

# Firmware Upgrade Wizard v4.0



A Technical Guide

June 2014

# Introduction

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The Firmware Upgrade Wizard provides the following features:

- It supports upgrading the firmware on designated devices, see “Supported devices”.
- It can upgrade your device using serial or USB, the exact method depending on the device itself.
- It supports automatic filtering of compatible firmware images from a directory of images.
- It bundles the latest compatible firmware files for supported devices with the tool.
- It includes bug fixes and has added compatibility with more devices.

Note: For UPSs with a SmartSlot, UPS firmware upgrades can also be carried out using a UPS Network Management Card. The detailed process is provided in the “Upgrading Firmware” section of the UPS Network Management Card 2 User’s guide. The document can be located in the documentation tab [here](#).

# System Requirements

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The system requirements are as follows:

- Operating systems: Microsoft® Windows® XP, Windows Vista®, Windows 7, Windows 8 (see note)  
**Please note: Windows 8 (via USB) is not supported if upgrading an SRT UPS firmware**
- Computer screen graphics: Resolution of 800x600 with 16-bit colors (65536 colors).

Depending on the method of communication to device for firmware upgrade:

Serial:

DE-9/DB-9 serial communications port on computer.  
Cable to connect to the device.

USB:

USB host port (type A) on computer.  
Cable to connect to the device being updated.

You should not use serial to USB converters or other devices to connect your computer with the UPS.

## Supported devices

All SMX, SMT, SMC and SRT<sup>1</sup> devices are supported except SMX1500, SMX1000 and SMX750 with firmware version 2.2.

No SURT, SURTA, SURTD and SRC UPS models are supported.

In general, all units with an

- RJ45-10 pin connector is supported except SURTD SKUs.
- LCD display is supported except SRC SKUs.

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<sup>1</sup> Note: If upgrading the firmware on an SRT UPS, Windows 8 is not supported using a USB connection.

# Usage

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## Notes on the Upgrade

- AC utility power should be supplied to the device and the internal battery should remain connected throughout the firmware upgrade.
- The upgrade process should not get interrupted. It is recommended that the Wizard runs on a laptop or on a power-protected computer. If upgrading a UPS, do not have the UPS supply power the computer.
- Ensure that the computer does not go to sleep, standby or hibernate due to user inactivity.
- While the Wizard allows a downgrade, this is not recommended nor supported by Schneider Electric, unless directed by a representative of the company.
- Compatible firmware images for various devices are bundled with this software. Only use these compatible images or any approved firmware upgrade files that were supplied by Schneider Electric. Files received by other means may cause problems with the device, possibly resulting in permanent damage.
- Make sure that only one device is connected at a time to the computer for the firmware upgrade.

## Notes for UPS devices only

- SmartSlot cards should be removed from the UPS before a firmware upgrade of your UPS. It is also recommended that any equipment is disconnected from the UPS.
- The UPS should not be performing a runtime calibration during the upgrade.
- In the case of updating the firmware directly after plugging in a USB cable to a UPS, please ensure the USB driver installation is complete before proceeding with the upgrade.

## Troubleshooting

- No software that is communicating with the device being upgraded should be running while using this Firmware Upgrade Wizard. Some software runs as a service on Windows and should be stopped (example: PowerChute Business Edition).  
To access Windows services, launch "Services" from the Windows Control Panel in Administrative Tools or type "Services.msc" in the command prompt.  
The PowerChute Business Edition service is called 'APC PBE Agent'. Stop this service before running the Wizard and start it again afterwards.
- If you receive a message from the WinZip Self-Extractor indicating that it can't create an output file, it may be that the Firmware Upgrade Wizard is already open. Use Alt-Tab to check and close the Wizard if you are finished using it to resolve the issue.
- If you have Bluetooth or virtual COM ports, and you want to do the upgrade using your serial port, you should manually select the COM port you want to perform the upgrade with. (This does not apply for a firmware upgrade using the USB port).
- The Firmware Upgrade Wizard will display an error message if the UPS is not capable of performing a firmware upgrade using the USB port. This will cause no harm to the device.

- The Firmware Upgrade Wizard uses its own 32-bit Java environment. Some operating systems might ask for confirmation to run this Java version.

