



TELEDYNE LECROY
Everywhereyoulook™

Xena ChassisUpgrader User Manual

Release 97.0

Teledyne LeCroy Xena

Apr 24, 2024

TABLE OF CONTENTS

1	Introduction	1
2	Adding Chassis	3
3	Synchronize Chassis Information	5
3.1	Select and Synchronize	5
3.2	Download Required Firmware	5
3.3	Check Available Upgrades	8
4	Performing Firmware Upgrade	11
4.1	Select and Upgrade	11
4.2	Upgrade Status Monitoring	13
4.3	Power Cycle Chassis	14
5	License Considerations	17
6	Expired Software Maintenance	19
7	Creating Inventory Report	21
8	Applying New License File	23
9	Software Downgrade Procedure	25
9.1	Install Earlier Version	25
9.2	Allow Upgrade to Same Version	26

INTRODUCTION

This is the User Manual for the **Xena ChassisUpgrader** application. Xena ChassisUpgrader is installed as part of a Xena Software release and is linked to that release. It is thus not possible for the ChassisUpgrader to install a different release than the one it has been installed as part of.

You can download Xena software releases here [Teledyne LeCroy Xena Software Downloads - Get the Latest Versions](#).

This gives you the option of upgrading to the last release available before your software warranty expires, or install older versions.

ChassisUpgrader will automatically launch by the Xena software installer but Users can also launch it manually at a later stage. After installation, it can be found in the same folder as where the other Xena software tools are installed.

ADDING CHASSIS

ChassisUpgrader offers the flexibility to upgrade multiple chassis, whether you choose to perform upgrades in parallel or individually. To get started, it is assumed that you have properly configured and connected your Xena chassis and management computer, following the guidelines outlined in the [Chassis Management - ValkyrieManager User Manual](#).

Once you've ensured that your setup aligns with the manual's instructions, you can proceed with the following steps:

1. Press the *Add Chassis* button located to the left in the toolbar at the top of the application:

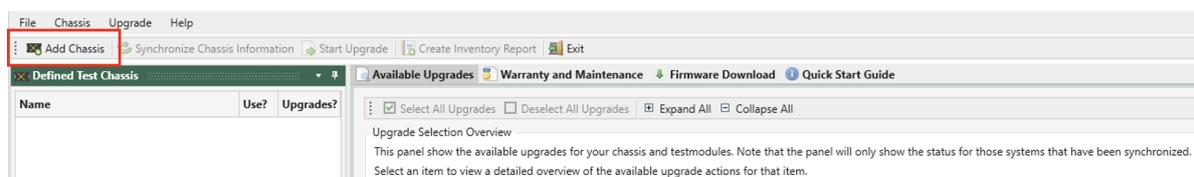


Fig. 2.1: Add chassis

2. Fill in the IP address, alternatively you can enter the hostname of the chassis.
3. Optionally change the port number.
4. Enter the password and click *OK* button.

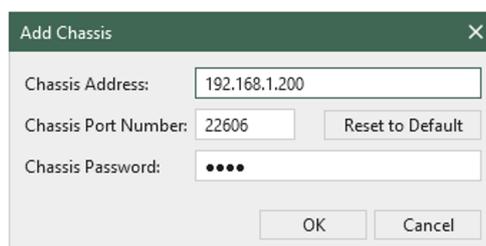


Fig. 2.2: Add chassis dialog

Upon completion of these steps, you will see the newly added chassis displayed in the *Defined Test Chassis* panel located in the upper left corner of the application. This panel will serve as a reference for your upgraded chassis.

Please note that the application will not display detailed data until it is synchronized with the respective chassis. You have the flexibility to add or remove chassis definitions within the application. These added chassis definitions will be saved, ensuring that they are available the

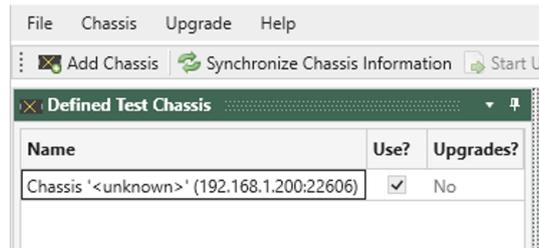


Fig. 2.3: Defined Test Chassis panel

next time you launch the application. A chassis definition typically includes the chassis display label, IP address, port number, and password for each chassis.

ChassisUpgrader also provides information about the installed release in the panel situated in the lower right corner of the application, allowing you to stay informed about your current configuration and upgrade status.

SYNCHRONIZE CHASSIS INFORMATION

3.1 Select and Synchronize

Once you have added the chassis, select the checkbox in the *Use?* column and press the *Synchronize Chassis Information* button in the toolbar as shown in Fig. 3.1. This will connect to the defined (and Used) chassis and read information about the current firmware versions of the chassis and installed test modules.

