GTIMSMVP®

CONNECT USER GUIDE Rev. 1



TIMS MVP® User Connect Guide

Rev. 1 March 2022

Copyright © 2022 by Foresight Imaging, LLC. All rights reserved.

About TIMS Medical & Foresight Imaging LLC

TIMS Medical is a division of Foresight Imaging LLC focused on finished medical devices for the recording, editing, archiving, and real-time collaboration on medical imaging studies. Applications include modified barium swallow studies, FEES, endoscopy, interventional radiology, ultrasound, surgery, DICOM & PACS/VNA connectivity, and much more. Over 5000 systems are installed in hospitals, imaging centers, and medical schools worldwide. For further information, visit www.tims.com or email info@tims.com.

Foresight Imaging LLC is a world leader in the design of high accuracy, high performance video streamers, frame grabbers, & medical imaging hardware and software. Foresight Imaging video acquisition boards are the imaging engines of many finished medical devices and military imaging systems in use throughout the world. The company is certified to the ISO 13485 quality standard.

Auto-SYNC, IDEA, AccuStream, AccuStream Express, TDRS, and the PACS Connectivity Solution are trademarks of Foresight Imaging, LLC. Foresight Imaging, TIMS Connect, TIMS Medical, TIMS MVP, TIMS Review, TIMS Medical Video Platform, TIMS DICOM, TIMS Mobile, TIMS Mobile DICOM, TIMS Mobile Consultant, and TIMS Consultant are registered trademarks of Foresight Imaging, LLC. All other products and brand names are trademarks or registered trademarks of their respective holders. All specifications are subject to change.

The information in this document has been carefully checked and is believed to be accurate. However, Foresight Imaging assumes no responsibility for inaccuracies. All specifications are subject to change without notice.

Table of Contents

| TIMS Connect | |
|-------------------------------------|----|
| Introduction | 1 |
| Start a Connect Session | 1 |
| Initiate a Share Session | 2 |
| Provide the Session Link | 5 |
| Join a Share Session | 7 |
| Connect Session | 9 |
| Advanced Controls | 11 |
| Zoom In/Zoom Out | 11 |
| Invert Image | 11 |
| Adjust Brightness | 12 |
| Adjust Contrast | |
| Snapping Single Frame Images | 13 |
| Using the Annotation Tools | 14 |
| Using Measurements | 23 |
| How To Measure with Annotations | 23 |
| Annotations and Measurements/Labels | 26 |

TIMS Connect

Introduction

This guide describes how to use the TIMS Connect software add-on for the TIMS MVP system. The software provides instant real-time collaboration from within a procedure room. Participants can join from any hospital computer to participate as a study is performed, as well as control the in-room TIMS MVP system to record, edit, and review the study.

There is built-in webcam support which adds a movable window with two-way video and audio for face-to-face communication or a remote view of the procedure room. These capabilities allow you to:

- Easily consult with experts from within the hospital system.
- Provide students or staff "live" training without overcrowding procedure rooms.
- Supervise procedures remotely from any office within the hospital.

Start a Connect Session

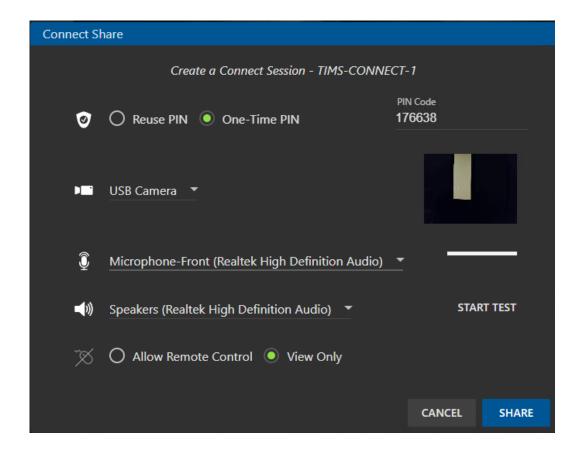
You can share or join a session by clicking **Connect** on the top-level menu in the TIMS MVP program. The two options are displayed:

- Share to start a session.
- Join to join a session.



