

# TGX

## Install Guide

**Version 2024.1.1**

Mechdyne Corporation

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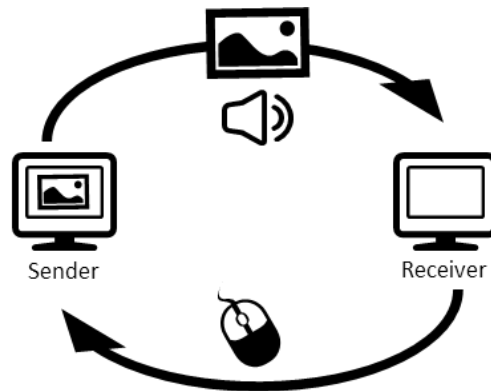
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Third-party source code and licenses are redistributed, if required, with TGX.

## WELCOME TO TGX

TGX installers are available from the Mechdyne Software Portal. Contact Mechdyne Support to receive your login credentials and licenses for the software.

TGX provides separate installers for the sender and the receiver. The sender is the remote workstation whose desktop and applications are shared by TGX to a receiver. The receiver is the local computer that displays and interacts with the remote desktop of the sender via TGX.



## TECHNICAL SUPPORT

Please submit questions and issues by email. A ticket will be created in the TGX support portal.

EMAIL

[software\\_support@mechdyne.com](mailto:software_support@mechdyne.com)

## OVERVIEW

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# WINDOWS INSTALL GUIDE

## LICENSE MANAGEMENT

The TGX sender requires a valid license. If the license is node-locked or demo, install the license file in C:\ProgramData\Mechdyne\licenses. TGX uses FlexLM for floating license management. To use floating licenses with a FlexLM server, please contact [software\\_support@mechdyne.com](mailto:software_support@mechdyne.com) for instructions on how to download and configure the FlexLM license server software.

## SYSTEM REQUIREMENTS

### OPERATING SYSTEM

The TGX sender and receiver support Windows 10, 11 and Server 2016, 2019, 2022.

### HARDWARE – SENDER

The TGX sender is designed to leverage hardware/driver optimizations provided by NVIDIA Quadro, GeForce GTX/RTX/Titan, and GRID/TESLA GPUs. The sender must support NVIDIA NVENC, typically available starting with Kepler architecture. Please see NVIDIA (<https://developer.nvidia.com/video-encode-decode-gpu-support-matrix>) for details. Mechdyne recommends using the latest available drivers from the NVIDIA website, minimum compatible driver is 451.22. For GRID vGPU modes, the drivers ship in a package containing a host driver and guest drivers. The host and guest drivers must match.

TGX can also leverage hardware optimized encoding provided by Intel integrated GPU (Intel UHD 610 or newer, recommend using the latest driver). However, encoding performance provided by Intel is much lower than NVIDIA thus Mechdyne recommends using NVIDIA GPUs in the sender for graphically intensive applications. Currently, TGX sender does not support AMD GPUs.

TGX supports 420 and 444 color encoding; details on which specific GPUs support 444 are available in the Administrator Guide. In the absence of a GPU that supports hardware accelerated encoding, TGX will use software encode for 420 color. There is no software encoding support for 444 color.

### HARDWARE – RECEIVER

The TGX receiver is designed to leverage hardware optimizations for 420 decoding provided by Intel integrated GPU (Intel UHD 610 or newer), AMD Radeon GPU (R9 and above), NVIDIA GPUs. In the case of NVIDIA, the receiver must support NVIDIA NVDEC, typically available starting with Kepler architecture. Please see NVIDIA (<https://developer.nvidia.com/video-encode-decode-gpu-support-matrix>) for details. Mechdyne recommends using the latest available drivers from the NVIDIA, Intel, and AMD website. In the absence of GPU decoders, TGX will use software decoding. For large desktop configurations (UHD and above), the use of a discrete GPU is recommended for best performance. The TGX receiver is also designed to leverage hardware optimizations for 444 decoding. Details on which GPUs support 444 color decoding is provided in the Administrator Guide.

## SENDER INSTALLATION OPTIONS

### UPDATING TGX FROM PREVIOUS VERSION

Currently only one version of TGX may be installed at a time. When upgrading TGX, the installer will prompt that it will uninstall the existing version, you must answer 'Yes' to continue. The sender installation also requires a reboot after the uninstall. After reboot the TGX installer will automatically continue upon login to the computer

### SELECT START MENU FOLDER

By default, the installation process will place TGX shortcuts in the Start Menu folder under "Mechdyne TGX" but a different folder can be specified.

