Keysight E7515B UXM 5G Firmware Update Tool

For the E7515B UXM 5G Wireless Test Platform

Installation & User Guide

KEYSIGHT TECHNOLOGIES

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Keysight Wireless Test Set
E7515B UXM 5G Firmware Update Tool

Installation & User Guide

Firmware Update Tool

The E7515B UXM 5G Firmware Update Tool is designed as a “one-click” application which allows you to easily update the firmware of E7515B UXM 5G units. By selecting a firmware version and clicking on a button, you can uninstall the current UXM 5G firmware version and install the new one, including an update of the required software components.

This application must be installed and executed in the UXM 5G embedded PC, running Microsoft Windows 7 Standard Embedded Edition.

The application can be executed only by local “Administrator” user, and no other users can be logged on the system. It also will work only on UXM 5G units.

The following sections are included here:

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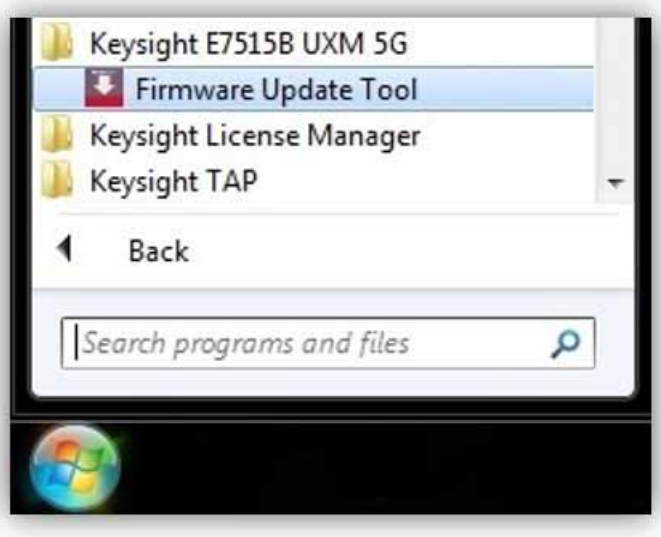
Installation

The E7515B UXM 5G Firmware Update Tool is distributed as a Windows installer: `UXM5G_FirmwareUpdateTool_Installer_x.y.w.z.exe`

To install the application just execute the installer and follow the guided installation dialogs.

Once installed, the application can be launched from Windows Start menu: **All Programs > Keysight E7515B UXM 5G > Firmware Update Tool**

Figure 1-1 Firmware Update Tool in the Windows Start Menu



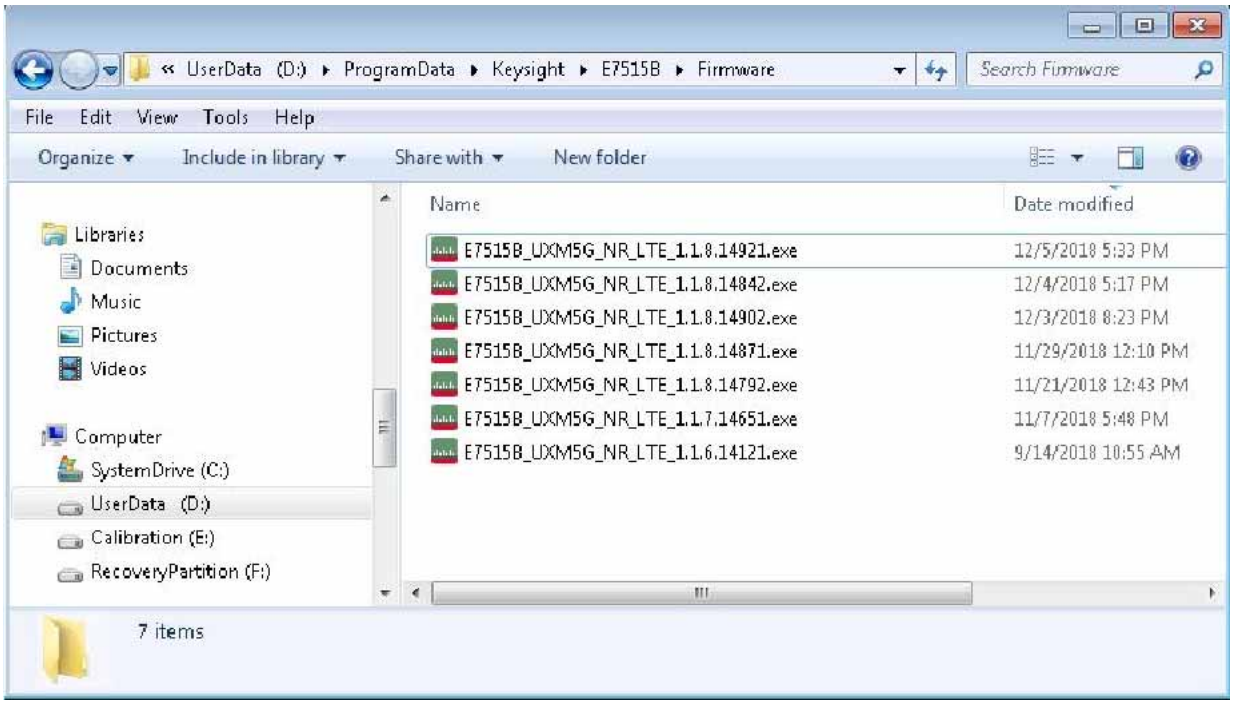
Repository

The UXM 5G Firmware Update Tool repository is located at:
D:\ProgramData\Keysight\E7515B\Firmware

To be able to update the UXM 5G firmware to a specific version, the installer associated with that version must be present in the repository folder.

UXM 5G firmware installers file names must be in the form **E7515B_UXM5G_*.exe** to be recognized by the application.

