

How to reload the saved user program after Major Non-recoverable fault Type 1 Code 62 (L7x, V19+)

Product Family: Logix 557x controllers, v19 and above

Major non-recoverable faults are indicated by Major Fault TXX:CXX message on the status display of the L7x controller.

In all controllers up to Logix v18, the following major nonrecoverable faults were recorded:

Type 1 Code 60 Non-Recoverable

Type 1 Code 61 Non-Recoverable - Diagnostics Saved

The Code 60 or 61 designated whether or not the fault log was saved to the non-volatile memory card (such as a CompactFlash card or SD card).

In v19, L7x controllers have an additional fault code

Type1 Code 62 - Non-Recoverable - Program Saved

Code 62 designates that a major non-recoverable fault occurred and the fault log was saved. Also, the program and tag values at the time of the fault could have also been saved and can be re-loaded from the SD card.

This is possible if the following conditions are true:

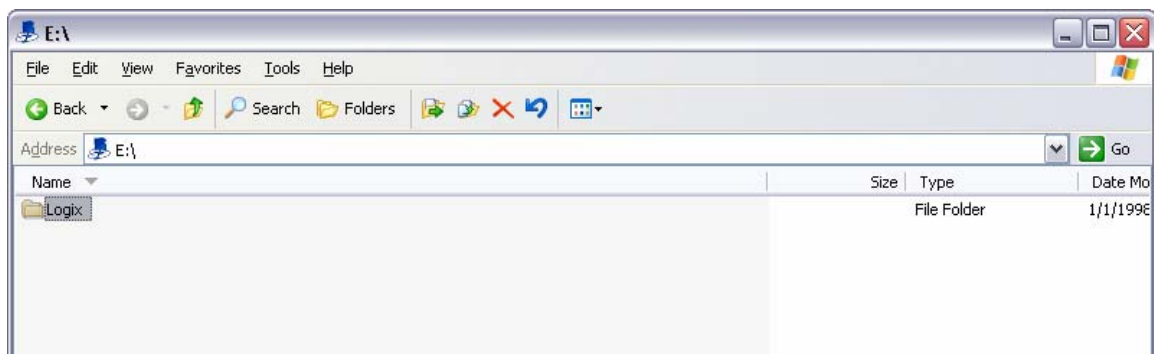
- The original program (and firmware) was saved on the SD card
- The memory did not become corrupt at the time of the fault.

The following steps explain how to re-load the user project from the SD card after a Type1 Code 62 Major non-recoverable fault.

1. Verify you see the following message scrolling across the L7x display...

Type1 Code 62 - Non-Recoverable - Program Saved

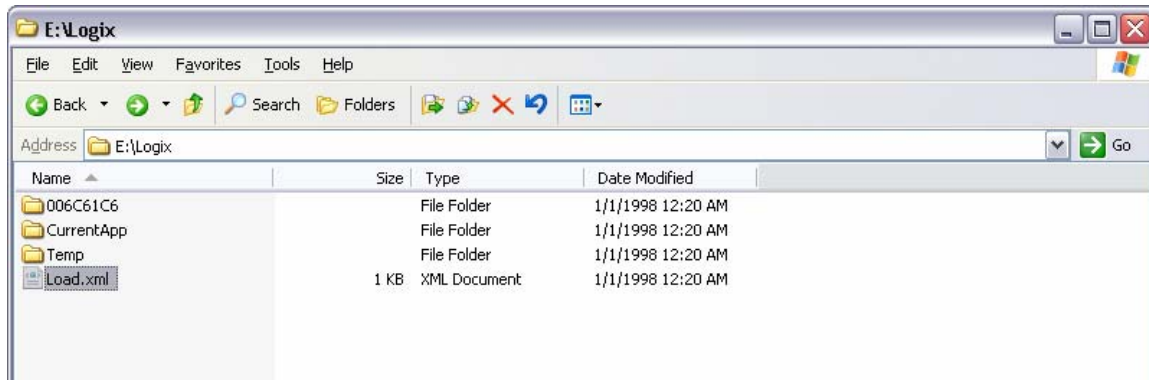
2. Remove the SD card from the L7 controller and insert the SD card into an SD card reader.
3. Open up the SD card drive in My Computer or Windows Explorer and you will see a *Logix* folder.