### USB REMOTING COMPONENT

TGX provides support to redirect selected USB devices from a TGX receiver to a TGX sender.

During USB installation, the USB Remoting component adds a service and drivers to enable USB redirection which may cause a conflict with other software packages. For example, HP Anyware must be uninstalled before TGX can install USB. If the USB install fails, please email the install log (found in ProgramData>Mechdyne>TGX>logs) to [software\\_support@mechdyne.com](mailto:software_support@mechdyne.com).

If USB is not currently installed and is not selected for installation, USB redirection will not be available on this Sender.

If USB is not selected and USB is already installed, the installer will leave USB installed but modify the config.ini to disable the use of USB on the Sender.

If USB is selected and USB is already installed, the installer will compare the versions to determine if the installed version is a match.

- If it is not a match, then TGX will uninstall the existing USB and install the USB from the installer.
- If the installed version is a match to the version in the installer, by default TGX will keep the currently installed USB. However, if you are experiencing issues with the current USB redirection installation, there is an option to force the reinstall of the USB component.

If USB is uninstalled a reboot will be required.

### DISPLAY CONFIGURATION

TGX provides support for the sender desktop to be reconfigured to match that of the receiver. This option is enabled by default on the sender as part of the installation. To disable this capability, uncheck the box. It is recommended that this option be disabled on senders that are physically connected to complex display systems, especially those configured with NVIDIA Quadro Sync or Mosaic mode. As of 2024.1 TGX can reconfigure the desktop on all Senders.

## TGX SINGLE LOGON

TGX requires credentials from the user to ensure they are authorized to access the remote computer. These same credentials may then be used to logon to the sender, such that the user sees their Windows desktop immediately upon connection. **It is recommended that you leave this box checked.** Clearing this check box means that users will be required to provide credentials twice: once to authorize the TGX connection, and a second time to logon to the remote computer.

## PORT CONFIGURATION

TGX reserves one port for communication between sender and receiver. The default port is 40001. However, this is configurable as part of the installation. Note, the default port must be identical on the sender and receiver. The port must be open on any firewalls that might be between the sender and receiver hosts.

## ADD FIREWALL EXCEPTIONS

By default, the installation process will create an exception to the standard Windows Firewall rules to allow TGX connections. Uncheck this box if your IT security does not use the Windows Firewall and have your IT group manually configure your firewall system to allow TGX connections.

## SELECT ADDITIONAL TASKS: CERTIFICATE

TGX requires a certificate to be installed on each TGX Sender. There are two options: TGX can install a self-signed certificate or the IT organization can install its own trusted certificate at any time, see instructions provided in the *TGX Administrator Guide*.

If there is no certificate currently on the Sender, a checkbox is shown:

TGX requires a certificate to verify the authenticity of this host. Checking this box will generate a self-signed certificate (recommended).

If a certificate already exists, a checkbox is shown:

TGX detects that a certificate already exists on this host. Checking this box will overwrite it with a new self-signed certificate (not recommended).

## RESTART REQUIRED AFTER INSTALLATION

After the installation is completed, if necessary, the Sender will be rebooted.

## RECEIVER INSTALLATION OPTIONS

### UPDATING TGX FROM PREVIOUS VERSION

Currently only one version of TGX may be installed at a time. When upgrading TGX, the installer will prompt that it will uninstall the existing version, you must answer 'Yes' to continue.

### SELECT START MENU FOLDER

By default, the installation process will place TGX shortcuts in the Start Menu folder under "Mechdyne TGX" but a different folder can be specified.

### USB REMOTING COMPONENT

TGX provides support to redirect selected USB devices from a TGX receiver to a TGX sender.

During USB installation, the USB Remoting component adds a service and drivers to enable USB redirection which may cause a conflict with other software packages. For example, HP Anyware must be uninstalled before TGX can install USB. If the USB install fails, please email the install log (found in ProgramData>Mechdyne>TGX>logs) to [software\\_support@mechdyne.com](mailto:software_support@mechdyne.com).

If USB is not currently installed and is not selected for installation, USB redirection will not be available on this Receiver.

If USB is not selected and USB is already installed, the installer will leave USB installed but modify the config.ini to disable the use of USB on the Sender.

If USB is selected and USB is already installed, the installer will compare the versions to determine if the installed version is a match.

