

O P E R A T O R'S G U I D E

Rev. 5



▼TIMS Medical Video Platform® | Record • Edit • Archive • Collaborate

TIMS MVP® Operator's Guide

Copyright © August 2023 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.

Regulatory Information



QualRep Services B.V.
Utrechtseweg 310 Bldg 42
6821 AR Arnhem
The Netherlands
+31 20 78 82 630
globalreg@gservegroup.com





Caution: Federal law restricts this device to sale by or on the order of a licensed medical practitioner. Rev 5, 1/07



Conforms with ANSI/AAMI ES60601-1, CAN/CSA-C22.2 No. 60601-1, FCC Part 15 Class A

Refer to ANSI/AAMI ES60601-1 for requirements applicable to the TIMS MVP System.

Intended Use

There are no known contraindications to use of the TIMS MVPTM System.

Explanation of Symbols

Symbol Explanation Manufacturer **European Authorized Representative** REP Serial Number SN Date of Manufacture **Caution, Consult Accompanying Documents** Catalogue Number REF Caution **Temperature Operation Limitations Humidity Operation Limitations Atmospheric Pressure Operations Limitations** Alternate Current (AC) Direct Current (DC) **Antenna** Standby Switch

Installation of the Medical Equipment



Warning:

To avoid electrical hazards, all AC electrical power must be shut off to the TIMS Medical device and the Fluoroscopic unit during installation and connections.

The equipment is to be only installed by authorized TIMS Medical personnel or their designated affiliates.

Handling the Medical Equipment



Warning:

Use proper hygiene when using the TIMS MVPTM System within the patient environment.

Please ensure that your medical facility is in strict compliance and adherence to all applicable laws and regulations regarding the handling of electronic equipment with respect to cleanliness, disinfection and sterile environments and all other use and care instructions when operating this equipment within the patient environment.

NOTE: The TIMS system is a self-contained medical unit suitable for use within the patient environment. It does not have any direct patient contact.

To avoid electrical shock, this equipment must only be connected to a supply main with protective earth.

Do not position unit such that it is difficult to disconnect the power and other cables from the device.

Use of extension cords or multiple socket-outlets is prohibited.

Servicing Equipment



Warning:

No user serviceable parts.

No modification of this equipment is allowed.

Any unauthorized modifications could result in the improper operation of the device. This could result in harmful results for a patient.

Site is responsible for the care & cleaning of the equipment. Refer to the Care, Cleaning & Disinfection section of this manual for instructions.

During the actual service life of the equipment, no modification or assembly is allowed without approval and authorization of TIMS Medical.

Environmental



Temperature, Operating: 10° to 40° C Storage: -40° to $+70^{\circ}$ C



Relative Humidity, Operating: 30 to 75% rH Storage Humidity: 10 to 95% rH



Atmospheric pressure, Operating: 700 to 1060 hPa Storage: 500 to 1060 hPa



Standby button operation should be pressed for < 1 second.

Power Supply



Warning: The Power Supply (MeanWell model GSM120A12-R7B)

shipped with the TIMS MVPTM System is a medical grade power supply and is the only power supply to be used with the TIMS MVPTM System computer. Do not use any other power supply with the TIMS MVPTM System as this may result

in unsafe operation.



Input voltage rating of 100/240Vac, 50/60 Hz, 1.4-

0.7A



Warning: To avoid the risk electric shock, this equipment must only

be connected to a power supply that is properly grounded

with protective earth.

Servicing Equipment



Warning: No user serviceable parts.

No modification of this equipment is allowed.

Any unauthorized modifications could result in the improper operation of the device. This could result in harmful results for a patient.

Electromagnetic Compatibility (EMC)

This device has been tested for compliance with the EMC requirements. The guidelines in this section will help you to make sure that your medical equipment will meet the requirements of the standard.



Warning:

Medical equipment should not be used, stacked, or located on or around equipment that may create electromagnetic inferences.

Cables and Accessories

Use of all included cables and accessories is required for proper use of this equipment. Any cable or accessory not released with the device may compromise safety and performance.

Any cable included or provided by TIMS MVP^{TM} is the proper and required length needed to operate the equipment.

Replacement parts, such as cables and accessories, must be purchased through TIMS MVP to ensure proper compliance requirements.



Using other manufacturer's cables and accessories may affect EMC and product performance. Unauthorized use of these items will void warranty and may cause injury harm to you, others and/or the equipment

Emissions

This equipment does not contain any RF communications equipment.

Product Disposal Information

This product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

FCC Compliance Information



Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. The limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

Users should periodically inspect the TIMS MVPTM System for signs of worn or frayed cables. If worn or frayed cables are found, contact technical support immediately. Also, periodically inspect the TIMS MVPTM System cable connections to ensure that all cables are securely attached.

There are no user replaceable or serviceable parts in the TIMS MVP^{TM} System. Please contact technical support with any questions.

Preface

The TIMS MVP User's Guide consists of two parts:

- This TIMS MVPTM Setup and Configuration Guide provides hardware setup and software configuration information for IT & biomedical engineering professionals.
- The TIMS MVPTM Operator's Guide provides technicians and medical professionals instructions to work with the TIMS MVP System in everyday operational use.

What Is TIMS MVP?

TIMS MVP is an integrated hardware/software system powered by the TIMS Medical Video Platform, a software architecture upon which all TIMS Medical products are built to deliver high-performance medical video applications. TIMS MVP provides recording, editing, labeling, review, analysis, and archiving of medical video throughout the healthcare enterprise. This includes fluoroscopy, endoscopy, cardiology, angiography, ultrasound, surgical video, and any other medical video modality. All studies can be archived to PACS/VNA in DICOM format and exported as DICOM or MP4 video for sharing, distribution, and integration into reports and presentations. Any DICOM study can be imported into TIMS MVP for full use within the system.

What Is IDEA Auto-SYNC?

IDEA Auto-SYNC is an application that enables you to optimize the performance of TIMS MVP with your modalities. Although TIMS MVP provides predefined common hardware profiles (CHP) files for its Foresight Imaging video capture boards, you are recommended always to create your own customized CHP files. You do this using Auto-SYNC.

About This User's Guide

The content of this user's guide may differ in some respects from the functionality of your TIMS MVP. Your system's appearance, hardware configuration, and the layout of your PC and modality connections may not be the same as described and depicted in this guide.

In addition, some of the functionality described in this guide depends on which TIMS MVP product configuration you are using. See next page and margin notes throughout this guide.

This user's guide describes hardware setup and configuration for the TIMS 2000 and TIMS 2000 SP. Some features are not present on TIMS 500 and TIMS Review. See TIMS System Product Line and margin notes throughout this guide.

Consult the TIMS MVP Release Notes

The Release Notes contain the latest details about what is new or different in the current MVP release.

Open the Release Notes from the Start menu > TIMS MVP > TIMS MVP Release Notes.

About This User's Guide

The content of this user's guide may differ in some respects from the functionality of your TIMS MVP system. Your menus and toolbars, their organization, and the overall appearance of the user interface may not be exactly the same as described and depicted in this guide. This user's guide describes the full range of functionality available with the TIMS MVPTM System. See TIMS MVP Product Line and margin notes throughout this guide.

TIMS MVP Product Line

This user's guide describes the full range of functionality available with the following TIMS MVP configurations: TIMS 500S, TIMS 2000 EN, TIMS 2000 SP, TIMS 2000 FEES, TIMS Review, and TIMS Connect. The key differences are **bolded** in the following summary. Where functionality does not apply to all versions, the applicable product version is noted in the margin (left).

TIMS 500 S

- ✓ Static capture only
- ✓ For endoscopy and surgical modalities
- ✓ DICOM send and DICOM receive
- ✓ Extensive review, editing, labeling, and analysis tools
- ✓ Foresight Imaging video capture hardware
- ✓ Small footprint computer
- ✓ Support and maintenance (1 year)
- ✓ LCD monitor and typical onsite installation

TIMS 2000 EN

- ✓ Static & streaming capture
- ✓ For endoscopy and surgical modalities
- ✓ DICOM send and DICOM receive
- ✓ Extensive review, editing, labeling, and analysis tools
- √ Foresight Imaging video capture hardware
- ✓ Small footprint computer
- ✓ Support and maintenance (1 year)
- ✓ LCD monitor and typical onsite installation

TIMS 2000 SP

- ✓ Synched audio
- √ Static & streaming capture
- ✓ For fluoroscopy modalities
- ✓ DICOM send and DICOM receive
- ✓ Extensive review, editing, labeling, and analysis tools
- √ Foresight Imaging video capture hardware
- ✓ Small footprint computer
- ✓ Support and maintenance (1 year)
- ✓ LCD monitor and typical onsite installation

TIMS 2000 FEES

- ✓ Synched audio
- ✓ Static & streaming capture
- √ For FEES (Fiberoptic Endoscopic Evaluation of Swallowing) modalities
- ✓ DICOM send and DICOM receive
- ✓ Extensive review, editing, labeling, and analysis tools
- √ Foresight Imaging video capture hardware
- ✓ Small footprint computer
- ✓ Support and maintenance (1 year)
- ✓ LCD monitor and typical onsite installation

TIMS Review

- ✓ DICOM send and DICOM receive
- ✓ Extensive review, editing, labeling, and analysis tools
- ✓ Computer not included

TIMS Connect

- ✓ Optional add-on software to any TIMS video capture station
- ✓ Streams TIMS application including live modality video to TIMS Review system for real-time collaboration
- √ Two-way webcam streaming
- ✓ Two-way audio
- ✓ Chat

Table of Contents

Regulatory Information	iV
Intended Use	iv
Explanation of Symbols	V
Installation of the Medical Equipment	vi
Handling the Medical Equipment	vi
Servicing Equipment	vi
Environmental	vii
Power Supply	vii
Servicing Equipment	vii
Electromagnetic Compatibility (EMC)	vii
Cables and Accessories	viii
Emissions	viii
Product Disposal Information	viii
FCC Compliance Information	ix
Preface	x
What Is TIMS MVP?	x
What Is IDEA Auto-SYNC?	x
About This User's Guide	x
Consult the TIMS MVP Release Notes	x
About This User's Guide	x
TIMS MVP Product Line	xi
Glossary of TIMS-Related Acronyms	xviii
Information About First Use	1
Starting Up	1
Quit TIMS MVP	1
TIMS MVP Controls	2
TIMS MVP Menus	3
Commands Availability	4
Unavailable Menu Commands	4
Unavailable Toolbar Command	5
Keyboard Shortcuts	6
Controls Reference	8
File Menu Commands and Related Toolbar Buttons	8
Edit Menu Commands	10
View Menu Commands and Related Toolbar Buttons	11
Series Commands and Related Toolbar Buttons	12
Help Menu Commands	13
Operating TIMS MVP: Workflow Options	15
Send Study to PACS Only	15
Send Study to TIMS Review then PACS	15
Send Study to PACS and TIMS Review Simultaneously	16
Create a Study	17
What is a Channel?	17
About the Study Dashboard	17

	Studies Tab	. 18
	Worklist Tab	. 19
	Query Retrieve Tab	. 20
	Study Window	. 21
	Study Tab	. 21
	Series Tab	. 21
	Live Tab	. 22
	Create a New Study	. 23
	Create a Study Based on Existing Study	. 27
	Create a Study Based on a Worklist Patient	. 28
	Save the Study	. 29
	Close a Study	. 30
	Select a Worklist for Creating or Viewing a Study	. 30
	Making Study Entries	. 31
	Query/Retrieve a Study	. 31
٩cq	uiring Images and Video Streams	. 33
	Capture Video/Image in the Live Tab	
	Record Videos	
	Elapsed Recording Time	. 36
	Take a Single Frame Snapshot	
	Zoom In or Zoom Out on the Video in the Study Tab	. 36
	Using the Recording Audio Tone	
	Using the Recording Audio Control	
	Frames Per Second (fps) Display	
	Review Recording in Live tab	
	How to Review	
	Review Recording in Series tab	
	Record as an MP4 File	
	Creating SubClips	
dit	ing a Study	
	Study Tab Controls	
	Viewing the Series and Image Number	
	Edit an Existing Study	
	Record Videos for an Existing Study	
	Take a Single Frame Snapshot for an Existing Study	
	Search for Patient Using the Worklist Tab	
	Search for a Study Using the Studies Tab	
	Copy Study Info	
	Add a Recording to an Existing Study	
	Add a Single Frame Snapshot to the Study	
	View the Worklist	
	Reviewing or Modifying Patient Study Information	
	Consolidate Study	
	Duplicate Study	
	ate a Series	
	What is a Series?	. 58

St	art a New Series	58
Se	ries Play Controls	59
Na	avigation Controls	59
As	sign a Label Set to a Recording	60
As	sign a Label Set to a New Study	61
	Disable Protocol Mode	62
Ed	lit a Label Set	63
Jsing	Series Advanced Controls	64
	Set Video Play Speeds	64
	Set the Time Display	65
	Turn on Timing Mode	65
	Delete a Series Video or Image	66
Ac	Ivanced Controls	67
	Zoom In/Zoom Out	67
	Invert Image	67
	Adjust Brightness	67
	Adjust Contrast	68
	Snapping Single Frame Images	68
	Record a Subclip	68
	Using Annotations	68
	Using Measurements	74
Tr	im a Series Recording	78
	Restore Trimmed Video to Original Size	79
Ac	Id a Subclip From a Series Video	80
Fla	ag a Series Video or Image to Send	81
De	elete a Selected Series Video or Image	82
	Restore Deleted Series Videos/Images	83
Cr	eate a Thumbnail Image for a Series Video	83
Cr	eate an Image Snapshot from a Series Video	84
Co	ombine Series Video with Next Video	85
	Split a Series Video into Multiple Videos	86
	ppy an Image	
Co	ppy an Image with Area of Interest (AOI)	88
Se	t a Timing Point on Series Media	89
Sh	ow Deleted Series Media	89
Sh	ow Trimmed Media	91
Create	e a Label Set	92
Cr	eate a Custom Label Set	92
	elete a Custom Label Set	
	nange Custom Label Set Name	
Cr	eate a New Label Set from an Existing Label Set	96
	lit a Series Label Set	
Sh	ow Labels in the Study Tab	
	Show Labels Command	
	Example	97
	Assign Labels in the Study Tab	98

Sending Studies to Your PACS	99
Mark a Saved Study View to Send	99
Send a Marked Study View	101
Mark All Views in a Study to Send	102
Manually Send Marked Views	103
Monitoring the Study Send Status	105
Monitoring on Study Dashboard	105
Monitoring the Receive Status	108
Export or Import Studies and Videos	109
Import a Study	109
Export a Study	109
Export Series as Video	112
Export Image	116
Scorecards	118
Using Scorecard	118
Copy a Score Card	121
Delete All Scorecards	121
Adding Multiple Scorecards to a Study	122
Send Scorecards	122
Help Menu Options	123
About (Version Numbers)	123
TIMS MVP License Information	124
Quick Start Guide	124
Configuration Options	124
Diagnostic Information	125
Viewing Diagnostic Reports	125
Languages	125
Release 4.6 Addendum	126
Overview	126
Unified JPG/MP4 Unified Workflow	126
New Channel Editor Page	127
Saturation Control for FEES Studies	137
Compare Studies Side-by-Side	138
Create a Series Composite Clip	142
Replace Included Series	
DICOM Send Configuration - Convert MP4 to JPG Option	145
Release 5.0 Addendum	149
Creating and Adding Reports	149
Creating a Report	149
Deleting a Report Template	
Open a Report Template for Editing	
Duplicate a Report Template	
Export the Report Template	
Report Study Information Tags	
Study Tags	
Input Fields	

	Special Tags	.156
	Save the Report to a PDF File	.156
	Save and Print a Report	.157
	Add a Report to a Study	.158
	View the Report Template Tutorial	.158
	Sending to PACS	.159
	Reports and File Encryption	.159
	Study Notes	.159
	Creating Note Templates	.160
	Deleting a Note Template	.161
	Open a Note Template for Editing	.162
	Duplicate a Note Template	.162
	Export the Note Template	.163
	Add a Note to a Study	.163
	Quick Phrases	.164
	Creating a Quick Phrase	.164
	Adding a Quick Phrase to a Note or Report	.166
	Deleting a Quick Phrase Template	.166
	Open a Quick Phrase Template for Editing	.166
	Duplicate a Quick Phrase Template	.166
	Export the Quick Phrase Template	.167
	Using a Diagram with a Snapshot	.167
	Add a Diagram	.167
	Add a Diagram to a Snapshot	.168
	Reports and Diagram Integration	.170
	New Triggering Mode	.170
	Patient View Feature	.170
	Set Up the Patient View Feature	.170
	New Telestration Features	.171
	Freehand Telestration Extension	.171
	Snapshot Telestration	.172
	Measurement Calibration	.173
	Detect Swallow Events	
	Export TIMS MVP Settings	
	How to Import	.176
	Export and Import Settings	
	Export Settings	.176
	Import Settings	
Apı	pendix A	
	Hazardous Substance Statement	170

Glossary of TIMS-Related Acronyms

ΑE

Application Entity (Identifies DICOM nodes)

CHP

Common Hardware Profile file (CHP file extension)

DICOM

Digital Imaging and Communications in Medicine

MVP

Medical Video Platform

PACS

Picture Archiving and Communications System

QR

Query/Retrieve

SCP

Service Class Provider

SCU

Service Class User

SOP

Service Object Pair

UID

Unique ID of a study instance

Information About First Use

If you are a licensed TIMS MVP user, your TIMS MVP system is preconfigured, tested, and licensed before being released from manufacturing.

If you are evaluating TIMS MVP for the first time or need to change your licensing information, please review the TIMS MVP Setup and Configuration Guide.

Starting Up

To start your TIMS MVP system:

 Press the Power button on the system unit and wait for the operating system to start up.



HDD ACTIVITY
SYSTEM POWER

Your TIMS MVP system is configured to launch the TIMS MVP software application on system startup.

• If you need to restart TIMS MVP, double-click the **TIMS MVP** desktop icon or choose the application from the Windows **Start** menu.



Quit TIMS MVP

To quit your TIMS MVP System:

Go to File > Quit.

TIMS MVP Controls

TIMS MVP controls are available from the application's menu bar and toolbar. A control can be either a menu command or a toolbar button. Many controls are available as both.

