



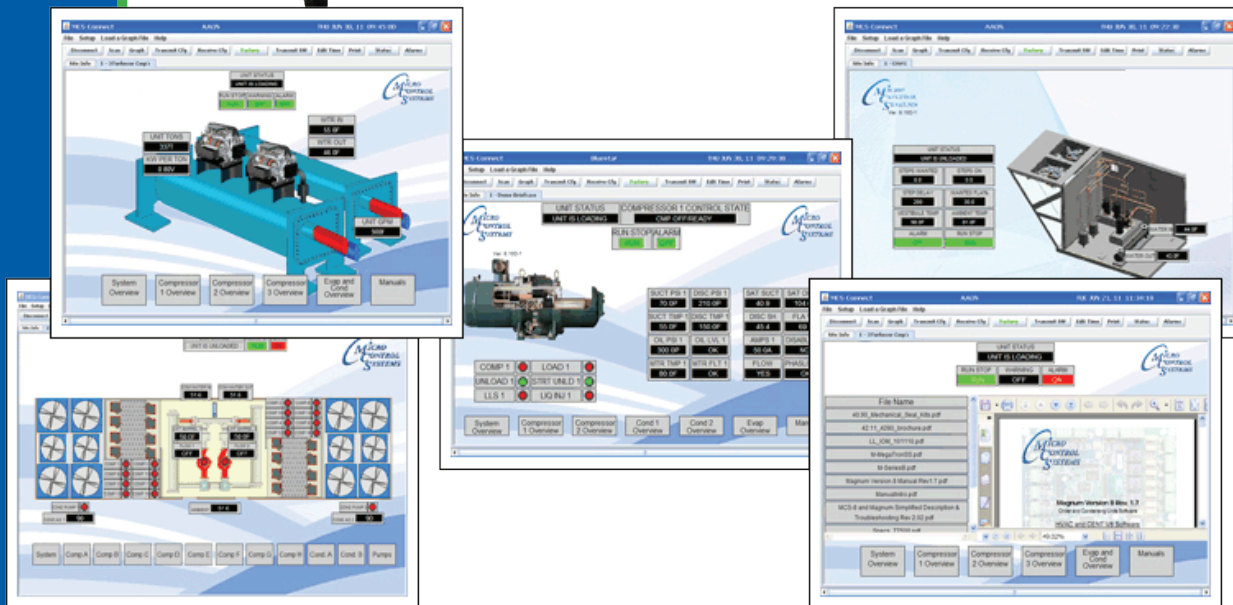
MCS-TOUCHSCREEN

& Graphics

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This Manual will walk you through the process of setting up your Touchscreen, modifying and loading graphics for MCS-Connect.

See Appendix section in back of Manual for quick steps for some MCS-TOUCHSCREEN functions

MCS Total Solution for all your Control Needs



Energy Efficient and RoHS Compliant

Revision/Disclaimer Page

Date	Author	Description of Changes
08-18-15	DEW	Setup Manual
09-02-15	DEW	Add images, edit pages
09-18/22/30-15	DEW	Add pages, edit pages
03-07-16	DEW	Add description and password for time and date change
06-01-16	DEW	Make changes for Ver 3.00F
12-01-16	DEW	Add Appendix#123
02-01-17	DEW	Modify replacing graphic file as per Danny B

The MCS Commitment is to provide practical solutions for the industries needs and to be both a leader and partner in the effective use of microprocessor controls.

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Chapter - 1. Getting to know your Touchscreen

On the following pages we will acquaint you with the function and use of the MCS-TOUCHSCREEN, plus introduce you to the graphics that we have incorporated into the design.

OEMs with additional training and the Graphic Builder, will be able to make changes to the graphics and help manage with all the information the MCS controller has available to provide.

TOUCHSCREENS

The MCS-TOUCH-15.4 has a new Weather Proof Touchscreen interface designed to simplify user access with the MCS-Magnum and MCS-MicroMag. MCS-Connect can be utilized to provide both graphics and service mode access for technicians.

Information and graphics on the MCS-TOUCH are shown on high resolution (1280x800) LCD display with LED back lighting, which guarantees long-life operation.

The high resolution screen makes it easy for the user to manage complex installations quite easily. It also ensures that the pages can be navigated in a fast and straightforward manner. Up to 60 MCS controllers can be connected to a MCS-TOUCH via RS485 or Ethernet.

Utilizing a gasket for an environment seal provides the MCS-TOUCH with a NEMA4 rating.

Depending on the Box Enclosure you choose, an installation can be either indoor or outdoor.

A NEMA4 Box Enclosure must be used for outdoor installation or for areas that are subject to water wash-down or extreme harsh environments. The MCS-TOUCH temperature range is -20oC to 70oC / -4oF to 158oF.

The Magnum can be installed without the Keypad Display using the new Touchscreens.

GRAPHICS FOR TOUCHSCREENS

With the new Graphical Interface and MCS-Connect, you now have a better view of your controller's many functions as shown on the screen to the right.

The graphics package is pre-installed and can be customized by OEMs with the MCS Graphic Builder or custom build by MCS for your clients.

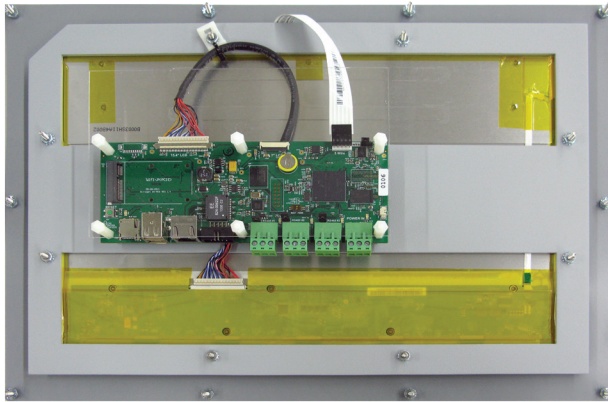


Additional information on the setup and using your Touchscreen and Graphics can be found on our web site, along with additional App. notes concerning the Touchscreens.

<http://www.mcscontrols.com/manuals.html>

Chapter - 2. Touchscreen's Interface

Your touchscreen is shipped installed with the latest Linux operating system, MCS-Connect and additional files for displaying your graphics.



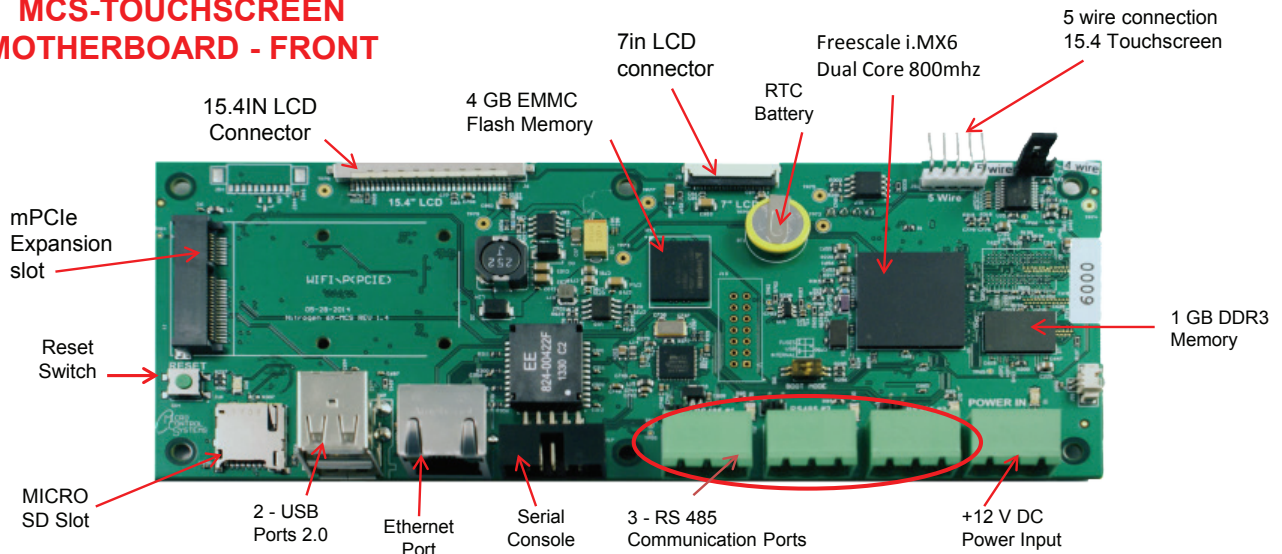
Back of Display - 15.4"



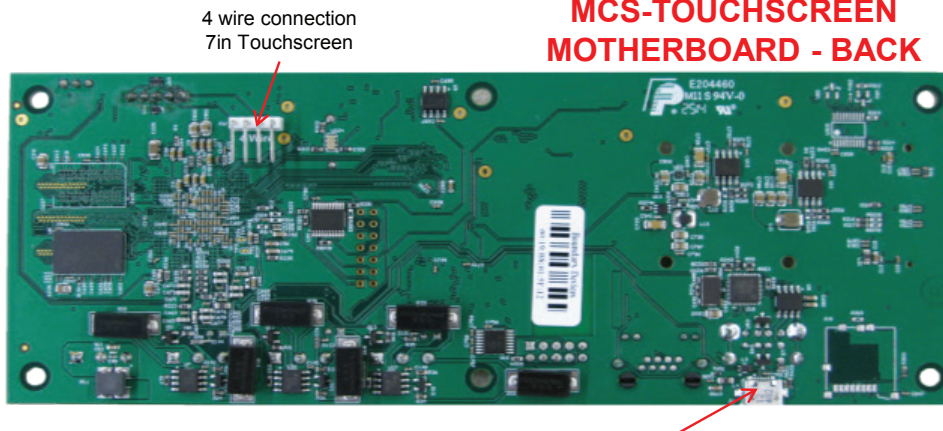
INCLUDED COMPONENTS

50W Single Output Power Supply for Touchscreen
Resistant to short circuiting, overloading, and over voltage.
Operating temperature up to 158F (70 °C)

MCS-TOUCHSCREEN MOTHERBOARD - FRONT



MCS-TOUCHSCREEN MOTHERBOARD - BACK



Chapter - 3. Site Documents

3.1. Documents, Spec Sheets, Drawings, etc.

Stored in the Touchscreen's flash memory you will find pdf's and documents pertaining to the building of your unit.

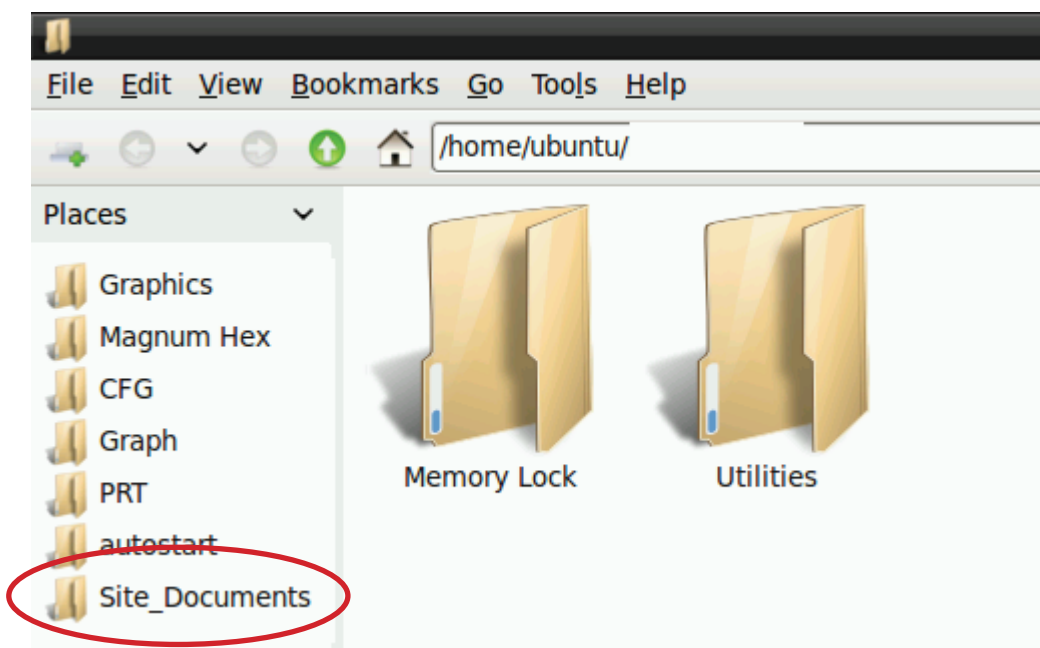
Each unit's configuration is different, so the '**SITE DOCUMENTS**' file will pertain to that unit only.

An example of the contents of the '**SITE DOCUMENTS**' folder may contain:

1. **DRAWINGS** (PDF'S) of the components used in this unit
2. **EXAMPLE OF MANUALS** (if installed in your unit)
 - a. Getting Started Manual
 - b. Keypad Manual
 - c. Touchscreen Manual
 - d. MCS-CONNECT Manual
 - e. EXV Manual
 - f. BMS-GATEWAY Startup Guide
 - g. Touchscreen and Graphics
 - h. Additional manual may be stored here depending on the configuration of the unit
3. **SPECIFICATION SHEETS** - each part installed should have a spec (data) sheet included in the '**SITE DOCUMENTS**' folder
4. **CONFIGURATION FILE** - This is the key file in building your unit. If your config file is somehow corrupted, this is the original file used and may need to be re-installed. Call MCS-SUPPORT for help in re-installing this file to your controller.

To locate the 'SITE DOCUMENTS' folder:

1. Navigate to the '**MCS TOOLS folder**' on your desktop
2. Double click on folder to open



Chapter - 4. Main Screen

4.1. COMPANY GRAPHIC

Your touchscreen comes pre-installed with the 'Graphic Package'. OEM's and trained Installers will be able to modify some of the displays after the initial installation using the Graphic Builder if authorized.



With its 1280x800 Resolution, the display is sharp and easy to read. Making use of the 'Stylus pen', and the on screen keypad adjustments are easy and lets the technician check readouts as to the status of the controller.

The Touchscreen now comes with a Linux operating system.

The latest 15.4 touchscreens, firmware version 3.0 +, comes with a 9 point calibrating software program for pin point accuracy.

Chapter - 5. Touchscreen Keypad

5.1. KEYPAD - On the main screen, click on Keypad Icon as shown in screen 8-1.



5.2. 'ON SCREEN KEYPAD'

Screen 8-2 shows keypad display. Use the stylus and keypad to enter or make adjustments.

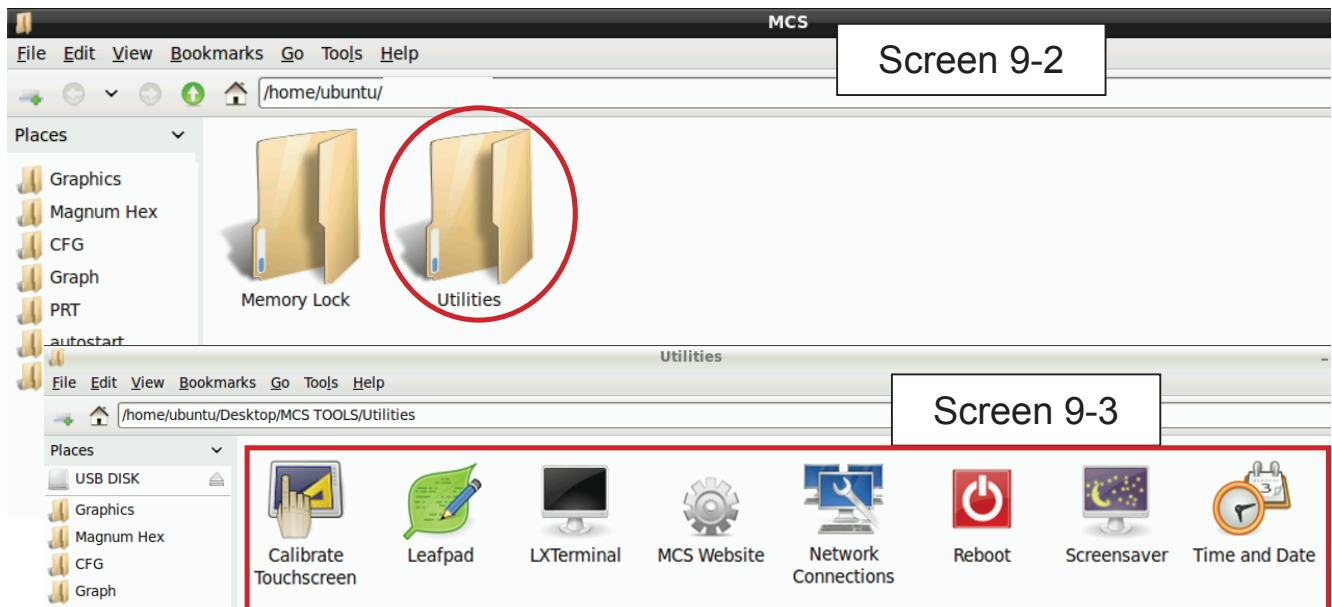


Chapter - 6. Touchscreen Utilities

6.1. Utilities folder and its sub folders

1. Navigate to the '**MCS TOOLS folder**' on your desktop.
2. Double click on folder to open.
3. Double click on the '**Utilities**' sub folder to view contents.

Screen 9-3 below displays the difference utilities build into the system.



Brief descriptions of these files will be shown on the following pages in this manual.

6.2. Calibrate Touchscreen

Your touchscreen comes with a software program which will allow you to calibrate your touchscreen stylus pen to pin point the accuracy. When you touch an area on the screen the stylus point aligns with the screen area. We will describe how to do this later in this manual.

6.3. Leafpad

Leafpad is a text editing program enabling you to make changes to text files.

6.4. LX Terminal

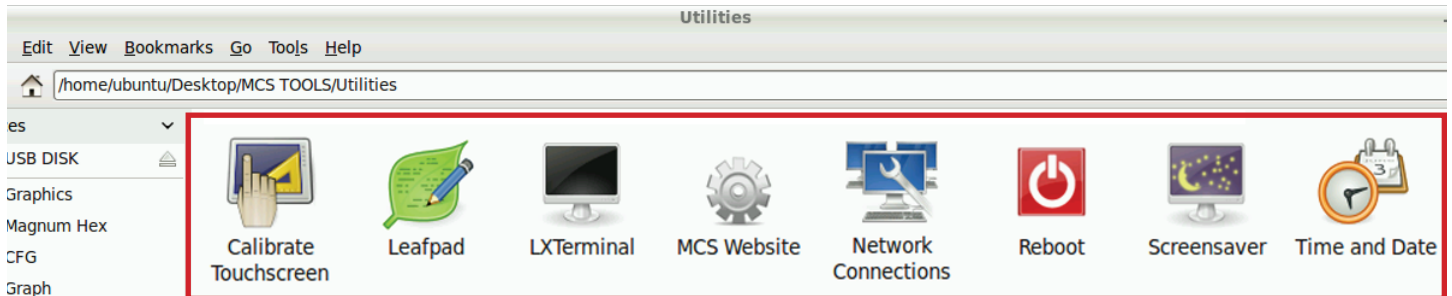
LXTerminal is the LXDE version of a terminal emulator. It is used by programmers who are familiar with the Linux operating system.

6.5. MCS Website

If you are connected to the internet where this touchscreen is installed, you will be directed to the MCS web site by clicking on this icon.

6.6. Network Connections

Clicking on this icon will direct you to a program which will allow you to setup your communications to the company's network and controllers.



6.7. Reboot

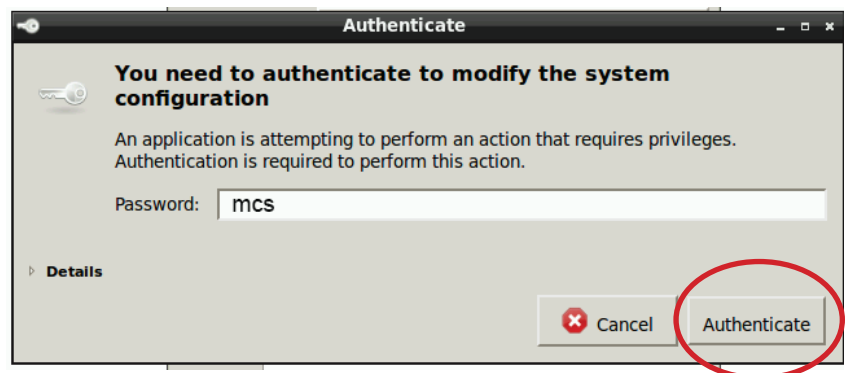
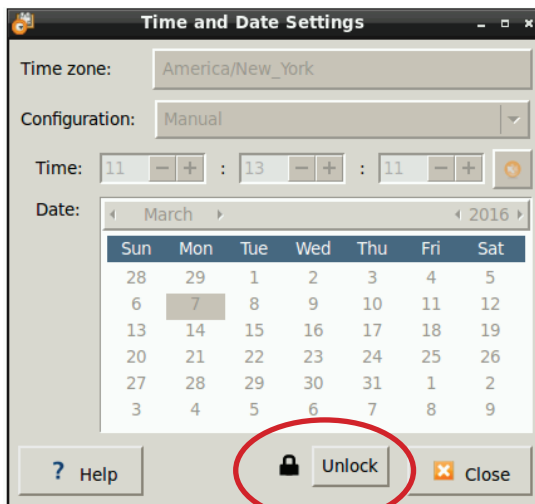
Clicking on this icon will reboot your touchscreen.

6.8. Screensaver

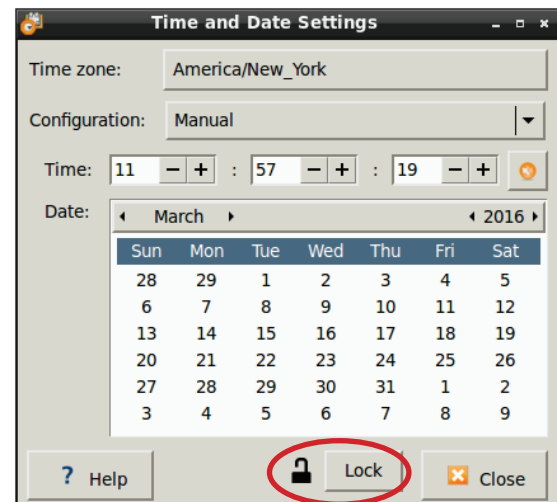
A default screensaver has been set up by the factory prior to shipping your touchscreen.

6.9. Time and Date

1. Click 'TIME AND DATE' to make changes
2. Screen opens- click on 'UNLOCK'
3. You must be authorized to make these changes.



