Tech Note 3   How to send text messages based upon alarms or events from Red Lion remote devices

red lion®

Abstract: Heading

This document describes the procedure for configuring Red Lion Crimson 3.0 devices (G3 and Graphite Human Machine Interfaces (HMI), Data Station Plus Protocol Converter (DSP+), and ProducTVity Station plant floor visual management system**)** to send text message (SMS) notifications via Red Lion Sixnet Series cellular and wired devices.

Products:

RAM-6021, SN-6000 series, RAM-6000 series, RAM-9000 series devices
Crimson 3.0 devices

Use Case/ Problem Solved:

Due to the remote locations that M2M (Machine to Machine) applications are deployed, users need a method to receive notification of any alarm conditions. SMS and email are two commonly used methods to achieve this goal. This procedure deals exclusively with SMS solutions. Please see Chapter 2 for Email solutions.

Required Software:

Crimson 3

Required Firmware:

SN/RAM Version 3.18/4.18 or higher

Procedure:

**Part 1: Crimson 3.0 Configuration for SMS**

1. Launch Crimson 3.0
2. Select **Communications** found under the Navigation Pane
3. Highlight **Network** and enter the appropriate IP settings into the **Ethernet 1** tab
4. Highlight the first available network protocol
   If none are available, right click Network and Add Network Port
5. Click the **Pick** button and choose **System → Raw TCP/IP Active → → OK**

   a. Adjust the **IP address** to the SN/RAM's LAN IP

   b. Change the **TCP Port** to 1000

   c. Be sure to note the protocol's port number in the upper right corner
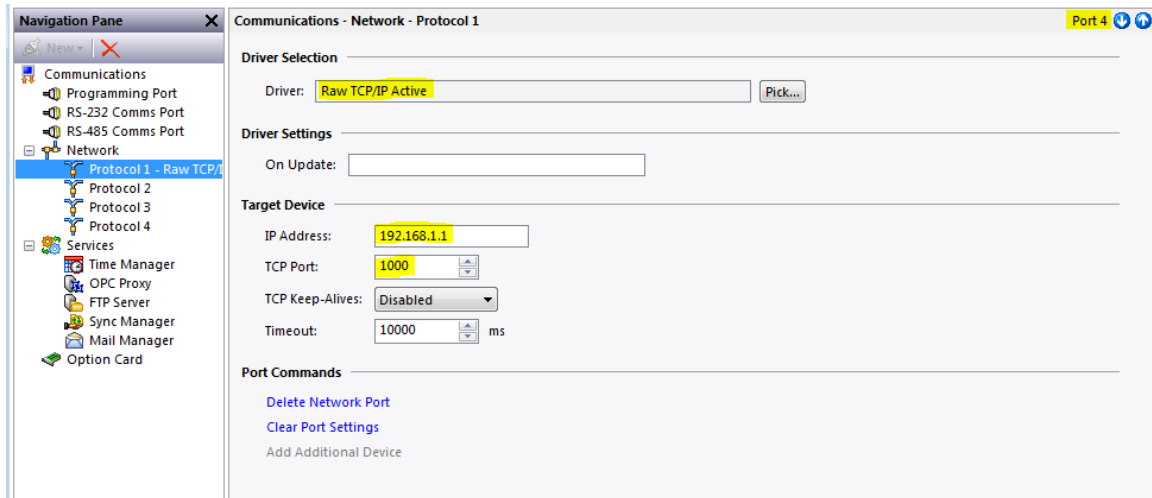
6. Select the **Programs** section under the **Navigation Pane**
7. Add a new program and name it *Send_Alarm*

