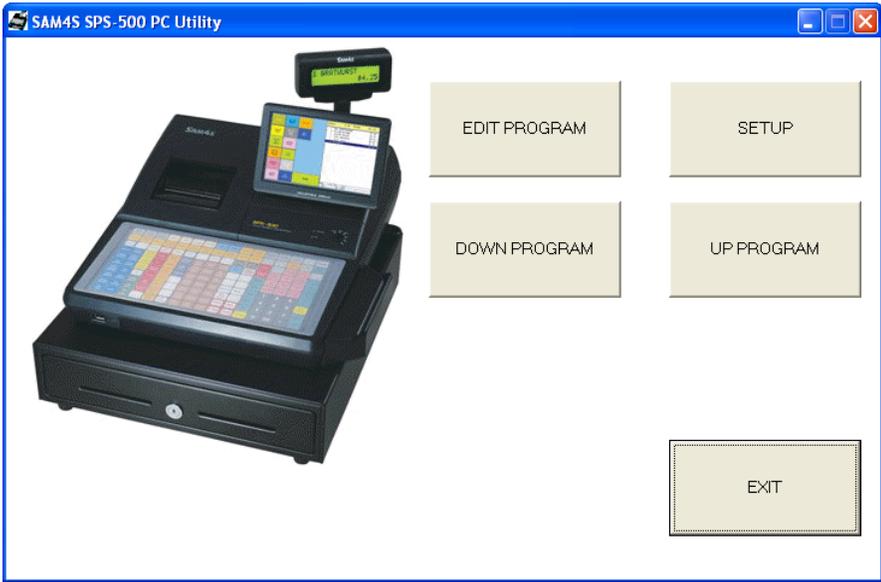


**SAM4S** SPS-5X0 Series

# *PC Utility* User's Manual



All specifications are subject to change without notice.

Version v1.2  
©2012, CRS, Inc.

# **CRS, Inc.**

## **Limited Warranty and Disclaimers of Warranty**

This manual has been developed by CRS, Inc. It is intended for the use of its customers and service personnel and should be read in its entirety before attempting to install, use or program the product(s).

Nothing contained in this manual shall be deemed to be, and this manual does not constitute, a warranty of, or representation with respect to, the product or any of the products to which this manual applies. This manual is subject to change without notice and CRS, Inc. has no obligation to provide any updates or corrections to this manual. Further, CRS, Inc. also reserves the right, without prior notice, to make changes in equipment design or components as it deems appropriate. No representation is made that this manual is complete or accurate in all respects and CRS, Inc. shall not be liable for any errors or omissions contained in this manual. In no event shall CRS, Inc. be liable for any incidental or consequential damages relating to or arising out of the use of this manual. This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied or reproduced without prior written consent of CRS, Inc.

### **NOTICE**

IF ANY WARRANTY IS EXTENDED TO YOU WITH REGARD TO THE PRODUCT(S) TO WHICH THIS MANUAL APPLIES, IT IS A WARRANTY FROM THE ENTITY OR INDIVIDUAL FROM WHOM YOU DIRECTLY PURCHASED THE PRODUCT(S).

SUBJECT TO THE FOREGOING, UNLESS YOU ARE A DIRECT END USER CUSTOMER OF CRS, INC., CRS, INC. DOES NOT EXTEND TO YOU ANY EXPRESS WARRANTY OR ANY IMPLIED WARRANTY AND EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR USE, OR FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS IN CONNECTION WITH THE PRODUCT(S) OR ANY SOFTWARE, DRIVERS, OR PROGRAMMING PRODUCT, WHETHER EMBEDDED IN PRODUCT(S) OR PROVIDED AS A SEPARATE PROGRAM, OR USED IN CONJUNCTION WITH THIS/THESE PRODUCT(S). CRS, INC. SPECIFICALLY DOES NOT WARRANT THAT THE OPERATION OF ANY DRIVERS, SOFTWARE, OR PROGRAMMING PRODUCTS LICENSED HEREUNDER, WHETHER EMBEDDED IN PRODUCTS OR PROVIDED AS SEPARATE PROGRAMS, SHALL BE UNINTERRUPTED OR ERROR FREE OR THAT FUNCTIONS CONTAINED IN SUCH DRIVERS, SOFTWARE OR PROGRAMMING PRODUCTS SHALL OPERATE IN COMBINATION(S) WHICH MAY BE SELECTED FOR USE BY YOU OR OTHERWISE MEET YOUR REQUIREMENTS.

