

Scan Controller Firmware Updates for Software Suite v1.0.0.15136 – Reference Documentation

Purpose

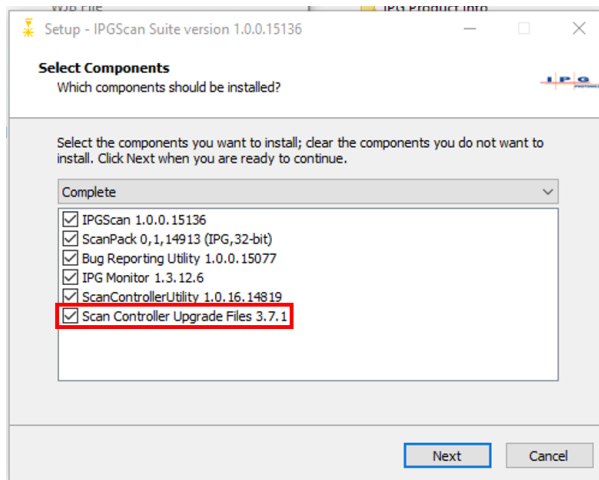
The purpose of this document is to outline a procedure for updating the Scan Controller Firmware versions for IPGScan Software Suite version 1.0.0.15136.

Required Software

The following software is required or recommended.

1. The proper controller firmware
 - a. This is provided with the installation of IPGScan Software Suite v1.0.0.15136. Please make sure the “Scan Controller Upgrade Files 3.7.1” box is checked during installation. See Figure 0-1 as an example.
 - b. The firmware update files can be found here after installation:
"C:\ProgramData\IPGP\ScanPack\ControllerUpgrades"

Figure 0-1 Software Suite Installer Components Selection



2. The Scan Controller Utility
 - a. For backing-up Scan Controller files and performing updates.
3. (Recommended) PuTTY
 - a. Serial terminal to monitor Scan Controller status during the update process.

Installation Procedure

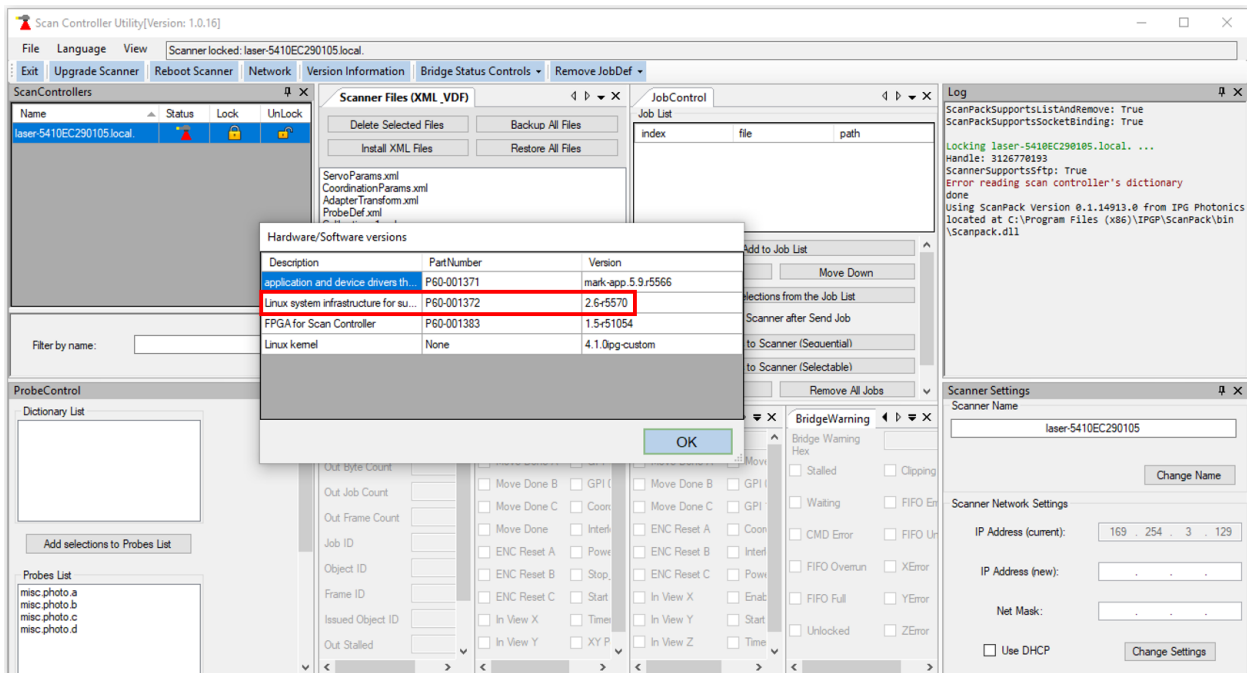
The following procedure and sections outline how a user can update the Scan Controller Firmware to the appropriate version. The following steps outline the overall process.

