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Firmware Release Notes

Premium ETY 5103 Exec v4.8

Affected Product (s)	Prior Version (s)	New Version (s)
TSXETY5103	4.6	4.8

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Table of Contents

1	ETY5103 DOES NOT START IF ITS LINK STATUS IS NOT ESTABLISHED (20046229*)	3
1.1	Issue	3
1.2	Resolution.....	3
1.3	Customer action.....	3
2	I/O SCANNER CONFIGURATION 'HOLD LAST VALUE' ISSUE ON PREMIUM HOT STANDBY SWAP OVER (20046238*).....	3
2.1	Issue	3
2.2	Resolution.....	3
2.3	Customer action.....	3
3	ETY5103 STOPS I/O SCANNER COMMUNICATION WITH SLOW RESPONDING DEVICES (20046431*)	4
3.1	Issue	4
3.2	Resolution.....	4
3.3	Customer action.....	4
4	I/O SCANNER LOSES COMMUNICATION WITH GATEWAYS (20045783*)	4
4.1	Issue	4
4.2	Resolution.....	4
4.3	Customer action.....	4
5	A RANDOM ETY REBOOT RESULTS IN THE ERROR LOG RECORDING AN ERROR 921 (20046626*)	5
5.1	Issue	5
5.2	Resolution.....	5
5.3	Customer action.....	5
6	ETY5103 CAN TAKE UP TO 25 SECONDS TO CLOSE A CONNECTION (20046368*).....	5
6.1	Issue	5
6.2	Resolution.....	5
6.3	Customer action.....	5
7	UPGRADE INSTRUCTIONS	6
7.1	Unity Programming software	Error! Bookmark not defined.
8	NOTES.....	8
8.1	8	

1 ETY5103 DOES NOT START IF ITS LINK STATUS IS NOT ESTABLISHED (20046229*)

1.1 Issue

An ETY5103 will not go into run mode if the link is not established on an operational network. For example:

- ETY did not start if the switch is not fully operational before the ETY has completed its boot-up.
- ETY does not go into RUN if the cable is disconnected during power-up.
- If the ETY and managed switch is powered up simultaneously, the ETY will not go into RUN.

1.2 Resolution

The issue was resolved by increasing the size of the status buffer.

1.3 Customer action

Upgrade the ETY5103 firmware.

2 I/O SCANNER CONFIGURATION 'HOLD LAST VALUE' ISSUE ON PREMIUM HOT STANDBY SWAP OVER (20046238*)

2.1 Issue

If an I/O Scanner is configured for 'Hold Last Value' in a Premium HSBY system, the ETY5103 I/O scanner did not always hold the last value on a swap over. The PLC will sometimes read I/O scanner information in the middle of the ETY I/O scanner update. Therefore, only the health has been updated while the data is still in the process of being updated.

2.2 Resolution

The issue was resolved in the ETY firmware by writing the data first and then setting the health values.

2.3 Customer action

Upgrade the ETY5103 firmware.

3 ETY5103 STOPS I/O SCANNER COMMUNICATION WITH SLOW RESPONDING DEVICES (20046431*)

3.1 Issue

I/O Scanning to devices with varying response times may stop if it receives a reset (RST) from the device. If a RST is received by the ETY on a connection it can cause the I/O Scanner entry to stop communicating.

3.2 Resolution

The firmware was changed so that when the ETY5103 receives a RST from the server on an established connection, it closes the existing connection and tries to establish a new connection on a different port.

3.3 Customer action

Upgrade the ETY5103 firmware.

4 I/O SCANNER LOSES COMMUNICATION WITH GATEWAYS (20045783*)

4.1 Issue

I/O Scanning client stops communicating when a gateway device (i.e, TesysT, Exemys, Emerson Fieldbus Gateway) loses a packet. The loss of a packet results in a packet with an incorrect sequence number, thus stopping communications.

4.2 Resolution

ETY I/O Scanning a gateway. The gateway may occasionally drop a packet (query). The gateway waits a period of time, and then re-transmits the previous response. The ETY ACKs the response and continues ACKing (set of 6), based on the round trip time, but never retransmits the query.

In the code, the timer responsible for the retransmission was canceled thus stopping the retransmission from triggering.

The code to cancel the retransmit timer was modified.

4.3 Customer action

Upgrade the ETY5103 firmware.

