Application Note:

Using the "Port Lockout" Feature on 2500 Series™ Processors to prevent simultaneous program changes

The CTI 2500 Series[™] processor has a feature to prevent multiple programming packages from making changes at the same time. The feature is named "port lockout". It enables a programming package to lock all other ports except for the one to which it is connected. This lock then excludes programming task codes and other selected task codes that originate from other ports while the lock is active.

Locking the port is not automatic. Before performing any programming you need to engage the lock. Using WorkShop select **PLC Utilities** and click on **Port Lockout** in the dropdown menu. In TISOFT press **Aux-F6** then select **MISCELLANEOUS** and **83. PORT LOCKOUT**.



AUXILIARY FUNCTIONS DIAGNOSTICS SAVE PLC LOAD PLC CLEAR PLC RESETS AND RESTARTS MISCELLANEOUS

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 MISCELLANEOUS

 14. WATCHDOG TIMER

 16. TASK CODES PER SCAN

 18. PLC TIME OF DAY

 19. SET PLC SCAN TIME

 81. PLC OPERATIONAL MODES

 83. PORT LOCKOUT

 84. EEPROM PROGRAMMING

 85. PASSWORD OPERATIONS

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In the following example, WorkShop is connected to a 2572-A and the Port Lockout request is made. The response shows that the PLC is unlocked and that the request was issued from a device in Base 0, Slot 2 (the 2572-A). To lock out all other ports click the **Lock** button. A Yes/No dialog box will appear to verify your choice. If Yes is clicked the port is now locked and the window will show that the action completed.

Port Lockout	Port Lockout X		
PLC is Unlocked	PLC is Locked at: Channel:1 Base:0 Slot:2		
Current: Channel:1_Base:0_Slot:2	Current: Channel:1 Base:0 Slot:2		
Close Lock	Close Unlock		



Now, programming commands from other ports will be rejected. A request to unlock the port can only originate from the port that issued the lock request. If another port makes the attempt, it will be rejected.

Port Lockout	×	505 \	NorkShop X
PLC is Locked at: Channel:1_Base:0_Slot:2		1	Cannot execute Lock function.
Current: Comm Port: 3			Port lockout is active.
Close Unlock			ОК

In the above example, the programming package attached to Comm Port 3 (the 2500 local Ethernet port) attempted to unlock the PLC that was locked from Base 0, Slot 2. The request was rejected because port lockout was active.

Likewise, if you attempt to add a rung of ladder from a programming package connected to a locked-out port the request is rejected as shown below.



Port lockout can be an effective tool to prevent programming changes from being made from two connections at the same time. It requires that you lock the port before making changes and releasing the lock when you have finished.

IMPORTANT! There is one circumstance not protected by this technique. The 2572-A Ethernet module can lock the PLC and exclude all other ports and devices. However, because multiple connections can be made to the 2572-A and the PLC cannot distinguish between these connections, it is possible for multiple programming packages to make changes simultaneously when they are connected through the same 2572-A. This is true whether the port is locked or not.