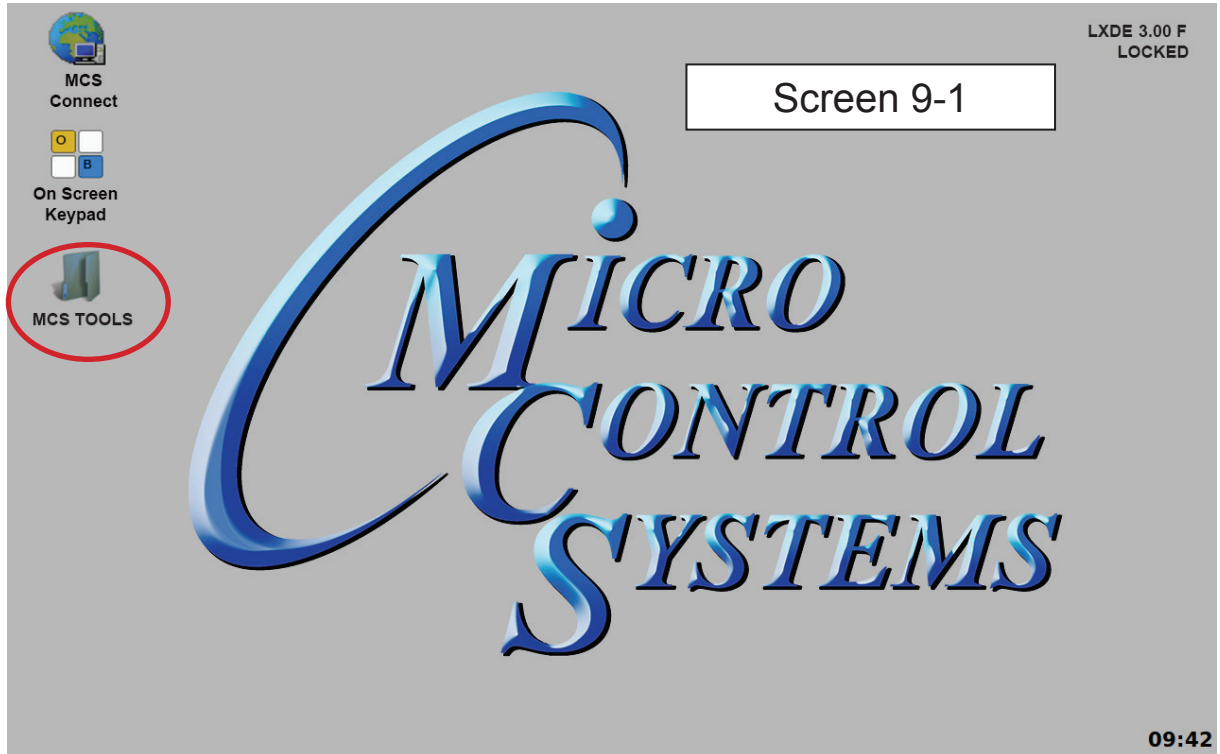
4. Enter password "mcs" for password
5. Click 'AUTHENTICATE' to unlock
6. Make changes to date or time and save



Chapter - 7. Network

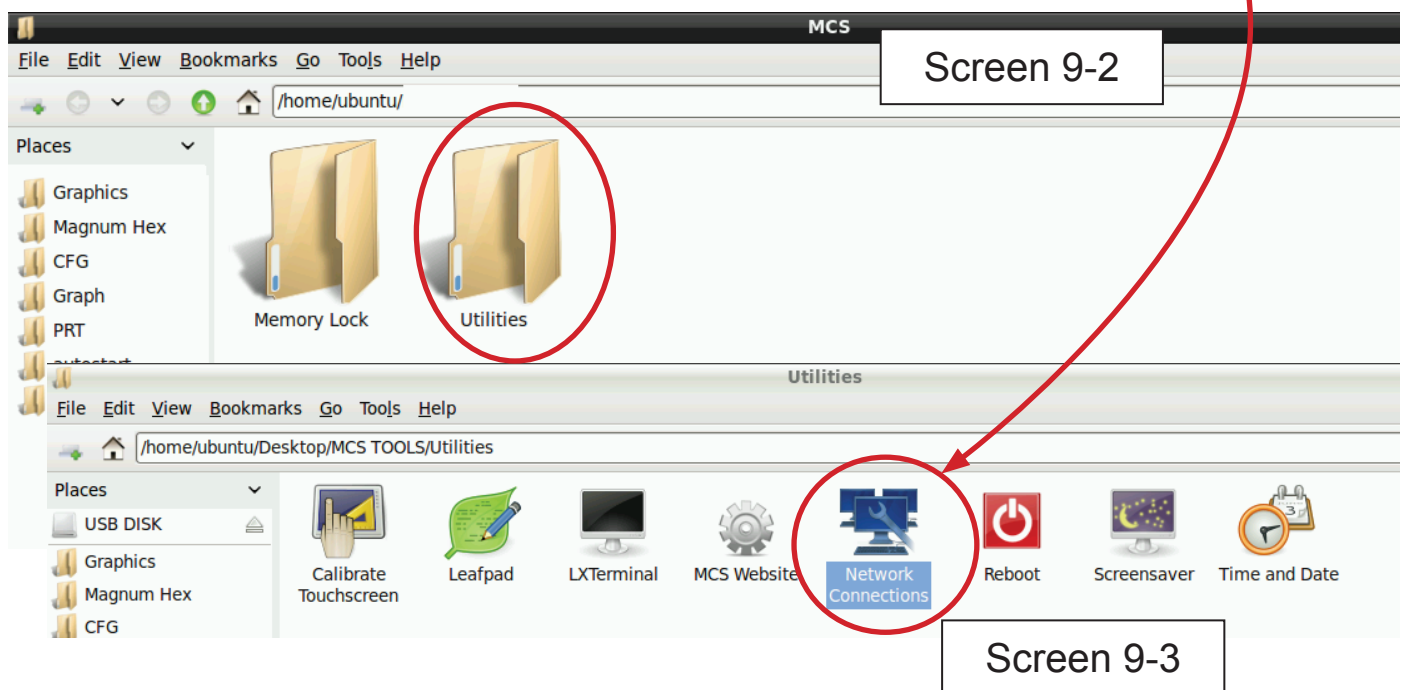
7.1. SETTING UP NETWORK FOR COMMUNICATION WITH YOUR CONTROLLER

At the touchscreen main screen, click on 'MCS TOOLS' folder' as seen screen 9-1.



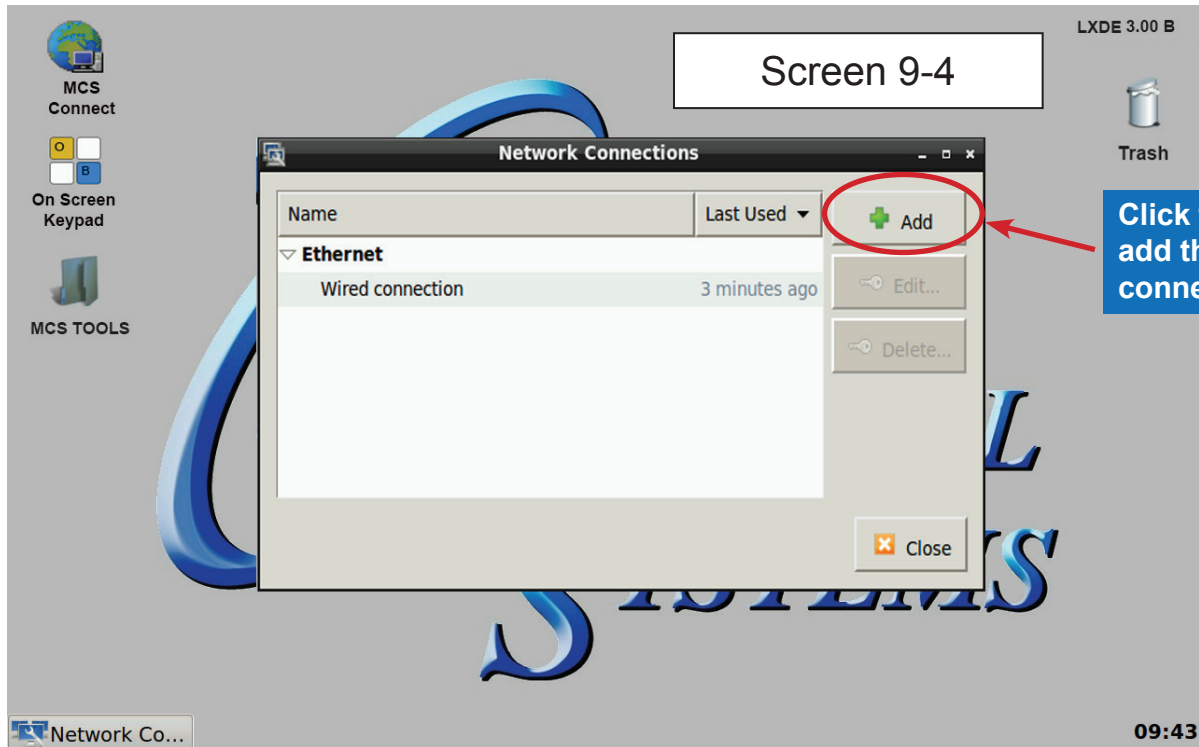
7.1.1 UTILITIES FOLDER

Screen 9-2 appears, click on 'Utilities' to view contents of folder. Click on 'Network Connections' as shown in screen 9-3.

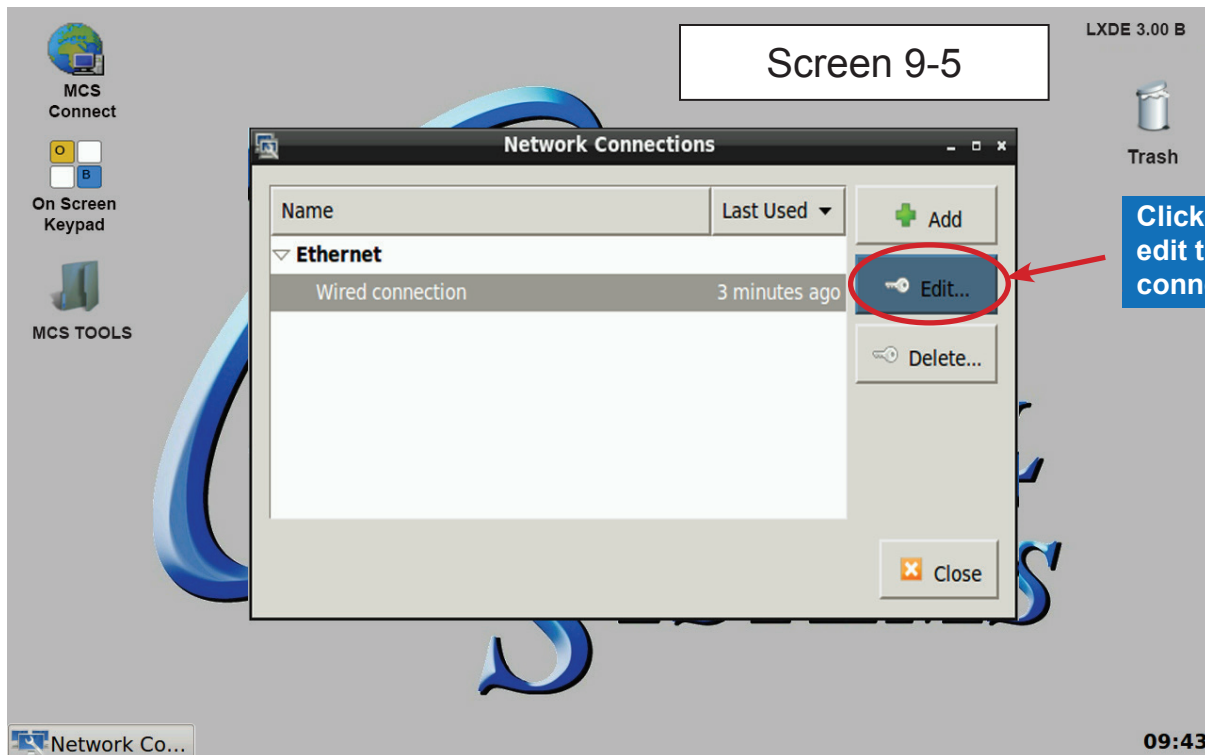


7.2. Network Communication Screen

Next display, screen 9-4 shows network communication screen. Your touchscreen will show 'Wired connection', click to add.

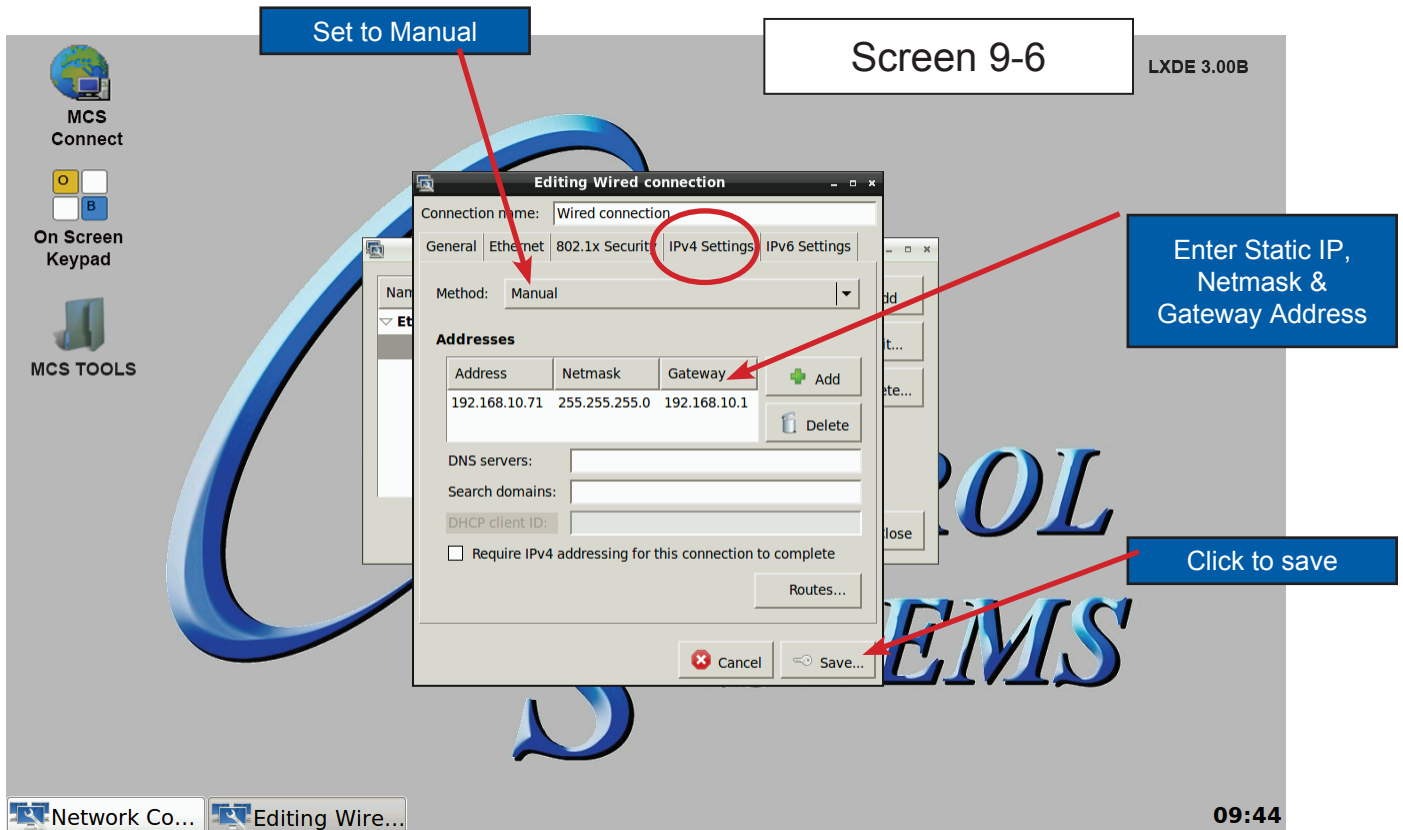


7.2.1 Screen 9-5, click to 'edit' this connection.



7.2.2 Adding IP Address

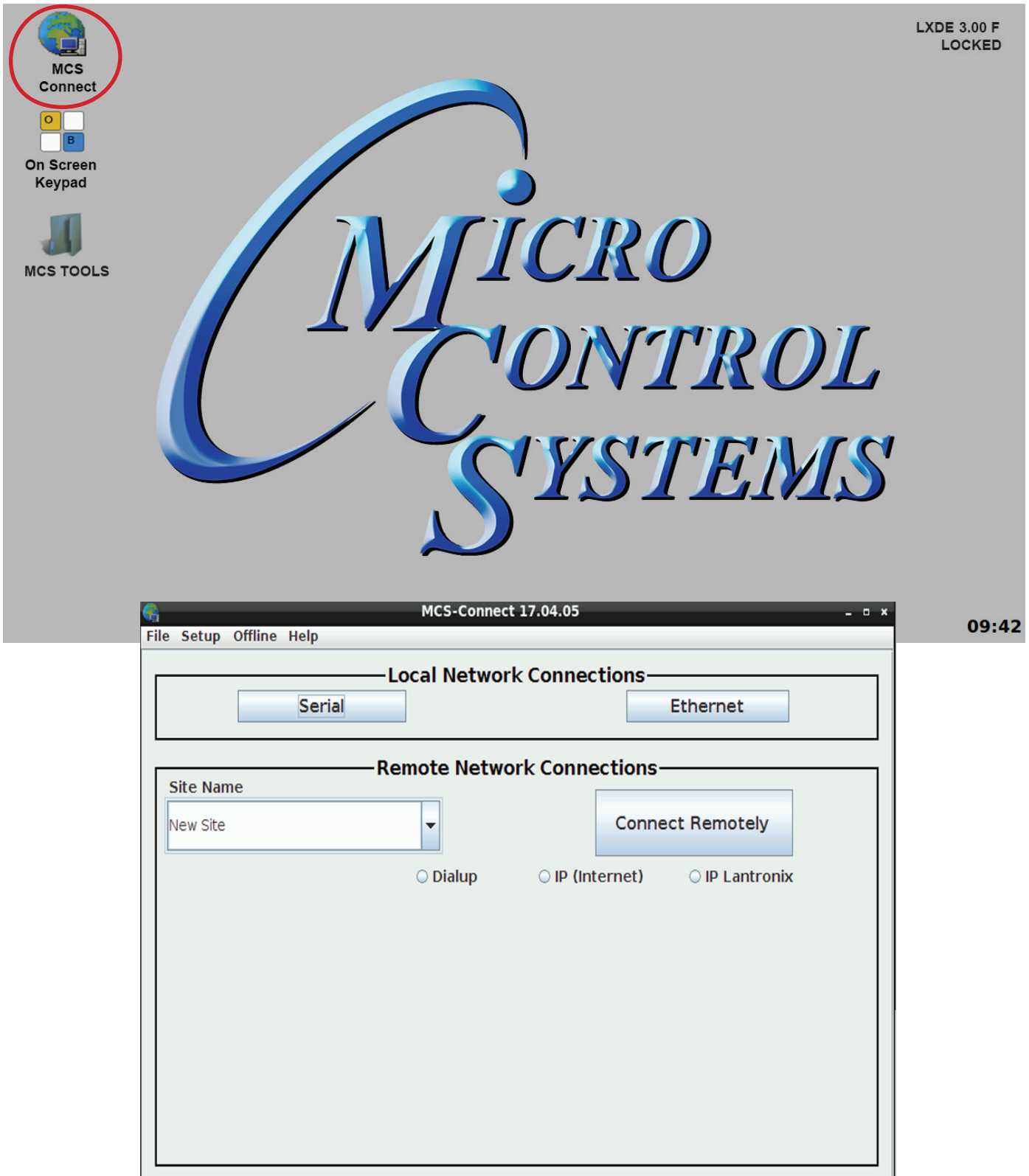
On screen 9-6, set 'Method' to 'Manual' click on 'IPV4' then click on 'Address', enter the IP address, the netmask and gateway addresses. Click to save to touchscreen memory.



Chapter - 8. MCS-CONNECT

8.1. MCS-CONNECT Shortcut on Desktop

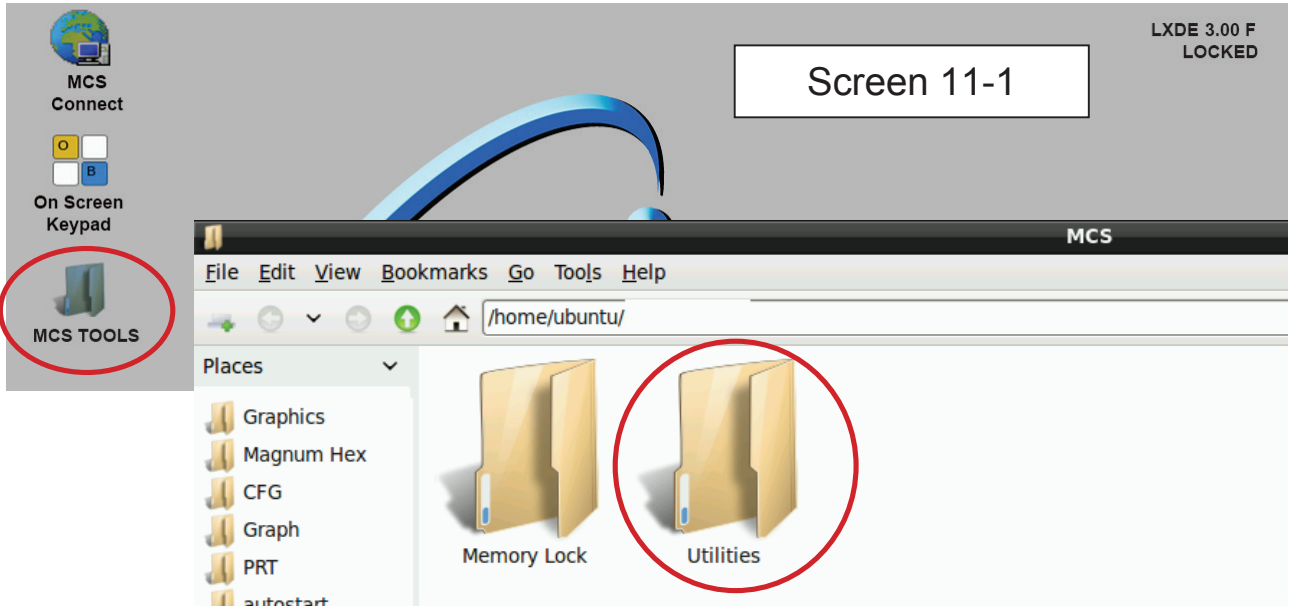
Click on the MCS-Connect. This will launch the MCS-Connect main screen. Click on Serial or Ethernet to scan for your controller.



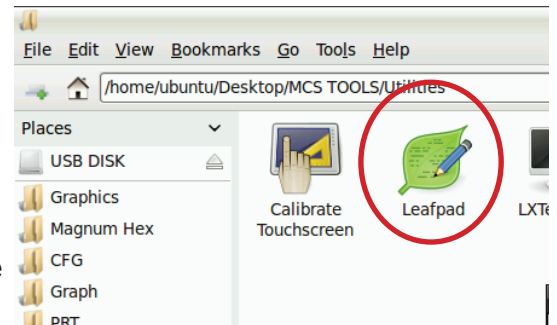
Chapter - 9. Leafpad Editing Program

9.1. Editing Autostart MCS Connect File

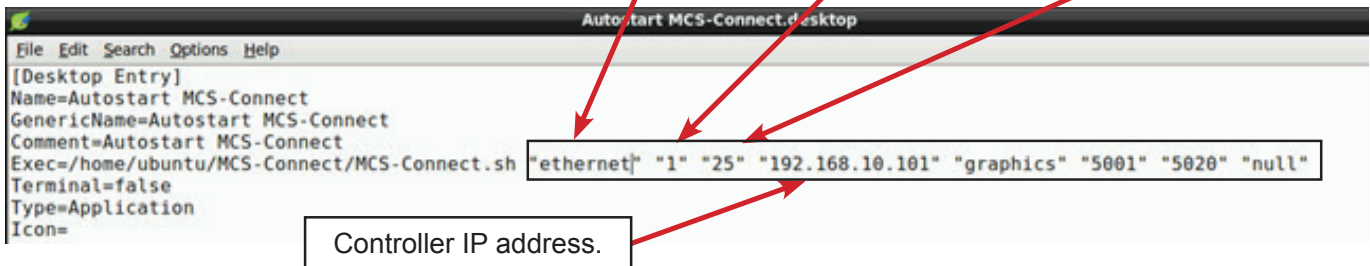
1. Navigate to the **'Main Screen'**, Click on **'MCS TOOLS'**
2. When the directory opens click on **'Utilities folder'**.