5 A RANDOM ETY REBOOT RESULTS IN THE ERROR LOG RECORDING AN ERROR 921 (20046626*)

5.1 Issue

The following conditions will cause a 921 Crash code:

1. The CPU sends an incorrect Modbus response message to the ETY.
2. The CPU sends an invalid packet across the Premium backplane to the ETY.
3. The ETY will reset if it detects that a new Modbus message received from a device on the network contains the same Modbus message transaction ID as a message already being processed within its internal buffers.

5.2 Resolution

Changes have been incorporated into the CPU and the ETY to enhance the communications between the modules across the backplane. In the event that one of these conditions occurs, the ETY will discard the incorrect or invalid message and continue to operate without resetting.

5.3 Customer action

Both the ETY5103 and Premium CPU firmware must be upgraded.

- Minimum ETY Exec version 4.8
- Minimum Premium CPU version 2.81 (scheduled for release by end of June 2010)

6 ETY5103 CAN TAKE UP TO 25 SECONDS TO CLOSE A CONNECTION (20046368*)

6.1 Issue

The ETY sends a set of 6 ACKS or Keep-alives followed by a RST. This can take up to 25 seconds before the connection is closed and allowing a new one to open.

In the code, the timer responsible for the retransmission was canceled thus stopping the retransmission from triggering.

6.2 Resolution

The code to cancel the retransmit timer was modified.

6.3 Customer action

Upgrade the ETY5103 firmware.

7 UPGRADE INSTRUCTIONS

7.1 Backup of customized web site

The customized web site will be erased by upgrading firmware. Customer must backup his project with Web Designer Software. Customer will be able to download after upgrade.

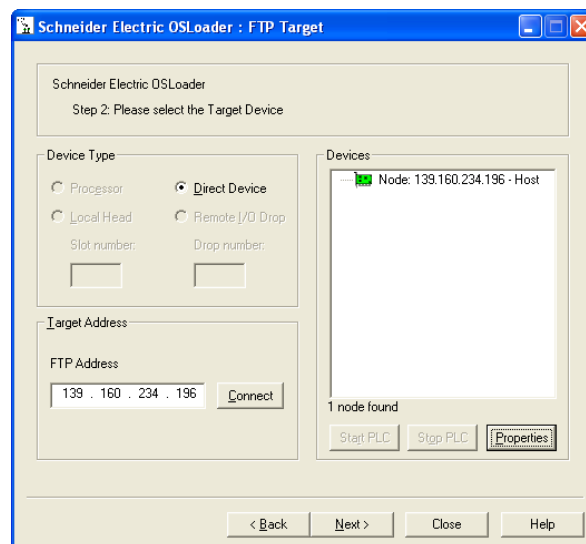
7.2 Unity Programming software

The ETY5103 and Premium CPU firmwares are upgraded using the Unity OS Loader.

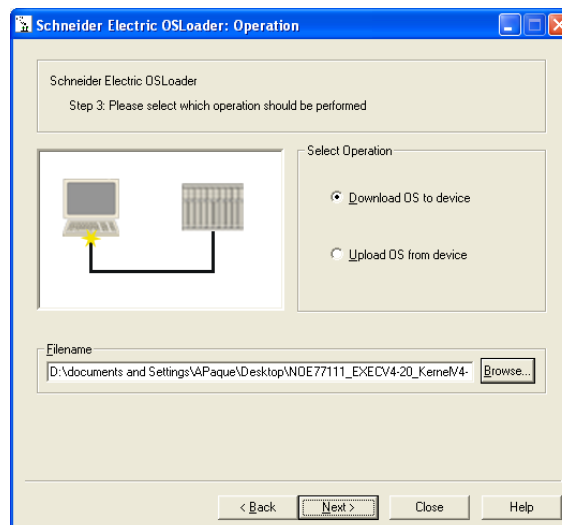
You need to use *.bin file from directory "Unity User"

This file is for Unity Loader

- 1- Select and launch Unity loader in Unity program group.
- 2- Select FTP transfer

