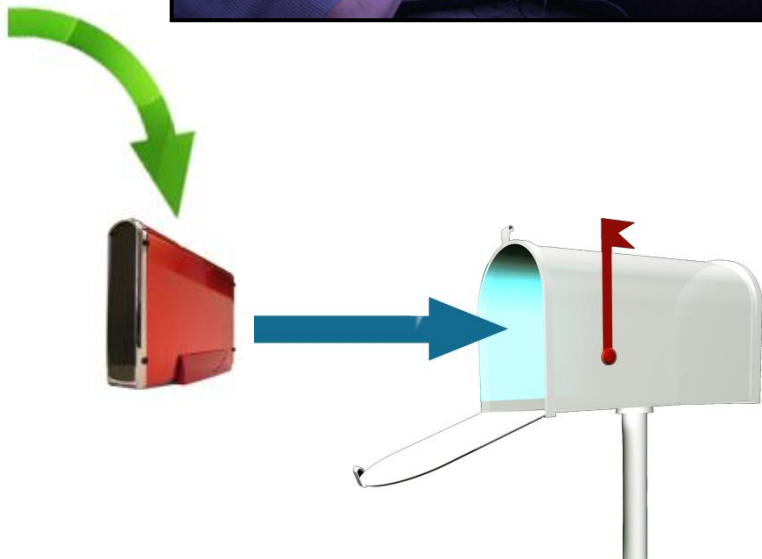
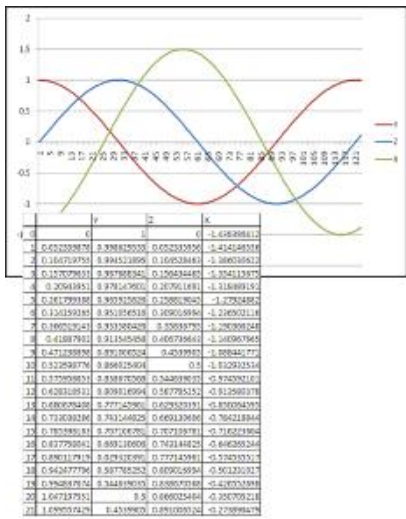


## C-more Remote Access, Data Log, FTP File Transfer, and Email Tutorial



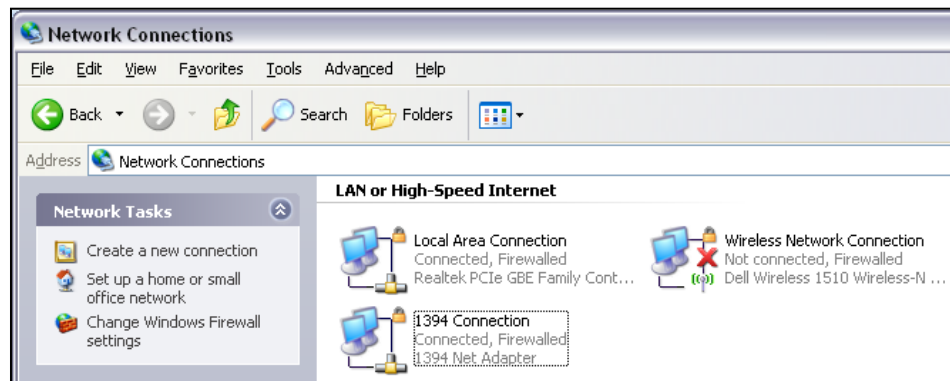
## Introduction:

This script will walk you through the basic process of setting up the remote access, data logging, FTP file transfer, and email features which can be used with any C-more HMI. They are included in the C-more Programming Software at no extra cost and require no special PLC programming. Included in the .zip file are the files for the completed C-more project and completed Productivity 3000 program.

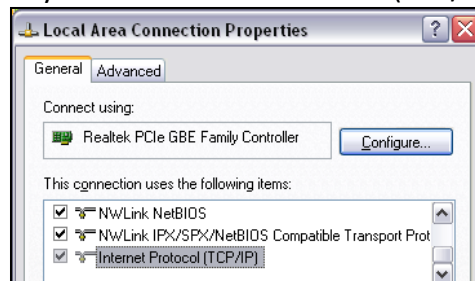
**\*\*Attention:** Before you begin any of the following tutorials, please follow these directions to configure your computer's Ethernet port.

