TGX

User Guide

Version 2024.1.1

Mechdyne Corporation

November 2024

Mechdyne
ENABLING DISCOVERY

TGX USER GUIDE VERSION 2024.1.1

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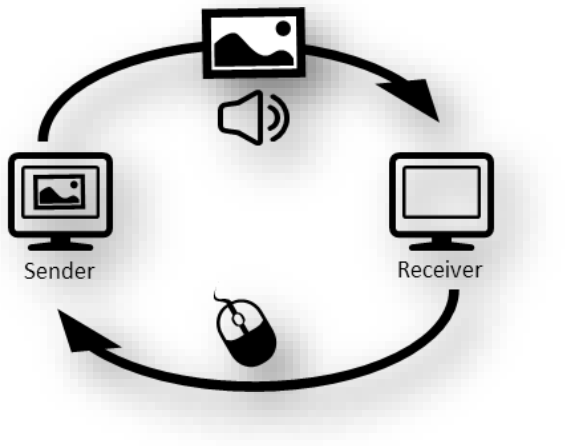
WELCOME TO TGX

We created TGX for the designer, engineer, scientist, creative, or other power user with graphic intensive applications, large data sets, and a desire to visualize their data at extreme resolutions.

TGX is:

- Perfect for the Hybrid IT ecosystem. Connect to physical workstations, Virtual machines, or the Cloud across the enterprise.
- Workforce mobility. Connect from the office, home, conference room, partner site, your boss's office, coffee shop, airport, or from the field.
- Multi-user collaboration. Connect with your team down the hall or across the globe with a like-local experience providing greater productivity.

Utilizing a remote desktop protocol requires two components: a TGX sender and a TGX receiver. The TGX sender resides on a remote workstation that runs powerful applications, located in the office, or the data center, or the cloud. The TGX receiver resides on the user's laptop, desktop computer, or thin client. The sender provides video/audio to the receiver which in turn provides control using keyboard, mouse, or USB device.



TECHNICAL SUPPORT

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

EMAIL

software_support@mechdyne.com

TERMINOLOGY

COLLABORATORS

Users other than the desktop owner that are connected to a sender via TGX.

CREDENTIALS

The information (Domain, Username, and Password) required by TGX to authenticate the user and initiate (log on) or reconnect to a desktop session.

CROSS-PLATFORM

If the sender operating system is different than the receiver operating system, it is considered a cross-platform connection.

DESKTOP LAYOUT

The number, resolution, and relative position of the logical displays comprising the desktop session.

DESKTOP SESSION

The displays, environment, and applications managed by the operating system for a user.

DESKTOP OWNER

The user that owns the current desktop session, typically the first user to login to the sender either directly through the sender console or indirectly, via a TGX connection.

DPI

The "dots per inch" measurement of a display or desktop.

FINGERPRINT

A unique number which is a reduced representation of a TLS certificate. If using a self-signed certificate, the receiver will prompt the user to accept the fingerprint.

MINIMAP

The MiniMap is a miniature image of the full desktop of the sender. If the desktop resolution of the sender is larger than the visible region managed by the TGX Receiver application, the MiniMap will appear allowing the user to select the portion of the desktop to show on the receiver.

RECEIVER

The local computer receives the desktop (with audio) from the sender. It also provides keyboard/mouse control.

SENDER

The remote workstation which shares desktop and applications to a receiver.

SINGLE LOGON

TGX will use the receiver user's credentials on the local device to automatically authenticate the TGX connection and initiate (log on) or reconnect to a desktop session. When single logon is deactivated, the user has to enter his credentials twice: first during TGX connection then on the Windows login screen.

TGX LAUNCHER

A GUI application that initiates TGX connections from a receiver to a sender.

TGX RECEIVER

A GUI application, installed on the receiver, shows the sender desktop and provides keyboard and mouse to the sender. This application includes the TGX Toolbar for real-time control of the connection.

TGX SESSION

The period where at least one user (desktop owner or collaborator) is connected to the sender’s active desktop session.

TGX TOOLBAR

An interactive menu that allows the user to control the experience provided by the TGX Receiver application.

CONNECTING TO A REMOTE DESKTOP

All connections are initiated by the receiver to the sender. The sender is passively listening on the default port waiting for a connection request. The receiver must be able to reach the sender via hostname or IP address. This requires both computers to be on the same network or be joined by a Virtual Private Network or use of a third-party Gateway to manage port forwarding.

TGX provides three ways to initiate a connection:

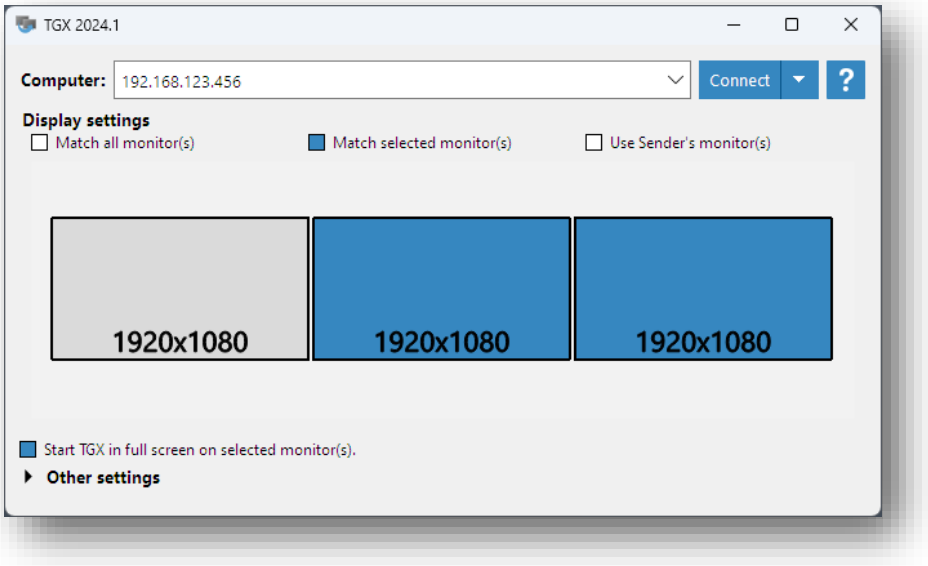
- Use the TGX Launcher GUI which is installed on the receiver.
- Use a TGX connection file as described in the *TGX Connection File and Broker Integration Guide*. A connection file is identified by a '.tgx' suffix and contains the information necessary to establish a session with the sender without requiring the Launcher GUI. The connection file can be manually created as a desktop icon.
- Use a third-party Connection Broker which is integrated with TGX using a connection file. See documentation provided with third-party software (e.g., Leostream, DELFI, others) and the *TGX Connection File and Broker Integration Guide*.

TGX LAUNCHER APPLICATION

MAKING A CONNECTION

Start TGX Launcher.