1. Determine what version of Controller Firmware is currently installed.
 - a. See section “Determining Controller Firmware Version.”
2. Get a backup of the Scan Controller files using the Scan Controller Utility.
 - a. See section “Backing-Up Scan Controller Files.”
3. Update to Firmware version 3.4 (Scan Controllers with Firmware version 2.6 Only!)
 - a. See section “Updating to Controller Firmware Version 3.4.”
4. Update to Firmware version 3.7.1 (Scan Controllers with Firmware version 3.4 or later!)
 - a. See section “Updating to Controller Firmware Version 3.7.1.”
5. Update the FPGA Image file to 1.7-r119284.
 - a. See section “Updating the Controller FPGA Image file to 1.7-r119284.”

Determining Controller Firmware Version

1. Open the Scan Controller Utility.
2. Connect to the scanner that requires the software update.
3. Click “Version Information” in the Actions Bar.
 - a. A pop-up will then appear with the appropriate information. See Figure 0-1, which shows that Controller Firmware version 2.6 is currently uploaded to the connected Scan Controller.

Figure 0-1 Viewing Scan Controller Version Information



Backing-Up Scan Controller Files

1. Open the Scan Controller Utility.
2. Connect to the scanner that requires the software update.
3. Click “Backup All Files” to get a backup of the calibration files currently loaded on the Scan Controller. See Figure 0-2.
 - a. The Logs window in the Scan Controller Utility details where the backup folder is stored.

