Anthology, Inc.

Programming Symbol CS1504 Scanners for using with Visual Anthology's Physical Inventory module

Overview

This document is being provided to help guide you through the process of programming your new CS1504 scanners. Some basic knowledge of downloading and installing software is expected. It is critical that you follow every single step exactly. Failure to do so will result in corrupted and or failed data downloads from the scanners.

Physical Connections & Programming Sofware

The CS1504 scanners normally come with a serial to mini-USB cable. We have opted to use an additional adaptor that goes from Serial to USB (tower end). You must be using this special adaptor when doing the inventory; however in programming the scanner you must disconnect the adaptor and use the serial connection only. The software you will be using to program the scanners can only communicate over a serial connection.

Download Programming Software

Go to the Anthology website and log into the Customer Zone. Under the Downloads page you should find a zip file with the name "CS1504ParamProgrammingTool.zip". Download this file to a temp folder on your local hardrive where you'll be installing the software and programming the scanners from. Remember, this machine must have a serial port available for use.

Unzip this file and run the SETUP.EXE to install the programming software. You should now have an icon on your desktop marked "Cs1504ParamLister.exe".

Before you can start the programming however, you must also install the scanner cable and possibly load a driver so the device will be recognized. Please continue with the rest of the document.

Installing Scanner Cable and Device Driver

The CS1504 scanners do require installation of a driver in order to download data. The driver files have already been included in your Anthology installation directory on the server. The Tools folder of your Anthology directory should contain these three files- pl2303.cat, ser2pl.inf, and ser2pl.sys. At the appropriate time you may be asked for the location of the device driver files, point to the Tools folder.

There are two methods to installing this driver. Which you will end up using depends on what your machine will recognize automatically. This document will cover both, it's best to try and use method 1 if possible in order to do the programming first.

Installing Scanner Cable and Device Driver- Method 1, using Serial connector

If you have a Pole Display, Palm docking unit, or other Serial device you will likely need to shut down the machine, disconnect the serial device and then power the machine back on. This will enable the machine to recognize the serial port is now available. As with the CS2000 scanners we have found that it is best the user not have a Palm Device or "HotSync" software on the machine they will be working from, or install any other serial devices during the time they will be doing the inventory.

You will need to shut down the machine again, connect the serial end of the scanner to the tower for this initial programming stage. Also connect the scanner to the other end of the cable. Turn the machine back on, you may start receiving messages about a Hardware wizard wanting to run as the new hardware is detected.

If you do get a message about a Hardware Wizard detecting new hardware you will be asked to point to the appropriate drivers. In that case follow the rest of the directions for the "Found new Hardware Wizard for method 2 below.

If you receive no messages about a new device being found you may need to add the driver manually.

1. Right click on the My Computer icon from your desktop or start menu

2. Choose Properties

3. Under the new System Properties window choose "Hardware" tab

4. Click on the "Device Manager" button

5. You should find a highlighted entry for "USB-Serial Controller".

6. Right click on this and choose "Update Driver". Choose "Install from Specific Location" and browse to the USB driver. This is normally kept in the "C:\Program Files\Anthology\Tools" folder on your server.

7. Once the driver installation is complete you should now see the following in the device manager. It may show a different Com port, but that is fine.
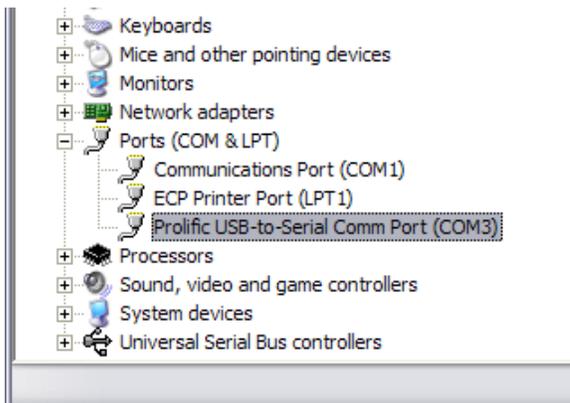
Installing Scanner Cable and Device Driver- Method 2, using USB connector

Verify the USB adaptor is firmly attached to the Serial connector. The male and female serial connectors should be screwed together for stability.

Plug the USB end into the computer and allow a few moments for the computer to recognize new hardware. You may receive a message saying that "New Hardware" or "New USB Controller" was found. Shortly after a new window should appear. Follow the images below to set the correct options and install the necessary driver.