Initiate a Share Session

From the TIMS MVP top menu bar, select **Connect** > **Share**. The **Connect Share** dialog appears as shown below:



The table below describes the settings for Connect Share page.

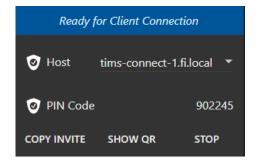
| Setting | Description |
|-------------|---|
| Session PIN | The pin code is the only way to access a shared session using Connect. Generate the six-digit pin code automatically or enter a pin of your own. You can also click the pin icon to select the two PIN options: |
| | Select the One-Time PIN option, which automatically generates a six-digit pin. |
| | If you want to use a pin code you create, you can type in a six-digit pin code of your choice when the One-Time PIN option is already selected. |
| | Select the Reuse PIN option to reuse a pin in the Pin Code field. |
| Camera | Click the drop-down arrow to select the webcam you want to use for the session. |
| | Note: Ignore the AccuStream board option. It is listed because Windows sees its driver. |
| Audio | Click the drop-down arrow to select the microphone and speakers you want to use for the session. |
| | Next to the microphone icon, select the microphone available on your system. |
| | Next to the speaker icon, select the speakers to use. |

| Setting | Description | |
|-------------------------|--|--|
| Configure Microphone | To configure the microphone, select Configure at the bottom of the microphone drop-down menu. | |
| | Microphone (USB Camera) Stereo Mix (Realtek High Definition Audio) | |
| | Microphone-Front (Realtek High Definition Audio) | |
| | None | |
| | Configure | |
| | The configuration options appear below the microphone selection: | |
| | Microphone-Front (Realtek High Definition Audio) ▼ | |
| | Volume | |
| | Volume - Use the slide bar to adjust the volume. | |
| | Mute - Click the checkbox to mute audio or unmute audio. | |
| Test Audio | Click the START TEST button to test whether the selected microphone and speaker are working properly before connecting to a session. | |
| | Click the STOP TEST button to stop the test. | |
| Join Options | The person who starts the share session can select the activity types for collaborators who join the session. | |
| | Click the mouse icon to select the Allow Remote Control option. This option allows the person who joins the session to control the session and use the annotations on the lower right side of the TIMS MVP screen. | |
| | Click the mouse icon to select the View Only option. This option allows the person who joins a session to have view-only permission for the TIM MVP screen. | |

| Setting | Description |
|--------------------|---|
| Share or Cancel | Once you complete selecting the Connect Share options, click Share to start the session. |
| buttons | If you do not want to start a session, click Cancel. |

Provide the Session Link

Once you click Share, the following dialog appears in the left-hand corner, as shown below:



- Copy INVITE

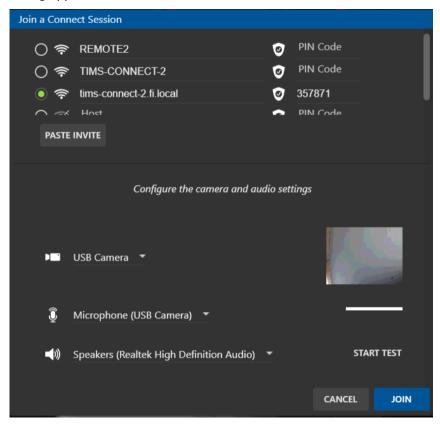
 Copies the invite to provide to the collaborators that you want to join the session. You can copy the link and paste it into a text message or email. Shown below is an example link:
 - tims-connect://tims-connect-2.fi.local:8085/join?pin=747146&add=192.169.1.17
- Provides a QR code to share with collaborators. Text the code so collaborators can scan it with their webcam in the TIMS MVP Join Connect dialog. Shown on the next page is an example:



• Stops the session. No new session starts based on the settings you provided in the Connect Share dialog.