## Ethernet Configuration:

- ❖ Go to: Start → Settings → Network Connections or  
Start → Control Panel → Network Connections:



- Double click on Local Area Connection
  - Click Properties
    - Scroll down until you see “Internet Protocol (TCP/IP)” then double-click on it



- ◆ Click – use the following IP address
  - Click on “Use the following IP address” and enter these settings:
    - IP address: 192.168.1.100
    - Subnet mask: 255.255.255.0
- ◆ Click OK on the Internet Protocol then Local Area Connection Windows

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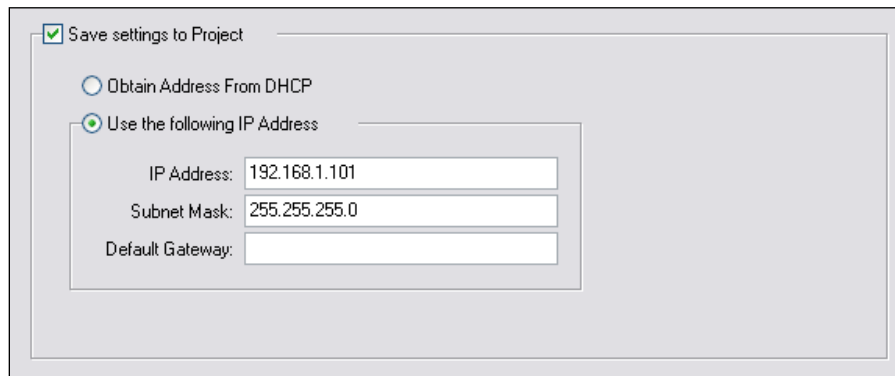
## **Remote Access:**

The C-more Remote Access feature can be used on any C-more HMI with an Ethernet port. It allows users to monitor and control a C-more panel from a PC located anywhere in the world as long as the panel is connected to the internet. The connection, across the internet or a local network, is established via a web browser such as Internet Explorer. These procedures can be applied to any project you wish to view/control remotely. For demonstration purposes we will use the projects provided with this script.

- ❖ Please start by loading the project titled “Tank Pump Application.adpro” onto the PAC and opening its respective C-more project “Tank Pump Application (basic).eap” in the C-more Programming Software.
- ❖ Check the IP address of your C-more panel:
  - \* Please make sure you see **Ethernet Configuration** on the first page of this script

Go to Setup – Touch Panel Network

- Click the “Ethernet Port” tab
  - Configure your Ethernet settings as shown below:



- Open the tab titled “Web Server Function”
  - Check the box labeled “Web Server Function”
    - Here you can choose to set a username and password that will control any remote access to the HMI. This is the highest level of access security level in the Remote Access features.
- Open the next tab, titled “Remote Access”

**Touch Panel Network**

General Ethernet Port DNS FTP Service Email Client Web Server **Remote Access**

☒ Remote Access Server Function

Port No.: 11102

IP Address

Local Connection : Same as Panel IP Address = %IP1% (No Firewall/Router)

Remote Connection : [ ] = %IP2% (With Firewall/Router)

Note  
If there is a Firewall/Router between the PC and the C-more panel, The public IP address will need to be inserted manually. Please refer to your Network Administrator for the required Firewall/Router configuration settings. The Firewall/Router must be configured to allow the C-more Remote Access Connection. Refer to the C-more Programming Help files for more information.

Log on Information

Account #1

Permissions: Full Control

Account Name: amstipe

Password: XXXX

User Restrictions: 1

Disable Tag: [ ]

Notification Tag: [ ]

Account #2

View Only

User2

1

Account #3

View Only

User3

1

OK Cancel Help

- Check the box labeled “Remote Access Server Function”
- Note: If you have a direct connection through a hub or switch then there are no changes necessary for the “IP Address” section. If you have a Firewall/Router between them you must enter the public IP address in the box.
- In the “Log on Information” section you can set up each of the three available Remote Access user accounts.
  - First choose your permission level:
    - ◆ View only: gives the remote user the ability to only view the screen active on the panel. Most restrictive
    - ◆ View and Screen Change: gives the remote user the ability to view the active screen and change to different screens. Mild restrictiveness
    - ◆ Full Control: gives the remote user the ability to view and control all screen based objects as if at the local site. Least restrictive
  - Choose an account name and password for each account you wish to use.
  - The “User Restrictions” category denotes how many separate computers can be connected to each account at the same time. For our purposes, only one is necessary. Note: Each Remote Access Account can support a maximum of 5

