<u>Instrument Software Update Instructions</u>

Keysight X-Series Signal Analyzers
(N9000B, N9010B, N9020B, N9030B)

<u>Purpose</u>

The purpose of this document is to outline the instrument software update procedure from the revision that is currently installed, to the latest revision available. The advantages of updating the instrument software with the current revision include:

1. Keeps the analyzer current and up to date.
2. Updating the advanced measurement applications where appropriate.
3. Updating the internal PC measurement boards software where appropriate.

An update to the instrument software revision **does not** require a new license key for the measurement application(s), so long as the application(s) were licensed prior to the update.
This procedure will not update the 89601A or 89601B VSA measurement software.

To determine what revision of instrument software is currently installed, press [**System**], {**Show**}, {**System**} on the instrument, look for the "Instrument S/W Revision" number (for example: "A.17.15"). If the installed revision is the same as the latest revision on the web, there is no need to update the Software.

<u>Instrument Software Installation</u>

<u>Note</u>: This will only update the instrument software that currently resides on the C: drive of the instrument. It will not update the version that exists on the recovery partition. Because of this, if the recovery process is performed, the instrument will revert back to the instrument software revision that was originally shipped from the factory.

<u>Requirements</u>

To use this update procedure, the following requirements must be met:

- Instrument must be functioning properly before the update is attempted

- Must have a USB keyboard and mouse to perform tasks required to install update

- Must have the ability to login to the instrument as the **administrator**.

- Must have the ability to transfer a large file (~1.2 GBytes) to the instrument being updated.

<u>File Download</u>

1. Go to http://www.keysight.com/find/Xseries_software

2. Select the appropriate link in the Software Upgrade section of the table for the X-Series analyzer that is being updated.

3. Download the executable file by clicking on the Download button and then selecting the appropriate instrument model number. Save the file to a location of your choice.

If you do not have the ability to download files directly to the C: drive of the instrument being updated, store the file on a large capacity USB storage device for transfer to the instrument. (The file size is ~1.2 GBytes.)

Update Procedure

The default user account is *Instrument*, which does not have the required permissions to install the instrument software updates. For the process outlined below, the user must be logged in as the *Administrator*.

The X-Series automated instrument software upgrade process has an install wizard which removes the old software version and installs new software version without manual steps. The removal of the old software version and the installation of the new software version completes in approximately 40 minutes.

1. If the analyzer is not already running, turn the analyzer on and allow to completely boot up

2. Close the analyzer application by pressing [**File**], {**Exit**}

3. Connect a USB keyboard and mouse to the instrument.

4. Log out of the default user (*Instrument*) by selecting **Start→Log Off→Log Off.**

5. At the login prompt enter:

   - User name: **administrator**
   - Password: **agilent4u** (If the front panel label above the analyzer display says "Agilent Technologies" in the upper left-hand corner)

     OR

   - Password: **Keysight4u!** (If the front panel label above the analyzer display says "Keysight Technologies" in the upper left-hand corner)

Important: The password depends on the age of the disk drive installed in the instrument. Instruments labeled Agilent Technologies on the front panel may contain newer disk drives that require **Keysight4u!** for the password.
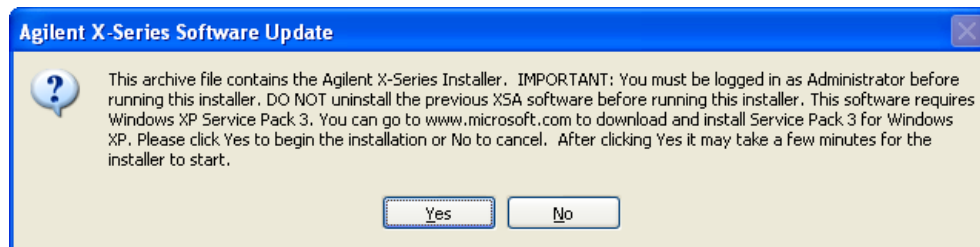
Note: If a "Found New Hardware" wizard window pops up, select "No Not at this Time" to bypass the activity.