4. Zip the *Logix* folder and save it for engineering to analyze why the MNRF occurred.

5. Double click the *Logix* folder.

You will see the file structure below:

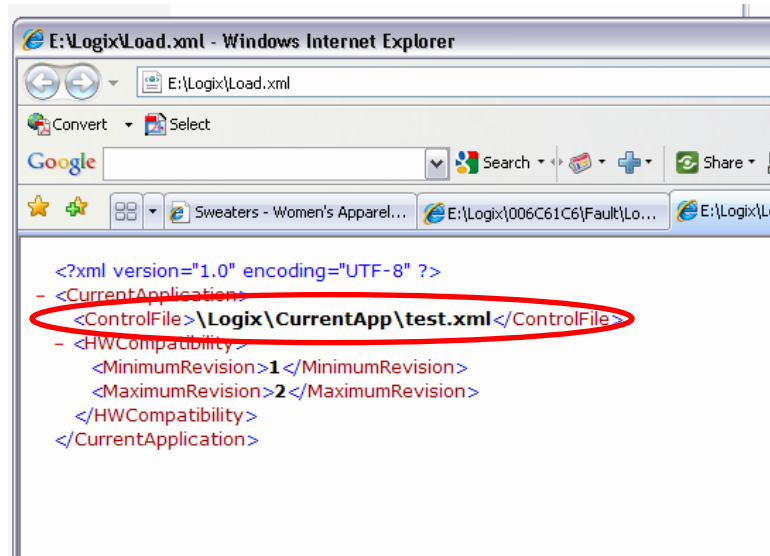


- **Serial Number folder** - contains the fault log information and the saved program.

Upon a MNRF, The serial number folder will contain a Fault folder.

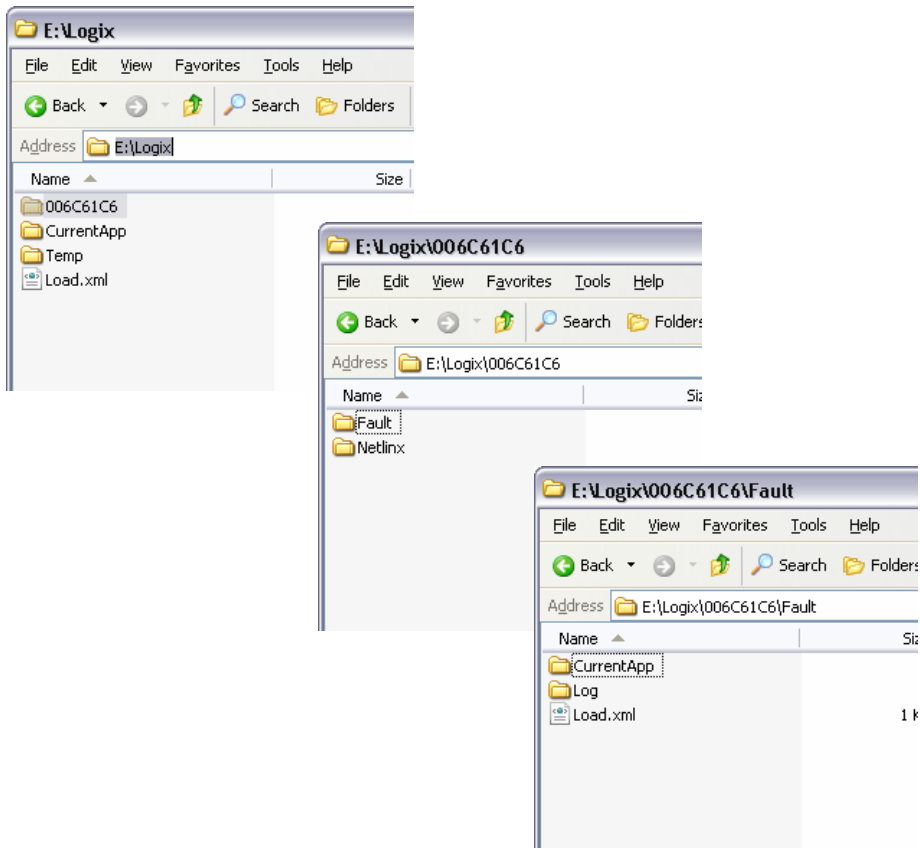
- **CurrentApp** folder - contains the firmware and original stored project.
- **Temp** folder is blank.
- The **Load.xml** file specifies the location of the program to load into the controller.