## Firmware Upgrade process: Step-by-Step Walkthrough

### Step One

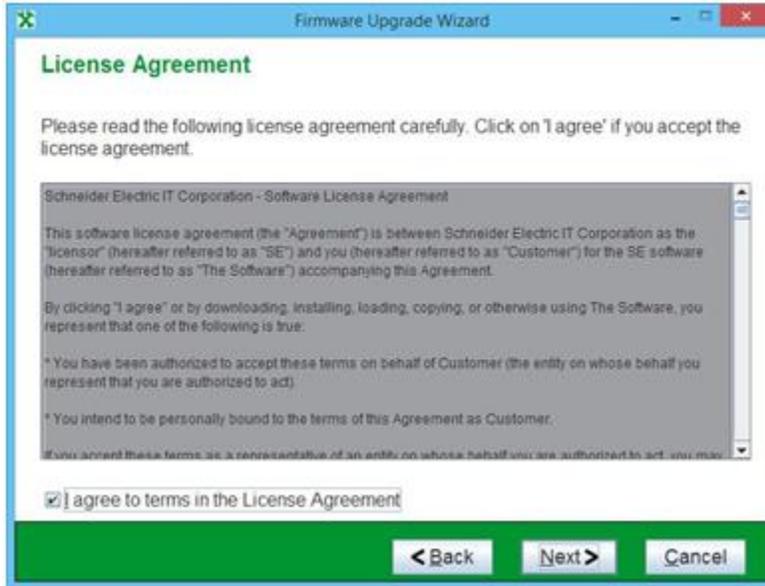
Download the Firmware Upgrade Wizard from the kbase # FA164737 at [www.apc.com/support](http://www.apc.com/support), unzip, and launch the application.



Click "Next" To Begin

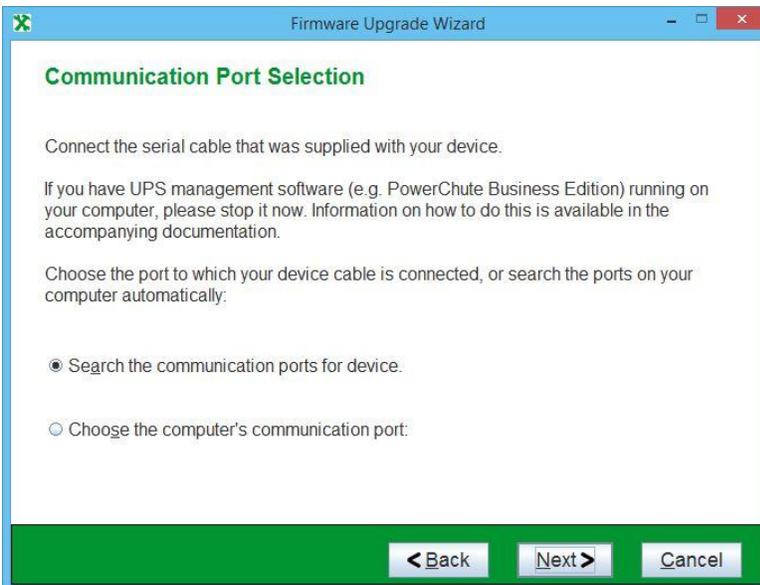
## Step Two

Agree to the License Agreement, and click "Next".

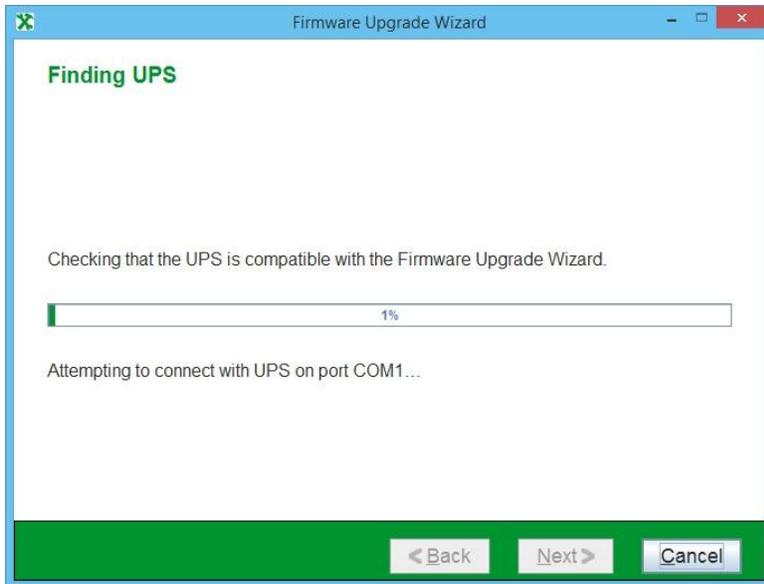


## Step Three

The Firmware Upgrade Wizard will now search the communications port for the UPS.