CRS, Inc. is not responsible for any damages or loss, either direct, indirect, special, incidental or consequential, which you may experience as a result of your purchase or use of the product(s). Your sole remedy in the event that you encounter any difficulties with the product(s) is against the entity or individual from whom you purchased the product(s).

Revision 2.0 - April 1, 2005

# Contents

<b>Getting Started</b>	<b>3</b>
About the SPS-5X0 PC Utility .....	3
SAM4s SPS-5x0 Program Settings .....	4
Preparing the SPS-5X0 for Communications.....	7
Installing the Utility .....	7
Starting the PC Utility.....	8
<b>Utility Functions</b>	<b>9</b>
Setup .....	9
UpProgram .....	13
DownProgram.....	14
Edit Program.....	15



# Getting Started

---

## About the SPS-5X0 PC Utility

The SPS-5X0 Series PC Utility provides basic PC communication functions for Samsung SPS-5X0 series ECRs: SPS-530 FT/RT and SPS-520 FT/RT. This utility was designed primarily as a dealer tool - to save, edit, and download programs.

The most current version of the Sam4s SPS-500 PC Utility can be downloaded from the Dealer Area on CRS Web site: <http://crs-usa.com/DEALER/deal500.asp>

The Sam4s SPS-500 PC Utility supports direct serial, Ethernet or modem communications.

### SPS-5X0 PC Utility Features

- Support for Multiple Stores
- Save and Load ECR programs
- Edit ECR programs

---

**Note: The SPS-5X0 Series PC Utility was developed to work best with a screen resolution of at least 1024 x 768 pixels.**

---

# SAM4s SPS-5x0 Program Settings

## S-Mode System Options

1. Go to **S-Mode/SYSTEM OPTIONS**.
2. Set up/verify your **REGISTER #**, **STORE #**, **STORE NAME** and **IRC Range**, options 1 through 4 on Page #1.

The screenshot shows the 'S-MODE SYSTEM OPTIONS' menu with five page tabs at the top: PAGE #1, PAGE #2, PAGE #3, PAGE #4, and PAGE #5. The main menu items are:

- 1. REGISTER # (01-32) with a value of 01.
- 2. STORE # with a value of 000001 and a STORE NAME field.
- 3. IRC : FROM REGISTER # with a value of 01.
- 4. IRC : TO REGISTER # with a value of 01.
- 5. IRC # OF RETRIES with a value of 00.
- 6. PRINT/DISPLAY DECIMAL POSITION with a value of 2.
- 7. PASSWORD (0000=NO PASSWORD)

Below these items are fields for X (0000), Z1 (0000), Z2 (0000), Z3 (0000), Z4 (0000), Z5 (0000), SYSTEM CLERK (9999), and STRING REPORT (0000). At the bottom are OK and CANCEL buttons. Three black arrows point to the REGISTER #, STORE #, and the first IRC field.

S-MODE SYSTEM OPTIONS							
PAGE #1	PAGE #2	PAGE #3	PAGE #4	PAGE #5			
1.	REGISTER # (01-32)				01		
2.	STORE #	000001	STORE NAME				
3.	IRC : FROM REGISTER #				01		
4.	IRC : TO REGISTER #				01		
5.	IRC # OF RETRIES				00		
6.	PRINT/DISPLAY DECIMAL POSITION				2		
7.	PASSWORD (0000=NO PASSWORD)						
X	0000	Z1	0000	Z2	0000	Z3	0000
Z4	0000	Z5	0000	SYSTEM CLERK	9999	STRING REPORT	0000
OK				CANCEL			

## Setting an RS-232C Port for PC Connection

At the SPS-5X0, you must select 'POLLING' as the device that is attached to the RS-232C communications port for both direct serial connections or for phone modem connections.

1. Log on a clerk.
2. Turn the mode key to the **S** position. (**Note:** The **S** position is unmarked and one position clockwise from the **P** position. The key marked "C" accesses the **S** position.)
3. Select **DEFINE PORT** from the **S-Mode PROGRAMMING MENU**.
4. Select the appropriate ECR serial port to be used for the connection to the PC.