- If it is not a match, then TGX will uninstall the existing USB and install the USB from the installer.
- If the installed version is a match to the version in the installer, by default TGX will keep the currently installed USB. However, if you are experiencing issues with the current USB redirection installation, there is an option to force the reinstall of the USB component.

If USB is uninstalled a reboot will be required.

### ADD FIREWALL EXCEPTIONS

By default, the installation process will create an exception to the standard Windows Firewall rules to allow outbound traffic by TGX. Uncheck this box if your IT security does not use the Windows Firewall and have your IT group manually configure your firewall system to allow TGX connections.

### PORT CONFIGURATION

TGX reserves one port for communication between sender and receiver. The default port is 40001. However, this is configurable as part of the installation. Note, the default port must be identical on the sender and receiver. The port must be open on any firewalls that might be between the sender and receiver hosts.

## UNATTENDED INSTALL

Both the sender and receiver can be installed unattended via command-line. The following arguments will accept all defaults, hide all message boxes, and log results.

```
/VERYSILENT /SUPPRESSMSGBOXES /LOG
```

Install logs are stored: C:\ProgramData\Mechdyne\TGX\logs

The TGX installer will automatically run the uninstaller of the currently installed TGX. However, if updates are being scripted, it may be easier to run the uninstaller in one script, as reboots may be required. Then run the installer in a separate script.

There are two options, installation of TGX with USB and installation of TGX without USB. Details of the TGX Sender are shown below, simply replace "Sender" with "Receiver", for unattended uninstall, install of Receiver.

Note: reboots may be required after uninstall and/or after install

### INSTALLATION OF TGX SENDER WITHOUT USB

1. OPTIONAL Remove an existing version of TGX Sender
  - a. Go to C:\Program Files\Mechdyne\TGX Sender\uninstall
  - b. Run the uninstaller  
unins000.exe /VERYSILENT /SUPPRESSMSGBOXES /LOG

Note, the system will automatically reboot upon completion of the uninstall process
2. To install a new version of TGX Sender without USB
  - a. Go to the directory where the Sender installer was placed
  - b. Run the installer  
TGX\_Sender\_{version#\_bld#}\_64-bit.exe /VERYSILENT /SUPPRESSMSGBOXES /LOG

Note the system will automatically reboot, if necessary, upon completion of the install process

### INSTALLATION OF TGX WITH USB

1. OPTIONAL Remove an existing version of TGX Sender with USB
  - a. Go to C:\Program Files\Mechdyne\TGX Sender\uninstall
  - b. Run the uninstaller  
unins000.exe /VERYSILENT /SUPPRESSMSGBOXES /LOG

Note, the system will automatically reboot upon completion of the uninstall process
2. To install a new version of TGX Sender with USB
  - a. Go to the directory where the Sender installer was placed
  - b. Run the installer  
TGX\_Sender\_{version#\_bld#}\_64-bit.exe /VERYSILENT /SUPPRESSMSGBOXES /LOG /COMPONENTS="main,usb"



# LINUX INSTALL GUIDE

## LICENSE MANAGEMENT

The TGX sender requires a valid license. If the license is node-locked or demo, install the license file in `/opt/mechdyne/licenses`. TGX uses FlexLM for floating license management. To use floating licenses with a FlexLM server, please contact [software\\_support@mechdyne.com](mailto:software_support@mechdyne.com) for instructions on how to download and configure the FlexLM license server software.

## SYSTEM REQUIREMENTS

### OPERATING SYSTEM

The TGX sender and receiver support RHEL 7.7 and RHEL 8 (including derivatives, Centos and Rocky) and Ubuntu 20.04 and 22.04 LTS. Currently, Wayland is not supported for either sender or receiver.

### HARDWARE – SENDER

The TGX sender on Linux requires an NVIDIA Quadro, GeForce GTX/RTX/Titan, or GRID/TESLA GPU. The sender must support NVIDIA NVENC, typically available starting with Kepler architecture. Please see NVIDIA (<https://developer.nvidia.com/video-encode-decode-gpu-support-matrix>) for details. Mechdyne recommends using the latest available drivers from the NVIDIA website, minimum compatible driver is 450.36.06. For GRID vGPU modes, the drivers ship in a package containing a host driver and guest drivers for Windows and Linux. The host and guest drivers must match (or come from the same package). If the Sender does not have an NVIDIA GPU, TGX will drop down to software encoding for 420 color. There is no software encoding support for 444 color on Linux.