3. Screen opens, click on **'Leafpad'**.
4. Leafpad is a text editing program which will allow you to make changes to the 'Autostart MCS Connect' File as needed.
5. Click 'File' to open the 'Autostart MCS Connect' file to edit. You will need to navigate to the 'Home Folder' and click to open the 'Config folder to open the file. Below shows 'Autostart' file.



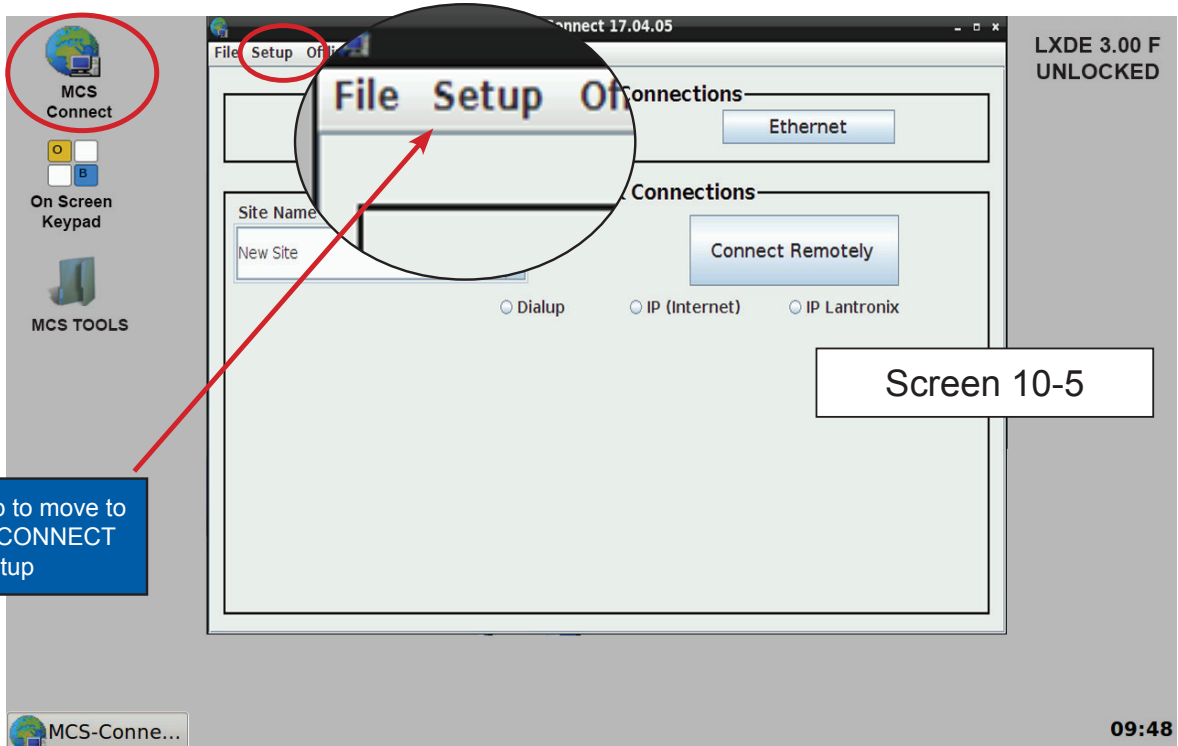
6. If needed you can edit the connections type, # of Controllers on the network, wait delay or desired controller IP address.



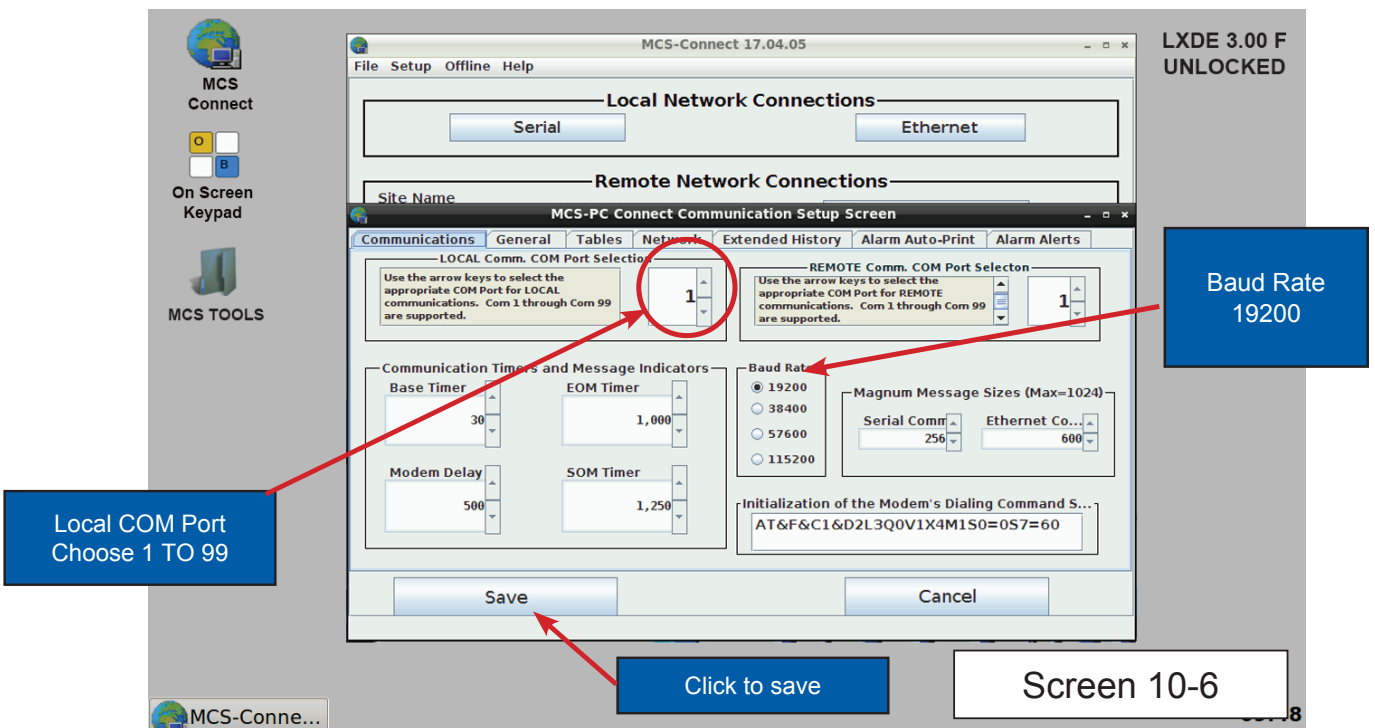
Chapter - 10. MCS-Connect Communication

10.1. MCS-CONNECT SETUP

1. At the 'Desktop screen' click on the '**MCS-CONNECT shortcut**'.
2. Click on '**Setup**' at the MCS-CONNECT screen.



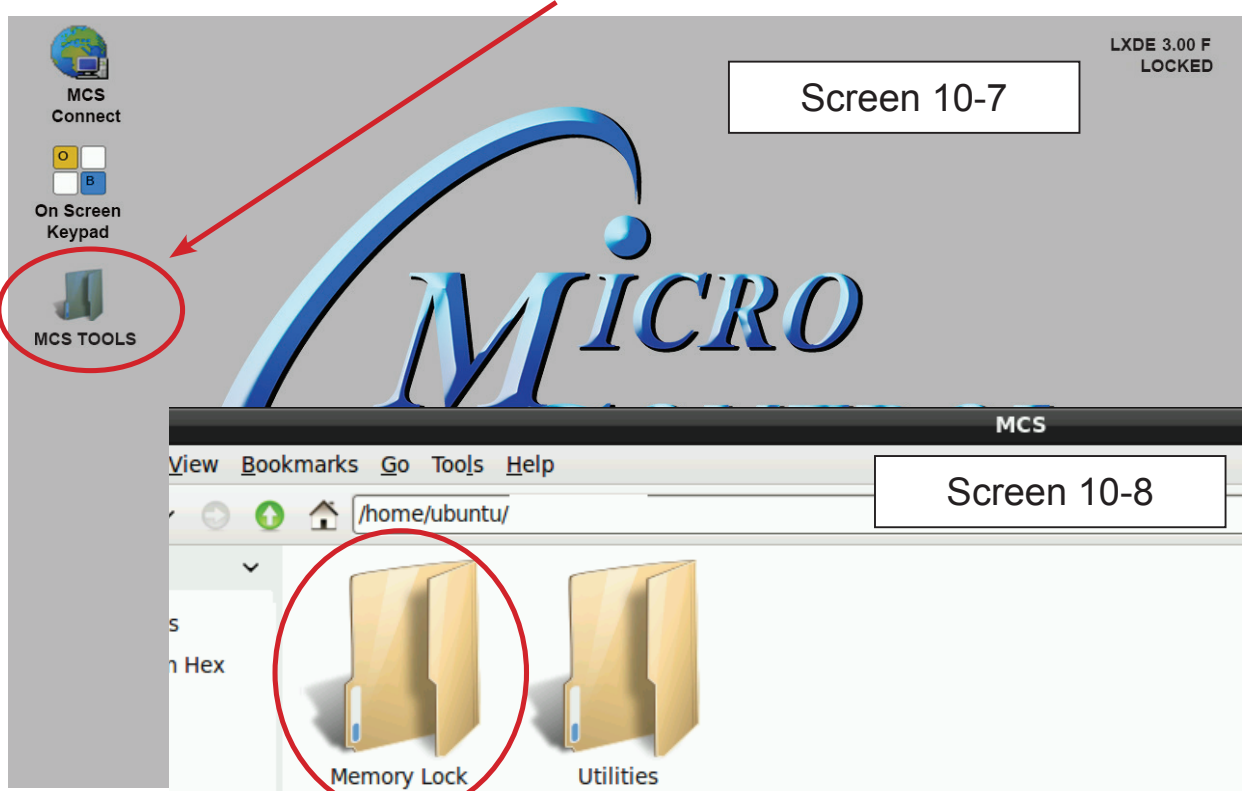
3. Next screen is the setup screen for communicating with your controller or PC. You can change the "Com port" and "Baud Rate" depending on how you are communicating with your controller or computer.



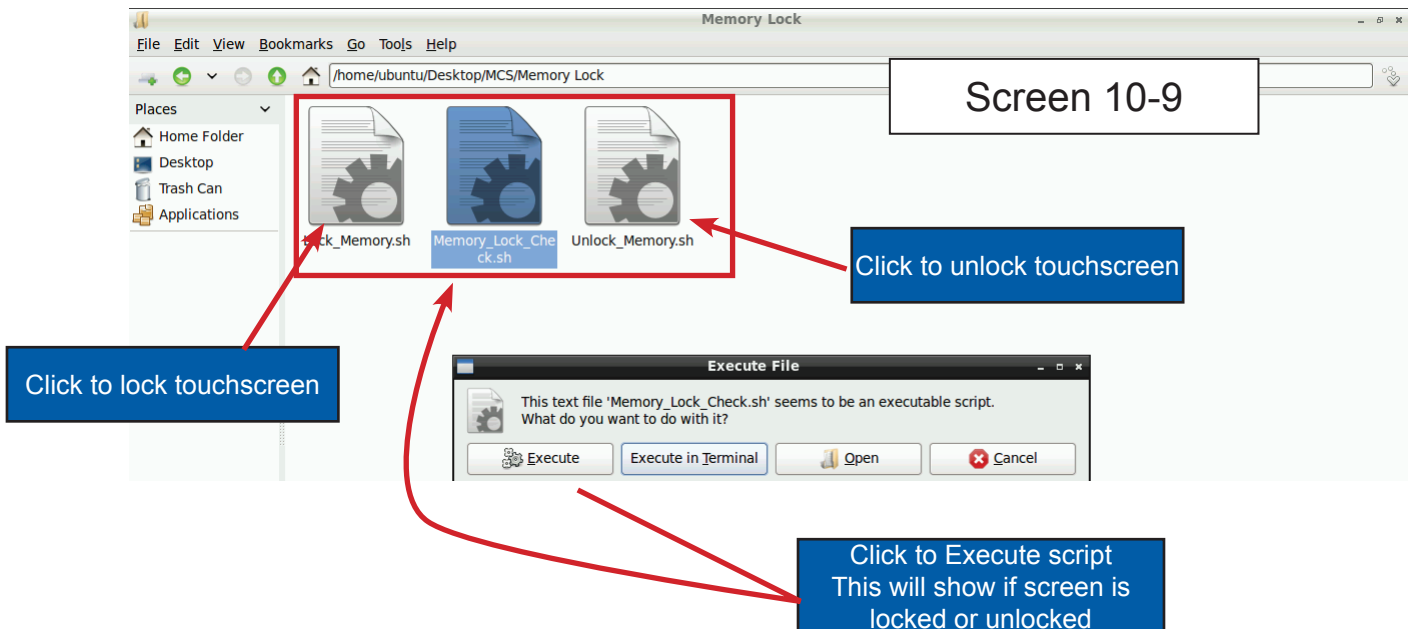
Chapter - 11. Memory Lock Screen

11.1. MEMORY LOCK SCREEN CHECK

1. Navigate to the 'Desktop', click on '**MCS TOOLS**'.



2. Click on the '**Memory Lock folder**' screen 10-8
3. Next screen shows 3 files which control the '**locking**', '**unlocking**' and '**lock screen check**' as shown in screen 10-9.
4. Click on '**Memory Lock Check**' to see if your touchscreen is 'Locked or Unlocked'.



Chapter - 12. Calibration Software

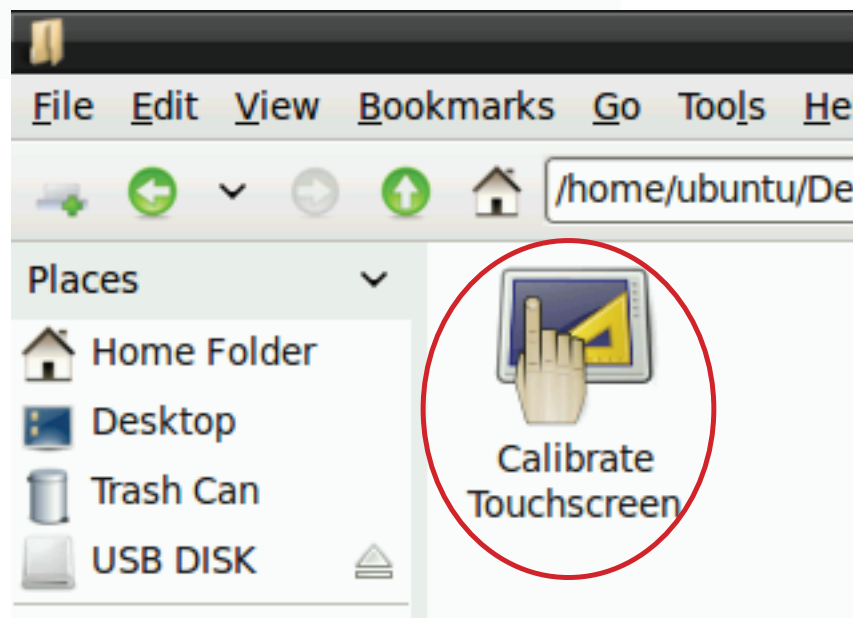
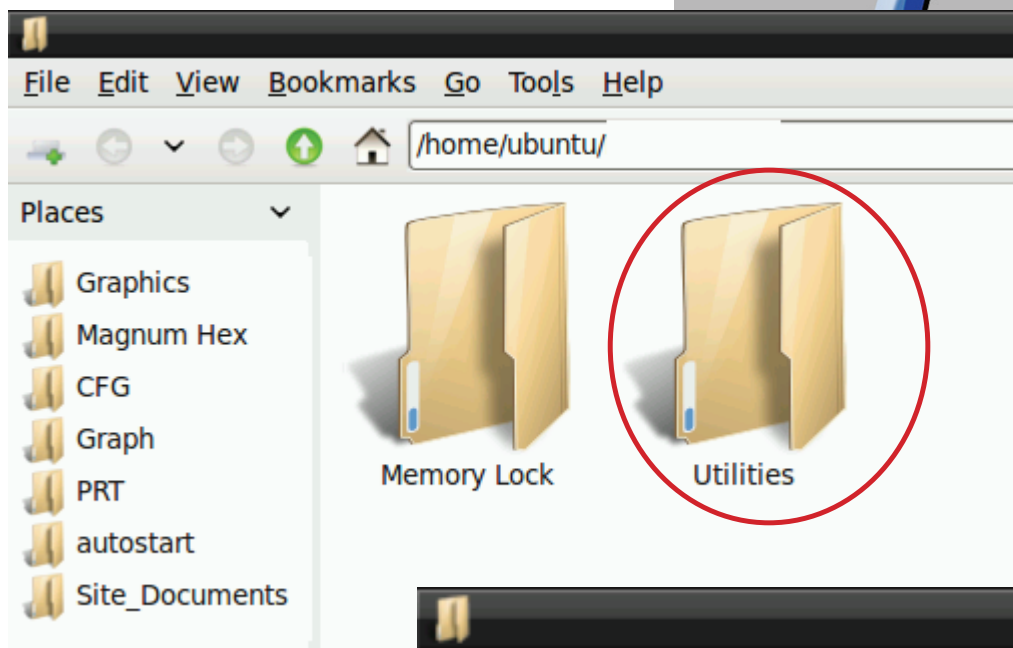
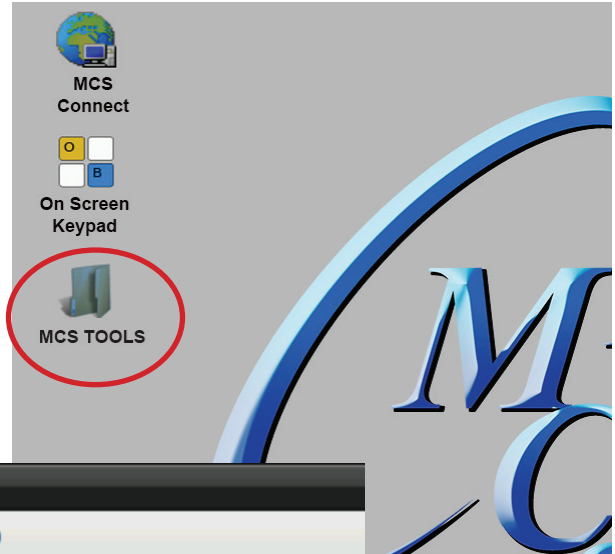
12.1. USING CALIBRATING SOFTWARE



NOTE: SCREEN MUST BE UNLOCKED TO CALIBRATE. (see section on unlocking touchscreen).

At the main menu:

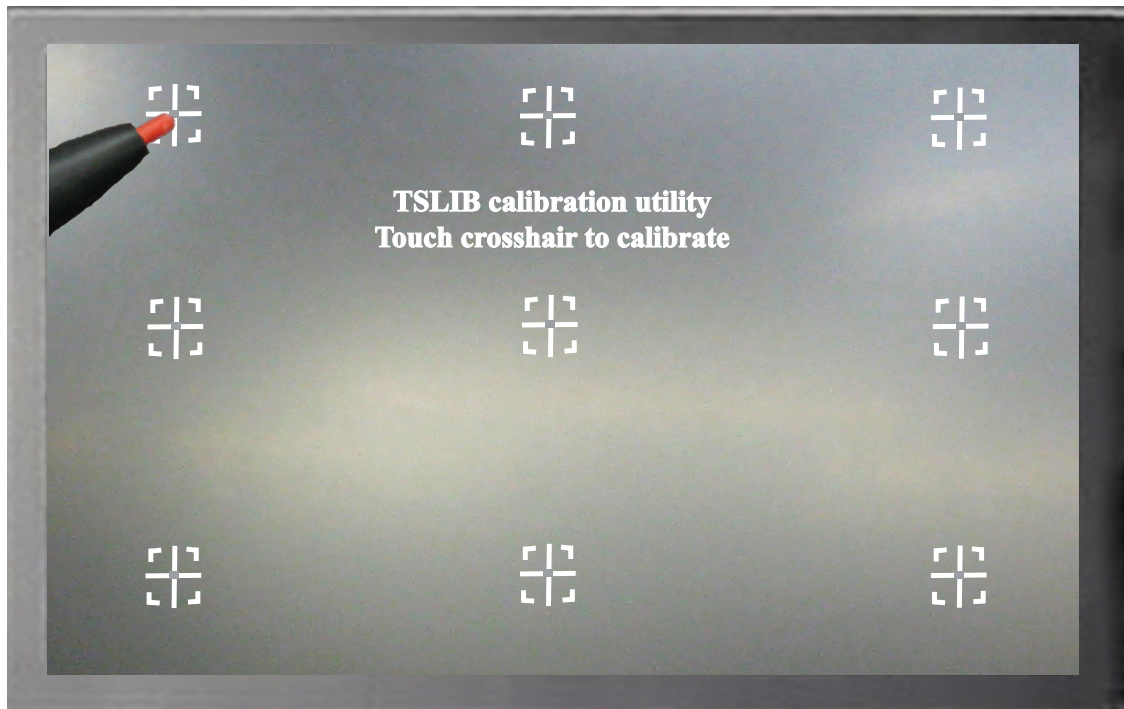
1. Click on the **'MCS TOOLS folder'**
2. Click on the **'Utilities' folder'**
3. Click on **'Calibrate Touchscreen'**
4. **Calibration software will open, see next page.**



12.2. CALIBRATING WITH NEW 9 POINT SOFTWARE ON Touch 7 and 15.4

The screen below shows calibration for the touchscreens.

(only one target point will display at a time)



The first target point will display on the left top side of your screen.

1. Position your stylus pen point as close to the center of the target as you can.

BE CAREFUL NOT TO PRESS ON THE SCREEN IN OTHER AREAS.