#1- Select "No, Not this time", click Next

#2- Select "Install from a list or specific location"
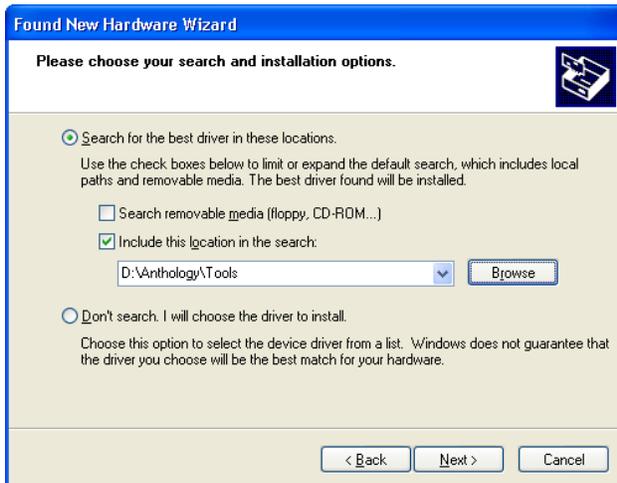
#3- Select "Include this Location in the Search"
Click Browse button and browse to the location of your
Anthology folder on the server. Browse down to the
"Tools" folder contained in the Anthology folder
This folder contains the drivers necessary. Click Next

#4- Completion message
Successful driver installation.
Click Finish

Special Notes before Programming the scanners

Storage Capacity

The CS1504 scanners come with a default setting of 30 character wide "Barcode Storage Capacity" and stores a TimeStamp with each scan. With the default they can hold 300 scans and will beep when the scanner is full and when the battery is getting low.   Unlike the CS2000's once they are full they cannot scan anything further so should have much less problems downloading batches.

We have successfully programmed these scanners to accept only 18 characters (our program limit) with the TimeStamp turned on (required) so they can now hold 250 scans. When programming the scanners you must program exactly as the instructions. Any attempt to program different specifications will result in failed/corrupted data downloads from the scanners.

Battery Information

Symbol recommends using 4 Energizer EPX76 batteries in each scanner for optimal performance. At this time we do not have a working estimate of how long these batteries last. They do say that it can do roughly up to 5,000 scans on a fresh set of batteries. Manually clearing the scanners will result in reduced battery capacity.

Connection Errors while doing data downloads

Be careful when doing the Get Data From Scanner command. If the scanner is left on the cable from the previous download too long (more than 1 minute) the next download attempt may result in a communications error. You will need to close out of the batch, out of anthology and try again. It is best if the scanner and cable are connected first, then do the Get command. You should not see the scanner flash just by connecting it to the cable, it should only start flashing after the Get command. If you do see the scanner begin to flash immediately after connecting the cable you will need to shut down Anthology on that machine, disconnect the cable and wait 5 minutes. Is some cases you may even need to shut down the machine as well.

PROGRAMMING THE CS1504 SCANNERS

Use the earlier installed "Cs1504ParamLister.exe" utility. Note that you will not be able to reprogram using the USB to Serial adaptor. **This only works with the Serial only connection.** If you've already installed the device driver using the USB connectors then shut down the machine, disconnect the serial connection from the USB adaptor and plug only the serial connector to the machine and reboot.

1) Run the Cs1504ParamLister.exe executable

2) The following window will appear, you will need to set the fields as displayed in the image below. The first time this program runs it will likely have other values. The PORT field will very likely be Com1. However, you may find that in the next step of doing an initial Read that you may need to try the other Com ports as well before it can read the settings from the scanner.

3) Change the Parameter Name field to Max Barcode Len. Make sure the scanner cable is connected with the serial connection on the tower and the USB mini connector into the scanner. You must have batteries in the scanner as well.

4) Click on the Read button. You should immediately see the scanner flash and hear it start to beep. You should start seeing values in the right hand side of the window. All you want at this point is to get some information back and no error messages.

5) If the scanner has been successfully read then you can begin programming. If nothing happens you may need to try changing Com port #'s or you may need to return back to installing the device driver in the earlier part of this document.

Programming code #1- Set the characters to 18

6) Change the Parameter Name to "Max Barcode Len" and click on Write.

7) Click on the […] button to the right and change the value to **18**. Click ok.

8) You should be brought back to the Parameter tool window, similar to below. The scanner will continue to beep and flash for several more moments. Be sure to wait until you see the ending red flash signal.