Join a Share Session

From the TIMS MVP top menu bar, select **Connect** > **Join**. The **Join a Connect Session** dialog appears as shown below:



| Setting | Description |
|---------|--|
| Host | Enter the link for the host that you are joining. |
| | If you have the host session link, copy it and click the PASTE INVITE button. |
| | If you have a QR code, scan it with your webcam in the TIMS MVP Join Connect dialog. |

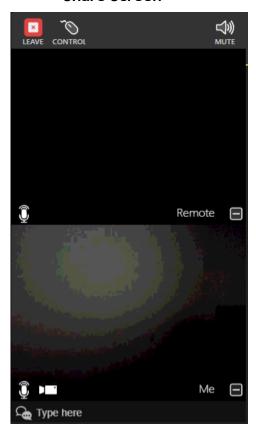
| Setting | Description | |
|--------------------|---|--|
| PIN Code | Enter the PIN code to access the remote system. | |
| | If you pasted a session invite or scanned a QR code for the host, the PIN code is entered automatically. | |
| Camera | Click the drop-down arrow to select the camera you want to use for the session. | |
| Audio | Click the drop-down arrow to select the audio device you want to use for the session. This audio device can include microphones or speakers. | |
| Configure Audio | To configure the audio, select the audio type first, re-click the drop-down menu, and select Configure at the bottom of the menu. | |
| | Microphone (USB Camera) Stereo Mix (Realtek High Definition Audio) Microphone-Front (Realtek High Definition Audio) None Configure The configuration options appear below the audio selection: | |
| | Volume - Use the slide bar to adjust the volume. | |
| | Mute - Click the checkbox to mute audio or to unmute audio. | |

| Setting | Description |
|------------|--|
| Test Audio | Click the START TEST button to test whether the selected microphone and speaker are working properly before connecting to a session. |
| | Click the STOP TEST button to stop the test. |

Connect Session

Once a Connect session starts and collaborators have joined the session, the left-side of TIMS MVP displays the Connect session client menu, as shown below:

Share Screen



Join Screen



| Button | Description | Button | Description |
|----------------------|--|----------------------------------|--------------------------------|
| Share Se | ssion Screen | Join Ses | ssion Screen |
| LEAVE | Leave ends the | shared session for everyone | on the Connect session. |
| CONTROL | Control gives you to take control of the session and access TIMS MVP, and use annotation tools. | | |
| | This option is available for both the Share and Join clients only. This icon appears on the Join client only when the initiator enables Control for the Share session. | | |
| | If the Join appear. | session is not enabled for Cor | ntrol, then this icon does not |
| L N | • Fit resizes | the screen to fit the resolution | on of the remote computer. |
| *** | Actual returns the TIMS MVP screen to its actual size on your computer. | | |
| | This option is o | nly available on the Join sess | sion menu |
| SWAP | Swap lets you s | swap from your TIMS MVP Live | e medical view to the remote |
| | This option is o | nly available on the Join sess | sion menu. |
| □))) MUTE | Mute all others | on the shared session to red | uce background noise. |
| B | Chat lets the S session. | hare initiator and Join collab | orators to chat during the |

Advanced Controls

The Advanced Controls display by clicking the double arrow icon in the bottom right-hand corner. The Advanced Controls show the following options:

- Zoom functions
- Invert monochrome image
- Adjust brightness and contrast
- Record video or single frame snapshots

For details on annotations for videos/images, see Using the Annotation Tools.

NOTE: Advanced Controls are available for use in a Join session only when the initiator of the Share session enables Control.

Zoom In/Zoom Out

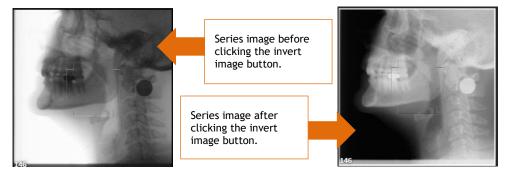
Use the zoom function to enlarge or shrink a series video.

- Click the Zoom In \bigcirc icon to enlarge the series image.
- Click the Zoom out icon to shrink the series image.

Invert Image

Use the invert image function to invert monochrome images.

To invert a monochrome image in the Series tab, click the invert image icon to invert all images as shown below.

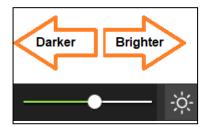


To return the image to its original state, click the invert image licon again.