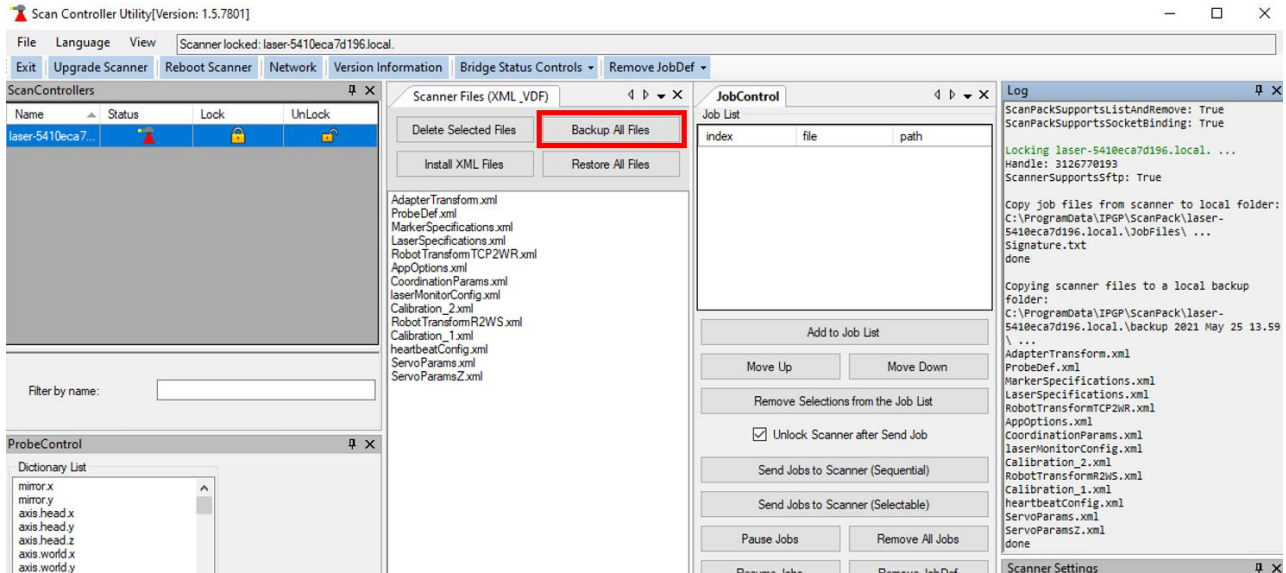


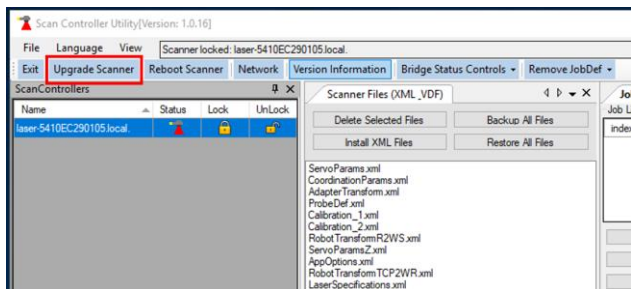
Figure 0-2 - Backing Up Scanner Files

Updating to Controller Firmware Version 3.4

IMPORTANT Only Scan Controllers that have Controller Firmware version 2.6 require the update to Controller Firmware version 3.4.

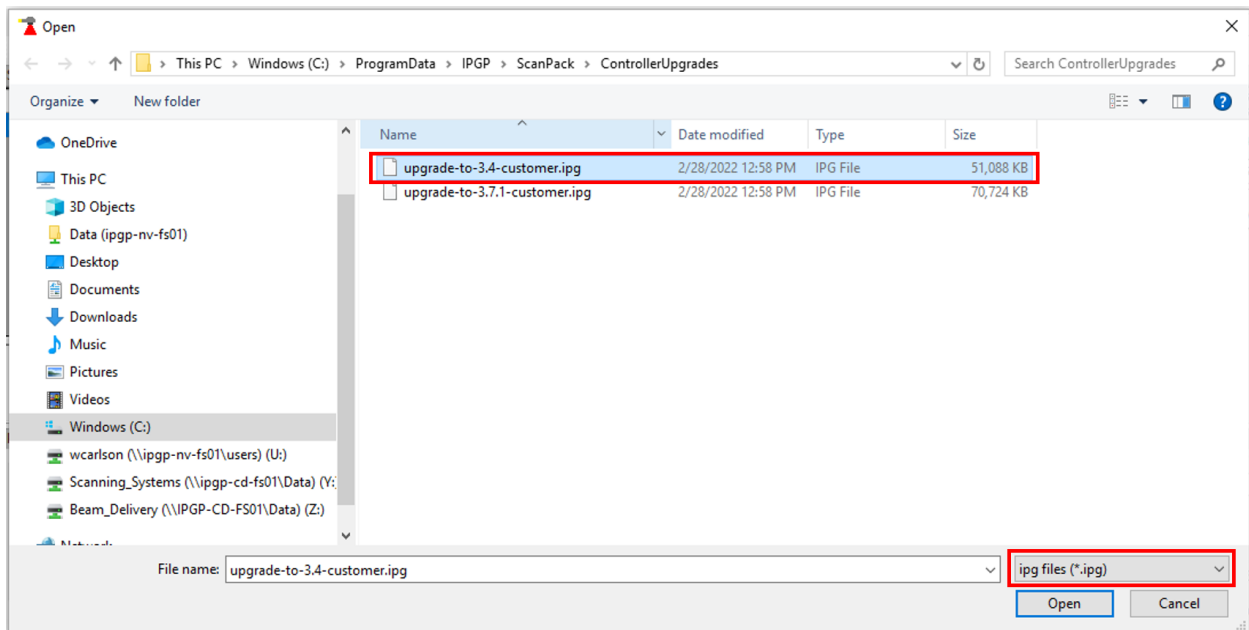
1. Open the Scan Controller Utility.
2. Connect to the scanner that requires the software update.
3. Click the “Upgrade Scanner” button in the Actions Bar. See Figure 0-3.