### HARDWARE – RECEIVER

GPU decoding is supported on all capable NVIDIA, AMD, and Intel GPUs on Linux. In the absence of GPU decoders, TGX will use software decode.

## SENDER INSTALLATION OPTIONS

### UPDATING TGX FROM PREVIOUS VERSION

Currently only one version of TGX may be installed at a time. When upgrading TGX, the installer will prompt that it will uninstall the existing version, you must answer 'Yes' to continue.

### ALLOW TGX TO OVERWRITE THE EXISTING DISPLAY CONFIGURATION?

TGX provides support for the sender desktop to be reconfigured to match that of the receiver. This option is enabled by default on the sender as part of the installation. To disable this capability, select **No**. It is recommended that this option be disabled on senders that are physically connected to complex display systems, especially those configured with NVIDIA Quadro Sync or Mosaic mode.

## DO YOU WANT TGX TO CONFIGURE X?

The TGX installer will check for a functional NVIDIA driver and Xorg configuration. If the installer fails to find a valid Xorg configuration, it will prompt to generate one. Select **Yes** to generate a working Xorg configuration (/etc/X11/xorg.conf). The existing configuration will be backed up.

## SHOULD TGX START A NEW X SESSION?

If no user is logged into an X session, the TGX sender will, by default, start a new X session for the connection rather than connect to an existing (such as the display manager) session. This mode of operation is suitable for a server (either physical or VM) where no displays are attached and X is not started on boot. Select **No** to connect to the existing (display manager or user) X session rather than starting a new instance of X. It may be desirable to use the default X session on a desktop machine with connected displays (e.g., a conference room), or if the TGX login mechanism does not match security policy (e.g., multi-factor authentication). On Ubuntu and Rocky9, this feature is not supported. The prompt will not be displayed and TGX will not start a new X session.

## PORT CONFIGURATION

TGX reserves one port for communication between sender and receiver. The default port is 40001, however this is configurable as part of the installation. Note, the default port must be identical on the sender and receiver.

## FIREWALL CONFIGURATION

The TGX installer detects Firewalld (RHEL/CentOS) and UFW (Ubuntu) firewalls and will install the necessary exceptions to allow incoming connections on the default port. Additional network firewalls must be configured manually by your IT organization.

## GENERATE SELF-SIGNED CERTIFICATES

TGX requires a certificate to be installed on each remote computer. Upon connection, the TGX Receiver will attempt to verify the identity of the Sender and will warn the user if that identity cannot be verified. If your IT organization has already created a trusted certificate, you may skip this step. Otherwise, leave the box checked and TGX will use generate a self-signed certificate. Your IT organization can replace the certificate created by the installer at any time. **If a trusted certificate is already installed by your IT organization it will not be replaced by the TGX provided certificate.** The instructions to install a trusted certificate can be found in the *Administrator Guide*.

## START TGX SERVICE?

Select **Yes** to start the TGX service. The TGX service can be manually started with the command:

```
sudo systemctl start tgxserverd
```



**NOTE: If the TGX installer detects SecureBoot is enabled**, USB will not be installed as part of the installer package. Instead, the USB components are extracted to /var/tmp. The installer will provide the command line to run to finish the installation. If running an unattended install, check the install log for the command line.

```
SecureBoot detected: USB component installer may generate new Machine Owner Key (MOK).
USB components installer extracted to /var/tmp
Install with:
sudo yum install /var/tmp/eveusb-redistr-10.0.9-1.x86_64.rpm
```

For example: `sudo yum install /var/tmp/eveusb-redistrib-10.0.9-1.x86_64.rpm`, where 10.0.9-1 corresponds to the version of the USB component.

## RECEIVER INSTALLATION OPTIONS

### UPDATING TGX FROM PREVIOUS VERSION

Currently only one version of TGX may be installed at a time. When upgrading TGX, the installer will prompt that it will uninstall the existing version, you must answer 'Yes' to continue.

### PORT CONFIGURATION

TGX reserves one port for communication between sender and receiver. The default port is 40001, however this is configurable as part of the installation. Note, the default port must be identical on the sender and receiver and must be open on any firewalls that might be between the sender and receiver hosts.

### USB REMOTING COMPONENT

TGX provides support to redirect selected USB devices from a TGX receiver to a TGX sender.

