to sort column

Filter	Filter	Filter	Filter	Filter
^Name	Label	Interval	Source	Unit
_Array	jjj	@None	Internal	@None
_iDbg1	@None	@None	Internal	@None
_iDbg2	@None	@None	Internal	@None

Filter columns


- All filters are AND filters. This means that only rows containing all entered filter conditions are displayed.
- Filters are not case-sensitive.
- Multiple filter words in a single column are supported. A space (" ") serves as the field separator. Example:

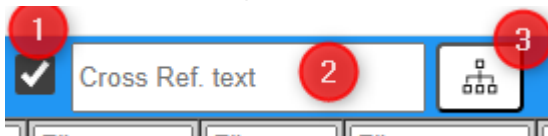
Column	Name
Filter string	AB EF => 2 words "AB" & "EF"
Matching rows	ABcdEF
	EFcdAB
	aBEfcd

Cross Reference

- The cross-reference list is based on string comparison. Therefore, it can happen that too many references (e.g. a comment in a script) or not all occurrences (e.g. the item name is concatenated in a script ("stTest." + "width")) of items are displayed.
- Although the cross-reference function counts all cross-references, it cannot list the path to certain cross-references because the program is not yet able to read all internal dependencies.
- **This add-on analyzes WebIQ's undocumented internal storage format. Because this format can change, this add-on may no longer work with newer WebIQ versions.**

There are 3 modes:

- Select multiple rows and click on button , which shows an info in the "check" column. E.g. 5x:MARTS => found 5 times "M": Model "A":Alarm "R":Recipe "T":Trend "S":Script "-":Not found 3x:M-R-S => found 3 times "M": Model "R":Recipe "S":Script
- Double click a row, which creates the cross-references for clicked item.
- Search for manually entered text.



- Enable the checkbox (1)
- Enter the text to search for (2)
- Click button (3)

Use case: too many cross references found.

- An item name used as label.
- An item/item attribute in a composite widget is overwritten by a placeholder
Note: To avoid this, you can remove this item from the composite and leave it empty or use placeholder string, which does not exist as item name and makes it more readable for you e.g. `_Item_replaced_by_placeholder_ _Item_exported_as_attribute_`
- An item name is used in a comment of a script

Use case: Variable not found.

- Composites
 - Placeholder only contains a part of the item name
 - Placeholder: "<%= item %>.Status_strUnitsVelocity"
 - Scripts
 - Item names are build with string operators
 - sVar = "myAxis" + ".Name"
 - sVar = "Axis." + iCounter + ".Name"
- An item is used in a location that the add-on cannot decrypt because the WebIQ format is not documented.

Set attribute.

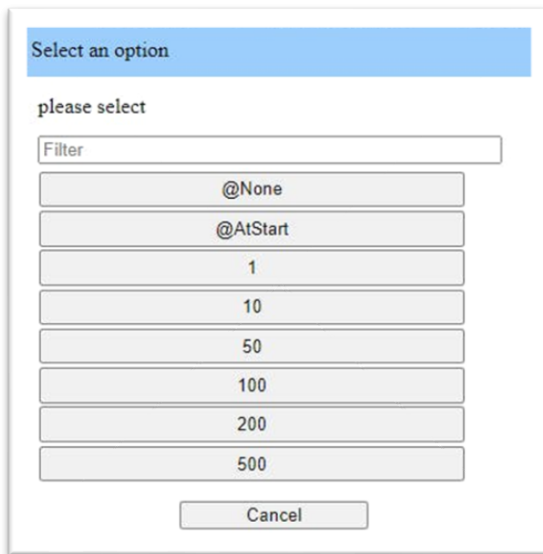
Note: The update of changed attributes must be done manually by clicking "Update items" in "Process Data Manager" of WebIQ Designer.