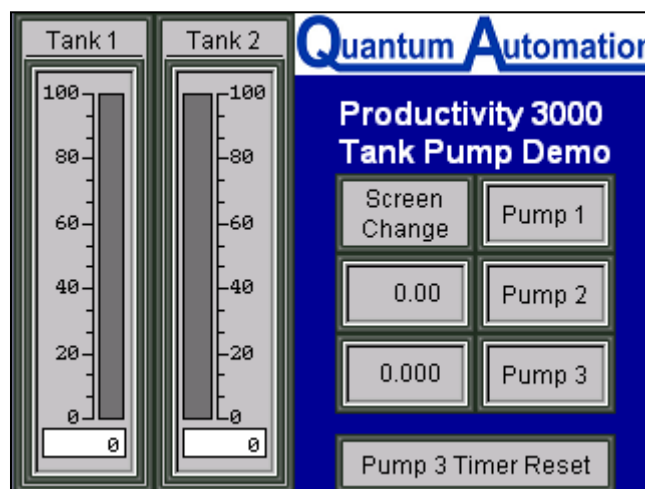
simultaneous remote user connections at a time. This allows for a maximum of 15 remote users at one time if all three accounts allow 5 connections.

- The disable tag can be used to disable access to the specific account. It is Off by default but if switched to on, a remote user cannot log onto that account.
- The notification tag is Off by default but turns On when that user account is connected. This can be used to notify a panel operator that a remote user is currently logged on.
- That's it! Save your C-more project as "Tank Pump Application (remote access).eap" and transfer it to your panel.
- To use remote access open our internet browser. Type in the IP of your HMI and press enter. Click on "Remote Access" then click on the type of connection you are using. You will be given a window asking if you wish to save, run, or cancel a download which contains the information your computer needs for the remote connection. Open the file and log in using the information corresponding to the account you wish to use.

## Data Logging:

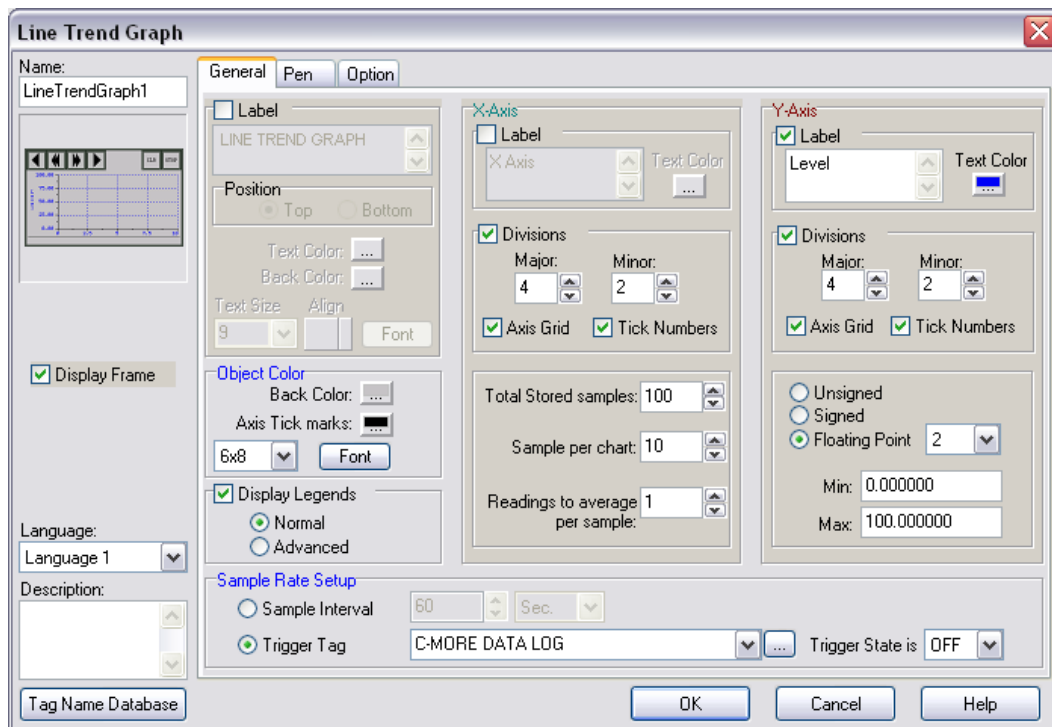
This feature allows users to collect and store analog data from any PLC connected to a C-more. The data (saved as a .txt file) can either be logged directly on a CompactFlash card or USB thumb drive. In order to transfer the data files to a computer, you must physically remove the storage device from the C-more and connect it to your computer with a CF reader or USB port. The log file can then be opened with Excel or any other database program for generating reports and doing data manipulation. The next two sections of this script (titled FTP File Transfer and Email) describe how you can transfer the data log over Ethernet without removing the storage media.