During USB installation, the USB Remoting component adds a service and drivers to enable USB redirection which may cause a conflict with other software packages. For example, HP Anyware must be uninstalled before TGX can install USB. If the USB install fails, please email [/var/log/mechdyne/TGX/TGXReceiver\\_<version>\\_install.log](mailto:software_support@mechdyne.com) to [software\\_support@mechdyne.com](mailto:software_support@mechdyne.com).

By default, TGX skips the installation of USB on Linux. To install USB, select the Operating System, typically the one with "(suggested)" next to it.

```
Install USB redirection components (version 10.0.6) for your system?

The TGX Receiver installer has suggested a package based on your system type.

NOTE: USB redirection components require Dynamic Kernel Module Support (DKMS) and may
require the intallation of additional packages to build and install the kernel module.

Use the arrow keys to highlight a different choice; press <space> to change the current
selection.
+-----+
| (*) 0 Skip installation (default)
| ( ) 1 RHEL 7 or similar
| ( ) 2 RHEL 8 or similar
| ( ) 3 RHEL 9 or similar
| ( ) 4 Ubuntu 18 LTS or similar
| ( ) 5 Ubuntu 20/22 LTS or similar (suggested)
+-----+

                < OK >                <Cancel>
```

If the USB provided by the installer is newer than the installed version of USB, Mechdyne recommends installation of the new version.

```
Install USB redirection components (version 10.0.9) for your system?

The TGX Receiver installer has detected previously installed USB components (version 10.0.6).

NOTE: USB redirection components require Dynamic Kernel Module Support (DKMS) and may require
the intallation of additional packages to build and install the kernel module.

Use the arrow keys to highlight a different choice; press <space> to change the current
selection.
+-----+
| ( ) 0 Skip installation |
| ( ) 1 RHEL 7 or similar |
| ( ) 2 RHEL 8 or similar |
| ( ) 3 RHEL 9 or similar |
| ( ) 4 Ubuntu 18 LTS or similar |
| (*) 5 Ubuntu 20/22 LTS or similar (to upgrade) (default) |
+-----+

                < OK >                <Cancel>
```

**NOTE: If the TGX installer detects SecureBoot is enabled**, USB will not be installed as part of the installer package. Instead, the USB components are extracted to /var/tmp. The installer will provide the command line to run to finish the installation. If running an unattended install, check the install log for the command line.

```
SecureBoot detected: USB component installer may generate new Machine Owner Key (MOK).

USB components installer extracted to /var/tmp

Install with:

sudo yum install /var/tmp/eveusb-redistr-10.0.9-1.x86_64.rpm

                < OK >
```

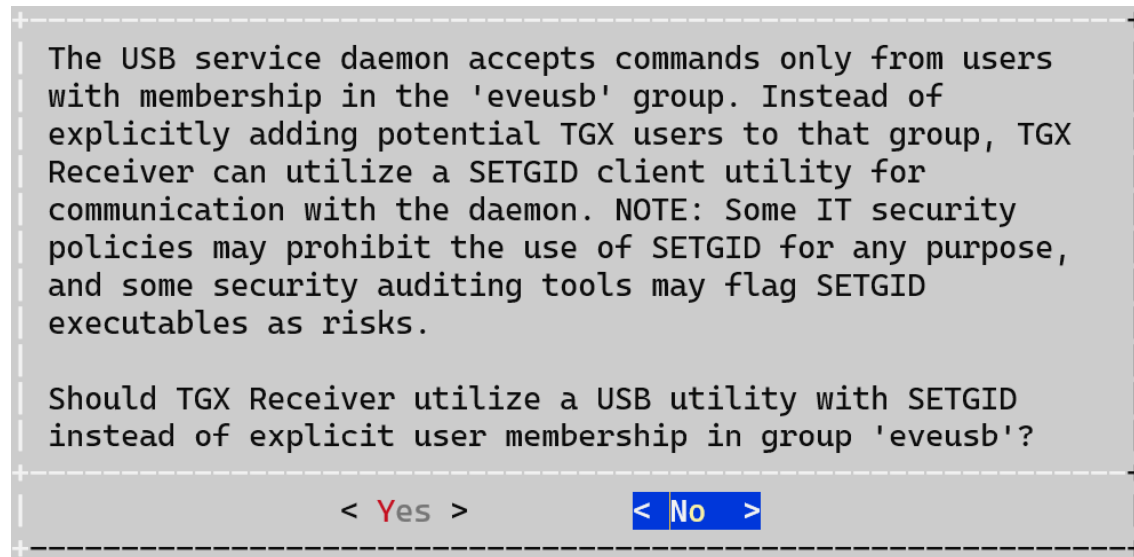
For example: `sudo yum install /var/tmp/eveusb-redistrib-10.0.9-1.x86_64.rpm`, where 10.0.9-1 corresponds to the version of the USB component.