Figure 1-2 Repository for the Firmware Update Tool



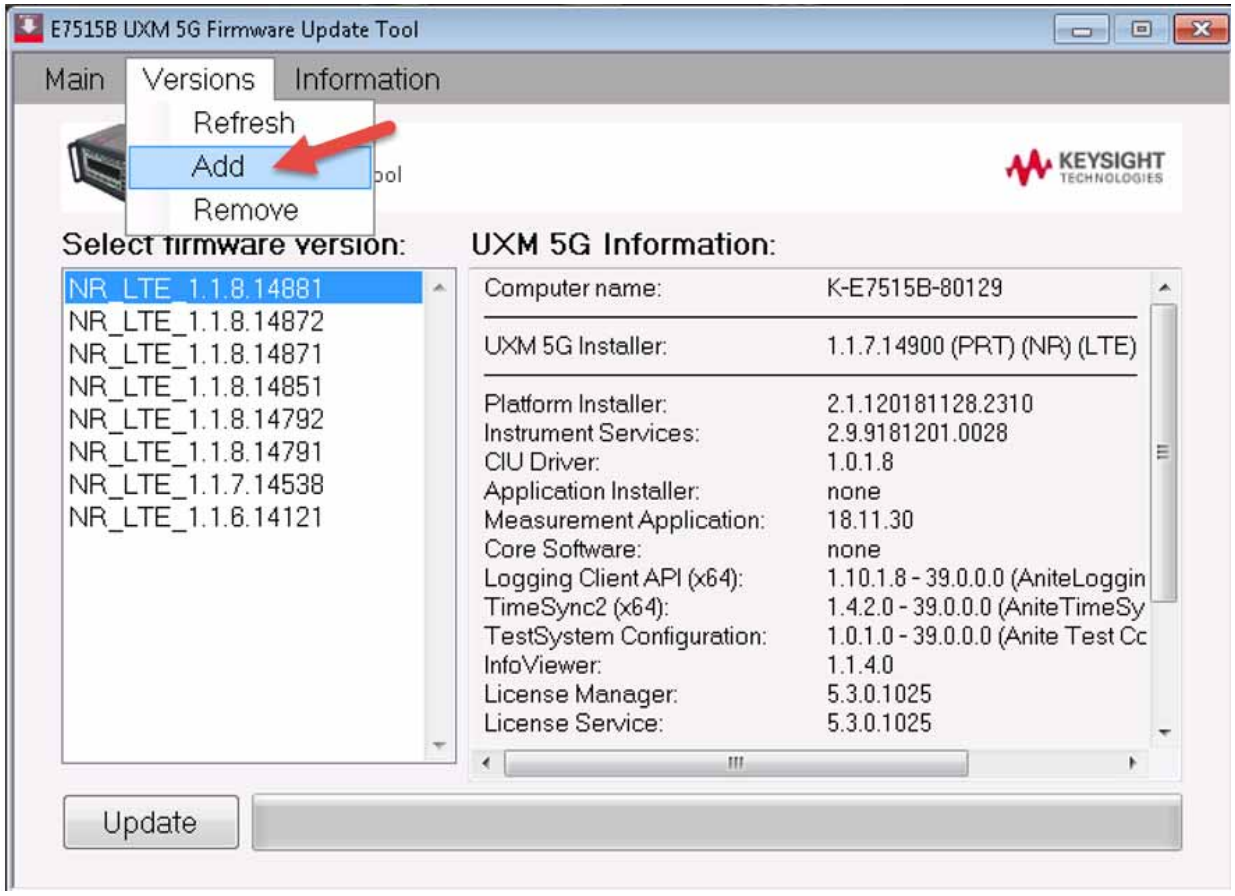
Operation

Add Versions

There are three different options for adding UXM 5G versions to the application repository.

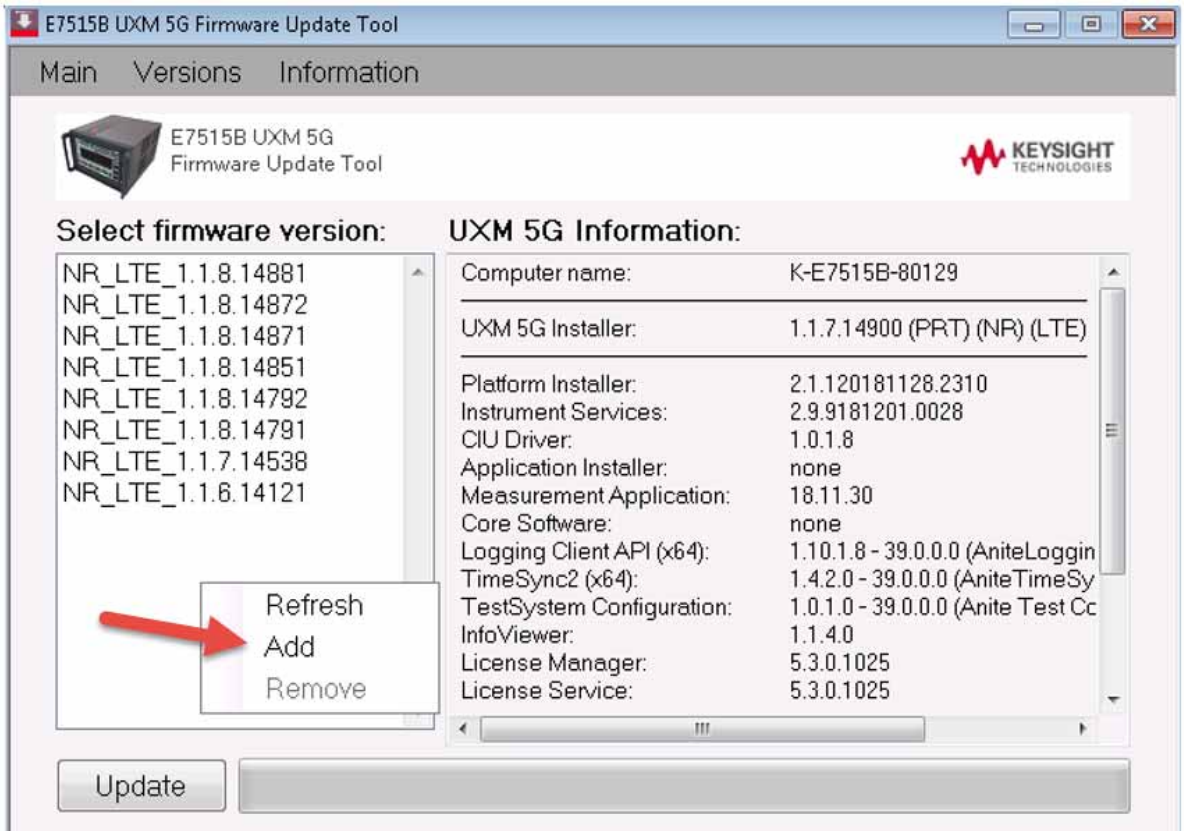
The first method is to select **Add** from the **Versions** menu:

Figure 1-3 Adding a version (using Versions menu)



The second method is to select **Add** from the menu invoked by right-clicking on the list of firmware versions:

Figure 1-4 Adding a version (using right-click menu)



The third method is to use Windows Explorer to copy an installer file into the repository folder. In that case, the list box has to be refreshed from within the application, using any of these methods:

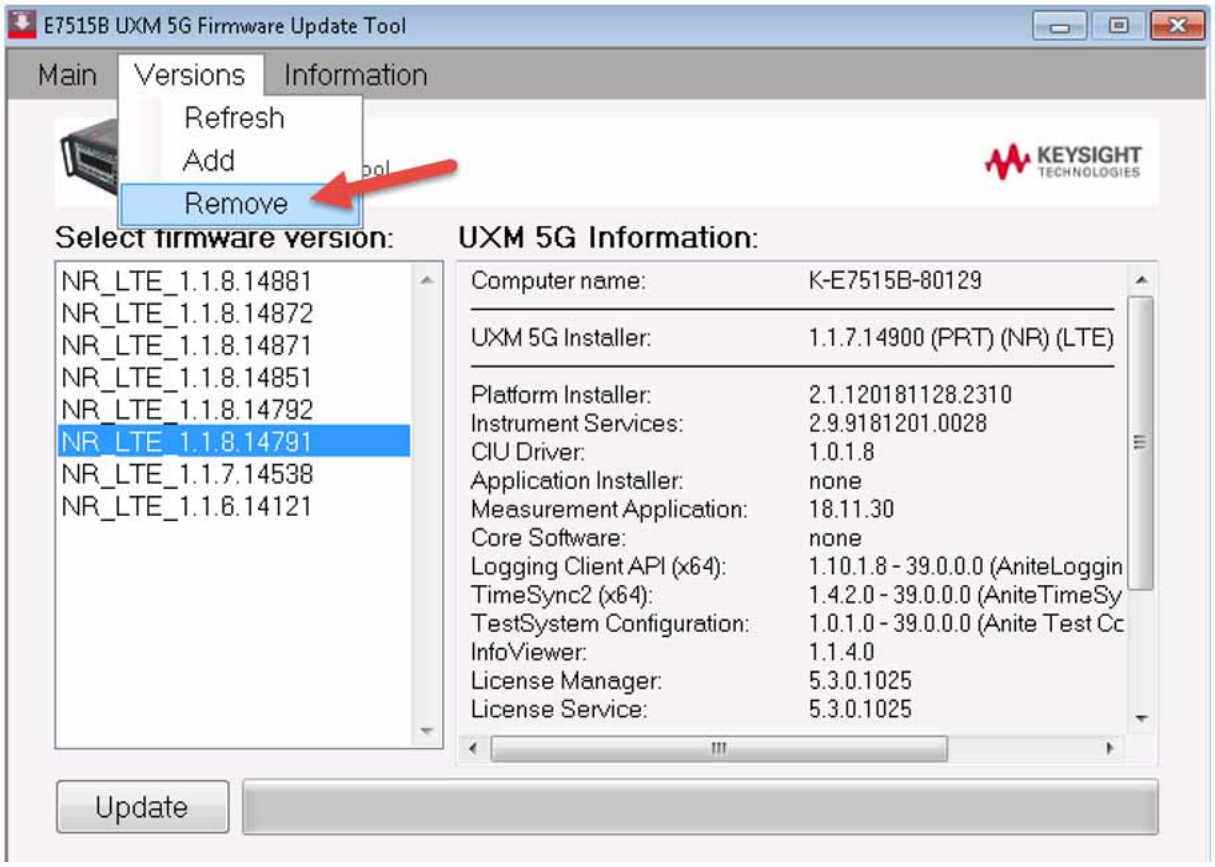
- Selecting **Refresh** on the **Versions** menu.
- Selecting **Refresh** on the menu which is invoked by right-clicking on the list of firmware versions.
- Pressing the **F5** key.

Remove Versions

There are three different options for removing UXM 5G versions from the application repository.