We will need to move the saved program at the time of the fault into the location specified in this file.

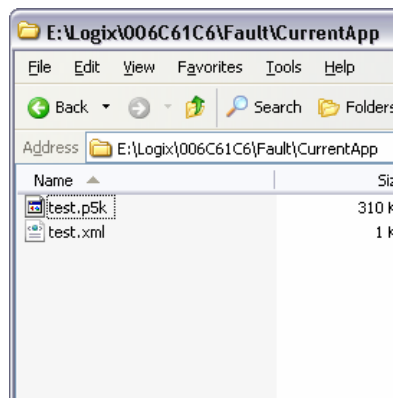


We will do this in the following steps...

6. Starting at the \Logix root, navigate to the \Logix\Serial Number\Fault\CurrentApp folder

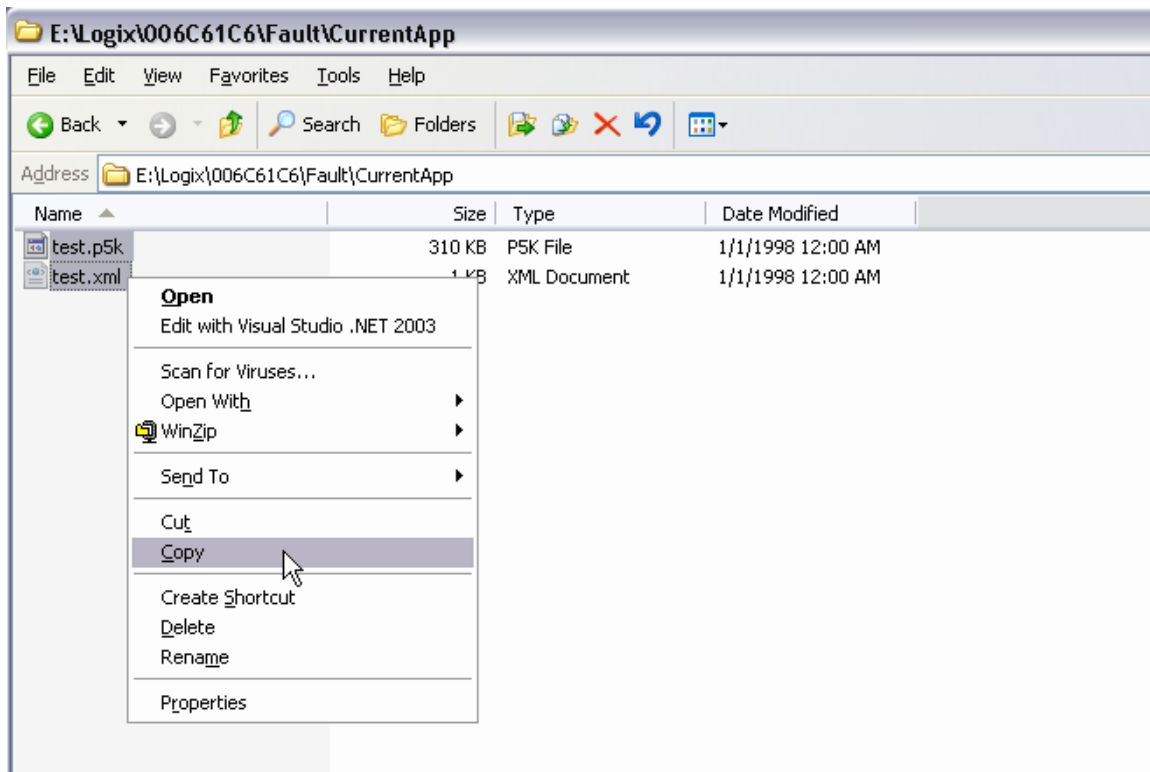


7. Inside the \Fault\CurrentApp folder you will find two files *.xml and *.p5k.

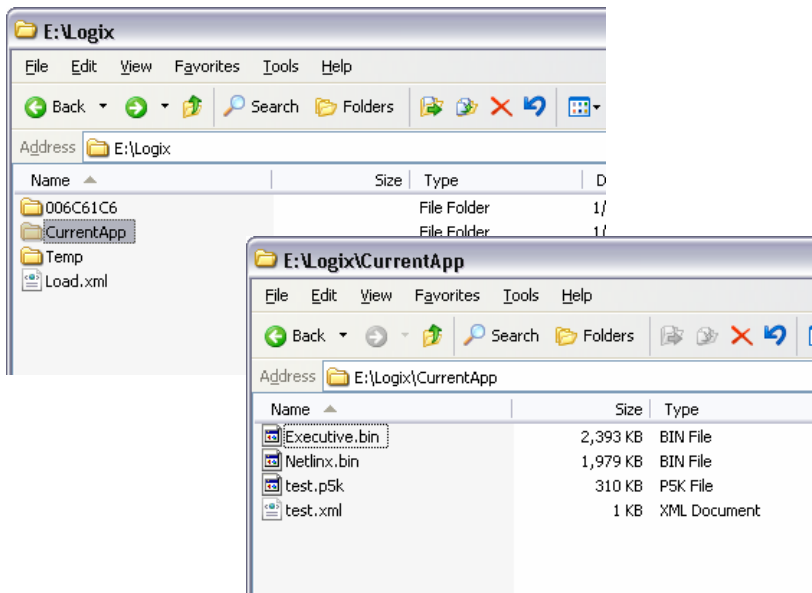


These files represent the saved program at the time of the fault. They contain the saved tag values as well.