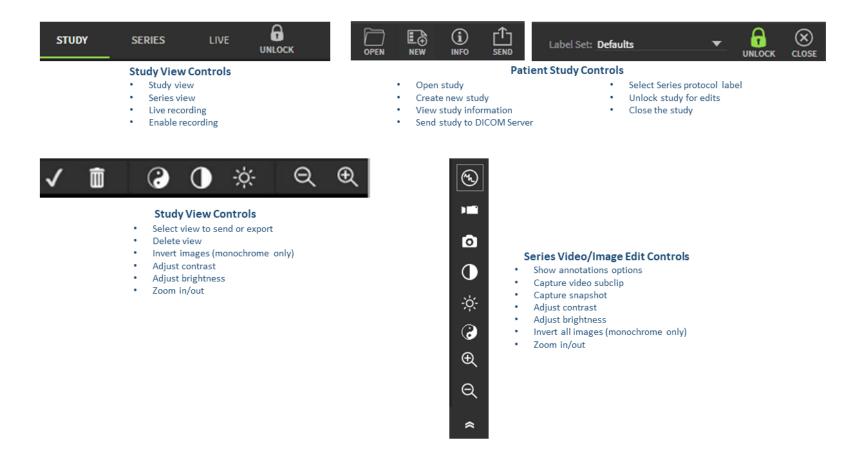
TIMS MVP menu commands are organized by menus and functional groupings within menus:

Menu	Controls	
File	Patient Study Functions	
	Video/Image Functions	
	Study Status Functions	
	Import and Export Study Functions	
	Consolidate Function	
Edit	Copy and Delete Image Functions	
View	View Study, Series and Live Tabs	
	Zoom Function	
Series	Edit Series Functions	
	Show Series Functions	
	Combine and Edit Series Functions	
	Play Controls and Navigation Functions	
Help	TIMS MVP Version Information	
	Activate License	
	Quick Start Guide	
	Configuration Options	
	Diagnostic Reports	
	Language Selection	

TIMS MVP Operator's Guide

TIMS MVP Menus

TIMS MVP menu buttons are organized by functional groups in several toolbars, as illustrated:



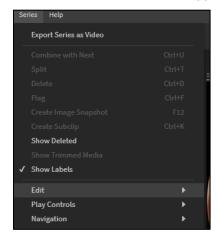
TIMS MVP Operator's Guide

Commands Availability

The availability of commands is workflow-dependent. When a command or tool icon is not available for use, it is because the command is not available at this stage in your workflow.

Unavailable Menu Commands

Unavailable menu commands appear grayed out:



The Series menu does not display the editing commands since the study is locked in this example.

Unavailable Toolbar Command

Unavailable toolbar buttons appear grayed out.



When the study is locked in **Series**, the send study checkbox, delete series, invert image icon buttons are unavailable.

Tip: You can see the tooltip that summarizes its function by pointing to an icon.



Keyboard Shortcuts

TIMS MVP offers keyboard shortcuts for important or repetitious commands. Among these are the following:

Shortcut or Function Key	Action
[Set trim start
]	Set trim end
ALT+F4	Quit TIMS MVP
ARROW DOWN	Move series to series
ARROW UP	Move series to series
ARROW LEFT	Move frame to frame
ARROW RIGHT	Move frame to frame
CTRL+←	Move to first frame of series
CTRL+→	Move to last frame of series
CTRL+[Set timing point
CTRL+]	Clear timing point
CTRL+1	View the Study tab
CTRL+2	View the Series tab
CTRL+3	View the Live tab
CTRL+=	Enlarge/Zoom in
CTRL+-	Shrink/Zoom out

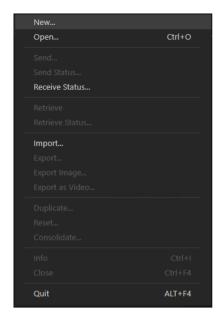
Shortcut or Function Key	Action
CTRL+C	Copies image to clipboard
CTRL+ALT+C	Copy study info to clipboard
CTRL+SHIFT+C	Copies image with Area of Interest
CTRL+D	Delete video or image snapshot
CTRL+F	Flag/Unflag a series to send
CTRL+L	Loop video play mode
CTRL+N	Create new blank study
CTRL+O	Open the Study Dashboard to open studies
CTRL+T	Split a series view into two views
CTRL+U	Combine series view with the next view
CTRL+F4	Close study
END	Move to end.
F12	Snap single image frame
HOME	Move to start
SHIFT+←	Skip backward 10 frames
SHIFT+→	Skip forward 10 frames
SHIFT+I	Open the Study Info dialog
SPACEBAR	Start/Stop play
SPACEBAR	Start/Stop record
TAB/SHIFT+TAB	Next or Previous label

Controls Reference

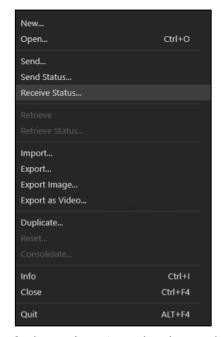
The following section provides a quick reference for each command. It enables you to determine the function of a particular command or toolbar button, by providing a brief description and its page reference in this guide. You should always refer to the page reference to understand a command's proper context and workflow stage.

(Commands that do not have a page number cross-reference are for administrator-only use. These are explained in the *TIMS MVP Setup and Configuration Guide*.)

File Menu Commands and Related Toolbar Buttons



No study open (ready to create or query)

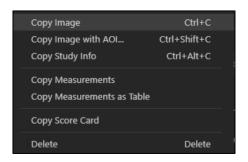


Study open for review and ready to send or query

Toolbar button	Command Name and Brief Description	Major Page Reference
	New	17
NEW	Opens the Study Dashboard window.	
	Open	44
OPEN	Opens the Study Dashboard window to open a saved study.	
	Send	99
SEND	Opens the DICOM Send window. Send a study to the selected DICOM Server immediately.	
	Send Status	105
	Provides the study send status in the Status window. The Status will also display an error messages if the send does not occur.	
	Receive Status	108
	Provides the receive status of a study in the Status window.	
	Retrieve	
	Retrieves a study from a DICOM Server.	
	Retrieve Status	
	Provides the status for a study retrieval from a DICOM Server.	
	Save	29
	Saves to disk automatically after a capture.	
	Import	109
	import DICOM studies created by another TIMS MVP system so that the studies are added to your Study Dashboard.	
	Export	109
	Export DICOM studies as a DICOM file, DICOM with viewer or a backup file.	
	Export Image	88
	Export DICOM study image to a jpeg image.	

Toolbar button	Command Name and Brief Description	Major Page Reference
	Export as Video	112
	Export DICOM studies to an MP4 video file.	
	Reset	83
	Resets the views reversing all edits and deletions.	
	Consolidate	55
	Makes all the edits and deletions permanent.	
	Info	23
INFO	Displays the Study Info window to view or edit.	
	Close Study	30
	Closes a saved study or cancels a study without saving.	
	Quit Study	1
	Exits the TIMS MVP application.	

Edit Menu Commands

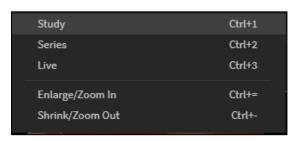


Command Name and Brief Description	Major Page Reference
Copy Image	88
Copies the image to the clipboard.	
Copy Image with AOI	88
Copies the image with a selection AOI to the clipboard.	

10

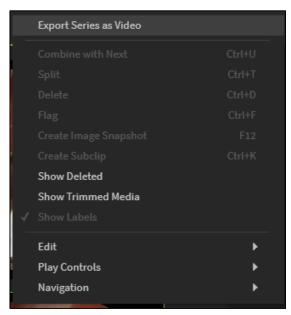
Command Name and Brief Description	Major Page Reference
Copy Study Info	51
Copies the study information to the clipboard so it can be used in a report.	
Copy Measurements	77
Copies the annotation measurements to the clipboard.	
Copy Measurements as Table	77
Copies the annotation measures in a table to the clipboard.	
Copy Score Card	121
Copies the Scorecard details to the clipboard.	
Delete	82
Delete the selected view.	

View Menu Commands and Related Toolbar Buttons



Toolbar button	Command Name and Brief Description	Major Page Reference
STUDY	Study	21
	Opens the Study tab.	
SERIES	Series	21
	Opens the study Series tab.	
LIVE	Live	22
	Open the live video tab.	
⊕ _	Enlarge/Zoom In	36
	Enlarge the thumbnail size in the Study tab.	
Q	Shrink/Zoom Out	36
	Shrink thumbnail size in the Study tab.	

Series Commands and Related Toolbar Buttons

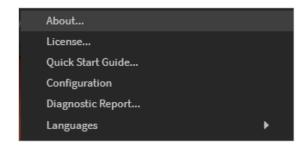


Toolbar button	Command Name and Brief Description	Major Page Reference
	Export Series as Video	112
	Exports series to an MP4 video.	
	Combine with Next	85
	Combines the selected view with the next view in the series.	
	Split	86
	Splits a view window means selecting an image frame within the view window and moving this and the subsequent frames into a new view window.	
命	Delete	82
Ш	Deletes the selected view from the series.	

12 TIMS MVP Operator's Guide

Toolbar button	Command Name and Brief Description	Major Page Reference
1	Flag	81
V	Marks a view to send.	
	Create Image Snapshot	84
0	Capture images or video streams for the study.	
	Create Subclip	80
	Capture a section of an MP4 video.	
	Show Deleted	88
	Shows all deleted views.	
	Show Trimmed Media	91
	Shows the trimmed media which was removed during an edit.	
	Show Labels	97
	Show the series label.	
	Edit	78, 88
	Mark a view's start and end and set and clear the timer start point.	
	Play Controls	59
	Controls for viewing a series video.	
	Navigation	59
	Controls to navigate through the series videos.	

Help Menu Commands



Command Name and Brief Description	Major Page Reference
About	123
About menu items provides the system/software serial numbers and TIMS MVP version number	
License	124
Show the licenses serial number and license key.	
Quick Start Guide	
Opens the TIMS MVP Training Guide.	
Configuration	124
Enter/change your configuration settings for general settings, active directory, worklists, DICOM servers, channels and labels.	
Diagnostic Report	125
Creates a diagnostic report that is for TIMS MVP Support. You can enter comments into the report prior to creating.	
Languages	125
Set TIMS MVP the language to English or Spanish.	

14

Operating TIMS MVP: Workflow Options

This section introduces the steps for your workflow when using TIMS MVP.

There are three workflow options:

- Send study to PACS only
- Send study to TIMS Review workstation then PACS
- Send study to PACS and TIMS Review simultaneously

Send Study to PACS Only

1. Start TIMS MVP

The TIMS MVP system and application can be left running all the time (or, if preferred, the application can be restarted after completing a study).

2. Record Video/Capture Images

When you initially create a study, you can record videos and/or capture images in the TIMS MVP "Live" window.

3. Send the Study to PACS

Send the completed study to PACS.

Send Study to TIMS Review then PACS

1. Start TIMS MVP

The TIMS MVP system and application can be left running all the time (or, if preferred, the application can be restarted after completing a study).

2. Record Video/Capture Images

When you initially create a study, you can record videos and/or capture images in the TIMS MVP "Live" window.

3. Send Study to TIMS Review

Send the study to a TIMS Review workstation. This includes trimming/deleting series and review and analyze videos/images. You can also use to consult with patients.

4. Send Study to PACS

Send completed study to PACS.

TIMS MVP Operator's Guide

Send Study to PACS and TIMS Review Simultaneously

1. Start TIMS MVP

The TIMS MVP system and application can be left running all the time (or, if preferred, the application can be restarted after completing a study).

2. Record Video/Capture Images

When you initially create a study, then you can record videos and/or capture images in the TIMS MVP "Live" window.

3. Send Study to PACS and TIMS Review

- Send the study to a TIMS Review workstation. This includes trimming/deleting series and review and analyze videos/images. You can also use to consult with patients.
- Send the study to PACS to make it available immediately.

Create a Study

Before acquiring images or video streams, you begin by selecting a *channel* from the **Study Info** window and entering the required data for a new patient study.

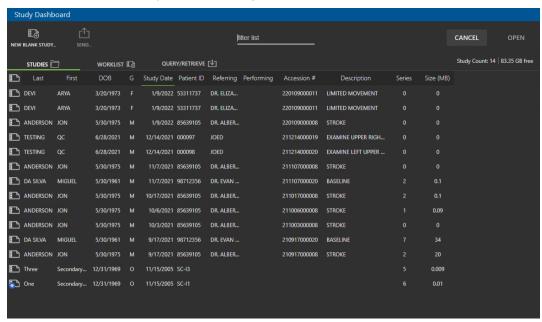
What is a Channel?

Channels are modes of acquiring images according to a specified type of video signal and DICOM modality. Each study you perform will require you to select the appropriate channel as part of creating the study. If you always work with the same class of medical device, you may never need to select or change the channel.

About the Study Dashboard

The Study Dashboard is where you start the study creation process. When you first open TIMS MVP, the **Study Dashboard** will open.

Depending on the settings made by your administrator, the Study Dashboard can open with the Studies. Worklist or Query/Receive tab open.



Studies Tab

The Studies tab allows you to do the following tasks:

Option	Description
E⊕ NEW BLANK STUDY	Start a new blank study. The Study Info dialog opens where you enter your study information.
SEND	Send a selected study to a PACS or DICOM Server. In the DICOM Send dialog, you can select the server and decide whether to send the entire study or selected images.
filter list	Filter the studies list to locate a particular study or studies.
CANCEL	Cancel closes the Study Dashboard.
OPEN	Open a selected study.
When you right-click of appears:	on a study in the Study Dashboard, the following menu
New Blank Study	Ctrl+N
New Study Based On Open Export	Ctrl+O
Send Status	
Delete	Delete
New Blank Study	Start a new blank study. The Study Info dialog opens where you enter your study information.
New Study Based On	Start a new study based on the study you have selected in the studies list.
Open	Open the selected study.

Option	Description
Export	Export the selected study to a DICOM format, Backup as native TIMS MVP format, or DICOM and Native formats with TIMS MVP Viewer.
Send Status	Provides the send status for a study.
Delete	Deletes a study. A confirmation dialog appears, making sure you want to delete the selected study if has not been sent or exported.

Worklist Tab

The patient worklist provides a list of patients and their study information and is available on the **Study Dashboard**. You can also start a study by selecting a patient in the worklist.

Under the Worklist tab, you can do the following tasks:

Option	Description
NEW STUDY FROM	Start a study from a selected patient on the worklist. The Study Info dialog opens where you enter your study information.
filter list	Filter the patient list to locate a particular patient, doctor or study.
Urgent Care Lowell ▼	If more than one worklist is available to you, use the drop-down menu to select the worklist you need.
CANCEL	Cancel closes the Study Dashboard.
OPEN	Open a selected patient to create a study or review the patient's data.

Query Retrieve Tab

The Query/Retrieve tab allows you to query and retrieve a study from a DICOM Server.

Option	Description
RETRIEVE	After selecting a study located on a DICOM Server, click Retrieve to get the study from the DICOM Server.
study id	Search for a study on the DICOM Server by entering one or all of the following:
patient name	 study id - Enter the study id for the study you want to query/retrieve.
patient id	 patient name - Enter patient name for the study want to query/retrieve.
	 patient id - Enter the patient id for the study you want to query/retrieve.
filter list	Filter the patient list to locate a particular patient, doctor or study.
DVTR_QR_2 ▼	Use the drop-down menu to select the DICOM Server you want to query and/or retrieve a study.
CANCEL	Cancel closes the Study Dashboard.

Study Window

The study window is where you find the three tabs that you will use to create, record, edit, change or send a study and the study images.

From the Study, Series, and Live tabs, you can:

- open a study from the Study
- create a new study from the Study



Dashboard Dashboard

- view the study information for the opened study
- send the study or selected study images to PACS or the TIMS Review server

This menu is available for all three tabs (Study, Series, Live) at the top of the TIMS MVP window.

Study Tab

The Study tab is where you can view the study's views, including videos and images.

The other tasks you can perform includes:

- Delete a view
- Show deleted views
- Copy an image to the clipboard
- Combine a view with the next view in the series
- Export a series as an MP4 video
- Zoom in or out the study's window

Series Tab

The Series tab is where you can view the series views, including videos and images.

The other tasks you can perform includes:

- Trim a series video
- Place annotations on an image
- Create a series Subclip from an MP4 video
- Capture a single frame image
- Adjust brightness and contrast when you review the images
- Invert monochrome images and videos
- Zoom in/out of the displayed series image
- Mark a series view to send
- Delete a series view
- Show deleted series view
- Create an image snapshot from a series video
- Copy an image to the clipboard
- Combine a series view with the next view in the series
- Export a series view as an MP4 video

TIMS MVP Operator's Guide 21

Live Tab

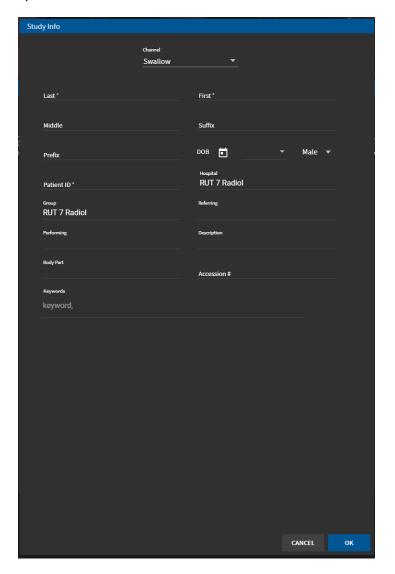
The Live tab is where you capture videos and image snapshots for a study. It is the first tab to open when you create a study.

The tasks you can perform includes:

- Capture a study video
- Create study image snapshots
- Record or mute/unmute audio
- Plays an audio tone at the beginning and end of a study recording

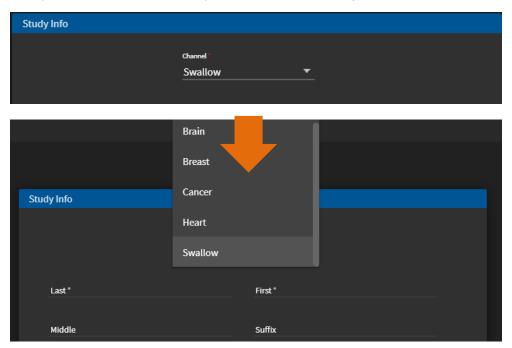
Create a New Study

1. When the **Study Dashboard** opens, click the **New Blank Study**... button. If the **Study Dashboard** is not open, then click **File** > **New**. In both cases, the **Study Info** window opens.



2. If the channel you need is not selected at the top of the Study Info page, click **Channel** at the top of the window, and a drop-down menu of available channels appears.

If only one channel is available, you will not access a drop-down menu.



3. Select the Channel you want to use if it is not already selected.

Note: In regular operation, your studies will most likely use one channel. (TIMS MVP can be preconfigured with standard channels. New channels can be specified during channel configuration - an administrative function described in the *TIMS MVP Setup and Configuration Guide*.)

4. Enter the study information after selecting or verifying the channel you want to use.

Field	Description
Last, First, Middle, Suffix, Prefix	The name of the patient. The First and Last name are required fields, while the remaining fields are optional but provide additional identification details about the patient:
	Middle - middle name or initial
	 Suffix - Options such as Junior (JR), a Roman numeral such as III for third, or a professional identification such as PhD
	 Prefix - Mr, Mrs, Miss or Ms, Dr (for doctor)
DOB (Date of Birth) and Gender identity	The patient's date of birth. This field is required.
	 Click on the calendar to set the birth date
	DOB 2/15/2020
	Hospital S M T W T F S General F
	Feb 2020 > 1
	2 3 4 5 6 7 8
	Desic 9 10 11 12 13 14 15 16 17 18 19 20 21 22
	Acc# 23 24 25 26 27 28 29
	23 24 23 20 21 20 23
	Mar 2020 ➤
	Select Male, Female or Other
Patient ID	Assigned identification number (for example, medical record number)

Field	Description
Hospital	Name of the hospital where the study was completed
Group	Enter a group name for the study, for example, scope.
Referring and Performing (physician)	Select the physician's name from a drop-down list, or, type in the name of the physician.
Description	Provide a description that helps a person easily understand the purpose of the study. This could be details such as the patient diagnosis.
Patient Accession Number	Patient account number
Keywords	Keywords to identify more information about the procedure or patient

5. Click **OK** to save the study. The study is added to the Studies list.

Reference: Next, go to Capture Video/Image in the Live Tab on page 33 for information about adding video or images to a study.