- ❖ Start by loading the project titled “Tank Pump Application.adpro” onto the Productivity 3000
  - Then open the C-more Programming Software v2.6 and open the project “Tank Pump Application (basic).eap”.
  - Add a new screen to the project via the menu titled Screen. Click OK
  - On the first screen, add a “Screen Change Pushbutton” by dragging one from the object list.
    - Change the text to read “Screen Change”
    - Select Other Screen in the section titled Go to:
      - Set the Number to 2
      - Click OK and size the Screen Change button to fit in the empty spot next to the “Pump 1” indicator light as shown below:



- Right click the Screen Change button and copy it

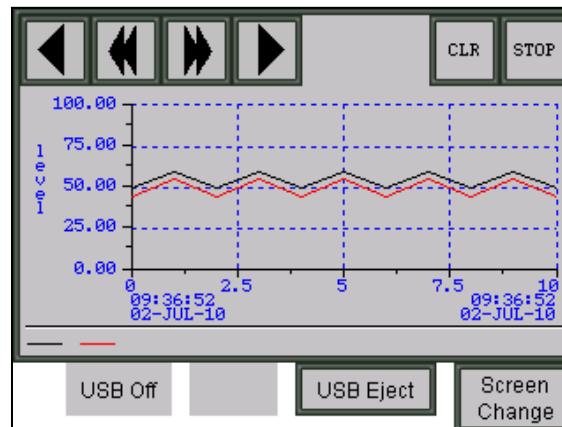
- Go to the blank Screen 2 and paste that button in the bottom right corner of the window
- Stay on Screen 2
  - Add a “Line Trend Graph”
    - Uncheck the X-Axis Label box
    - In the Y-Axis area
      - ◆ Change the Label to “Level”
      - ◆ Change the data type to Floating Point 2. Use Min: 0 and Max: 100
    - Change the Sample Rate Setup to Trigger Tag
      - ◆ Use the tag named “C-MORE DATA LOG”



- Go to the “Pen” tab
  - ◆ Set Pen 1 to record “Tank Level 1”
  - ◆ Set Pen 2 to record “Tank Level 2”
- Under the “Option” tab
  - ◆ Check the “Save Log Data” box and select your chosen storage media:
    - Must be either a USB Flash Drive or a CompactFlash card
  - ◆ Check the “Date & Time is Displayed on X-Axis” box
- Click OK to exit the setup window. Without resizing, place the Line Trend Graph so the top of its frame rests on the upper boundary of the screen. (see finished picture below)
- Drag an indicator light onto Screen 2
  - Use the tag corresponding to your data storage media:
    - ◆ USB Flash Drive: “SYS USB READYTOUSE”



- ◆ CompactFlash card: “SYS USB READYTOUSE”
- Change the Off text to either “USB Off” or “CF1 Off”
- Change the ON text to either “USB On” or “CF1 ON”
- Drag another indicator light onto Screen 2
  - Use the corresponding tag
    - ◆ “SYS USB WRITESTATUS”
    - ◆ “SYS CF1 WRITESTATUS”
  - Erase the Off Text and leave the box blank
  - Change the ON Text to “DATA”
- Drag a Pushbutton onto the screen
  - Use the corresponding tag:
    - ◆ “SYS USB EJECT”
    - ◆ “SYS CF1 EJECT”
  - Change both the ON and the OFF Text to read “USB Eject” or “CF Eject”
  - Select Object Type to be Momentary On
- Arrange your pushbutton and indicator lights in a fashion similar to the picture below