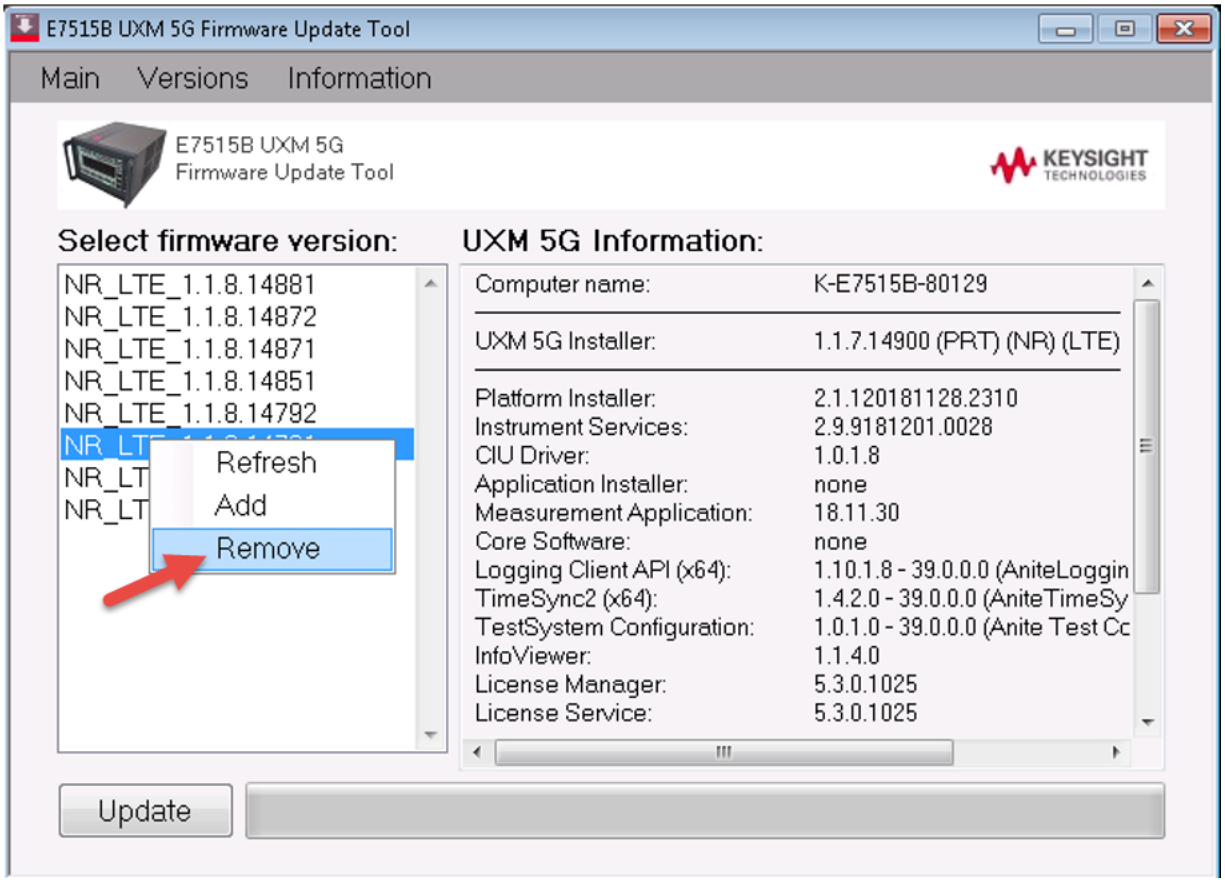
The first method is to select **Remove** from the **Versions** menu:

Figure 1-5 Removing a version (using Versions menu)



The second method is to select **Remove** from the menu invoked by right-clicking on the list of firmware versions:

Figure 1-6 Removing a version (using right-click menu)



The third method is to use Windows Explorer to delete an installer file from the repository folder. In that case, the list box has to be refreshed from within the application, using any of these methods:

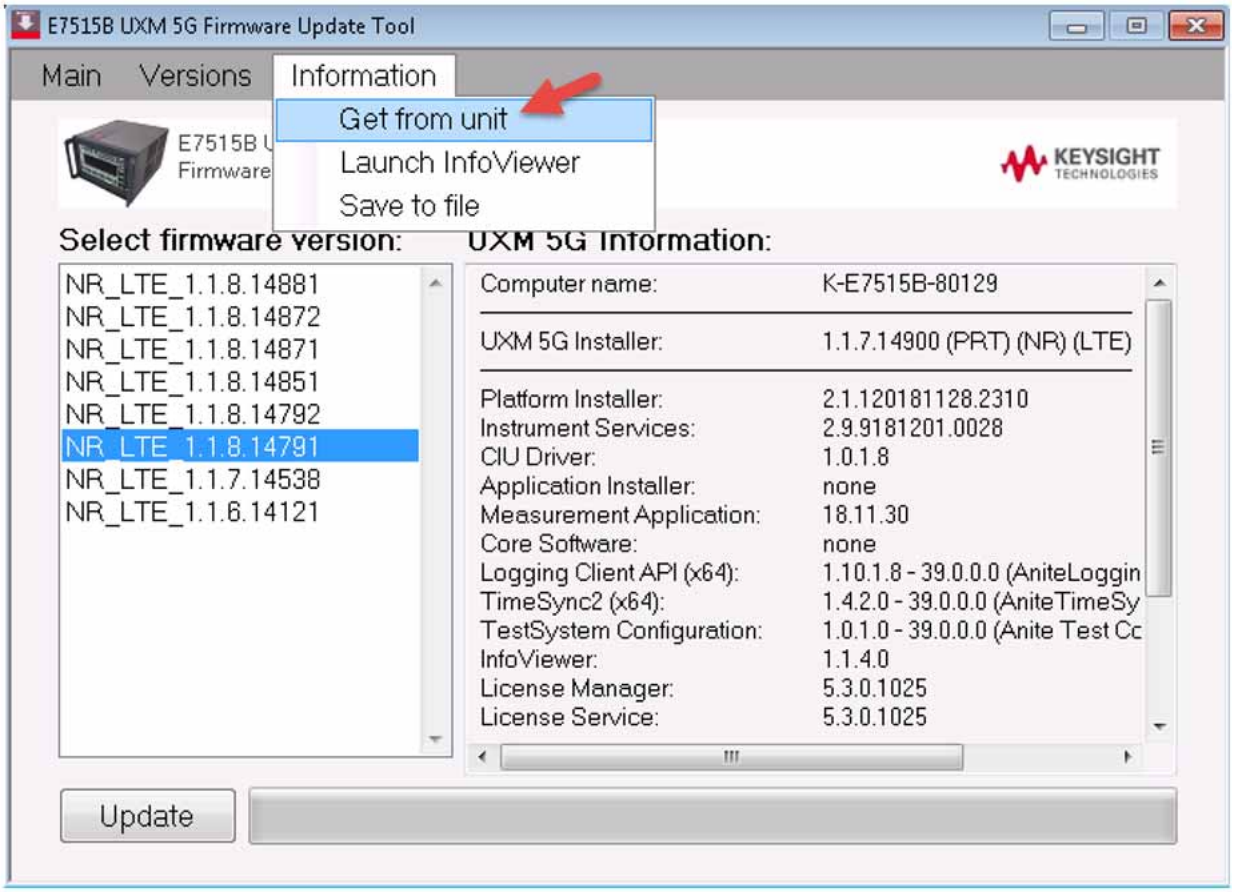
- Selecting **Refresh** on the **Versions** menu.
- Selecting **Refresh** on the menu which is invoked by right-clicking on the list of firmware versions.
- Pressing the **F5** key.

Get UXM 5G Information

The application can display information about the version of the UXM 5G firmware currently installed in the unit, as well as for all the installed software components that are part of this firmware.