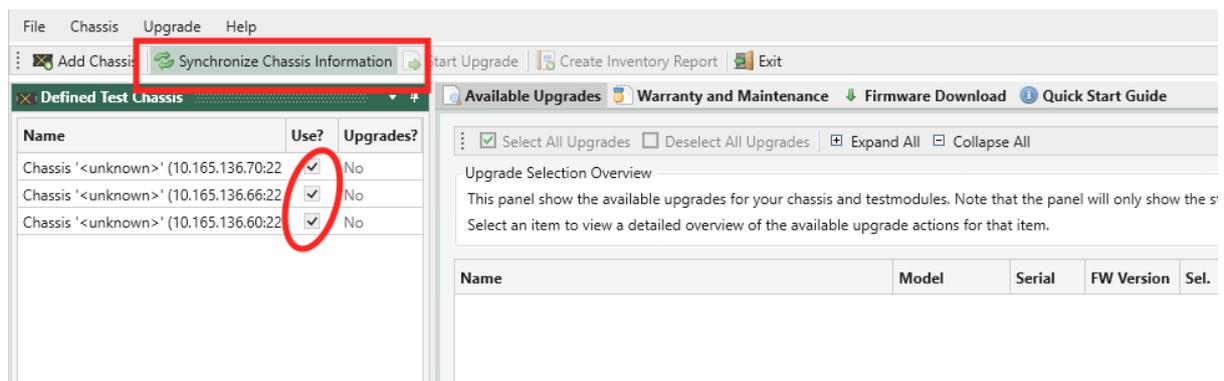


Fig. 3.1: Synchronize Chassis Information

3.2 Download Required Firmware

Firmware updates can **either be included in the software distribution package and/or be available for download via a cloud repository** managed by Teledyne LeCroy Xena. The ChassisUpgrader will inform you if there are available updates for download from the cloud repository.

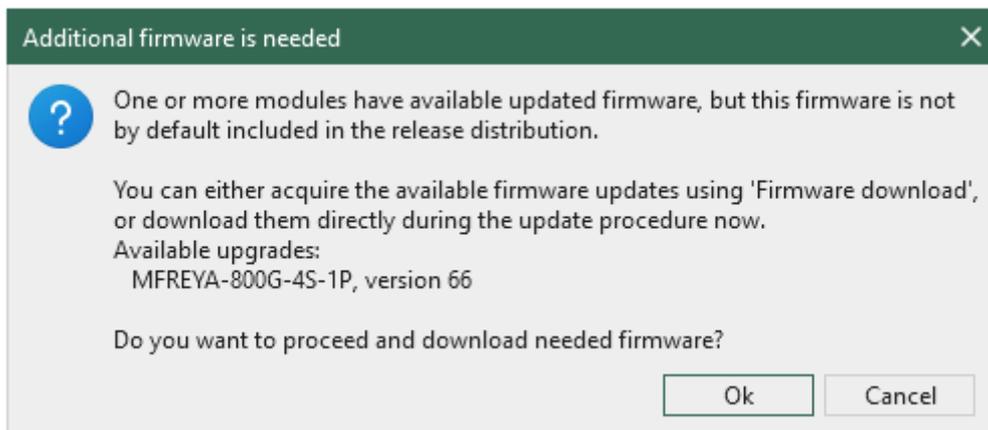


Fig. 3.2: Available updates for downloading

3.2.1 With Internet Connection

If the management computer running the ChassisUpgrader is connected to the Internet, you can initiate the download instantly by clicking *OK* as shown in Fig. 3.3.

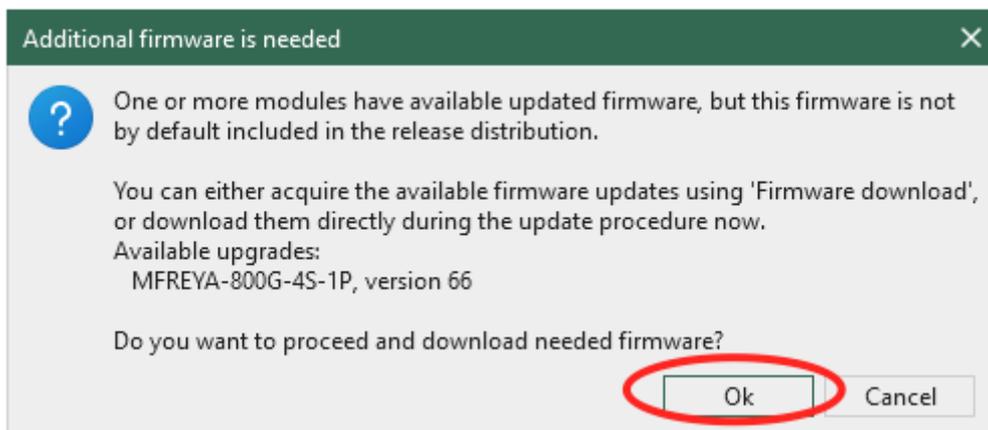


Fig. 3.3: Click OK to initiate firmware download from cloud repository

As shown in Fig. 3.4, you can also go to *Firmware Download*, select the firmware images you want to download from the cloud repository and click *Download selected images*. The firmware images are download to [user folder]\Documents\Xena\ChassisUpgrader\FirmwareCache. You can quickly open the folder by clicking *Explore download folder*.

