

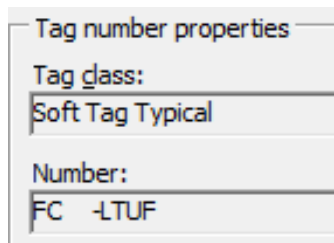
SMARTPLANT INSTRUMENTATION V2009, SP3 BATCH LOOP AND TAG CREATION

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- The purpose of this presentation is to show the SPI users how to utilize and use the new SPI batch loop and tag creation function. This new function was introduced to SPI in V2009, SP3.
- The new SPI batch loop and creation function is implemented to support the SPP&ID macro expansion function and the interface between SPI and SPP&ID.
- The new SPI batch loop and creation function enables the SPI user to batch create tags without having to batch create loops. In the old SPI and INtools versions, the SPI user could not batch create tags without creating loops.
- The new SPI batch loop and creation function utilizes the SPI reference explorer to create the necessary typical (templates) for loops and tags.
- The new SPI batch loop and creation function utilizes the SPI reference explorer to create the macro expansion function.
- Either the loop and/or tag property windows or the index browser or the macro item general property can be utilized to populate data to these typical loops and tags.

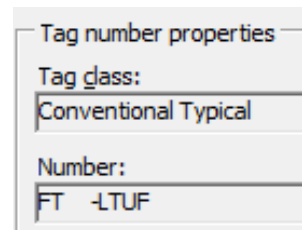
- The reference explorer is used to create the typical loops and tags.
 - Highlight Typical loops folder – right click – New – Loop
 - Define the typical loop name and define loop property info (if required) such as service, type, function, notes, and criticality.
 - Define the instruments that will be assigned to the typical loop. This includes defining the instrument data (if required) such as service, instrument type, status, location, manufacturer, model, I.S., power supply, notes, signal type, linearity type, and UDT's.
 - The typical instruments can be Conventional, or Fieldbus, or Electrical, or Hart, or Profibus, or Soft Tag, or Telecom.



Tag number properties

Tag class:
Soft Tag Typical

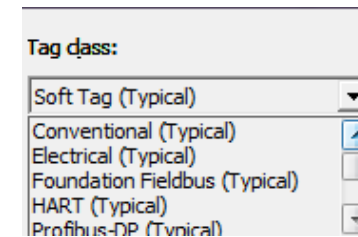
Number:
FC -LTUF



Tag number properties

Tag class:
Conventional Typical

Number:
FT -LTUF



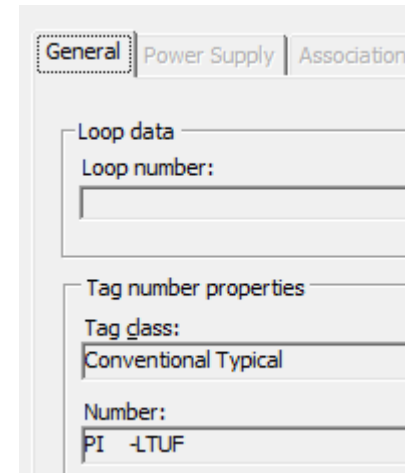
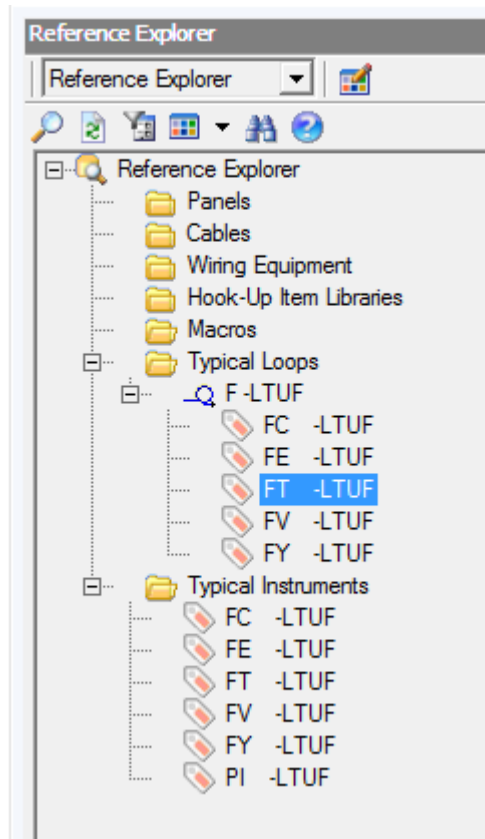
Tag class:

- Soft Tag (Typical)
- Conventional (Typical)
- Electrical (Typical)
- Foundation Fieldbus (Typical)
- HART (Typical)
- Profibus-DP (Typical)

Reference Explorer Typical Loops and Instruments



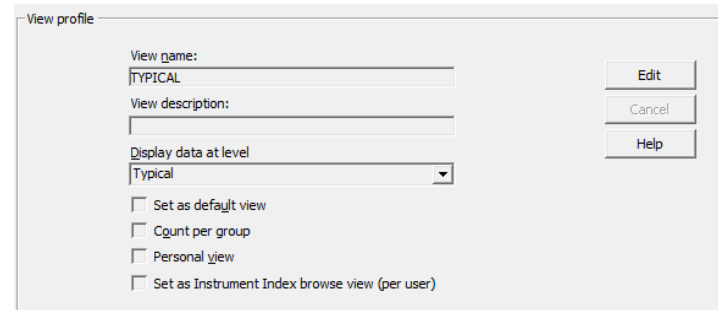
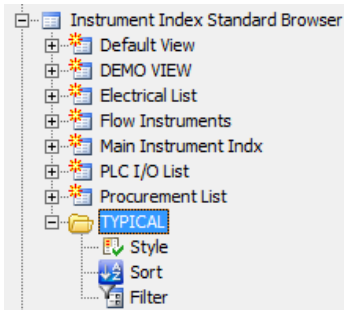
- Local typical instruments can be defined as well without having to define a typical loop.
- Highlight the typical instrument folder – right click – New – Instrument.



Typical Instruments and Browser Module

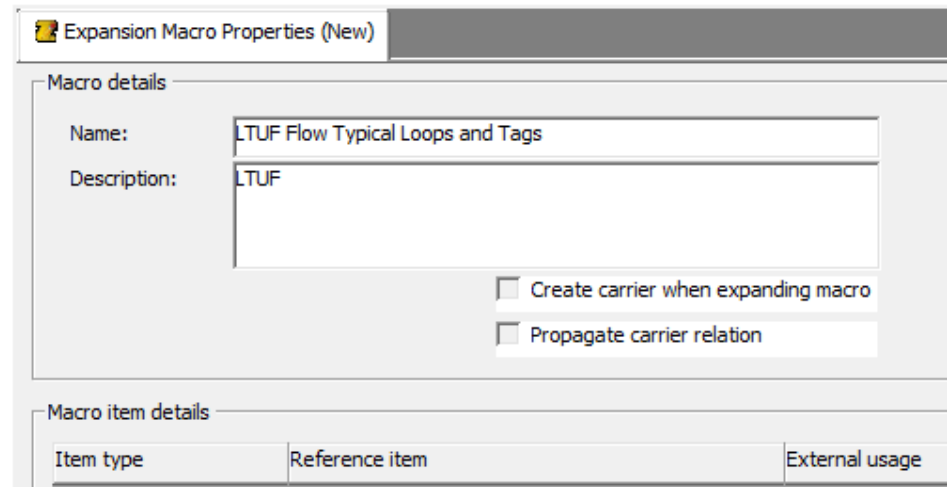


- The browser module can be utilized to update typical instrument information such as UDF's, instrument price, instrument serial number, remarks, etc.
 - The key to view typical instrument in a browser view is to set the browser data level to Typical.
 - There are some SPI tag information that can not be utilized through the browser such as line numbers, P&ID, and Equipment.



Tag Number	Service	Instrument Type	IO Type Name	Status	Location	Remark1	Price	Supplier
FC -LTUF	LTUF FLOW	FLOW CONTROLLER SOFT	SOFT	NEW INST	Field	LTUF		HONEYWELL
FE -LTUF	LTUF FLOW	D/P TYPE FLOW ELEMENT		NEW INST	Field	LTUF	\$500	
FT -LTUF	LTUF FLOW	D/P TYPE FLOW TRANSMITAI		NEW INST	Field	LTUF	\$1500	EMERSON
FV -LTUF	LTUF FLOW	CONTROL VALVE		NEW INST	Field	LTUF	\$2000	
FY -LTUF	LTUF FLOW	WP TRANSDUCER	AO	NEW INST	Field	LTUF	\$2000	
PI -LTUF	LTUF PRESSURE	PRESSURE GAUGE		NEW INST	Field	LTUF	\$300	ASHCROFT

- The reference explorer macros folder is used to define macro expansion for creating typical loops and instruments either by the SPI user or the SPI interface with SPP&ID.
 - Highlight the macros folder – right click – New
 - Define the Macro name, and description.
 - The 2 carrier check boxes are used when interfacing between SPI and SPP&ID and executing the To DO List tasks.