8. Copy these two files...



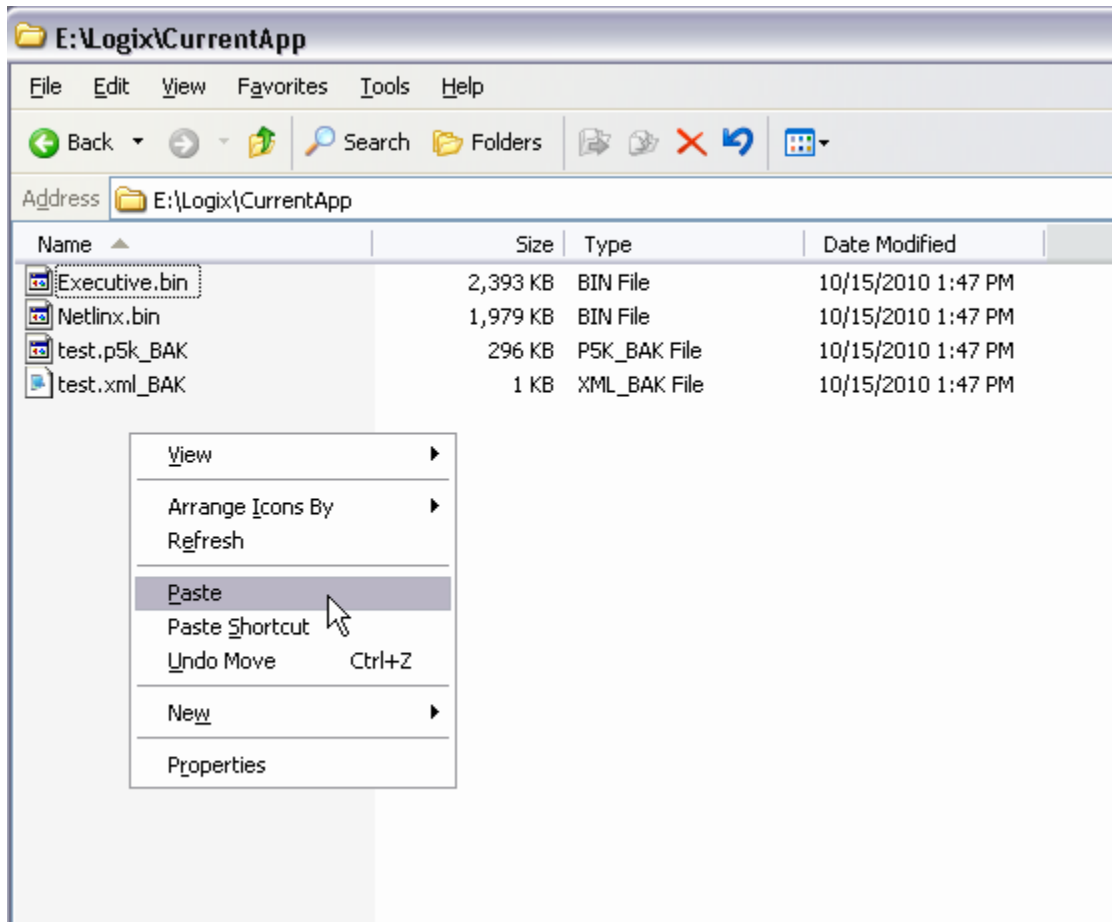
9. ...Then navigate back to the `\Logix\CurrentApp` folder (but do not paste yet!!)