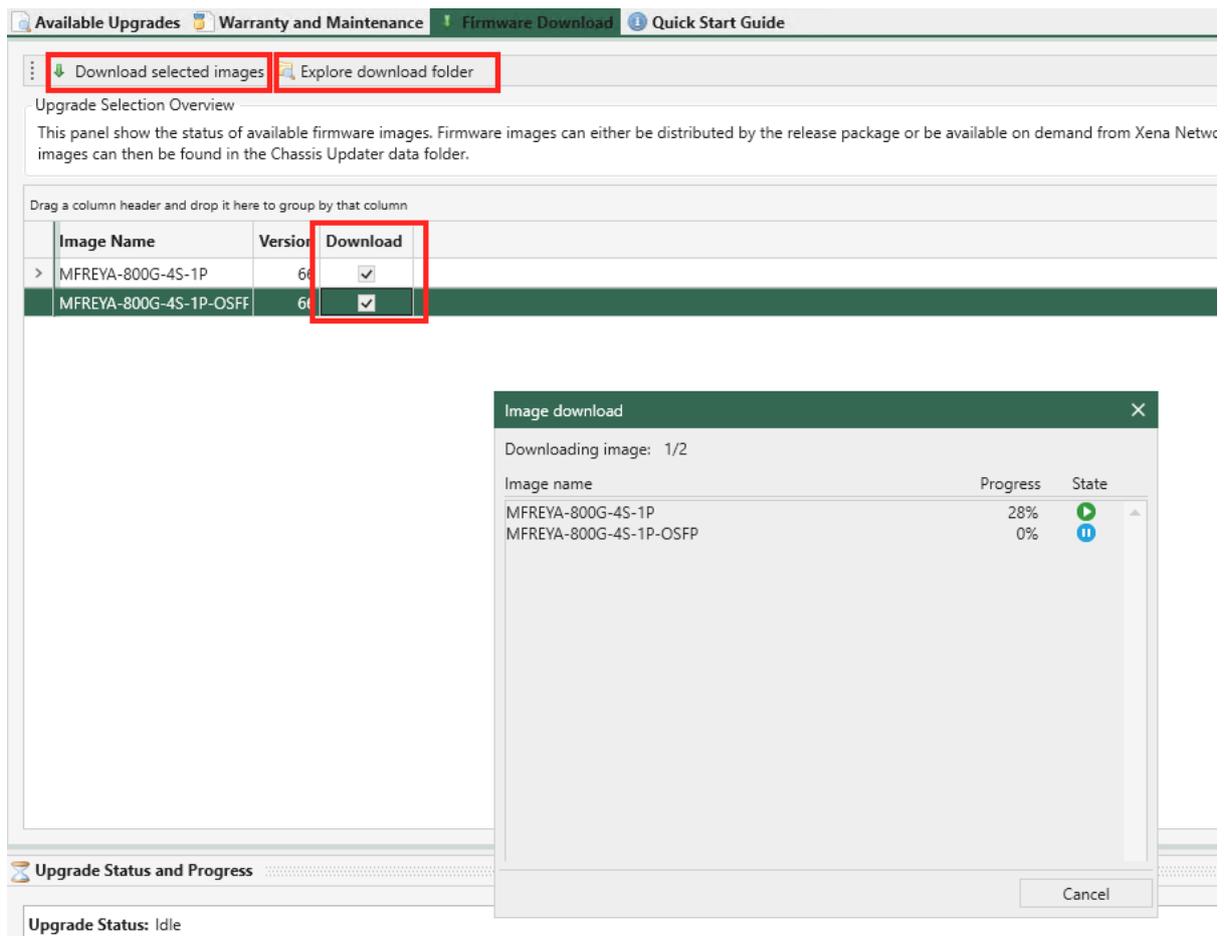


Fig. 3.4: Select needed firmware images and download from cloud repository

3.2.2 Without Internet Connection

If the management computer is NOT connected to the Internet, you must copy the firmware images manually to your management computer. You could use USB to copy the firmware images from a computer that is connected to the Internet to your management computer.

The download computer must be running the same version of the ChassisUpgrader as the management computer. After the download, find the firmware files in [user folder]\Documents\Xena\ChassisUpgrader\FirmwareCache.

These firmware(s) files must be copied to the management computer, in the same directory: [user folder]\Documents\Xena\ChassisUpgrader\FirmwareCache.

Note: Since the download computer does not have a repository for the chassis and module(s) connected to the management computer, it's recommended to download all available firmware files to the download computer, so they will be available for the management computer when upgrading.

After copying firmware files to management computer, you can start ChassisUpgrader on the management computer, and upgrade system software.

3.3 Check Available Upgrades

As shown in Fig. 3.5, available upgrade information is shown in the *Available Upgrades* panel. If you don't see the information, click *Synchronize Chassis Information* again. You will find the following information:

1. Name: The name and type label for the entity (chassis or test module).
2. Model: Model of hardware (product number incl. version).
3. FW Version: Chassis or module firmware version number.
4. Sel: Checkbox selector for including the entity in the upgrade process.
5. *Available Upgrades*: Displays an overview of any available upgrades for the item.
6. Upgrade Progress: Displays the upgrade progress for the item when the upgrade process is started.

Available Upgrades Warranty and Maintenance Firmware Download Quick Start Guide

Select All Upgrades Deselect All Upgrades Expand All Collapse All

Upgrade Selection Overview

This panel show the available upgrades for your chassis and testmodules. Note that the panel will only show the status for those systems that have been synchronized.
Select an item to view a detailed overview of the available upgrade actions for that item.

Name	Model	Serial	FW Version	Sel.	Available Upgrades	Upgrade Progress
Chassis 'Live Demo 2400G' (87.61.110.118:22606)	C4-12 (b) [FC20]	334778	S.458.0 D.41	<input checked="" type="checkbox"/>	Chassis Firmware Upgrade (Same Version) = v458	
L23 Test Module 0	M2QSF28V	543468	329	<input type="checkbox"/>	Module Firmware missing = v325	
L23 Test Module 2	XE2QSF28V[b]	691584	310	<input type="checkbox"/>	Module Firmware missing = v310	
L23 Test Module 4	M1QSFDDQSF56	524265	325	<input checked="" type="checkbox"/>	Module Firmware Upgrade (Same Version) = v325	
L23 Test Module 8	M1QSFDDQSF56	603766	325	<input type="checkbox"/>	Module Firmware Upgrade (Same Version) = v325	

Fig. 3.5: Available firmware upgrades are shown in a tree view

PERFORMING FIRMWARE UPGRADE

Attention: Upgrading your existing Freya modules to Release 97 requires enabling *Allow Upgrade to Same Version*. If you don't enable this option, you won't be able to upgrade your existing Freya modules.