- Save and transfer your project as “Tank Pump Application (Data Logging).eap”. If you have added on to your Remote Access project, you may want to indicate that in the project name.
- You are now ready to log data. Please make sure your P-3000 is in Run mode.
  - Insert your storage media and wait for the USB or CF1 On indicator light to come on
  - Note: We have configured the C-more to log “Tank Level 1” and “Tank Level 2” which are set up in the PAC project as the first two Analog inputs of a P3-8AD4DA-2 module. If you are not using this setup, then you will have to modify the PAC project to log other tags that you can either manually change via a data view window or using whatever equipment you have.
  - The HMI will automatically log data and transfer it to the storage media when its log buffer is full. This is when the “DATA” indicator light will go on.
  - Use the STOP and START button in the top right corner to start and stop data logging.
  - When you are ready to remove your storage device, always use the Eject button. If you neglect to do so, you may lose all data stored on it.

## **File Transfer Protocol (FTP) Service**

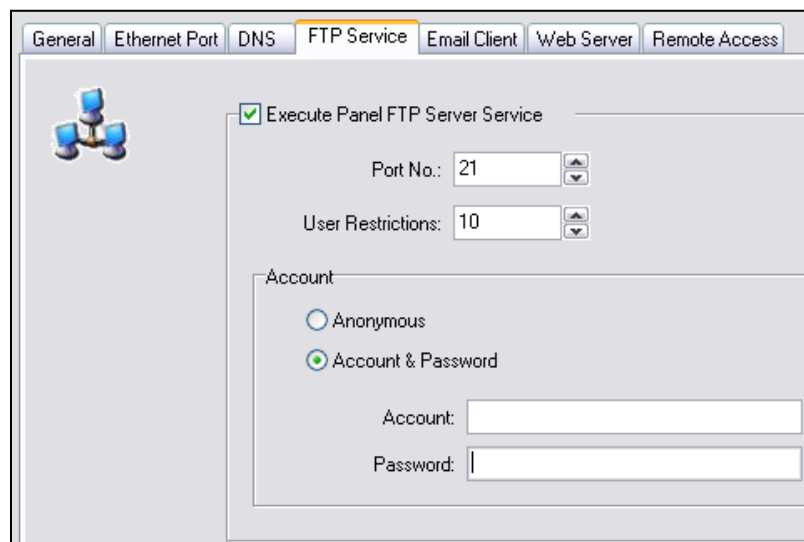
Like the Remote Access feature, the FTP Service is available for use with all C-more panels that have an Ethernet port. FTP stands for File Transfer Protocol, and is a standard network protocol used to copy files between hosts using a TCP/IP-based network. As defined by the protocol there must be a client and a server.

C-mores can either act as the FTP server or client depending on your requirements. When set up as a client, the C-more can both send and receive files from an FTP site. With this configuration you must have an FTP server set up already. If you don't have a server set up or don't plan on sending files to the C-more, you can configure it as a server and use your PC as the client. With the HMI acting as a Server, you can retrieve data from the removable storage devices as well as the internal C-more memory. This tutorial will describe how to set up the FTP server function and access the data on your PC.

**\*\*NOTE:** Before attempting this tutorial, please complete the Data Logging tutorial listed above.

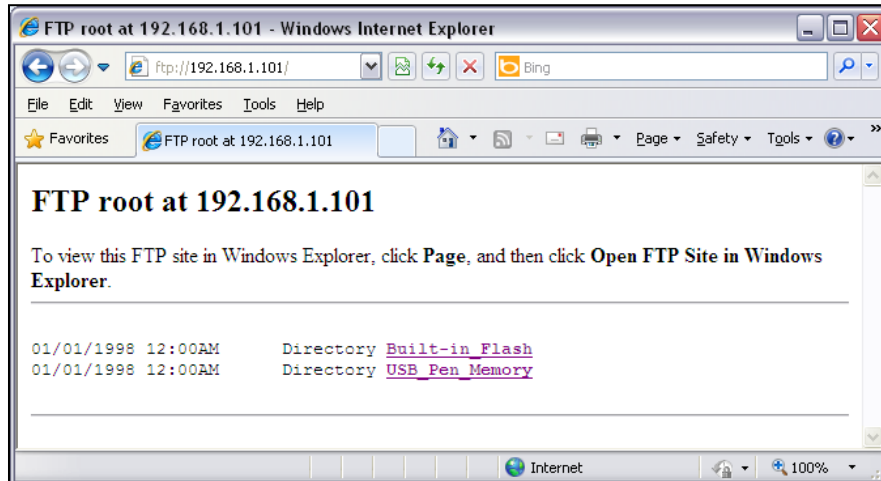
Without it, you will have no data to retrieve from your C-more