DEFINE PORT PARAMETERS			
PORT#	SERIAL PORT#1	RF UNIT	BITMAP DOWNLOAD
PORT DESCRIPTION	PORT1		
BAUD RATE	9600	PARITY	NONE
DATA BITS	8	STOP BITS	1
RETRIES	03	PRINT BITMAP	NO
FEED LINES BEFORE PRINTING	00	FEED LINES AFTER PRINTING	07
LOGO SIZE	NORMAL	LINES ON "HARD" SLIP	00
CUTTING AFTER PRINTING	YES	IN CASE OF PRINTER, KICK THE DRAWER	NO
PRINT UPSIDE DOWN	NO		
DEVICE	POLLING		
OK		CANCEL	

5. Select the device function "**POLLING**". (Although this application is not polling, POLLING is the correct selection for PC communication.)
6. Set the **BAUD RATE**, **DATA BITS**, **PARITY** and **STOP BITS** to match the settings on the PC port.
7. Touch **OK** to save the settings and exit the Define Port Parameters.
8. Press **CLOSE** to go back to the main S-Mode menu screen.

## Setting an Ethernet Connection

If you choose, you can connect the SPS-5X0 to a PC via a direct Ethernet connection (not by Internet.)

1. Return to **S-MODE/SYSTEM OPTIONS**.
2. On Page #4 – there is no need to use # Network Setting.  
Make the following settings:
  - # Network Setting? = NO
  - Use New IRC Network = NOT USED (for this example)
  - PC Connection Type = ETHERNET
  - PC Connection Port Number – This must match the setting in PC Utility.

The screenshot displays the 'S-MODE SYSTEM OPTIONS' menu, specifically Page #4. The menu items and their corresponding values are as follows:

Setting	Value
# NETWORK SETTING?	NO
AUTOMATICALLY GET IP ADDRESS? (DHCP)	NO
IP ADDRESS	0.0.0.0
SUBNET MASK	0.0.0.0
GATEWAY	0.0.0.0
DNS SERVERS#1	0.0.0.0
DNS SERVERS#2	0.0.0.0
USE NEW IRC NETWORK	NOT USED
PC CONNECTION TYPE	ETHERNET
PC CONNECTION PORT NUMBER	8027

At the bottom of the screen, there are two buttons: 'OK' and 'CANCEL'.

---

## Preparing the SPS-5X0 for Communications

The register must be ready for communications:

1. The register power must be on.
2. The register cannot be inside of a transaction.
3. The mode key can be in any position other than OFF.
4. Connect the register to the PC with the appropriate cable:
  - For serial communications: Connect the register directly to the PC with the appropriate cable. Use **CRS #522124** (RJ-45 at ECR to DB-9F at PC) for ports 3 or 4 or **CRS #522120** (DB-9F at ECR to DB-9F at PC) for ports 1 or 2.
  - For Direct Ethernet communications: Use a cross-over Ethernet patch cable between the register LAN port and the Ethernet port on the PC. If you are connecting the register and PC via a switch: Use a straight thru Ethernet patch cables.
  - For Modem Connections: Connect the register directly to the modem with the appropriate cable. Use **CRS #522031** (RJ-45 at ECR to DB-9F at PC) for ports 3 or 4 or **CRS #522034** (DB-9F at ECR to DB-9F at PC) for ports 1 or 2.