Symbol CS1504 Parameter Tool

Param #
34 (0x22)

Parameter Name
Max Barcode Len

☐ Enable Logfile

Written: Store_RTC 35 (0x23) = 0x00
Written: Max Barcode Len 34 (0x22) = 0x12

Port
COM1

Read   Set Defaults

About   Write   Exit
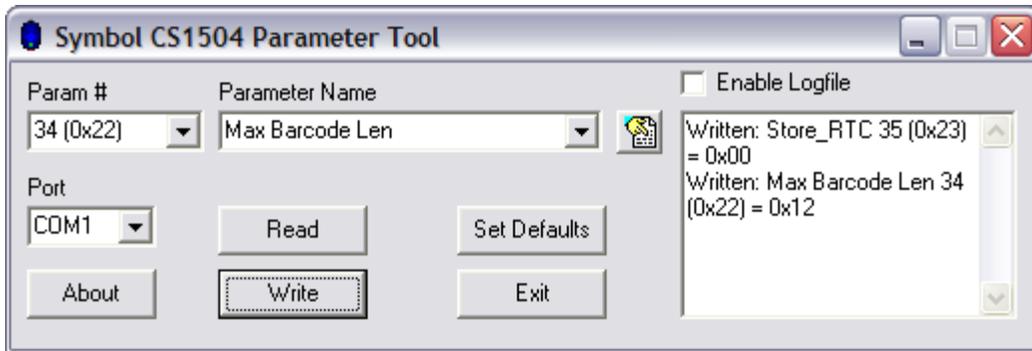
Programming code #2- Turning Time Stamp On

9) Ensure scanner is completely done flashing and beeping from previous code.

10) Change the Parameter Name to "Store_RTC". This controls if timestamp is used or not, for our purposes the time stamp must be on.

11) Click the Write Button

Enter Parameter Value

Data for Param 35 (0x23)
Store_RTC
Descr: Store Real Time Clock data

[0]   1 (0x01) (SOH)

OK   Cancel
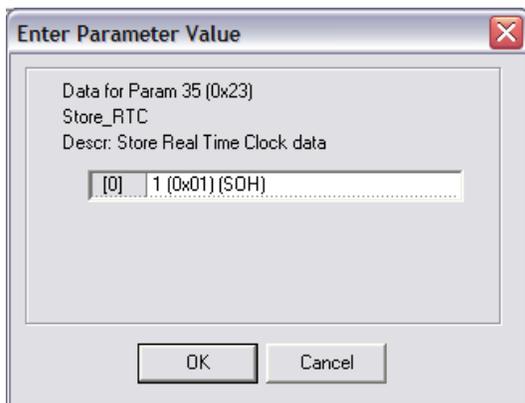
12) A window similar to above will appear, but with a […] button at the end of the field. Click on this button to bring up the Change window.

Change

Store_RTC [0]

1

Enter decimal, hex (oxdd), ascii ('c)

OK   Cancel
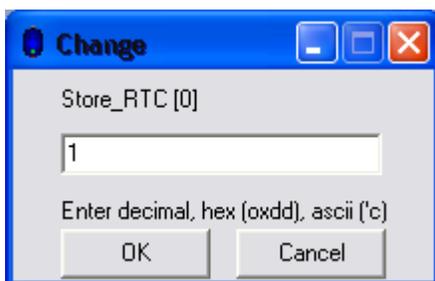
13) Set the value to **1** and click ok.   The parameter window should come back showing something similar to below

14) Once the scanner stops flashing you can click on the Exit button and disconnect the scanner. Do not disconnect sooner or the programming will fail.

You should completely shut down the programming software, disconnect the scanner and wait a minute before connecting the next scanner to program.

Once the programming is complete we highly recommend you disconnect the cable, close the programs down, and shut down the machine completely. Then turn the computer back on, connect the scanner cable, this time using the USB (tower) to USB (scanner) cable/adaptors. You should hear a beep from the computer as it recognizes the scanner and cables.

You should setup a testing copy of data to test with to ensure all the scanners are working correctly. You can find a document on this on the Customer Zone by the name of "PI Setting up Test copy of data for PI Practice_QuickBackup_".

As part of your invoice you may be receiving a separate email that will provide you with the Authorization Code that allows you to download data from the scanners.

Wrong DLL, rerun upgrade. Should not need to manually register using regsrv32 but may be an option.