4.1 Select and Upgrade

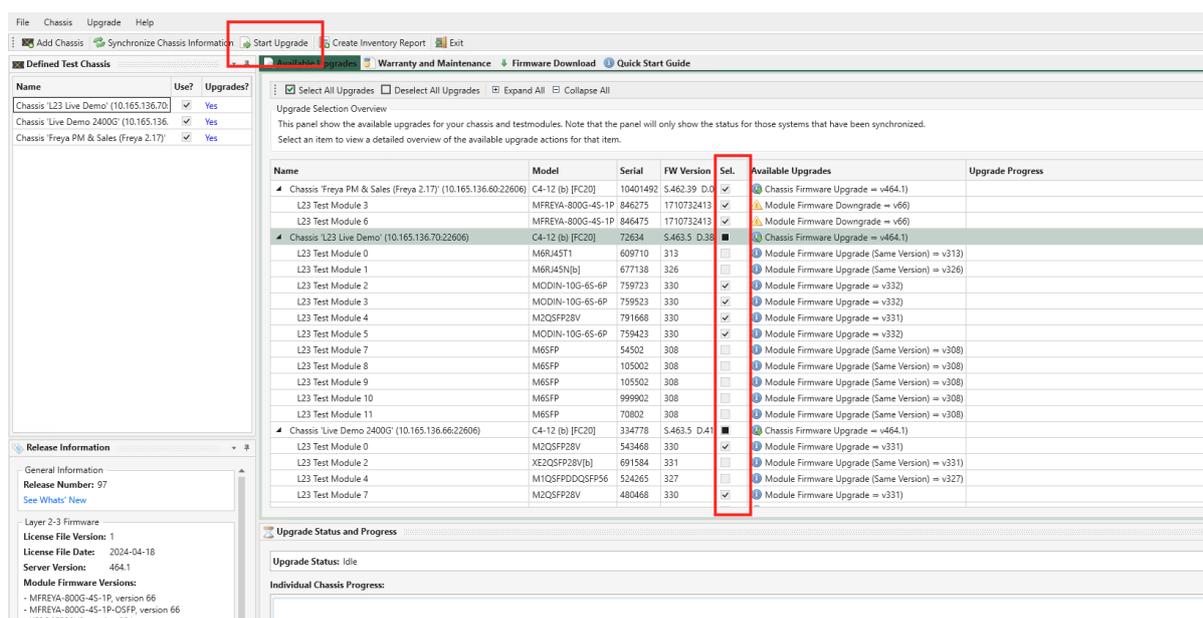


Fig. 4.1: Start Upgrade

In the *Available Upgrades* panel, you can select what parts of the chassis you want to upgrade.

When you select a chassis for upgrade, ChassisUpgrader will automatically select those test modules on the chassis, which has older firmware versions than the ones in the ChassisUpgrader. You can however manually select or deselect test modules if you need to do so.

Note: In almost all situations you will want to upgrade both chassis and all test modules to the latest firmware versions, but it is possible to only upgrade certain parts of the chassis. Manually

deselecting one or more modules that was otherwise eligible for an upgrade is thus generally not recommended.

Attention: Keeping modules and chassis on different software versions is highly not recommended and it may cause the system to malfunction. You should only do this if you have been instructed to do so by Teledyne LeCroy Xena support.

Once you have made your selection, press the *Start Upgrade* button. The upgrade process will now initiate and will inform you when it is complete and if you need to perform additional steps with regards to rebooting the chassis.

4.1.1 Upgrade Only Chassis Firmware

If you're only updating the main chassis firmware, it will automatically reboot upon completing the upload. The chassis will seamlessly reconnect to the network without requiring any manual intervention.

Important: It's important to note that if the software release you're upgrading to includes a firmware update for both the chassis and modules, it's crucial to update both components. Operating with different software versions for modules and chassis is not supported and could lead to system malfunctions. Only consider this if you've received specific instructions from Teledyne LeCroy Xena support.

4.1.2 Upgrade Test Module Firmware

When upgrading one or more test modules, manual interaction is required to complete the chassis reboot. Here's the step-by-step process for rebooting the chassis after a module firmware upgrade:

- Initiate the upgrade progress in ChassisUpgrader.
- Wait for the ChassisUpgrader to prompt you to power-cycle the chassis.
- Remove power from the chassis completely - then wait **at least 10 seconds** - and plug in power again.
- Wait until the ChassisUpgrader informs you that the chassis is back online.

Important: It's crucial to leave the chassis **unplugged for at least 10 seconds** because the power supply's internal capacity may keep the chassis and test modules active for a few seconds after power is disconnected. Failing to complete this phase may result in the chassis still using the old firmware for one or more test modules.

Additionally, keep in mind that if the software release you are upgrading includes a firmware update for both your chassis and modules, it's essential to update both components. Operating with different software versions for modules and chassis is not supported and could lead to system malfunctions. Only proceed with this if you have received explicit instructions from Teledyne LeCroy Xena support.