---

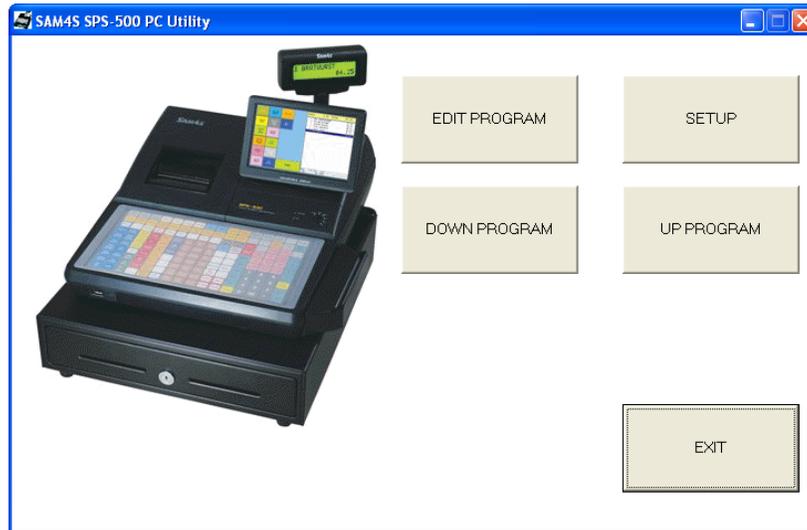
## Installing the Utility

1. Download the SAM4S SPS-500 PC Utility from the CRS web site.
2. From Windows Explorer, locate the folder where the utility is located.
3. Extract the setup500.exe file to this folder.
4. Double click the setup.exe file to open the installation dialog box.
5. Follow the instructions on the screen to complete the installation.

---

## Starting the PC Utility

1. Choose Start, Programs, **SAM4S SPS-500 PC Utility** and then *500src*. The Utility window displays



# Utility Functions

---

## Setup

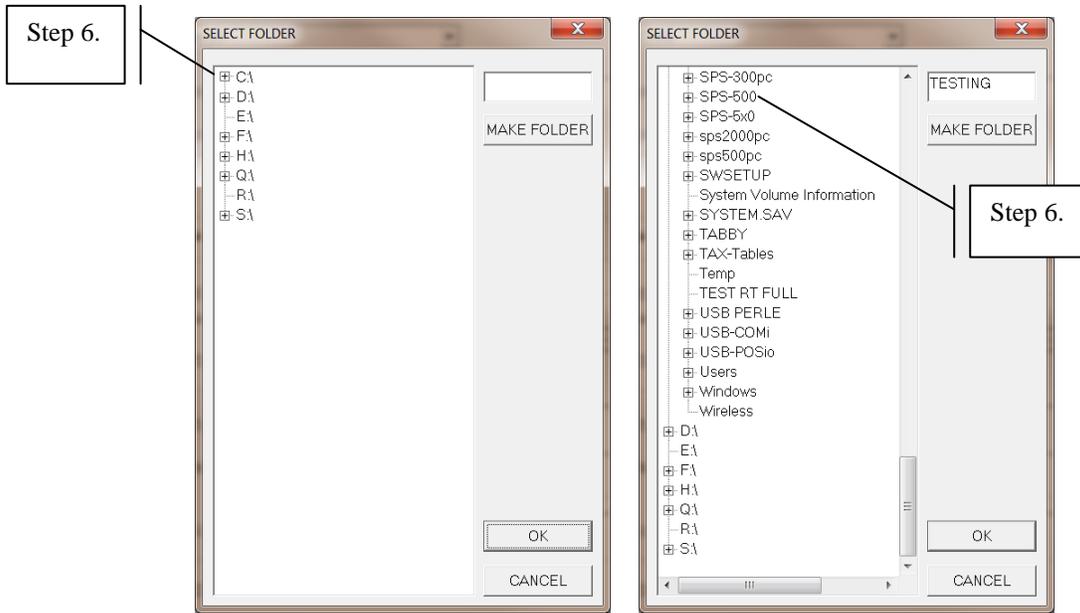
### Store Setting

You can manage up to 20 stores with the utility. For each store you must define a folder for file storage and define the connection with the PC.

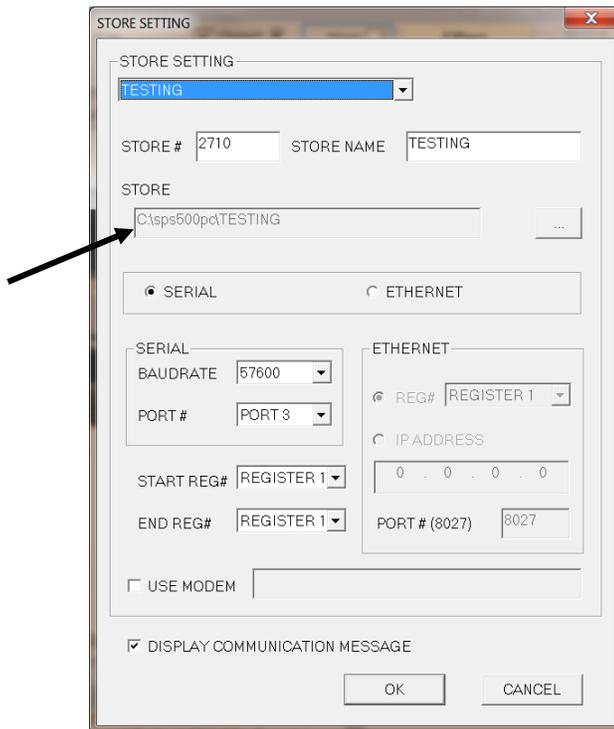
1. Click Setup from the main screen to display the Store Setting Dialog Box.



