

***What if my project is
not using spec 70?***



Background

- Fisher's interface with SmartPlant Instrumentation is based upon spec form 70.
 - ISA data sheet
 - Matches ISA data used in Fisher sizing programs
- Spec 70 uses user defined fields to store data for many of the fields on the spec sheet.
- SmartPlant maps these fields to Fisher field names when using the Fisher export from SmartPlant and when using the Fisher link in the SmartPlant import module.
- Spec 70 can be rearranged and the interface can be used as long on the definition for the user defined fields are maintained
- The following slides describe some of the issues and recommendations in the event that a different spec sheet is used with user defined field definitions that do not match the Fisher interface in SmartPlant.



Further Background

- SmartPlant does have an option built into the program to export to Fisher.
 - Uses a predefined map to map data from user defined fields to Fisher field names that can be imported into Fisher programs.
- An alternate path must be taken if the user defined field definitions do not match those of spec 70.



Alternate process for exporting data

- The following steps allow you to export data from SmartPlant and map the field names as needed. The map can be saved and reused for future exports.
 1. Rename the units of measure in SmartPlant to match Fisher units of measure (see “Units of Measure” slides).
 2. Browse the Index module and select the tags that you want to export.
 3. Select the print icon at the bottom of the screen and select ‘Yes’ when asked about a print preview.
 4. Hit “Save As” icon and select: “Data only”, “Include headers”, and “Edit Headers”.
 5. Name a location to save the resulting csv file to
 6. Revise field names under “Header Text” to match Fisher field names. When done mapping all of the fields, select “Export Headers” to save the mapping. Use “Import Headers” to use the mapping on a future export.



Screen shots for alternate data export process

The screenshot displays the SmartPlant Instrumentation - DEMO application window. The main window shows a 'Browser View - Default View' with a table of instrument data. A 'Print Preview Request' dialog box is overlaid on the table, asking 'Do you want to preview reports before printing?' with 'Yes', 'No', and 'Cancel' buttons. Red boxes with the number '2' highlight the 'Instrument Type' and 'Process Function Type' columns, and a red box with the number '3' highlights the 'Print Preview Request' dialog box. Another red box with the number '3' highlights the 'Clear the buffer' button at the bottom of the table.

Tag Number	Service	Instrument Type	Process Function Type	IO Type Name	Status	Location	Internal Lc
101-FT -907	DCS closed loop	FT	Flow				4
101-FT -908	DCS closed loop	FT	Flow				4
101-FT -909	DCS closed loop	FT	Flow				4
101-FT -910	DCS closed loop	FT	Flow				4
101-FT -919	DCS closed loop	FT	Flow				4
101-FV -100	Feed from V-8	FV	Control Valve		N	Field	4
101-FV -2212	Feed to B-101 Pass A	FV	Control Valve		N	Field	4
101-FV -2213	Feed to B-101 Pass B	FV	Control Valve		N	Field	4
101-FV -2214	Feed to B-101 Pass C	FV	Control Valve		N	Field	5
101-FV -905	DCS closed loop	FV	Control Valve				2
101-FV -906	DCS closed loop	FV	Control Valve				2
101-FV -907	DCS closed loop	FV	Control Valve				2
101-FV -908	DCS closed loop	FV	Control Valve				2
101-FV -909	DCS closed loop	FV	Control Valve				2
101-FV -910	DCS closed loop	FV	Control Valve				2
101-FV -919	DCS closed loop	FV	Control Valve				2
101-FV -300/A	Feedback number 1	FV	Control Valve				2
101-FY -100	Feed from V-8	FY	General	AO	N	Field	3
101-FY -2212	Feed to B-101 Pass A	FY	General	AO	N	Field	3
101-FY -2213	Feed to B-101 Pass B	FY	General	AO	N	Field	3
101-FY -2214	Feed to B-101 Pass C	FY	General	AO	N	Field	4
101-FY -300		FY	General	HART AO			1
101-FY -51	Loop for Autowiring lab	FY	General	AO		Field	2
101-FY -52	Loop for Autowiring lab	FY	General	AO		Field	2
101-FY -53	Loop for Autowiring lab	FY	General	AO		Field	2
101-FY -54	Loop for Autowiring lab	FY	General	AO		Field	2
101-FY -55	Loop for Autowiring lab	FY	General	AO		Field	2
101-FY -56	Loop for Autowiring lab	FY	General	AO		Field	2



Screen shots for alternate data export process

The screenshot displays the SmartPlant Instrumentation - DEMO interface. The main window shows a 'Print Preview: Default View Report' with a table of instrument data. A 'Save As' dialog box is open, and an 'Edit Column Headers' dialog box is also open. Red boxes highlight the number '4' in the 'Save As' dialog and the number '6' in the 'Edit Column Headers' dialog.