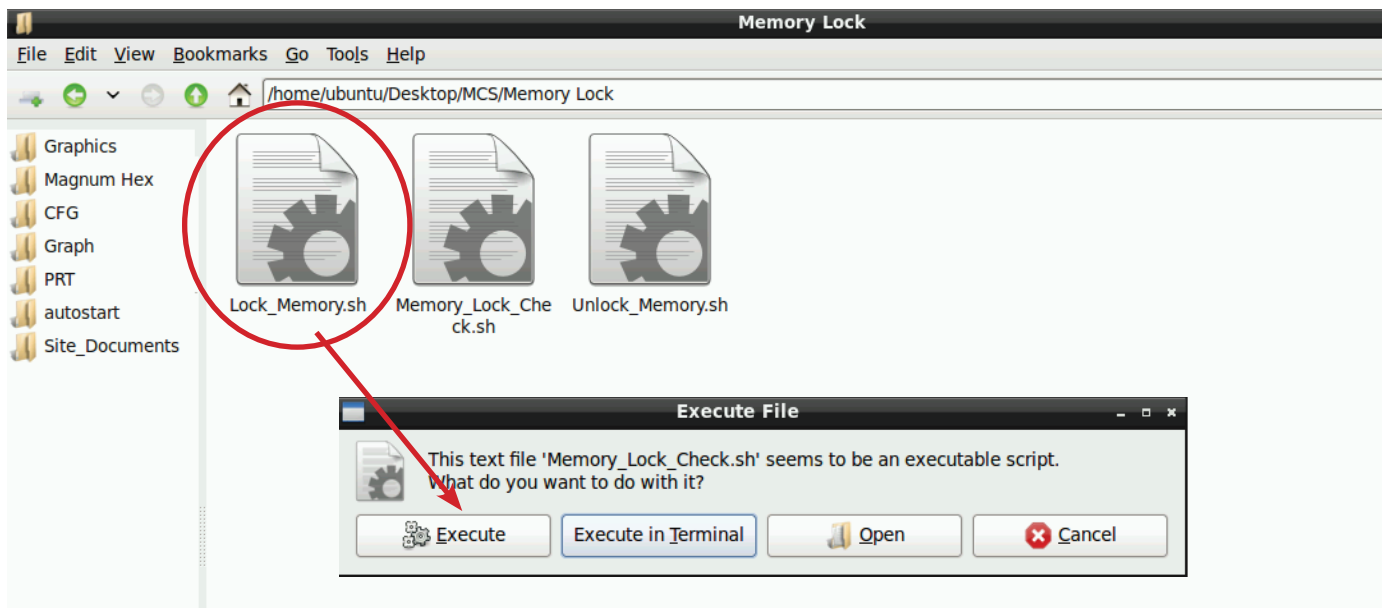
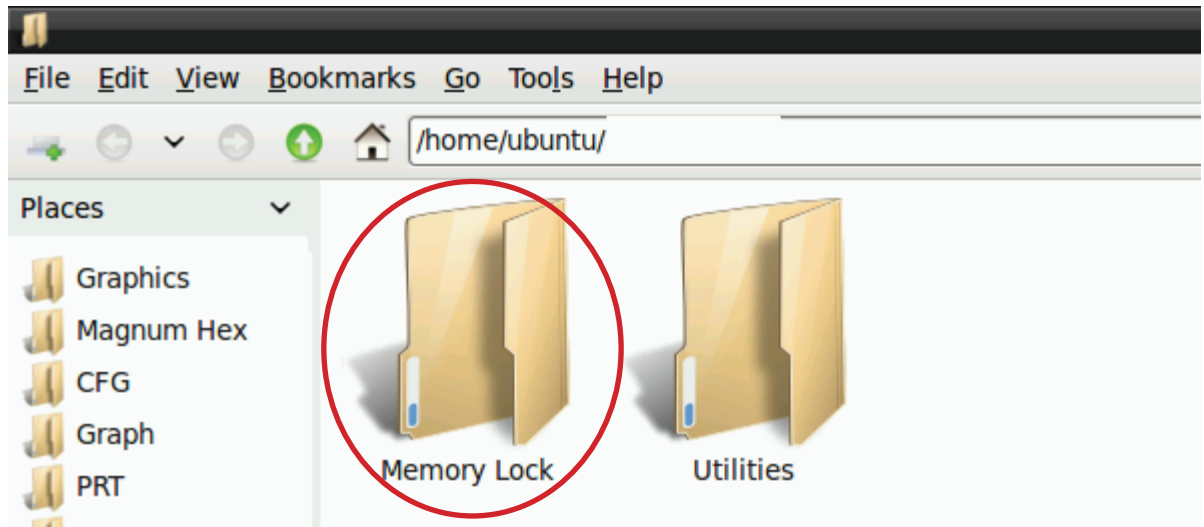
2. After touching the left top target, the next target will appear in the top center and continue to display as per the screen below until all '**9 target points**' have been calibrated.

If satisfied with the calibration, go to the next step. If needed, rerun the calibration tool.

3. After you calibrated all 9 points on the screen you will be returned to the desktop.

12.3. LOCKING THE TOUCHSCREEN AFTER CALIBRATION

1. Click on **'MEMORY LOCK'**, **CLICK ON 'LOCK MEMORY'**, click on **'EXECUTE**



When the Lock Memory file is pressed it does an automatic reboot and autostarts MCS-Connect.

Chapter - 13. New MCS-GRAPHICS File

This will walk you through loading a new Graphics file to your touchscreen flash memory.

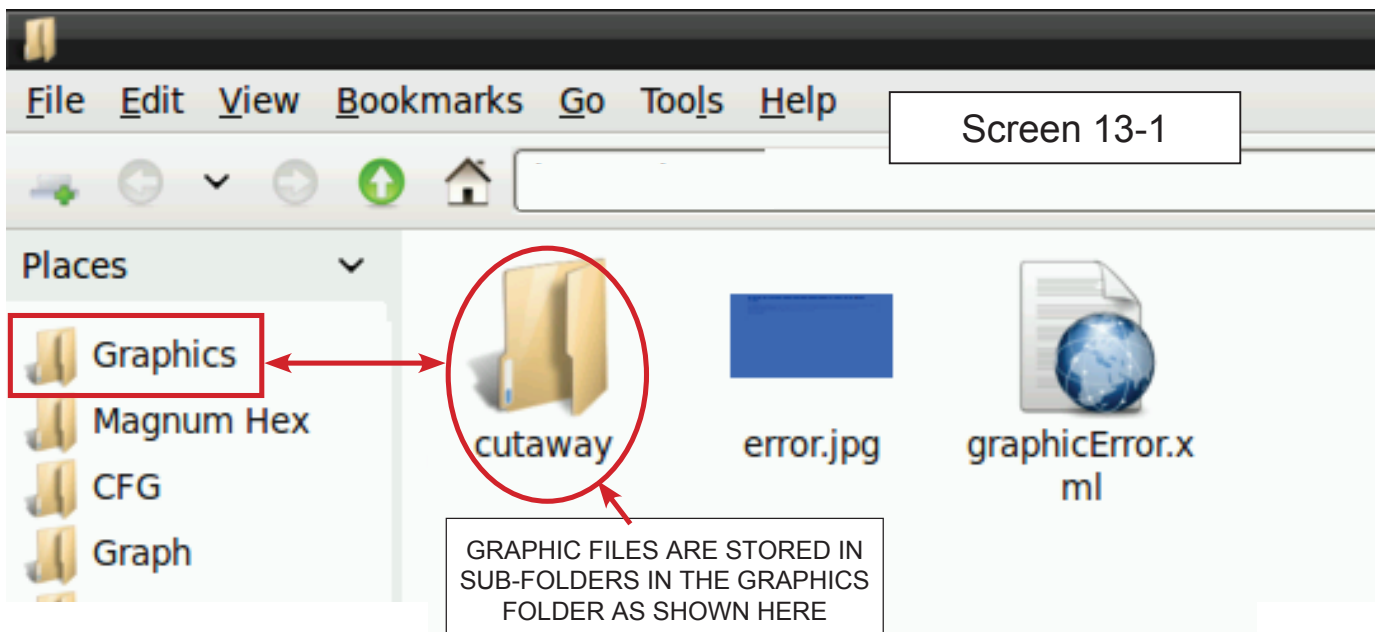
This assumes you have a Touchscreen which came with your controller and you are modifying just your graphics.

13.1. Touchscreen Graphics - Installed in your Flash Memory

The Graphic package has been installed on the Touchscreen Flash memory located as shown in screen 13.1. If you need to replace this file, make sure you replace it to this location.

13.1.1 Where the File is stored

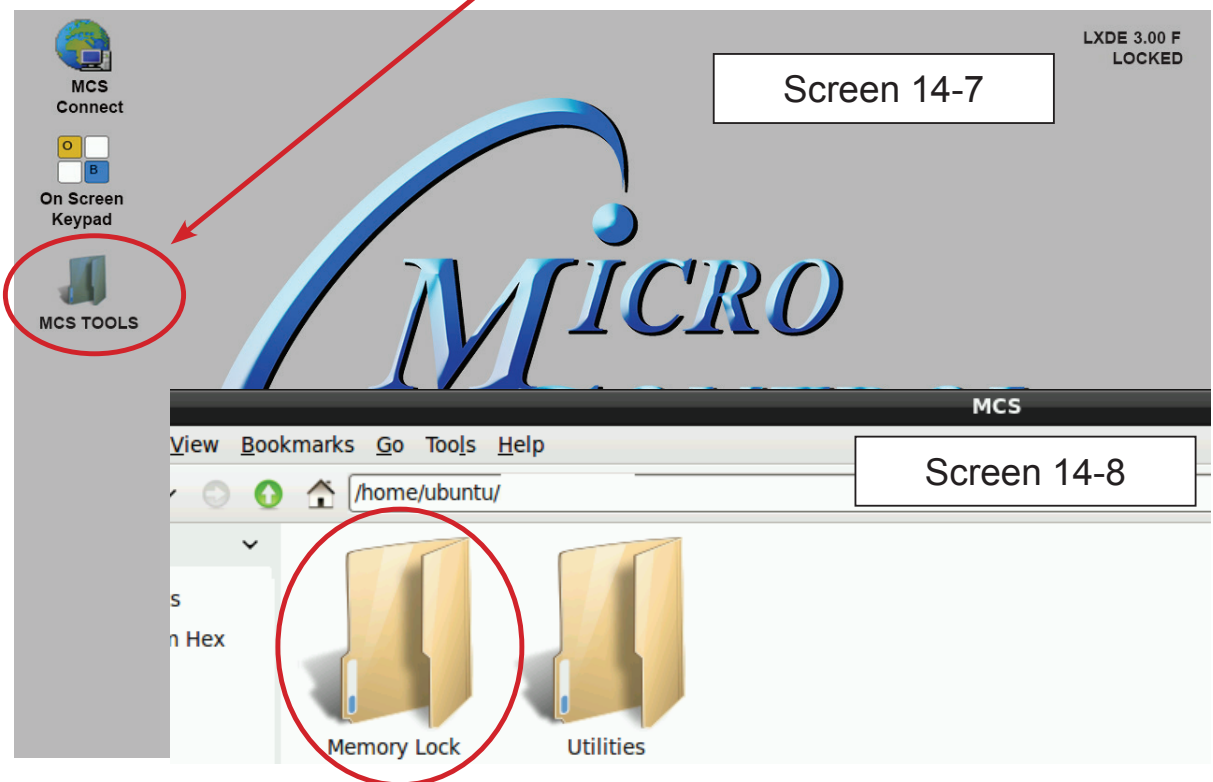
1. Navigate to the **'Desktop' on your touchscreen.**
2. Click on **'MCS TOOLS'** to open this folder and sub folders.
 - a. Bookmarks will appear on the left of your screen.
 - b. Click on the **'GRAPHICS'** folder.
 - c. Locate your Graphics sub folder (this example shows 'CUTAWAY' which contains the files needed for the graphics on the example touchscreen, **your file will have a different name.**
 - d. If your are going to update or make changes to your 'Graphics'
 - e. **MAKE A BACKUP OF ALL THESE FILES to a USB DISK**
 - f. **See next section in this manual on how to do this replacement.**



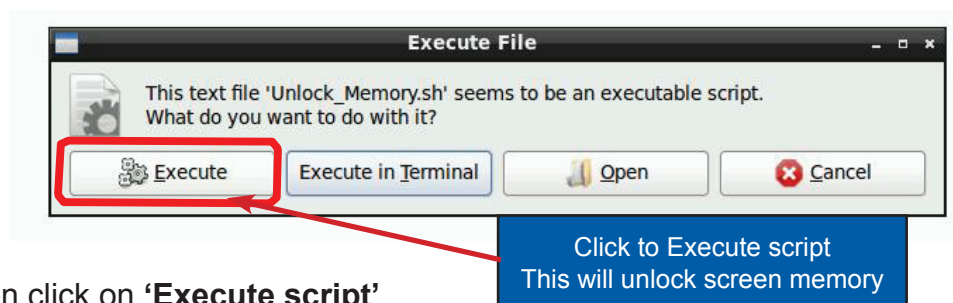
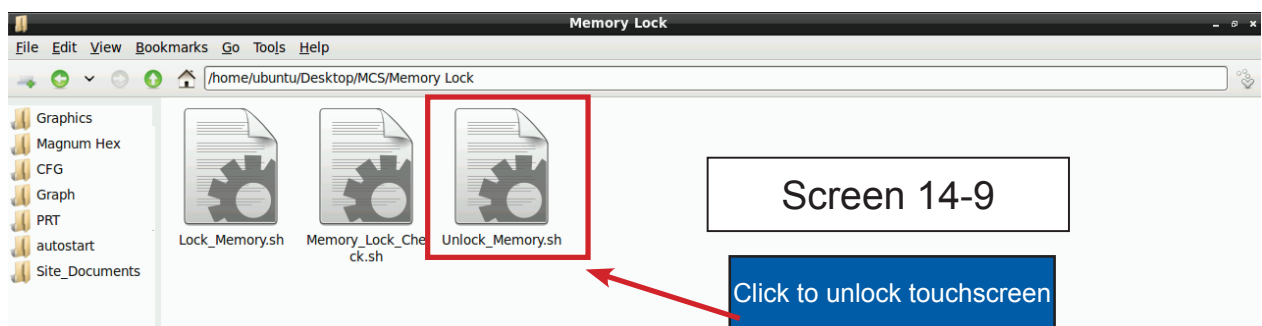
Chapter - 14. Replacing Graphics File

14.1. Start by Unlocking the Touchscreen.

1. Click on the 'MCS TOOLS' folder on the desktop, 'MEMORY LOCK' sub folder will appear when this file is opened. See screen 14-7 below.



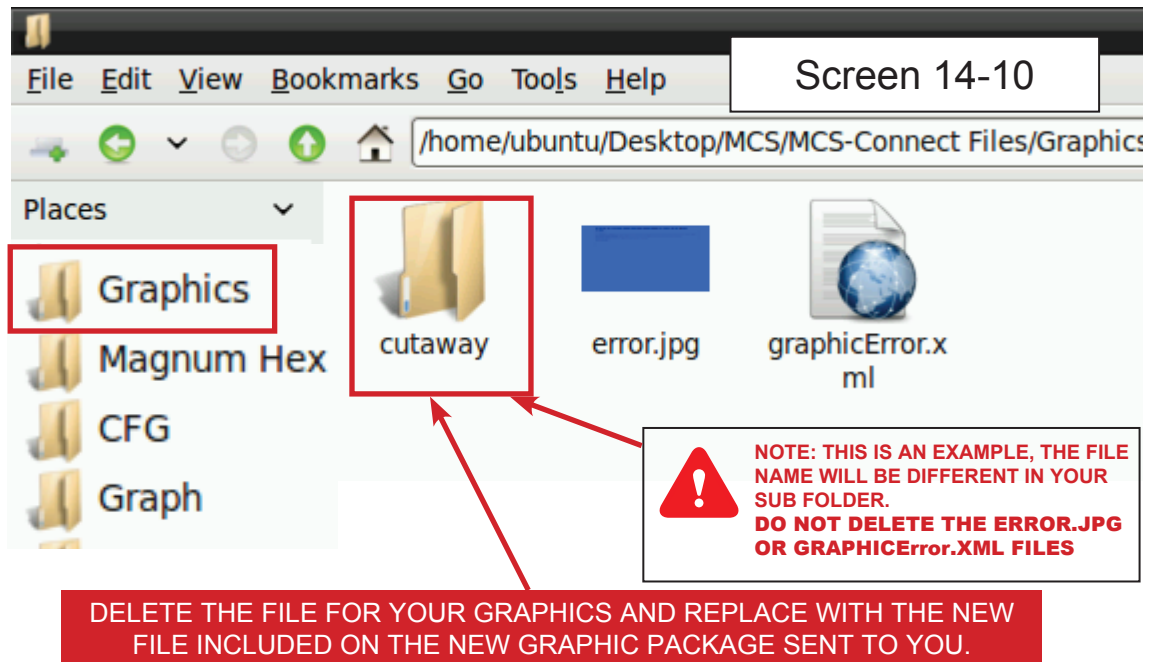
2. Double click on the 'Memory lock folder', screen 14-8.
3. Double click on the 'Unlock Memory icon', screen 14-9



4. Next screen click on 'Execute script'.
5. Touchscreen will perform a 'ReStart'

14.2. Next step 'RESTARTING TOUCHSCREEN'

1. Wait for the restart, than click on the '**MCS TOOLS**' again on the desktop
2. Double click on the '**GRAPHICS**' on the left in the bookmarks when this screen opens.



14.2.1 NEXT STEP - DELETE THE SUB FOLDER FOR YOUR GRAPHICS



IF YOU HAVE NOT MADE A BACKUP OF THE FILES IN GRAPHICS FOLDER - STOP

BACKUP NOW TO A FORMATTED USB STICK AND SAVE THESE BEFORE PROCEEDING TO THE NEXT STEP.

1. Delete the existing Graphic file in the graphics folder
2. In this case the example shows 'CUTAWAY' for graphics sub folder.
3. **DELETE THIS SUB FOLDER ONLY, CLICK WITH STYLES PEN, HOLD AND A DROP DOWN MENU APPEARS, 'DRAG TO MOVE TO TRASH'**

NEXT STEP FOR INSTALLING THE NEW GRAPHICS FOLDER

Continue to next page.

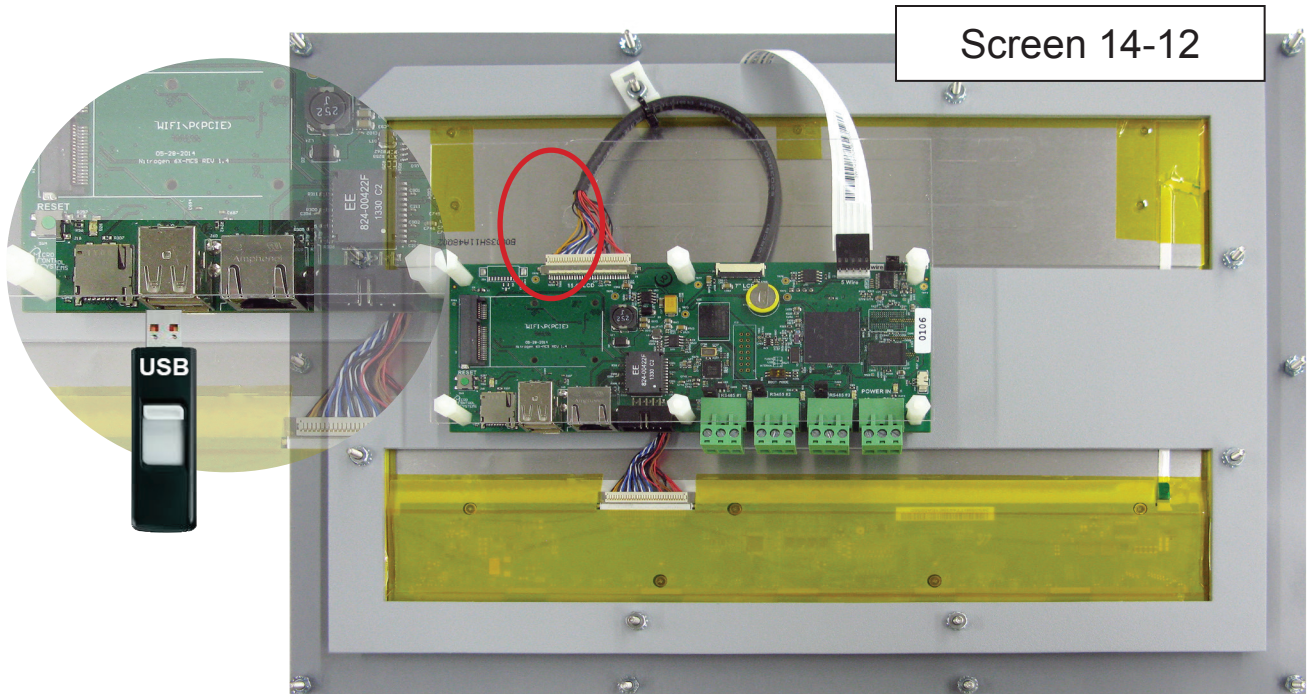
14.3. THE NEW GRAPHIC FILE

SUPPLIED BY MCS OR YOUR OEM on a USB STICK (or downloaded)

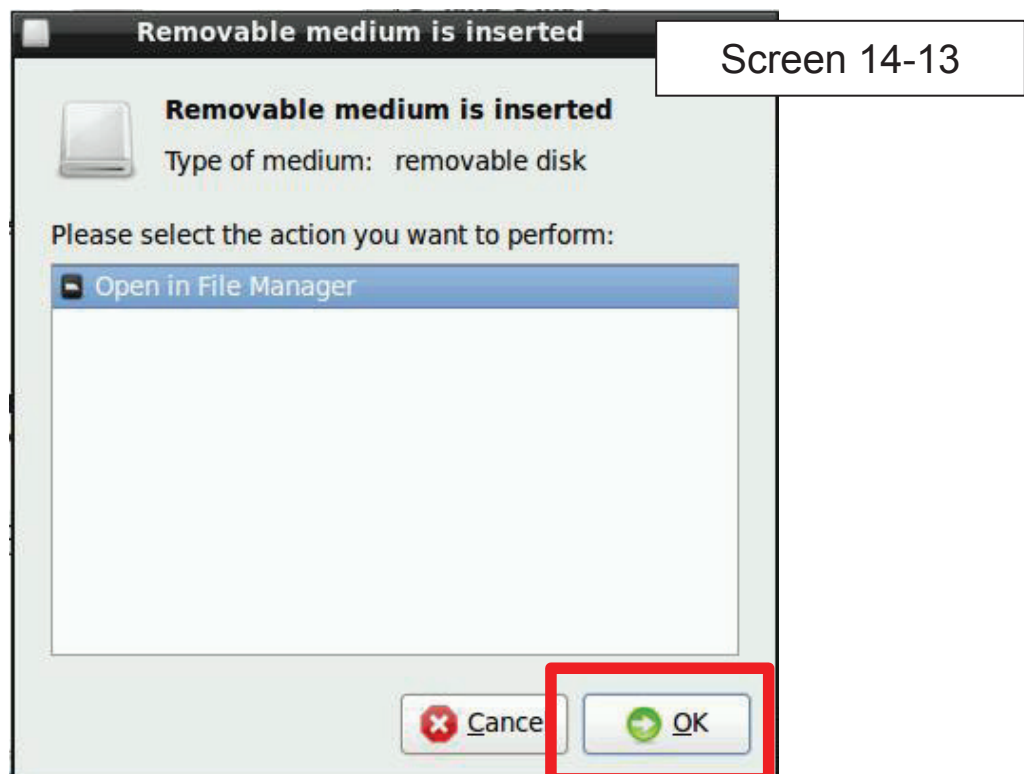
If you received the 'New Graphics file' on a supplied USB STICK, proceed to the next step.

If you need to download the file, save it to a new formatted USB STICK.

