

HOW TO IMPLEMENT THE PROGRAM FOR HELM HM1756SGI-TSM-LDT TONNAGE MODULE TO YOUR PROJECT

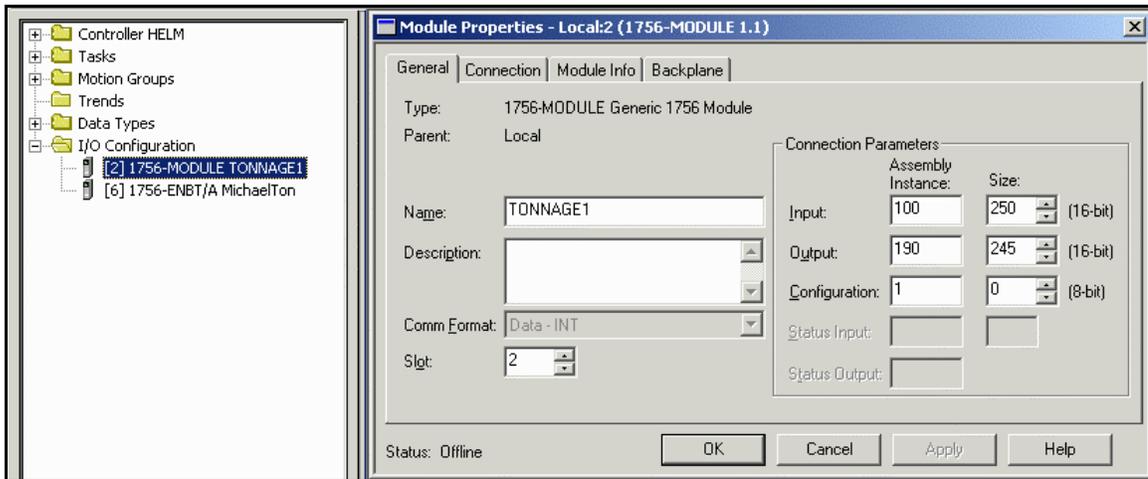
Assuming that HM1756SGI Modules are already located in Slot 2 and 3 of your ControlLogix Rack, follow the steps below to add the HM1756SGI Ladder Program to your existing ControlLogix program.

1. Start RSLogix5000 program and open your Ladder program that you want to import into.
2. Start another copy of RSLogix5000 program and open the HM1756SGI_2Module.ACD file provided with the module.

*Note: Use HM1756SGI_1Module.ACD program if there is only one SGI module installed.

ADDING HM1756SGI MODULE TO I/O CONFIGURATION

3. Copy “[2] 1756-MODULE TONNAGE1” from I/O Configuration folder from HM1756SGI_2MODULE.ACD file and paste into I/O Configuration folder of your program.



If the Module is located in another slot, assign proper slot number from the General Tab menu of the Module Properties. Also, make sure other parameters are correct as below.

General: Connection Parameters

	Assembly Instance	Size
Input	100	250
Output	190	245
Configuration	1	0

Connection: Requested Packet Interval(RPI): 60.0ms

4. For 4Channel system, Copy “[2] 1756-MODULE TONNAGE2” from I/O Configuration folder from the HM1756SGI_2MODULE.ACD file and paste into I/O Configuration folder of your program. Make sure to set correct slot number for the module. Module Properties should be the same as the Module1 above.

ADDING CONTROLLER SCOPE TAG

This is the common control tag for all HM1756SGI module installed in same rack.

Tag Name	Scope	Type
TONCommonControls	Controller	INT[50]

You can create this tag manually or copy from HM1756SGI_2Module.ACD file. However, we recommend to copy from the HM1756SGI_2Module.ACD file for the comments

- To copy **TONCommonControls** tag from the HM1756SGI_2Module.ACD file, highlight the **TONCommonControls** tag from the HM1756SGI_2MODULE.ACD file, right click on it to bring drop down menu, and click Copy.

The screenshot shows the 'Controller Tags - HELM(controller)' window. The left pane displays a tree view of the controller structure, with 'Controller Tags' expanded. The right pane shows a table of tags. The tag 'TONCommonControls' is highlighted in the table.

Tag Name	Value	Force	Style	Type
amci_setup_message	{...}	{...}		MESSAGE
amci_status_message	{...}	{...}		MESSAGE
Local:2:C	{...}	{...}		AB:1756_M...
Local:2:I	{...}	{...}		AB:1756_M...
Local:2:O	{...}	{...}		AB:1756_M...
Local:3:C	{...}	{...}		AB:1756_M...
Local:3:I	{...}	{...}		AB:1756_M...
Local:3:O	{...}	{...}		AB:1756_M...
Local:5:C	{...}	{...}		AB:1756_M...
Local:5:I	{...}	{...}		AB:1756_M...
Local:5:O	{...}	{...}		AB:1756_M...
LOCAL_1_C	{...}	{...}		AB1756_OF...
LOCAL_1_I	{...}	{...}		AB:1756_D...
LOCAL_1_O	{...}	{...}		AB:1756_D...
Resolver_setup_data	{...}	{...}	Decimal	INT[12]
Resolver_status_data	{...}	{...}	Decimal	INT[7]
TONCommonControls	{...}	{...}	Decimal	INT[50]

- To paste the tag, right click on "*" at the bottom of the Edit Tags list of you program and click on Paste.