- On Windows, the Launcher can be found as a desktop icon or in the Start menu.
- On Linux, Click Applications -> Internet -> Mechdyne TGX
- On Mac, Open Finder, select Applications, then double click the TGX Icon.



Computer: enter the *hostname* or *IP address* of the computer running the TGX Sender or use the chevron to select from a list of previously visited senders (stores up to 10). With each sender, the following preferences are also stored: Display settings, Toggle value to start TGX in full screen mode, Image Quality setting, and Username. Each stored sender item has an **X** to delete the sender from the list.

Display settings: identify the setup of the sender's desktop layout (number of displays, resolutions, and positions) according to the following options:

- Match All monitor(s) – The sender desktop will be reconfigured to match all the monitors of the Receiver.
- Match selected monitor(s) - Select monitors visually using the Launcher GUI. When selecting a subset of monitors, the monitors must be next to each other. In the picture above, the left and middle monitors could be selected or the middle and right monitors, but not the left and right monitors. When a monitor is selected, it turns blue. If a monitor cannot be selected, it appears greyed out.
- Use Sender's monitors – The existing desktop configuration on the Sender is used.

Note: Match All monitors or Match selected monitors will be ignored if any of the following are true:

a) The user connects as a collaborator.
b) The sender is configured to disable display configuration during installation.

Start TGX full screen: Select this box if you want TGX to launch in full screen mode. Leaving it unchecked TGX will start in windowed mode.

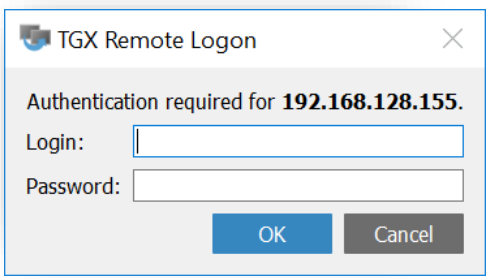
Other settings: click on the chevron next to Other Settings to expand the option group. By default, the group is collapsed. Currently Other Settings includes the Image Quality (IQ) slider.

IQ can be set in increments of 16 over the range of 4-148. As the IQ value increases, the bandwidth usage also increases. For most workflows the default IQ value of 68 is recommended. IQ values beyond 100 are provided to accommodate extreme workflows that require very high bandwidth to ensure little or no artifacts. Selection of values beyond 100 are not recommended for bandwidth limited networks. TGX will adjust performance accordingly to fit within the available network bandwidth and latency conditions. An IQ slider is also provided as part of the TGX Receiver GUI to allow on-the-fly changes to IQ during a TGX session. In the future, the IQ slider in the Launcher will be removed.

Connect options – there are four actions available from the connect button

- Connect – default connection to sender to start a TGX session
- Connect with debug logging – connection to sender using debug logging
- Get Logs – If you encounter any failures or issues running TGX, it is important to send logs by email to the TGX support team at software_support@mechdyne.com with a brief description of the problem. The log collection process will connect to the sender, request user authentication, combine the sender and receiver logs into a ZIP file for the user to email to the TGX support team.

Click Connect. An authentication dialogue is provided for login credentials



Upon successful connection, the TGX Launcher GUI is replaced by the TGX Receiver GUI which shows the Sender desktop according to the requested View Mode and Remote Display settings.

Upon closing the TGX Receiver GUI, the Launcher GUI will be displayed again.

HELP MENU

The Help menu on the TGX Launcher can be accessed by clicking the question mark. The following options will display:

DOCUMENTATION

Opens the folder that contains all of the documentation for TGX.

ABOUT

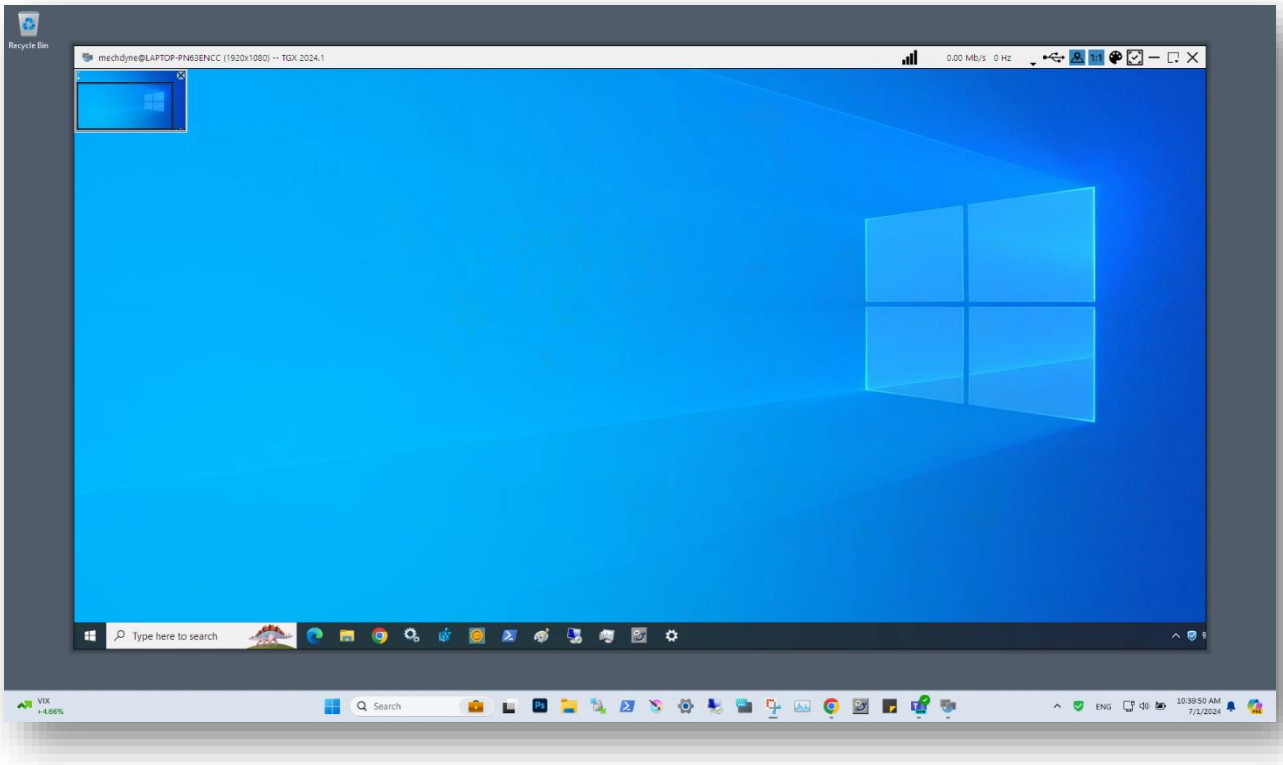
Provides the software version and product support contact information.