Figure 0-3 Upgrading the Scan Controller Firmware



4. Ensure the file type “ipg files (*.ipg)” is selected and then select the “upgrade-to-3.4-customer.ipg” file. See Figure 0-4.

Figure 0-4 Selecting Controller Firmware Upgrade for 3.4



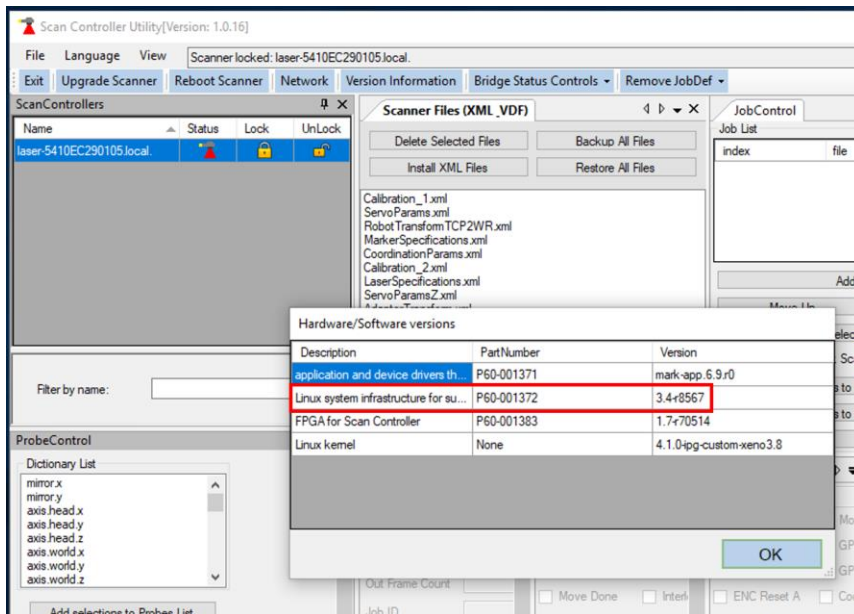
5. Click “Open.”
6. The scanner will disconnect from the Scan Controller Utility during the update process. Be patient while the update takes place.

- a. Connection to the Scan Controllers Serial Port allows users to see that the Scan Controller is performing the update process.

IMPORTANT The Firmware update can take up to 20 minutes to complete. **DO NOT POWER CYCLE THE SCAN CONTROLLER DURING THIS TIME.**

7. Once the update process is complete, reconnect to the Scan Controller in the Scan Controller Utility.
8. Click “Version Information” in the Actions Bar.
9. Verify that the Controller Firmware version has updated to 3.4. See Figure 0-5 as an example.

