

Metrologic Barcode Scanner Desktop Installation

There is **only one model** of portable scanner that can be used with SMART – Metrologic Optimus S SP5500 (Worldwide Technology P/N MK5502-79B639).

It is highly recommended that you read through these instructions first, **before** attempting to install the scanner. If certain steps are not taken in the correct order, or user permissions are not granted, the install will not go smoothly and take much longer than needed.

If there are any questions during the install process, or you are in need of troubleshooting help, contact a Records Analyst or Electronic Records Archivist in the Records Management Division in the Office of the Secretary of State. Contact information for Analysts and Archivists can be found on the Secretary of State's website at: <http://www.sos.mo.gov/records/recmgmt/contact.asp>

WARNING: Do NOT install the USB cradle for the Metrologic Optimus SP5500 scanner until AFTER the software has been installed. If you have already plugged in the USB cradle, unplug the cradle and restart the computer.

- a. The individual following these steps **must** be logged in as an administrator or have full administrator privileges. Someone with administrator privileges must create a folder named **barcodes** on the workstations **workstations C: drive**.
 - b. After creating the barcodes folder, right click on the folder and select properties.
 - c. Click on the Security tab.
 - d. Make sure that each user or group has the “allow” checkboxes checked.
 - e. If you make any changes click on Apply, then OK.
 - f. Restart the computer.
 - g. Even though an administrator has created the folder, the correct permissions are not always automatically applied.
2. ActiveX must also be enabled in Internet Explorer. The administrator must check this by opening IE.
- a. From the **Tools** menu, select **Internet Options**.
 - b. Click the **Security** tab
 - c. Click **Internet** as the zone to change.
 - d. Click **Custom Level**. The Security Settings - Internet Zone dialog box appears.
 - e. Scroll down to the options below **ActiveX Controls and Plugins**
Change all settings for ActiveX controls and Plugins to either enable or prompt
 - f. Click **OK** to save your settings and exit the Security Settings dialog box.
 - g. Click **OK** to close the Internet Options dialog box.
 - h. Exit Internet Explorer.

ActiveX is enabled when you restart Internet Explorer.

3. Run **OptimusInstall.exe** from the CD-ROM that was supplied with your scanner.
4. Connect cradle to workstation by using the supplied USB cable. The computer should automatically recognize the cradle. Windows 7 users will need to update the driver. If you are running Windows XP, or the cradle has been properly recognized by your computers operating system, move to step 5.

If you are using Windows 7 follow the steps below:

- a. Go to the Start menu and choose Control Panel
 - b. Choose System
 - c. Click on Hardware
 - d. Click on Device Manager
 - e. Locate the driver in the list of devices. The cradle will most likely appear under Universal Serial Bus Controllers.
 - f. Right click on the cradle and choose Update Driver Software
 - g. Choose Browse my computer for driver software
 - h. Click on Browse and navigate to the folder containing the driver. Depending upon the version of the scanner software, this will be found under Program Files (x86) > Metrologic or Program Files (x86) > Honeywell
 - i. Click on Next, Windows will install the driver
 - j. Close the Update Driver Software Window
 - k. Restart your computer
 - l.
5. Determine which COM port the cradle has been assigned to.
 - a. Go to the **Start** menu and choose **Control Panel**
 - b. Choose **System**
 - c. Click on **Hardware**
 - d. Click on **Device Manager**
 - e. Find **Ports (COM & LPT)** and expand this option by clicking the plus sign. If you do not see this option the cradle is not plugged into the workstation. Check the connection between the cradle and workstation.
 - f. Find the Optimus WHQL Bridge Controller. **Write down** which comport is being used.
 - g. Close out of the Device Manager, System Property and Control Panel windows.
 6. Turn on the scanner.
 - a. Place the **OptimusSInfolinxHoneywell.opt** file on the computer desktop.
 - b. On the computer go to Start > Program Files > Optimus > Utilities > OP_Load
 - i. If you cannot find the OP_Load file search for it in Windows search utility (Start menu > Search).
 - c. The file type is **Opt files** and use the browse button to select the OptimusSInfolinxHoneywell.opt file.