TGX RECEIVER APPLICATION

Upon successful connection, the TGX Receiver application will be displayed according to the settings specified during the connection initiation. It consists of a graphical area that contains the desktop of the sender and a Toolbar. If your mouse is within the graphical area, all inputs will be sent to the sender. Move your mouse out of the TGX Receiver application to interact with the Receiver PC, this may require changing the window mode to Restore. If the TGX Toolbar is not visible, move your mouse to top of the screen and the TGX Toolbar will drop down.

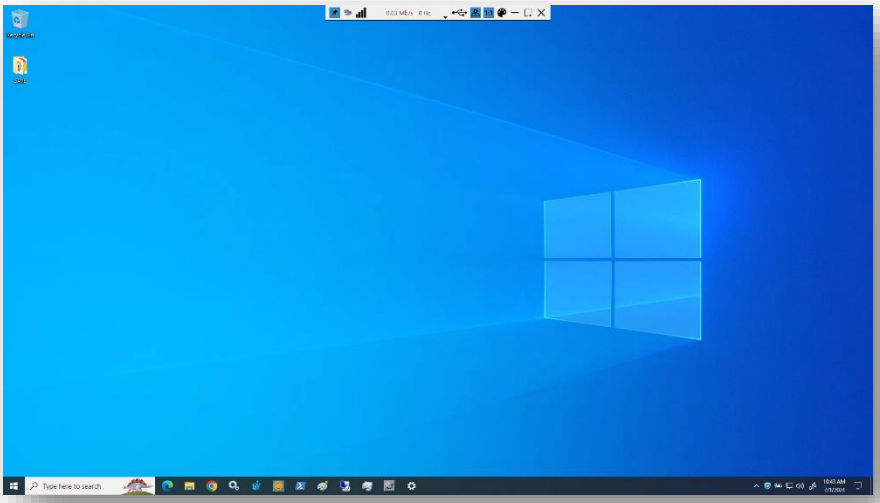
In the example shown below, the TGX Receiver is in “windowed” mode so the Microsoft Windows border is shown and contains the Username, the Sender hostname, the Sender desktop resolution, current bandwidth, current framerate, and TGX version. In windowed mode, TGX Receiver window can be moved and resized as provided by the operating system.

Since the sender desktop is larger than the window of the TGX Receiver, the MiniMap is visible and illustrates that the lower left portion of the sender is visible.

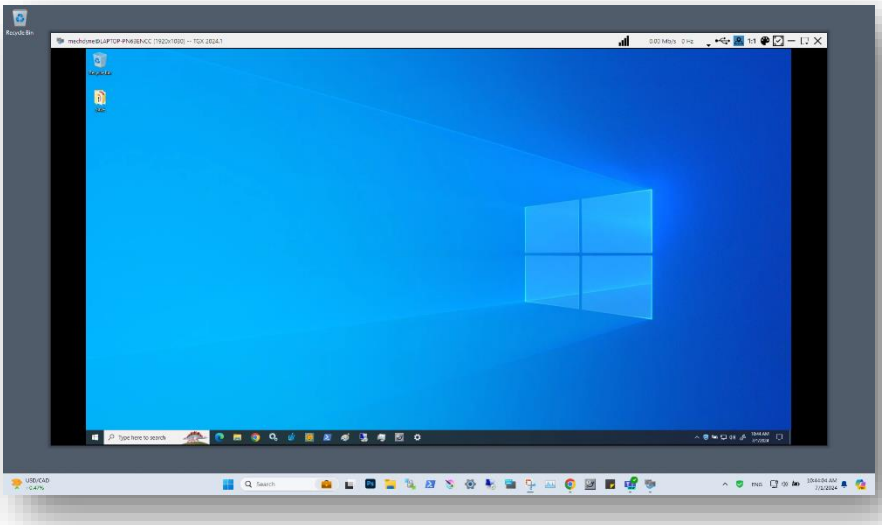


The MiniMap controls the portion of the Sender desktop shown within the graphical area of the TGX Receiver. To select a region, left click inside the MiniMap and move the mouse. The MiniMap does occlude a portion of the Sender desktop. To move the MiniMap to a different location, right click inside the MiniMap and move the mouse. There is a toggle button on the Toolbar to show or hide the MiniMap.

In the example below, the TGX Receiver is in Full-Screen mode so that the Sender desktop totally covers the Receiver desktop. The MiniMap and Window border are unnecessary because the resolutions match. The Toolbar will collapse upward and be hidden until the user moves the mouse over the top of the screen. To access the Receiver desktop, TGX can be minimized or switched to Windowed mode.

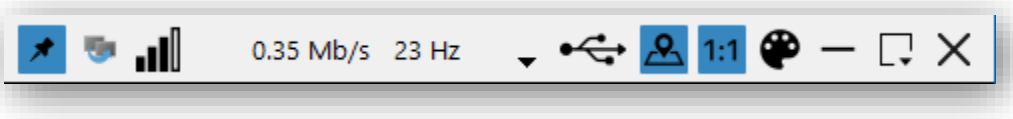


In the example below, the TGX Receiver is in Windowed mode using “Scaled to Fit” instead of “Full Resolution. TGX scales the sender desktop to fit within the Window. The scaling does not distort the image. In this case the aspect ratio of the window is a little taller than the aspect ratio of the sender desktop which results in black bars above and below the sender desktop. The MiniMap is unnecessary in “Scaled to Fit” mode.



TGX TOOLBAR

The TGX toolbar is always visible in window or maximize modes. When in full-screen or multi-screen modes, the toolbar is visible only when the mouse is positioned at the top of the screen or the toolbar is pinned to stay visible. The TGX toolbar shows the current bandwidth usage (in Mb/s), frame rate (in Hz) and network latency status. It provides runtime control of several options as fully described below.



PIN TOOLBAR 

Toggle button to pin or unpin the Toolbar. The state of this button is saved for the next connection.

LATENCY INDICATOR 

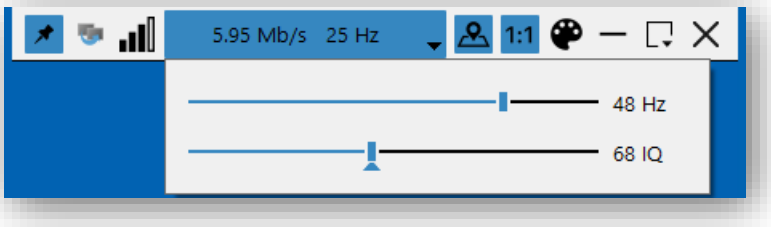
Indicator of network latency as represented by roundtrip timed measurements between Sender and Receiver on the video channel. More bars represent lower network latency. During congestion recovery, the latency indicator will be grayed out and an exclamation point will be overlaid on the indicator. If this occurs frequently, please reduce IQ and/or framerate.