Figure 0-5 Controller Firmware 3.4

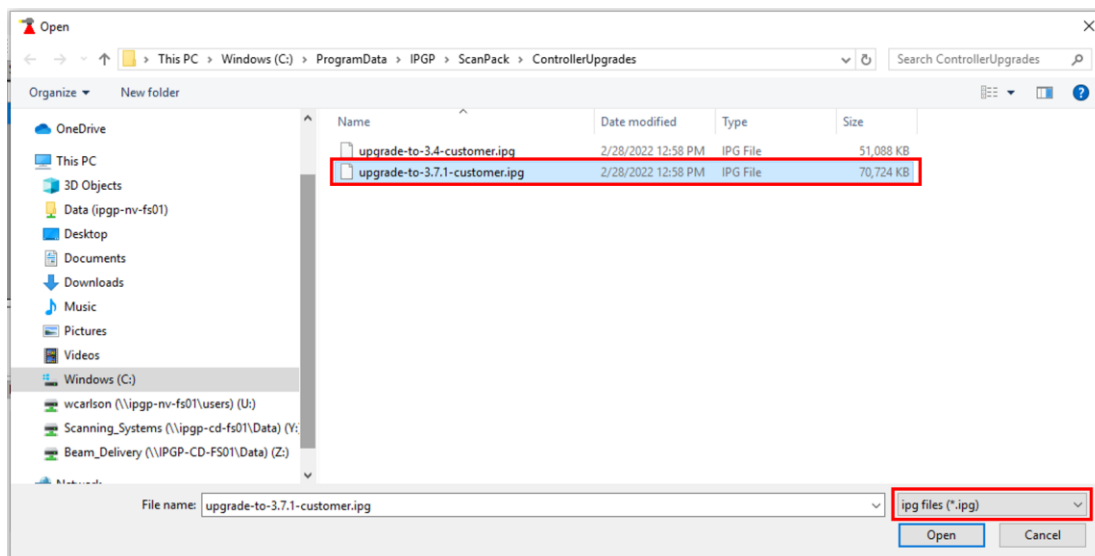


Updating to Controller Firmware Version 3.7.1

IMPORTANT Scan Controllers must have Controller Firmware version 3.4 or higher before updating to Controller Firmware version 3.7.1.

1. Open the Scan Controller Utility.
2. Connect to the scanner that requires the software update.
3. Click the “Upgrade Scanner” button in the Actions Bar. See Figure 0-3.
4. Ensure the file type “ipg files (*.ipg)” is selected and then select the “upgrade-to-3.7.1-customer.ipg” file. See Figure 0-6.

Figure 0-6 Selecting Controller Firmware Upgrade for 3.7.1

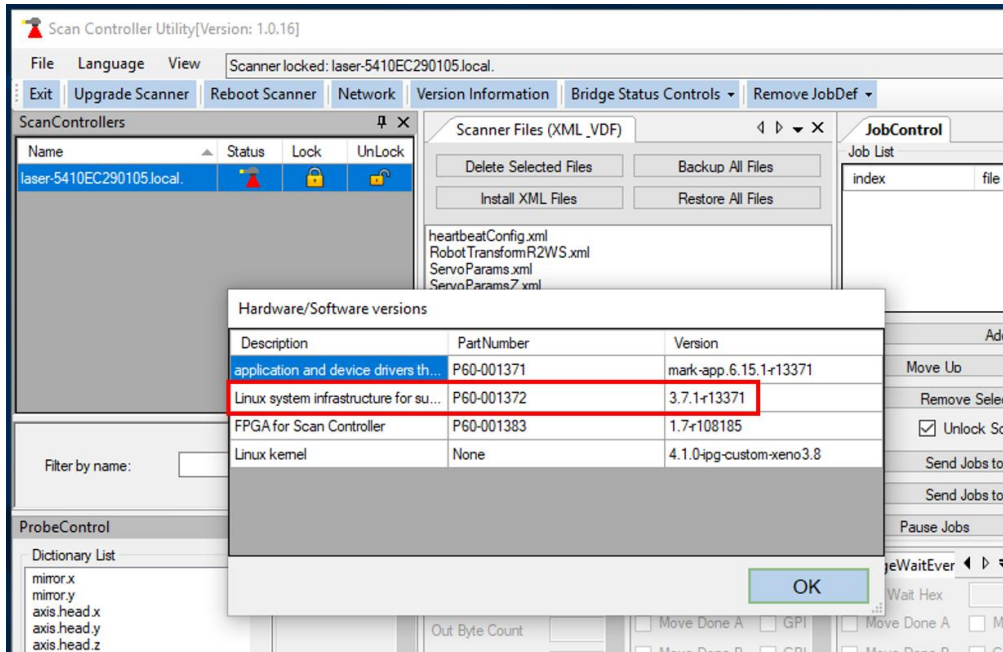


5. Click “Open.”
6. The scanner will disconnect from the Scan Controller Utility during the update process. Be patient while the update takes place.
 - a. Connection to the Scan Controllers Serial Port allows users to see that the Scan Controller is performing the update process.

IMPORTANT The Firmware update can take up to 15 minutes to complete. DO NOT POWER CYCLE THE SCAN CONTROLLER DURING THIS TIME.

