Application Notes

How to configure and utilize both Email or SMS message functions and Maintenance Protocol in the Web Server Module

Background

The Web Server Module has four major functions:

1) Remote Maintenance – remotely monitors & controls PLC via WindLDR software
2) Web Server – remotely monitors & controls PLC via Web browser
3) Email/SMS message – send email alert
4) User Communication – communicating with other devices

Unfortunately users can’t use all of these functions at the same time and these functions are designated by the DIP switch setting on the Web Server Module. Remote Maintenance and Web Server functions are utilized when the DIP switch is in the Remote position. Email/SMS message and User Communication functions are utilized when the DIP switch is in the User position.

However, by using Modem protocol in Port 2 of the MicroSmart PLC, users can utilize Remote Maintenance and Email/SMS functions at the same time on the Web Server Module.

Purpose

This application notes will guide you through step-by-step instruction on how to configure the IDEC Web Server Module to use Remote Maintenance and email functions at the same time.

Parts

1 – FC5A MicroSmart Pentra CPU
1 – Web Server Module (p/n FC4A-ENET)
1 – RS232C communication adapter (FC4A-HPC1 or FC4A-PC1)
Mail Server Address (SMTP) – please ask your IT system administrator
Step 1: Web Server Module Settings

1. Set DIP switch of the Web Server Module to REMOTE.

2. Launch Digi Connect ME Configuration and Management screen
   a. This can be done by typing the Web Server IP address plus the /home.htm extension. For example, if your IDEC Web Server Module IP address is 192.168.100.109 then type 192.168.100.109/home.htm.

3. Click Serial Port and select Basic Serial Settings.

4. Under Flow Control select Hardware.
5. Click **Apply** button.

6. Under **Configuration** menu, select **Alarms**.

7. Enter **Mail Server Address (SMTP)** IP address and **From E-mail address**.

8. Click **Apply** button.

9. Under **Alarm Conditions** enable **Alarm 1** and click on it.
10. Under Alarm Conditions, select “Send alarms based on serial data pattern matching” and under Pattern enter the word **temp**.

11. Under Alarm Destinations, select “Send E-mail to the following recipients when alarm occurs” and enter Email address or Cell phone number in the TO:, cc: and Subject fields.

**SMS message strings:**

<table>
<thead>
<tr>
<th>Cell Phone Carrier</th>
<th>Strings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sprint</td>
<td><a href="mailto:10digitphonenumber@messaging.sprintpcs.com">10digitphonenumber@messaging.sprintpcs.com</a></td>
</tr>
<tr>
<td>Verizon</td>
<td><a href="mailto:10digitphonenumber@vtext.com">10digitphonenumber@vtext.com</a></td>
</tr>
<tr>
<td>T-Mobile</td>
<td><a href="mailto:10digitphonenumber@tmomail.net">10digitphonenumber@tmomail.net</a></td>
</tr>
<tr>
<td>AT&amp;T</td>
<td><a href="mailto:10digitphonenumber@txt.att.net">10digitphonenumber@txt.att.net</a></td>
</tr>
</tbody>
</table>

12. Click **Apply** button.
13. Click **Reboot**.
Step 2: PLC Settings

In order to use both functions, we need to switch between Maintenance Protocol and User Protocol in special data register D8103.

1. Launch WindLDR software.
2. In Function Area Settings → Communication Tab, select Modem Protocol for Port 2.

3. Enter the sample ladder in WindLDR and download it to the PLC.

   M0100 is the trigger for e-mail.

   When M0100 is turned on, D8103 is changed to 1, and the protocol is changed to User Protocol.

   Wait 2-sec.

   After waiting, send ASCII characters with TXD instruction.

   Wait 2-sec.

   After sending the characters, D8103 is changed to 0, and the protocol is back to Maintenance Protocol.

   Reset the trigger.
ASCII character
0a = LF (line feed)
74 = t
65 = e
6d = m
70 = p
0d = CR (carriage return)

When M0100 is turned ON (or any bit you designate), the recipient will receive email/SMS message and at the same time, you can use WindLDR or web browser to monitor and access the PLC through the Web Server Module.