- ❖ Please make sure the project titled “Tank Pump Application.adpro” is loaded on your PAC
- ❖ Open the C-more Programming Software and open the project created in the Data Logging tutorial titled “Tank Pump Application (Data Logging).eap”
  - Start by accessing the Touch Panel Network settings via the Setup drop-down menu
  - Click on the FTP Service Tag

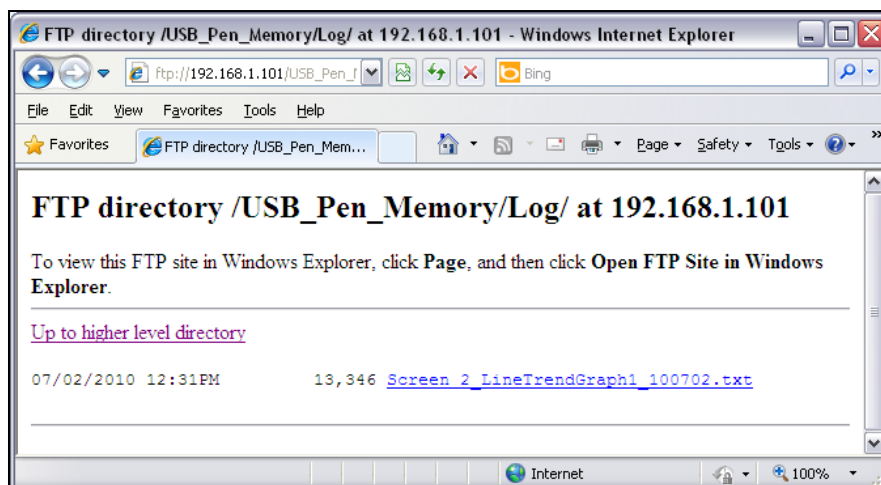


- Check the box next to “Execute Panel FTP Server Service”
- Leave the Port No. at the default 21
- Use the User Restrictions section to define the maximum number of users allowed
- Under the Account Settings:
  - Select Anonymous for public users or set an Account name and Password to restrict access
- Click OK and you are done.

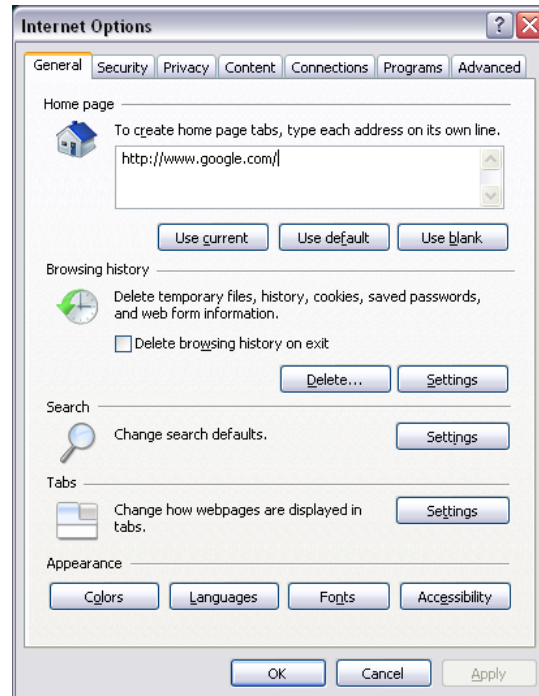
- Save the project and transfer it to your panel.
- ❖ Make sure to log some data before moving on.
- ❖ To connect to the panel FTP and view files, you can either use a web browser like Internet Explorer or you can use third party software such as SmartFTP Client or WS\_FTP which have the ability to automatically transfer the files based on a user defined schedule:
  - I will describe here how to use a standard web browser such as Internet Explorer:
    - Type in the address: <ftp://<panel-IP>>
      - ◆ Replace <panel-IP> with the IP address of your panel