Create a Study Based on Existing Study

If you want to create a study by reusing information from a previously saved study:

- 1. Select the study you want to reuse in the **Study Dashboard**.
- 2. Right-click on the study you want to reuse.
- 3. Select New Study Based On ... from the menu.
- 4. When the **Study Info** window opens, enter/update the patient data by entering in the required information.

TIMS MVP retrieves the information for a new study. With the new study, you can modify patient information and add any missing information.

5. Click **OK** when done. The study is added to the Studies list.

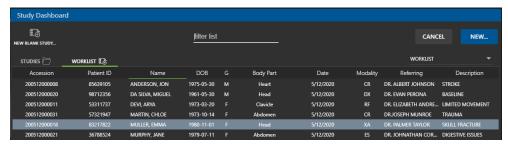
Reference: Next, go to Capture Video/Image in the Live Tab on page 33 for information about adding video or images to a study.

Usage Note: A worklist of patient data is hosted by a local server or PACS broker. For speed and accuracy, acquiring data this way is the preferred method to complete patient study information.

Create a Study Based on a Worklist Patient

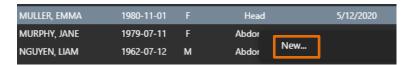
If you want to create a study from a patient listed in a worklist:

1. Select the patient name from the Worklist in the **Study Dashboard**.



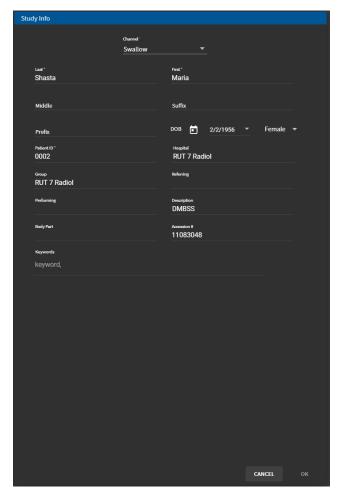
2. Right-click on the patient's name and select New... from the menu.

You can also double-click on the name and click to select the New... button.



3. When the Study Info window opens, enter/update the patient data by entering the required information.

TIMS MVP retrieves the information for a new study. With the new study, you can modify patient information and add any missing information.



6. 4. Click **OK** when done. The study is added to the Studies list under the Studies tab.

Reference: Next, go to Capture Video/Image in the Live Tab on page 33 for information about adding video or images to a study.

Usage Note: A worklist of patient data is hosted by a local server or PACS broker. For speed and accuracy, acquiring data this way is the preferred method to complete patient study information.

Save the Study

A study is always saved automatically (and written to disk).

Close a Study

To close a study you have opened, go to File > Close.

- For studies you have saved, the study closes with all the saved information you have either entered and/or changed.
- For studies you have not saved, the study automatically saves any changes you make.

Select a Worklist for Creating or Viewing a Study

If you need to select a worklist for a study:

- 7. On the Study Dashboard, go to the Worklist tab.
- 8. On the right-hand side, click the down arrow to view a menu of available worklists.



Select the worklist from the drop-down menu.

Result: Once you select a worklist, the patient list for that worklist displays.

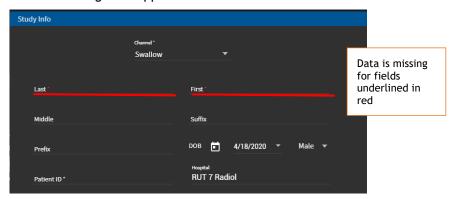
Making Study Entries

When entering the patient data, you can select fields with the mouse in any order.

- Use the Tab key to advance to the next field
- Use the Shift+Tab to return to the Previous field.

When finished, click the **OK** button in the **Study Info** window. If any required fields have missing or invalid data, the window will not close.

Tip: Fields missing data appear with a red line blow the field.



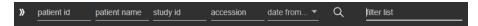
Query/Retrieve a Study

If you want to perform a query for a study located on a DICOM server and then retrieve it:

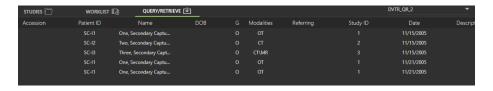
- 1. Open the Study Dashboard.
- 2. Select the Query/Retrieve tab.
- 3. Select the DICOM server you want to query from the drop-down menu on the right side of the Study Dashboard.



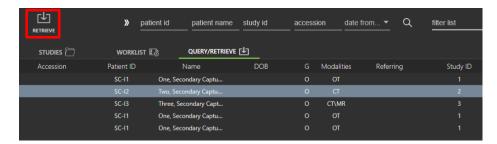
4. Search for the study you want to retrieve by making entries into any of search or filter fields.



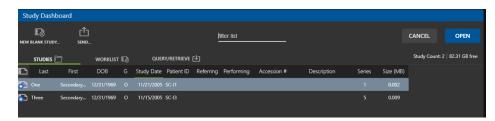
5. Click the search aicon and a list of studies from the DICOM server selected appears, as shown below:



6. Select the study or studies you want to retrieve and click the **Retrieve** icon in the upper left-hand corner.



7. Access the retrieved study by selecting the **Studies** tab, selecting the study, and clicking **Open**.



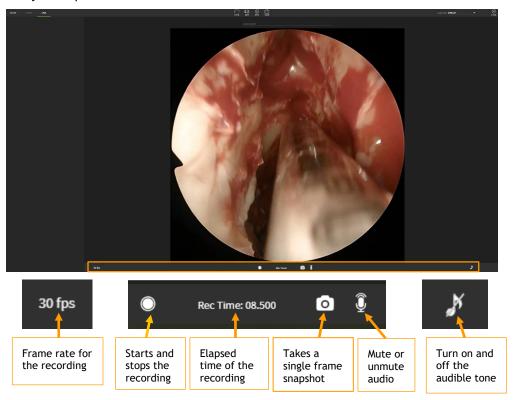
Acquiring Images and Video Streams

Once you have created a patient study, the video capture function of TIMS MVP is enabled. TIMS MVP performs streaming or static capture

- Streaming capture means video streams (continuous stream capture of frames). For TIMS MVP 2000-EN, TIMS MVP 2000-SP, and TIMS MVP 2000 FEES.
- Static capture means individual images (single frames). For TIMS MVP 500 S, TIMS MVP 2000-EN, TIMS MVP 2000-SP, and TIMS MVP 2000 FEES.

Capture Video/Image in the Live Tab

The TIMS MVP Live tab is your starting point for capturing video and image snapshots. Your new study will open in the TIMS MVP Live tab.



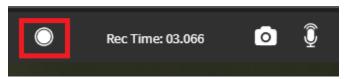
The TIMS MVP window displays the live video signal present on the video capture board's active input channel. In addition to starting and stopping stream capture and series, the window has additional controls for performing the following:

Option	Description
You can access these options along the bottom of the "Live" tab when you first create a study.	
	Start/Stop Record
	TIMS MVP typically starts and stops recording automatically along with the fluoroscope.
	However, if you want to manually start and stop the recording, you can use this button or you can use the spacebar on the keyboard to manually start and stop recording.
Rec Time: 01.666	Elapsed Recording Time
Rec Time. 01.000	Displays the time that has elapsed in the recording you are making.
0	Image Snapshot
O	Takes a single frame snapshot of the current video or image.
a	Audio Recording
$oldsymbol{\Phi}$	Allows you to mute or unmute the audio recording.
" k	Audio Tone
	Adds an audio tone when you start and stop the recording.
	This option is turned off by default.
30 fps	Frames Per Second (fps)
	Displays the fps for the recording. This is set by the system administrator.

Record Videos

To record video in the Live tab, you must:

Click the record button at the bottom of the study Live tab to start and stop recording, or



 Press the Spacebar or mechanical trigger, if equipped, once to start a recording and press once to stop the recording.

When Recording Begins

When the video capture begins, the video is highlighted by a red line at the bottom of the Live tab. When the video recording is stopped, the video appears on the left-hand side of the Live tab.

The video stream is identified by the number of images or frames contained in the video.



The video stream is identified by image/ frame count in the lower left-hand corner.

Using a Trigger

Your system may be equipped to use a mechanical trigger (in addition to your mouse, keyboard, or touch-sensitive monitor). A trigger is a foot pedal or pushbutton device for starting and stopping video capture. It replaces clicking the record button or the Spacebar to start and stop a video.

Configuring the trigger behavior is part of channel configuration - an administrative function described in the TIMS MVP Setup and Configuration Guide.

Elapsed Recording Time

As you record a video, the **Recording Time** displays below the video you are recording. When you stop recording, the total time of your recording displays.

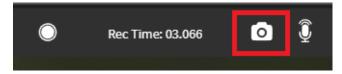
Rec Time: 03.066

Take a Single Frame Snapshot

The single frame snapshot icon displays in the Live tab for TIMS MVP. The Live tab is active when your TIMS MVP system is receiving videos.

Capture Images

To capture the single frame snapshot, click the **Single Frame Snapshot** icon located on the bottom of the Live tab.



The snapshot appears in the column on the left-hand side of the Live tab with a camera icon in the lower left-hand corner of the image snapshot.



The image snapshot is identified by a camera icon in the lower left-hand corner.

Zoom In or Zoom Out on the Video in the Study Tab

Zoom in or zoom out of the videos or images in the Study tab.

• Click the Zoom In (icon to enlarge the video/image in the Study tab.



Study tab is at its normal display size.

You can also right-click on an image and select Enlarge/Zoom In.

Study tab after you zoom in.



• Click the Zoom Out icon to shrink the video/image in the Study tab.

You can also right-click on an image and select Shrink/Zoom Out.

TIMS MVP Operator's Guide

Using the Recording Audio Tone

The Audio Tone icon lets you turn it on to make a sound at the beginning of a recording and at the end of the recording.

The audio tune is turned off by default. If you want to use the audio tone with your recordings, click on the audio tone icon and the slash through the icon is removed meaning it is now active.



The audio tone is off by default.



When the audio tone is turned on, it is not recorded at the beginning or ending of a video. It is just used to indicate the recording has begun or ended.

Using the Recording Audio Control

You can mute or adjust the sound levels for any recording using the audio icon. Each time you click on the audio icon, the volume increases or decreases. If no audio is recorded, the microphone icon will not be displayed.

Frames Per Second (fps) Display

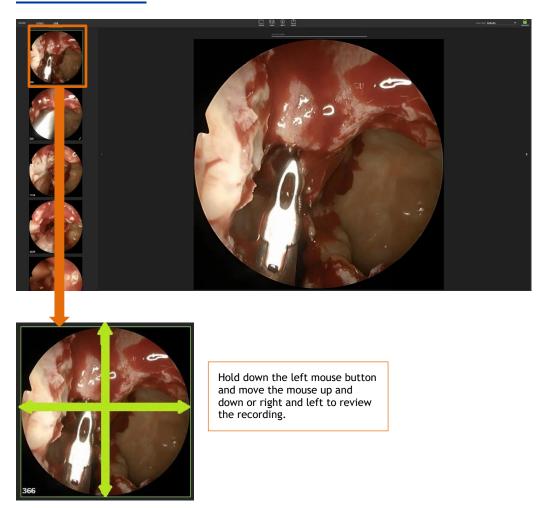
The frames per second (fps) are displayed on the recording controls' left-hand side. Your administrator sets the fps in the **TIMS MVP Config** dialog. See the *TIMS MVP Setup and Configuration Guide*.

Review Recording in Live tab

If you would like to review any recording during the study, you can "scrub" through the video by holding down the left mouse button and moving it up and down or right and left.

You can resume recording once you completed the review.

How to Review



Note: For reviewing a recording in larger review window, go to **Review** Recording in Series tab on page 40.

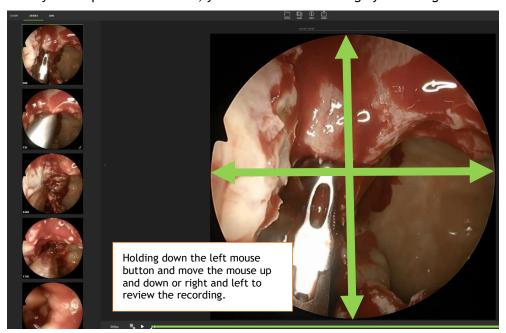
TIMS MVP Operator's Guide 39

Review Recording in Series tab

Reviewing a recording in the Series tab gives you a larger view window.

If you would like to review any recorded series video in the larger Series tab window, you can "scrub" through the video by holding down the left mouse button and moving it up and down or right and left.

Once you completed the review, you can resume recording by returning to the Live tab.



Record as an MP4 File

When recording longer videos, such as 10 to 30 minutes, such as an endoscopic procedure, TMS MVP can be configured to save the studies in the MP4 format.

MP4 is a popular video file format that results in significantly smaller files versus the JPEG format used for MBSS fluoroscopy procedures. However, not all PACS systems accept MP4 files so other archival options may need to be used.

Creating SubClips

When recording an MP4 file, you can create subclips in addition to image snapshots. The Subclips function allows you to trim the longer MP4 video clips into a series of shorter segments. This function is used only with the MP4 video format.

To create a Subclip:

- 1. Make sure you are in the Series tab.
- 2. If it is not already unlocked, then click the unlock icon located in the upper-right hand corner of the Study tab to **Enable Editing**.

40 TIMS MVP Operator's Guide

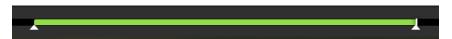
- 3. Click the unlock icon located in the upper-left hand corner of the Study tab to Enable Recording.
- 4. Open the **Advanced Controls** by clicking the double arrow icon in the right-hand corner.
- 5. Click to mark on the video slide bar where you want your Subclip to start. A start mark displays on the slide bar.



6. From the TIMS MVP top menu, select **Series** > **Edit** > **Mark Start**. (The keyboard shortcut is to type [) The slide bar displays the starting point for the video.



- 7. Click to mark on the video slide bar where you want your video to end. A stop mark displays on the slide bar.
- 8. From the TIMS MVP top menu, select **Series** > **Edit** > **Mark End**. (The keyboard shortcut is to type **]**) The slide bar displays the Subclip start and end points you marked for the video.



9. Click the Subclip icon in Advanced Controls to create the Subclip. The Subclip is added to the Series column of videos/images on the left-hand side. The Subclip appears with a video icon in the lower left-hand corner.



Subclips are identified by the video camera icon in the lower righthand corner.

Editing a Study

Editing a study means opening an existing study and making changes to it that result in the updated version of the study.

Study Tab Controls

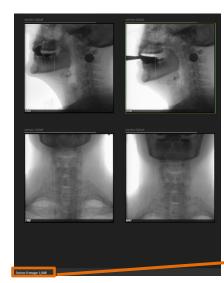
When viewing studies in the Study tab, the following controls are available for each study.



Option	Descritption
√	Mark view to send.
	Deletes a view. You receive a confirmation message before you can complete the deletion of a view.
3	Inverts all monochrome videos/images in the Study tab. This inversion is for your viewing only. The inversion is not saved with the study.
•	Adjusts the contrast for the Study views. This adjustment is for your viewing only. Any contrast adjustment you make is not saved with the study.
- <u>;</u>	Adjusts the brightness for the Study views. This adjustment is for your viewing only. Any brightness adjustment you make is not saved with the study.
\oplus	Allows you to enlarge all the study images. This is for your viewing only. The larger sized images are not saved with the study.
Q	Allows you to shrink the size of all the study images. This is for your viewing only. The smaller-sized images are not saved with the study.

Viewing the Series and Image Number

When selecting a study view, the number of the series view and the total number of images (also known as frames) in the view are displayed in the lower left-hand corner.



The **Series** number is where the view is located sequentially within all the series views.

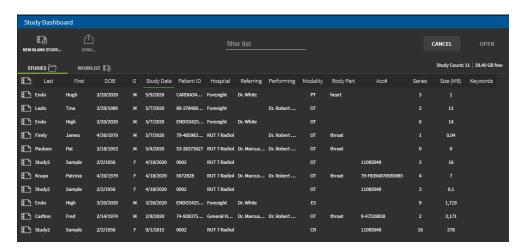
The **Image** number is the image number that the view starts with as part of the series. In this example, it means that there are 1,048 images in the series 9 video.

Series: 9 Image: 1,048

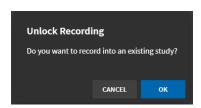
Edit an Existing Study

To edit a current study:

9. Click File > Open and the Study Dashboard displays.



- 10. Double-click on the study you want to edit. The Study tab displays.
- 11. Go to the **Enable Editing** lock in the upper right-hand corner and click to unlock.
- 12. Click the Info icon to open the Study Info page to edit.
- 13. Make any updates or changes you want to make to the **Study Info** and click **OK** when done.
- 14. If you want to record a video for an existing study, click the **Enable Recording** lock to the right of the Live tab.
- 15. Clock **OK** when you receive the **Unlock Recording** confirmation message.



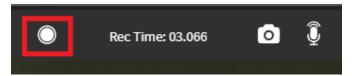
16. Make a new video recording or take image snapshots to add to the existing study. See the instructions that follow for recording a video or taking a single frame snapshot for an existing study.

Record Videos for an Existing Study

You can always add additional videos and images to an existing study.

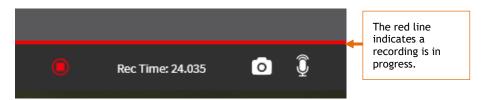
To record a video in the Live tab, you must:

 Click the record button at the bottom of the study Live tab to start and stop recording, or



 Press the Spacebar or mechanical trigger, if equipped, once to start a recording and press once to stop the recording.

When the video capture begins, the video is highlighted by a red line at the bottom of the Live tab. When the video recording is stopped, the video appears on the left-hand side of the Live tab.



After the recording is completed, the video stream is identified by the number of images or frames contained in the video.



The video stream is identified by image or frame count in the lower left-hand corner.

You also have additional options for the video recording:

Option	Description
	Click to mute or unmute the audio stream.
" K	Turn off or on an audio tone. The audio tone is turned off by default
	When turned on, an audio tone indicates when you start a video recording and end the video recording. It is not recorded onto the video recording
Rec Time: 10.600	Monitor the Recording Time.

Using a Trigger

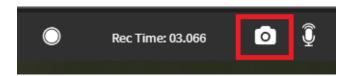
Your system may be equipped to use a mechanical trigger (in addition to your mouse, keyboard, or touch-sensitive monitor). A trigger is a foot pedal or pushbutton device for starting and stopping video capture. Configuring the trigger behavior is part of channel configuration - an administrative function that is described in the TIMS MVP Setup and Configuration Guide.

Take a Single Frame Snapshot for an Existing Study

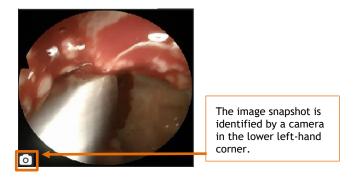
The single frame snapshot icon displays in the Live tab for TIMS MVP. The Live tab is active when your TIMS MVP system is receiving videos.

Capture Images

To capture the single frame snapshot, click the **Single Frame Snapshot** icon located on the bottom of the Live tab.



The snapshot appears on the left-hand side of the Live tab with a camera icon in the lower left-hand corner of the image snapshot.