## SETGID CLIENT UTILITY

The USB service daemon accepts commands only from users with membership in the 'eveusb' group. Instead of explicitly adding potential TGX users to that group, TGX Receiver can utilize a SETGID client utility for communication with the daemon.

Note: Some IT security policies may prohibit the use of SETGID and some security auditing tools may flag SETGID executables as risks. If SETGID is not selected, the client's IT group will need to manually add users to the 'eveusb' group.

The TGX installer will store the SETGID flag, which is used as the default for subsequent install events.



## UNATTENDED INSTALL

Both the sender and receiver can be installed unattended via command-line. The TGX help options for each installer are listed below:

**% *sudo ./TGX-Sender-<version>.run -- -h***

- h, --help           display this help and exit
  - q, --quiet           quiet install. do not prompt. assume defaults for all options
  - i, --ignore-deps     ignore dependencies when installing
  - b, --base-port PORT   set the base port for incoming connection. default port is 40001
  - n, --no-nvidia-check   don't check for Nvidia GPU
  - no-xstartup         tgx will not start x11; users must login through the system greeter
  - no-desktop-config    tgx will not reconfigure the desktop to match user requests
  - keep-pam            don't overwrite an existing tgxserver PAM configuration
  - s, --skip-usb-prechecks   skip USB install prechecks
  - x, --extract-usb PKG   extract USB package only (does NOT install TGX)
  - u, --usb-choice PKG   install USB package
- 0: Skip installation (default)
  - 1: RHEL 7 or similar
  - 2: RHEL 8 or similar
  - 3: RHEL 9 or similar
  - 4: Ubuntu 18 LTS or similar
  - 5: Ubuntu 20/22 LTS or similar
  - 6: Installer decides best package



**% sudo ./TGX-Receiver-<version>.run -- -h**

- h, --help           display this help and exit
- q, --quiet           quiet install. do not prompt. assume defaults for all options
- i, --ignore-deps     ignore dependencies when installing
- b, --base-port PORT   set the base port for outgoing connection. default port is 40001
- s, --skip-usb-prechecks   skip USB install prechecks
- g, --set-gid [1|0]     install USB client utility with (1) or without (0) SETGID bit
- x, --extract-usb PKG   extract USB package only (does NOT install TGX)
- u, --usb-choice PKG   install USB package
  - 0: Skip installation (default)
  - 1: RHEL 7 or similar
  - 2: RHEL 8 or similar
  - 3: RHEL 9 or similar
  - 4: Ubuntu 18 LTS or similar
  - 5: Ubuntu 20/22 LTS or similar
  - 6: Installer decides best package

Here are two simple examples.

#### **INSTALLATION OF TGX WITHOUT USB**

The following arguments will hide all message boxes and accept all defaults:

```
sudo ./TGX-Sender-X.Y.Z.W-64bit.gz2.run -- -q
```

#### **INSTALLATION OF TGX WITH USB**

The following arguments will hide all message boxes, accept all defaults, and install USB:

```
sudo ./TGX-Sender-X.Y.Z.W-64bit.gz2.run -- -q -u 6
```

## LINUX SENDER INSTALLATION TROUBLESHOOTING

### MISSING DEPENDENCY PACKAGES

TGX requires libraries that may not already be installed on your machine. For both attended and unattended TGX installations, you will be notified of any libraries that are missing. An example notification for a missing library will look like this:

*“TGX requires libxcb-damage to run, but the library was not found. Please verify a package containing libxcb-damage.so.0 has been installed before installing TGX.”*

If there are no missing dependencies, the TGX installation will proceed. Otherwise, please install the dependencies and rerun the TGX installer.

### SENDER CONFIGURATION ON A LINUX VMWARE VIRTUAL MACHINE

Once installed, NVIDIA drivers become the default for X, therefore, the display is no longer backed by the VMware display adapter. This causes the desktop to be unviewable through the VMware console. When building a new Linux VM, the recommended method is as follows:

1. Build VM using the VMware Console
2. SSH to VM to install and configure NVIDIA drivers and TGX. When installing TGX, allow the default for TGX to configure X. This allows TGX to set flags in the `xorg.conf`.
3. The VMware console will display a text login prompt vs. the X desktop.