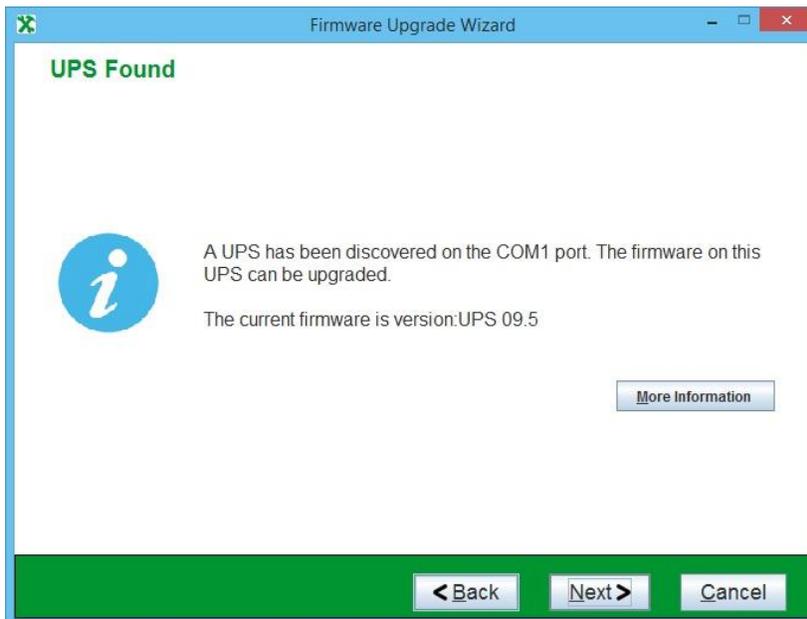


If the UPS is connected via USB, the wizard will detect the UPS.



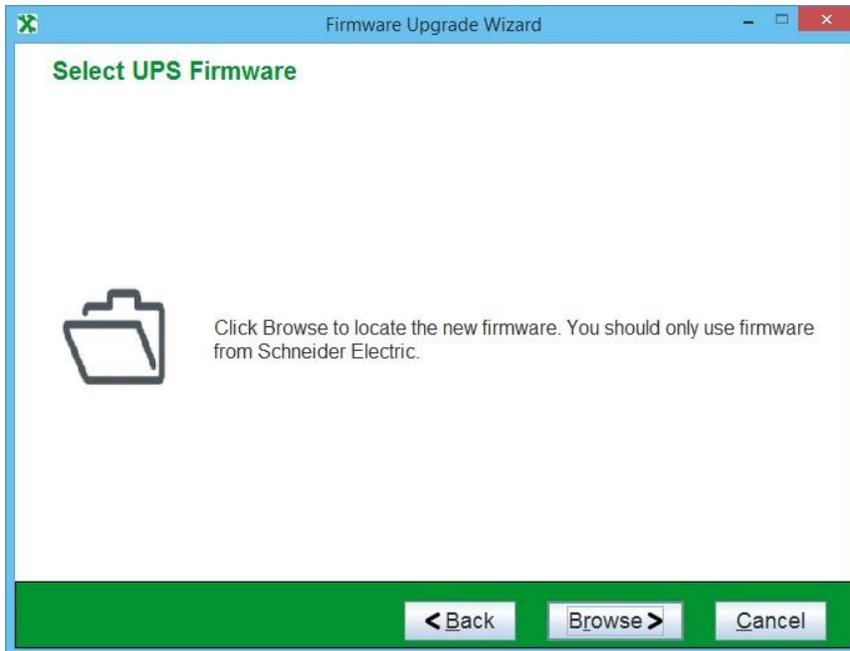
### (Step 3 Continued)

Click "Next" and the Firmware Upgrade Wizard will display the current firmware revision installed on the the UPS.