   a. Type the following code into the **Program Code** section

   b. *PortPrint(4,"TO=5557775555\r\nMSG=My alarm!\r\n");*

8. In the above code, the first number should equal the port number noted earlier. The phone number should be the intended recipient's number and the message should be custom alarm text
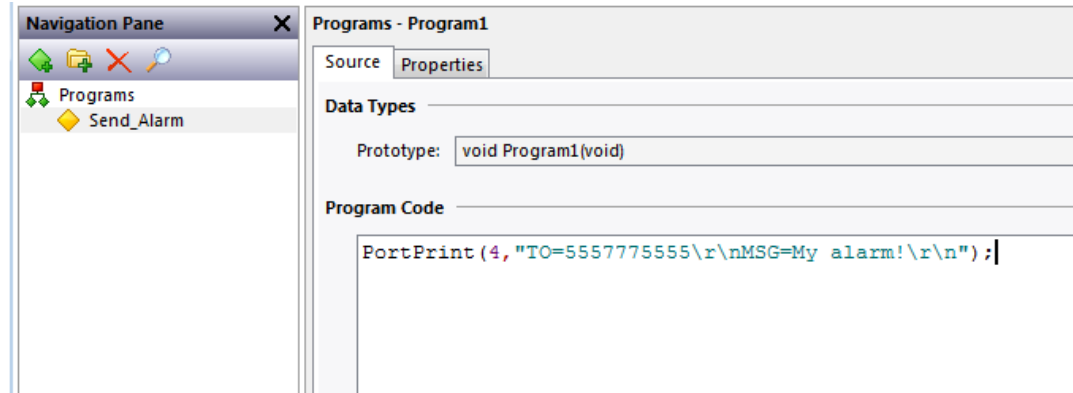
9. Navigate to the **Data** tags section.
    a. Create a new flag tag
    b. Rename the tag as *"TestSMS"*
    c. Under **Data Source**, set Source to **Internal**
10. Highlight the tag for which the SMS alarm message was created and select its **Alarms** tab
    a. Fill out all standard alarm fields first.
    b. Type the following into the On Active field in order to generate the SMS upon alarm activation
       Send_Alarm()
11. Navigate to the display pages and create a new page
    a. Select **Primitives**.
    b. Select **Core Primitives** on the right side.
    c. Drag and drop a text button on the page.
    d. Right click on the button and select **Properties**.
    e. Text: *SMS*
    f. Right click the bevel button and select **Add Action**…
       1) Switch **Operation** to **User Defined**
       2) Type *Send_Alarm()* into the **On Pressed** field
       3) Click **OK**
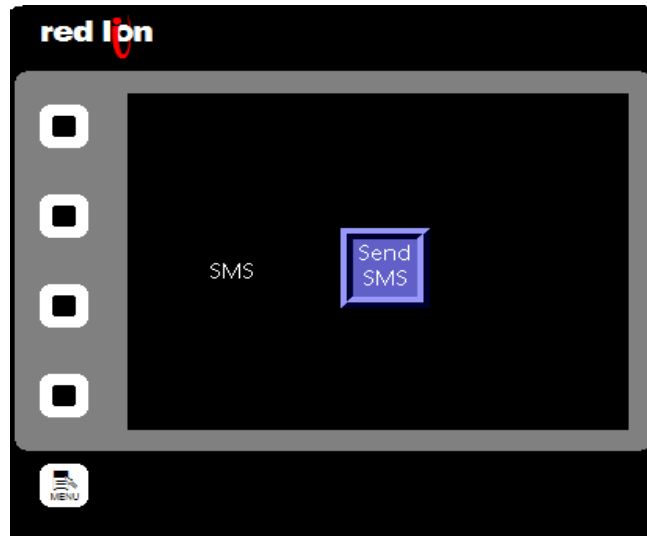
12. On the display page, drag and drop tag **"test_SMS"** from data tags on the right side.

13. SMS is enabled in the Crimson 3 database.

14. Load the Crimson 3.0 database to the device.

   a. Select **Link**

   b. Select **Update**.

Part 2: SN/RAM Configuration

1. Log into the SN/RAM Web interface:

   a. Enter the device's LAN/WAN IP, port 10000 into a web browser (http://ip_address:10000)

   b. User Name: *admin*

   c. Password: Last six digits of the device's serial number

2. Navigate to Advanced → GWLNX → Install Configuration

   a. Under **Manage GWLNX Configuration File**, set the **Select Existing GWLNX Configuration File** to
   `sms-send-recv-tcps.cfg`

   b. Click **Install**

The SN/RAM is now listening at TCP Port 1000 for incoming connections from the Crimson 3.0 device

You are now able to download the configuration and receive a text message on an alarm condition.

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