This information can be displayed in a text box by pressing the **F6** key, or by selecting **Get from unit** from the **Information** menu:

Figure 1-7 Getting information from the UXM 5G

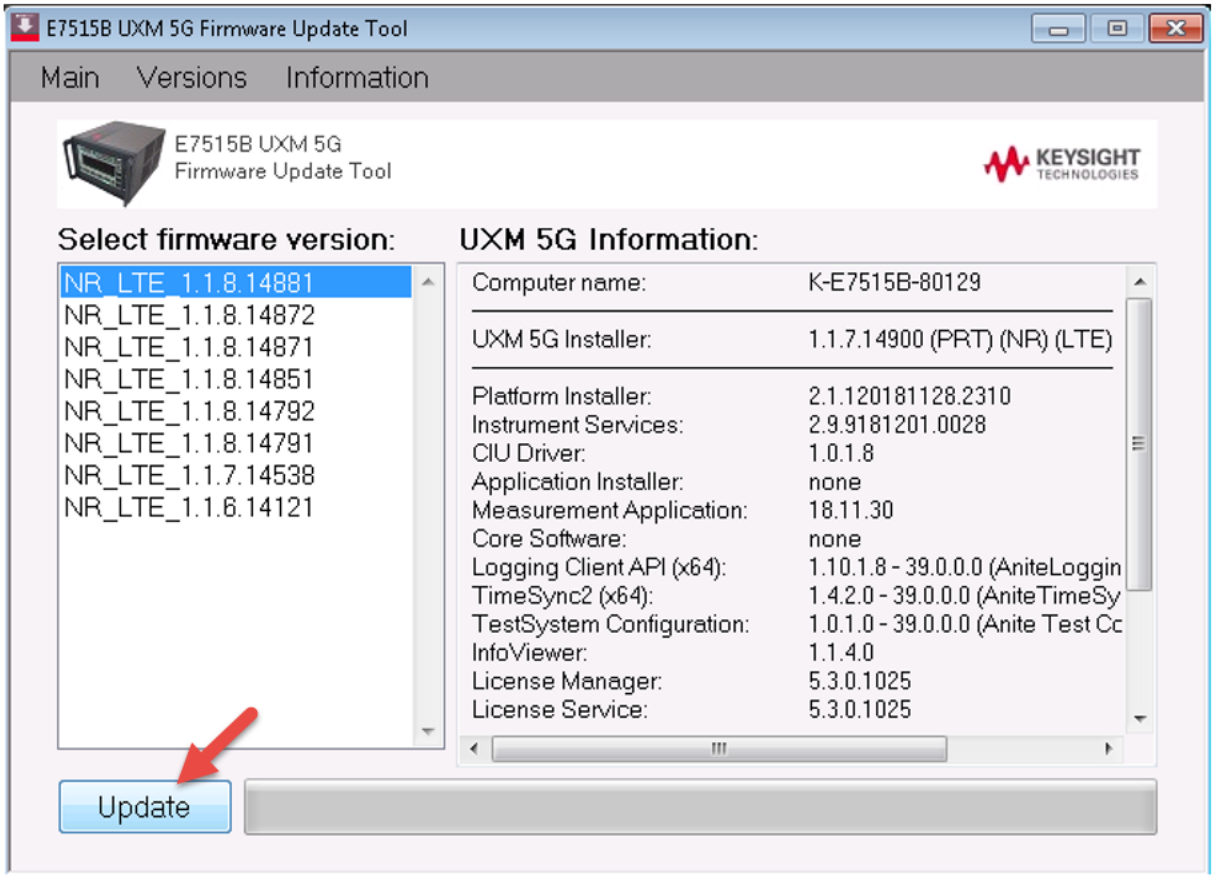


Firmware Update

NOTE Before starting a firmware update it is highly recommended to close any running application that interacts with the UXM 5G, and disconnect the LAN.

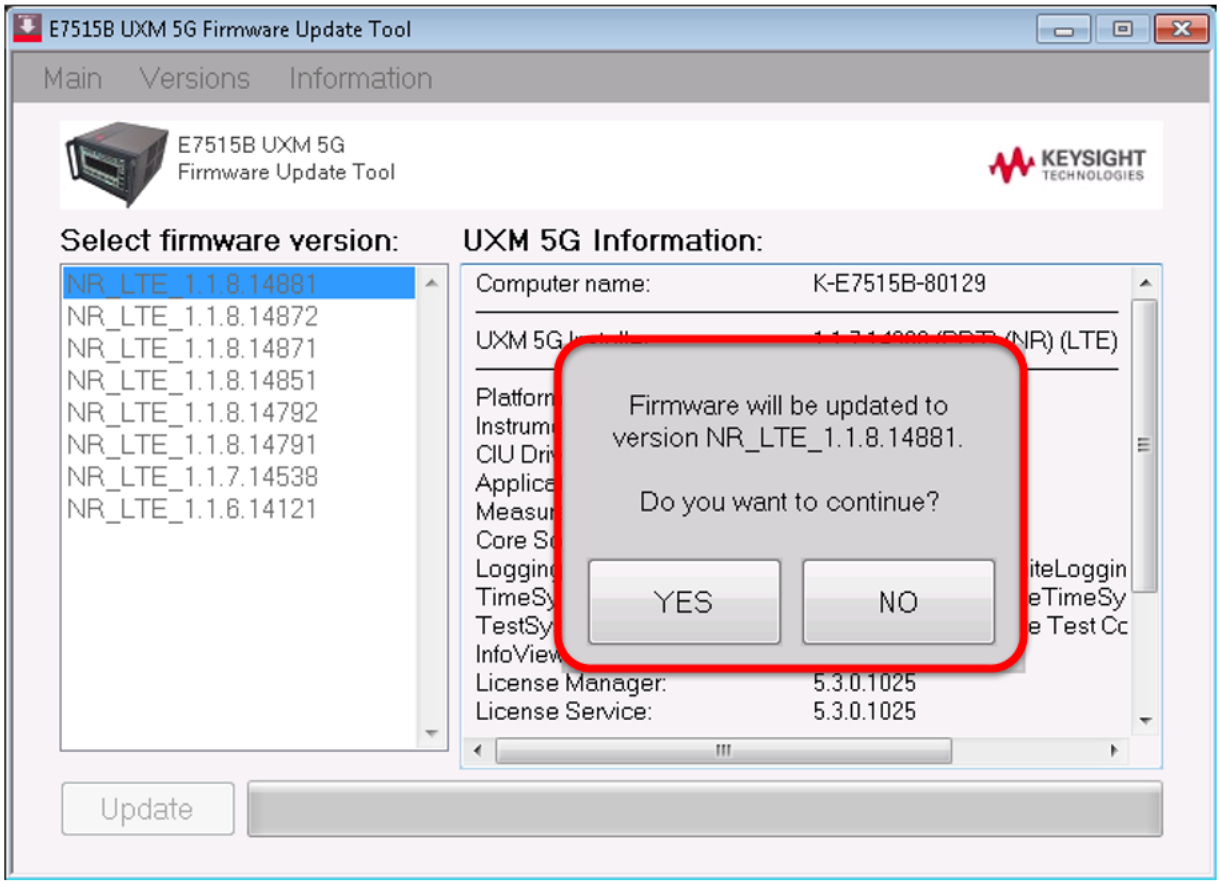
The UXM 5G firmware update process can be launched by double-clicking on a firmware version element in the list box of available versions, or by selecting a firmware version from the list and clicking the **Update** button.