USB REDIRECTION 

Clicking on this icon will bring up the USB Selection GUI to manage the redirection of USB devices from the Receiver to the Sender. This icon will be absent if the USB components were not installed on the Receiver. This icon will be greyed out as unavailable if the USB components were not installed on the Sender or if the user is joining an existing session as a collaborator or if USB is disabled in the config.ini on other side.

FRAMERATE CONTROL AND IMAGE QUALITY SELECTION

To access the framerate and IQ sliders, click in the blue box showing the scrolling bandwidth/framerate statistics.



By default, TGX targets 48 Hz, but it can be set as low as 6 Hz or as high as 60 Hz.

Note the actual framerate may be lower if:

- update rate of the Sender is low and in the case of a “static” Sender desktop the frame rate may reach 0hz, however TGX is still actively running and responsive to user’s inputs or
- network conditions are suboptimal due to high latency or congestion, or
- hardware configuration of Sender or Receiver is not able to keep up.

By default, TGX targets an IQ value of 68 and the slider ranges from 4 to 148 in increments of 16. Values above 100 are provided to accommodate extreme work flows that require very high bandwidth to ensure little or no artifacts. Note for most work flows the default IQ value of 68 is highly recommended. Selection of values beyond 100 are not recommended for bandwidth limited networks and will cause congestion on the network

MINIMAP 

Toggle button to show or hide the MiniMap. By default, the MiniMap is visible (if needed) and the icon has a blue highlight. Toggle button to hide MiniMap and the blue highlight is removed. MiniMap will hide immediately if in Window or Maximize view. MiniMap will hide when collapsible toolbar hides if in FullScreen or Multi-Screen view. The MiniMap is never visible if the desktop from the Sender fits within the TGX Receiver application window.

RESOLUTION 

Toggle button to enable/disable 1:1 resolution. When enabled (as denoted by blue background), the sender’s desktop is shown at one-to-one (1:1) pixel mapping. When disabled (as denoted by white background), the Sender desktop will be “Scaled to Fit” within the Receiver window.

FULLCOLOR 

Toggle button to enable or disable full uncompressed color. By default, full color is disabled, when enabled, the icon has a blue highlight. The use of full color eliminates artifacts from chroma subsampling, which are most obvious with text on low contrast background or highly detailed visualization. The user can toggle full color on and off during a TGX session. As full color may use higher bandwidth and processing, it may result in lower framerates. For more information on full color and chroma subsampling see the Administrator’s Guide. TGX uses HEVC (h.265) encoding for full color. If the GPU on the Sender is not capable of HEVC.444, TGX will only run in reduced color mode (420).

BESTFIT 

The BestFit button is only visible when receiver is in ‘Window mode’. A left mouse click on this button will center and resize the Receiver window so that no scroll bar is required, if possible.

MINIMIZE

Minimize the TGX Receiver to the taskbar.

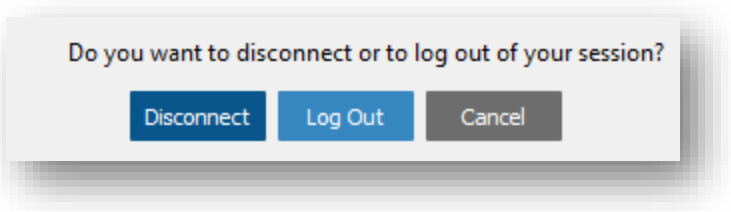
VIEW MODE

The view mode options are available from the Square icon as shown below.
Note: For the Mac receiver, use the standard Mac title bar buttons to switch between windowed and full screen modes.

- **Maximize**– Select this option to change the TGX Receiver Application to Maximize mode according to the standard Operating System convention.
- **Restore**– Select this option to restore the TGX Receiver Application to Window mode according to the standard Operating System convention.
- **Full-Screen** – Select this option to expand the TGX Receiver Application to cover one monitor on the receiver computer.
- **Multi-screen** – Select this option to expand the TGX Receiver Application across more than one monitor on the receiver computer. Only available if receiver has more than one monitor.

CLOSE TGX

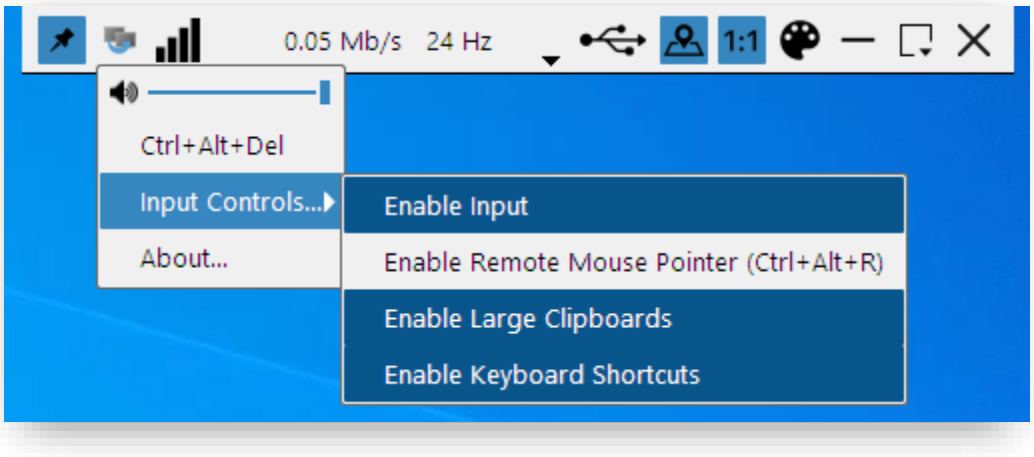
The X icon in the upper right corner prompts the user to **Disconnect** or **Log Out** of the TGX session.



- **Disconnect** – User will remain logged into the sender, all applications will remain open, and the sender screen will be locked. The user can later reconnect to the sender and resume the session.
- **Logout** – User will be logged out of the sender, all applications will close, and sender returns to the login screen. Note button is not available when connected as a collaborator.
- **Cancel** - Continue the TGX session.

OPTIONS MENU

The TGX icon on the left of the TGX toolbar opens the Options menu, which includes one submenu.



- **Audio volume slider** – Control volume for audio received from the sender. This is a separate menu on the menu bar on a Mac. This option is only displayed if the sender and receiver have the necessary hardware to support audio.
- **Ctrl+Alt+Del -** Select this item to access the Windows lock screen or Task Manager on the sender desktop, Windows only.
- **Input Controls –** Brings up a submenu:
    - **Enable Input –** Toggles the availability of keyboard/mouse input to the sender. By default, input is enabled as shown by the blue highlight. Click on the entry to disable input (removes blue highlight) which may be useful during a collaboration session to prevent inadvertently taking over the mouse during a session.
    - **Enable Remote Mouse –** By default, the remote mouse is disabled and TGX uses the position of the local (Receiver) mouse to draw the cursor icon. The use of the local mouse is highly recommended for most work flows as it provides the fastest mouse-cursor response when interacting with the remote desktop. By enabling the remote mouse, TGX uses the position of the remote (Sender) mouse to draw the cursor icon. This mode reduces the separation between the mouse cursor and dynamic visual feedback, e.g., dragging, drawing, mouse-overs, and similar actions. However, this mode also increases latency between physical-device and mouse-cursor motions which is not optimal for most work flows.
    - **Enable Large Clipboards –** Toggles the size limit of clipboard synchronization between 1MB, if disabled and 32 MB, if enabled.
    - **Enable keyboard shortcuts –** Toggles the availability of keyboard shortcuts to switch between window mode states.