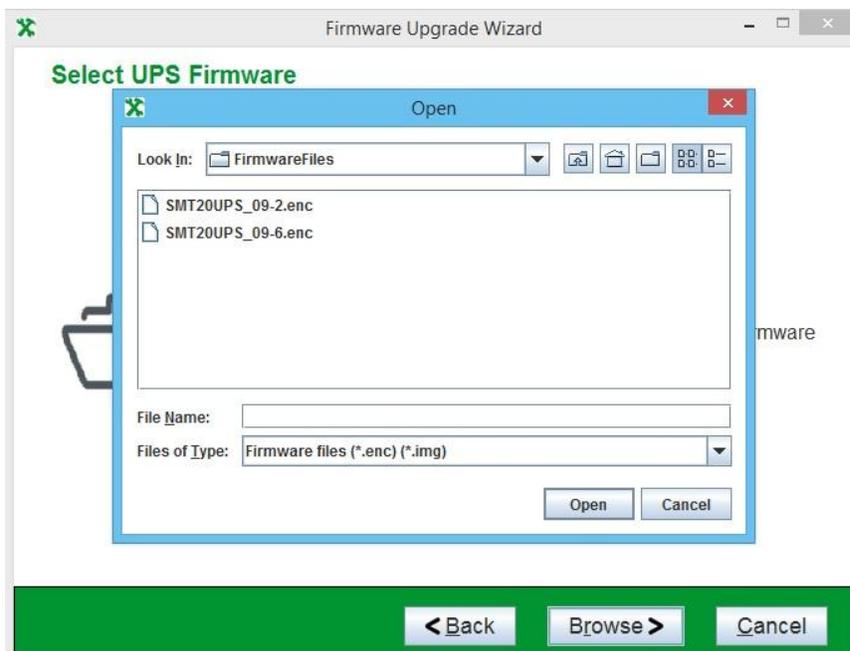


## Step Four

Click “Browse” to select your firmware file.

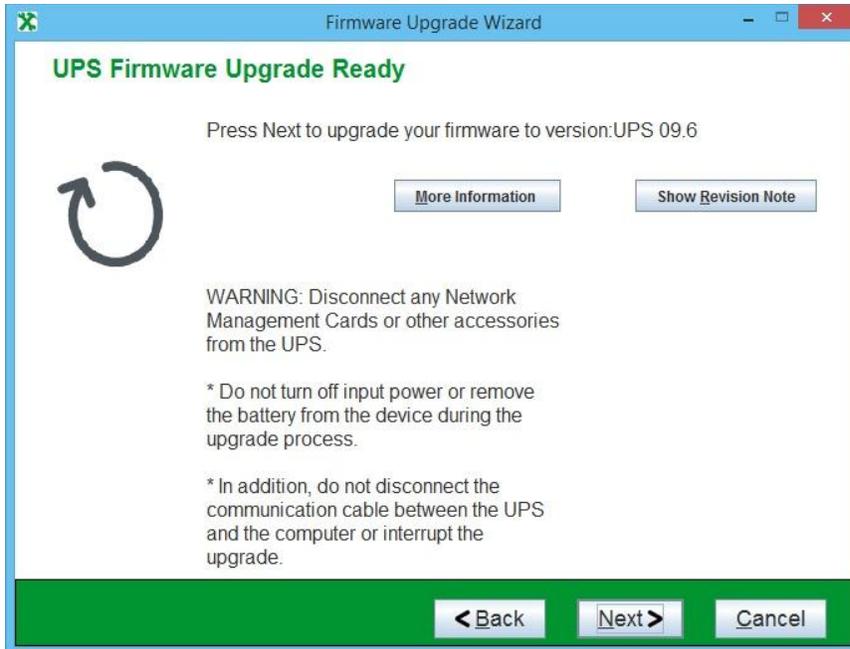


The Wizard will display the Firmware File appropriate for your UPS. If you want to manually select a different file you can browse to the appropriate location. Select it, and click “Open”.



## (Step 4 Continued)

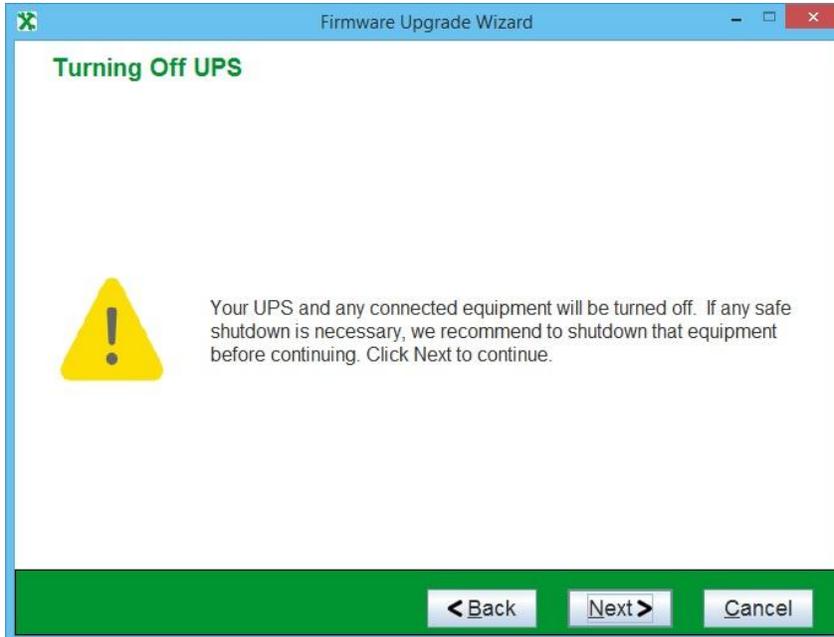
The Firmware Upgrade Wizard is now ready to begin the upgrade process. The Revision Note will give detailed information on the version of the firmware (this is not available for all UPS).