Search for Patient Using the Worklist Tab

Using a Worklist, you can search for patient data or view the worklist and select the desired patient record.

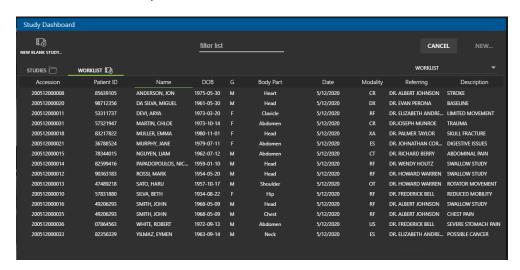
To access the worklist:

- 1. Open the Study Dashboard by going to File > Open or click CTRL + O.
- 2. If it does not automatically open to the Worklist tab, click Worklist.
- 3. If you have access to multiple worklists, to select a worklist, click the drop-down arrow on the left-hand side and select the worklist you want to search.

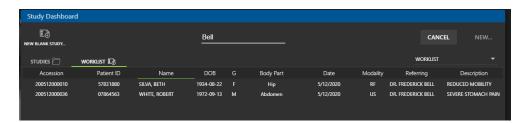
NOTE: If only one worklist is available to you, there will be no drop-down arrow on the left-hand side of the Worklist tab.



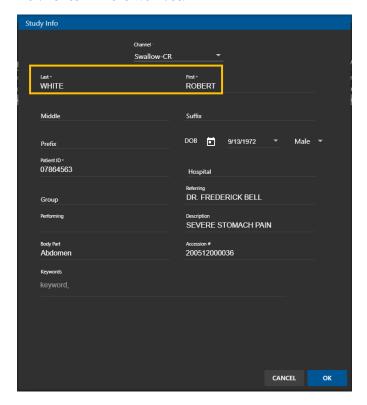
Result: The Worklist opens.



4. In the **filter list** field, type in identifying information for the patient you are searching for. Select the patient from the list that displays. In this example, we are looking for a patient of Dr. Bell.



5. To open a worklist item, double-click on the patient and the **Study Info** window opens for the selected patient. In this example, we will select patient Robert White by double-clicking on his line item in the worklist.

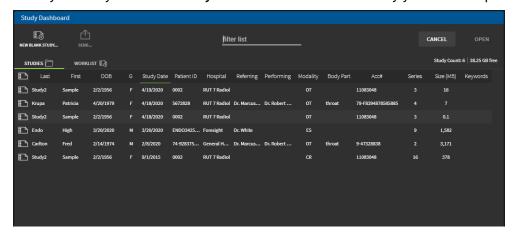


Make any necessary additions are changes to the patient information and click \mathbf{OK} when done.

Search for a Study Using the Studies Tab

To perform a search, use the filter list option at the top of the window:

1. Filter your study list in the Study Dashboard to locate the study you want to open.



2. Type in the filter you want to use, for example, if you are looking for patients of Dr. Marcus Downey, you can type Marcus Downey. The list is filtered to the three patients of Dr. Downey

Filters do not have to be exact information. The search can be for general information such as swallow or certain body part names. The search can be any word(s) that might be contained in the **Study Dashboard** lists.



3. Double-click on the study you want to open. View or make any changes needed to the study. Click **OK** when done.

Copy Study Info

If you want to copy study information to the clipboard to use in another document:

- 1. Select and open the study you want to copy in the **Study Dashboard**.
- 2. Once in the study, go to **Edit** > **Copy Study Info**.
- 3. Copy the study information to another document, such as an MS Word document. Type Control + V to copy the information into MS Word.

DA SILVA, MIGUEL
DOB: 5/30/1961

5/12/2020

BASELINE
Head

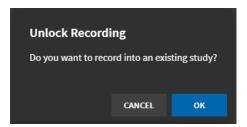
Series: 1 - 76 Images - 5mL Thin - trial 1 (via teaspoon)
Series: 2 - 95 Images - Cup Sip Thin
Series: 3 - 25 Images - Cup Sip Thin
Series: 4 - 86 Images - Sequential Thin
Series: 5 - 47 Images - 5mL Nectar (via teaspoon)
Series: 6 - 179 Images - Cup Sip Nectar
Series: 7 - 115 Images - Sequential Nectar

Example of a copied study placed into an MS Word document.

Add a Recording to an Existing Study

To add additional video to an existing study's series, do the following:

- 1. Click the unlock icon located in the upper-right hand corner of the Study tab to Enable Editing.
- 2. Click the unlock icon located in the upper-left hand corner of the Study tab to Enable Recording.
- 3. Click **OK** to confirm you want to record a video into an existing study.



4. Go to the Live tab and press the record icon.

Move the slide bar to the point in the video where you want to start the recording.

Result: The new video appears in the left-hand Series tab column with the frame number of the starting image within the video.

Add a Single Frame Snapshot to the Study

To add a single frame image snapshot to a study's series, do the following:

- 1. Click the unlock icon located in the upper-right hand corner of the Study tab to Enable Editing.
- 2. Click the unlock icon located in the upper-left hand corner of the Study tab to Enable Recording.
- 3. Open the **Advanced Controls** by clicking the double arrow icon in the left right-hand corner.
- 4. In the Advanced Controls, capture the image snapshot by clicking the Record Single Frame Snapshot oi icon.

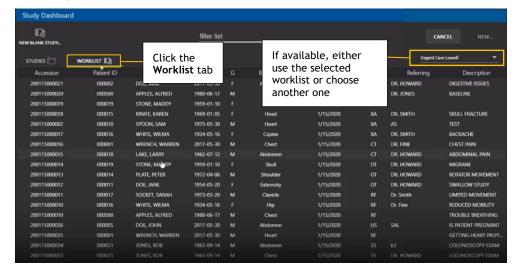
Result: The frame snapshot image appears in the left-hand Series tab with a camera icon.

View the Worklist

To view the worklist, click the Worklist tab on the Study Dashboard.



Result: The Worklist displays. If you have access to multiple worklists, you can select the worklist you would like to view.



Usage Notes:

 Fields with data that cannot be edited are preconfigured in the DICOM Class List. To change the number of fields displayed for a study, the default display settings can be changed by an administrator by clicking the Study Columns button on the TIMS MVP Config page.



Reviewing or Modifying Patient Study Information

You can reopen the **Study Info** window and make modifications to it as required:

- Go to File > Open to open the Study Dashboard or click CTRL+O.
- Double-click on the study you want to open.

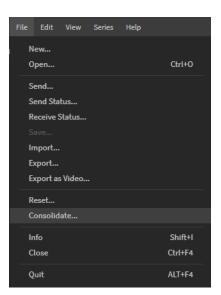
You can review or modify the study information. Click **OK** when done.

Consolidate Study

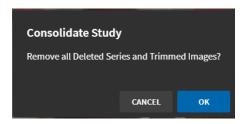
The **Consolidate** command allows you to consolidate the study, removing all trimmed media and deleted series.

To perform a consolidation of all trimmed media and deleted series:

- 1. If it is not already unlocked, then click the unlock icon located in the upper-right hand corner of the Study tab to **Enable Editing**.
- 2. Go to File > Consolidate.



3. When the confirmation message appears to confirm you want to consolidate, click OK.

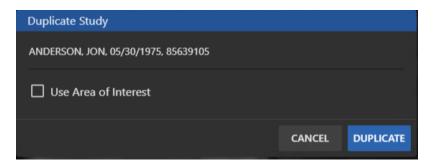


Result: All deleted series and trimmed images are removed from the study.

Duplicate Study

To duplicate an existing study:

- 1. Within an open study, go to File and select Duplicate.
- 2. If you do not want to select an area of interest (AOI) for the duplicate study, skip this step. If you want to select an AOI, click the **Use Area of Interest** checkbox.



17. 3. Select the AOI you want to save for the duplicate study.



4. Click Duplicate.

Create a Series

The **Series tab** is available when you initiate a new series to capture streaming or individual images. A new series adds the next new video stream or image to a new series (in a column to the left of the Series tab).

What is a Series?

A series provides a way to group image sequences together so that they can be easily identified. Starting a new series typically indicates a new run of images - for example, from a different perspective when a patient is moved or the study area is changed. Your criteria for using series will depend on your modality, specialty, and PACS configuration. Series are numbered sequentially, and you can add an identifying label to the series.

Start a New Series

To start a new series by adding video and/or images to the series from the Live tab, do the following:

In the Live tab, click

- Record Video icon to capture a video and click the icon again to stop recording.
- Record Single Frame Snapshot icon to capture a single image from the recording.



The new Series video and image captures appear in the left-hand window

In the lower left-hand corner of each video/image you capture, it is identified by either the number of images (also known as frames) in a video or for a snapshot image by a camera icon.





Video displays the total number of images in the video

Snapshot image displays a camera

Series Play Controls

You can use certain keys on our keyboard to use as Play controls for a series video. The Play controls are described in the table below:

Play Control Description	Keystrokes
Toggle Play/Record	Spacebar
Looping Play Mode	control + L
Toggle Play Direction	control + Spacebar
Skip Forward	shift + -
Skip Backward	shift + (
Move to Mark Start	[control] + [←
Move to Mark End	control + →

Navigation Controls

The navigation controls help you move through the series media in the Study and Series tabs. The navigation controls are described in the table below:

Navigation Description	Keystrokes
Move Right	$\boxed{\rightarrow}$
Move Left	<u></u>
Move Up	lacktriangle
Move Down	
Move to Start	home
Move to End	end
Select	enter

Assign a Label Set to a Recording

TIMS MVP allows to you to quickly apply labels to a recording by selecting a label set.

Several sets come with TIMS MVP, including "Defaults" and Modified Barium Swallow Impairment Profile "MBSImP".

There are two ways to assign a Label Set to a study:

- Using Protocol Mode which allows you to efficiently label the study as you are recording.
 This is the preferred mode for recordings.
- Using a drop-down menu which lets you assign a label.

Assign a Label Set to a New Study

To assign a label set to a series in a new study:

- 1. Prior to recording, you need to select a Label Set from the Label Set menu.
 - If you have one Label Set available to you, skip to step 3 since the Label Set is pre-selected.
 - If you have more than one Label Set available to you, click the down arrow to open the drop-down menu of Label Sets.



2. Select the Label Set from the menu.



3. **Enable Protocol** mode by clicking the protocol icon next to the series label field.



- 4. When **Protocol** mode is enabled, you can advance forward and backward through your label set using either:
 - On-screen arrows



Left and right arrows on your keyboard



5. Before recording each protocol, make sure you advance to the next label.

Result: The series labels are automatically displayed as you record each series. This example shows you the protocol label assigned for a barium swallow:



Disable Protocol Mode

You can disable protocol at any time by clicking the **Disable Protocol** icon.

Edit a Label Set

If you need to modify a label, or enter a label not on your list:

- 1. In an open study, go the Series tab.
- 2. Select the Label Set from the drop-down menu. If there is only a one Label Set, click on the label.
- 3. Click the Edit icon to open the label for editing. The Label Editor opens.
- 4. Make the changes you want to the label, including:
 - Change the Label List Name
 - Select a label and click the minus 🖯 icon to delete
 - Add a label by clicking the plus 🖭 icon and type in the series label
 - Click on a series label name to change it
- 5. Click OK when done.

Using Series Advanced Controls

The Series tab has Advanced Controls for performing the following:

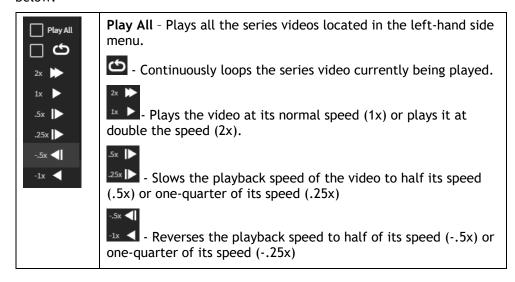
- Set optional video play speeds
- Set the time display
- Turn on/off timing mode
- Delete a series video or image
- Advanced Controls, such as:
 - Zoom In/Zoom out of series video or image
 - Invert a monochrome image
 - Adjust brightness
 - Adjust contrast
 - o Record single frame snapshot
 - Record subclip
 - Toggle Annotation mode

You can access these options either below the Series tab or by clicking the double right arrows button in the lower right-hand side of the Series tab for Advanced Controls.

Set Video Play Speeds

To change the video playback speed from its default 1x playback, use the menu located on the bottom of the Series tab.

Click the white arrow to open the video play speeds menu. The menu options are described below:



Set the Time Display

You can set how you want to display the time for the video in the Series tab.

By default, the time display counts the video by the image number or frame within the video.

Click the time display to display the time display options.



The table below explains each time display option.

Option	Description	
Image Number	Displays the image number or frame within the video. This is the default option.	
Image Time	Displays the cumulative time for each image within the video.	
Recorded Time	Displays the cumulative total time for the video.	
Elapsed Time	Displays the cumulative elapsed time for the video.	

Turn on Timing Mode

When you turn on timing mode, you display the delta time to the previous image.

To turn on the timing mode:

Click the timing mode icon to turn it on. When turn on timing mode, the timing mode icon changes to and the delta time displays.

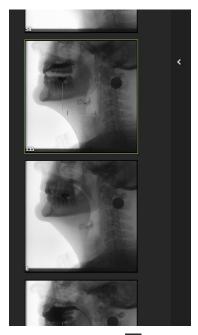


The timing mode icon is ON and the delta time is displayed.

Delete a Series Video or Image

To delete a video or image from a series:

1. Select the video or image from the left-hand side in the Series tab.



2. Click the trash can icon in the bottom right-hand corner to delete the selected series.

Advanced Controls

The Series tab Advanced Controls are displayed by clicking the double arrow icon in the bottom right-hand corner. The Advanced Controls display the zoom functions, invert monochrome images, adjust brightness and contrast, record video or single frame snapshots or lets you use annotations on videos/images.

Zoom In/Zoom Out

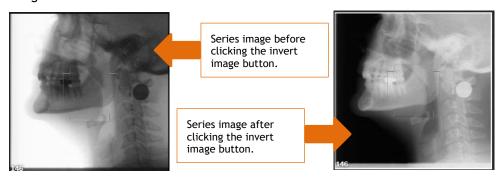
Use the zoom function to enlarge or shrink a series video.

- 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 cicon to invert all images as shown below.

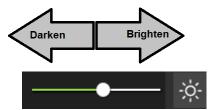


To return the image back to its original state, click the invert image (2) icon again.

<u>Adjust Brightness</u>

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 is only changed for your viewing, it is not saved to the video or image you are viewing.

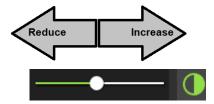


- Move the slide bar to the left to brighten the video or image.
- Move the slide bar to the right to darken the video or image.

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 displayed 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 oicon to take the image snapshot.

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

Record a Subclip

To add a Subclip, see the instructions in Creating SubClips.

Using Annotations

Use annotations to highlight items in the videos/images so you can share with other medical personnel either live or by sending them the images. 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 removed when you close the annotations option without creating an image snapshot or erase the annotations.

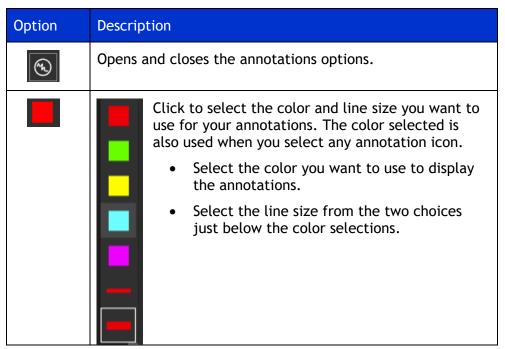
To use annotations with your video or image:

- 1. Click the in the lower right-hand corner of the TIMS MVP screen.
 - a. 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.



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

Using Series Advanced Controls Option Description 0 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: *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:



Option Description When you click the magic brush 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: ❖ The **eraser** removes annotation that you click on with your mouse within the video or image. Move the eraser over the annotation and hold down 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.



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.

Option	Description	
	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.

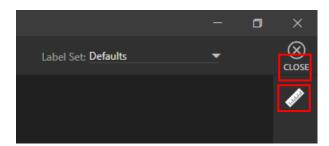
The measurement is based on one of the following:

- Unit of measure your organization uses
- Percentages

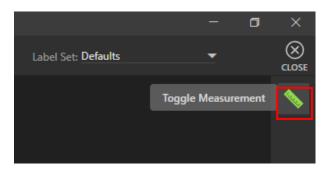
How To Measure with Annotations

To enable Measurements:

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



Result: The measurement icon turns green when enabled.

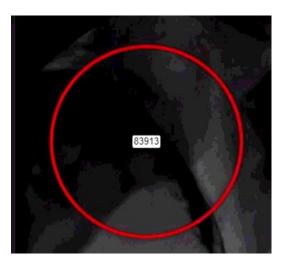


2. Select the annotation you want to use for measurement. In this example, the selection Is the circle:

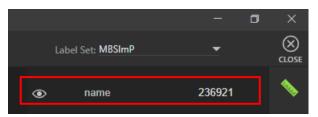


3. Hold down the mouse to draw the annotation on the image/video.

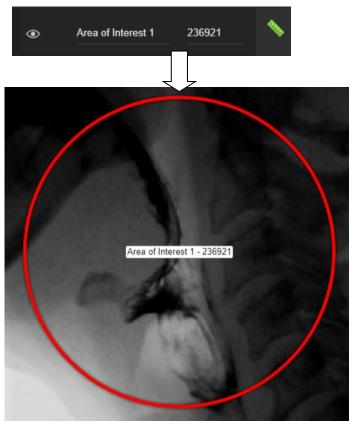
Result: In this example, the circle displays with a measurement inside of it.



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



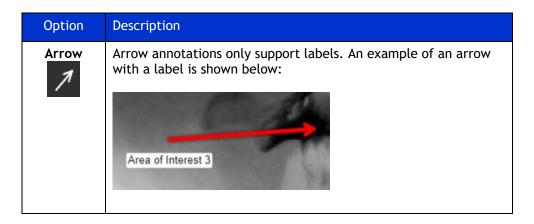
5. Enter a name for the label. The label displays with the circle in the image/video.

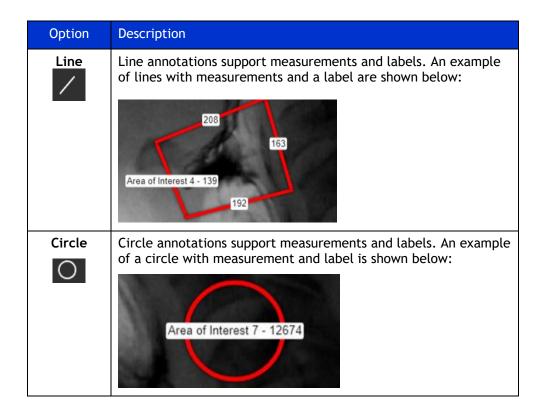


- If you do not want to display the annotation and measurement, click the icon to hide.
- To redisplay the annotation and measurement, click the eye the icon to show.

Annotations and Measurements/Labels

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





Copy Measurements

To copy measurements to the clipboard to paste into a document:

- 1. Click the Copy Measurements to copy the measurements to the clipboard.
- 2. Copy the text to a file. In the example below, the measurements are copied to a text editor:

AOI	1	92942
AOI	2	408
AOI AOI	3	19035

Copy Measurements as Table

To copy measurements as a table in the clipboard to paste into a document:

- 1. Go to the Edit menu and select Copy Measurements as Table to the clipboard.
- 2. Copy the text to a file. The text appears in a table in the file, as shown below:

Component	Size
AOI 1	92942
AOI 2	408
AOI 3	19035

Delete All Measurements

To delete all measurements from a study:

• Click the **Trash Can** icon in the **Advanced Controls**. All measurements are deleted from the study window.