    All settings above, except Enable Input are saved to a user configuration file and reloaded the next time TGX Receiver is started.
- **About** – Provides dialog box with version information about TGX.

KEYBOARD SHORTCUTS

Switch between window mode states.

Windows and Linux:

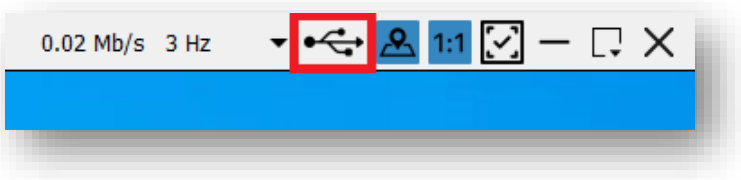
- Minimize = Ctrl+Alt+N
- Maximize = Ctrl+Alt+M
- Restore = Ctrl+Alt+W
- FullScreen = Ctrl+Alt+S
- MultiScreen = Ctrl+Alt+D
- Disconnect = Ctrl+Alt+X

Mac:

- Minimize = Cmd+Alt+N
- Maximize = Cmd+Alt+M
- Restore = Cmd+Alt+W
- FullScreen = Cmd+Alt+S
- MultiScreen = Cmd+Alt+B
- Disconnect = Cmd+Alt+X

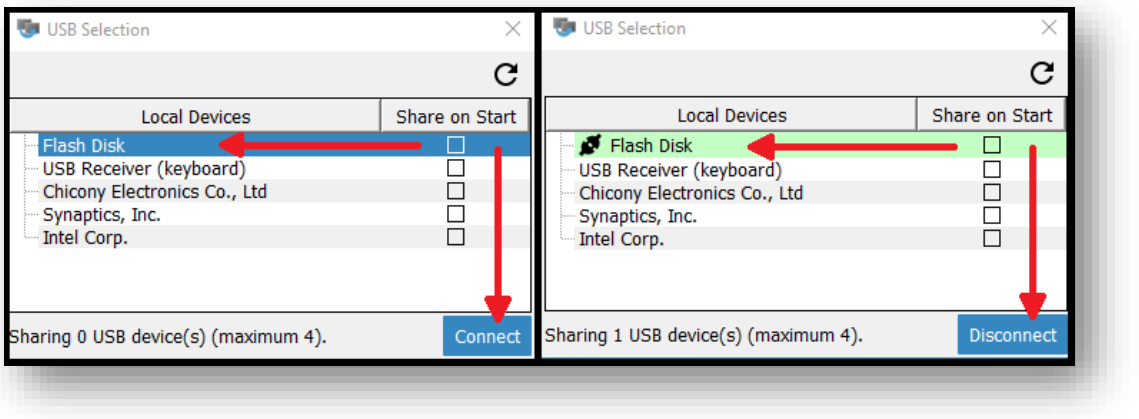
USB REDIRECTION

To view the USB Selection GUI, **Click** on the USB icon from the TGX toolbar.



TGX provides support for redirecting USB devices from the receiver to the sender. USB redirection is supported on all Sender and Receiver operating systems. This is currently only supported for human interface device (HID) class devices, though others may work. The USB component must be selected during install for both the sender and receiver to support this feature. When connected as a collaborator, the icon will be disabled. Please contact your IT group if you need more information or assistance with configuring USB redirection.

The USB Selection window will display the list of all USB devices connected to the receiver. Some options will be greyed out as they are not available for redirection based on USB classes disabled in the USB configuration file. For information on configuring which USB devices can be shared see the TGX Administrator Guide – USB Redirection Configuration section.



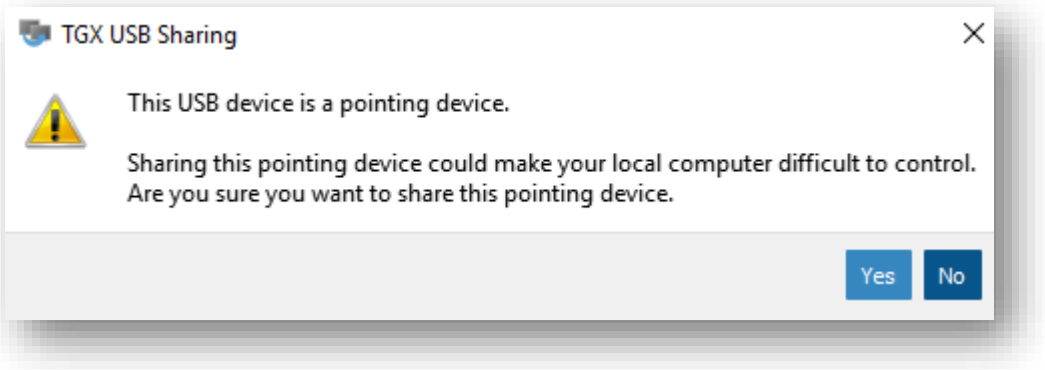
Select the desired USB device from the list. Click **Connect.** A plug icon will indicate if the connection was successful, and the device background will change to yellow while connecting and green when the connection is completed.

Once connected, the selected USB device will no longer be available for use on the receiver until it is disconnected

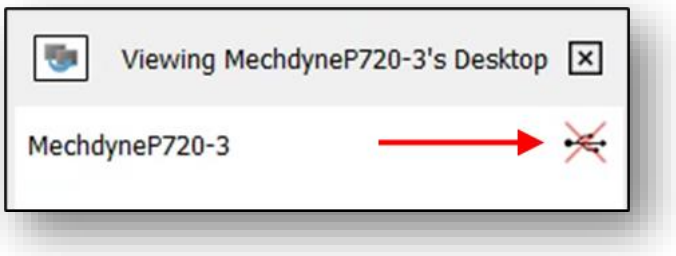
To disconnect a device, again **Select** a connected device from the list then click **Disconnect.**

There is an option to have TGX auto-share a device for future connections. Select the checkbox for the device in the “Share on Start” column. If the device is available via the same USB port on the Receiver at time of connection it will be shared automatically to the Sender. Uncheck the **Share on Start** box if you want to stop automatically sharing that device when connecting.

When attempting to connect a local keyboard or pointing device (i.e. mouse, tablet, touch screen) to the remote host, a warning will appear. This is a reminder that sharing your ***only*** Input USB device could make your local computer difficult to control.