Instrument Software Install

If you downloaded the instrument software update file to the instrument via LAN, access that file from the location that it was stored and proceed to step 1.
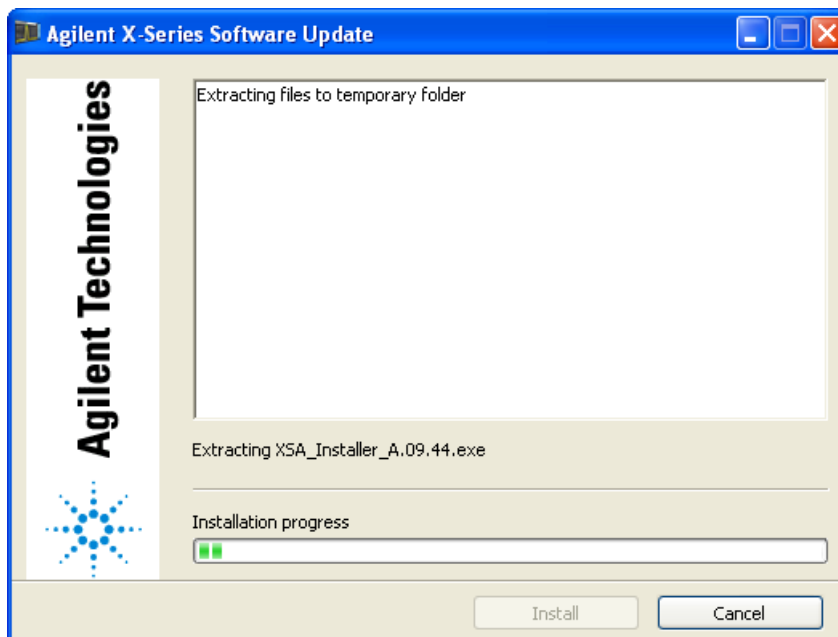
If you downloaded the instrument software update file to a USB storage device, plug that into one of the USB ports on the front of the instrument. Access the file for the removable drive, then proceed to step 1.

1. Double click on the file named "**XSA_Installer_A.XX.XX.exe**" that

2. A message appears, reminding you that you must be logged in as **administrator** and the Window XP Service Pack 3 is required. Select Yes

3. A window appears showing the extraction of the software installer. When the extraction process is complete, there will be another widow that will show the progress of the software removal and installation. There is no interaction required from this point forward.

Extraction window

Instrument Software update windows.
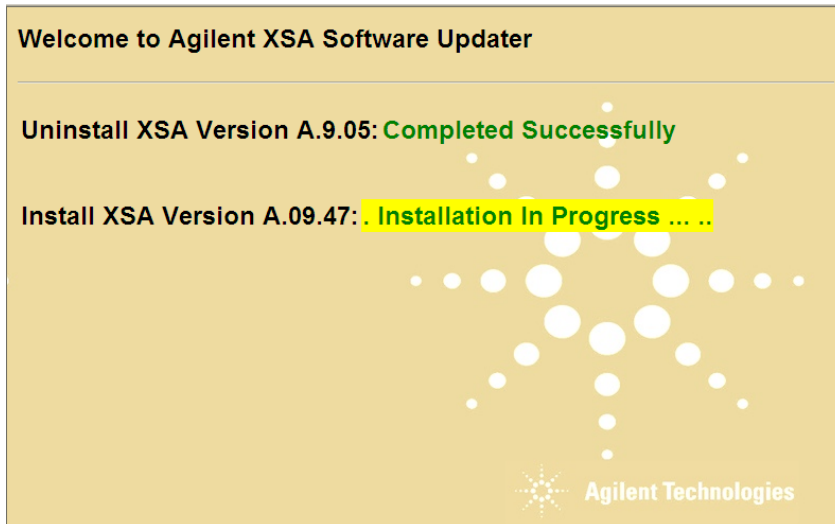
Welcome to Agilent XSA Software Updater

Uninstall XSA Version A.9.05: ess ... ... Uninstall In Progr

Install XSA Version A.09.47:

Agilent Technologies

The old instrument software is being removed. The "Uninstall in Progress" text will roll across the screen indicating software activity. There will be several windows appearing and disappearing. It will display "Completed Successfully" when this step is finished.
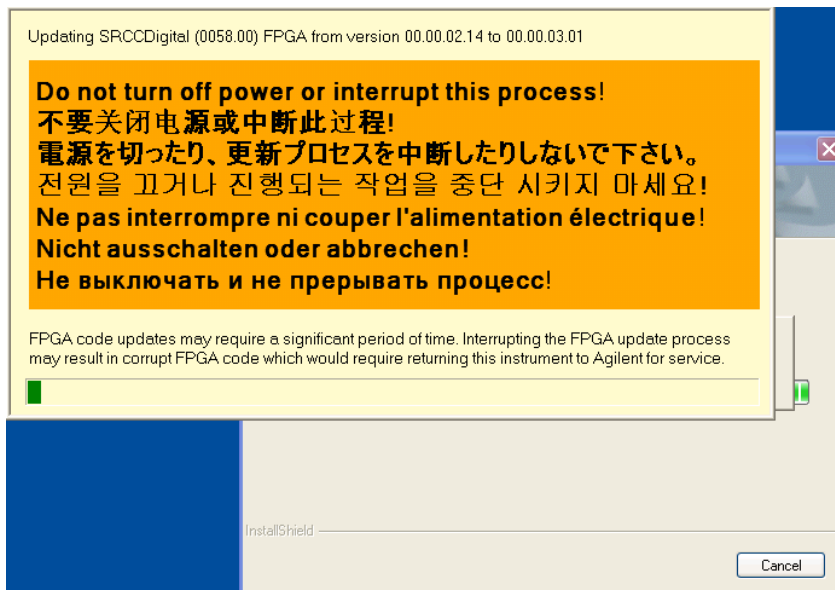
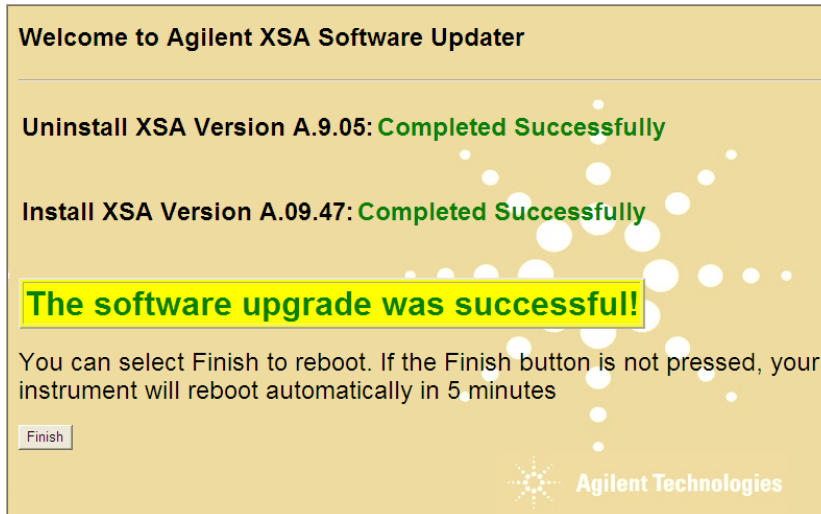NO interaction with the instrument is required.

The new instrument software is being installed. The "Installation in Progress" text will roll across the screen indicating software activity. There will be several windows appearing and disappearing during this time. NO interaction with the instrument is required. Please be patient the total software installation process can take 35 to 40 minutes. It will display "Completed Successfully" when the software update is complete. You will be prompted to restart you instrument at the end.

Example of one of the windows you will see during the software update process:

FPGA Programming: DO NOT power off the instrument at this time for **ANY** reason. If this process is interrupted, the instrument may end up in an unusable state, and will likely need to be sent to an Keysight for repair before it will be usable again.

Software upgrade "Completed Successfully"

4. When the Software installation is complete. You will be asked to reboot the instrument.   If no action is taken the instrument will automatically reboot in 5 minutes.

Note: When you press "Finish" you will see this window message indicating that the system is shutting down. This is a normal Window warning message.

5. After the instrument restarts it will boot up in the default "instrument " account , perform the alignments and display the measurement screen.

6.   Check for any errors and verify that the new software version is installed. Press [**System**], {**Show**}, {**System**} on the instrument, look for the "Instrument S/W Revision"

Note: If the instrument does not reboot, remove the USB storage device and cycle power. The boot order for the instrument may have been changed in the instrument BIOS previously, and the instrument may be instructed to boot from USB first, and the internal disk drive second. If this is the case, failure to remove the USB device will result in an error, as the instrument attempts to boot from it.