

Instrument Software Update Instructions

Keysight X-Series Signal Analyzers, Non-Touch (N9000A, N9010A, N9020A, N9030A) With either WES7 or Windows 10 operating systems

Purpose

The purpose of this document is to outline the instrument software update procedure for all non-touch X-Series Signal Analyzers (PXA/MXA/EXA and CXA) running either the WES7 or Windows 10 operating systems 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 PC board 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 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.14.62”). If the installed revision is the same as the latest revision on the web, there is no need to update the Software.

Instrument Software Installation

Note: 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.

Requirements

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 (>2 GByte) to the instrument being updated.

File Download

1. Go to http://www.keysight.com/find/Xseries_software
2. Select the appropriate link in the Software Update 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 >2 GByte.)

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 new 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. The instrument software update time will depend on how large the gap is between the currently installed instrument software version and the version being updated which may require that a number of FPGA updates are needed for the measurement boards. The FPGA updates are handled automatically during the instrument software update process.

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***). If the Windows task bar is not present at the bottom of the screen, click on the lower section of the display until the Windows task bar appears.
5. For **Windows 10**:

Click the **Windows Start icon**, select the **Change Account settings** icon , and **Sign out**.

For **Windows 7**: click the **Windows Start icon** → **Shutdown arrow** → **Log Off**.

6. At the login prompt enter:
 - User name: **administrator**
 - Default Password: **Keysight4u!** or **agilent4u**

- Press **Enter**

Important: The password depends on the age of the disk drive installed in the instrument.

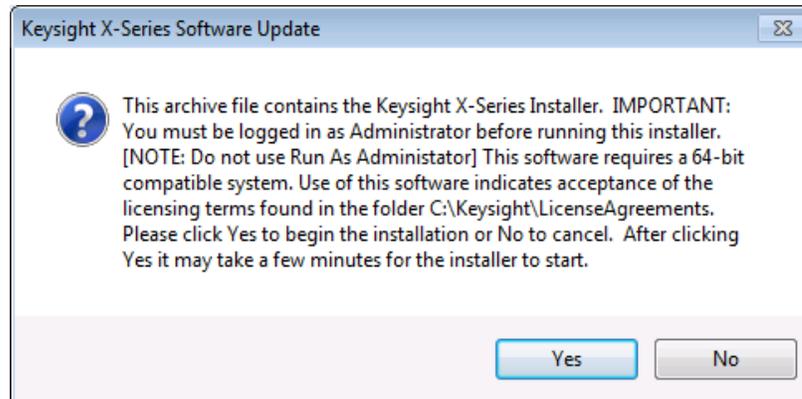
Note: If a “Found New Hardware” wizard window pops up, select “No Not at this Time” to bypass the activity.

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.

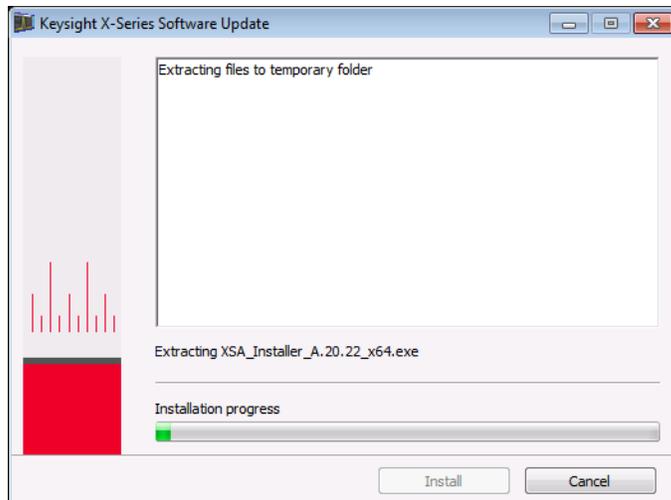
If you downloaded the instrument software update file to a USB storage device, plug that into one of the USB ports on the front of the instrument. Access the file for the removable drive, then proceed to step 1.

1. Right-click the **Windows Start** icon, select **File Explorer** and select the appropriate file location.
2. A message appears, reminding you that you must be logged in as **administrator** and the upgrade can only be run on a 64-bit operating system. Select Yes.