If you wish to disconnect all USB shares, especially if you have shared a device that leaves the local computer difficult to control, open (**click**) the TGX icon in the system tray of the Sender. If a user is authorized to share USB devices, **clicking** the USB symbol with a red X to the right of their username will disconnect all devices.



If your device doesn't work on the local machine after disconnecting the device from the remote host, or after disconnecting the TGX session, run the "**Reset USB**" tool which is located on the Start Menu of the receiver under Mechdyne TGX.

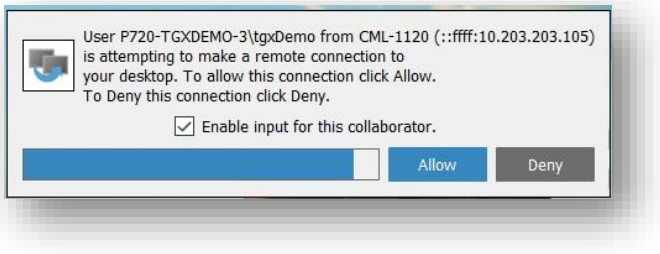
COLLABORATION

The first user to login to a TGX sender either directly through the console or indirectly via a TGX connection is called the owner of the session. Anyone else that connects to the owner's session is called a collaborator and must be approved by the owner. The desktop owner has administrative privileges over the session with the ability to disconnect collaborators at any time and to allow or deny keyboard and mouse input from each collaborator. If the desktop owner disconnects then all collaborators are automatically disconnected as well.

TGX supports multiple, concurrent collaborators. The default collaboration limit is 4, one owner and three collaborators, but the default can be increased or collaboration can be disabled by your IT Group (See *Administrator Guide*). However, as the number of collaborators increases, network usage will increase and performance on the Sender will decrease.

CONNECTION REQUESTS

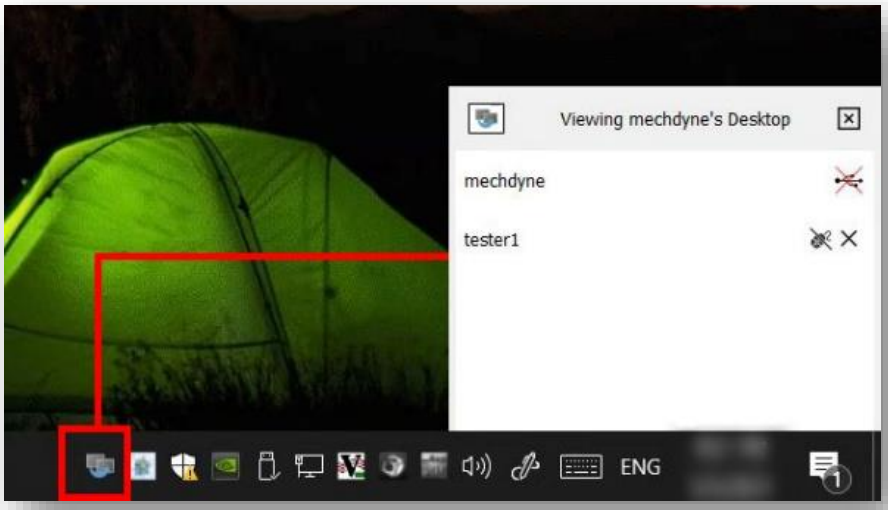
Collaboration sessions are initiated from a receiver. Upon initial connection, the collaborator must provide credentials to authenticate on the sender. If successful, a notification popup is presented to the owner requesting their permission for the collaborator to join.



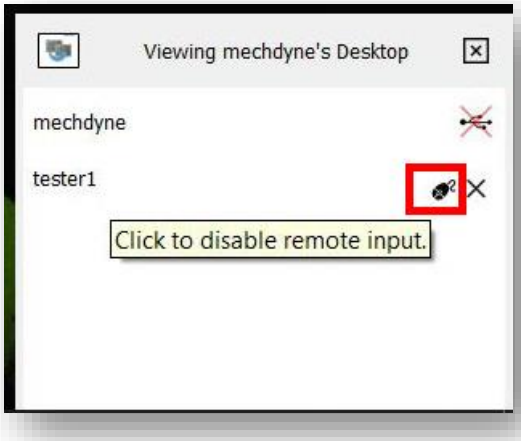
- Select **Allow** to permit the collaborator to connect
- Select **Deny** to prevent the connection.
- Check **Enable input for this collaborator** to automatically enable input.
- If no response is selected before the timeout (15 seconds by default), the connection will be denied. There is an exception, if the user attempting to connect has the same authentication ID as the owner, the connection will be granted. The original session will be disconnected and a new connection established based on the selected connection parameters, including desktop reconfiguration. This allows the owner to reconnect from another receiver while an existing session is active (connected) but the owner is no longer physically available to accept the prompt.

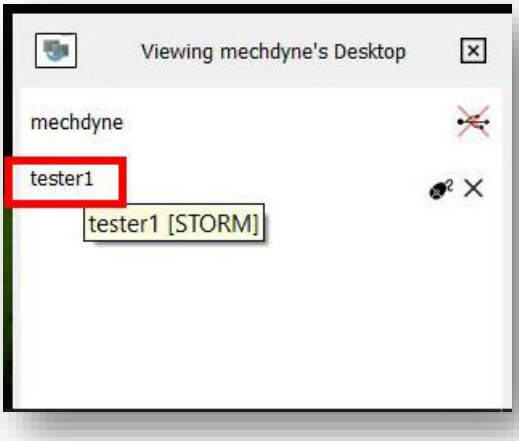
COLLABORATORS LIST

To view a list of collaborators, left click on the TGX icon in the system tray.



In this example tester1 is the collaborator and the owner (mechdyne) can click on the mouse icon to deny this collaborator keyboard/mouse control or click on the X to disconnect them from the session. If you hover the mouse over the collaborator name, a tooltip will be shown with the name of the computer for this collaborator.





OTHER ITEMS

KEYBOARD AND MOUSE

When the receiver's mouse cursor is over the TGX window, the cursor icon of the sender's mouse will be displayed. The mouse cursor of a collaborator that does not have mouse/keyboard control will be indicated by an **X**.

On Windows, the following system key combinations will be transferred from the receiver to the sender: ALT + TAB, any Windows key combinations, and menu key combinations. The following system key combinations will not be transferred: CTRL+ALT+DELETE (this capability is provided in the TGX toolbar), Windows + L, and multi-media keys.

TGX will attempt to set the locale/language on the sender to match of the locale/language of the receiver. The keyboard on the sender will be automatically set to the default keyboard layout identified for that locale/language on the sender. This functionality works on Windows-based sender connected to Windows or Mac receiver. This behavior can be disabled using configuration entries on the sender or receiver as described in the Administrator Guide. If disabled, the user can manually configure the sender locale, language, and keyboard layout.