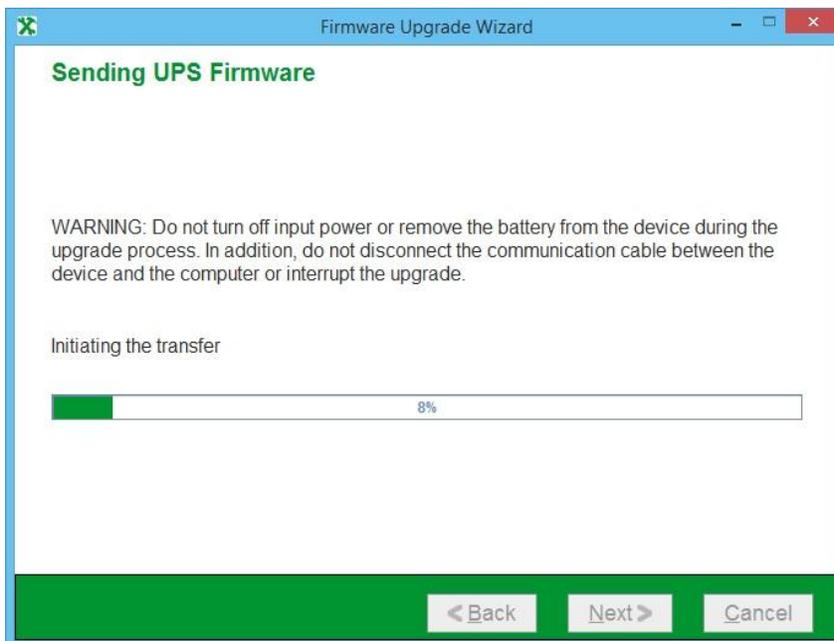
Click "Next".

## Step Five

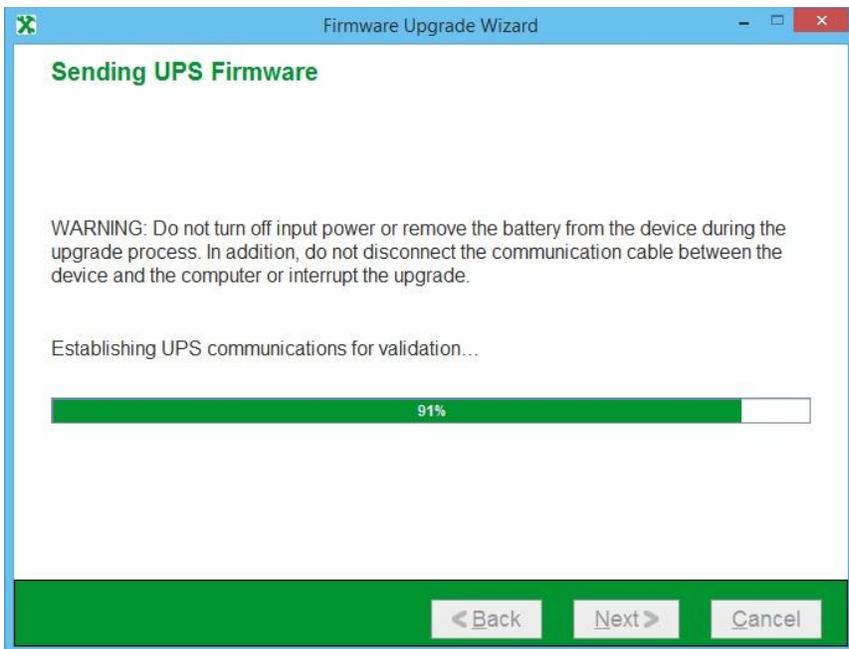
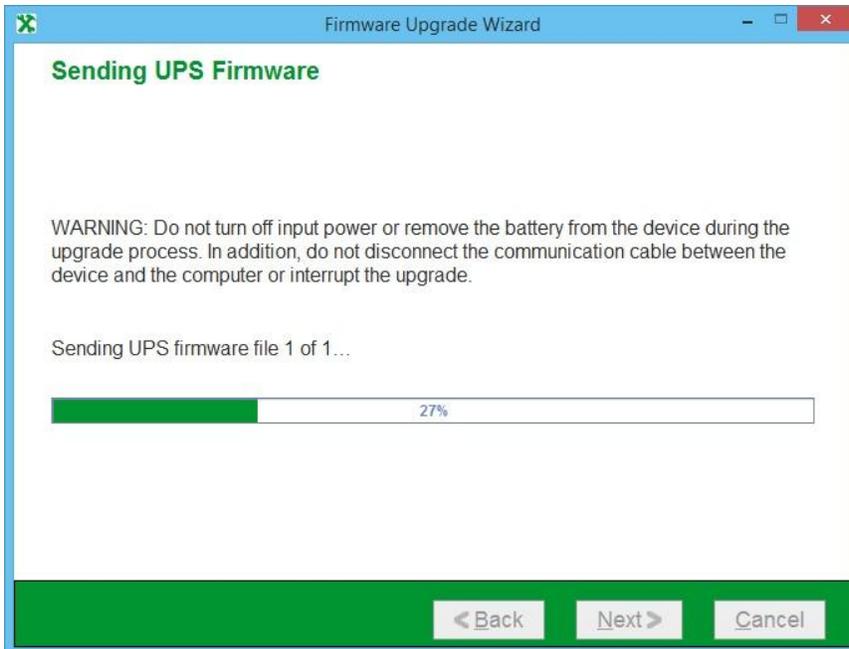
The first step in sending the upgrade file is turning off the UPS. Make sure your attached load is properly shut down, then click "Next".