Print Preview: Default View Report

Group separator: None Insert a separating line Insert a page break

Horizontal printing: Print all pages Show first column on each page

Total sum/average: Yes No

DEMO
Plant: New Refinery
Area: Crude Area
Unit: Crude unit 1
Document No.:
By:
Approved:

Sort name: Sort(13774) Filter name:

Revision No.:
Checked:
Signed by:

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Horizontal Section
Date: 6/7/2007

Tag Number	Service	Instrument Type	Process Function Type	IO Type Name	Status	Location	Internal
101-ALARM-001	PLC Cabinet General Alarm	ALARM					
101-FE -100	Feed from V-8	FE					
101-FE -102	Feed from C-1	FE					
101-FE -201	Stripping Steam to F-102	FE					
101-FE -2212	Feed to B-101 Pass A	FE					
101-FE -2213	Feed to B-101 Pass B	FE					
101-FE -2214	Feed to B-101 Pass C	FE					
101-FE -905	DCS closed loop	FE					
101-FE -906	DCS closed loop	FE					
101-FE -907	DCS closed loop	FE					
101-FE -908	DCS closed loop	FE					
101-FE -909	DCS closed loop	FE					
101-FE -910	DCS closed loop	FE					

Save As

Original Data only DXF file

Include headers Edit headers

OK Cancel Help

Edit Column Headers

Column Name	Header Text	Width	Incl.
cmpnt_seq	Internal_Loop_Order	500	<input checked="" type="checkbox"/>
cmpnt_name	Tag_Number	50	<input checked="" type="checkbox"/>
cmpnt_func_type_id	Instrument_Type	500	<input checked="" type="checkbox"/>
cmpnt_num	Number	8	<input checked="" type="checkbox"/>
prefix	Prefix	10	<input checked="" type="checkbox"/>
cmpnt_sys_io_type_id	IO_Type_Name	500	<input checked="" type="checkbox"/>
cmpnt_handle_id	Status	500	<input checked="" type="checkbox"/>
cmpnt_serv	Service	52	<input checked="" type="checkbox"/>
cmpnt_suff	Suffix	3	<input checked="" type="checkbox"/>
cmpnt_mfr_id	Manufacturer_Name	500	<input checked="" type="checkbox"/>

Select All Columns Deselect All Columns

OK Cancel Export Headers... Import Headers... Help

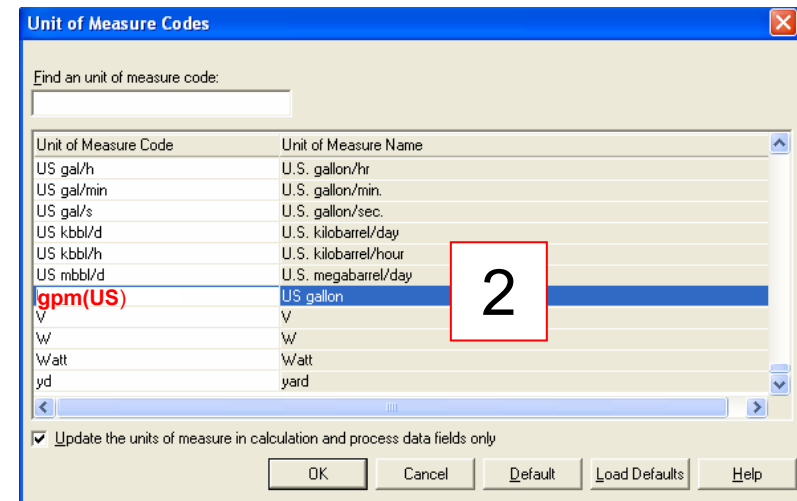
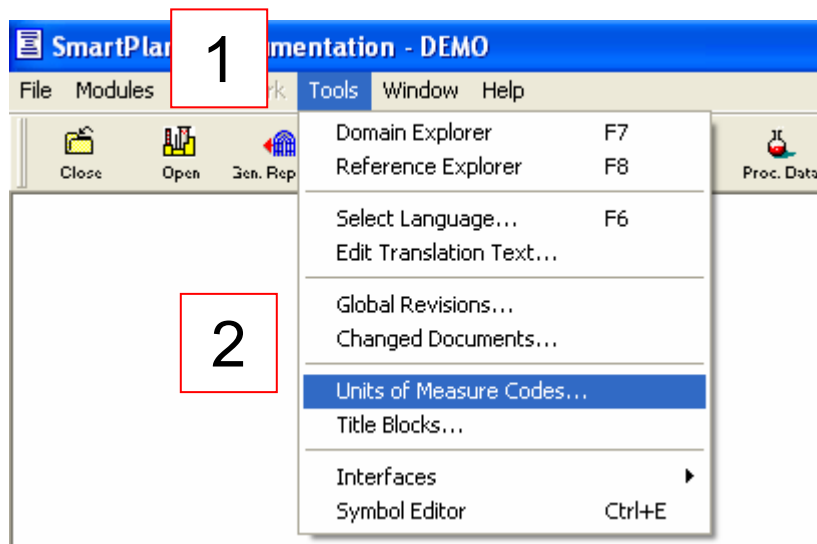
Units of Measure background

- The Fisher interface in SmartPlant not only maps the field names to match Fisher field names, but also maps the unit of measure to match Fisher units of measure for units that are supported by both programs.
- If using the alternate process for exporting data described in this presentation, the units of measure will need to be established on the project so that they will be exported as such to Fisher and imported into the Fisher program.
- See Fisher.com / Fisher Specification Manager for a complete list of supported units.



How to rename units of measure on a project

1. With all modules closed, go to “Tools”.
2. Select “Units of Measure codes” to map to Fisher units of measure. See Fisher.com for a complete list of UOMs supported by Fisher.



Importing the data back from Fisher

- Imports to SmartPlant are done through the import module
- An import link already exists in the import module for importing into fields as defined by spec 70
- A new import link will need to be created to import into alternative field definitions
- Reference the mapping created for the export to create mapping for the import.



Summary

- Consider the data exchange process prior to establishing a spec sheet.
- If possible, start with spec 70, rearrange fields as needed, but maintain the relationships with the user defined fields.
- Enter all process data in the process data module.
- If new field definitions are needed by the project, rename the units of measure, use the print preview process to export data; and create a custom import link to import the data.