REMOTE CLIPBOARD

TGX supports copy/paste of plain text, formatted text, Excel tables, and images as part of the Clipboard function. TGX does not support copy/paste of a file. The desktop owner is able to access the clipboard of both the sender and the receiver and has bi-directional control between both clipboards. Collaborators have one-way copy/paste functionality from the receiver to the sender, if the desktop owner enabled their input. For cross-platform clipboard operation, only plain text, formatted text, and images are supported.

AUDIO

Audio output from a sender is shared with the receiver(s). The volume of the audio from the sender is controlled using the volume control slider in the TGX toolbar on each receiver. If the TGX window is minimized, the sound is paused on the receiver until the TGX window is restored. TGX sends the audio associated with the sender's default speaker, so ensure your applications are set to use this speaker.

SENDER MONITOR BLANKING (WINDOWS ONLY)

If a Windows Sender has monitors physically attached and a remote user starts a new session or the owner reconnects to an active session from a remote location, TGX will 'blank' the physical monitors. Upon disconnection of the TGX session, TGX will restore the blanked monitors.

To disable blanking of screens, add the config entry, EnableDisplayBlanking = false on the TGX Sender. Note, this setting will be ignored if the user reconfigures the Sender desktop to match one or more monitors of the Receiver, in which case, TGX will make the physical monitors inactive and then restore them to active upon disconnection.

AUTO-RECONNECT

If the network connection between the Receiver and Sender is lost, the Receiver will attempt to reconnect to the Sender automatically. There may be a period of up to 30 seconds before the Receiver detects the disruption and during this time the Receiver video will be frozen. Once detected, the Receiver renders a semi-transparent gray overlay on the video indicating that it is in auto-reconnect mode.

By default, TGX will attempt to reconnect twenty times, however this is configurable, see AutoReconnectAttempts in TGX Administrator Guide. There is a blue banner drawn at the bottom of the Receiver to indicate the current attempt #.

If the network is reestablished during the auto-reconnect period, the video and audio from the Sender desktop will automatically become live in the Receiver window. No input is required by the user as part of the reconnect attempts or the successful connection.

At any time during the auto-reconnect period, the user may disconnect from the Sender by selecting the "X" on the Receiver per the standard TGX disconnect process or chose to change window modes between multi-screen, full screen, or restore. Auto-reconnect is intended for recovery from short duration common network interruptions (e.g., VPN restart, network adapter switch, etc.)

If the VPN goes down, the **user must restart the VPN connection manually** as that is outside of TGX control. If TGX connections go through a port forwarding gateway, the auto-reconnect period is only valid for the length of time that the port remains open per the policy of the network administrator of the client organization.

MAXIMUM BANDWIDTH SLIDER

Optionally, TGX can be enabled to show a slider to set 'Maximum Bandwidth' for a Receiver. This slider is located below the Image Quality slider and exists for one reason, to allow the user to manage Bandwidth on a 'Bandwidth Constrained' network. For example, if the maximum network bandwidth available to a user is 30 Mbps, they should set the slider below 30 Mbps to avoid network congestion when using TGX. Setting the Maximum Bandwidth does not change the image quality or framerate targets; however, constraining the maximum bandwidth can limit framerate if the video encoding requires higher bandwidth.

To enable the Bandwidth Slider, add the following config entry on the Receiver under [ClientSettings], ShowBandwidthSlider=true. Note, TGX will remember the value of the Bandwidth slider position between sessions.

LOSS OF NETWORK CONNECTION BETWEEN SENDER AND LICENSE SERVER

If the Sender loses communication with the License Server, the TGX connection will continue to run for thirty minutes, after which the Sender will disconnect from the Receiver unless network communication is restored. Notification messages will be shown to the user ten minutes after initial loss of communication, thereafter every five minutes, and a final notice of impending disconnect by the Sender. If network communication is restored at any time the user will receive a notification of such.

PRESERVE SENDER DESKTOP UPON DISCONNECTION

To enable this capability, the following entry must be added to the config.ini file on the Sender, under [SenderSettings] RestoreDisplaysOnExit=false. Upon disconnect, the Sender desktop will be preserved. Upon reconnection by the same user, the Sender desktop (including the placement of all applications windows) will be unchanged, assuming the user selects the same desktop reconfiguration options as used in the previous connection. ***This option applies to Windows only and should not be used for Senders with physical monitors if the Sender is physically available to local users.***

MANUAL LOG COLLECTION

Windows Sender or Receiver:

Create a zipfile of c:\ProgramData\Mechdyne\TGX*

Linux Sender or Receiver:

Run the appropriate script to create a tarfile:

/opt/mechdyne/TGX/Sender/bin64/tgx_debug.sh -rt logs.tgz

/opt/mechdyne/TGX/Receiver/bin64/tgx_debug.sh -rt logs.tgz

Mac Receiver:

Create a tarfile of /Library/Logs/com.mechdyne.TGX*

CONFIGURATION FILES

Windows Sender or Receiver

c:\ProgramData\Mechdyne\TGX\config.ini

Linux Sender or Receiver

/opt/mechdyne/TGX/etc/config.ini

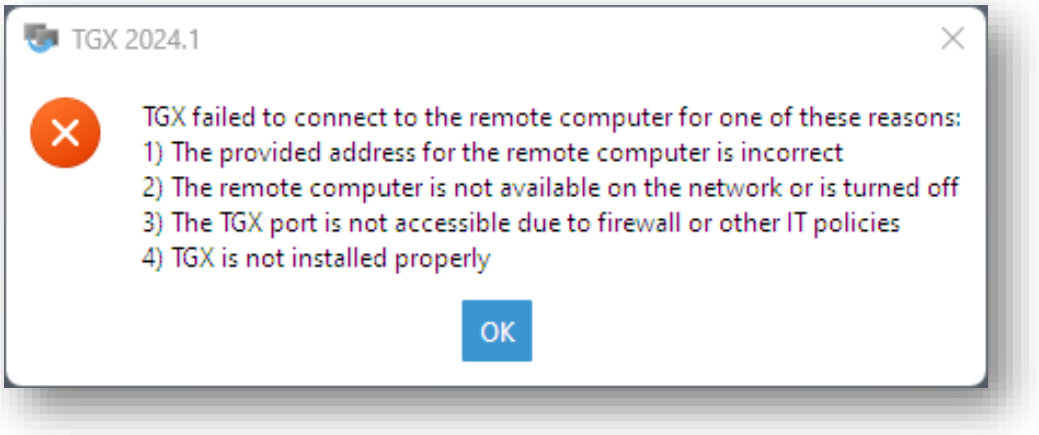
Mac Receiver

/Library/Application_Support/com.mechdyne.TGX/config.ini

POPUP DIALOGUES DURING TGX CONNECTION

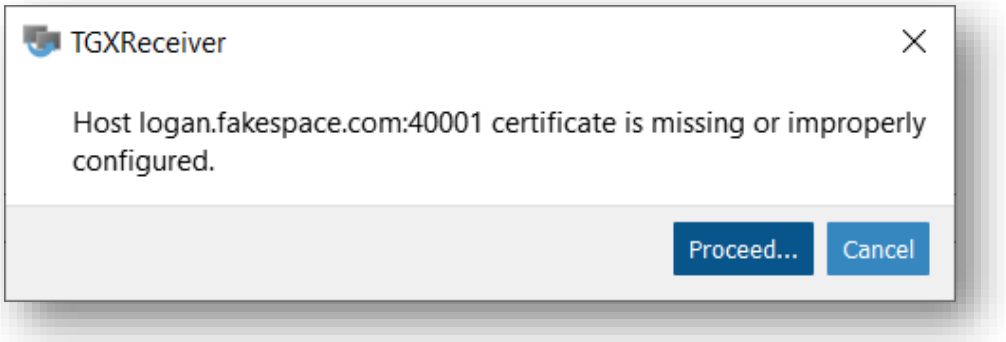
CONNECTION FAILED OR CLOSED

If the Receiver is not able to successfully connect to the Sender on the default port within the specified timeout duration (default is 20 secs), a dialogue box is shown and must be accepted to close TGX.



NO CERTIFICATE ON SENDER

If the Sender has not been configured either with a self-signed or trusted certificate, the Receiver will inform the user as follows:

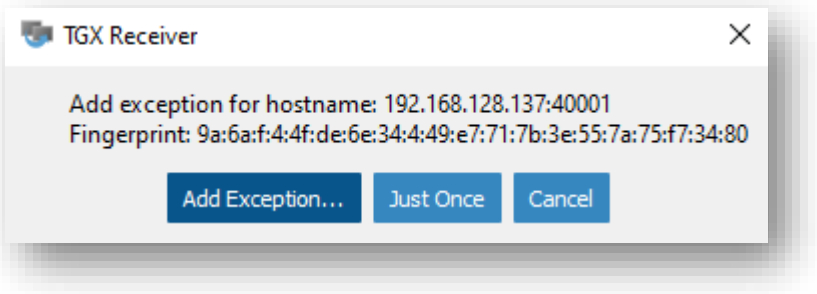


If you are certain you are connecting to the correct host, you may choose to proceed. Please contact your IT group to correct the TGX Sender installation.

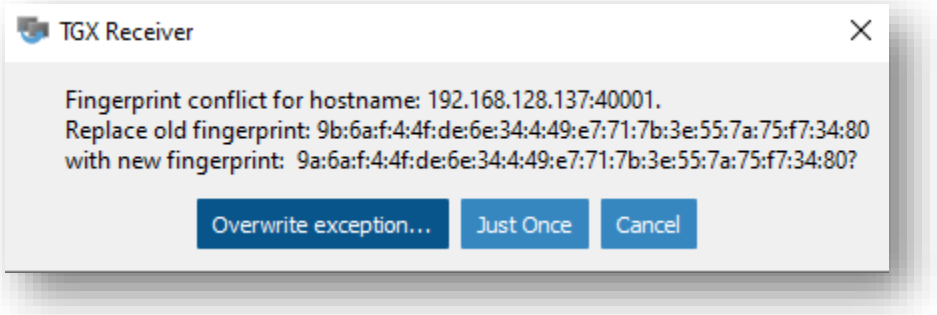
FINGERPRINT EXCEPTION

If this is a first-time connection to a specific sender and you are using a self-signed SSL certificate (installed by TGX or your IT group), a fingerprint exception may occur.

- Select *Add Exception* to permanently store the fingerprint of the sender for this receiver.
- Select *Just Once* to temporarily accept the fingerprint - this exception will appear again on the next connection.
- Select *Cancel* to terminate the connection.



If a *Fingerprint Conflict* appears, the *Overwrite Exception* should only be selected after the newly identified fingerprint has been validated by your IT group.



ACKNOWLEDGEMENTS

The TGX software package uses several third-party software or technologies, including, but not limited to the following list. A copy of each publicly available license is provided in the TGX Documentation directory under ThirdPartyLicenses.

7-Zip, version 22.1:

https://zip.org

See *lgpl-2.1-LICENSE.txt* in TGX documentation directory.

argtable, version 3:

https://www.argtable.org

See *argtable3-LICENSE.txt* in TGX documentation directory.

boost, version 1.75:

https://www.boost.org

See *boost-LICENSE_1_0.txt* in TGX documentation directory.

dialog, version 1.3:

https://invisible-island.net/dialog/dialog.html

See *lgpl-2.1-LICENSE.txt* in TGX documentation directory.

FFmpeg, version 4.4:

https://ffmpeg.org

See *lgpl-2.1-LICENSE.txt* in TGX documentation directory.

FlatBuffers, version 1.11.0:

https://google.github.io/flatbuffers

This product includes technology developed primarily by Wouter van Oortmerssen and open-sourced by Google. See *Apache-LICENSE-2.0.txt* in TGX documentation directory.

Intel Media SDK and Performance Primitives, version 1.26:

www.intel.com/content/www/us/en/developer/tools/media-sdk/overview.html

The license agreement prohibits disassembly and reverse engineering of the Redistributable.

Makeself, version 2.2.0:

https://makeself.io

This product uses Makeself tool for building the Linux installer. Makeself itself is licensed under GPL (version 2.0). As stated in Makeself documentation, archives generated by Makeself don't have to be placed under the LGPL.

NVIDIA Capture SDK, version 7.1.9:

https://developer.nvidia.com/capture-sdk

NVIDIA CUDA Toolkit, version 11.0.2:

https://developer.nvidia.com/cuda-toolkit

NVIDIA Video Codec SDK, version 10.0.26:

https://developer.nvidia.com/nvidia-video-codec-sdk

OpenSSL, version 3.0.13:

http://www.openssl.org/

This product includes software written by Tim Hudson (tjh@cryptsoft.com) and Eric Young (eay@cryptsoft.com). See *Apache-LICENSE-2.0.txt* in TGX documentation directory.

Qt, version 6.2.3:

https://www.qt.io

This product includes Qt under the LGPL (Version 3). See *lgpl-3.0-LICENSE.txt* in TGX documentation directory.

In addition, see *ThirdPartyLicensesCarriedWithQt.pdf* in TGX documentation directory.

RCF, version 3.2.403:

https://www.deltavsoft.com

This product includes software developed by Delta V Software through a commercial license.

Scalable Graphics:

https://www.scalablegraphics.com/

This product includes technology developed by Scalable Graphics as provided to Mechdyne for use with TGX and other products through a specific licensing agreement.

USB Network Gate, version 10.0.9:

This product includes software developed by Electronic Team, Inc. through a commercial license.

Video Acceleration API (libva), version 2.14.0:

https://01.org/linuxmedia

See *Intel-libva.txt* in TGX documentation directory.