Undo the Last Measurement Created

To delete the last minute created from a study:

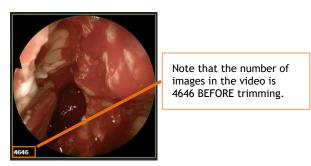
• Click the Undo icon to delete the last measurement created. After you click the button, the last measurement and associated annotation created are removed from the study window.

Trim a Series Recording

You can edit a series recording to narrow down the images or frames you want in it.

To edit a recording:

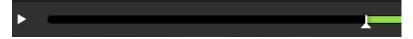
- 1. Click the **Enable Editing** lock icon to enable editing.
- 2. Click the **Enable Recording** lock icon to enable recording.
- 3. Select the series video you want to trim. The selected video will be highlighted in a green box.



4. In the Series tab, click to mark on the video slide bar where you want your trim to start. A start mark displays on the slide bar.



5. From the TIMS MVP top menu, select **Series** > **Edit** > **Mark Start**. (The keyboard shortcut is to type [) The slide bar displays the starting point for the video.



6. In the Series tab, click to mark on the video slide bar where you want your video to end. A stop mark displays on the slide bar.

7. From the TIMS MVP top menu, select **Series** > **Edit** > **Mark End**. (The keyboard shortcut is to type **]**) The slide bar displays the trimmed start and end points you marked for the video.



8. Click the selected video in the Series tab's left-hand corner, and the video is trimmed to the new length you specified.



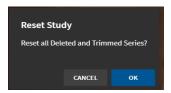
Note that the number of images in the video is 2835 AFTER editing.

Restore Trimmed Video to Original Size

If you need to restore a video you have trimmed in a series to its original size, you need to use the TIMS MVP Reset function.

To restore a video:

- 1. Open a study to the Series tab where you want to restore the trimmed video to its original size.
- 2. Select File > Reset.
- 3. Click **OK** to reset all trimmed series videos. This action restores all series videos that were trimmed in your study back to their original sizes.



For example, if the trimmed video was trimmed to a size of 2835 images or frames. It would automatically reset to its original size before you trimmed the video, which was 4646.

Add a Subclip From a Series Video

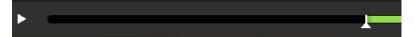
You can create Subclips which allows you to trim long MP4 video clips into a series of shorter segments. This is only used with the MP4 file format.

To create Subclips:

- 1. If it is not already unlocked, then click the unlock icon located in the upper-right hand corner of the Study tab to **Enable Editing**.
- 2. Click the unlock icon located in the upper-left hand corner of the Study tab to Enable Recording.
- 3. Open the **Advanced Controls** by clicking the double arrow icon in the left right-hand corner.
- 4. Click to mark on the video slide bar where you want your Subclip to start. A start mark displays on the slide bar.



5. From the TIMS MVP top menu, select **Series** > **Edit** > **Mark Start**. (The keyboard shortcut is to type [) The slide bar displays the starting point for the video.



- 6. Click to mark on the video slide bar where you want your video to end. A stop mark displays on the slide bar.
- 7. From the TIMS MVP top menu, select **Series** > **Edit** > **Mark End**. (The keyboard shortcut is to type]) The slide bar displays the Subclip start and end points you marked for the video.



8. Click the video icon in Advanced Controls to create the Subclip. The Subclip is added to the Series column of videos/images on the left-hand side. The Subclip appears with a video icon in the lower left-hand corner.



Subclips are identified by the video camera icon in the lower righthand corner.

80 TIMS MVP Operator's Guide

Flag a Series Video or Image to Send

To flag a video or image to send to a DICOM Storage SCP (Service Class Provider):

- 1. If it is not unlocked for editing, unlock the series for editing.
- 2. Select the series video or image you want to flag.
- 3. Right-click in the selected video or image and select Flag from the drop-down menu.



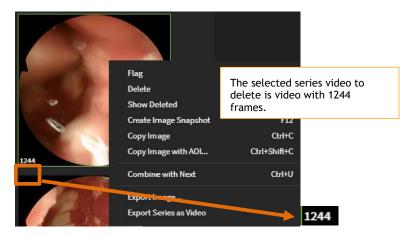
Result: A checkmark displays in the right-hand corner of the selected video or image.



Delete a Selected Series Video or Image

To delete a series video or image from the Series tab:

- 1. If it is not unlocked for editing, unlock ... the series for editing.
- 2. Select the series video or image you want to delete.
- 3. Right-click in the selected video or image and select **Delete** from the drop-down menu.



Result: The selected video is removed from the series. You will see the video labeled with the starting frame of 1244 is no longer in the series of videos.



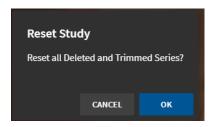
The video with 1244 frames is no longer displayed in the series video and images.

Restore Deleted Series Videos/Images

If you need to restore a video you have deleted, you need to use the TIMS MVP Reset function.

To restore a deleted video:

- 1. Open a study to the Series tab where you want to restore the deleted video.
- 2. Select File > Reset.
- 3. Click **OK** to reset all deleted series videos. This action restores all series videos that were deleted in your study.



The videos you deleted will appear in the Series videos menu on the left-hand side of the Series tab.

Create a Thumbnail Image for a Series Video

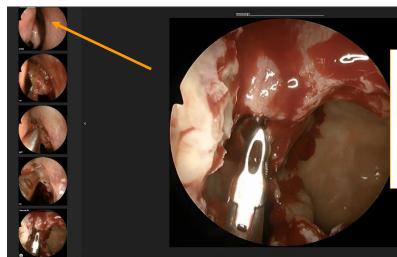
You can take a snapshot of a video that is in the Series left-hand menu of videos. When you take an image snapshot from a video in this menu of videos, the snapshot is only of the first image in the selected video. This is typically called a thumbnail.

To create an image snapshot from a series video:

- 1. If Series is not unlocked for editing, unlock 🚨 the series for editing.
- 2. Select the series video for which you want to capture the image thumbnail from the left-hand side video/image menu.
- Right-click inside of the selected video and select Create Image Snapshot from the dropdown menu.



4. **Result:** The image snapshot you created appears in the Series tab. The video's first frame will be the captured image. The image is placed at the bottom on the left-hand side menu of videos/images. It will also have a camera icon in the lower left-hand corner.



The image snapshot you created appears in the main window of the Series tab.

The image is the last one in the videos/image menu on the left-hand side. It also has a camera icon.



Create an Image Snapshot from a Series Video

This procedure describes how to capture an image within a series video. You need to select the specific video image you want to capture.

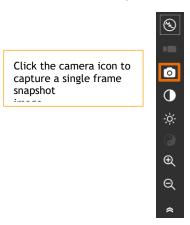
To create a single frame image snapshot from a series video:

- 1. If it is not unlocked for editing, unlock ... the series for editing.
- 2. Click the unlock icon located in the upper-left hand corner of the Study tab to **Enable Recording**.
- 3. Select the series video that you want to play in the Series tab.
- 4. Play the video to the point where you want to capture a single frame snapshot, or, move the slide bar to the location in the video.



5. Use the camera button in Advanced controls to take the snapshot. If the Advanced Controls are not open, click the double arrow icon to open.

6. Click the camera o icon to take the snapshot.



Result: The image snapshot is added to the left-hand side menu of series videos and images. It is of the image or frame within the video that you have selected with the slide bar.

Combine Series Video with Next Video

To combine a selected series video with the next video in the series:

- 1. If it is not unlocked for editing, unlock ... the series for editing.
- 2. Select the series video that you want to combine with the next video in the series.
- 3. Right-click on the video above the video you want to combine with it. Select **Combine with** Next from the drop-down menu.



You are combining the series videos which have 1521 and 3125 images/frames.

4. **Result:** The video is combined, showing that it has a total of 4646 frames for the combined videos.

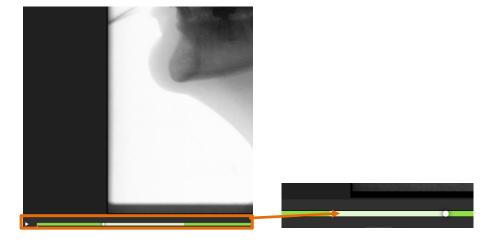


The combined series videos have a combined number of images/frames of 4646.

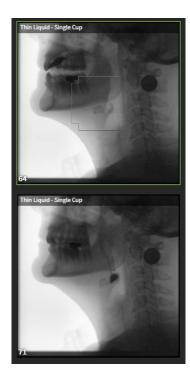
Split a Series Video into Multiple Videos

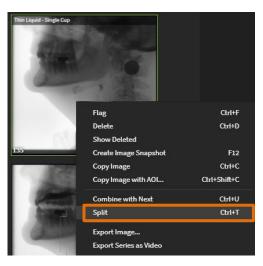
To split a selected series video into two videos:

- 1. If it is not unlocked for editing, unlock ... the series for editing.
- 2. Select the series video that you want to split.
- 3. Move the white circle for the video to the point where you want to split the series video. In the example, the video circle has been moved and a white area on the video slide bar displays where you want to split video. This section has 135 images.



4. Right-click the series video and select **Split** from the menu.





Result: The video is split into two series views. Before the split, the original series view had 135 images. Now it is split into two views, one with 64 images and the one below with 71 images. The two series views will also have the same label.

The two views have the same label and the two views add up to the total number of images from the original view which you split, which was 135.

Recombine a Split View

If you need to recombine the two views for any reason, select the top view of the two split views, right-click and select **Combine with Next** from the menu. The two views are combined as one again with 135 images.

Copy an Image

If you want to copy a series image to use in another document, do the following:

- 18. Select the series image you want to copy in the left-hand column.
- 19. Right-click on the image and select **Copy Image** from the menu. The image is copied to the clipboard

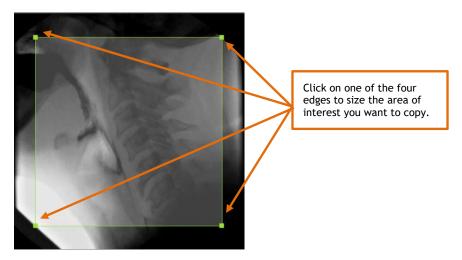


Result: You can paste the image in another document by typing CTRL+V.

Copy an Image with Area of Interest (AOI)

If you want to copy a specific area of interest for an image to use in another document:

- 1. Select the image you want to copy.
- 2. Right-click on the image and select Copy Image with AOI... from the menu.
- 3. Select the image area of interest by moving the borders for the image by clicking on a corner of the AOI box.



4. Click OK to copy.

Result: You can paste the image in a document by typing CTRL+V.

Set a Timing Point on Series Media

If you want the series video to be viewed from another starting point, you can set a new starting point using the Series edit commands. The timing point allows you to play the video from a point you specify in the video rather than play the entire video.

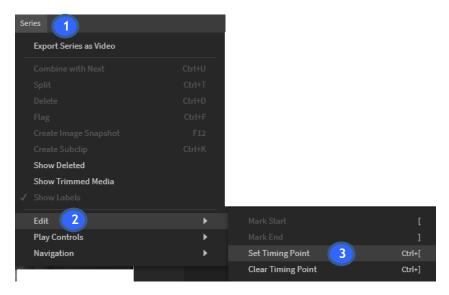
This setting is temporary and is only maintained for your current TIMS MVP session. Once you close the study, the timing point is removed.

To set a timing point:

1. Click on the point in the video where you want the new starting point.



2. Go to Series > Edit and select Set Timing Point.



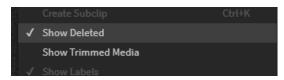
- 3. Play the video from its new starting point.
- 4. To clear the new starting point, go to Series > Edit and select Clear Timing Point.

Show Deleted Series Media

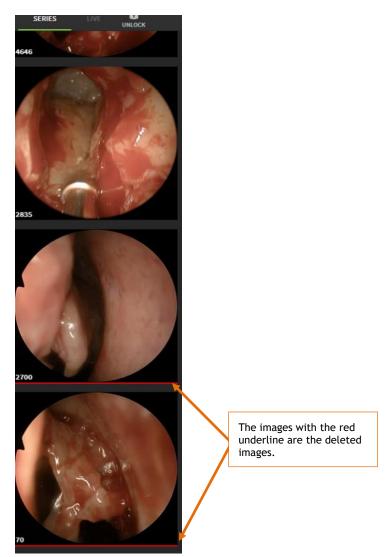
To display all deleted videos/images in the series left-hand column:

- 1. Make sure you have clicked the **Enable Editing** lock in the upper right-hand corner.
- 2. Place your cursor in the Series image column on the left-hand side.

3. Right-click your mouse and select **Show Deleted**. The menu selection will have a checkmark next to it once you select it.



In this example, it displays the two deleted images (one image with 70 frames and the other image with 2700 frames). The deleted images are indicated by a red underline underneath the image.



4. Right-click your mouse again and select **Show Deleted** to remove the deleted files from the Series images display. The check mark is removed from the menu option.



Show Trimmed Media

To display in the Series tab all media that was trimmed within the study, you need to go to the Series tab.

To show trimmed media:

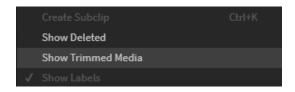
• Go to Series > Show Trimmed Media.

Result: A checkmark appears next to Show Trimmed Media in the menu. The trimmed media displays in the Series left-hand column.



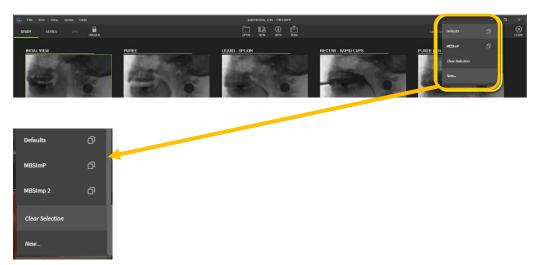
• To remove the trimmed media from displaying, go to Series > Show Trimmed Media.

Result: The check mark is removed from the menu option. The trimmed media no longer displays in the Series tab.



Create a Label Set

TIMS MVP provides two built-in Label Sets: "Defaults" and Modified Barium Swallow Impairment Profile or "MBSImP". These two built-in Label sets cannot be edited or deleted. The Label Sets options are located in the top right-hand corner of TIMS MVP.



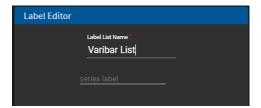
You can create your own custom label sets. Label sets can be created:

- when you have a study open.
- when you open TIMS MVP, click Cancel on the Study Dashboard, and access from the TIMS MVP main screen.

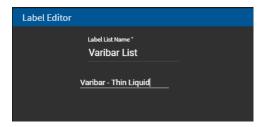
Create a Custom Label Set

To create your own customer label set:

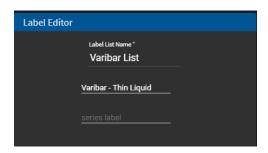
- 1. Click New... from the Label Set drop-down menu. The Label Editor opens.
- 2. Enter a Label List Name. In this example, the name Varibar List has been entered.



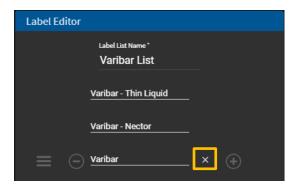
3. Press the **Tab** key to accept the name and move to the series label. Enter a series label, for example, **Varibar - Thin Liquid**.



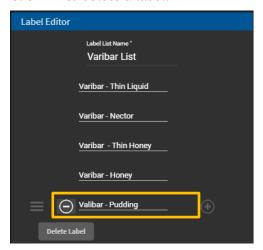
4. Continue to enter additional series labels that you need for your list. Simply tab after typing in a series label to create a new one.



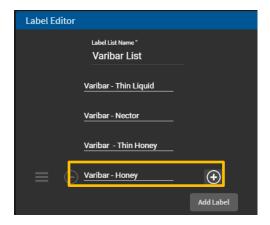
5. Continue to type in the series labels you need. If you make a mistake when typing in a label, you can clear the entry by clicking the X to the right of the label entry.



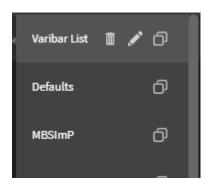
- 6. Additional actions you can take when entering series labels:
 - Click to delete a label.



• Click 1 to add another series label.



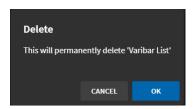
7. Click **OK** when you are done. The new Label List Name is now available in the drop-down menu.



Delete a Custom Label Set

To delete a label set from the drop-down menu:

- 1. Select the Label List you want to delete and then click the trash can icon to delete.
- 2. Confirm you want to delete the Label List by clicking **OK**.



Result: The Label List is permanently deleted from your Label Set.

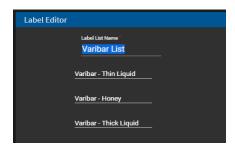
NOTE: You cannot delete any label set that was created by your administrator, so you will not see the trash can icon when you select it.

Change Custom Label Set Name

To change the name of a custom label set:

- 1. Click the custom Label Set for which you want to change its name.
- 2. Click the pen icon to type in a new name.

Result: The Label Editor opens for the custom label set.



3. Type in a new name for the label set and click OK. The label set will now appear in the drop-down menu under the new name.

Create a New Label Set from an Existing Label Set

To create a new label set from an existing label set:

- 1. Select the Label Set you want to duplicate from the Label Set menu.
- 2. Click the copy icon next to the selected label set name. The Label Editor opens with a blank Label List Name and the associated series labels.
- 3. Type in a new name for the label set.
- 4. Press Enter or click **OK** to add the new label set to the Label Set menu **or** click the Tab key to add, delete or change the series labels and then click **OK** when done.

Edit a Series Label Set

To edit a series label set:

- 1. Select the label set you want to edit from the Label Set menu.
- 2. Click the pen icon to edit the label set.
- 3. Make the changes you want to the label set, including:
 - Change the label set name
 - Add, change, or delete a series label within the label set
- 4. Click **OK** to save the changes to the label set.

96

Show Labels in the Study Tab

For a study that you have assigned labels to the series views, you can have the labels appear on the views whether you are in the Study or Series tab.

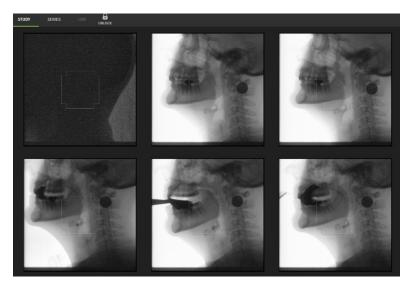
Show Labels Command

The **Show Labels** command is performed in the Study tab. Select **Series** > **Show Labels** to display the labels in the Study tab.

If the labels are turned off in the Study tab, the labels will still appear with each view in the Series tab.

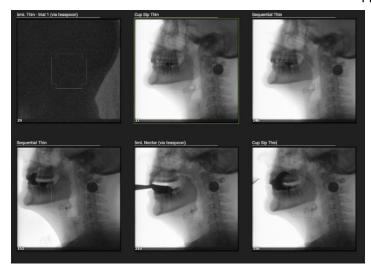
Example

In this example, when you open the study, the views do not show the labels.