FAQ- Frequently Asked Questions

Q: I plugged in the scanner, and chose the "Get Data From Scanner" option from the Action menu and am getting this error message. How can I get my scanner to download again?
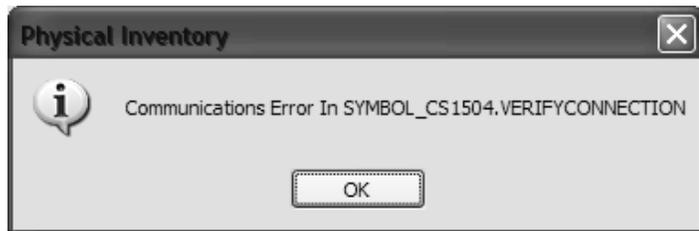
A: Unplug the scanner, click ok, close out of the PI and Anthology.   Open Anthology and the PI back up. It's critical that you do the Get command then plug in the scanner, not the other way around. There is only a small window of time where the software and the hardware will attempt to communicate so have the scanner and the cable end in hand ready to plug together quickly. Too long of a delay or connecting then doing the Get command will cause this error.

Q: I get the following error when trying to download from the scanner:

A: Click OK, disconnect the scanner. Close out of PI and Anthology for 1 minute. If you try to get the data again and get the same message, try connecting the scanner and doing another Get Data command. Occasionally the scanner needs to be left sitting on the cable long enough for the green light to stop flashing and then have the Get data command to run again.
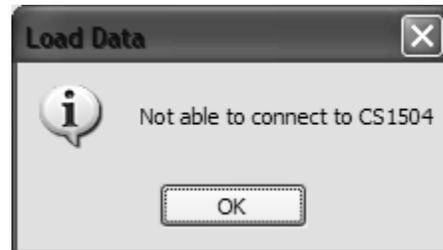
Q: When choosing my list of sections for my Partial PI I missed a section. Can I go back in and add the missing section?

A: If you miss a section in a partial PI, but end up scanning and downloading those items in a batch, you will be forced to remove the items from the batch before they can be posted. Only items assigned to the sections listed in the PI record will be accepted. You can simply create a new PI with the missed section only.

Q: I included a section on the PI, but that section of items was missed in the scanning. What happened to the Inventory OH's when the PI was posted?

A: If you have missed a physical section, yet had the section on the PI, your total counts will be 0 when you post the final change. When you do the final update (Adjust Inventory) any item with a value in the Discrepancy column will have the OnHand changed by that value. For example, an item has 10 OH in the system at the start of a PI.   The store only counts 8 copies. The Discrepancy is –2. The OH will have 2 copies subtracted to change it to the correct 8 copies found and an entry will be made in the OH Edit report for later reporting if needed. Be sure to run an exception report to spot any missed sections before finalizing the PI.

Q: I have several items that do not have barcodes on them, mostly sideline items.   How should I handle these?

A: For non-barcoded items you can still count them and include the counts on the Master PI record. This process is called a 'Manual Update". Sort the Master PI record by the section or title, or you can use the F8 Find Line key to locate the item by it's sku. Once you have the item located, modify the "CountQty" field for the amount just counted. Pay close attention to the "TotalCount" field in the grid as well. This TotalCount is the sum of all the batches done so far, the CountQty value gets added to the TotalCount each time you F12 Update the Master PI. Understand further that a batch record with the status of "Update" will be created as a record. Do not confuse this with your downloaded and posted batches.

Q: I've done a Get Data command and get a message saying "No Data to Download".

A: The scanner may not be completely connected, or the scanner was manually cleared. First attempt to check the connections, close the program and reopen, and then try another get command.

Q: After shutting down the program, checking the cable connections, I still get an error saying I cannot download the data from the scanner. I have tried repeatedly with different scanners and am unable to download any scanners.

A: First, stop all scanning. Close out of Anthology, disconnect the scanner from the cable, and shut down the PI machine for 5 full minutes. Bring the system back up and do a Quickbackup, and a Reindex from the tools menu. Pick one scanner and empty it by holding the (-) for 20 seconds until it beeps. Scan only 2-3 items as a test. Do not attempt to download other scanners at this time, concentrate only on this one scanner and getting the communications functioning again. Go to the Master PI record and hold the scanner and cable in one hand, but not connected. Go to the Action menu and choose "Get Data From Scanner". Then immediately connect the scanner to the cable. It is critical that you do the Get command before connecting the scanners. Remember, that these scanners want to send the data as soon as they are connected. Think of the connection process as opening the door (Get Data) and walking through the door (connecting the cable). If you still experience problems you may need to replace the batteries on the scanner, or shut down the PI machine, disconnect the cables, and try to connect the PI scanner cable to a different machine.

As an absolute last resort, if after following the above directions you still have problems downloading batches, stores on support may page. Please be aware that techs are instructed to offer a few minutes assistance, but we cannot guaranty the issue can be resolved on an emergency page basis. Some problems may only be resolved by a login M-F, 9-5pm eastern.