The Firmware Upgrade Wizard will now begin transferring the file to the UPS. This process will take approximately 5 minutes. Do not turn off power or remove the battery during this process.

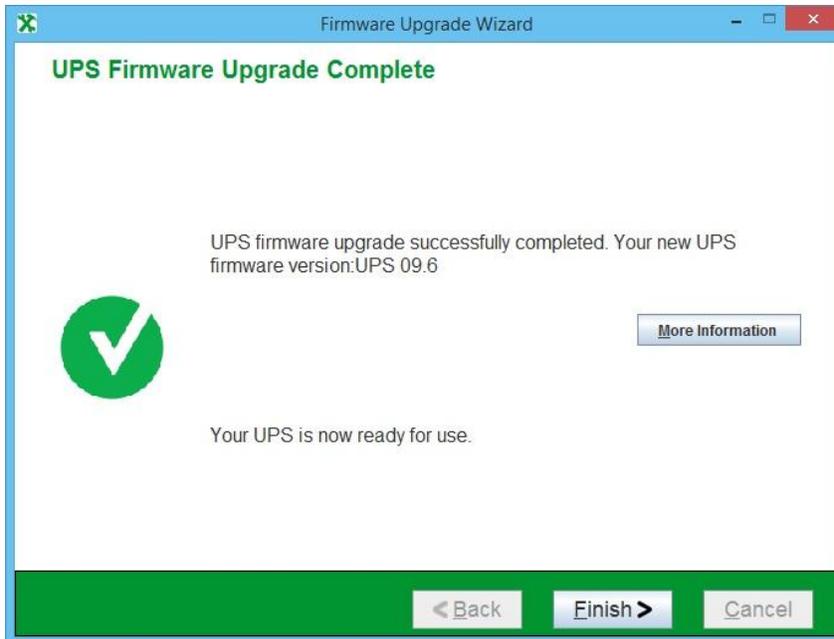


The transfer continues...



## Step Six

The firmware upgrade is now complete. You can verify the new updated revision of your UPS firmware. Click “Finish” and you may put your UPS and attached load back into production.



### What you should do if an upgrade goes wrong

The Firmware Upgrade Wizard is a self-extracting executable that gets uncompressed to the customer's temporary folder, e.g. `c:\temp`. A log file called `FUW.log` gets created when the tool is run in the temporary folder. If you have problems with running the wizard, go to the temporary folder to access the log file, which gives information on what occurred when the Wizard executed. For security reasons this log file is encrypted. If problems occurred running the Firmware Upgrade Wizard please contact customer service and provide this encrypted log file to them for processing.