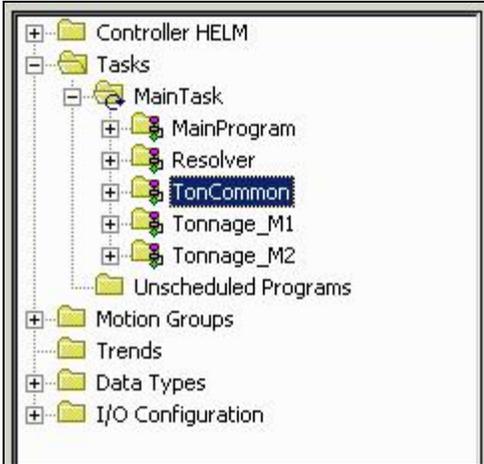
The screenshot shows the 'Controller Tags - Test(controller)' window. The left pane displays a tree view of the controller structure, with 'Controller Tags' expanded. The right pane shows a table of tags. The tag 'TONCommonControls' is pasted at the bottom of the list, indicated by a star icon.

P	Tag Name	Alias For	Base Tag	Type
	Local:4:C			AB:1756_MODUL
	Local:4:I			AB:1756_MODUL
	Local:4:O			AB:1756_MODUL
	amci_setup_message			MESSAGE
	amci_status_message			MESSAGE
*	TONCommonControls			INT[50]

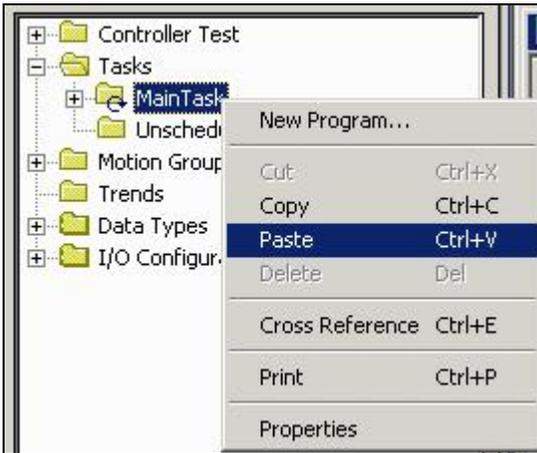
ADDING PROGRAMS TO MAIN TASK FOR EACH TONNAGE MODULE

You need to copy **TonCommon**, **Tonnage_M1**, and **Tonnage_M2** (for 4 channel system) from MainTask folder.

7. Right click on **TonCommon** task folder from the HM1756SGI_2MODULE.ACD file, and click Copy from the drop down menu.



8. Right click on MainTask of your program, and click on Paste from the drop down menu.



9. Repeat Step 7 – 8 to add **Tonnage_M1** and **Tonnage_M2** (for 4 channel system)

MODIFYING TONNAGE LADDER PROGRAM FOR DIFFERENT SLOT CONFIGURATION

Because the HM1756SGI_2MODULE.ACD file is configured as Tonnage Module1 at slot no.2 and Tonnage Module2 at slot no.3, you must modify your program to work with the new slot configuration you may have changed for your project.

* **Note:** Before you use Replace option, make sure that the Tonnage module slot numbers (Slot 2, 3) are not already assigned in your program by other Modules. If they are, please select **All Routines in Current Program** instead of **All Routines** in *Find Where* section and do replace option for **TonCommon**, **Tonnage_M1**, and **Tonnage_M2** programs individually.

10. From Search menu on top, click on **Replace** option.



11. Type "**Local:2:I.Data**" for *Find What:* box.
Type "**Local:X:I.Data**" for *Replace With:* box where "X" is the actual slot number of the tonnage Module 1.
Select **All Routines** for *Find Where:* box
Click **Replace All** button.
12. Type "**Local:2:O.Data**" for *Find What:* box.
Type "**Local:X:O.Data**" for *Replace With:* box where "X" is the actual slot number of the tonnage Module 1.
Select **All Routines** for *Find Where:* box
Click **Replace All** button.
13. Do the same steps for Tonnage module 2.
Type "**Local:3:I.Data**" for *Find What:* box.
Type "**Local:X:I.Data**" for *Replace With:* box where "X" is the actual slot number of the tonnage Module 2.
Select **All Routines** for *Find Where:* box
Click **Replace All** button.
14. Type "**Local:3:O.Data**" for *Find What:* box.
Type "**Local:X:O.Data**" for *Replace With:* box where "X" is the actual slot number of the tonnage Module 2.
Select **All Routines** for *Find Where:* box
Click **Replace All** button.

This will complete the procedure to import the necessary programs and tags for HM1956SGI LDT tonnage module to your existing program.