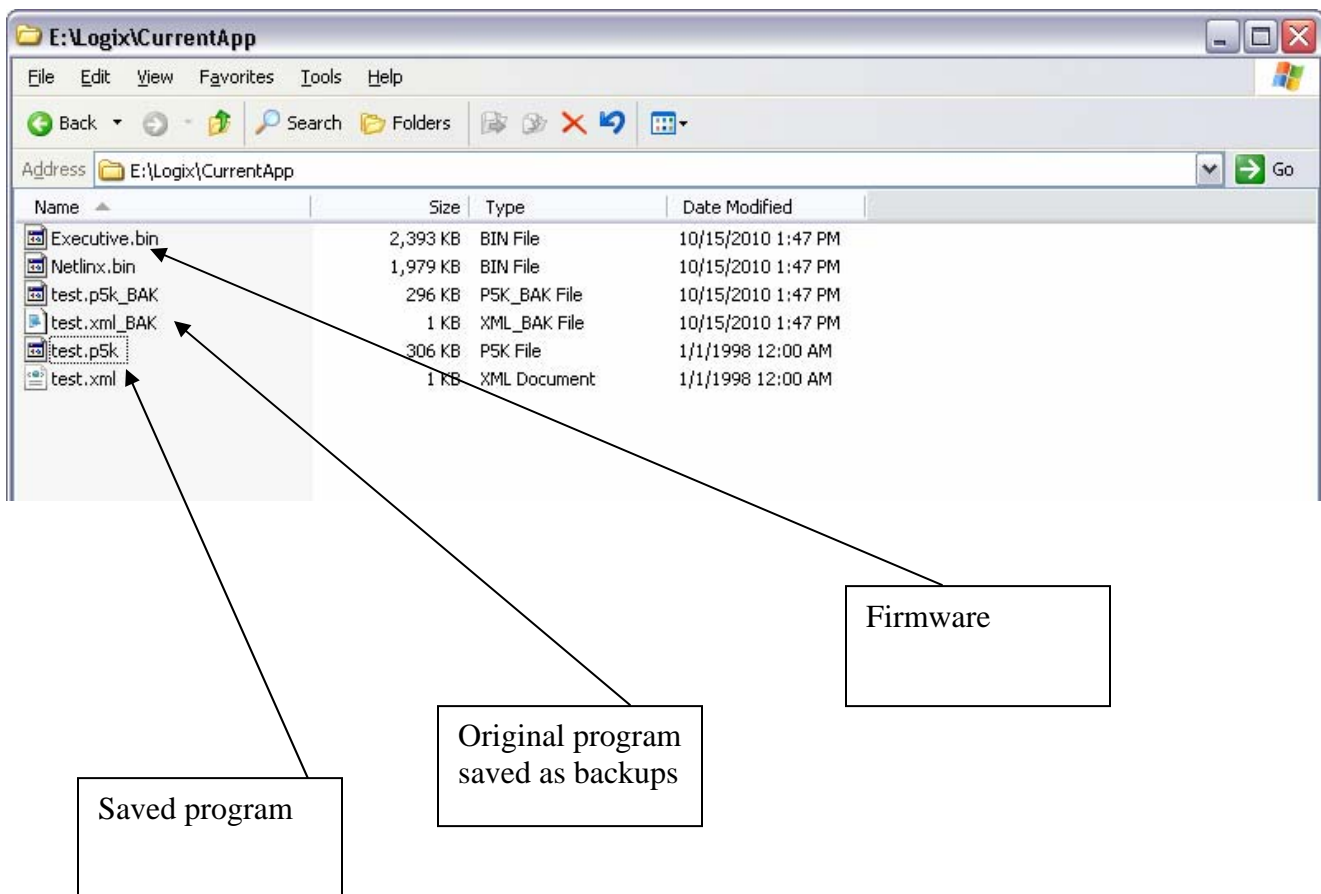
- In this *CurrentApp* folder, you will see p5k and xml files also. These are the originals.
- There are also two bin files in this folder. These are related to firmware. Make sure these files are present. They are necessary to reload the program.

10. Change the extension on the original .p5k and .xml as backups before pasting the saved files into this folder. (_BAK as shown).