2. Select the Store number (1-20) from the **STORE SETTING** list box. If you have already setup a store and set a store name, select the store name from the list.
3. Enter the **STORE #**; this must match the store # setting on the register.
4. Enter a unique **STORE NAME** for your store.
5. Now we need to create a folder for the store. Click on the 



6. Click on the **+** next to the C\ drive then select a location for your folder such as the sps500pc folder.
7. Type in the folder name you wish to use and press **MAKE FOLDER**
8. Press **OK** to go back to the STORE SETTING screen
9. The new folder is created at the location we selected with your Store name as shown below:  
 C:\sps500pc\TESTING



10. Select the Connection Type; SERIAL or ETHERNET.
  - a. If connection is Serial, set the **BAUDRATE** and the **PC Port #**; the BAUDRATE must match the setting at the SPS-5x0. (This must be set for modem connections as well).
  - b. If the connection is Ethernet, set the **IP ADDRESS** to the IP of one of the registers in the system; the default IP addresses for Reg. #1 is 192.168.0.11. Set the Port # to 8027 (the default Port# is 8027). Refer to Page #4 of S-Mode System Options at the ECR if set to use # Network Setting.
  - c. If the connection is Serial/Modem, select the Use Modem check box and enter the Phone number preceded by the letter **T** or **P** only if you intend to communicate with the register by modem. The **T** is for TONE and the **P** is for PULSE. US Robotics Sportster™ Modems are recommended for remote connections (for both PC and ECR sites).
11. Set the **START REG#** and **END REG#** fields to match the values set at page #1 of SPS-5x0 S-Mode System Options.
12. Check the “Display Communication Message” check box if you would like a confirmation message when communications are completed.
13. Click **OK** to save the store settings.