Adjust Brightness

To adjust the brightness of a video or image, click the adjust brightness icon. Use the slide bar to either brighten or darken the image.

Note: It is important to note that the brightness changes for your viewing, it is not saved to the video or image you are viewing.

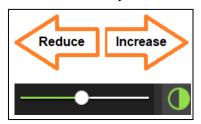


- Move the slide bar to the left to brighten the video or image.
- Move the slide bar to the right to darken the video or image.

Adjust Contrast

To adjust the contrast or sharpness of a video or image, click the adjust contrast icon. Use the slide bar to either increase the contrast or reduce the contrast of the video or image.

Note: It is important to note that the contrast is only changed for your viewing, it is not actually saved to the video or image you are viewing.



- Move the slide bar to the left to reduce the contrast of the video or image.
- Move the slide bar to the right to sharpen the contrast of the video or image.

Snapping Single Frame Images

To snap a single frame image from the video currently display in the Series tab:

- 1. Go to the video image you want to capture by playing () the video to that image or use the slide bar () to go to the image.
- 2. Click the camera icon to take the image snapshot.

Result: The image is added to the series menu on the left-hand side.

Using the Annotation Tools

The annotation tools are available during the shared session.

NOTE: This option is only available to collaborators when the Control icon appears in the **Connect Join** client screen.

Use annotations to highlight items in the videos/images so you can share with other medical personnel during the shared session. Annotations are temporary unless you take an image snapshot with the annotations. The image is then saved into the study's series.

The annotations are erased automatically when you close the annotations option.

To use annotations with your video or image:

- 1. Click the in the lower right-hand corner of the TIMS MVP screen.
 - The Advanced Controls menu displays.
- 2. Click the annotations icon at the top of the Advanced Controls.

Result: The annotations options appear.



The table below explains how to use each annotation option.

| Opens and closes the annotations options. |
|--|
| Click to select the color and line size you want to use for your annotations. The color selected is also used when you select any annotation icon. Select the color you want to use to display the annotations. Select the line size from the two choices just below the color selections. |

Click on the pointer icon to use the pointer in the video or image displayed in the Series tab. The pointer is used only when you share the video with other medical personnel "live". The pointer cannot be captured in an image snapshot. Hold down your mouse to display the pointer in your video/image. You can move the pointer within the video/image when you press down the mouse. An example of the pointer is shown below: The pointer displays as long as you hold down your mouse. You can move the mouse anywhere within the image while holding down the mouse.

Option Description

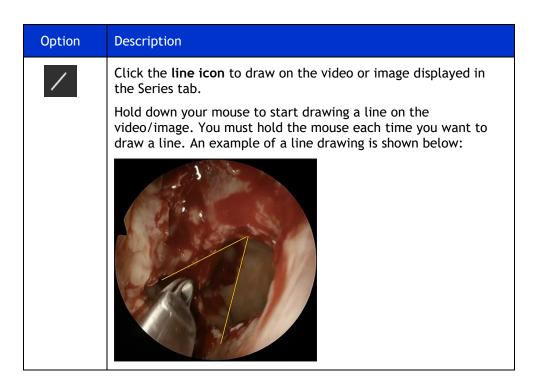


Click the **pen icon** to draw on the video or image displayed in the Series tab.

Hold down your mouse to start drawing on the video/image with the pen. You must hold down the mouse each time you want to draw with the pen. An example of the pen drawing is shown below:



Option Click the arrow icon to draw on the video or image displayed in the Series tab. Hold down your mouse to start drawing an arrow on the video/image. You must hold the mouse each time you want to draw with the arrow. An example of the arrow drawing is shown below:



Option Click the circle icon to draw on the video or image displayed in the Series tab. Hold down your mouse to start drawing a circle on the video/image. You must hold the mouse down each time you want to draw a circle. An example of a circle drawing is shown below:

Option Description



When you click the **magic wand icon**, it selects the background of the video or an object that's entirely one color.

Hold down your mouse to use the magic want to select a part of the background on the video/image. You must hold the mouse each time you want to make a selection with the magic wand. An example of the magic wand selection:





When you click the **quick selection tool icon**, it paints a selection, and the selection expands outward automatically to find and follow defined edges in the image.