7. Once the update process is complete, reconnect to the Scan Controller in the Scan Controller Utility.
8. Click “Version Information” in the Actions Bar.
9. Verify that the Controller Firmware version has updated to 3.7.1. See Figure 0-7 as an example.

Figure 0-7 Controller Firmware 3.7.1

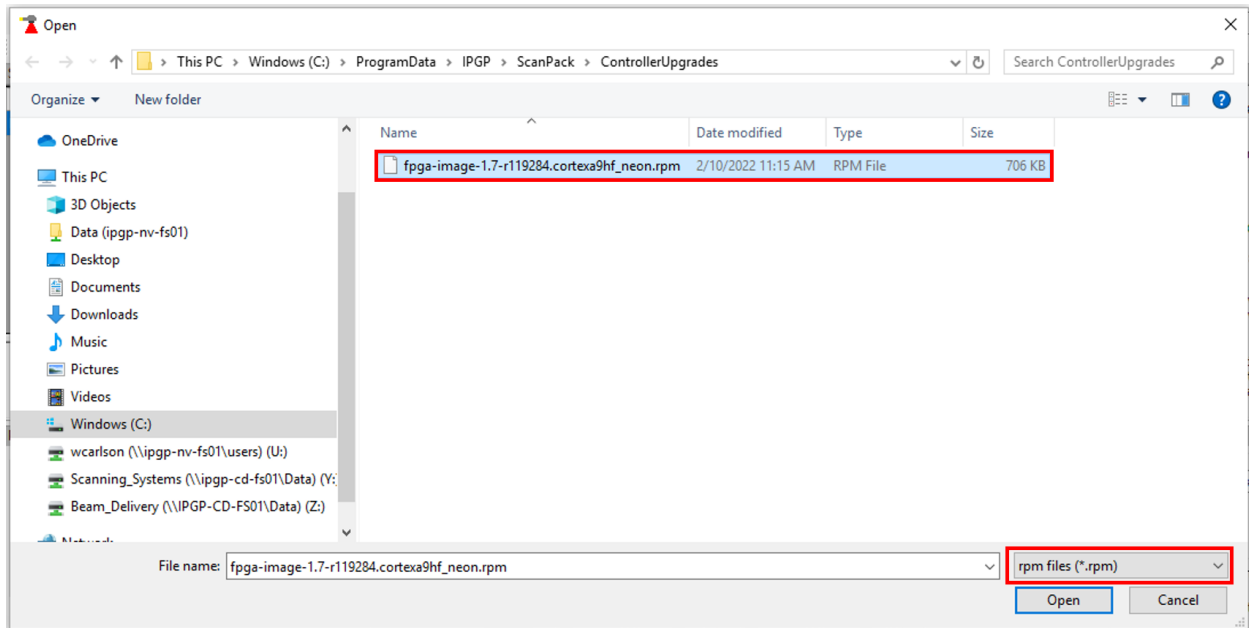


Updating the Controller FPGA Image file to 1.7-r119284

IMPORTANT The Scan Controller must have Controller Firmware version 3.7.1 prior to updating the FPGA Image file to 1.7-r119284.

1. Open the Scan Controller Utility.
2. Connect to the scanner that requires the software update.
3. Click the “Upgrade Scanner” button in the Actions Bar. See Figure 0-3.
4. Ensure the file type “rpm files (*.rpm)” is selected and then select the “fpga-image-1.7-r119284.cortexa9hf_neon.rpm” file. See Figure 0-8.

Figure 0-8 Selecting FPGA Image Upgrade



5. Click “Open.”
6. The scanner will disconnect from the Scan Controller Utility during the update process. Be patient while the update takes place.

IMPORTANT This update should only take a few minutes. During this time, the Scan Controller will power cycle automatically. Once the Scan Controller reboots, the user will be able to reconnect.

7. Click “Ok” to acknowledge the update completed.
8. Once the update process is complete and the Scan Controller has reboot, reconnect to the Scan Controller in the Scan Controller Utility.
9. Click “Version Information” in the Actions Bar.

10. Verify that the “FPGA for Scan Controller” version has updated to 1.7-r119284.

Figure 0-9 FPGA Version 1.7-r119284