4.2 Upgrade Status Monitoring

The progress of the upgrade can be monitored in the status panel in the lower part of the application. The overall status messages are shown in the box marked *Upgrade Status* whereas the progress for each individual chassis is shown in separate tabs in the box marked *Individual Chassis Progress*. The progress for each individual entity is also shown in the *Available Upgrades* panel.

In general, a chassis upgrade consists of a firmware erase-upload-verify phase and a chassis reboot phase. The process for a chassis firmware-only upgrade is slightly different from when you also upgrade test modules.

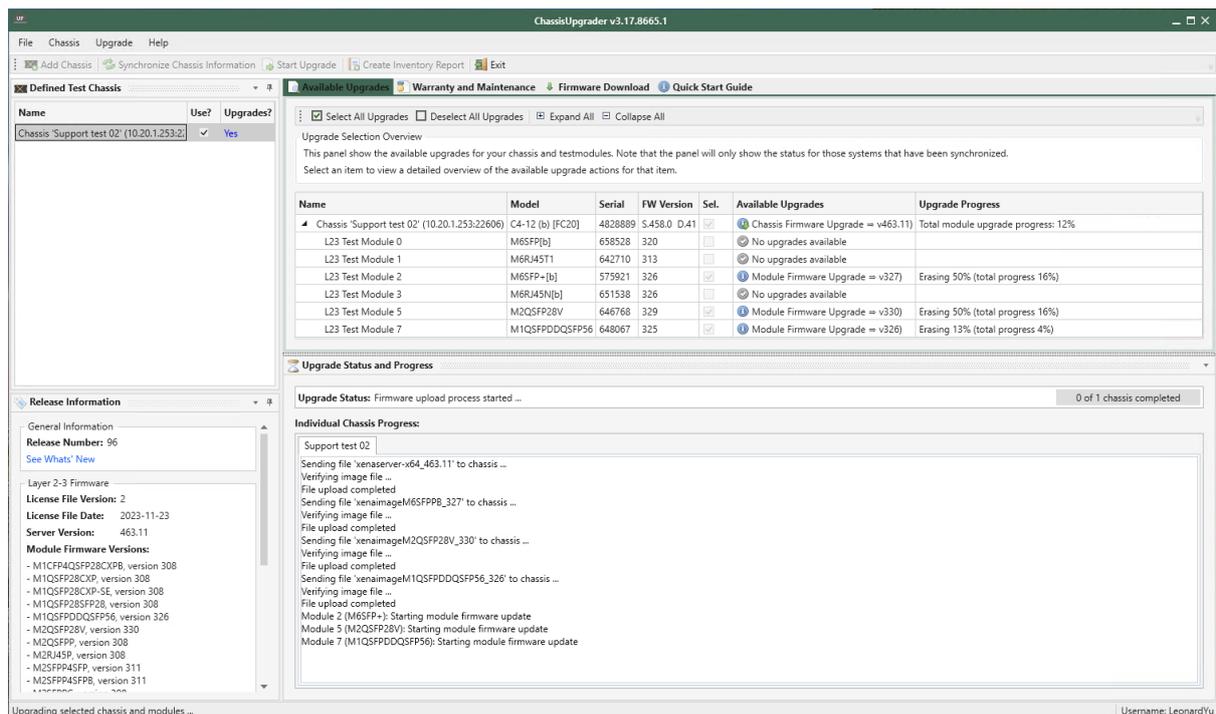


Fig. 4.2: Upgrade Status

4.3 Power Cycle Chassis

After the upgrade is completed, the chassis will automatically shut down. You will need to power it up, as instructed in Fig. 4.3.