11. Now, paste the saved p5k and xml files.



12. The final result in the *Logix\CurrentApp* folder should look similar to the following.

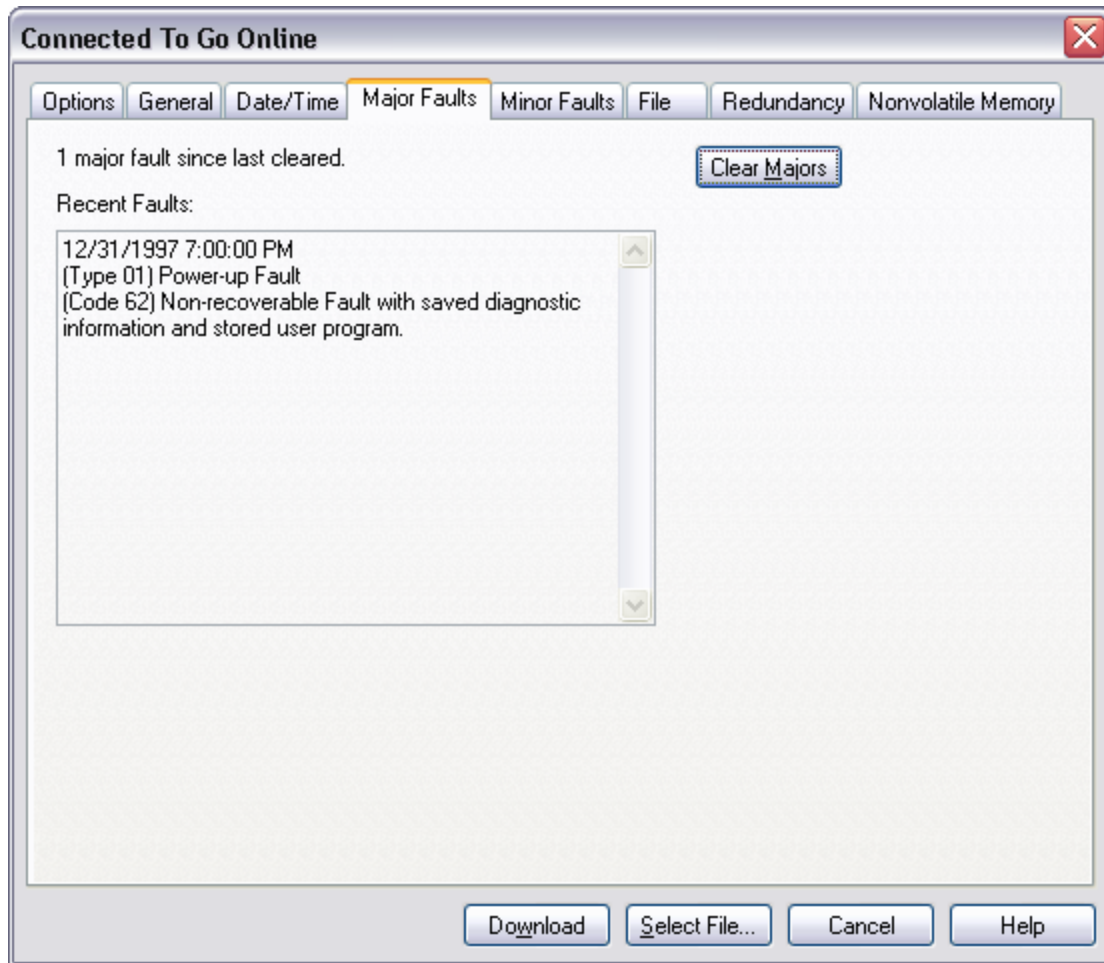