### INSTALL NVIDIA PROPRIETARY DRIVERS

TGX requires that the proprietary NVIDIA drivers for Linux are installed. For RHEL/CentOS, the drivers can be obtained from the NVIDIA web site ([nvidia.com](http://nvidia.com)). For RHEL/CentOS, installing the drivers requires:

1. X is not currently running.
2. Open-source Nouveau drivers are not active.
3. Linux kernel development package and GCC are installed.

### DISABLE X START ON BOOT

For a headless server or VM that is intended only for remote access by TGX, it is preferable to disable X start on boot. TGX on Ubuntu doesn't support starting X. Do not disable X startup on Ubuntu.

To stop X, execute:

```
# sudo systemctl isolate multi-user
```

To permanently disable X start on boot, execute:

```
# sudo systemctl set-default multi-user
```

## DISABLE NOUVEAU MODESET

The NVIDIA drivers will fail to install if the open-source Nouveau drivers are activated. To disable the Nouveau drivers, add “modprobe.blacklist=nouveau” to the kernel command line and reboot.

- Edit /etc/default/grub, add the arguments to GRUB\_CMDLINE\_LINUX
- Run `grub2-mkconfig -o /boot/grub2/grub.cfg`

## XORG CONFIGURATION

The TGX installer will check for a functional NVIDIA driver and Xorg configuration. If the installer fails to find a valid Xorg configuration, it will prompt to generate one. Answer yes to “Xorg configuration not found. Do you want TGX to configure X?” to have the TGX installer generate a working Xorg configuration (/etc/X11/xorg.conf).

The existing configuration will be backed up to /etc/X11/xorg.conf TGX <date/time>.bak.

If the TGX installer does not prompt to generate an Xorg configuration, remove or rename /etc/X11/xorg.conf and re-execute the installer.

## AMAZON AWS CONFIGURATION

TGX requires some extra configuration when running in the Amazon AWS cloud. Edit the TGX config.ini file (/opt/mechdyne/TGX/etc/config.ini) and in the [ServerSettings] section add the line:

```
DisplayPrefix=VGA
```

After this change has been made, restart the instance and TGX should function normally.