- Select attribute (Label, Interval, ...) from select box
- Hint: The column header of the selected attribute is highlighted

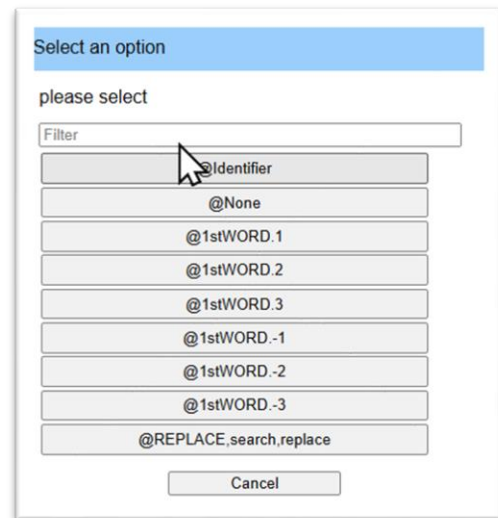
Label	Enter attribute value...	...	✓
Label	Filter	Filter	Filter
Interval	Type	Arr...	Min
Unit	int	@None	@Non
Digits	int	@None	@Non
ArraySize	int	@None	@Non
Min	actSetValue	@None	@Non
Max	string	@None	@Non

Set attribute

- Either type in your value in field with placeholder "Enter attribute value..." or
- Press button "." to open the input assistance. All items starting with "@" (e.g. @AtStart) are reserved word. See table below the picture.



Dialog attribute "Interval"



Dialog attribute "Name"

Input dialog example for interval.

Attribute	Keyword	Description
Label	@Identifier	Use item name as label
	@1stWORD.1	Use word 1 of item name from left
	@1stWORD.2	Use word 1-2 of item name from left
	@1stWORD.-1	Use word 1 of item name from right
	@1stWORD.-2	Use word 1-2 of item name from right
	@REPLACE,search,replace	Replace search text by replace text
	@None	Undefined
Interval	@None	100ms
	@AtStart	Read once at start
Unit	@None	Read units from json
Digits	@None	Undefined
Array Size		No reserved word exists
Min	@None	Undefined
Max	@None	Undefined

Check OpcUA items

This feature checks the following points:

- Does the referenced PLC variable still exist?
- Does the WebIQ item have a different type than the PLC variable?
- PLC Data type is LINT or LWORD When the integer in PLC has more than 15 digits, the value on HMI is not correct.
 - In WebIQ JavaScript is used to store variable values
 - JavaScript only knows data type NUMBER, which is a real number with 15 significant digits o It is used to store real and integer numbers
 - Integer values with more than 15 digits are rounded identically to real numbers Example: PLC: 9223372036854775123 => HMI: 9223372036854775000

The result of the check is displayed in table column "Check"

For this check to be performed, the following is required:

- the correct PLC project must be running on the ctrlX
- the PC must be communicating with the ctrlX

Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
Name	Label	Interval	Source	Unit	Digits	▼Check	Typ
GVL_Test.fwVal	@None	@None	CtrlX_Data	@None	@None	Plc type:float	int
GVL_Test.lwTest	@None	@None	CtrlX_Data	@None	@None	Plc range:u64	int
GVL_OPCUA.uiErrLine	@None	@None	CtrlX_Data	@None	@None	Plc range:u64	int
GVL_Test.liVal	@None	@None	CtrlX_Data	@None	@None	Plc range:i64	int
GVL_Test.liTest	@None	@None	CtrlX_Data	@None	@None	Plc range:i64	int
GVL_Test.bVal	@None	@None	CtrlX_Data	@None	@None	no PLC variable	boole
variable2	@None	@None	Internal	@None	@None		OK int
variable1	@None	@None	Internal	@None	@None		OK int

Screenshot with check results

Error description	Error string
Plc variable not found Remove variable from HMI or add it to PLC.	no PLC variable
Plc data type changed Ensure that data type on HMI and PLC is the same. Either change the type in HMI or PLC.	Plc type: e.g. Plc type: float
Range of PLC variable is bigger than HMI variable Ensure, that you do not use integers which have more than 15 digits	Plc range: e.g. Plc range: i64