13. Now the saved programs will be loaded from this location as specified by the *Load.xml* file.

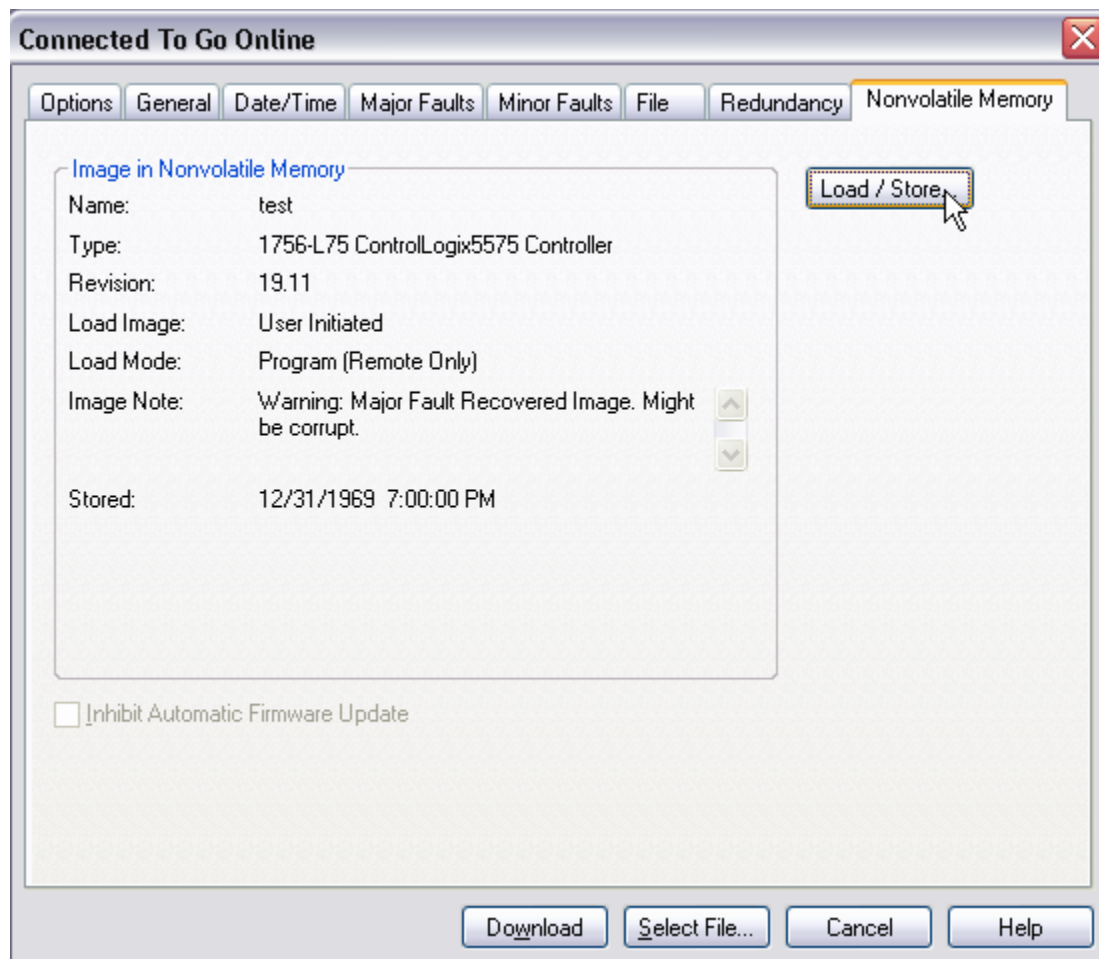
14. Now, insert the SD card back into the controller.