- d. Download via **Cradle-IR**, set the COM port – see **step 5f** and set the baud rate to **9600**.
 - e. On the scanner, select **Get Program** usually found under **Transfer Files**
 - f. Set the scanner in the cradle
 - g. Click **OK** on the OP_Load window. The scanner will download the Opt file changing the scanners menus.
7. Turn on the scanner. The menu will give you three options. Choose option **3. Utilities**.
- a. Press **5. Settings**
 - b. Press **1. View Settings**
 - i. The scanner settings must read:
 1. Upload: Cradle
 2. Download: Cradle
 3. Speed: 9600

Other settings are optional. If any of these settings are different go into the settings menu and change to match that above. If you are unsure how to do this contact your agency's Records Analyst or Electronic Records Archivist.
8. Set up the Optimus software to communicate with the computer.
- a. Using the scanner, select option **1. Collect data**. Find random barcodes around the office. Soda cans, books, etc. When done press escape.
 - i. Choose Option **2. Send Data**
 - ii. Place the scanner in the cradle. Nothing will happen for the moment.
 - b. Go to the Start menu > Programs > Optimus Software > Utilities > Data_Read
 - c. The Data read software window will appear listing a number of options.
 - i. In the **File Property** section, delete any existing information and type in **C:\barcodes**
 - ii. The **File name** field needs to be changed to **barcodes.txt**
 - iii. **Save mode** should have **Overwrite** already filled in.

The **Communication Parameters** section should contain the following:

Interface: **Cradle-IR**
 COM port: Enter the number you wrote down in **step 6f**.
 Change the Baud rate to **9600**.
 Click OK.
 - d. The scanner should download the scanned barcodes to the Directory listed on the File Properties of the Data_Read program (the barcodes folder) and ask if you would like to view the files. Choose **yes** and make sure there is information. Close the file.
9. The scanner has been successfully connected to the computer. Now it must be set up to communicate with SMART.

- a. Log into SMART at <http://smartweb.sos.mo.gov/smart/application/login/login.aspx>. Have the **user** login using their username and password.
- b. A **yellow bar** will appear at the top of the web page asking if you want to install the Infolinx ScanGun Component. Click on the bar and choose **Run add-on**
 - i. Click on **Run**. Remember that **users must have the rights** to be able to download and install this component.
- c. Click on the **preferences** link at the top of the web page.
- d. Click on **Portable Scanner**.
- e. The values should read from top to bottom:
 - i. C:/barcodes/barcodes.txt
 - ii. C:/Program Files/Honeywell/Optimus Software/Communication/Data_Read.exe
Note: Depending upon the software version you are using this may need to be different. Other options include:
 C:/Program Files/Metrologic Instruments/Optimus Software/Communication/Data_Read.exe
 and
 C:/Program Files/Metrologic Instruments/OptimusS Software/Communication/Data_Read.exe
If you are unsure, go to your C: drive and check the Program Files folder and find the Data_Read.exe file. This step is recommended even if you believe it is correct.
***Windows 7 users – the application for the Data_Read.exe file will install as a 32 bit application. You will need to add a space (x86) to the path name. Example: C:/Program Files (x86) /...**
 - iii. Polling Time: **300**
 - iv. Baud rate setting: **9600**
 - v. Change the COM port to that **written down earlier in step 6f.**
 - vi. Data bits: **8 bits**
 - vii. **Hardware**
 - viii. **No Parity**
 - ix. **1 Stop Bit**
 - x. **ScanPal**
 - xi. Click on **Save Changes** then **Close**.
 - xii. **Remove the scanner from the cradle and clear all records.**
 - xiii. Click on the **Utility** link at the top of the page
 - xiv. Click on **Scanner Download**. Another **yellow bar** will appear at the top of the webpage. Click on the bar and select **Install This Add-On for all Users of this Computer**
 - xv. The scanner is now installed.

