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**Honeywell**

# **PlantScape Controller Implementation**

## **Lesson 2**

### **Configure and Use Confirm Messages in SCMs**

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#### **Notes**

#### **Introduction**

The purpose of this Lesson is to give you the knowledge to be able to configure and use Confirm Messages. Upon completion of this Lesson you will have configured a Confirm Message which will, during SCM#\_XFERA execution, prompt the operator to enter the target amount of Ingredient A; cause SCM#\_XFERA to wait for this action to complete; and proceed with SCM execution after confirmation.

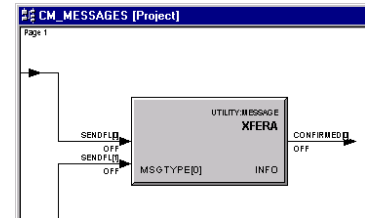
#### **Objectives**

- ❶ Add a new message to CM#\_MESSAGES
- ❷ Configure this new message to be CONFIRM
- ❸ Modify SCM#\_XFERA to utilize this new message

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➤ **Create a New Message**

- Open **CM#\_MESSAGES**
- Add the following message as Message Index 2 to the block named **XFERA: ENTER AMT OF ING A TO SCM#\_XFERA**  
**RCIPE VAL 1;CNFM WHEN DONE** (Note: This is a 60 character message which is the maximum size allowed.)
- Click on the **Message Type** for Message 2 and select **CONFIRM**.



**UTILITY MESSAGE Block, XFERA - Parameters [Project]**

Main | Block Pins | Configuration Parameters | Monitoring Parameters

Name: XFERA

Execution Order in CM: 20

	Message Type	Message Text
0	INFO	FV101 SAFETY INTE
1	INFO	FV101RC SAFETY IN
2	INFO	ENTER AMT OF ING
3	INFO	
4	INFO	

	Message Type	Message Text
0	INFO	FV101 SAFETY INTE
1	INFO	FV101RC SAFETY IN
2	INFO	ENTER AMT OF ING
3	INFO	
4	CONFIRM	
5	INFO	
6	INFO	
7	INFO	

(Note: It is not necessary to add SENDFL[2] as an input pin. We will trigger the message send flag from the SCM.)

- Close and save **CM#\_MESSAGES**

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**Notes**

**Confirm Messages**


Previously, you configured messages that were sent to the Server's Message Summary when safety interlocks occurred. Those messages were information only. Once acknowledged, they disappeared from the Message Summary.

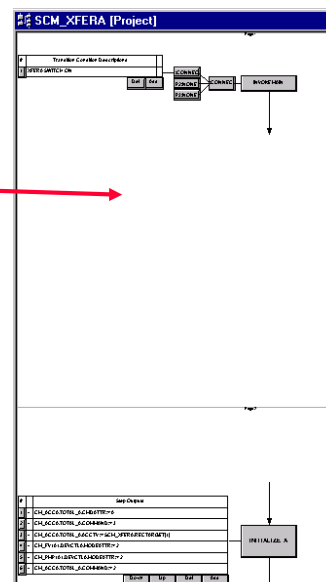
Confirm Messages look and act differently in the Message Summary. They must be Acknowledged and then Confirmed to clear them. They also have a Confirm Flag which can be monitored in an SCM to allow continuation after confirmation.

The difference in configuration is the Message Type choice in the Message Block Main Configuration page.

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### ➤ Use Confirm Message in SCM

- From the **Project Tree View**, double-click **SCM#\_XFERA** to open it
- Click on the soft wire from the Invoke Transition to the first Step, and delete it
- In the resulting space, insert a new step. 
- Name the Step **Ing\_A\_Amt**. Add one command and configure it to send the message created on the previous page to the Station. (Solution located at end of module.)
- Wire the Invoke Transition to Step **Ing\_A\_Amt**



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## Notes

### Sending Messages from SCMs

An SCM can send a message to the Server's Message Summary by turning on the Send Flag for a message contained in a Message Block. The message can be information only (INFO) or CONFIRM. The Send Flag works the same for each.

Here we are sending a confirm message to prompt the operator to enter a target amount of ingredient A.

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### ➤ Use Confirm Message in SCM (continued)

- Below Step **Ing\_A\_Amt** add a Transition.
- Name the Transition **Wait\_Messg\_Cfm**
- Add one Condition and configure it to wait for the operator to confirm the message sent in the last Step (Solution located at end of module.)
- Wire the **Wait\_Messg\_Cfm** Transition to the **Ing\_A\_Amt** Step above it
- Wire the **Wait\_Messg\_Cfm** Transition to the **INITIALIZE** Step below it

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## Notes

The SCM can be configured to wait for Message Confirmation. The parameter that can be used in a Transition Condition is the confirm flag (**CONFIRMED**[*n*], where *n* is the message number). The flag goes true when the message is confirmed from station or Control Builder.

Here we are using a Transition Condition to cause **SCM#\_XFERA** to wait for the status of **CM#\_MESSAGES.XFERA.CONFIRMED[2]** to go true.



➤ **Test the Confirm Message**

- Inactivate **CM#\_MESSAGES** and **SCM#\_XFERA**, Download, and Reactivate them
- Open Station and call up Group 3. Start **SCM#\_XFERA**
- Click on the Message indicator that flashes green soon after the SCM goes to **Running** status
- Select the Ingredient A Message and Acknowledge it. **Do not Confirm the message!**
- Call up the detail of **SCM#\_XFERA** and go to the Recipe page. Enter the desired target amount of Ingredient A

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**Notes**

**Operating with Confirm Messages**

Confirm messages require two Acknowledgements. The first Acknowledges the message and the second performs the actual Confirmation. The intent is for you to code your SCM so that it waits for the confirmation in order to proceed. In this lesson, we modified **SCM#\_XFERA** to make use of this functionality.

The above operation demonstrates how you operate Confirm messages from station.

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### ➤ Test the Confirm Message (continued)

- Navigate back to the Message Summary. Select the Ingredient A Message and Acknowledge it again to Confirm it ( Note that it disappears from the summary.)
- The SCM will now continue. Note that the Tank A target amount gets set to the Recipe target you entered previously

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## Notes

### Running SCM#\_XFERA

From now on, each time you run SCM#\_XFERA, you will be prompted to enter a target amount of Ingredient A. If you wish to use the amount already entered, you can confirm the message without a recipe change.

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➤ **Solutions**

Tab	Name		Description	
Main	<b>Ing_A_Amt</b>		<b>Ing A Amount</b>	
	Wait Time	<b>0</b>	Active Time	<b>240</b>
Out #1 Out #2 Out #3 Out #4	Description		Output Expression	
	SEND CONFIRM MESSAGE FOR A AMT		CM#_MESSAGES.XFERA.SENDFL[2] := 1	

Tab	Name		Description	
Main	<b>WAIT_MESSG_CFM</b>		<b>WAIT MESSG CFM</b>	
	Description		Condition Expression	Gate
Condition #1	<b>WAIT FOR CONFIRM</b>		<b>CM#_MESSAGES.XFERA .CONFIRMED[2]</b>	<b>P1</b>
Condition #2				
Condition #3				
Condition #4				
Gates	Pri Gate (1)	Pri Gate (2)	Pri Gate (3)	Secondary Gate
	<b>CONNECT</b>	<b>NONE</b>	<b>NONE</b>	<b>CONNECT</b>

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**Notes**

**Solutions to Step and Transition**

Your Step and Transition code should be the same as above. Your descriptions can be what ever you choose.

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**This completes....**

**PlantScape Controller Implementation**

**Lesson 2**

**Configure and Use Confirm  
Messages in SCMs**

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**Notes**

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