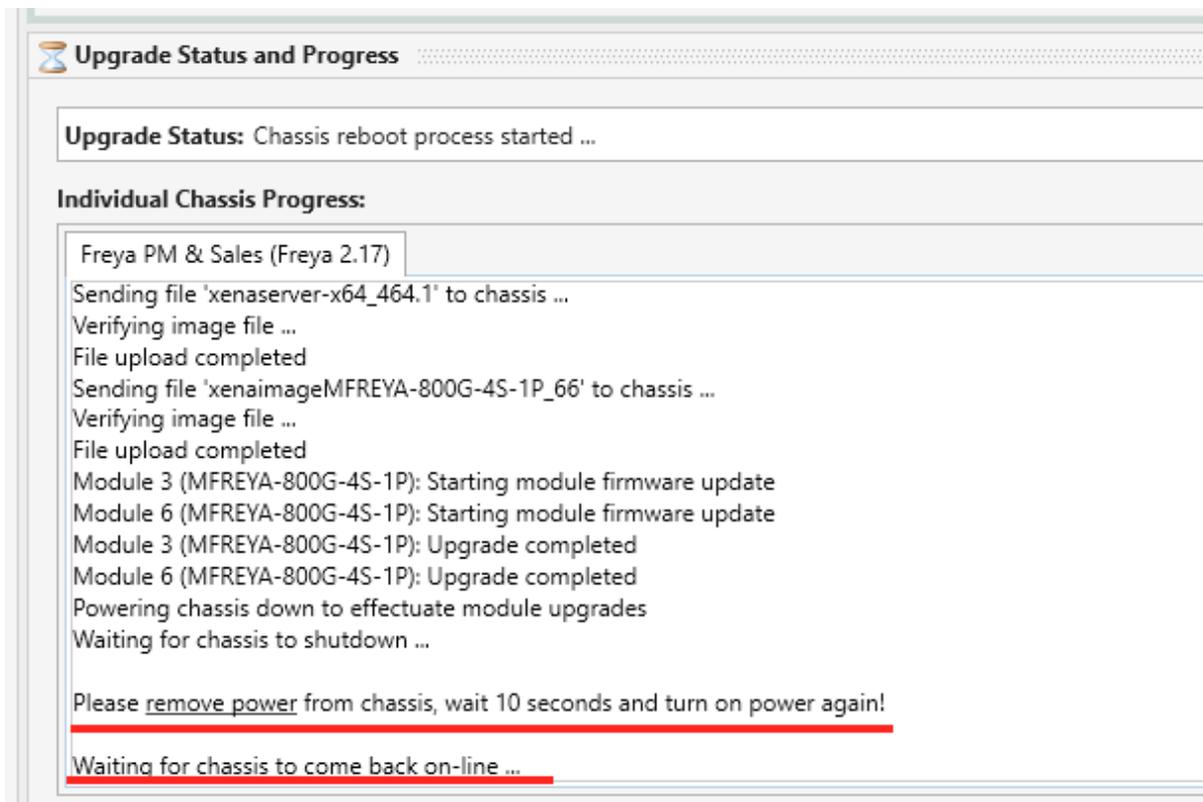


Fig. 4.3: Chassis waiting to be powered up

After being powered up, the ChassisUpgrader will automatically detect and connect to the chassis as shown in Fig. 4.4.

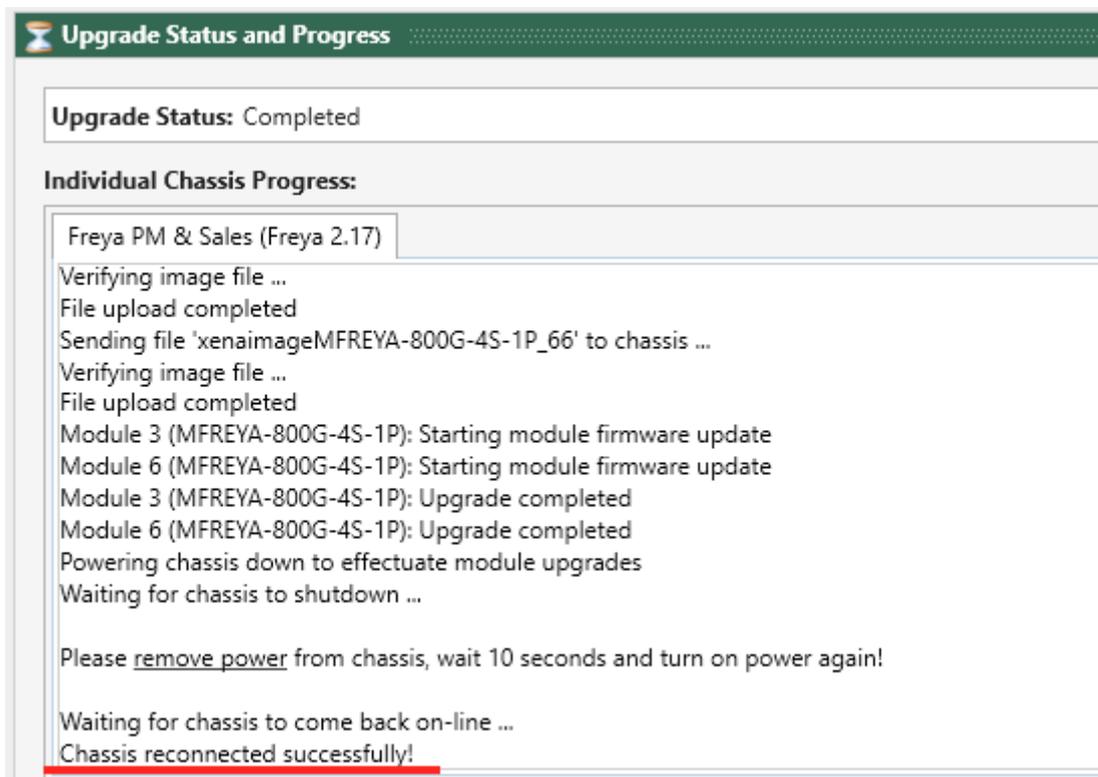


Fig. 4.4: Chassis powered up and reconnected

LICENSE CONSIDERATIONS

ChassisUpgrader reads the status of both the software and hardware maintenance licenses for all test modules installed on the chassis. It only allows chassis upgrades when all test modules within the chassis possess a valid software maintenance license.

Available Upgrades Warranty and Maintenance Firmware Download Quick Start Guide

Expand All Collapse All

Warranty and Software Maintenance State Summary

This panel show the software maintenance and hardware warranty status for your testmodules. Note that the panel will only show the status for those systems that have been synchronized.

All OK: No hardware warranty or software maintenance problems found.