15. Go online with the controller.

16. Clear the fault from the Major Faults tab shown below.



17. Then in the non-volatile memory tab, click the Load button. You will need to make sure the controller is in program mode.



*Note the Image Note Warning: Major Fault Recovered Image might be corrupt.

Follow the series of prompts...

Nonvolatile Memory Load / Store

Image in Nonvolatile Memory	Controller
Name: test	Name: <no name>
Type: 1756-L75 ControlLogix5575 Controller	Type: 1756-L75/A ControlLogix5575 Controller
Revision: 19.11	Revision: 19.11
Load Image: User Initiated	Load Image: On Power Up
Load Mode: Program (Remote Only)	Load Mode: Program (Remote Only)
Image Note: Warning: Major Fault Recovered Image. Might be corrupt.	Image Note:
Automatic Firmware Update: Disabled	Automatic Firmware Update: Disable
Stored: 12/31/1969 7:00:00 PM	
Load -->	<-- Store
Close	Help

Nonvolatile Memory Load / Store

Image in Nonvolatile Memory	Controller
Name: test	Name: <no name>
Type: 1756-L75 ControlLogix5575 Controller	Type: 1756-L75/A ControlLogix5575 Controller
Revision: 19.11	Revision: 19.11
Load Image: User Initiated	Load Image: On Power Up
Load Mode: Program (Remote Only)	Load Mode: Program (Remote Only)
Image Note: Warning: Major Fault Recovered Image. Might be corrupt.	Image Note:
Automatic Firmware Update: Disabled	Automatic Firmware Update: Disable
Stored: 12/31/1969 7:00:00 PM	
Load -->	<-- Store
Close	Help

RSLogix 5000

Consider the following before proceeding with the Load:

- All communications to this controller will be lost including this workstation and any communications bridged through this controller.
- Removal of the memory card during the Load may corrupt the image being loaded.

Continue with the Load?

Yes **No**

You may see a message asking you if you would like to upload the changes from the controller.

When the program has been reloaded you will see the name of the project scrolling across the L7 display. You can go into run mode.

Remember:

- If the MNRF was caused by the program it could happen again when reloading the program saved at the time of the fault.
- The program may not reload properly if there is some other type of memory corruption that caused the controller to MNRF.
- Don't forget to send the zipped Logix folder back to engineering to analyze why the MNRF occurred.