1. Plug it into the back of your touchscreen in any of the two available USB Slots (See screen 14-12 below).

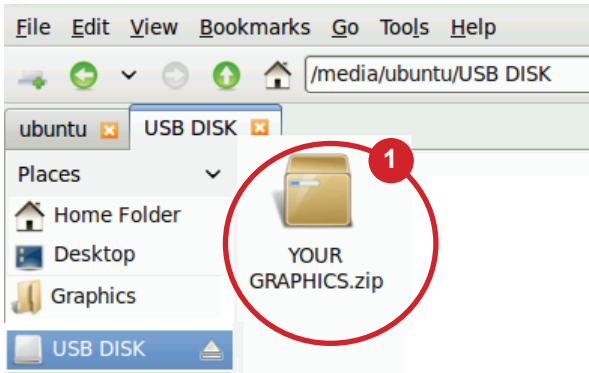


2. Once plugged in you should see a file manager prompt (screen 14-13). Click OK.



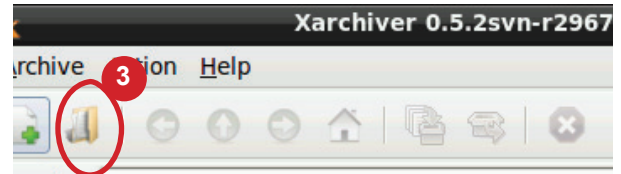
14.4. THE NEW GRAPHIC FILE

- 1 Double Click on the **'Your Graphics.zip file'** (that you were supplied on a USB disk or you downloaded).

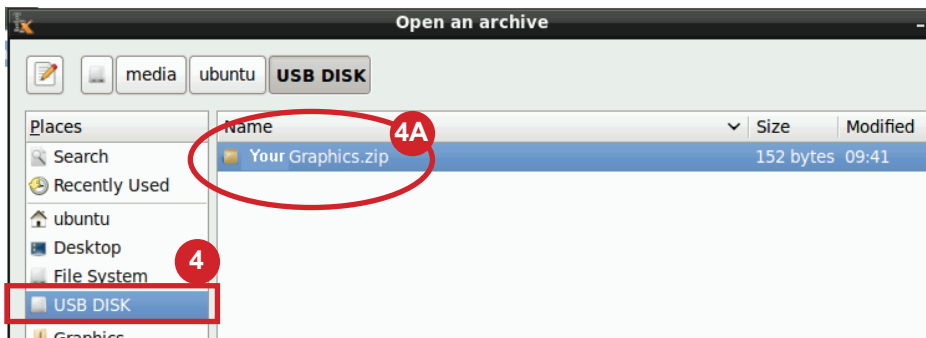


- 2 The Graphics zip file will open with **Xarchiver**, a program that can extract zip files in Linux.

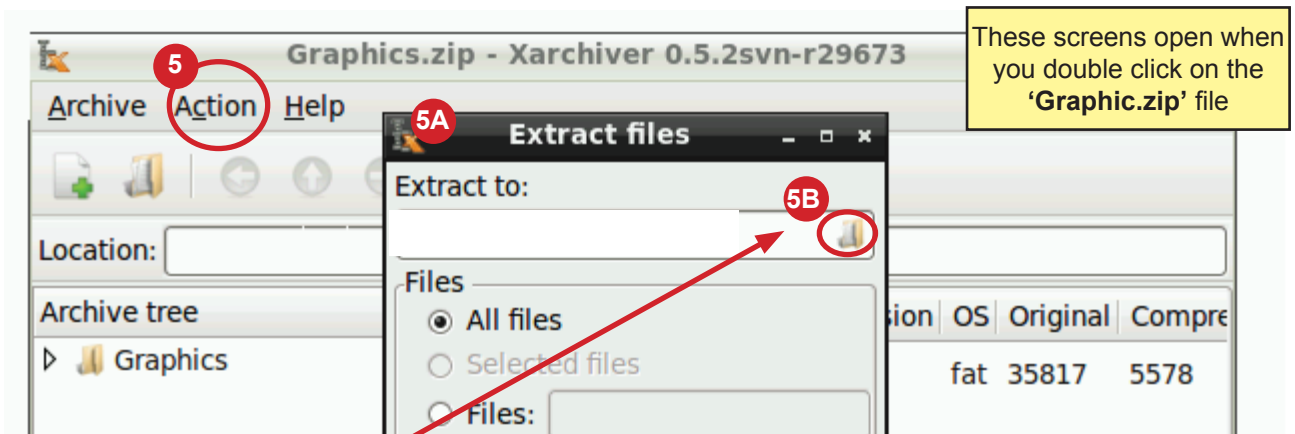
- 3 The Xarchiver will open, click on the folder as shown in step 3 to search for the new graphics file.



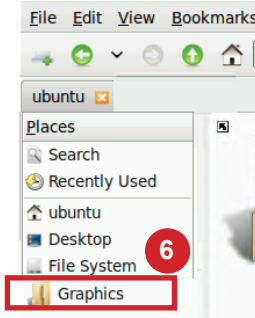
- 4 Click on USB drive in Bookmark, click on **'YOUR GRAPHIC ZIP' (4A)** folder located on the USB drive as shown in step 4, **DOUBLE CLICK OR CLICK TO OPEN.**



- 5 Click on the **'Action'** (5) button on top of Xarchiver screen. A window will appear, with options - CLICK 'EXTRACT'



‘A DROP DOWN WINDOW WILL APPEAR (5A), click on ‘FOLDER ICON’ on right side (5B)’.



6A

The screen below will appear, select the ‘**GRAPHICS**’ bookmark on the left side of the screen. Double click or click to open. This is the folder where you will copy the new graphics files to.

The destination in the extract files screen should match the wording as shown here.



`/home/ubuntu/Mcs-Connect/MCS/Graphics`

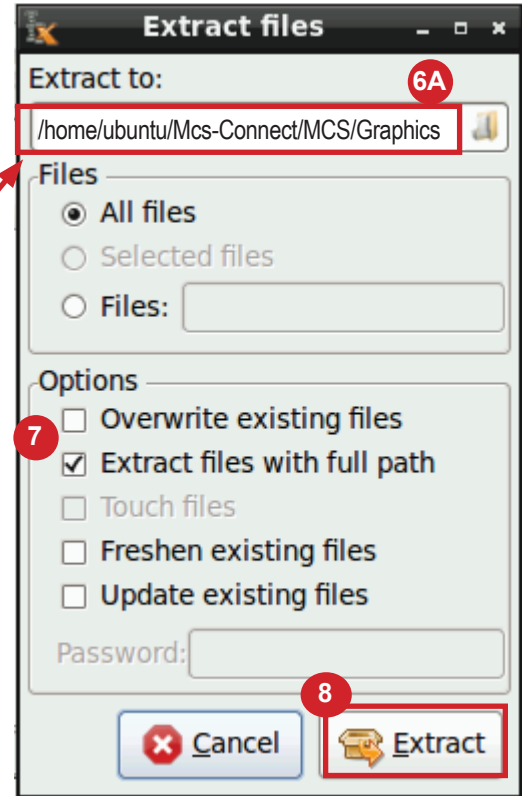
See note below for older versions of MCS-CONNECT

7

Click on the check box for “**Extract files with full path**”

8

Click on the **extract button** and the process is complete.



9

Close all windows so you are looking at the desktop.

Proceed to next section for re-locking the touchscreen.

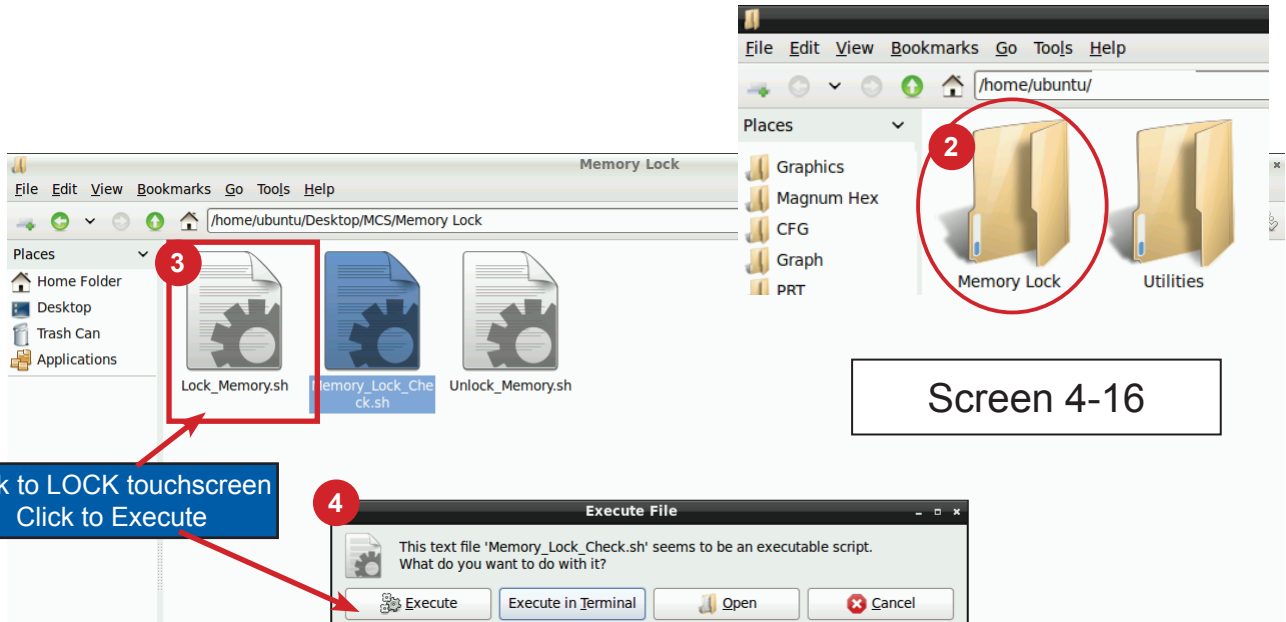


For MCS-CONNECT versions earlier than 17.14.05 the graphics directory is located at **`/home/ubuntu/MCS-Connect/Graphics`**

14.5. Re-Locking Touchscreen (follow the 4 steps below)



1. Double click the '**MCS TOOLS**' Icon on the Desktop.
2. Double click '**Memory Lock**' sub directory.
3. Double click '**Lock Memory**'.
4. Click '**EXECUTE**'. The touchscreen will reboot.



WHEN YOUR TOUCHSCREEN RESTARTS, YOU SHOULD BE ABLE TO DISPLAY YOUR NEW GRAPHICS.

IF YOU CANNOT VIEW THE NEW GRAPHICS PACKAGE, PLEASE CONTACT SUPPORT

Email: support@mcscontrols.com



APPLICATION NOTE

APP-108- Rev 1.4 MCS-TOUCH OPERATING SYSTEM UPDATE

Revision History

Date	Author	Revision	Description
10-12/14-15	DEW	Rev. 1.3	SD Card, Firmware, Calibration upgrade
12-30-15	DEW	Rev. 1.4	Change Name

Create SD Card MCS-TOUCH OPERATING SYSTEM UPDATE for MCS-TOUCH-7 and MCS-TOUCH-15.4

Revision 10-24-2017

Any questions regarding this release, contact:
support@mcscontrols.com

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(239)694-0089 FAX: (239)694-0031 www.mcscontrols.com

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Chapter - 15. MCS-TOUCH OPERATING SYSTEM UPDATE

How to create an SD card for MCS-DUAL or MCS-SOLO

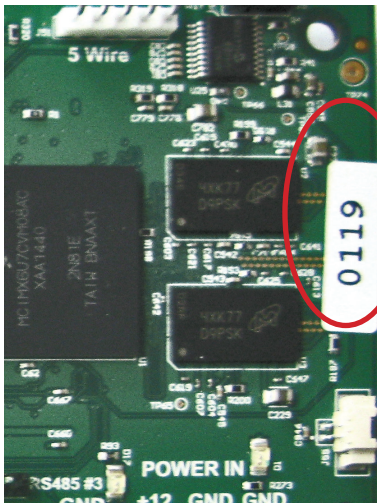
Tools you need before getting started



1. Micro SD Card 4gb or greater
2. Micro SD card reader
3. Location of Files from Micro Control Systems - see next page

NOTE: BE SURE TO COPY THE CORRECT FILES NEEDED TO UPDATE YOUR TOUCH-SCREEN- SEE BELOW:

YOU WILL RECEIVE THIS INFORMATION FROM MCS ALONG WITH A 'USER NAME AND PASSWORD'



Boards with a serial number of 107 and up must use the:
MCS-DUAL-SD-CARD
Programmed Memory Card for MCS-NIT6DL

Boards with Serial number of 106 and down must use the:
MCS-SOLO-SD-CARD
Programmed Memory Card for MCS-NIT6X

15.1. Plug card reader into your computer

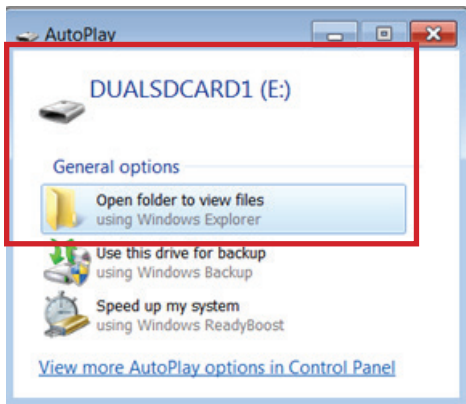
15.2. Plug SD card into the card reader



MCS-COMPACT Card Reader



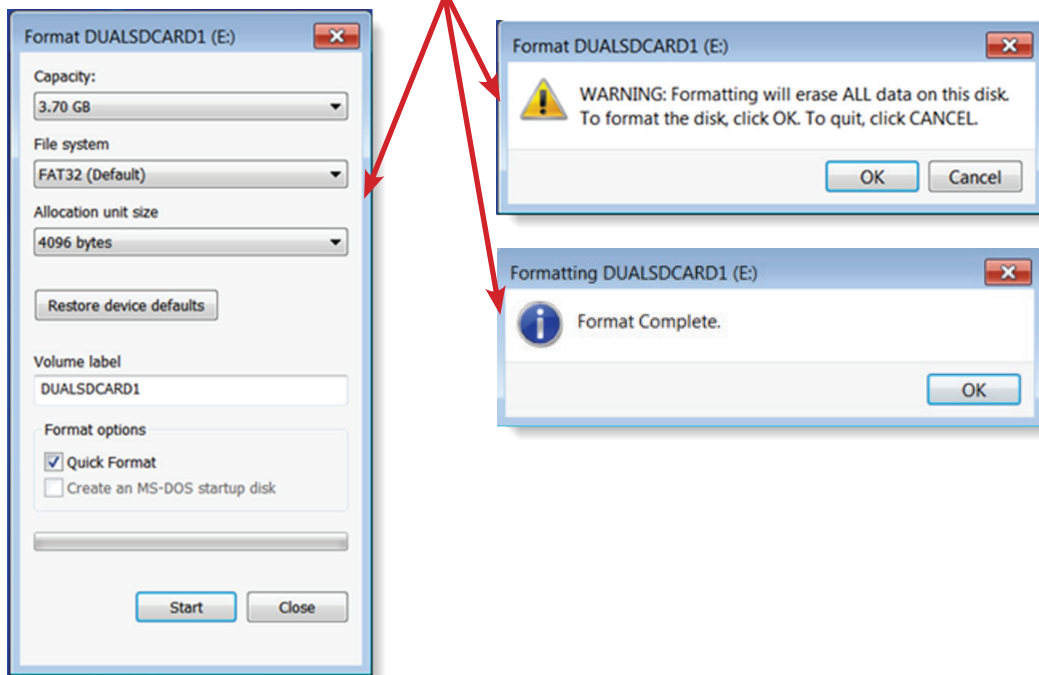
SD CARD - 4GB or greater



1. Popup will appear-open folder to view file
2. Right click on **'SD CARD READER'** (to reformat the Reader)
3. Click on **'FORMAT'**

continue onto next page

1. Accept the default format for the SD Card



1. PROCEED TO WWW.MCSCONTROLS.COM/SUPPORT/PCSOFTWARE/ MCS-TOUCH SOFTWARE UPDATE. Enter user name **mcs** and password **touchos (must be entered correct)**
2. Locate the correct folder for your touchscreen either **DUAL** or **SOLO**
3. Open **'Folder'** to view contents



NOTE: BE SURE TO COPY THE CORRECT FILES NEEDED TO UPDATE YOUR TOUCHSCREEN

4. **'Highlight'** all files (control A will highlight all files)
5. Right Click and click **'COPY'**
6. On left side of 'Window Explorer's screen' - Click on your SD card you just formatted
7. Right click on the **'SD card'**
8. Right click and **'PASTE'** files you just copied
9. After files are copied to your SD card,
10. Right click the SD card and click **'EJECT'** FROM YOUR COMPUTER

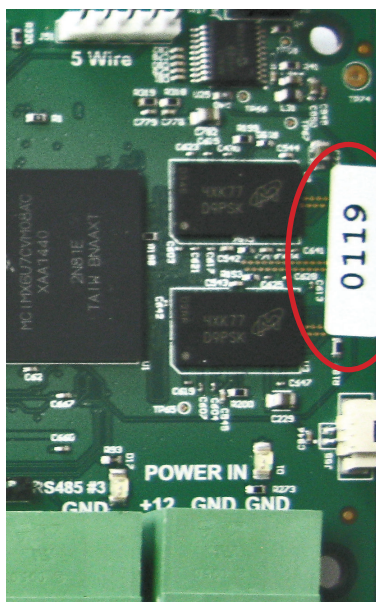
YOU ARE NOW READY TO MOVE TO THE NEXT STEP TO UPDATE YOUR TOUCHSCREEN TO THE NEW FIRMWARE

15.3. Important Instructions Prior to Updating your Touchscreen

1. You will need to copy your **'Graphic Files'** which are located in the:
'MCS-Connect' sub folder 'GRAPHICS'.
2. **Make sure you only copy the files located in the 'GRAPHICS' folder.**
3. **Copy the contents of 'AUTOSTART MCS-CONNECT'.**
4. Write down the network information stored in the **'NETWORK CONNECTIONS'**.
5. Make note of the correct SD card for your Touchscreen, as shown below.
6. **Double check the serial number located on the back of the Touchscreen.**

Gather tools to facilitate copying necessary files prior to upgrade.

- a. USB DISK for copying files to. (**START WITH A CLEAN DISK, NO FILES**)
- b. USB Mouse to make copying easier.
- c. SD Flash Memory card supplied by MCS with new software or the SD Memory card you create.



**Boards with a serial number of 107
and up must use the:**
MCS-DUAL-SD-CARD
Programmed Memory Card for MCS-NIT6DL

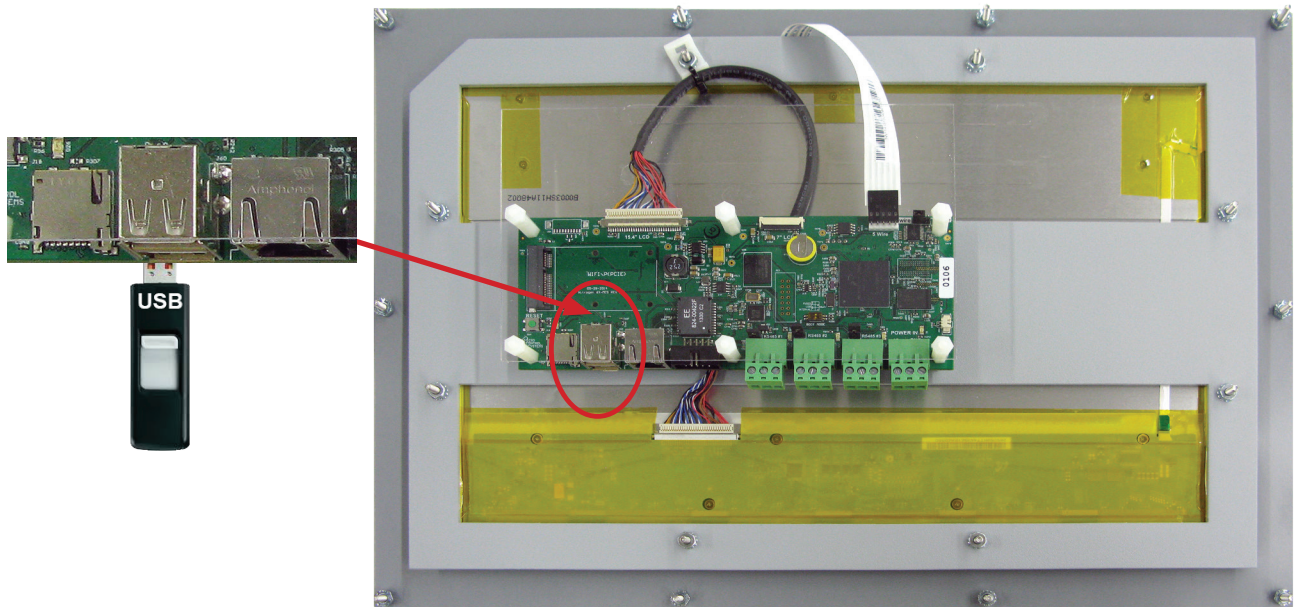
**Boards with Serial number of 106
and down must use the:**
MCS-SOLO-SD-CARD
Programmed Memory Card for MCS-NIT6X

15.4. SCREEN SHOWS OLD VERSION OF SOFTWARE



15.5. PLUG IN USB STICK AS SHOWN

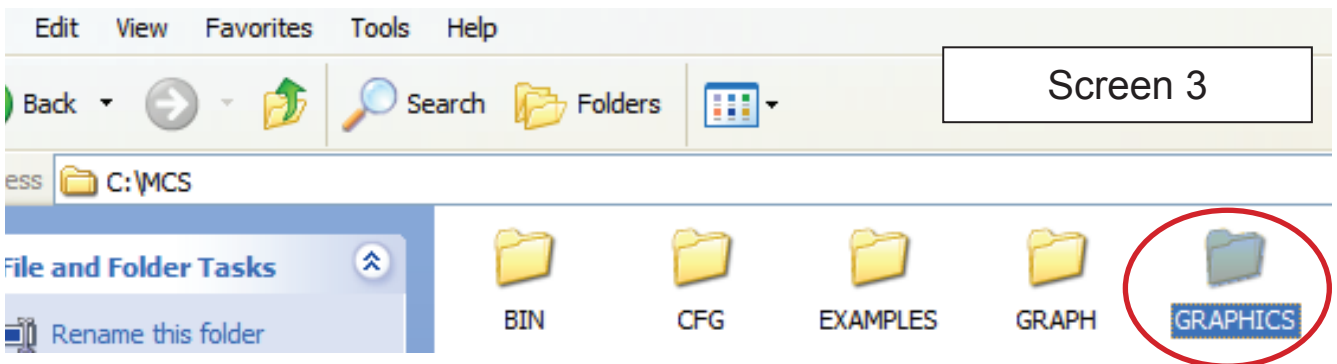
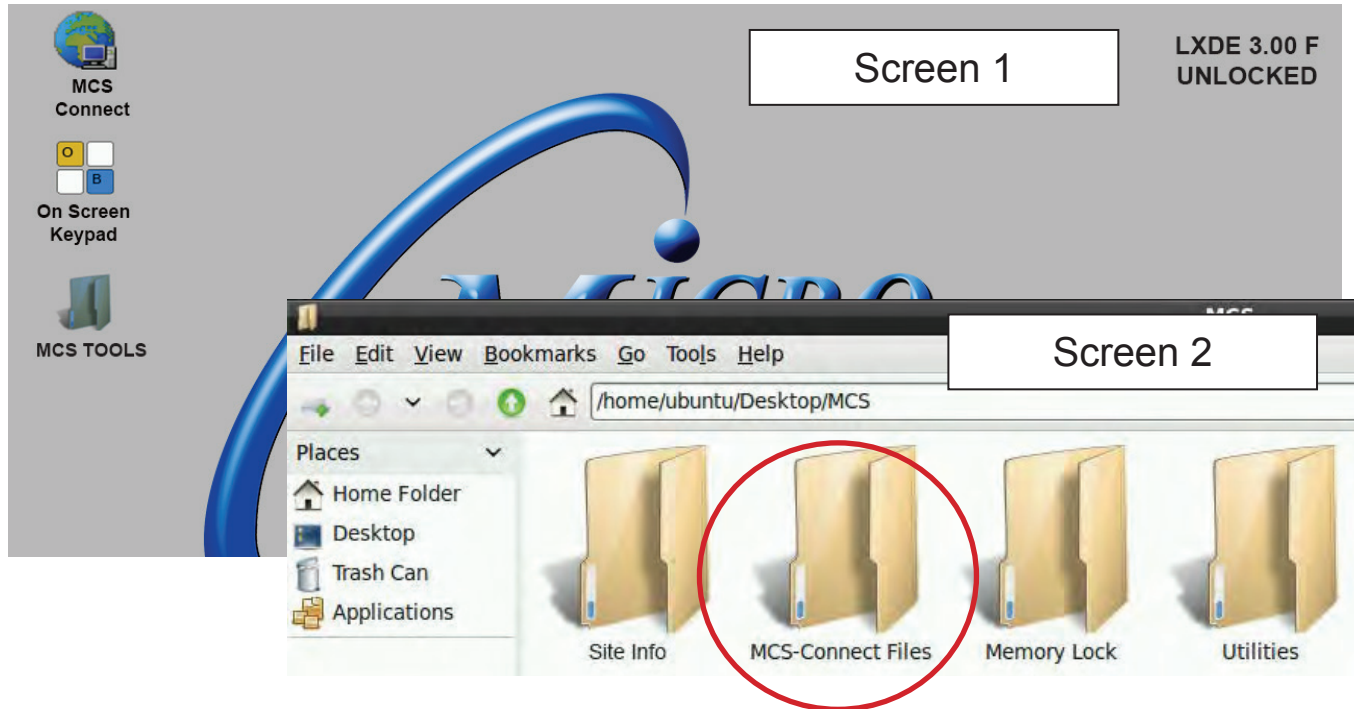
On back of touchscreen, locate the USB PORT as shown on screen 1 and insert a USB stick to copy necessary files prior to installing new 9 point calibrating software. There are two USB ports, the USB Mouse will be using one.