Figure 1-8 Launching a firmware update



Before the update process begins, a confirmation dialog appears, showing the firmware version number the UXM 5G unit will be updated to:

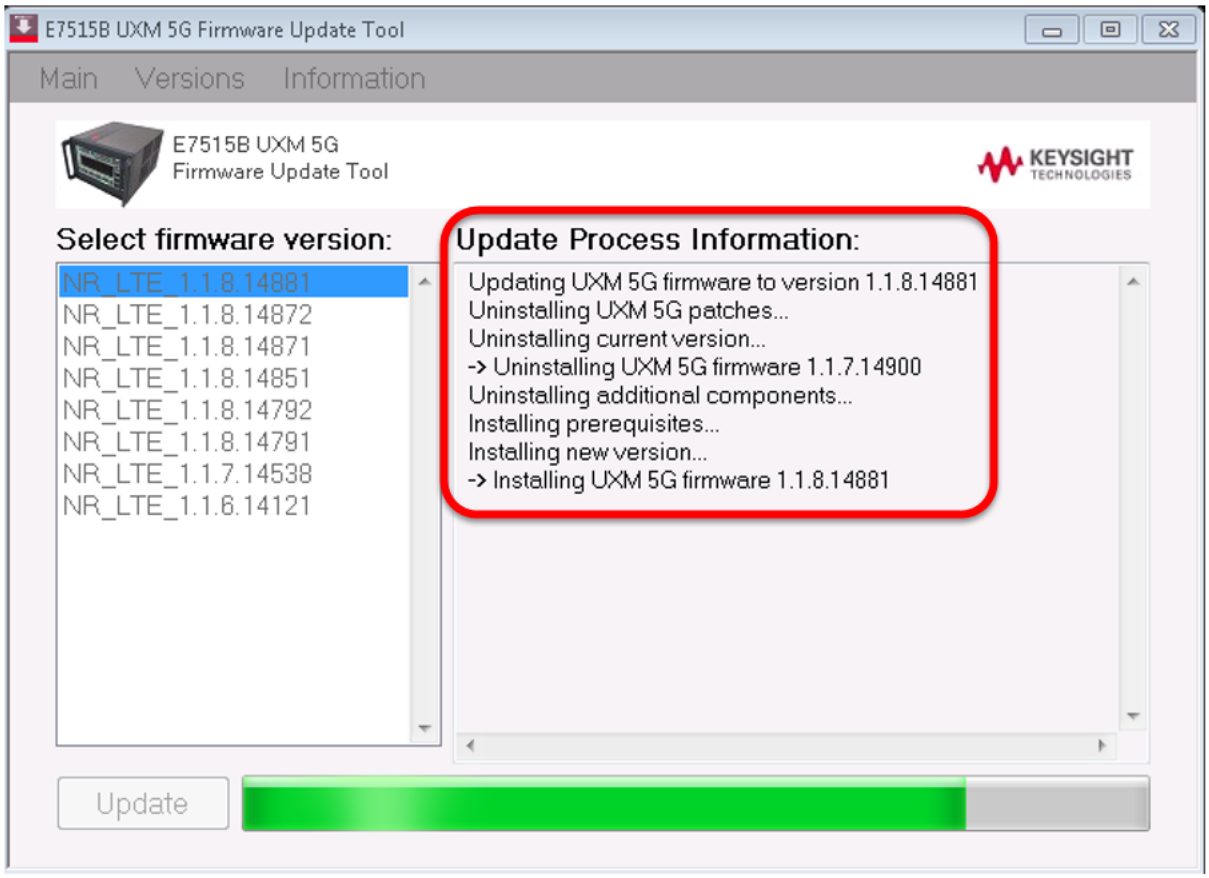
Figure 1-9 Confirming the firmware update



Clicking **YES** causes the update operation to start. Information about the process is displayed in the **Update Process Information** text box. A green progress bar is also displayed.