Hold down your mouse to start capturing a quick selection on the video/image. You must hold the mouse each time you want to make a selection with the magic brush tool. An example of the quick selection tool:



| Option | Description |
|----------|--|
| 4 | The eraser removes annotation that you click on with your mouse within the video or image. |
| | Move the eraser over the annotation and right-click your mouse. The annotation is deleted from the display. |
| | |
| ‡ | When you click the expand icon , it expands the video or image to its largest display size. Click the expand icon again to change it back to its original size. |
| 5 | When you click the undo icon , it deletes the last annotation added to the video or image. |
| | Each time you click the undo icon, it removes the annotations from the last one added to the first one added. |
| | Click the trash can icon to delete all the annotations added to the video or image. You cannot recover the annotations once you delete them. |

Using Measurements

The measurement feature lets you measure line or circle annotations placed on the medical image or video when enabled. In addition, you can add identifying labels to the annotation.

Arrow annotations do not include the measurement capability, but you can apply a label to it.

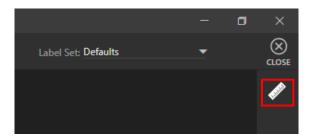
The measurement is based on one of the following:

- Unit of measure your organization uses
- Percentages

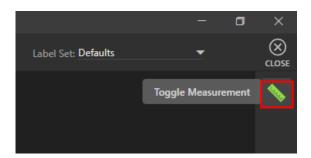
How To Measure with Annotations

To enable Measurements:

1. In the top-right corner of TIMS MVP, locate the ruler icon.



Result: The measurement icon turns green when enabled.

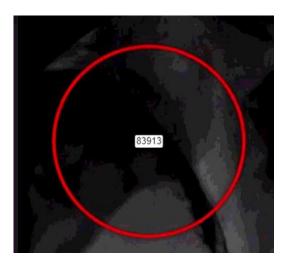


2. Select the annotation you want to use for measurement. In this example, the selection is the circle:

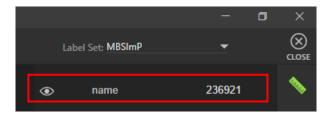


3. Right-click and hold down the mouse to draw the annotation on the image/video.

Result: In this example, the circle displays with a measurement inside of it.



4. In the top right-hand corner, a list appears. Each annotation is identified by the item's measurement, as shown below:



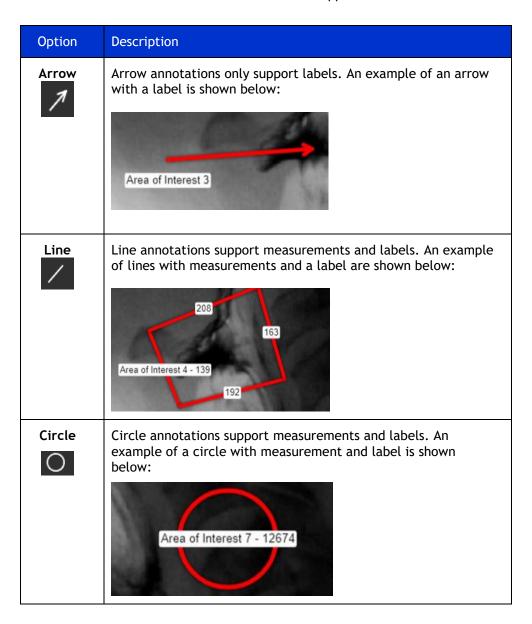
5. Enter a name for the label. The label displays with the circle in the image/video.



- If you do not want to display the annotation and measurement, click the eye o icon to hide.
- To redisplay the annotation and measurement, click the eye icon to show.

Annotations and Measurements/Labels

The table below describes the annotations that support measurements and labels.





Three easy ways to get support:

- Remote conference
- Email
- Phone/Fax

TIMS Medical,

a division of Foresight Imaging, LLC

1 Executive Drive

Suite 202

Chelmsford, MA 01824

Tel: (001) 978-458-4624 x204

Fax: (001) 978-458-5488

Email: support@tims.com

Web: www.tims.com