15.6. SAVING SITE GRAPHICS FILES (IMPORTANT STEPS-SAVING FILES THAT WILL BE LOST IN FIRMWARE UPDATE)



1. On the **'Desktop'**, double click on the folder labeled **'MCS'**.
2. Double click the sub folder labeled **'MCS-Connect Files'**



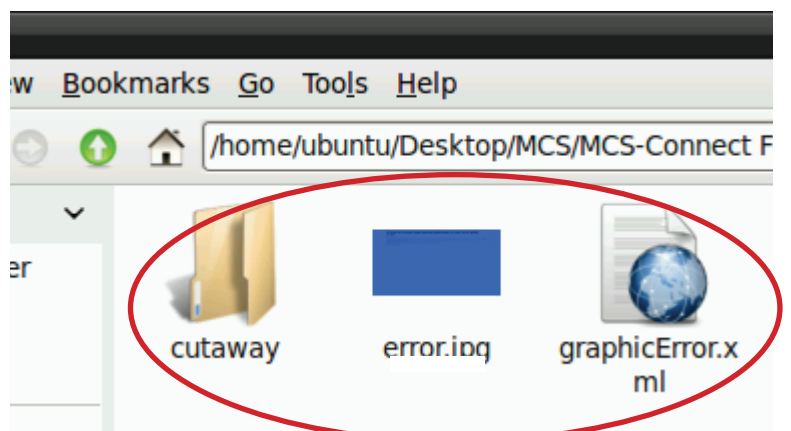
3. Double click the sub folder labeled **'Graphics'**.



4. In the Graphics folder, copy all files and folders available.

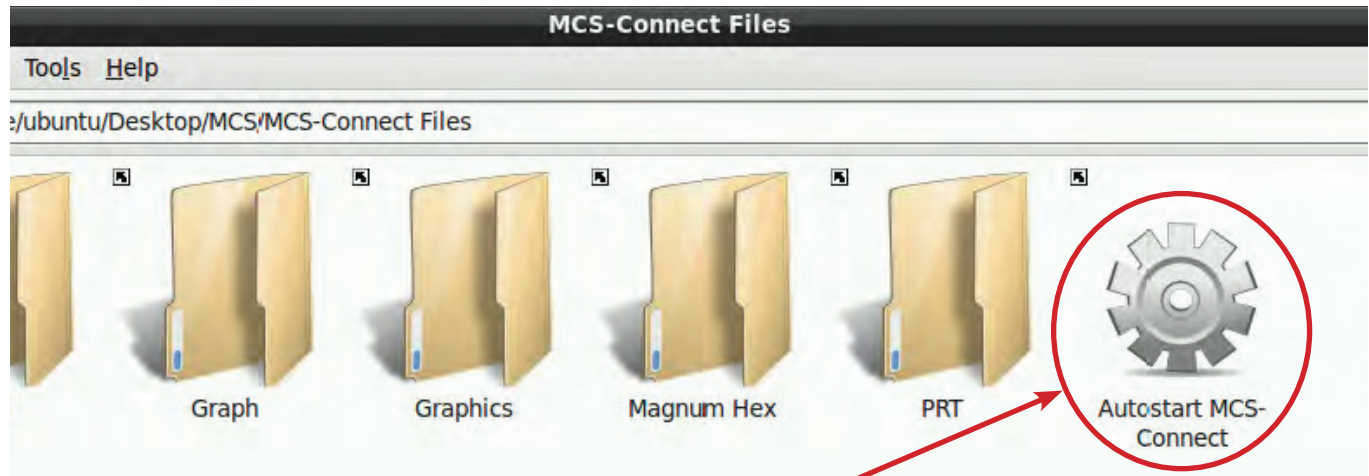
Do not copy the folder called graphics, copy the files inside the folder ONLY.

5. Paste all the graphics files onto the USB drive. (A shortcut will appear on the Desktop for the USB drive when it is inserted and it also will appear on the left side of the screen.)

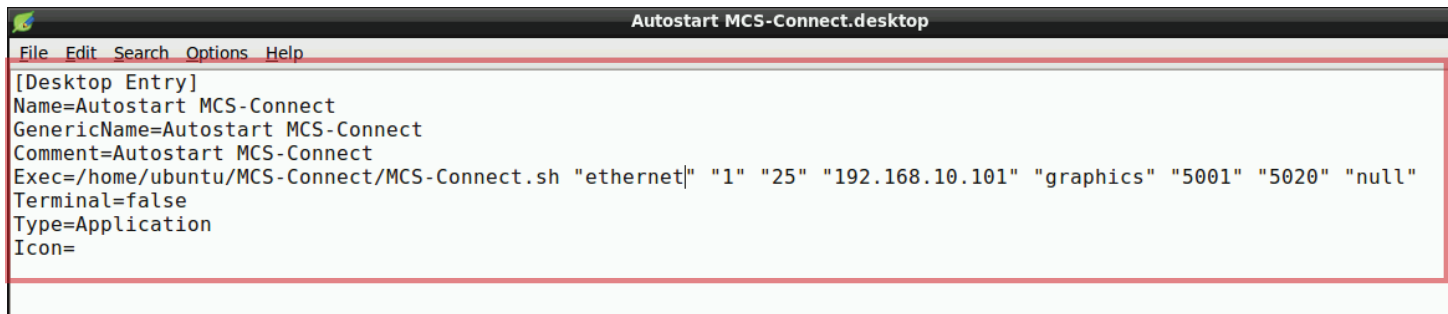


15.7. SAVING Autostart MCS-Connect file

1. On the **'DESKTOP'**, double click on the folder labeled **'MCS'**.
2. Double click the sub folder labeled **'MCS-Connect Files'**



3. Right click the file called **'Autostart MCS-Connect'**
4. Select **'Leafpad'**.

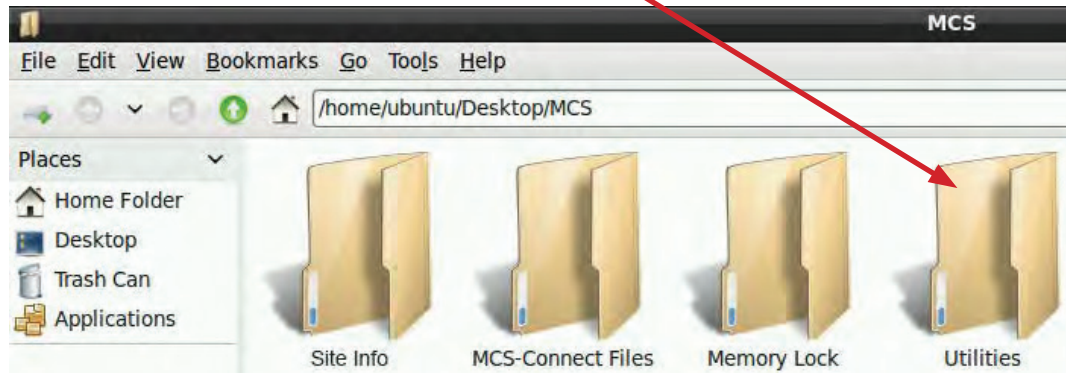


5. **Highlight and copy all text** as shown in the screen above.
6. Go to the **'USB drive'**
7. Right click and click **'New - Empty File - Name file 'AUTOSTART'**
8. Right click on **'AUTOSTART'** file that you created - select **Leafpad**.
9. Right click **'Paste the text from step 5 into this file'**
10. **Save the text file 'AUTOSTART' on the USB DRIVE.**

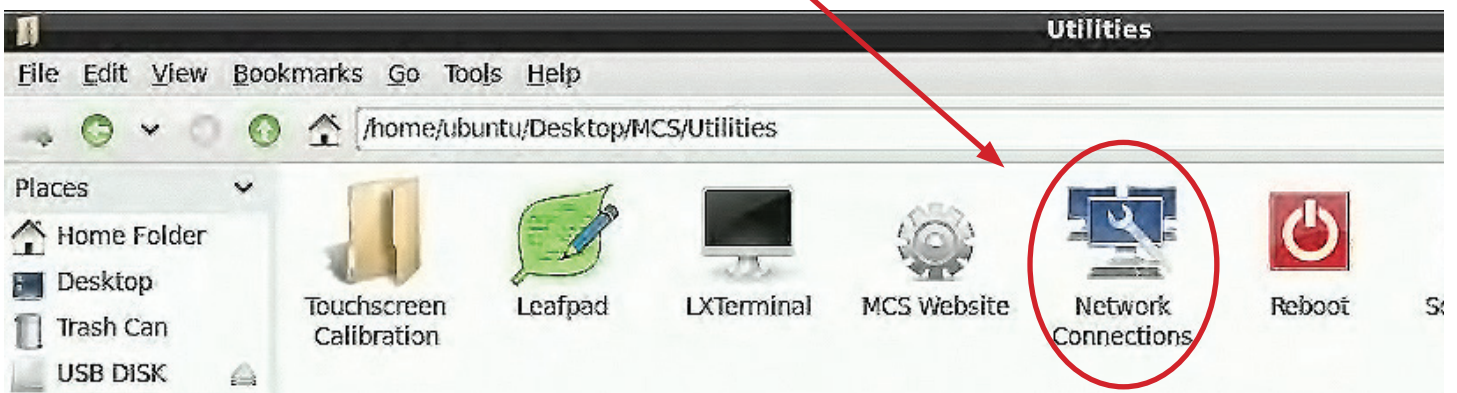
15.8. NETWORK ADDRESS

15.8.1 Utilities Folder

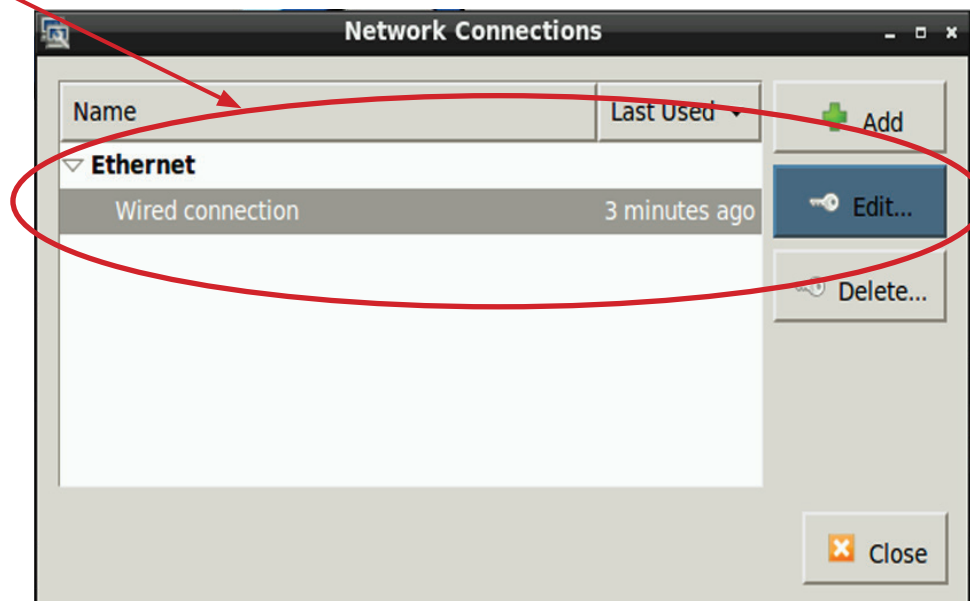
1. On the **'Desktop'**, double click on the folder labeled **'MCS'**.
2. Double click the sub folder labeled **'Utilities'**.



3. Double click on **'Network connections'**.
4. A window labeled Network Connections will open.



5. Select **'CONNECTION'** under Ethernet.
6. Click **'Edit'**.



- Click the IPV4 settings tab.
- WRITE DOWN IP ADDRESS, NET MASK AND GATEWAY ADDRESSES.
KEEP THIS INFORMATION.**



**AFTER LOADING NEW FIRMWARE
TOUCHSCREEN WILL REBOOT.**

**AFTER REBOOT, THE SYSTEM WILL
DEFAULT TO FACTORY SETTINGS ON
NETWORK AND YOU WILL LOSE YOUR
OLD SETTING.**

- Remove the USB DISK from
the Touchscreen.**

Editing Wired connection

Connection name: Wired connection

General | Ethernet | 802.1x Security | **IPv4 Settings** | IPv6 Settings

Method: Manual

Addresses

Address	Netmask	Gateway	
192.168.10.71	255.255.255.0	192.168.10.1	

DNS servers:

Search domains:

DHCP client ID:

Require IPv4 addressing for this connection to complete



**MAKE SURE YOU HAVE THE CORRECT SD CARD SUPPLIED FROM THE FACTORY.
IF YOU ARE MAKING YOUR OWN SD CARD MAKE SURE THE FILES ARE CORRECT THAT
YOU ARE COPYING.**

Boards with a serial number of 107 and up must use the:

MCS-DUAL-SD-CARD

Programmed Memory Card for MCS-NIT6DL

Boards with Serial number of 106 and down must use the:

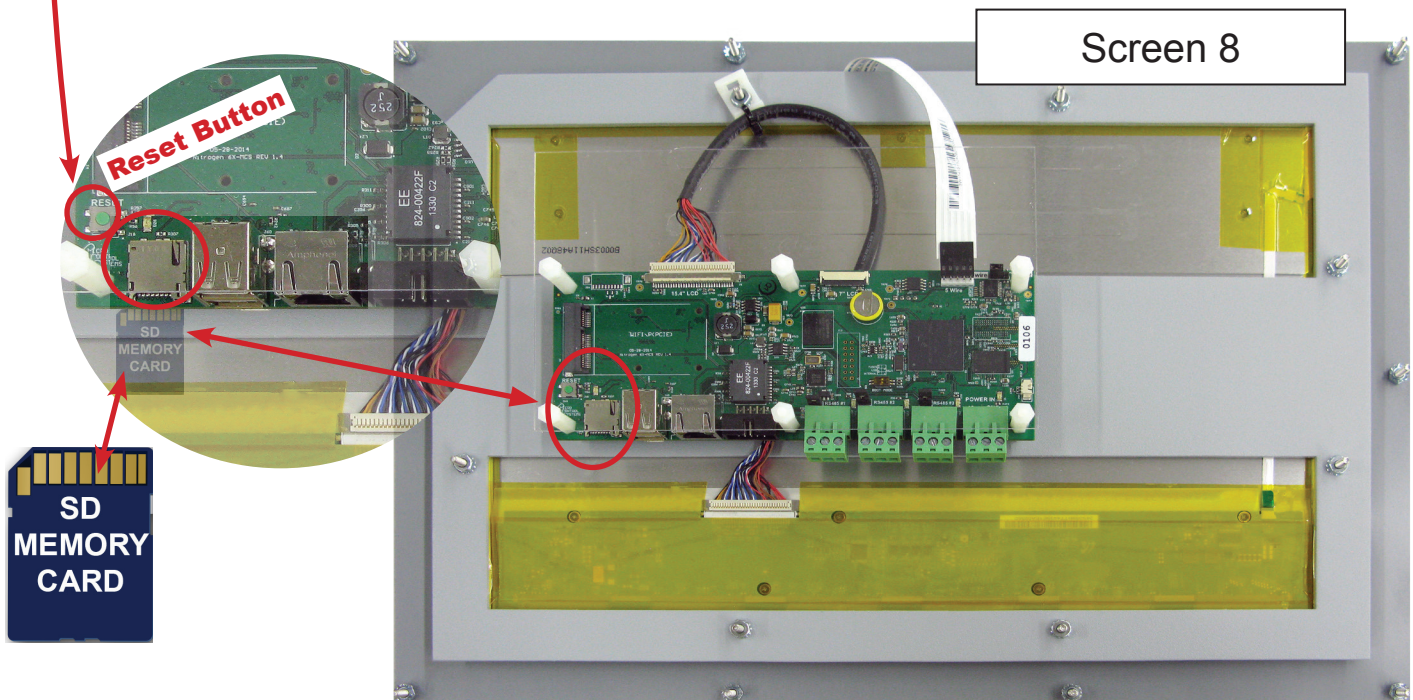
MCS-SOLO-SD-CARD

Programmed Memory Card for MCS-NIT6X

FIRMWARE UPGRADE

15.9. INSERT SD MEMORY CARD

1. Locate the 'SD slot for inserting the SD memory card' (See screen 8.)
2. Insert SD card supplied from MCS with new software.
3. Press '**Reset Button**' as shown on the below screen to start the reboot for the touchscreen.
4. **Loading of new software will take about 15 TO 20 minutes to load.**
5. Once the Screen is finished loading new firmware, it will flash then go to a **blank screen**.
6. **REMOVE THE SD CARD.**
7. **Press the 'Reset Button' to reboot.**



ONCE TOUCHSCREEN HAS REBOOTED

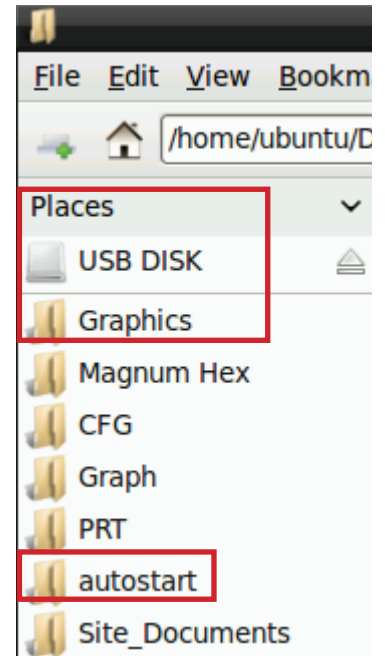
15.10. Unlocking Touchscreen

1. Double click the '**MCS TOOLS**' Icon on the Desktop.
2. Double click 'Memory Lock' sub directory.
3. Double click 'Unlock Memory'.
4. Click 'EXECUTE'. The touchscreen will reboot.

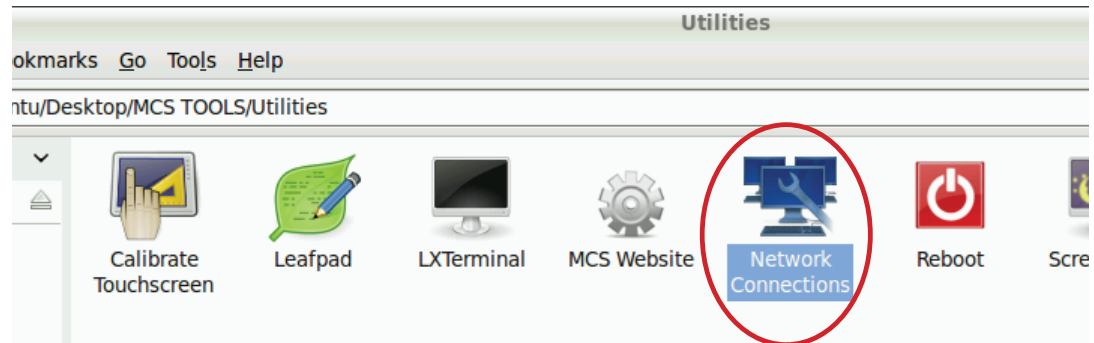


15.11. Replacing 'Graphic Files'

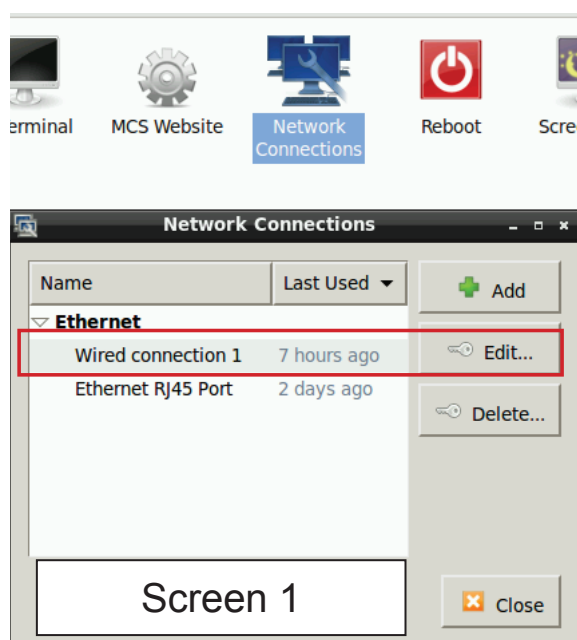
1. Plug in the '**USB DRIVE**'
2. Open the directory for the USB (Icon appears on left side of screen with bookmarks).
3. **Copy the graphics files that you placed on the USB DRIVE to the 'Graphics' folder located on the left side of the screen.**
4. Open the text file that was created on the USB DRIVE '**AUTOSTART**' with '**Leafpad**'.
5. Copy all the text from the '**AUTOSTART**' file from the USB DRIVE .
6. Open the folder '**autostart**' on left side.
7. Right click on the icon '**Autostart MCS-CONNECT**', open with '**Leafpad**', highlight the contents of file and paste the copied text file.
8. SAVE THE FILE.



15.12. Editing the Network Information



1. **Open the Desktop-->MCS TOOLS-->Utilities folder.**
2. Double click on ' **Network Connections**'.
3. **After loading the new firmware, you will notice in the Network Connections that two or more Ethernet connections will appear. You will need to delete the connections EXCEPT FOR 'ETHERNET RJ45 PORT'**
4. Click on '**WIRED CONNECTION**' and click edit, see screen 1 below.
5. Next screen, highlight the '**DEVICE MAC ADDRESS**' and delete, see screen 2 below, **PRESS SAVE.**
6. Next screen, screen 1, highlight '**WIRED CONNECTION 1**', click delete, close and save.