10. Restart the computer and have the user login using their credentials.

Using the Barcode Scanner

The portable scanner is designed solely for the transfer of items from one location to another. Transfers made with a portable scanner are not recognized by SMART until the scanner is docked and data uploaded to the system.

Printing action barcodes

To transfer files to boxes, a special **action barcode** must be used. This action barcode must be printed from the Reports page in SMART.

To print action barcodes for use:

1. Click on **Reports** in the Top Level Menu
2. Scroll to the Action barcodes report in the Activity group
3. Click **view**. A PDF will open in a separate window.
4. Click on the printer icon  on the Acrobat tool bar to print the document.

The **Make Location** action barcode is the only action barcode compatible with the portable scanner. It is only needed when transferring files to boxes.

Transferring files into boxes

1. Scan the **Make Location** barcode
2. Scan the **barcode of the box** the files will be going into.
3. Scan the **barcodes of the files** that will be going into the box.
4. **Rescan** the Make Location barcodes before moving onto another box.
5. When finished, place the scanner in its docking station. It should automatically go into transfer mode.

Transferring a box to a shelf, place or user

1. Scan the barcode of the **destination**.
2. Scan the boxes that will be going to this location.
3. When finished, place the scanner in its docking station. It should automatically go into transfer mode.

Uploading data from the scanner

1. In SMART, click on **Utility** in the Top Level Menu.
2. Click **scanner download**.
3. Click **receive data**.
4. When the upload is complete the transfers will display at the bottom of the page.
5. The screen should display all items being transferred in a column listed between each destination. If anything looks unusual or incorrect, contact your records analyst to be sure the data scanned correctly.
6. If an incorrect location was scanned at any point it is possible to update the location information from this page by clicking “edit” next to the incorrect location and entering the correct location barcode, then clicking “update.”
7. When you are certain the data is correct, click “update locations” in SMART.

8. Once the data is verified as correct in SMART, return to the scanner. The scanner will ask if the data should be deleted. Select “1” on the scanner to delete the data.

Troubleshooting	
Error	Solution
Failure to find Comport	<p>The USB cradle is on a COM Port other than 3. To find which COM Port the cradle is on go to Start > Control Panel > System > Hardware > Device Manager. View Ports (COM & LPT). The cradle should be listed as a device, most likely as Optimus WHQL Bridge Controller. Write down the COM Port number it is assigned to.</p> <p>Login to SMART. Click on the Preferences link at the top of the page. Click on Portable Scanner. Find the COM Port Settings field, which is the fifth from the top. Use the drop down to select the COM Port number that you wrote down. Click on Save Changes. Then click on Close. Try downloading your data again.</p> <p>Why did this happen? When you start your computer, it may recognize usb devices in a different order.</p>
ScanPal startReceiving failed	<p>Restart the computer. If this does not solve the issue, recheck SMART settings paying close attention to the path to the Data_Read.exe file.</p> <p>There are six possible paths to the Data_Read.exe file depending upon the version of the software you are using. However, one of those paths in SMART is considered the default. The path to the Data_Read.exe file on an individual’s computer is kept in a browser cookie. If the cookie has been deleted, the path name reverts to the default path. The default path to the Data_Read.exe file for SMART is C:/Program Files/Metrologic Instruments/Optimus Software/Communication/Data_Read.exe. Please keep in mind that the path a user needs may not be the default.</p> <p>There have also been instances where changing the forward slashes in the path to backslashes has fixed this issue.</p> <p>Windows 7 users will need to add “ (x86)” to the path name after Program Files as the application installs as a 32 bit application.</p> <p>You will also need to check the permissions of the barcode folder. All users and groups must have full access allowed.</p> <p>If you are still unable to get SMART to retrieve the barcodes.txt file, the</p>