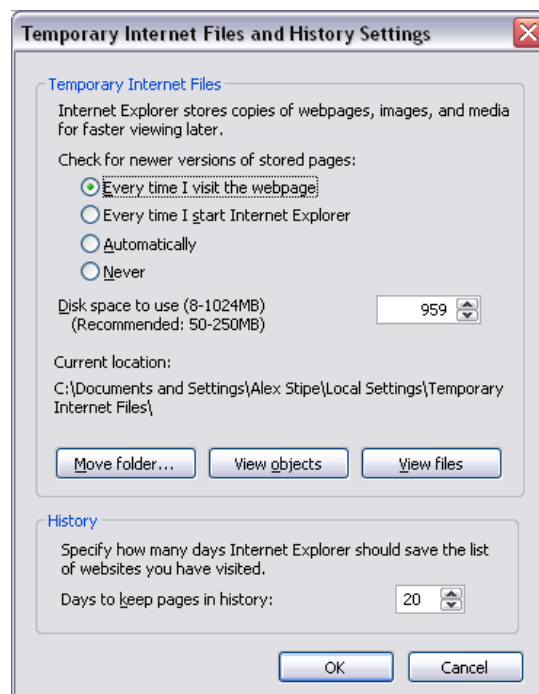
- You should see links to the Built-in Flash directory as well as the USB Pen Drive. Follow the links to find your log file. Once you locate the correct file, right click on it and select "Save Target As..."



- To ensure that the browser displays the panel's current files, click on "Internet Options" under the Tools drop down menu in Internet Explorer and make the following settings.
  - ◆ From the Browsing History box, click on the Settings button to bring up the Settings dialog box.



- ◆ In the Settings dialog box, click on “Every time I visit the webpage” so that each time the touch panel's FTP site is accessed, the most current files are displayed.

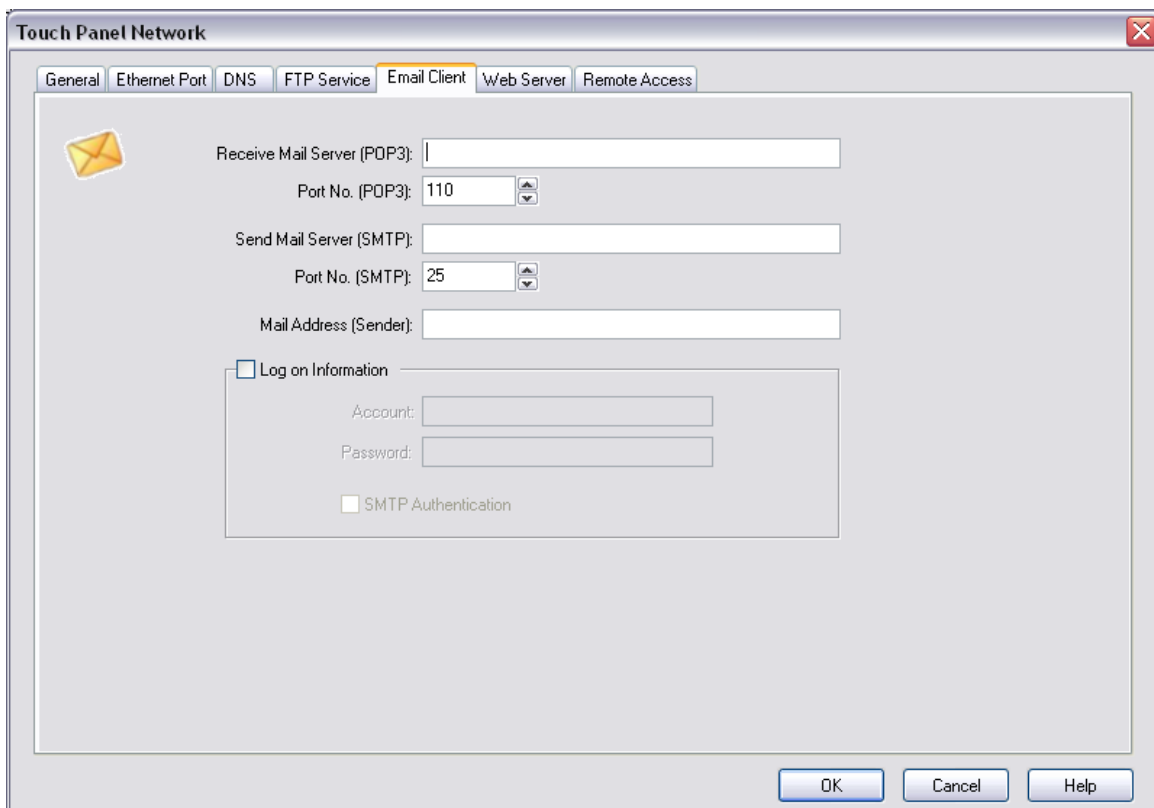


- ◆ Click the OK button to save the settings and close Internet Explorer's Settings dialog box.