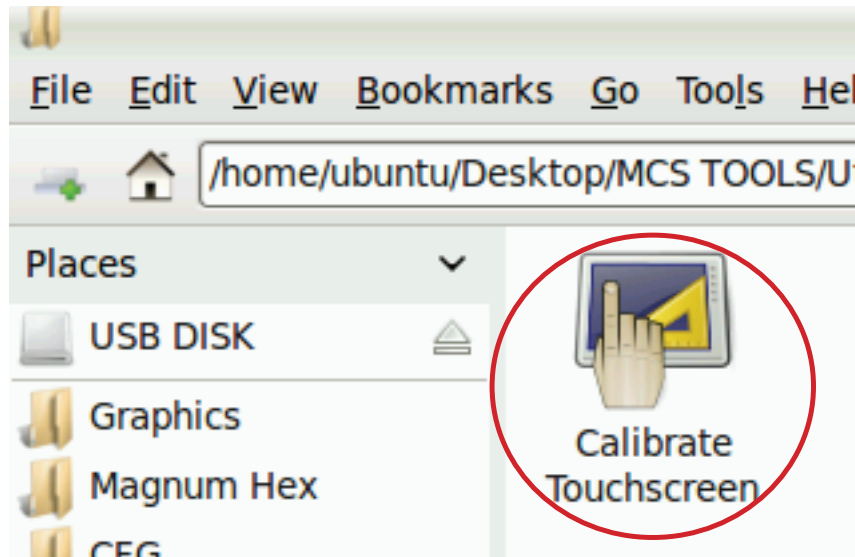


7. Next edit 'Ethernet Rj45 Port' to re-enter the correct **IP ADDRESS, NETMASK ADDRESS and GATEWAY ADDRESS. SAVE THE INFORMATION.**
8. **Set Device Mac address- (will end with (eth)), as seen in screen 2, SAVE FILE.**
9. **Click on 'Reboot' in the 'UTILITIES FOLDER'.**

The touchscreen has been updated and now needs to be calibrated.

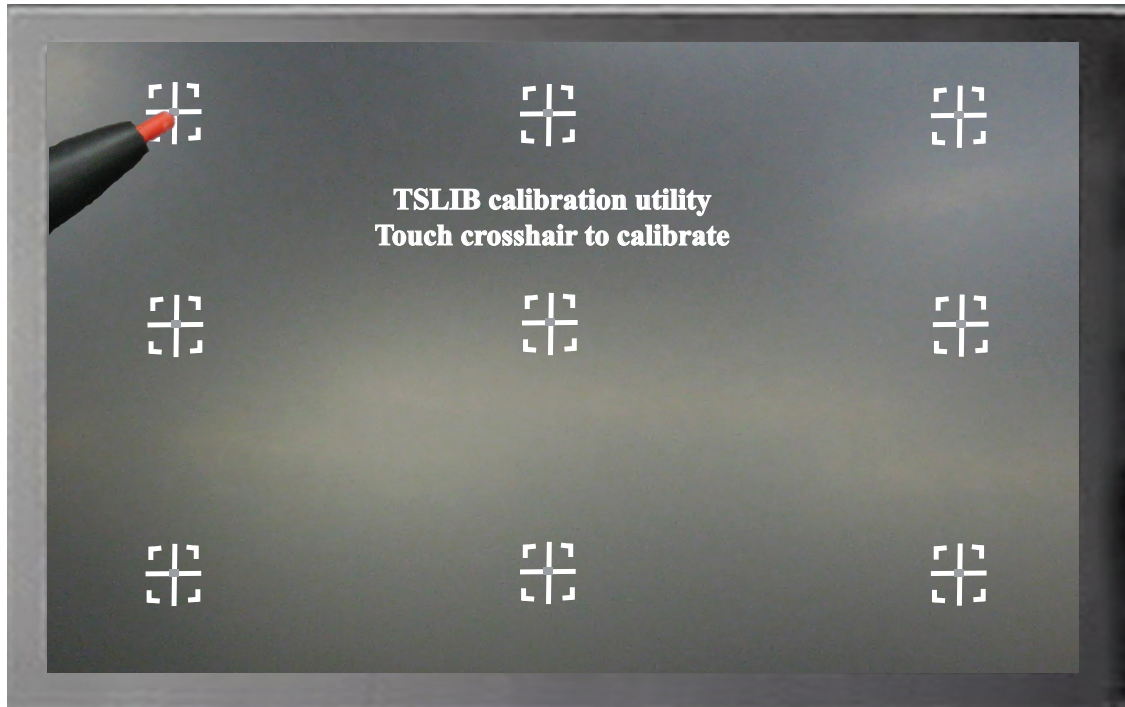
15.13. USING NEW CALIBRATING SOFTWARE

At the main menu:



1. Click on the **'MCS TOOLS' folder.**
2. Click on the **'Utilities' folder'**

3. Click on **'Calibrate Touchscreen'**
4. **New Calibrate 9 point software will open, see next page.**



15.14. CALIBRATING WITH NEW 9 POINT SOFTWARE ON Touch 7 and 15.4

The screen below shows calibration for the touchscreens.

(only one target point will display at a time)

The first target point will display on the left top side of your screen.

5. Position your stylus pen point as close to the center of the target as you can.
BE CAREFUL NOT TO PRESS ON THE SCREEN IN OTHER AREAS.
6. After touching the left top target, the next target will appear in the top center and continue to display as per the screen below until all **'9 target points'** have been calibrated.

If satisfied with the calibration, go to the next step. If needed, rerun the calibration tool.

7. After you calibrated all 9 points on the screen you will be returned to the desktop.

15.15. LOCKING THE TOUCHSCREEN AFTER CALIBRATION

1. Click on **'MCS TOOLS FOLDER'** to open
2. Click on **'Utilities'** to open
3. Click on **'MEMORY LOCK', CLICK ON 'LOCK MEMORY', click on 'EXECUTE**

When the Lock Memory file is pressed it does an automatic reboot and autostarts MCS-Connect



APPLICATION NOTE

Revision History

Date	Author	Description
03-30-16	DEW	Setup Application note
02-22-17	DEW	Additions remove setup file on desktop and trash

UPGRADING MCS-CONNECT on MCS-TOUCH 15.4 or 7 Touchscreen Firmware 3.00 + Linux Operating system

Any questions regarding this release, contact:
support@mcscontrols.com

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Chapter - 16. Upgrading MCS-CONNECT on Touchscreen

This will walk you through loading an updated version of MCS-CONNECT on your Touchscreen, firmware version 3.0 +. If you have an older version, call MCS support for additional instructions on upgrading your touchscreen.

You must have internet access to obtain the latest version of MCS-CONNECT on our website at:

<http://www.mcscontrols.com/software.html>

The above link will direct you to the location of the latest file.



NOTE: MAKE SURE YOU DOWNLOAD THE LINUX VERSION OF MCS-CONNECT.

16.1. Download Latest MCS-CONNECT software

Download the latest **MCS-CONNECT LINUX VERSION** software to your laptop or computer's desktop or a location where you will be able to copy to a USB stick.

16.1.1 Copy File

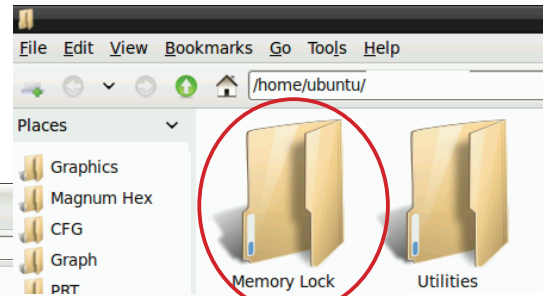
1. Format a new or used USB stick with Windows.
2. Copy the new MCS-CONNECT software to this USB stick.

16.2. Unlocking Touchscreen



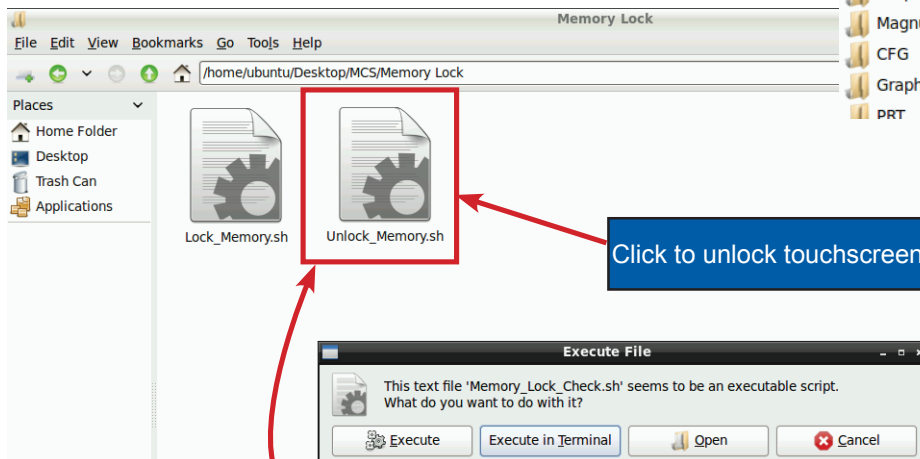
YOUR TOUCHSCREEN MUST BE UNLOCKED BEFORE MAKING ANY CHANGES.

1. Double click the **'MCS TOOLS'** Icon on the Desktop.
2. Double click **'Memory Lock'** sub directory.
3. Double click **'Unlock Memory'**.
4. Click **'EXECUTE'**. The touchscreen will reboot.



Screen 1

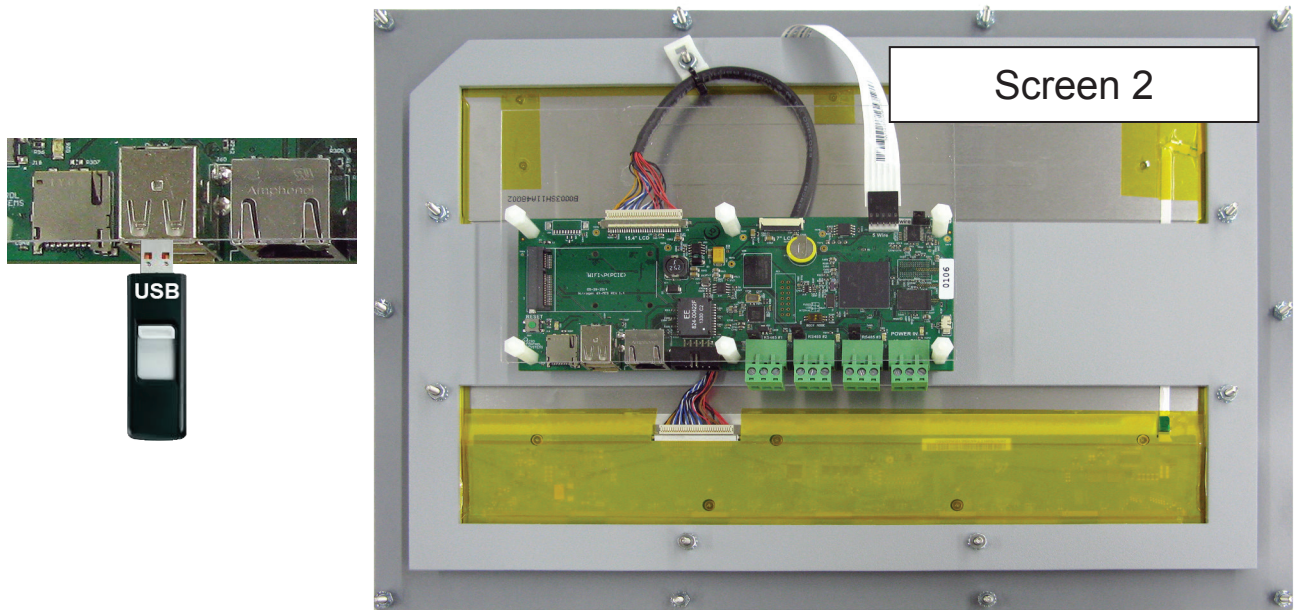
16.3. Replacing MCS-CONNECT ON TOUCHSCREEN



Click to Execute script
This will show if screen is locked or unlocked

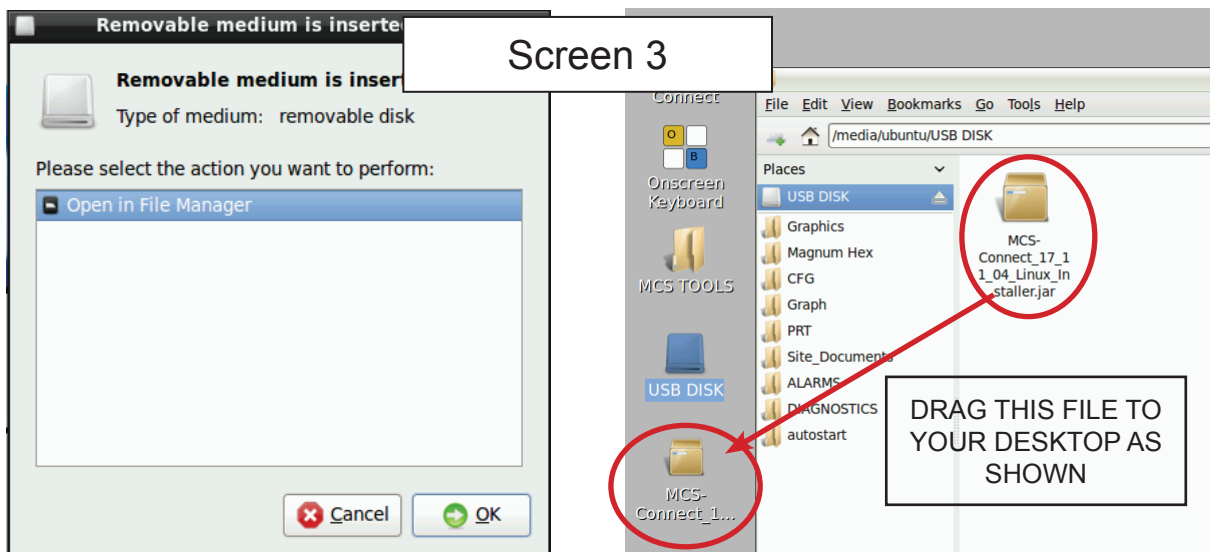
16.3.1 PLUG IN USB STICK AS SHOWN

1. On back of touchscreen, locate the USB PORT as shown on screen 2 and insert the USB stick you just copied the MCS-CONNECT file to.



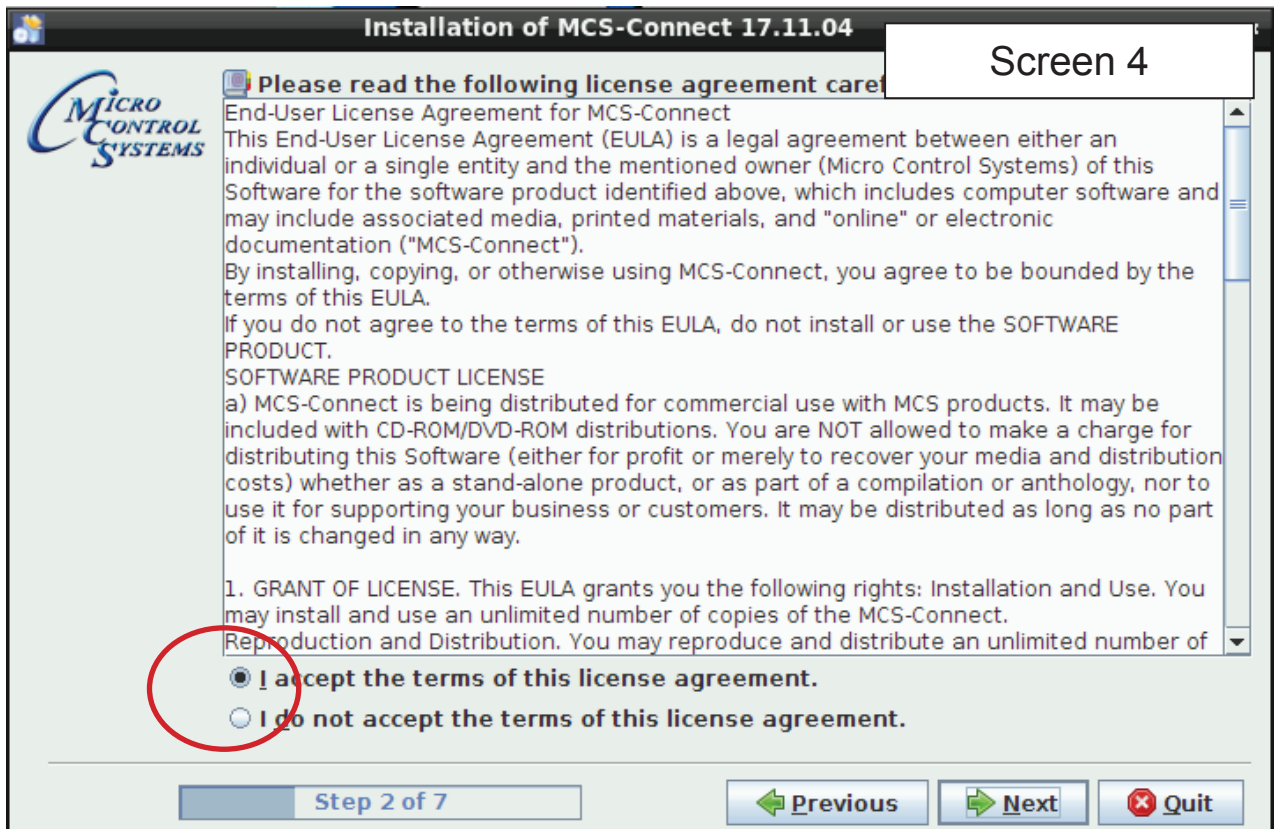
16.3.2 Copy the Updated File

1. After plugging in the USB STICK, the following screen will appear, click ok to open in File Manager.
2. When the stick opens, drag the 'MCS-CONNECT installation file' to the desktop.

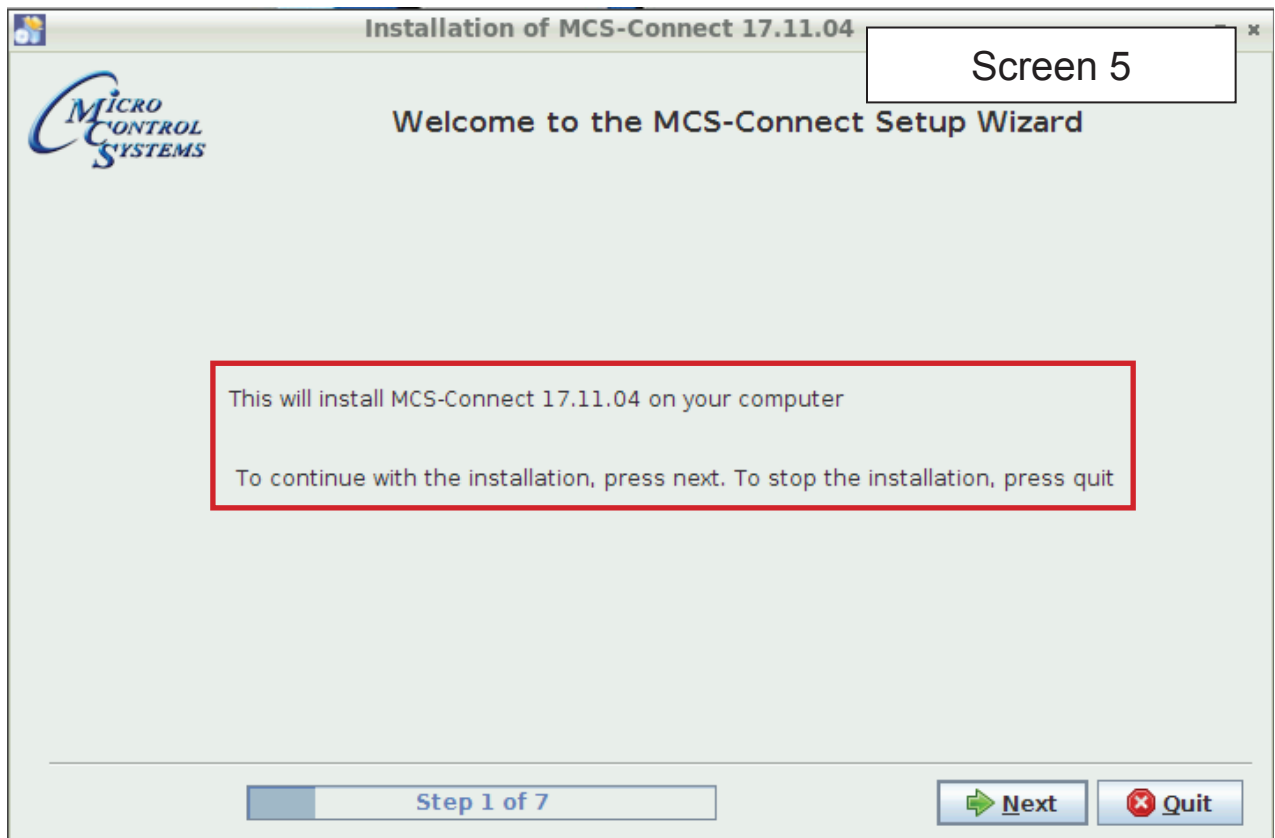


3. Double click on the 'MCS-CONNECT installation file' you just dragged to your desktop to upgrade.

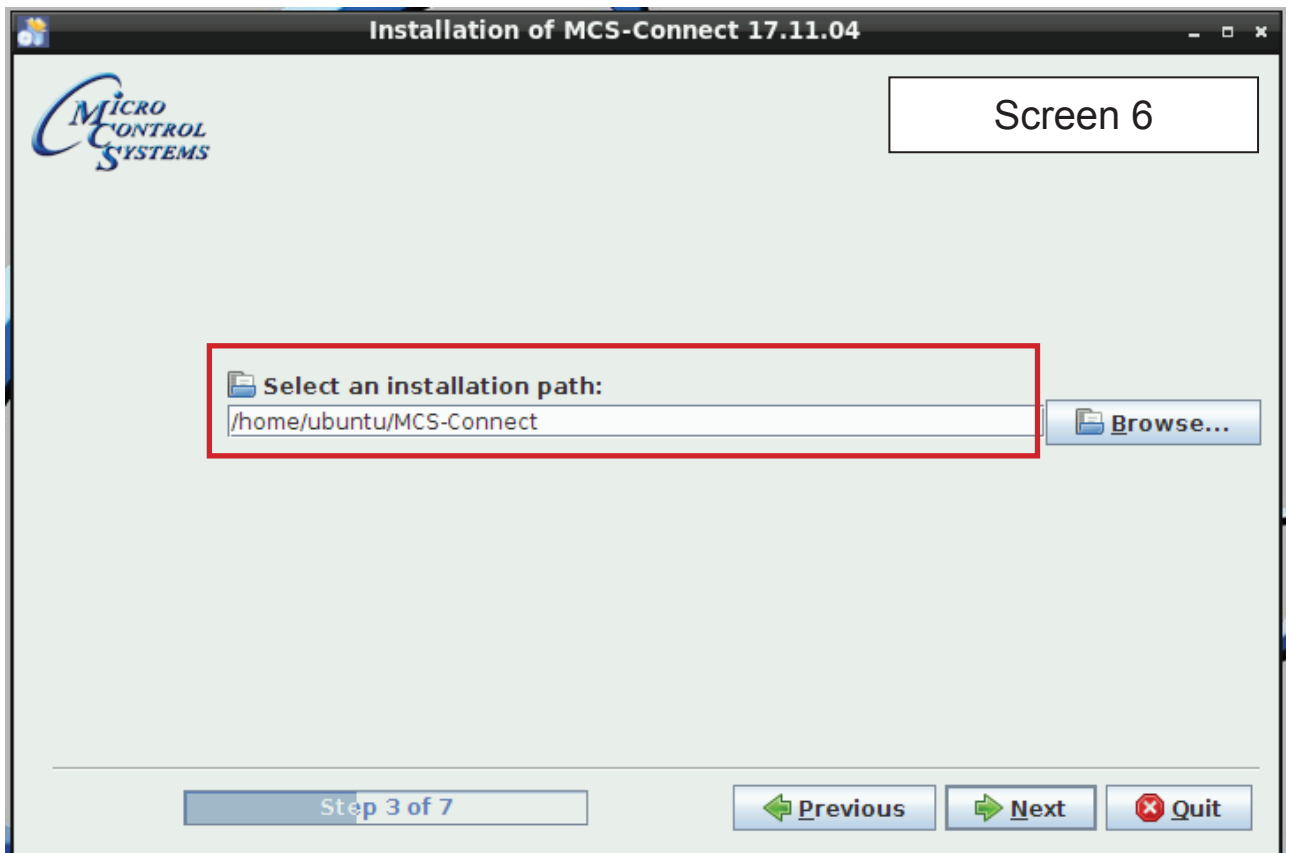
4. Accept the terms for the **'license agreement'**, click next to continue.