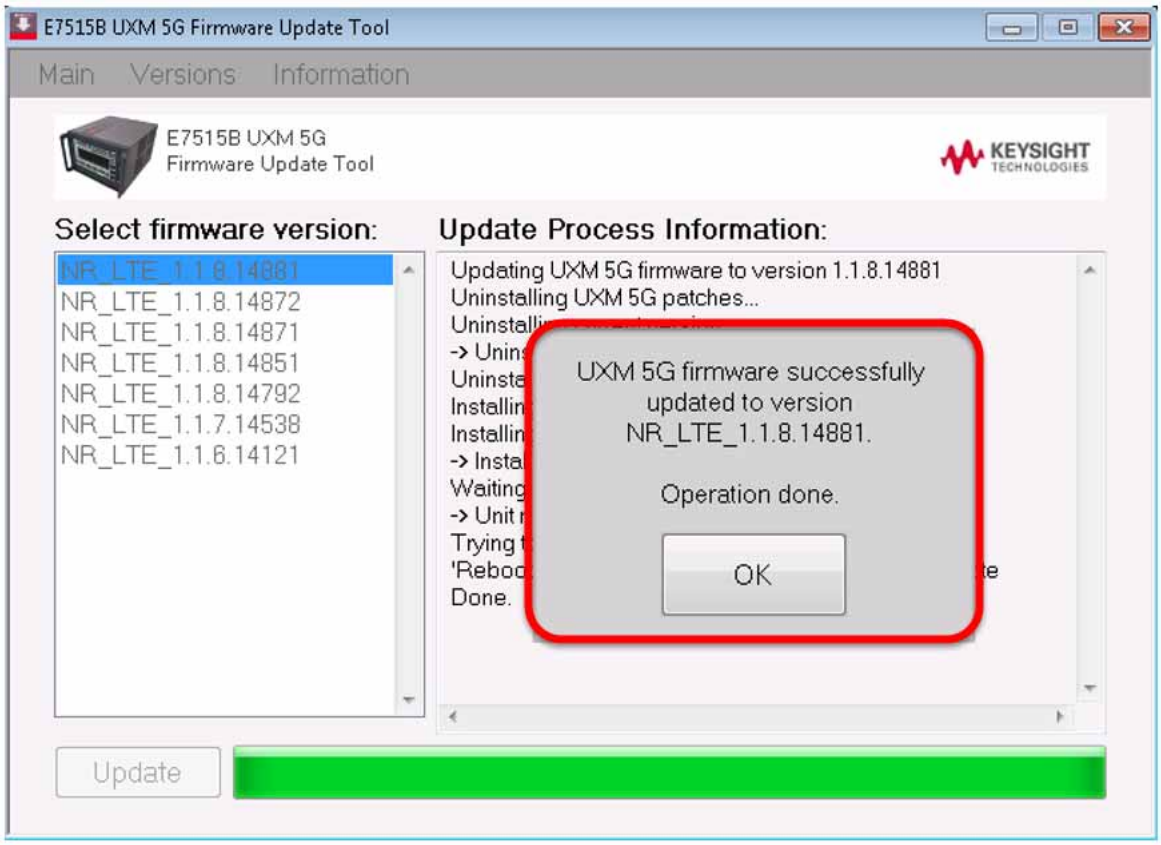
NOTE The update process can take up to 40 minutes.

Figure 1-10 Update Process Information



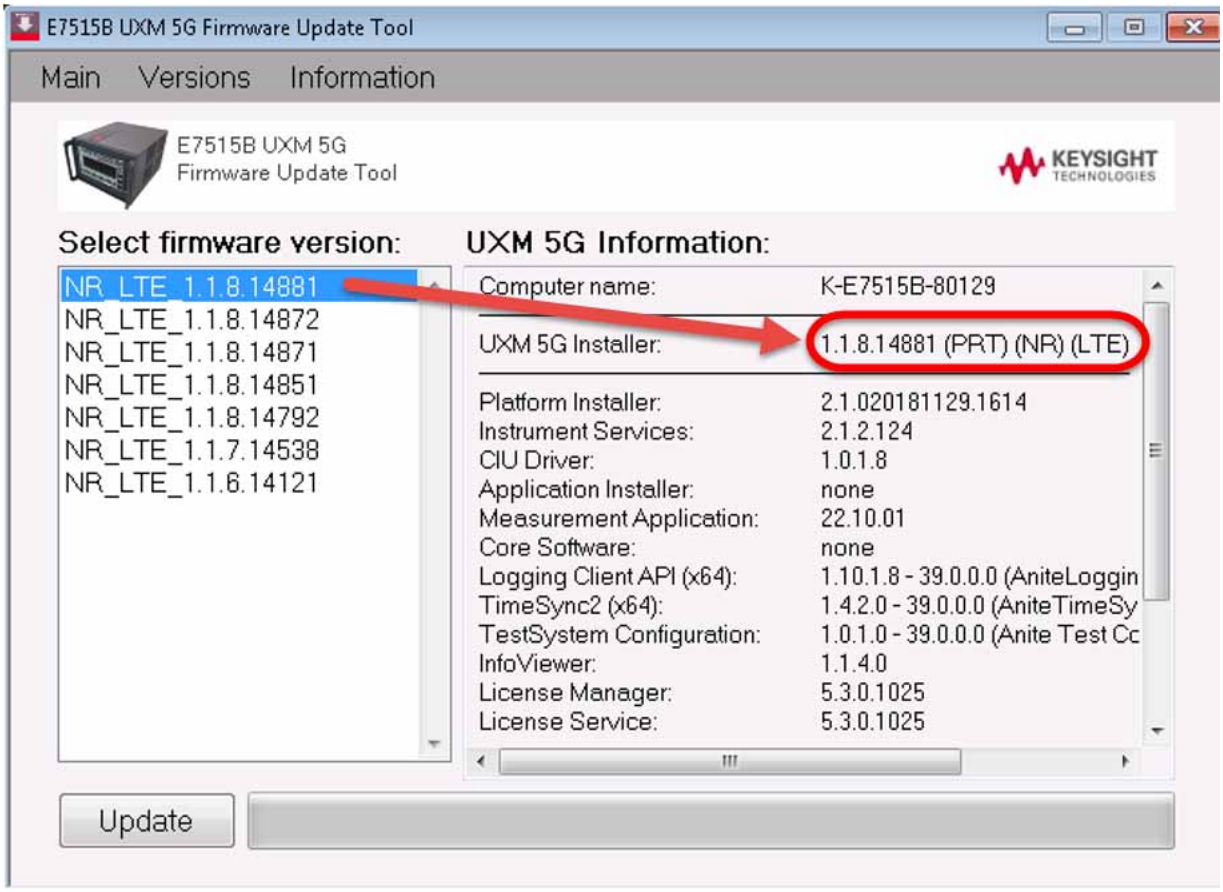
When the update operation is finished, a new dialog is displayed, indicating that the update is completed.