Name	Model	SerialNo	SW Maint.	SW Days Left	HW Warr.	HW Days Left
Chassis 'Support test 01 (val-96 rc4)' (10.20.1.252:22606)	C4-12 (b) [FC20]	5222105	N/A	N/A	N/A	N/A
L23 Test Module 0	M6SFP[b]	658428	OK	N/A	OK	N/A
L23 Test Module 1	M6RJ45T1	642810	OK	N/A	OK	N/A
L23 Test Module 2	M6SFP+[b]	576021	OK	N/A	OK	N/A
L23 Test Module 3	M6RJ45N[b]	651638	OK	N/A	OK	N/A
L23 Test Module 7	M1QSFPDDQSFP56	647867	OK	N/A	OK	N/A
L23 Test Module 11	XE2QSFP28V[b]	598584	OK	0 days	OK	0 days

Fig. 5.1: Warranty and Maintenance

Within the panel labeled as *Warranty and Maintenance*, you can access information regarding the hardware warranty and software maintenance for all synchronized chassis and test modules. This panel provides details for each entity, including the following information:

1. **Name:** The name and type label for the entity (chassis or test module).
2. **Model:** Model of hardware (product number incl. version).
3. **SerialNo.:** The serial number for the entity.
4. **SW Maint.:** Show your current software maintenance state for the current entity. This is currently only applicable for test modules and is not relevant for test chassis.
5. **SW Days Left:** Show the remaining days of your software maintenance for the current entity.
6. **HW Warr.:** Show your current hardware warranty state for the current entity.
7. **HW Days Left:** Show the remaining days of your hardware warranty for the current entity.

The complexity of this table reflects the fact that a new Xena software release can be launched when the software and hardware installed on your test equipment is still valid, but may have

expired by the time you want to install it.

EXPIRED SOFTWARE MAINTENANCE

In the event that your test modules have not yet reached the End of Life (EoL) stage, but the software maintenance agreement has expired for one or more of these modules, you can either contact your local sales representative or directly get in touch with Teledyne LeCroy Xena at sales@xenanetworks.com to request a quotation for extending the maintenance agreements.

To expedite the quotation process, consider attaching an inventory report to your email. You can generate this report in either Excel or CSV format, with instructions provided in the documentation section titled *Creating Inventory Report*.

CREATING INVENTORY REPORT

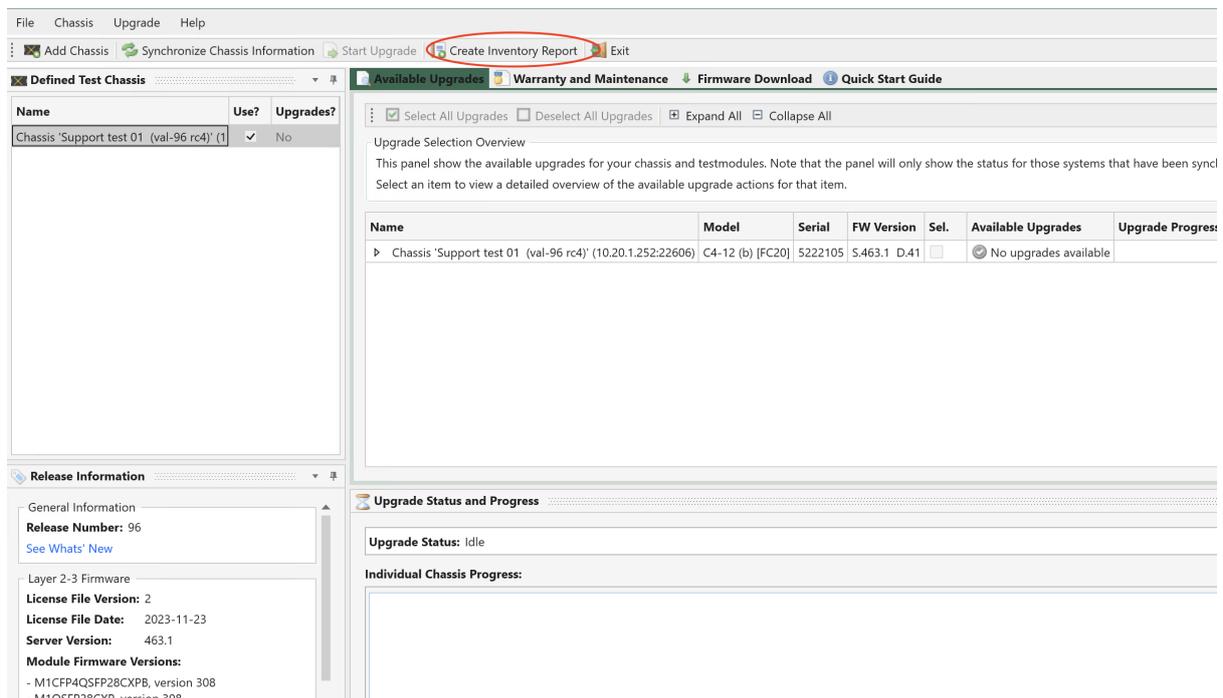


Fig. 7.1: Create inventory report

The ChassisUpgrader offers the capability to generate a comprehensive inventory report encompassing all connected chassis and test modules. To generate this report, simply click the *Create Inventory Report* button located in the toolbar and specify the destination to save the report. The resulting report will be formatted as a CSV file and will include the same data as presented in the central grid-view within the application.

Please be aware that before creating the inventory report, you must first execute the *Synchronize Chassis Information* operation to ensure that the data is up-to-date and accurate.

APPLYING NEW LICENSE FILE

If your warranty and software maintenance agreement has been extended, Teledyne LeCroy Xena will provide you with a new license file. If you haven't received the new license file despite placing an order, please send an email to: sales@xenanetworks.com with your order details and the serial number(s) of the affected products.