---

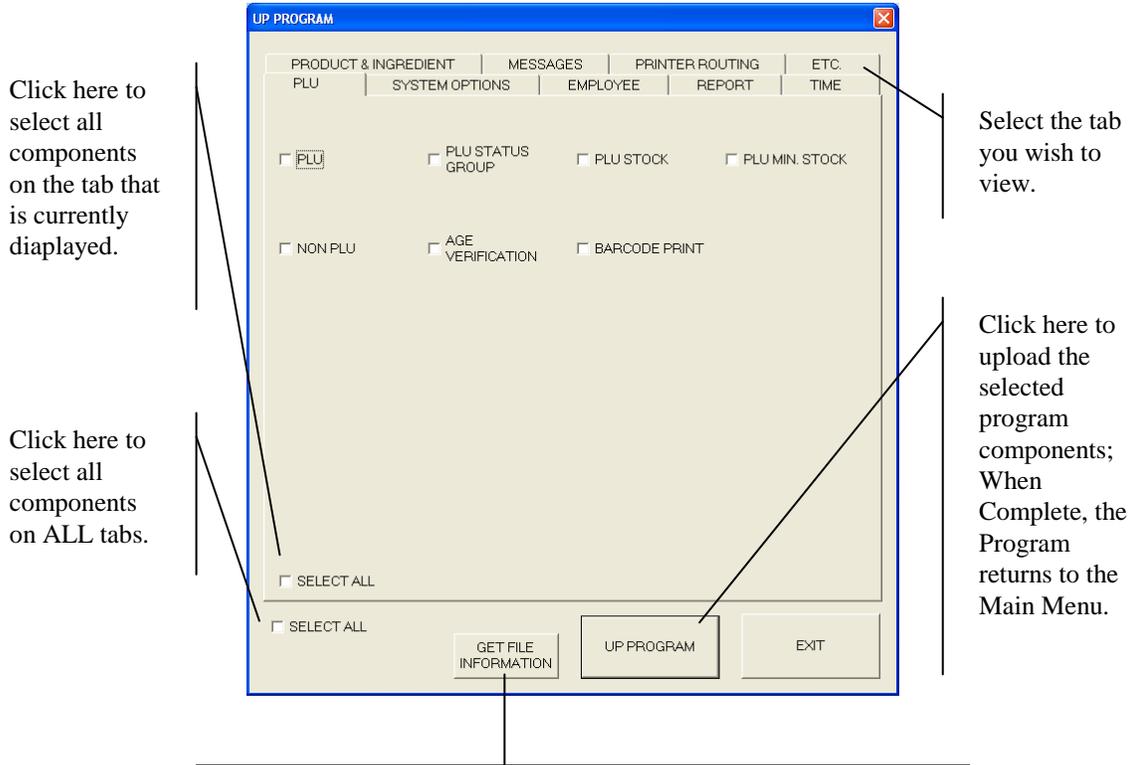
# UpProgram

---

**You must upload a program before program edit functions are allowed.**

---

Use the UpProgram selection to save/upload the program from the register to the SAM4S SPS-500 PC Utility. From the Utility Main Menu select **UP PROGRAM**. Note that the SPS-5x0 program areas in the utility are organized on tabs. Click a Tab to view and select program components for uploading.



---

Click here to verify communications: If successful a “Completed” message displays; if unsuccessful, a “COM Error” Message displays. (When complete, program stays at current screen.)

---

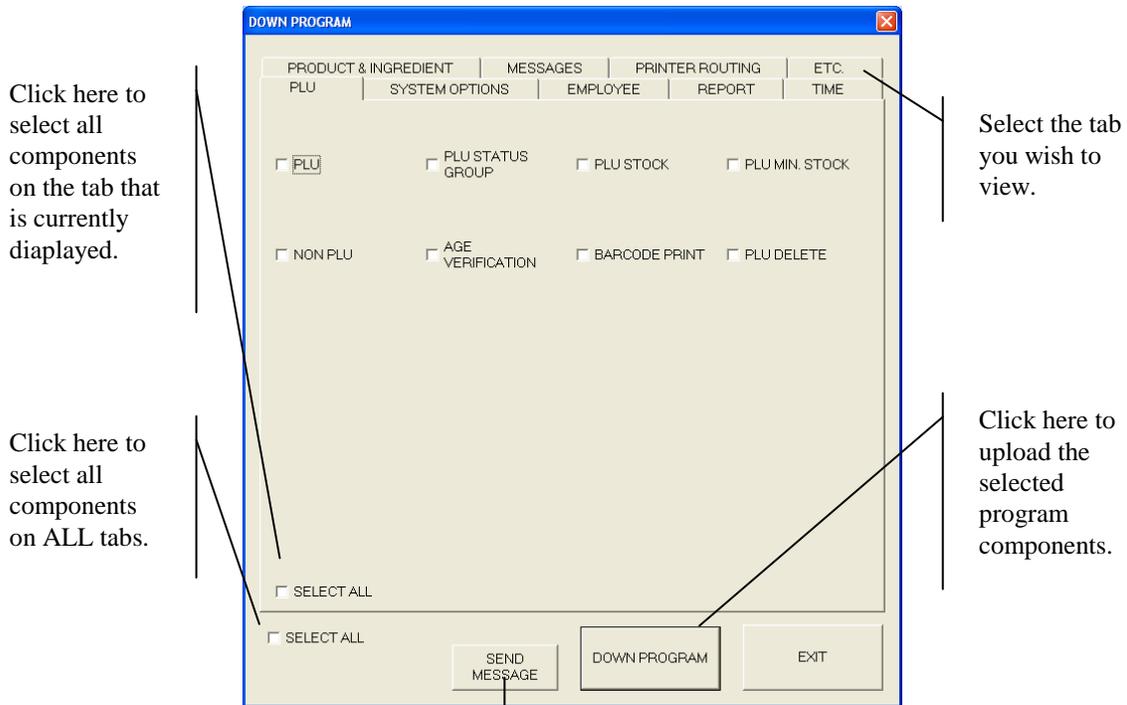
## DownProgram

Choose the DownProgram selection to load a program saved in the SAM4S SPS-500 PC Utility to the register. The Memory Allocation setting at the register must be set to accommodate the program that is being downloaded. Example: the # of PLU's allocated on the register must be equal to or greater than the number of PLU's downloaded from the utility.