## Email Client

The Email Client feature is used to send emails from a C-more to one or more email addresses. The emails can include a preset message, Log Messages, Line Trend Graph data, PID data, or even a screen capture image from your panel. Like the FTP service, email is another feature only available to C-more panels with Ethernet. Additionally you must have and be connected to an email server with an available email address for the C-more to send emails with.

- ❖ Start by accessing the Touch Panel Network settings via the Setup drop-down menu.
  - Click on the Email Client tab
    - Here you need to fill in the blanks with information corresponding to your email server and the address you have chosen to use.
    - You will need to define whether Log on Information is required and if so, is SMTP Authentication required.

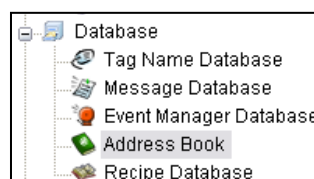


The screenshot shows the 'Touch Panel Network' configuration window with the 'Email Client' tab selected. The window contains the following fields and options:

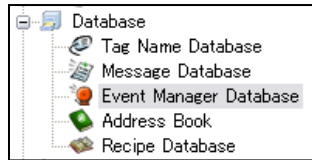
- Receive Mail Server (POP3):** A text input field.
- Port No. (POP3):** A spinner box set to 110.
- Send Mail Server (SMTP):** A text input field.
- Port No. (SMTP):** A spinner box set to 25.
- Mail Address (Sender):** A text input field.
- Log on Information:** A section with a checkbox that is currently unchecked.
  - Account:** A text input field.
  - Password:** A text input field.
  - SMTP Authentication:** An unchecked checkbox.

At the bottom right of the window are three buttons: 'OK', 'Cancel', and 'Help'.

- Once you have configured the Email Client accordingly, you will need to:
  1. Create an entry in the Address Book
    - Double click on "Address Book" under the Function tab.



- Type in the name and mail address of your recipient, choose the message language, and then click “Add”.
  - Repeat this for all addresses you wish to mail to.
2. Create an email event action
- This is done by double clicking Event Manager Database



- Click the Add button to open the Event Add window

- ◆ In this window create an Event Name and choose a tag that you will use to trigger the send email function.
- ◆ Click on “01-Alarm” in the Action Sequence List then click Delete Action in the bottom left corner of the screen.
- ◆ Click “Add Action”
  - Leave the Sequence # as it is
  - Choose “Mail” from the Command dropdown menu
  - Click OK to close the Add Action window

The screenshot shows the 'Mail' configuration window in Quantum Automation. On the left, a 'Sequence List' contains a single item '01-Mail' which is checked. Below this list are 'Add Action...' and 'Delete Action' buttons. The main area is titled 'Mail' and contains a 'Send Address' list with 'Alex' checked. To the right of this list are fields for 'Language' (set to 'Language 1'), 'Subject', and 'Message'. Below these fields are icons for a clock, a document with a red 'X', and a 'TAG' icon. At the bottom right, there is an 'Attached File' field with a three-dot menu button.

- You can now choose your Subject and Message Text for this particular email.
- You can also change the time and date formats, add specific Tag data or an entire Data Log File.
- To Attach a Data Log File, click on the three dots to the right of the grey box next to "Attached File".

The screenshot shows a dialog box titled 'Select Attached File for Email'. It contains a 'Select a File' section with several radio button options: 'None', 'Log Message of Message Database', 'Log Message of Event Manager' (which is selected), 'Line Trend Graph', 'PID Faceplate Trend Graph', and 'Screen Capture Image'. Each option except 'None' has a corresponding dropdown menu. At the bottom of the dialog are 'OK', 'Cancel', and 'Help' buttons.

- Select what type of attachment you wish to use and click OK
3. Set up a button that can be used to send the email
    - This is the easiest part
    - All you have to do is add a pushbutton somewhere in your project. Use the tag name you chose for the Email Action Event and select Momentary On as the Object Type
    - Once you have configured the pushbutton, place it in your project and you are ready to go. Every time the Email Tag is activated, the message will be sent out.