To display the labels on the views whether you are in the Study or Series tab:

Go to Series > Show Labels. The result is the labels now appear above each view.



Assign Labels in the Study Tab

When you show labels in the Study tab, if certain views do not have labels, you can assign the label in the Study tab.

In this example, this view does not have a series label assigned.





To assign a label in the Study tab:

- 1. Click on "series label" at the top of the Study view.
- 2. Select the label from the drop-down menu.

Result: The label now appears in the view.

Sending Studies to Your PACS

Sending a study means transmitting it from your local TIMS MVP system to a specified PACS system. Your PACS configuration details should be entered by your system or network administrator in the TIMS MVP Config dialog.

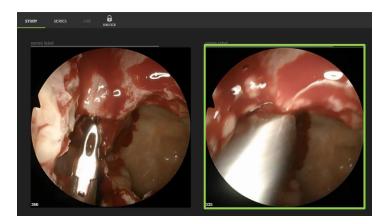
The following topics are covered in this section:

- Mark a view to send
- Send marked views
- Send a study with all views
- Monitor the send

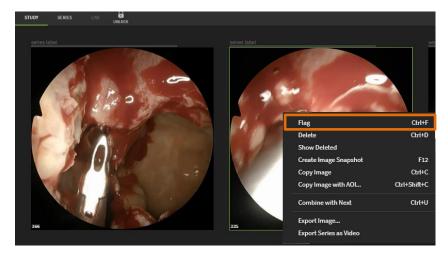
Mark a Saved Study View to Send

To mark a saved study view to send:

- 1. If you have not done so already, click the **Enable Editing** lock icon to open the study for editing.
- 2. Select the study view you want to send, by clicking on the view. The selected view will be highlighted in green.



3. Right-click on the view and select **Flag** from the menu.



Result: The study view is marked in a green check in the lower right-hand corner.

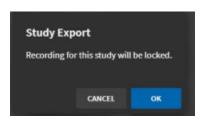


Send a Marked Study View

To send the marked study view:

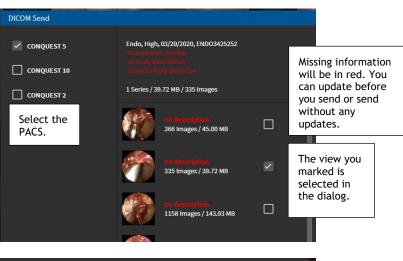
1. After marking the view(s) in the study, click the Send icon at the top of the page.

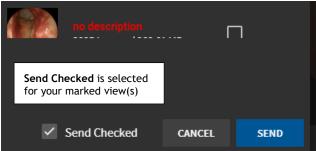
Result: The study is automatically saved. You receive a message that the study will be locked from any further editing or recording.



- 2. Click OK to continue. The DICOM Send dialog displays
- 3. Make sure the correct PACS is selected for the send.

You will notice that the view(s) you marked in the study will be checked to send. Also, at the bottom of the dialog you will see the box for **Send Checked** is selected.





4. After you review the Send information, click **Send**.

Result: You can monitor the Send progress on the **Study Dashboard** or by selecting **File** > **Send Status**.

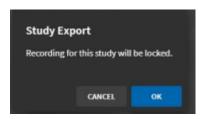
5. Close the study unless you want to review it further.

Mark All Views in a Study to Send

To mark all views in a saved study to send:

1. Click the Send icon at the top of the page.

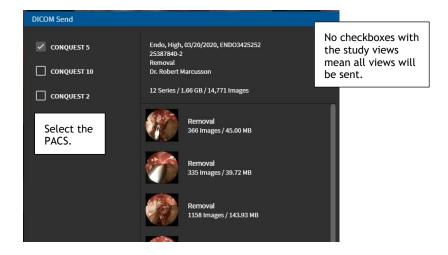
Result: You receive a message that the study will be locked from further editing or recording.



- 2. Click **OK** to continue. The DICOM Send dialog displays
- 3. Make sure the correct PACS is selected for the send.



- 4. To send all study views, you must do one of the following:
 - If you have not checked any study views to send already, then your study is ready to send to the selected PACS. When all views are being sent, there are no checkmarks displayed.



• If you have checked study views already but want to send all views in the study, then uncheck **Send Checked**.



5. After you review the Send information, click Send.

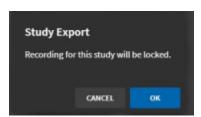
Result: You can monitor the Send progress on the **Study Dashboard** or by selecting **File** > **Send Status**.

Manually Send Marked Views

To mark views to send in the DICOM Send dialog:

1. Click the Send icon at the top of the page.

Result: The study is automatically saved. You receive a message that the study will be locked from any further editing or recording.



- 2. Click Yes to continue. The DICOM Send dialog displays
- 3. Make sure the correct PACS is selected for the send.



- 4. To manually select study views to send, do one of the following:
 - If study views are not already marked to send, then check **the Send Checked** box to select study views to send.



- 5. Select any view you want to include in the send. If views are already checked but you do not want to include in the send, then uncheck those views.
- 6. After you review the Send information, click Send.

Result: You can monitor the Send progress on the **Study Dashboard** or by selecting **File** > **Send Status**.

Monitoring the Study Send Status

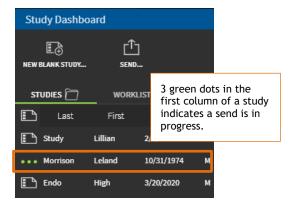
You can monitor the send status after you have sent the study or study views to the PACS.

Monitoring on Study Dashboard

To monitor the study send status in the **Study Dashboard**, click the Open icon at the top of TIMS MVP. Click the **Studies** tab to open the studies.

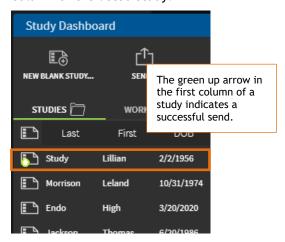
Study Send in Progress

In this example, the send is in progress. The three green dots indicate this in the first column of the listed study.



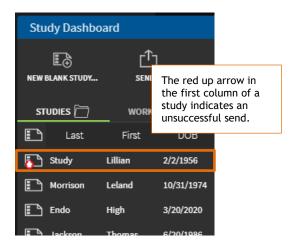
Study Send was Successful

In this example, the send was successful. This is indicated by the green up arrow in the first column of the listed study.



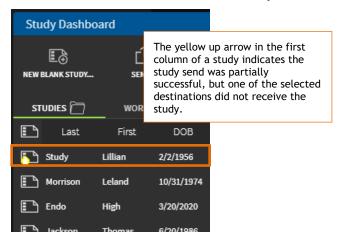
Study Send Unsuccessful

In this example, the send was not successful. This is indicated by the red up-arrow in the first column of the listed study.



Partial Study Send

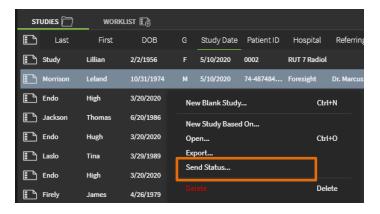
In this example, the send was partially successful. If you sent the study to more than one destination, this means not all destinations received the study. This is indicated by a yellow up arrow in the first column of the listed study.



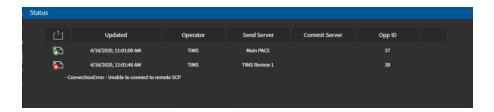
Detailed Send Status Information

To get more detailed information on send status:

- 1. Select the study for which you want send status details.
- 2. Right-click and select **Send Status** from the menu.



Result: The Status dialog appears with details on the send. In this example, the study send was partially successful indicated by a yellow up arrow. This Status details page lists a successful send to the Main PACS indicated by the green up arrow, and it lists an unsuccessful send to the TIMS Review 1 server indicated by the red up arrow.



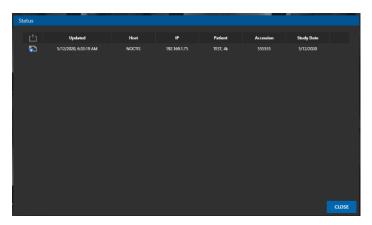
Monitoring the Receive Status

You can monitor the receive status of a send that you performed. The receive status provides details on whether the PACS or TIMS Review server received the study that was sent.

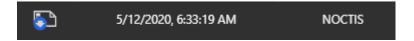
To check the receive status:

Go to File > Receive Status.

Result: The Status dialog appears with information on your recent sends.



All successful sends display with a blue arrow in the first column.



Export or Import Studies and Videos

In TIMS MVP, you can do the following:

- Import or export a DICOM study
- Export a video to an MP4 file
- Export an image to a JPG file

Import a Study

To import a study into TIMS MVP:

1. Go to File > Import.

Result: The Select Folder dialog opens.

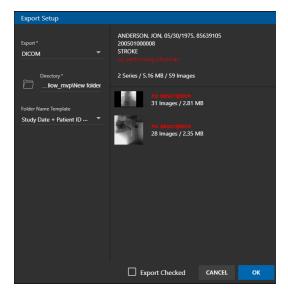
- 2. Select the folder that contains the DICOM study you want to import.
- 3. Click Import.

Result: The study along with all its images are imported into TIMS MVP. The imported study will be available to view through the **Study Dashboard**.

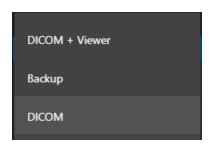
Export a Study

- To export the selected study to a DICOM format, backup as native TIMS MVP format, or DICOM and native formats with TIMS MVP Viewer:
- 2. Go to File > Export.

Result: The Export Setup dialog opens.



3. Select the type of **Export** from the drop-down menu by clicking the down arrow next to the Export field.

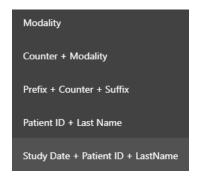


- DICOM + Viewer -exports to the DICOM and the TIMS Reviewer
- Backup exports to an area where backups are kept
- **DICOM** exports to a DICOM only
- 4. Select the **Directory** or folder to place the export. You can keep the folder already selected or click the folder icon to select a new location.

If you select a new folder, click the **Select Folder** button to add the folder.

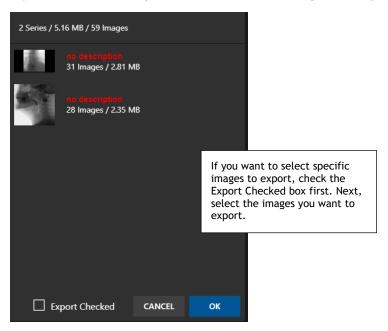
5. Select a template for the study folder name for the study you are exporting. The default selection is **Study Date + Patient ID + LastName**.

Select one of the folder names from the menu if you choose not to use the default name.



6. If you want to export only specific images from the study, click to select the **Export**Checked box. Next, select the image or images you want to include in the export.

If you do not select **Export Checked**, then all images are exported.



7. Click OK. The study is saved into the specified folder.

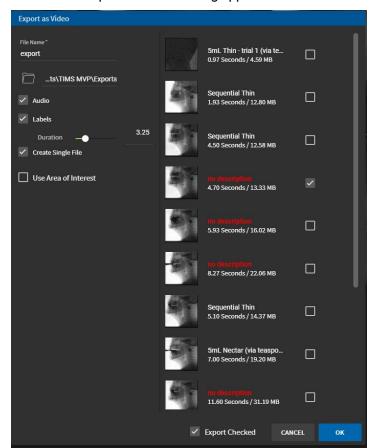
Export Series as Video

To export a study series as an MP4 file:

1. If you are in the Study or Series tab of TIMS MVP, right-click on a video and select **Export Series as Video**.

You can also select File > Export Video.



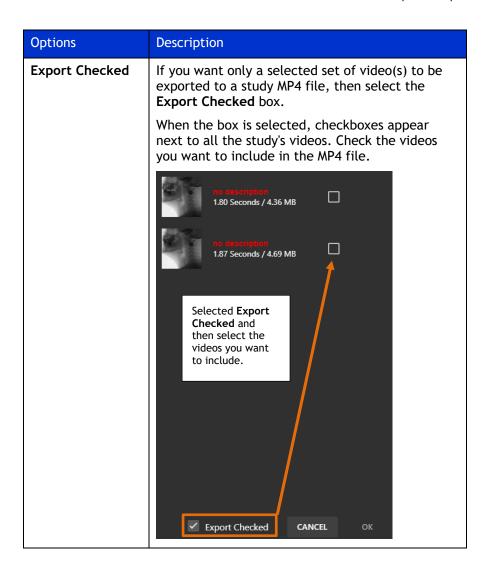


Result: The Export as Video dialog appears.

2. Complete the **Export as Video** dialog using the table below.

Options	Description	
File Name	Enter a file name which identifies the video(s) you are exporting.	
	Select the folder if you want to change the default selection for where the MP4 file will be placed as part of the export.	
	Make your select and click Select Folder . The MP4 file will be placed in the designated folder.	
Audio	Check to include the audio in the MP4 file.	
	 Uncheck to not include the audio in the MP4 file. 	
	The option is selected by default.	

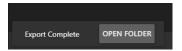
Options	Description		
Labels	Check to include the series labels in the MP4 file.		
	Uncheck to not include the series labels in the MP4 file.		
	The option is selected by default.		
Duration	Refers to the duration of the assigned label. If you uncheck Labels , the duration option is removed.		
Create single file	If the study has more than one video to export as an MP4 file:		
	Check to place all videos in a single MP4 file. This is the default option.		
	Uncheck to keep each video in its own MP4 file.		
Use Area of Interest	Check this option if you want to set an area of interest (AOI) for the exported video. AOI is a selected part of the video that you want to be saved as the video.		
	✓ Use Area of Interest	Move the green points to resize the AOI you want for the video. The AOI selected is the area that will be in your exported video.	



3. Click **OK** to create the MP4 file.

Result: The MP4 file is created. You receive a message that the export is completed.

You can then click **Open Folder** next to the completion message to open the folder where the MP4 file you just created is located.

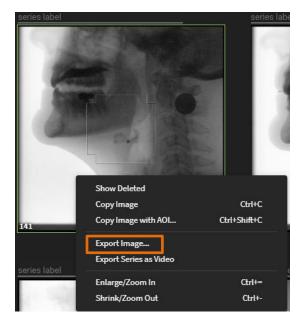


Export Image

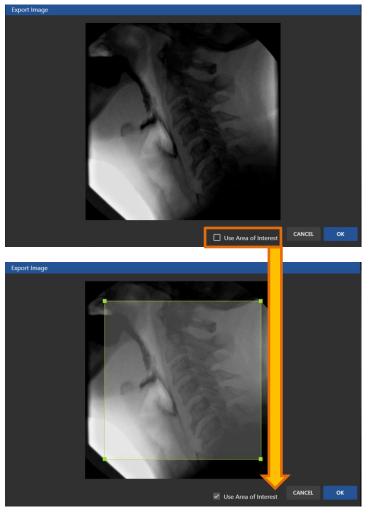
To export a study series as a JPG file:

1. If you are in the Study or Series tab of TIMS MVP, then right-click on a video and select **Export Image**.

You can also select File > Export Image.



- 2. Complete the **Export Image** dialog. The **Export Image** dialog appears.
 - If you are not specifying an Area of Interest (AOI) to save for the image, go to the next step.
 - If you want to specify an Area of Interest to save for the image, click the Use Area of Interest checkbox.



- 3. Click OK.
- 4. Type in a unique filename that identifies the image and click **Export**.

TIMS MVP Operator's Guide

Scorecards

Study scorecards provide a way to score a study by one or more of the following scoring methods:

- DIGEST (Dynamic Imaging Grade of Swallowing Toxicity)
- FOIS (Functional Oral Intake Scale)
- PAS (Pediatric Appendicitis Score)
- MBSImp (Modified Barium Swallow Impairment Profile)
- Any method created specifically for a medical facility

The scorecard is an automatically generated formatted score report which can be copied and pasted into any text editor.

Using Scorecard

To use a scorecard:

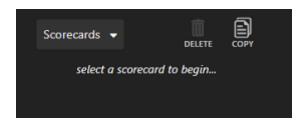
1. From within a study, go to the icon menu at the top of the study page.



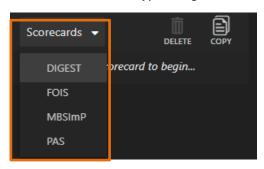
- 2. Click the SCORE icon to enable scorecards.
 - The SCORE icon turns green.



• The scorecard option opens to the left-hand side of the video/image.



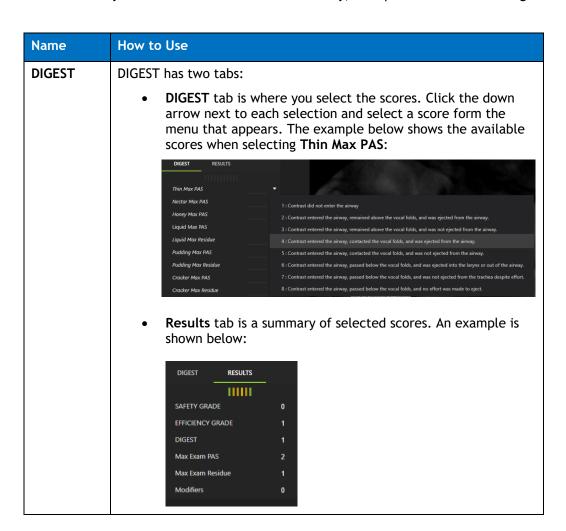
3. Select the scorecard type using the **Scorecards** drop-down menu.

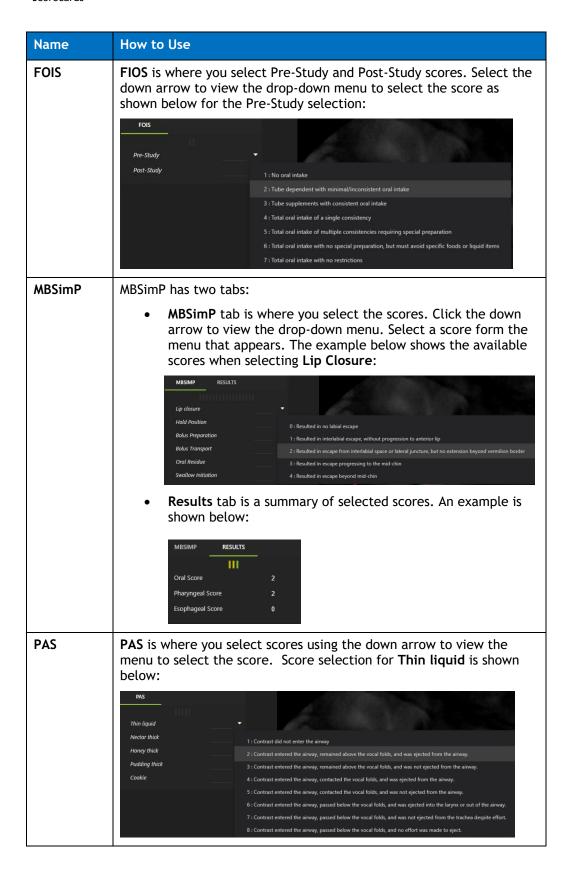


If you select the MBSimP scorecard, you receive the following confirmation dialog. Click OK to continue.