The screenshot shows a dialog box titled "Expansion Macro Properties (New)". It is divided into two sections: "Macro details" and "Macro item details".

Macro details

Name: LTUF Flow Typical Loops and Tags
Description: LTUF

Create carrier when expanding macro
 Propagate carrier relation

Macro item details

Item type	Reference item	External usage

Assigning a Typical Loop to the Macro



- Highlight the typical loop and drag and drop in the macro item details area.
 - The External usage check box is used to use this typical loop with other external applications.

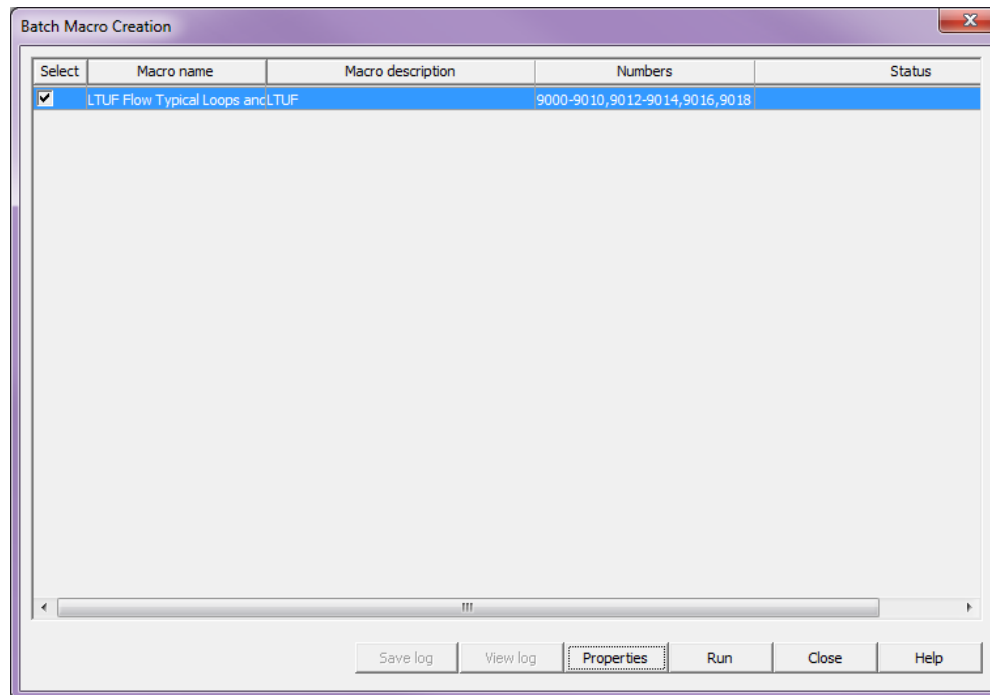
Macro item details

Item type	Reference item	External usage
Loop	F -LTUF	<input type="checkbox"/>

Creating Project Loops using the Assigned Macro



- The created macro is now part of the macro folder in the reference explorer.
 - Highlight the macro name – right click – action – batch macro creation.
 - In the batch macro creation window, define the number range for these loops and tags.
 - Examples: 9000-9010,9012-9014,9016,9018. The dash (-) means create the numbers in sequence, and the comma (,) means create the numbers as specified.



Creating Project Loops using the Assigned Macro



- The Properties command allows the SPI user to define addition loop and tag data such as Suffix, loop and tag index data.
- The macro property can be exported and imported as XML files.
 - Please note that the XML file truncates data that is longer than 200.
- The Run command will execute the creation of the project loops and tags.