Subsequently, you will need to load this new license file into your system. To activate a new license file you must import it into the ChassisUpgrader before upgrading your chassis. These are the instructions to reactivate warranty and software maintenance on the system:

1. Save the received license file to any location on your local PC where you can find it afterward.
2. Start the ChassisUpgrader, select the *File → Import License File* menu item and navigate to the location where you saved the received license file. Select the file and click the Open button.
3. You can now synchronize the chassis information as explained in the *Quick Start Guide ChassisUpgrader* section above. Please check if the modules with a renewed license are marked as valid for upgrade before proceeding.

SOFTWARE DOWNGRADE PROCEDURE

Teledyne LeCroy Xena continuously enhances the software for its systems, aiming to improve system performance and introduce new features. Therefore, it's strongly recommended to always use the latest software version to maximize the capabilities of your systems.

However, in certain exceptional circumstances, you may find the need to revert to an earlier version of the system software. It's important to note that only software versions available on the Teledyne LeCroy Xena website are officially supported by Teledyne LeCroy Xena.

For users who wish to downgrade their system to a prior software version, please follow the following instructions.

9.1 Install Earlier Version

The installer is specifically designed to permit upgrades of the system software. If your system already has a more recent software version installed than the package you are attempting to install, you will encounter the following messages as shown in [Fig. 9.1](#).

To install an earlier version of Valkyrie software you first need to **uninstall the newer version**. Use your standard software uninstall tools of your operating system to uninstall the newer Valkyrie software package, before installing the earlier version.

You will find the guide to installing Valkyrie software here: [Installation - ValkyrieManager User Manual](#).

Note: When you uninstall your Valkyrie software, only the files from the .msi will be uninstalled. All your working files, including port config files, transceivers definition files etc. will remain on your computer and be available when you later install a new Valkyrie software package.

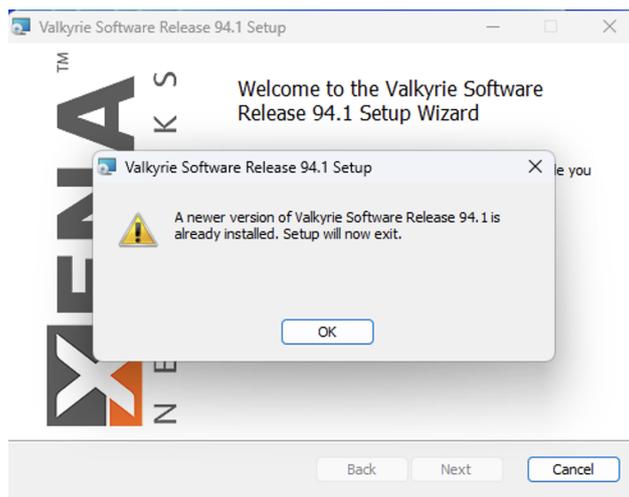


Fig. 9.1: Reject to install older version because newer version detected

9.2 Allow Upgrade to Same Version

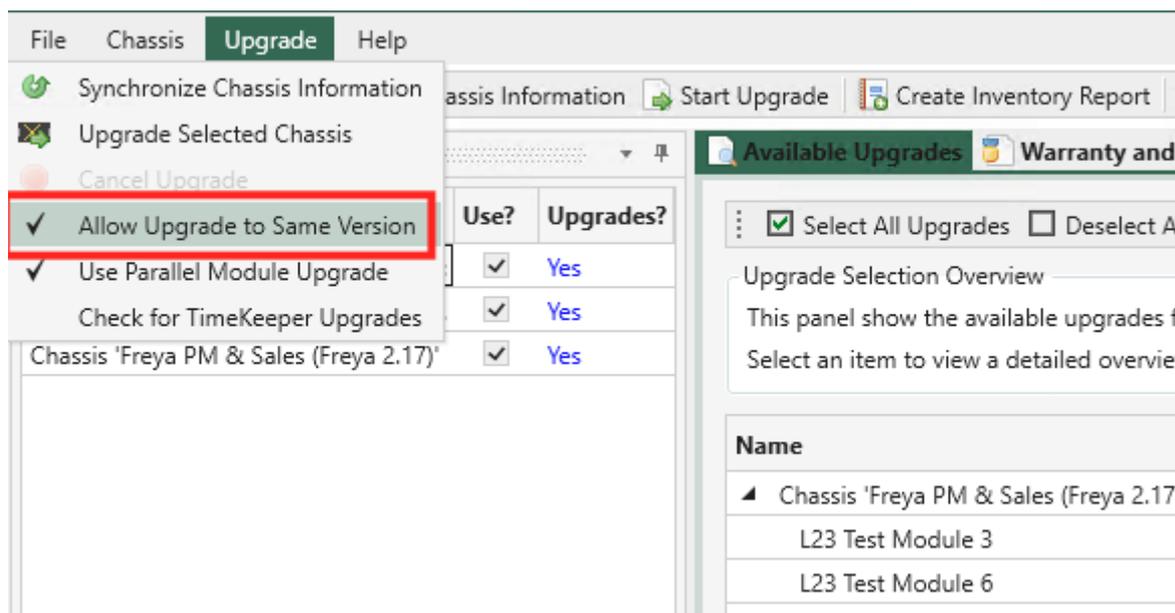


Fig. 9.2: Enable Allow Upgrade to Same Version

Launch ChassisUpgrader and enable *Upgrade* → *Allow Upgrade to Same Version* as shown in Fig. 9.2. You will be asked to re-synchronize chassis information.

Afterwards, follow the steps in *Performing Firmware Upgrade*.

search