4. Make your scorecard selections for the study, as explained in the following table:





Copy a Score Card

Top copy a scorecard:

- 1. Click the **Copy** icon at the top of the Scorecards menu.
 - If you have multiple scorecards displayed for a study, make sure you select the tab for the scorecard you want to copy.
 - You can also go to the top-level Edit menu and select Copy Scorecard.
- 2. Open the document you want to place the scorecard and paste it into the document. The example displays the scorecard copied into a text editor:

```
MBSImP Component Scores
COMPONENT Score and Description
1. NA Lip closure(0-4)
2. NA Hold Position(0-3)
3. NA Bolus Preparation(0-4)
4. NA Bolus Transport(0-4)
NA Oral Residue(0-4)
6. NA Swallow Initiation(0-4)

    NA Soft Palate Elevation(0-4)

8. NA Laryngeal Elevation(0-3)
9. NA Anterior Hyoid Motion(0-2)
10. NA Epiglottic Movement(0-2)
11. NA Laryngeal Closure(0-2)
12. NA Pharyngeal Stripping Wave(0-2)
13. 0 Pharyngeal Contraction(0-3) Was complete
14. 0 PES Opening(0-3) Was completely distended and complete duration with no obstr
15. 1 Tongue Base Retraction(0-4) Allowed a trace column of contrast or air between
    1 Pharyngeal Residue(0-4) Showed a trace within or on pharyngeal structures
17. NA Esophageal Clearance(0-4)
Results
COMPONENT Score and Description

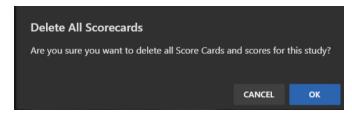
    NA Oral Score(0-18)

      Pharvngeal Score(0-29)
```

Delete All Scorecards

To delete scorecards:

- 1. Click the **Delete** icon from the Scorecards menu..
- 2. Click **OK** to confirm you want to delete all scorecards.



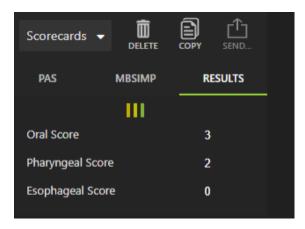
All scorecards are deleted from the study.

Adding Multiple Scorecards to a Study

You can have more than one scorecard for a study.

When you complete the first scorecard, you can go back to the Scorecards menu:

 Select a new scorecard and it is added to the set of tabs displayed. For example, the image below shows when you have added scorecards for PAS and MBSimP for a study:



Send Scorecards

You can only send an MBSImp scorecard. To send the scorecard:

• Click the **Send** icon to send a study.

The patient's scorecard is sent to the facility's website database.

Help Menu Options

The Help menu items provide the following information or function:

- System/Software Serial Numbers
- License Information
- TIMS MVP Quick Start Guide
- Configuration Options (for administrator only)
- Diagnostic Reports
- Set Language for TIMS MVP

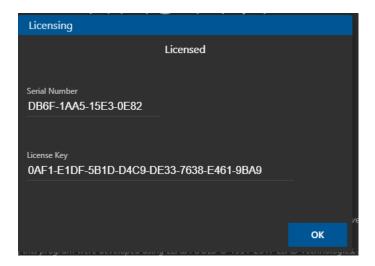
About (Version Numbers)

To view information on your TIMS MVP version and build number, go to **Help** > **About**. The **About TIMS MVP** dialog appears. You cannot make any changes on this dialog. Click **OK** to close or click **License** to view License information.



TIMS MVP License Information

Go to Help > License to view the TIMS MVP serial and license information. Click OK to close.



Quick Start Guide

Go to Help and select Quick Start Guide to open the guide in a browser, as shown below:



Configuration Options

This section under **Help** > **Configuration** is for administrators only. See the *TIMS MVP Setup and Configuration Guide* for configuration options details.

Diagnostic Information

Viewing Diagnostic Reports

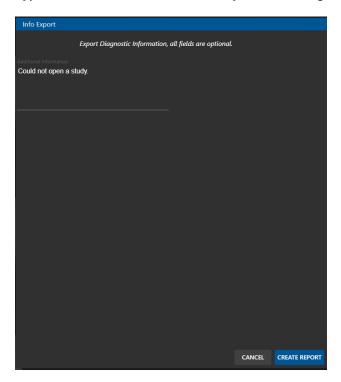
TIMS MVP maintains a report that records the many aspects of your work using TIMS MVP.

To view the diagnostic report when requested by TIMS MVP support:

• Select **Help** > **Diagnostic Report** to export the report.

To create a diagnostic report for TIMS MVP support:

1. Type in the information about what you were doing when an issue occurred.



2. Click the **Create Report** button and save the report. You will need this report for TIMS MVP support when you contact them for assistance.

Languages

TIMS MVP is available in two languages - English and Spanish. To change the language for TIMS MVP, go to Help > Languages.



Release 4.6 Addendum

Overview

Release 4.6 includes the following updates, explained in this addendum:

- Unified JPG/MP4 Workflow
- New Channel Editor Page which contains:
 - o Live video display
 - o AOI creation
 - o Trigger configuration
 - Audio detection
 - Pre-sets for MBS and FEES studies
 - o MBS study advanced option for auto trimming black frames
- Saturation Control for FEES Studies
- Compare Studies Side-by-Side
- Create a Series Composite Clip
- DICOM Send Configuration Convert MP4 to JPG Option

Unified JPG/MP4 Unified Workflow

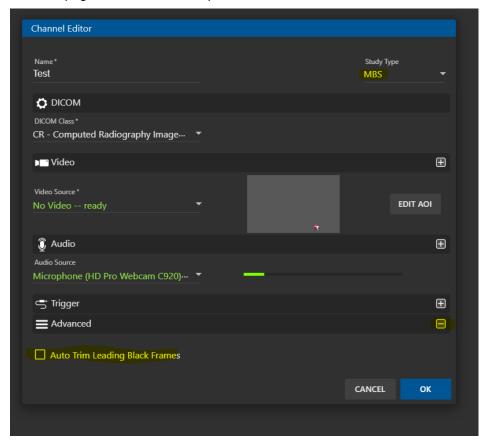
The editing workflow for version 4.6 has been unified. Now, regardless of video encoding type (JPG or MP4), users can use all forms of editing:

- Split and combine
- Trim using the triangles/arrows on the timeline
- Extract subclips
- Extract snapshots
- Create composite clips (new with v4.6)

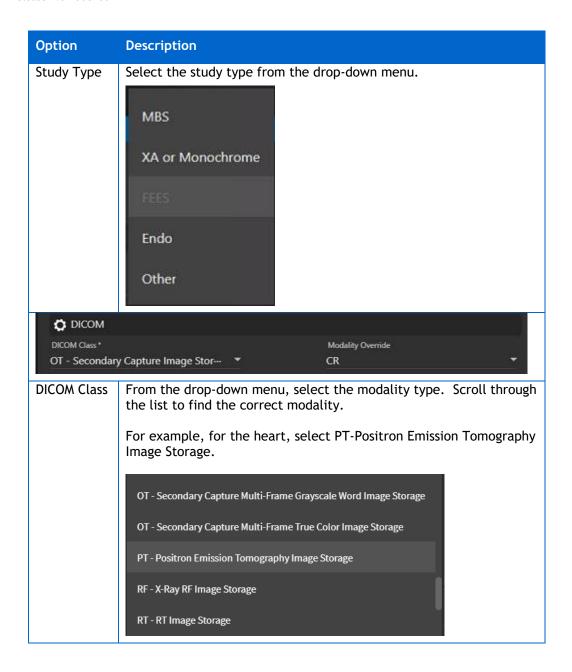
New Channel Editor Page

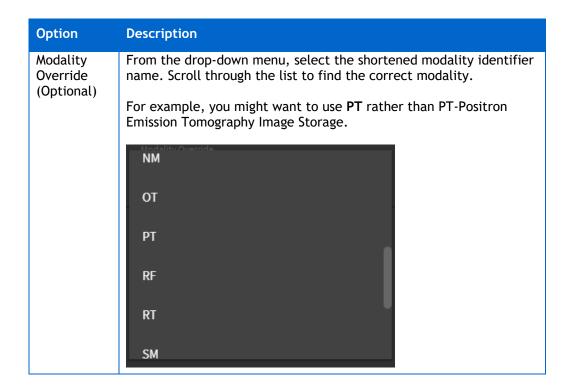
The new Channel configuration page includes a live video display, AOI creation, trigger, audio detection, and pre-sets for MBS and FEES studies. For MBS studies it also includes an advanced option automatically trim black frames for a video.

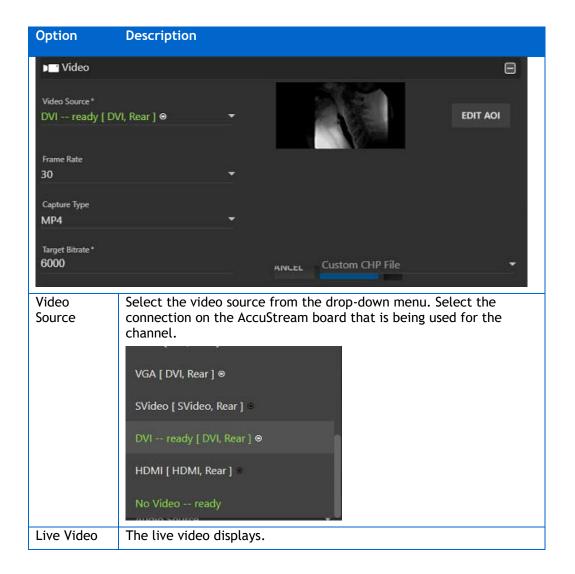
The new page which has all the updates is shown below:



Option	Description
Name	Provide a name that helps you identify how the channel is used. For example, type the name Heart.

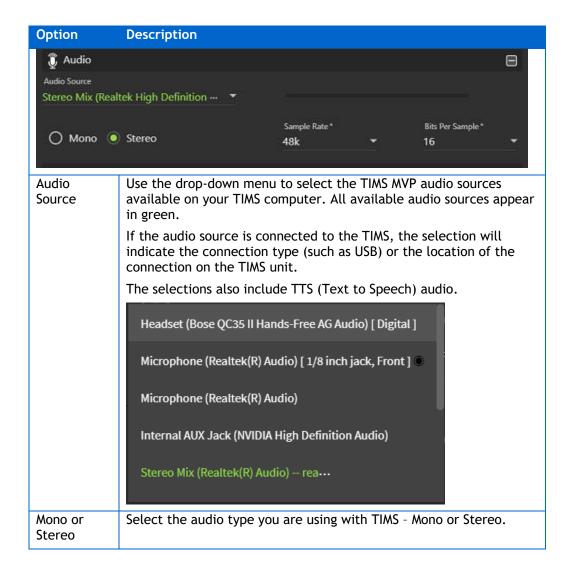




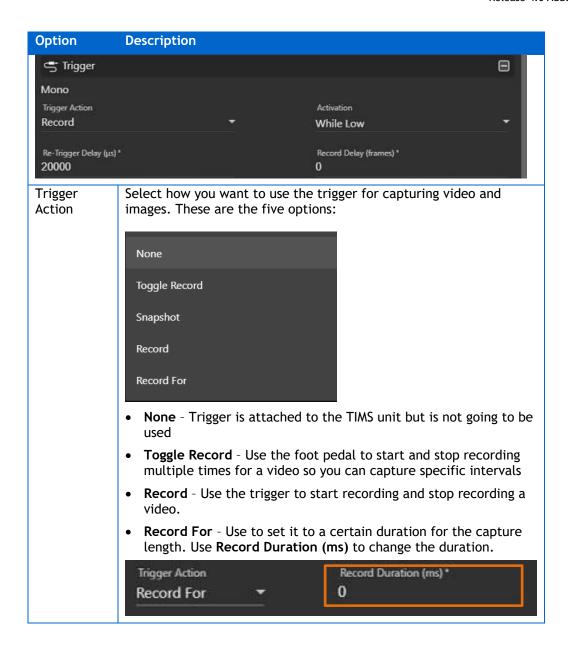


Option Description Edit AOI Select this option if you want to update or set an area of interest (AOI) for the video. AOI is a selected part of the video that you want to be saved as the video. Move the green points to resize the AOI you want for the video. The AOI selected is the area that will be in your exported video. Click Set to save the AOI selection. Click Clear to clear the AOI selection. CLEAR SET Frame Rate The playback speed is determined by the default animation speed of 30 frames per second or another value that you can set from the drop-down menu. It is recommended you keep the default of 30 unless you need the lower animation speed.

Option	Description
Capture Type	Select the capture type you will use with the modality. It is either a JPEG (JPG) image or an MP4 video.
Target Bitrate	Select the target bitrate or bits per second for the video and audio. It determines the size and quality of video and audio files. For example, the higher the bitrate, the better the quality, and the larger the file size.
	Use the up and down arrows to the right of the bitrate to increase or decrease the bitrate.
	Target Bitrate 6000
Custom CHP File	If you want to use a custom Common Hardware Profile, use the drop-down menu to make your selection.
	None - The default selection - no custom CHP file chosen.
	 Import Format To import a CHP file, select this option and the Import CHP File dialog appears. Browse for the file and select it, and click the Import button.
	• Reveal formats folder To import a CHP file from a TIMS MVP folder, select this option and the TIMS MVP folder opens. Select the CHP file and double-click the file to select.



Description
Select an audio sample rate from the drop-down menu. Sample Rate defines the number of samples per second taken from a continuous audio signal. 48k 32k 22k 16k
Select the bits per sample from the drop-down menu. The Bits Per Sample indicates the sample size for the audio file in bits per sample.

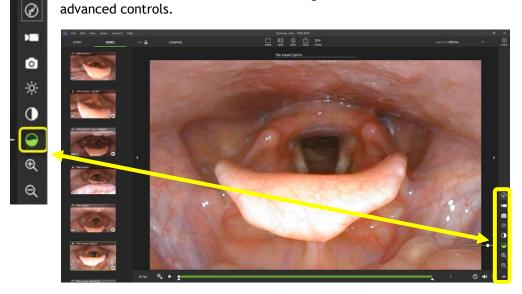


Option	Description		
Trigger Activation	This allows streaming capture of video to be started and stopped each time the pedal is depressed. Choose the selection that fits the pulse from the trigger when it is depressed.		
	While Low If the foot pedal creates a LOW going pulse, and stream capture is desired only while the pedal is depressed, use this option.		
	While High If the foot pedal creates a HIGH going pulse, and stream capture is desired only while the pedal is depressed, use this option.		
Retrigger Delay (µs)	Enter the milliseconds that must elapse before another trigger event is recognized.		
Record Delay (frames)	Enter the number of frames that must elapse before another trigger event is recognized.		
■ Advanced			
☐ Auto Trim	Auto Trim Leading Black Frames		
Auto Trim	For an MBS study type, this Advanced option appears.		
Leading Black Frames	When the checkbox is selected, it automatically trims any black frames at the beginning of each recorded series. This is especially useful for older fluoroscopy units that have erratic warm-up times when they record each series.		
	Setting a frame delay for a channel under a trigger is a static number. If the delay is set to 10 frames to account for most records, but every once in a while, it takes 11, 12+, etc., so this automatically adjusts on record for that.		

Saturation Control for FEES Studies

The Series Advanced Controls now include one for saturation. This is typically used with FEES studies to help make a dyed bolus more visible. Single-click the control to reset it to the default.

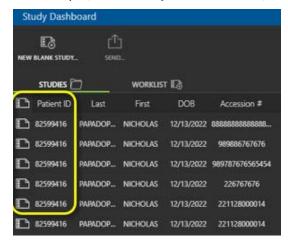
The saturation control is located on the right-hand side of the screen with the other advanced controls.



Compare Studies Side-by-Side

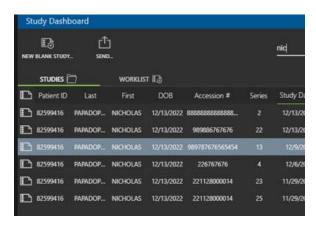
Compare side-by-side studies that have the same patient ID number.

For example, in the study list shown here, the same patient ID number is highlighted.



To compare these studies side-by-side:

1. Select a study that you want to compare from the Study Dashboard.



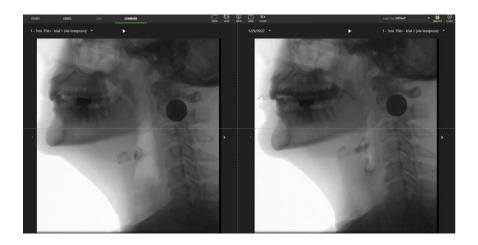
2. If a comparison study is available, the COMPARE menu option appears on the top left Study menu. Click COMPARE to get started.



RESULT: A drop-down menu displays dates of studies performed with the same patient ID.

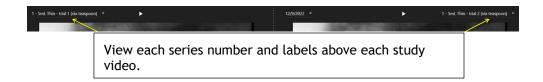


3. Select the date of the study you wish to compare. The study displays to the right of the first study you chose, as shown below:



Once you have the two studies open, you can do the following:

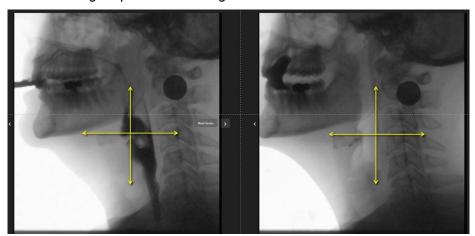
• View the series number and any applied labels to help select series with matching consistencies.



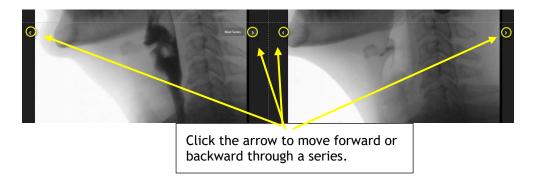
Play or pause both studies by using the play and pause controls above each series.



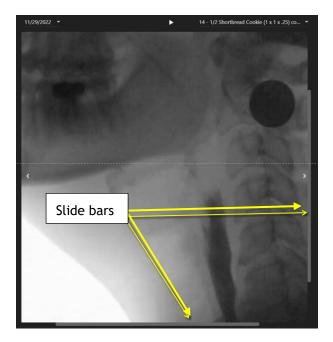
• Scrub through the recorded video on either series by holding down the left mouse button and moving it up and down or right and left.



• Use the arrows on either side of each video to quickly navigate between individual series.



• Double-click on either image to zoom in. Grab the image with the mouse or use the slide bars to view a specific area.

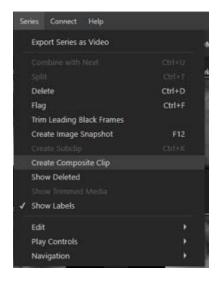


Create a Series Composite Clip

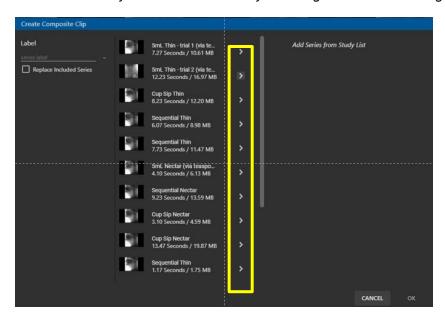
Creating a composite clip allows you to combine multiple series that are not adjacent to each other into one large single clip.