Naming Global properties

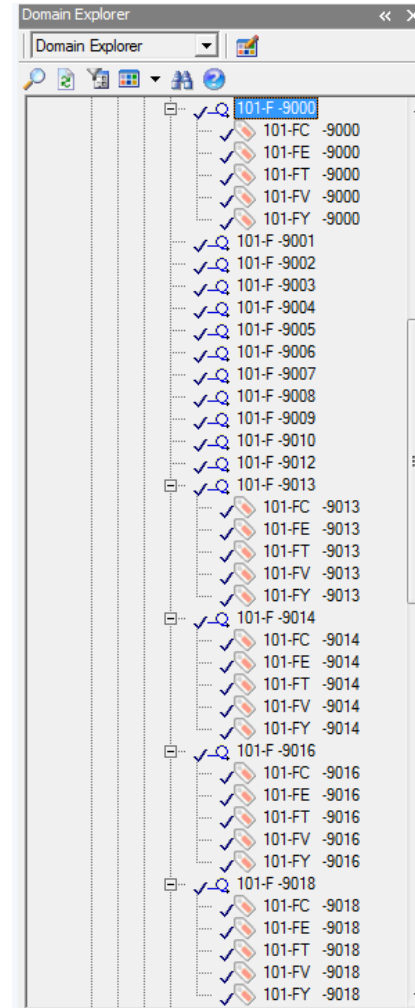
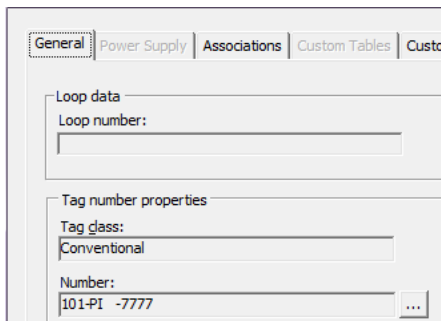
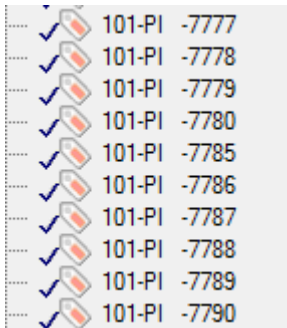
Item type:
Loop

Item number:
101-XX-XXXX/

Name	Value
Identification	
Instrument Custom Fields	
Instrument DCS	
Instrument General	
Instrument Other	
Loop Custom Fields	
Loop Identification	
Loop Properties	
Safety	

Created project Loops and Tags

- Flow Loops and Tags and Index Data.
- Local Pressure Gage Instruments with no loop association.



Typical Browser Data vs. Macro Item Gen. Property



- In the typical browser data, Remarks 1 = LTUF.

Tag Number	Remark1
FC -LTUF	LTUF
FE -LTUF	LTUF
FT -LTUF	LTUF
FV -LTUF	LTUF
FY -LTUF	LTUF
PI -LTUF	LTUF

- In the macro item general property data, Remarks 1 = LTUF-HOUSTON

Macro item list

Item type	Item name	Property assigned
Loop	F -LTUF	No

Naming Global properties Search

Name	Value
Identification	
Instrument Custom Fields	
Instrument DCS	
Instrument General	
Instrument Other	
... Dry Weight	
... Full Weight	
... Off Signal State Description	
... On Signal State Description	
Remark 1	LTUF-HOUSTON
Remark 2	
Remark 3	
Remark 4	
Remark 5	

Typical Browser Data vs. Macro Item Gen. Property



- Created the project tags and Remarks 1 for these tags = LTUF-HOUSTON

101-FY -9001	LTUF-HOUSTON
101-FE -9000	LTUF-HOUSTON
101-FT -9000	LTUF-HOUSTON
101-FC -9000	LTUF-HOUSTON
101-FY -9000	LTUF-HOUSTON
101-FV -9000	LTUF-HOUSTON
101-FE -9001	LTUF-HOUSTON
101-FT -9001	LTUF-HOUSTON
101-FC -9001	LTUF-HOUSTON
101-FV -9001	LTUF-HOUSTON

- Therefore, any typical data that is defined in the macro item general property window will overwrite “supersedes” typical data defined in the browser and/or the loop or tag property window.

Typical Loop and Tag Issues



- Multiple places (property windows, browsers, and macro item general properties) to populate typical loop and tag information such as Status, remarks, etc.
- Cannot define fieldbus, Hart, and Profibus information such as Function Blocks, Device Revision, Analog Signal Parameters, Voltage, etc to a typical fieldbus, Hart, and Profibus tag.
- There are other issues that are reports by the users and fixed in SP3 and Hot Fixes and SP4 and Hot Fixes. Please refer to the Intergraph Knowledgebase Website.