

Using InTouch with the Siemens S7-1500

General Information

The PC's are all configured to use the S7 InTouch driver to communicate with the S7-1500 processors through Ethernet.

Hints

At least one team member needs to work through the InTouch tutorial.

Put your project in the c:\projects\intouch directory.

Remember to specify the correct tag type when defining a tagname dictionary item. You should only be using I/O Discrete, I/O Integer, or I/O Real. You will not be allowed to change the type after you specify it and you cannot delete tagnames that are in use.

InTouch Access Names

For your InTouch project, you will need to define an access name tied to the processor,

Select **Special | Access Names...**

Click on **Add...** to add a new access name

Fill in the following information:

Access Name:	your choice
Node Name:	(leave blank)
Application Name:	DASSIDirect
Topic Name:	depends on processor
Which protocol to use	DDE
When to advise server	Advise only active items

The topic names for the unit processors are:

Unit	Topic
RWet_Unl	[specify]
TWet_Unl	[specify]
Blend	[specify]
React_1	[specify]
Ion_Exc_1	[specify]
CIP_1	[specify]
RDry_Unl	[specify]
TDry_Unl	[specify]
Dry_StoIn	[specify]
Dry_StoOt	[specify]
React_2	[specify]
Ion_Exc_2	[specify]

Stor_Tnk_1	[specify]
Stor_LO_1	[specify]
RPow_Unl	[specify]
TPow_Unl	[specify]
React_3	[specify]
Ion_Exc_3	[specify]
Ion_Exc_4	[specify]
Stor_Tnk_2	[specify]
Stor_LO_2	[specify]
React_4	[specify]
Ion_Exc_5	[specify]
Ion_Exc_6	[specify]
Stor_Tnk_3	[specify]
Stor_LO_3	[specify]
CIP_2	[specify]
QA_Smpl	[specify]
Soda_Ash	[specify]
Dry_Add	[specify]
Wet_Add	[specify]

When finished defining the access name, click on **OK**.

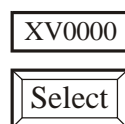
Click on **Close** to close the window where access names are defined.

Use the access name you defined above in the “Access Name” field of the window that defines the tagname dictionary item.

Item Name

The item in the tagname dictionary definition must be the memory address. These should be documented with the internal I/O layout. All data blocks must have "Optimized block access" disabled.

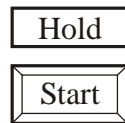
1. For each valve/pump provide the following:



The top rectangle is gray (50% black - R 128, G 128, B 128) when the valve/pump/gate is closed/off and white when the valve/pump/gate is open/running. For a flop gate, the left half of the rectangle is white when the gate is left and the right half is white when the gate is right. The second rectangle is an interlocked push button labeled “Select”. When the button is

pressed, the “Unitx”.Man_DevNum is set to the appropriate constant for that valve/pump. The equipment tag is within the top rectangle.

2. Somewhere around the valve/pump indications, provide two buttons, one labeled “Open/Start” and the other labeled “Close/Stop”. When the “Open/Start” button is pressed, the “Unitx”.Man_StartOpen bit should be turned on. When the “Close/Stop” button is pressed, the “Unitx”.Man_StopClose bit should be turned on.
3. For each sequence in your unit, provide the following:



The top rectangle is white when the sequence is running and gray when it is not running. The second rectangle is a button labeled “Start”. When the button is pressed, the appropriate “UnitxS”.yyy.LTP_Start bit is turned on. The name of the sequence is within the top rectangle. These rectangles/buttons must line up in one horizontal row on the screen (as in #9 below)

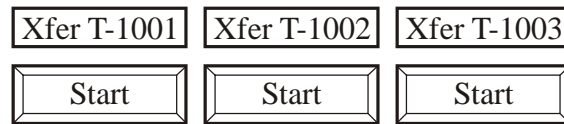
4. Provide a button that toggles the “Unitx”.Local bit. When “Unitx”.Local is on, the button should display “Local”. When “Unitx”.Local is off, the button should display “Remote”. Use a multistate push button.
5. Provide a field, labeled as “Message #” that displays the message number for the sequences in your group.
6. Provide a field, labeled as “Maintenance Mode” The field should display as “Yes” when the unit is in the maintenance mode and “No” when it is not.

To open/close/start/stop a valve/pump device, first press the “Select” button for the device. Then press the “Open/Start” or “Close/Stop” buttons to command the device. Note: you will need to be in the maintenance mode to be able to do this.

To start a sequence, make sure you are in the manual mode and press the “Start” button below the sequence name.

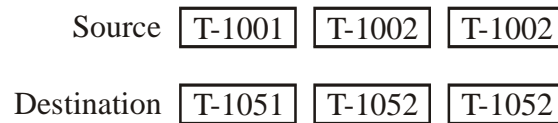
7. Provide a button labeled “Reset Alarms” that when pressed the “Unitx”.Alm_Reset bit is turned on. Also to aid in testing, provide a red text field, “Device Fail” that is visible when any of the devices in the unit have the .Any_Fail bit on for a device.
8. If there are any timed steps in the unit sequences, provide a field, labeled as “Remaining Step Time” and with a label indicating the units (sec.). The field should display the time remaining when the step being executed is being timed. All three parts of the field (time and the two labels) should be hidden when the remaining time is zero.

9. If the sequence has multiple sources or multiple destinations (separate start button for each), provide a separate button for each, for example:



As for the sequence start buttons, the top rectangle is white when the sequence is running and gray when it is not running. The second rectangle is a button labeled “Start”. When the button is pressed, the appropriate “UnitxS”.yyy.LTP_Start” bit is turned on.

10. If the sequence has multiple sources and multiple destinations, at some part of the sequence, the operator will need to specify the source and destination. Provide a series of buttons shown and placed as follows,



A source is selected by pressing the appropriate source. When the button is pressed, an integer is set to the appropriate constant for that source or destination. When selected, the button should change color, indicating that it is selected. The buttons should not disappear when the sequence continues so the operator can still see the selection. After the confirmation button is pressed, the buttons should not change and an operator press of the button should be ignored.

The source/destination buttons should be placed between the buttons to select a sequence and the device control buttons.

If specified by the sequence, a separate "confirmation" button should be provided. This button should only be visible during the step the operator needs to press it. Otherwise, it is not visible.

11. If your processor includes more than one unit (for example, Dry_Store, Stor_Tnk_LO_x), provide a separate screen for each unit in one FT View project. Do not create a separate project for each screen.