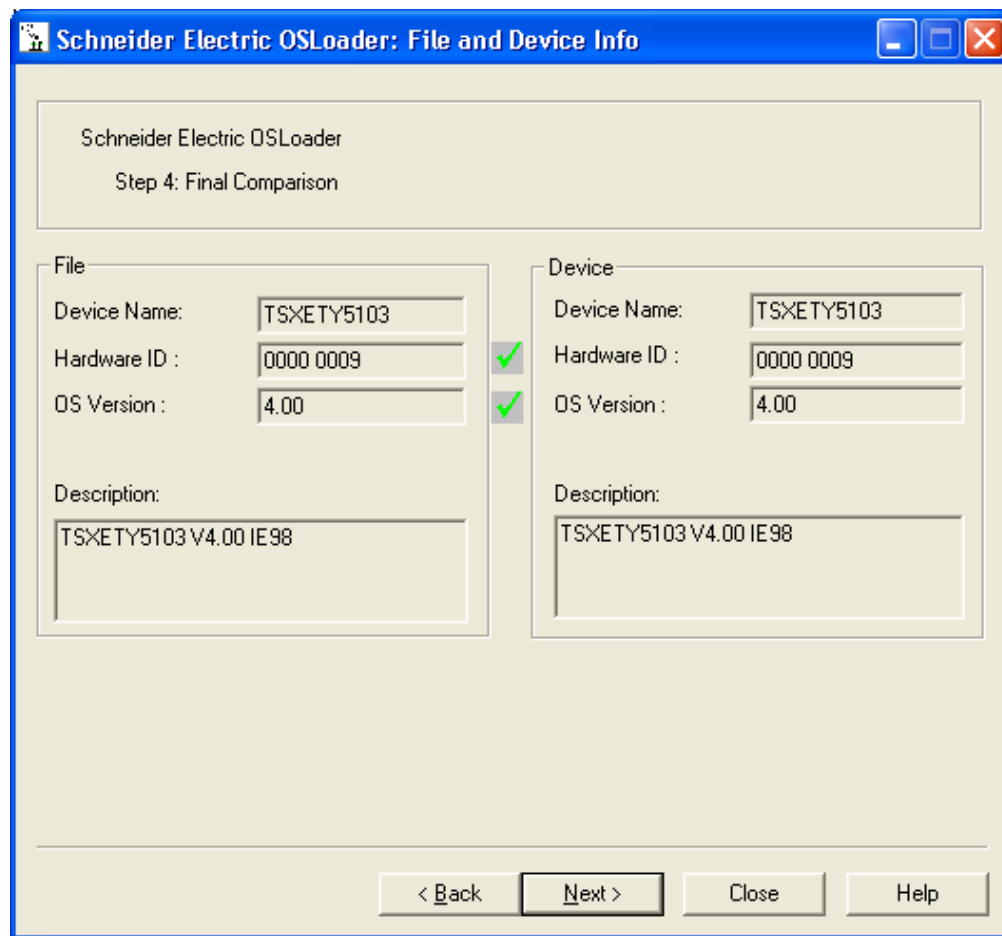


- 3- Fill the IP Address of your module



- 4- Select bin file from the unzipped archive

Go next



5- Click on Next button to start the downloading

7.3 Without Unity Programming software

For non-unity user, we provide a second solution to upgrade the ETY5103.

You will find upfw5103.bat file into directory "No Unity User"

Under MS-DOS command window, you must type the following command from right directory like below.

```

C:\WINDOWS\system32\cmd.exe
4 Dir(s) 4 084 027 392 bytes free

D:\TSXETY5103_U460_IE08\No Unity User>dir
Volume in drive D is DATA
Volume Serial Number is 6EA2-1BB3

Directory of D:\TSXETY5103_U460_IE08\No Unity User

27/05/2010 09:28 <DIR> .
27/05/2010 09:28 <DIR> ..
11/07/2002 18:16 59 devfmtw.ftp
13/03/2009 16:50 757 deus5103.ftp
02/12/2009 15:11 5 490 devw5103.ftp
27/05/2010 09:20 <DIR> FLASH0
27/05/2010 09:20 <DIR> FLASH1
10/12/2002 15:28 509 upfw5103.bat
4 File(s) 6 815 bytes
4 Dir(s) 4 076 544 000 bytes free

D:\TSXETY5103_U460_IE08\No Unity User>upfw5103.bat A.B.C.D_

```

In above picture, A.B.C.D is IP address of module.

8 NOTES

8.1 Bootrom compatibility

This firmware is delivered for the following module

TSXETY5103 module

Version that can be updated are TSXETY 5103 V3.00 and upper.

This firmware is NOT compatible with the bootrom version older than V3.1_IE12. Therefore, the required minimum level of bootrom is V3.1 IE12.