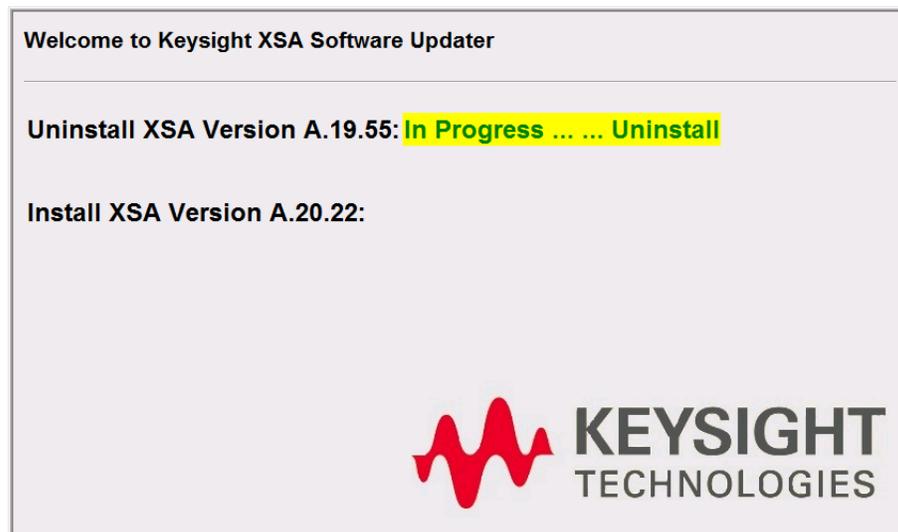
3. A window appears showing the extraction of the software installer.

Extraction window



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

Instrument Software update windows.



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.

Welcome to Keysight XSA Software Updater

Uninstall XSA Version A.19.55: **Completed Successfully**

Install XSA Version A.20.22: **Installation In Progress Ins**



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 20 to 35 minutes. It will display “The software upgrade was successful!” when the software update is complete. You will be prompted to restart your instrument at the end.

Example of one of the windows you might 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 Keysight for repair before it will be usable again.

Updating Feldspar WBDIF (0040.01) FPGA from version 00.00.10.10 to 00.00.10.11

Do not turn off power or interrupt this process!

不要关闭电源或中断此过程!

電源を切ったり、更新プロセスを中断したりしないで下さい。

전원을 끄거나 진행되는 작업을 중단 시키지 마세요!

Ne pas interrompre ni couper l'alimentation électrique!

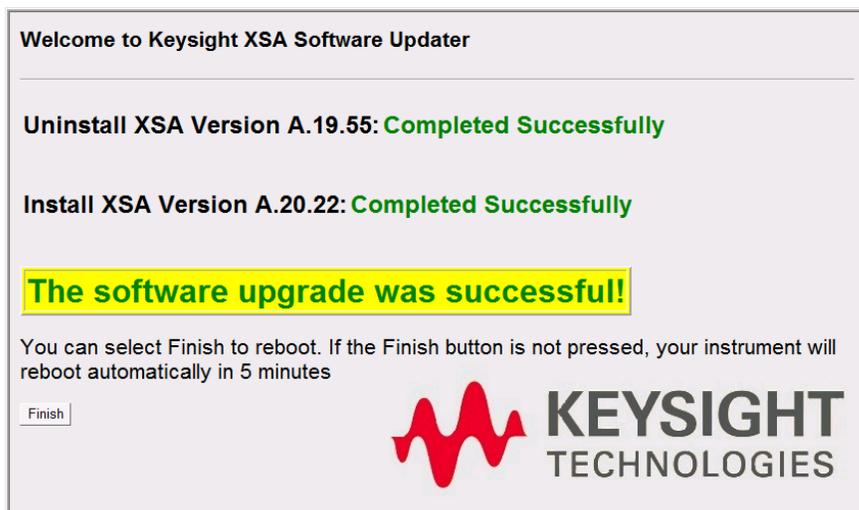
Nicht ausschalten oder abbrechen!

Не выключать и не прерывать процесс!

FPGA code updates may require a significant period of time. Interrupting the FPGA update process may result in corrupt FPGA code which would require returning this instrument to Keysight for service.



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.
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”

Keysight Technologies	
Keysight MXA	Keysight MXA Signal Analyzer
Product Number	N9020A
Serial Number	MY53420527
Instrument S/W Revision	A.20.22
Revision Date	4/24/2018 12:42:24 PM
Computer System	Windows 7 , Service Pack 1
Computer Name	K-N9020A-20527

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.