Figure 1-11 Completion dialog



After you dismiss the dialog (by clicking **OK**), you can check the installed firmware version by requesting the UXM 5G information (click on **Information > Get from unit**, or press the **F6** key).

Figure 1-12 Checking the installed firmware version

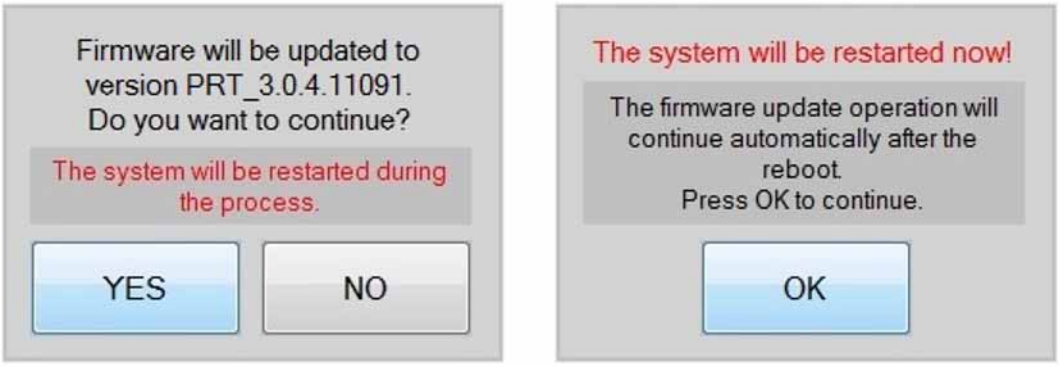


Special Considerations

Reboot

The UXM 5G firmware update operation may require the unit to be rebooted during the process (usually when "Microsoft .NET Framework" must be replaced by a newer version). If that happens, you will be informed in the update confirmation dialog, and also before the unit is rebooted. After the reboot, the process will continue automatically, with no user interaction required.

Figure 1-13 Reboot warnings



Operational State

The firmware update process concludes when the unit reaches the “Operational” state. If this state is not reached, an error message is displayed in the conclusion dialog.

Figure 1-14 Error message if UXM 5G is not operational

Command Line Interface

NOTE The command-line user interface is only supported in Firmware Update Tool version 1.4.0.0 and later.

The Firmware Update Tool provides a command-line user interface covering all the operations described under “Operation” on page 8, but also allows the combination of several operations in one command.

The valid arguments are:

Argument	Significance
`-a <fullpathfilename>`	Add versions
`-r <filename>|version`	Remove versions
`-i`	Get UXM 5G Information
`-u <version>`	Firmware Update
`-l`	Get list of Installers in Local Repository
`-g`	Launch Graphical User Interface
`-h`	Help

Add Versions

Syntax

```
-a <fullpathfilename>
```

Description

Add an installer to the list. It is necessary to indicate the full path.

If the path includes a remote server (`\\agpnas2.agp.is.keysight.com` or `http://wts.support.keysight.com`), the UXM5G Full Installer is automaticaly downloaded from that location.

Examples

1. Adding from local path:
   ```
   UXM5GUpdateTool.exe -a
   C:\Temp\E7515B_UXM5G_NR_LTE_1.1.8.14881.exe
   ```
2. Adding from agpnas2 server:
   ```
   UXM5GUpdateTool.exe -a
   \\agpnas2.agp.is.keysight.com\v2\CCO-MLG\Deliverables\UXM_R
   elease\E7515B_UXM5G_NR_LTE_Full_Installer
   /E7515B_UXM5G_NR_LTE_1.1.8.14881.exe
   ```
3. Adding from WTS Server:
   ```
   UXM5GUpdateTool.exe -a
   http://wts.support.keysight.com/UXM%205GNR/Full%20Installer
   /E7515B_UXM5G_NR_LTE_1.1.8.14881.exe
   ```

Remove Versions

Syntax

```
-r <filename>|version
```

Description

Remove an installer from the local disk ("`D:\ProgramData\Keysight\E7515B\Firmware`") using the name or the version of the UXM5G Full Installer.

Examples

1. Remove using filename:
   UXM5GUpdateTool.exe -r E7515B_UXM5G_NR_LTE_1.1.8.14841.exe
2. Removing using version
   ```
   UXM5GUpdateTool.exe -r 1.1.8.14841
   ```

Get UXM 5G Information

Syntax

```
-i
```

Description

Get Information from the UXM5G unit and list the versions of the installed components in the file "**%ProgramFiles%\Keysight\E7515B\UXM 5G Firmware Tool\UxmInfoCmdLine.log**".

Example

```
UXM5GUpdateTool.exe -i
```

Firmware Update

Syntax

```
-u <version>
```

Description

Update the UXM 5G with the version of the UXM5G Full Installer stated in the argument. The installer file must be already located in the local repository ("**D:\ProgramData\Keysight\E7515B\Firmware**").

Examples

1. Updating with binary in the local repository:
   `UXM5GUpdateTool.exe -u 1.1.8.14841`
2. Updating with binary from another local folder:
   `UXM5GUpdateTool.exe -a C:\Temp\E7515B_UXM5G_NR_LTE_1.1.8.14881.exe -u 1.1.8.14841`
3. Updating with binary from remote server
   `UXM5GUpdateTool.exe -a http://wts.support.keysight.com/UXM%205GNR/Full%20Installer/E7515B_UXM5G_NR_LTE_1.1.8.14881.exe -u 1.1.8.14841`

Get List of Installers in Local Repository

Syntax

```
-l
```

Description

Get the list of current UXM5G Full installers located in the local repository (it is written to: "`%ProgramFiles%\Keysight\E7515B\UXM 5G Firmware Tool\UxmInstallersList.log`".)

Example

```
UXM5GUpdateTool.exe -l
```

Launch Graphical User Interface

Syntax

```
-g
```

Description

Launch the graphical user interface

Example

```
UXM5GUpdateTool.exe -g
```

Help

Syntax

```
-h
```

Description

Get the version of the tool and list of valid arguments. It is written in the output log file "`%ProgramFiles%\Keysight\E7515B\UXM 5G Firmware Tool\UXM5GUpdateTool.log`".

Example

```
UXM5GUpdateTool.exe -h
```

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