	<p>ActiveX module was not installed. To register the Portable Scanner dll:</p> <ol style="list-style-type: none"> 1. Download the CAB file from http://168.166.31.53/InfolinxMRMD3.2/PortableScanner.CAB 2. Extract the PortableScanner.dll from the CAB file. 3. Register the dll by opening a command prompt and running the following command: regsvr32 "<Path to the dll>" <p>Note: in the above, replace <Path to the dll> with the actual full path of the extracted dll from step 2.</p>
Unable to configure IR device	<p>The computer does not recognize the scanner cradle. Make sure the cradle is plugged in to the computer, and that the power cable is plugged in to an outlet. If the cradle is plugged in and is powered on, then the computer does not recognize the device. Check the Device Manager by going to: Start > Control Panel > System > Hardware > Device Manager. View Ports (COM & LPT). The cradle should be listed as a device, most likely as Optimus WHQL Bridge Controller. If not, check the Universal Serial Bus devices, or other Unknown devices. Unplug the cradle's USB connection to see if the unknown device disappears. If it does, then the driver needs to be updated. Plug the cradle's USB connection back into the computer and follow the instructions for step 4 even if you are not running Windows 7.</p>
Failed to Create File	<p>The barcodes.txt file is not being created and/or overwritten. Check the permissions settings on the barcodes folder. Full permission must be granted to users.</p> <p>If full permissions have been granted check the settings in step 8c.</p>
Barcodes have a ",1" at the end and system notifies you of Unknown barcodes	<p>Obtain the file OptimusSInfolinxHoneywell.opt from Records Management. Go to page 7, step 6 in these directions.</p>
ScanPal startReceiving File not Found	<p>The scanner needs to be programmed to generate the correct format for the barcodes.txt file. Obtain the file OptimuSInfolinxHoneywell.opt from Records Management. Go to page 7, step 6 in these directions.</p>
Possible Pathnames	<p>C:/Program Files/Honeywell/Optimus Software/Communication/Data_Read.exe C:/Program Files/Metrologic Instruments/Optimus Software/Communication/Data_Read.exe C:/Program Files/Metrologic Instruments/OptimusS Software/Communication/Data_Read.exe</p>

	<p>C:/Program Files (x86)/Honeywell/Optimus Software/Communication/Data_Read.exe C:/Program Files (x86)/Metrologic Instruments/Optimus Software/Communication/Data_Read.exe C:/Program Files (x86)/Metrologic Instruments/OptimusS Software/Communication/Data_Read.exe</p>
<p>Registering Scanners without the ActiveX popup</p>	<p>To register the Portable Scanner dll:</p> <ol style="list-style-type: none"> 1. Download the CAB file from http://smartweb.sos.mo.gov/SMART/Application/PortableScanner.CAB 2. Extract the PortableScanner.dll from the CAB file. 3. Register the dll by opening a command prompt and running the following command: regsvr32 "<Path to the dll>" <p>Note: in the above, replace <Path to the dll> with the actual full path of the extracted dll from step 2.</p> <p>To register the Tethered Scanner dll:</p> <ol style="list-style-type: none"> 1. Download the CAB file from http://smartweb.sos.mo.gov/SMART/Application/TetheredScanner.CAB 2. Extract the PortableScanner.dll from the CAB file. 3. Register the dll by opening a command prompt and running the following command: regsvr32 "<Path to the dll>" <p>Note: in the above, replace <Path to the dll> with the actual full path of the extracted dll from step 2.</p> <p>If an error message appears stating that the dll was loaded but the call to DllRegisterServer failed with error code 0x80004005, the administrator should run an elevated command prompt, even if they are already logged in as an administrator.</p> <p>An elevated command prompt can be ran by going to the Start button > All Programs > Accessories > then right click on the Command Prompt and choose run as administrator. Then attempt to register the dll again.</p>