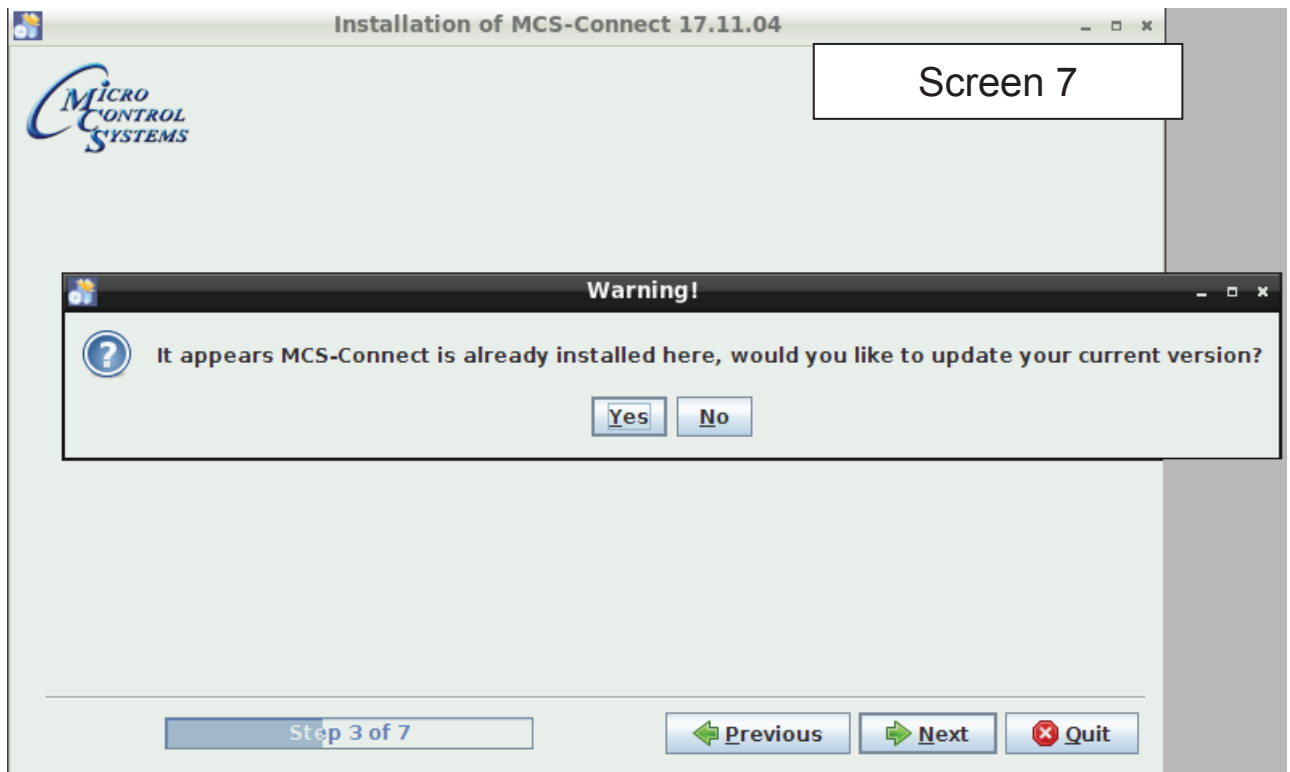
5. Click okay for installing the new **'MCS-CONNECT installation'**, click next to continue.



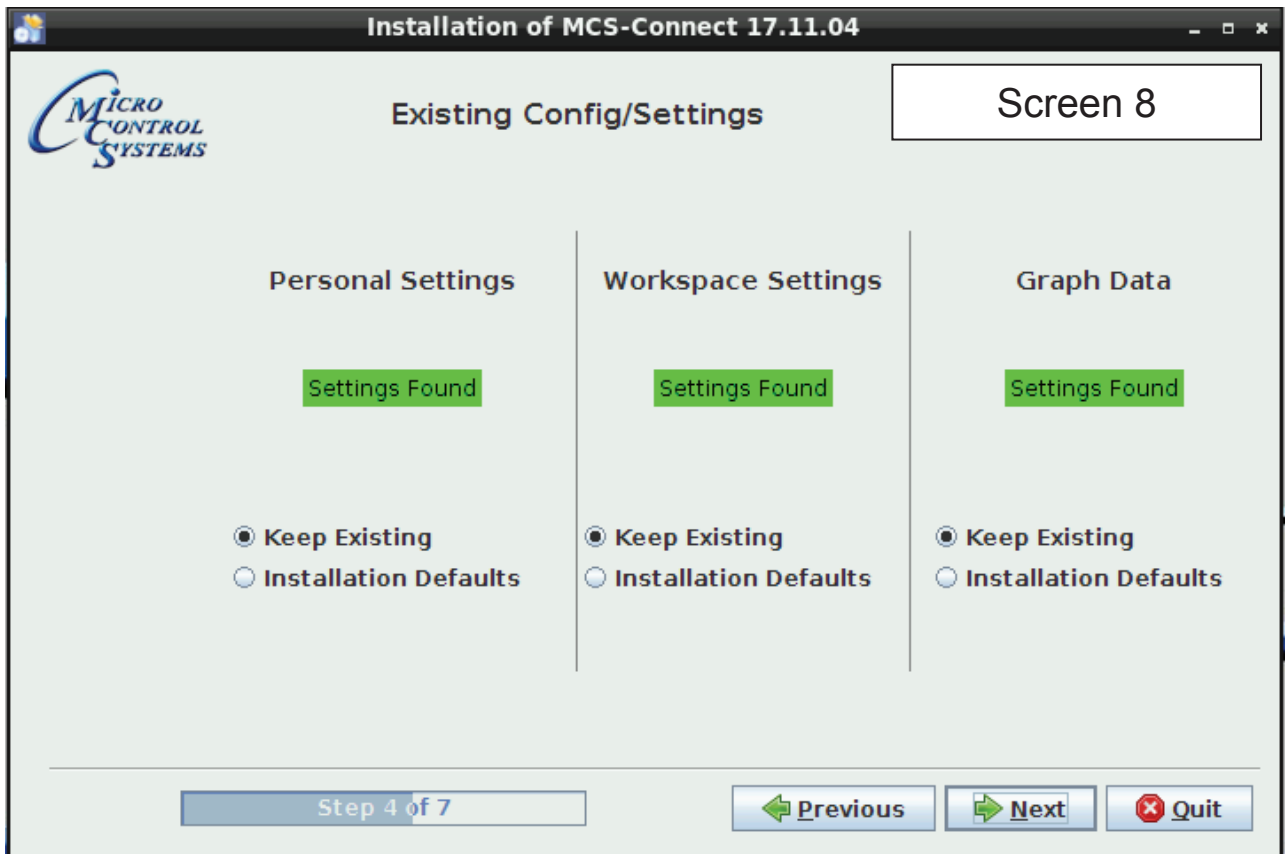
6. Select the 'Default Path' for the upgrade., click next to continue.



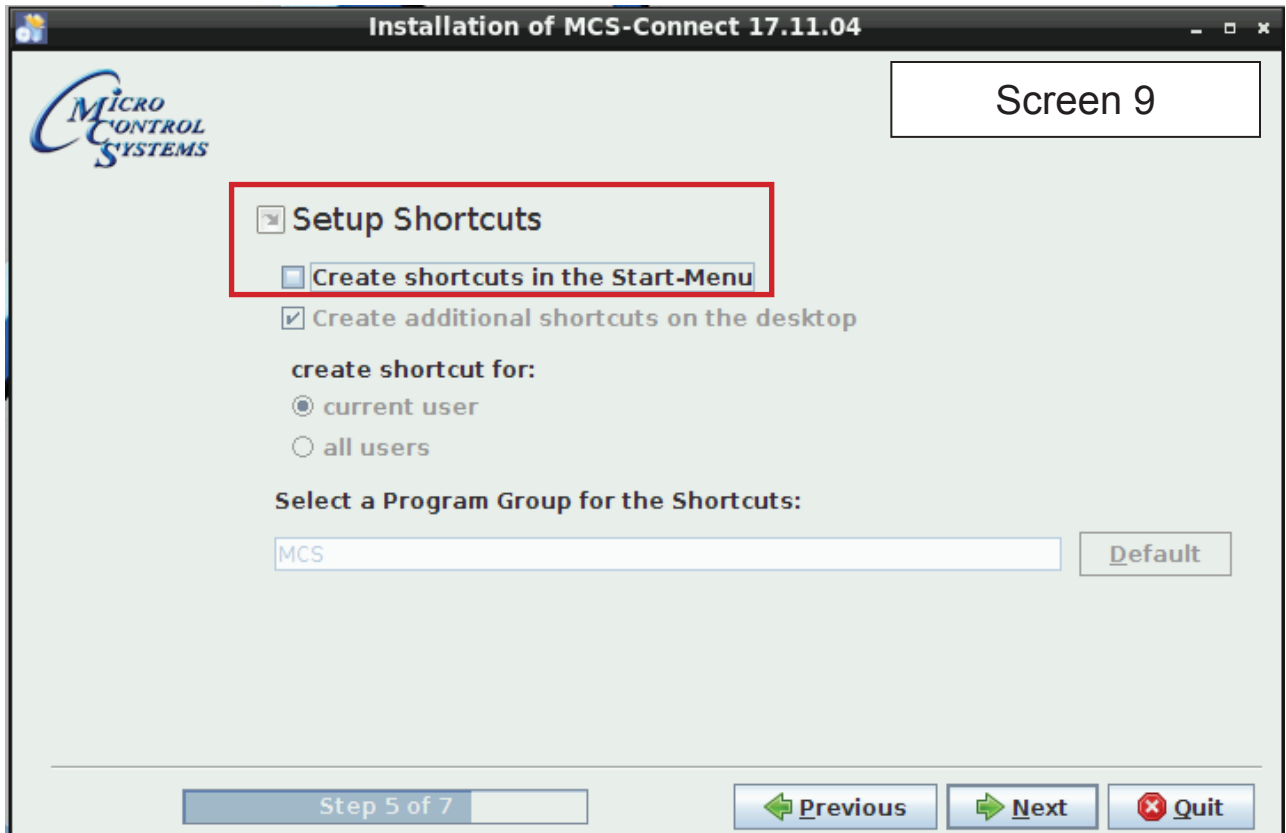
7. Click on 'YES' to overwrite the existing file, click next to continue.



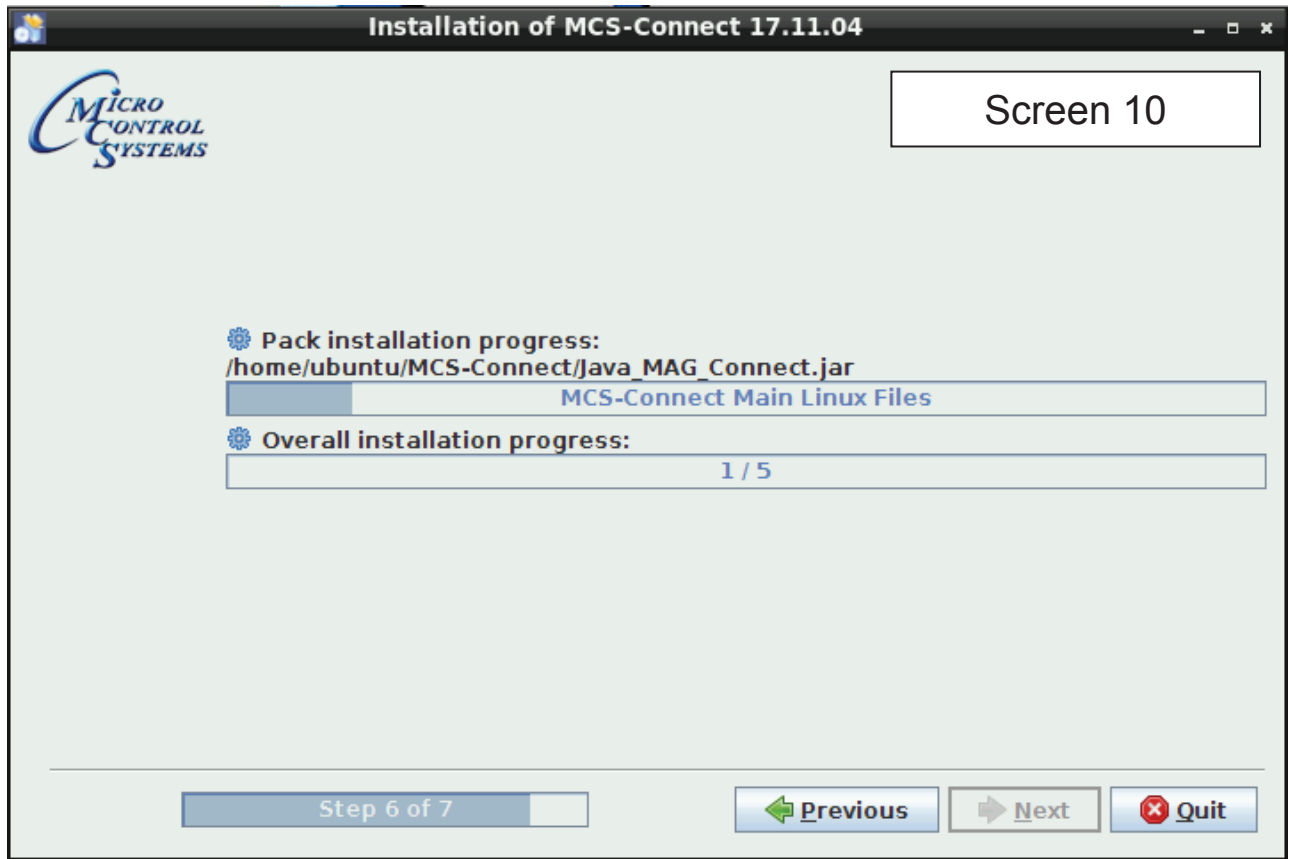
- Click on next to 'accept the existing Config/Settings as shown', click next to continue.



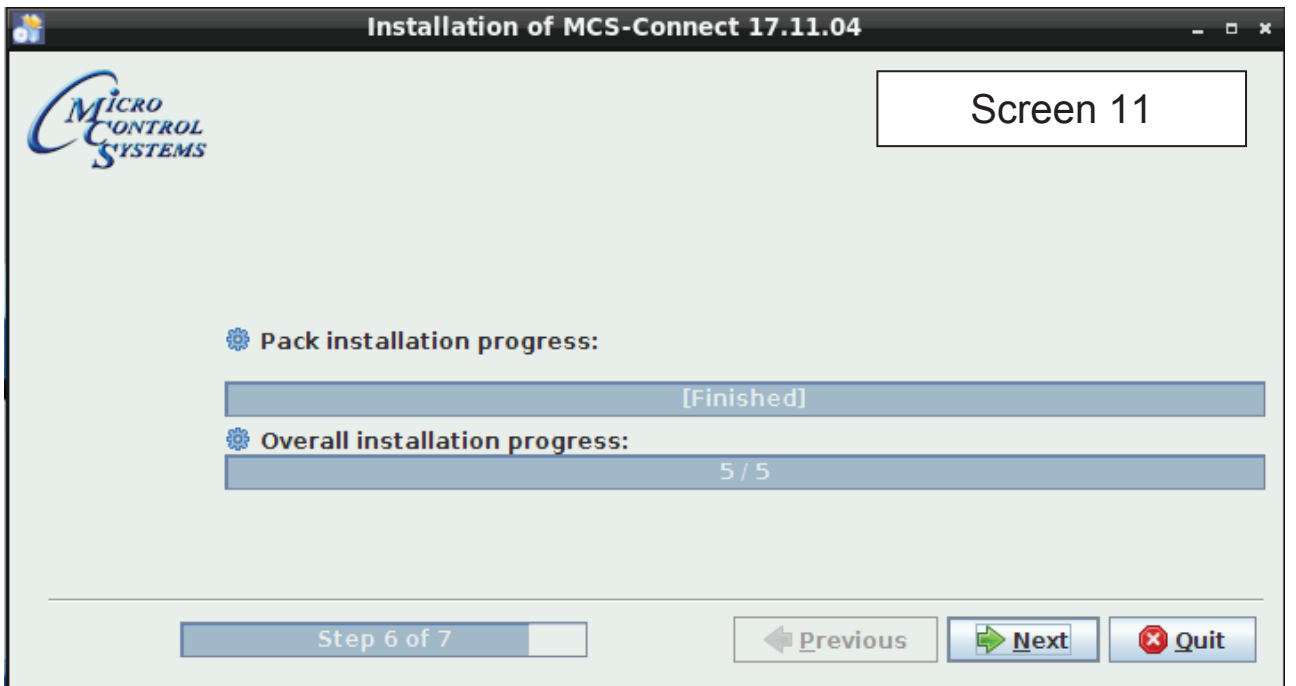
- Un-check the box to create a Shortcut, click next to continue.



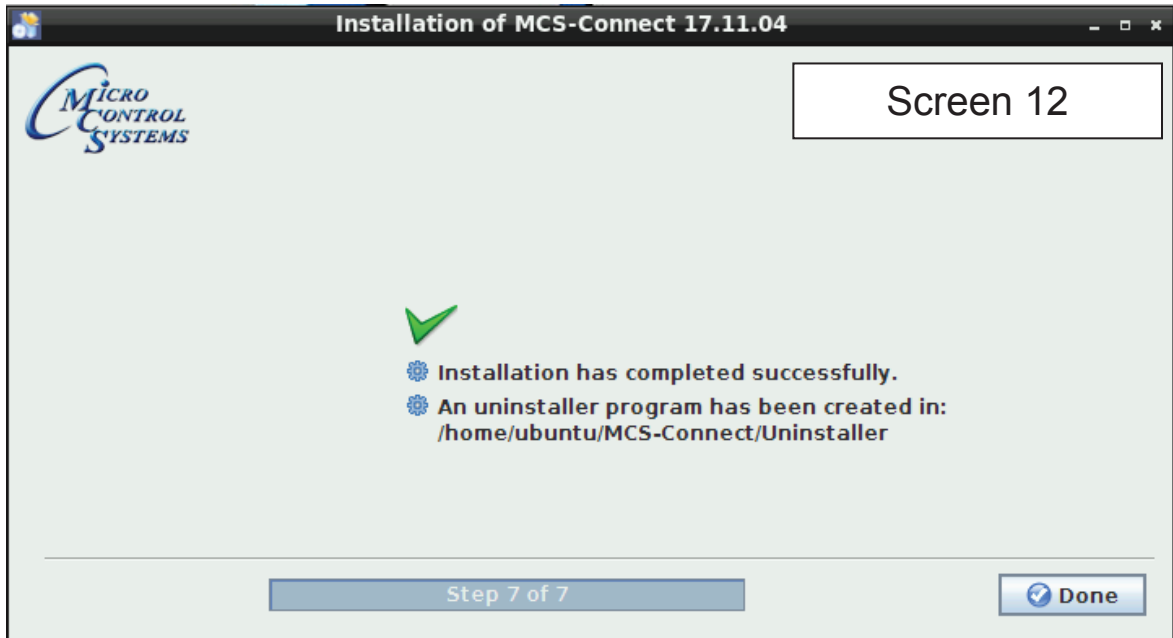
10. Next screen will show progress of installation.



11. Installation is complete, click next to continue.



12. Screen shows installation was successful, click 'DONE'.



13. Double click on the USB STICK on the desktop, opens in file manager, click on to eject and remove from the back of the touchscreen.



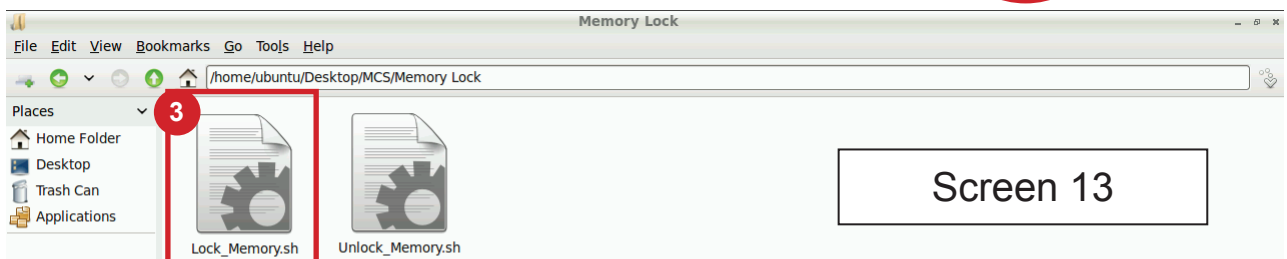
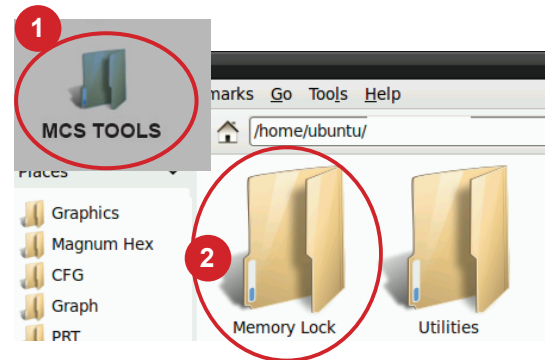
14. WHILE ON THE DESKTOP, CLICK ON THE 'MCS-CONNECT INSTALL FILE' GO TO EDIT AND REMOVE THE FILE FROM YOUR DESKTOP.

15. NEXT CLICK ON THE 'GO' BUTTON AT THE TOP TO BRING UP THE TRASH CAN, REMOVE THE SAME FILE FROM THE TRASH.



16.4. Locking Touchscreen

1. Double click the 'MCS TOOLS' Icon on the Desktop.
2. Double click 'Memory Lock' sub directory.
3. Double click 'Lock Memory'.
4. Click 'EXECUTE'. The touchscreen will reboot.



Screen 13

Click to LOCK touchscreen
Click to Execute