You can download the Memory Allocation from the SAM4S SPS-500 PC Utility to the register; the register must be on the S-Mode \ Memory Allocation screen for the download to take affect.

Downloading a program area will overwrite the existing program on the register.

From the Utility Main Menu select **DOWN PROGRAM**. Note that the SPS-5x0 program areas in the utility are organized on tabs. Click a Tab to view and select program components for downloading.



Click here to verify communications: If successful a "Completed" message displays; if unsuccessful, a "COM Error" Message displays.

---

## Edit Program

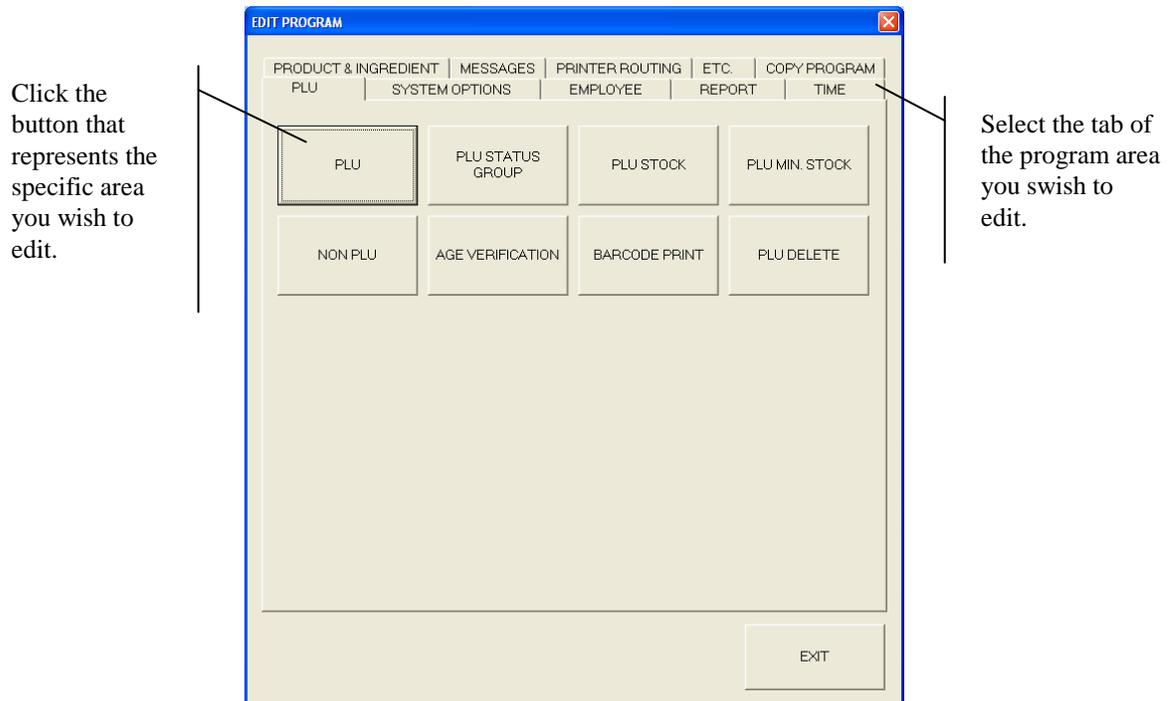
All register programs can be edited with the PC Utility with the exception of the memory allocation. You will find options neatly organized on tabs. If necessary, use the SPS-500 Series Program Manual as a reference.

---

**You must upload a program before program edit functions are allowed.**

---

From the Utility Main Menu select **EDIT PROGRAM**. Note that SPS-5x0 edit program area is organized on tabs. Click on a Tab to view and select specific program components for editing.



---

**Note: When editing descriptor fields, you can make bold characters print on the ECR by entering a tilde (~) before each character. Each bold character occupies 2-character positions.**

---

# Manual Revision Record

Edition	Date Published	Revision Comments
v1.0	04/23/2012	Initial Release
v1.1	02/18/2015	Modifications to accomidate SHC 500pc v3.1.16
v1.2	07/29/2015	Updated to accomidate SAM4S SPS-500 PC Utility v3.1.19