# MACOS INSTALL GUIDE

## SYSTEM REQUIREMENTS

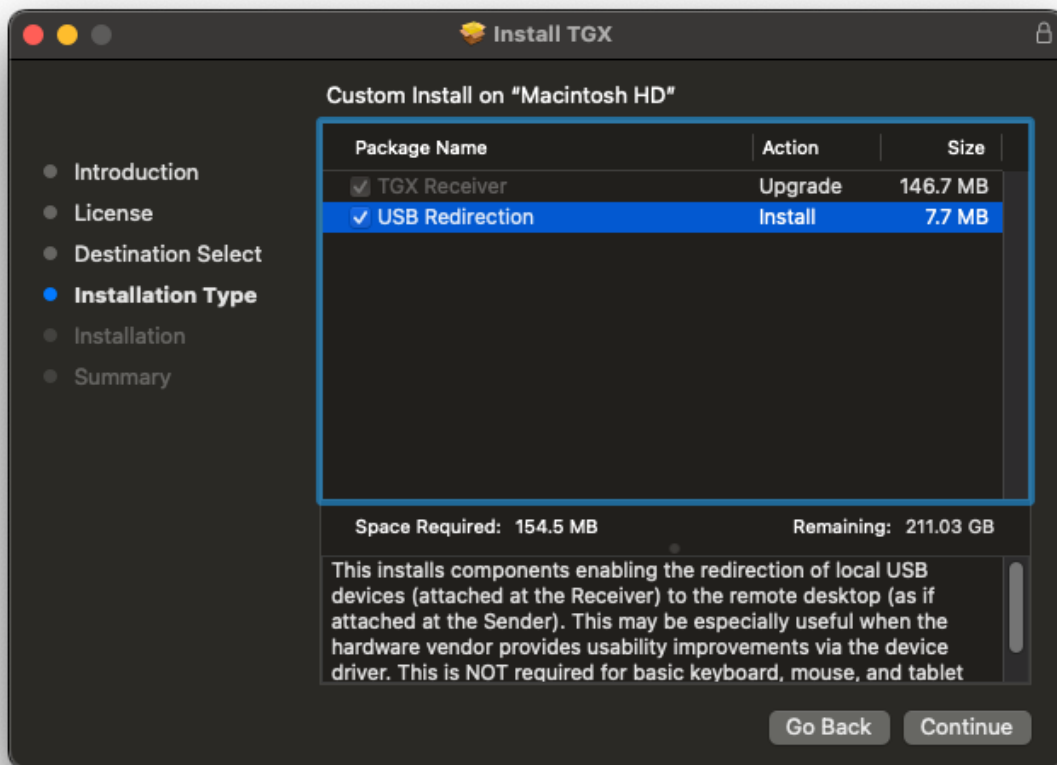
### OPERATING SYSTEM

The TGX Receiver supports macOS Mojave 10.14 through macOS Sonoma 14.4.

## RECEIVER INSTALLATION OPTIONS

### USB REMOTING COMPONENT

TGX provides support to redirect selected USB devices from a TGX receiver to a TGX sender. If the USB component is not selected during install, USB redirection will not be available on this Receiver. The USB Remoting component adds a service to enable USB redirection. If the USB install fails, please email `/var/log/install.log` to [software\\_support@mechdyne.com](mailto:software_support@mechdyne.com).



## PORT CONFIGURATION

TGX reserves one port for communication between sender and receiver. The default port is 40001, however this is configurable. Note, the default port must be identical on the sender and receiver. There are three ways to modify the default port and all require elevated permissions.

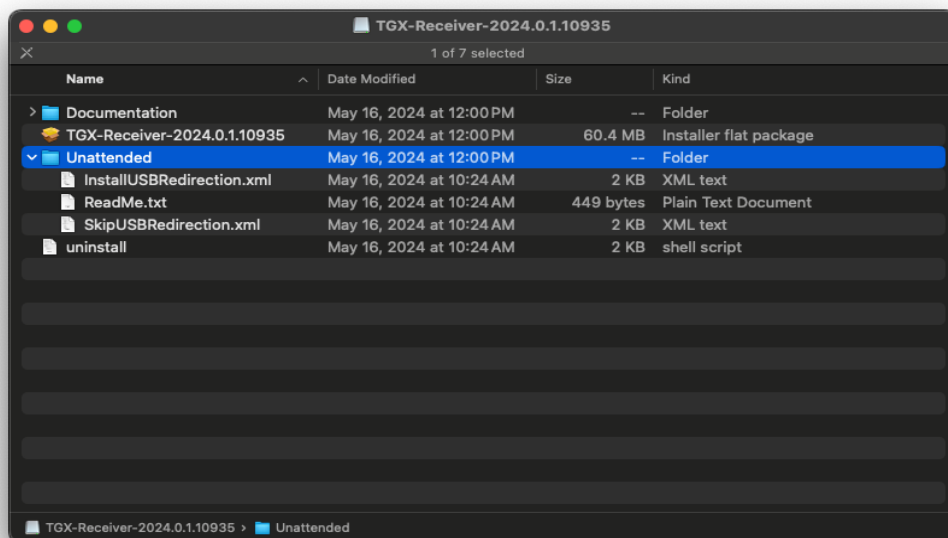
- On the TGX Launcher menu bar, select **TGX → Preferences**. Enter the desired port and click **OK**.
- On the command line, navigate to the bundle and run (requires elevated privileges):  
`# TGX.app/Contents/MacOS/tgx_config_helper -p=<port>`
- Edit `/Library/Application Support/com.mechdyne.TGX/config.ini` (requires elevated privileges), find the `DefaultPort=` line and change the number to the desired port.

## UNATTENDED INSTALL

The Mac receiver can be installed unattended via command-line. The installer package contains a “Unattended” folder. Extract the TGX-Receiver installer package (.pkg) and one of the following files from the “Unattended” folder:

`InstallUSBRedirection.xml` - *installs the Receiver with USB Redirection support*

`SkipUSBRedirection.xml` - *installs the Receiver without USB Redirection support*



## INSTALLATION OF TGX WITH USB

```
% sudo installer -applyChoiceChangesXML InstallUSBRedirection.xml -pkg TGX-Receiver-X.Y.Z.W-64bit.pkg -target /
```

## INSTALLATION OF TGX WITHOUT USB

```
% sudo installer -applyChoiceChangesXML SkipUSBRedirection.xml -pkg TGX-Receiver-X.Y.Z.W-64bit.pkg -target /
```