To create a composite clip:

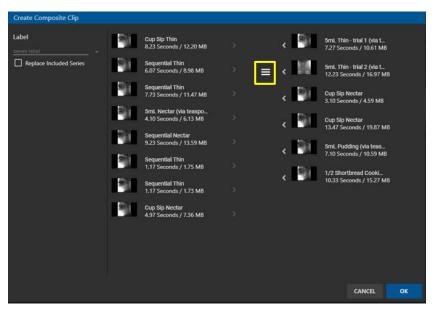
1. Go to Series > Create Composite Clip.



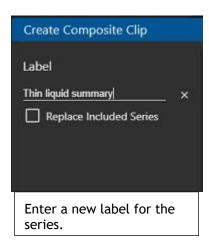
2. Select the series you want to combine by selecting the arrow to the right of the series video.

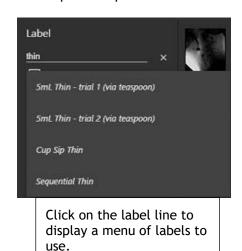


3. Left-click and hold the mouse bar over the triple bar icon to the left of the series video to move a series video into a new position. Move each video into the position you want for the new clip.



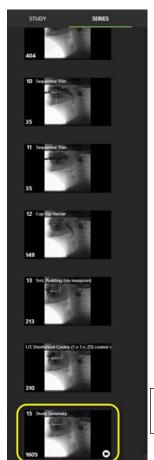
4. Enter or select from a menu a label for the composite clip.





5. Click **OK** to combine the selected series.

Result: The new clip is added to the end of the study series. It displays the composite video icon in the lower left-hand corner. It is marked with a label if one was added. The original series remains intact with no changes.



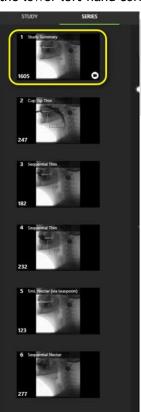
The new clip is placed at the end of the study with the composite clip icon.

Replace Included Series

Another composite clip option is to replace a smaller series with a new composite clip. To do this, select the **Replace Included Series** checkbox under the Label.



After you click **OK** to save the new composite click, the new clip is placed in the temporal order or timing sequence in which the series was recorded. It is marked with a composite clip icon in the lower left-hand corner. It includes any label that was created for the clip.



The composite clip replaces the original series. It is placed in the temporal order or timing sequence in which the first series was recorded. It is marked with a composite clip icon and includes the label created for it.

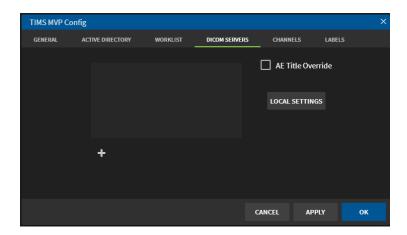
DICOM Send Configuration - Convert MP4 to JPG Option

The DICOM Send configuration page has a new option to convert an MP4 file to a JPG file. The MP4 Transfer Syntax configuration option converts MP4 studies to JPG on DICOM Send. This allows FEES studies to be converted to JPG DICOM for compatibility with PACS that do not support MP4 files.

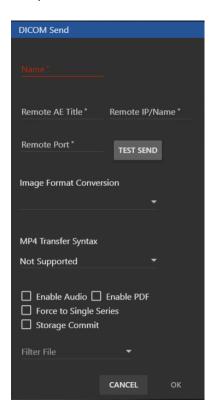
This new option is described in the table for step 2 of the procedure below.

To add a DICOM Send Server to TIMS MVP:

1. Click to add a DICOM server.



2. Complete the fields in the **DICOM Send** page using the table below.



Option	Description
Name	Type in the name of the Service Class Provider (SCP).
Remote AE Title	Type in a name for the remote Application Entity (AE) Title of the DICOM Send system.
Remote IP/Name	Enter the remote IP address or name for the DICOM send system.

Option	Description
Image Format Conversion	From the drop-down menu, select the image compressions type you are using.
	Native - Uses the current format of the image file.
	Uncompressed Explicit - Means the DICOM transfer syntax is Explicit VR, Little Endian. The images are converted to uncompressed if this is not the native capture format.
	Lossy - Uses some reduction in image quality.
	Lossless - Uses no reduction in image quality.
	Uncompressed Implicit - means the DICOM transfer syntax is Implicit VR, Little Endian. The images are converted to uncompressed if this is not the native capture format.
	Image Format Conversion
	Native
	Uncompressed Explicit
	Lossy
	Lossless
	Uncompressed Implicit
MP4 Transfer Syntax	From the drop-down menu, select the MP\$ transfer syntax:
Syricax	Not Supported (default)
	Convert to JPEG Converts MP4 studies to JPG on DICOM Send. This allows FEES studies to be converted to JPG DICOM for compatibility with PACS that do not support MP4 files.
	High profile level 4.1
	Blu-ray, high profile level 4.1
	High profile level 4.2
Enable Audio	If the destination server supports audio, click the checkbox to enable audio.
Enable PDF	If the destination server supports the PDF file format, click the checkbox to enable.
Force to Single Series	Click to take all the series residing in a study and send it as one large series. When the user sees it on the receiving end, it is one series.

TIMS MVP Operator's Guide 147

Option	Description
Storage Commit	If the destination server supports storage commit, click the checkbox to enable it. The additional menu items display: Storage Commit Use Send Values TESTSC
	 Use Send Values - Duplicates the send to the server. Uncheck to create a unique video/image source.
	• TESTSC button - Tests the Storage Commit settings.
Filter File	1. Click the text box below this Filters heading and start typing a filter you want to add. You are presented with a list of filter options. For example, if you typed the word thickness, you are presented with a variety of options that contain that word: Filters Add Tag X thickness Body Part Thickness - 001811a0 Grid Thickness - 00187042 Filter Thickness Maximum - 00187054 Tag Thickness - 00189035
	2. Select the description you want to use as a filter.
	 You can add as many filters as required.
	3. Click OK when done.
	Remove Filters: Click the circle icon to the left of the filter to delete it.
	Edit Filters: Click the pencil icon next to the filter name and then click the icon again to edit. Make your changes and click OK when done.
	Delete Filters: Click the trash can icon and then click it again to delete a filter from the worklist.

Release 5.0 Addendum

Release 5.0 includes the following updates, explained in this addendum:

- Creating and adding reports
- · Creating and adding notes
- Creating and adding quick phrases
- Using a diagram with a snapshot
- New triggering mode
- Patient view feature with secondary video source
- · New telestration features
- New option for detecting swallow events
- Exporting and importing TIMS MVP setting options expanded
- New media import options
- · Export and import settings

Creating and Adding Reports

An integral aspect of patient care revolves around the clinical report that accompanies each imaging study, completed by medical professionals. TIMS MVP solution has template-based reporting seamlessly integrated into its software. Clinicians can now effortlessly finalize the report within the TIMS software while simultaneously reviewing, scoring, and analyzing the accompanying videos and images.

By scoring, taking notes, annotating, and extracting images, clinicians contribute to the report, with all data automatically incorporated. Consequently, the report becomes nearly complete after the comprehensive review and analysis process within TIMS MVP. The final reports can be printed or provided as a PDF, or even copied and pasted into other programs as needed.

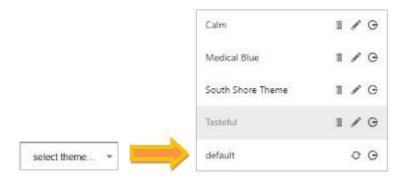
The seamless connection between TIMS MVP and PACS or VNA allows for the swift dissemination of reports as part of the DICOM study. These reports are subsequently made accessible through the hospital EMR via standard PACS-EMR integrations, streamlining the entire workflow and enhancing overall patient care.

Creating a Report

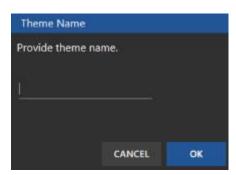
To create a report:

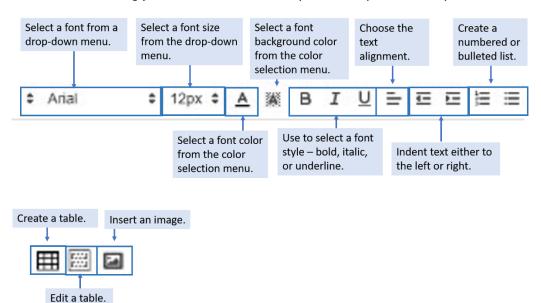
- 1. Go to **Help** and select **Configuration**.
- 2. Enter the TIMS Admin Password in the Administrator dialog.

- 3. Click the left ≥ arrow to display **Reporting** on the top menu
- 4. the report template you want to use.
- 5. When the sample report opens, you can select or create a theme for the report.
 - To select an existing report theme, select the top left drop-down menu and select the theme from the menu, as shown below:



• To create a new theme, click the plus 🕙 sign to the right of the drop-down menu. Enter a name for the theme in the dialog shown below and click **OK**.





6. Select the formatting you want to use for the report. The options are explained below:

- 7. To easily create the report with study details, see **Report Study Information Tags** to create text that auto-populates the report from the study.
- 8. Click **OK** when you have finished creating the template.

Deleting a Report Template

To delete a report template, select the template from the **Report Templates** list and click the minus icon. The **Confirm Delete** message appears.

1. Select **OK** to delete and the template is removed from the list.



2. Click **Cancel** to cancel the template deletion.

Open a Report Template for Editing

To edit an existing template, select the template from the Report Templates list and click the pencil icon to edit the template. The report template opens for editing.

Duplicate a Report Template

To duplicate an existing template, select the template you wish to duplicate and click the duplication icon.

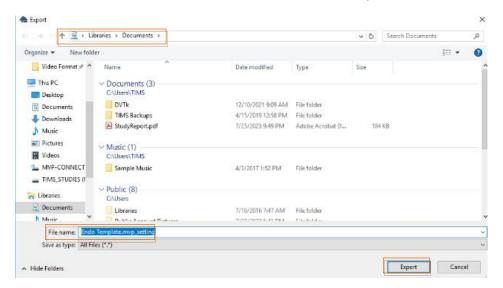
The duplicate report template opens. Enter a new name for the template in the Template Name field to identify the new template.



Export the Report Template

To export a template on your computer, select the export icon. The **Export** dialog appears. Do one of the following:

- 1. Click **Export** to export the template to the folder and filename displayed.
- 2. Select a new folder and/or enter a new filename. Click Export.



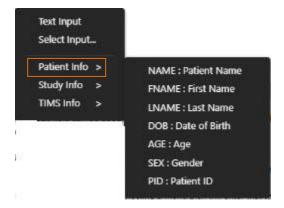
Report Study Information Tags

The report can contain tags that are used to auto-populate the report. This section explains the study tags, input fields, and special tags available to use when creating a report.

Study Tags

A TIMS study contains patient and study information that you can use to auto-populate the report. The study tags are keywords surrounded by @<keyword>@. For example, @NAME@ pulls the patient's full name from the study and enters it into the report.

You can enter the tags by typing them in the report, or right-click and select the tag from the menu. In the example below, the **Patient Info** is selected and displays the relevant tags:



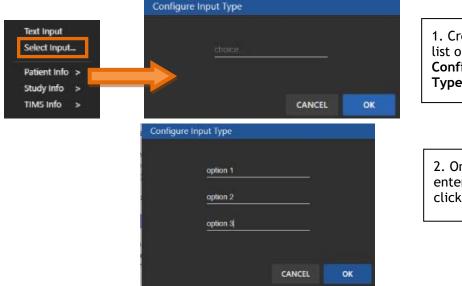
The study tags available are listed in the table below:

Tags	Description
@TD@	Today's date
@SD@	Study date
@ST@	Study time
@NAME@	Patient name
@FNAME@	Patient first name
@LNAME@	Patient last name
@DOB@	Date of birth
@AGE@	Patient age
@SEX@	Patient gender
@PID@	Patient ID
@HOSPITAL@	Hospital name
@ACCESSION@	Accession number
@REFPROV@	Referring physician
@ATTPROV@	Performing physician
@GROUP@	Group
@DESCRIPTION@	Description

Input Fields

When a report requires customer information, you can specify an edit field. This field is indicated by ***. When filling out the template, the F2 key moves to these characters and replaces them with whatever text is entered.

To provide a list of choices to pick from during the report creation, you can create an edit list. This takes the form of {option 1|option 2|option 3}. You can create the edit list directly or use the list builder available by right-clicking on the report and clicking Select Input, as shown below:

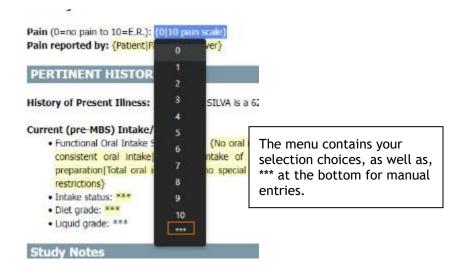


1. Create an edit list on the Configure Input Type dialog.

2. Once you finish entering the list, click **OK**.

After creating the entries, the F2 allows you to open a menu with choices.

When using a list menu, you can pick single or multiple choices. When you select a menu choice, that text is entered into the report. Hovering to the left of a pick will present a checkbox that allows for the selection of several choices. Every menu has a *** choice at the end to allow for an entry outside of the menu choices.



Special Tags

Scorecards {Disease} tag

TIMS allows you to score a study using the Scorecard mechanism. To automatically insert study scores into a report, you use the **@SCORES@** tag. All scorecards are added to the report.

If you have multiple scorecards and want to specify different scorecards in different places, you can add a specific name to the tag. For example, @SCORES:MBSImP@

You can enter the tags directly or by selecting them through the right-click menu.

Notes tag

TIMS allows you to record study and per-series notes using the Notes window. To include the notes in a report, use the @NOTES@ tag. Only notes that contain entries are included in the report. Only video series notes are included, see the **Snapshots tag** below for snapshot note handling.

The Notes can use reporting-style templates. They are created in the configuration editor and accessed from the menu at the top of the Notes window. This allows for quick entry of common notes entries.

Snapshots tag

Series Snapshots, taken either during a recording or created during a video series review, can be imported into a report using the @SNAPSHOTS@ tag. If they have Notes associated with them, they are included as a caption.

You can scale the snapshots and delete individual snapshots.

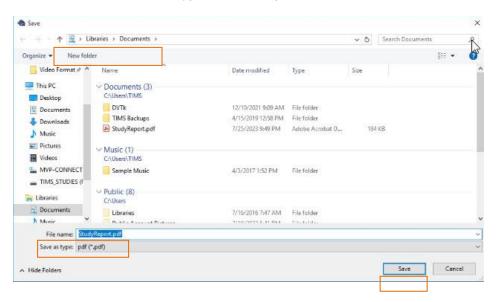
Save the Report to a PDF File

To save a study report to a PDF file:

- 1. Go to the **Reports** icon at the top of the open study and click it to open the report. The report displays.
- 2. Click the down arrow in the top right-hand corner and select **Save and export to PDF** from the menu.



3. Save the report as a PDF by using the displayed folder and filename and clicking **Save**, or select a new folder and/or type in a new report name and click **Save**.



Save and Print a Report

To save and print a report:

- 1. Go to the **Reports** icon at the top of the open study and click it to open the report. The report displays.
- 2. Click the down arrow in the top right-hand corner and select **Save and print** from the menu.



- 3. Save the report as a PDF by using the displayed filename and clicking **Save**, or select a folder and/or type in a new report name and click Save. The print dialog appears.
- 4. Select the printer and click Print.

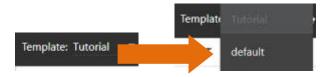
Add a Report to a Study

To add a report to the study:

1. Click the Report icon at the top of the study page. The report opens.



2. Select the template you want to use for the report from the drop-down menu on the left-hand side of the report.

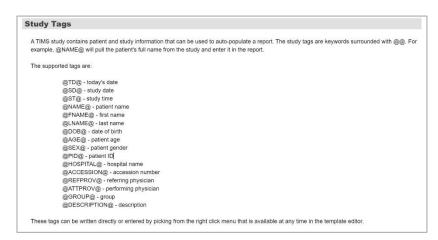


- 3. Add any details to the report not included in the template. You can also place additional report study information tags if needed.
- 4. Click **OK** and the report is saved to the study.

View the Report Template Tutorial

To open the report template tutorial:

- 1. Go to Help and select Configuration.
- 2. Enter the administrator password when you receive the prompt and click **OK**.
- 3. Click the right 2 arrow at the top of the dialog to find **Reporting** and click on it.
- 4. Double-click **Tutorial**. The report template tutorial opens.



Sending to PACS

Reports can be attached and sent along with a study to supporting PACS systems.

Reports and File Encryption

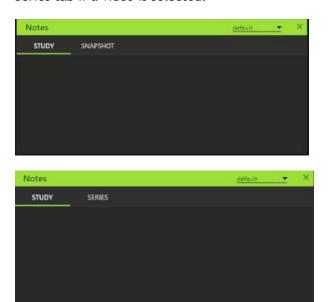
When the reports are not in use, they are encrypted in the file system.

Study Notes

Notes are accessed using a floating window that provides a text box separated into two tabs. The Notes icon is at the top of the study page.



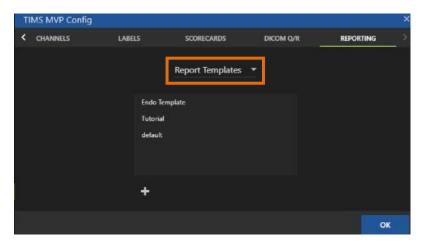
• If you are in the TIMS MVP Study, Series, or Live tabs, click the **Notes** icon, and Notes opens with the Study and Snapshot tabs if an image snapshot is selected or the Study and Series tab if a video is selected.



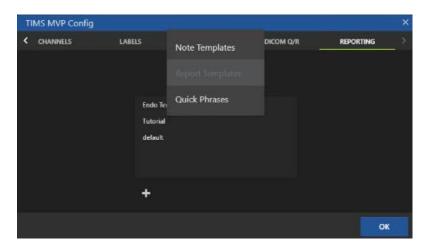
Creating Note Templates

To create notes:

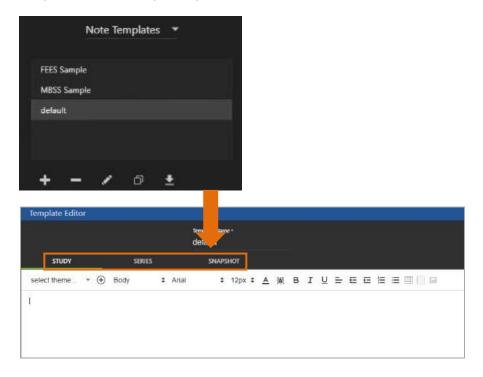
- 1. Go to Help and select Configuration.
- 2. Enter the TIMS Admin Password in the Administrator dialog.
- 3. Click the left arrow to display **Reporting** on the top menu.
- 4. If Notes Template is not the default selection, click the down arrow next to the template displaying.



5. Select the Note Templates from the list.



6. Select the template you want to use. You can select the default or the MBSS or FEES Sample. The Note template opens.



Formatting Note: Note templates do not allow for the selection of themes and some formatting. Notes are imported and adapt the formatting from the report template in which they are used. The Notes template does allow you to choose some formatting options such as bold, italic, and underlined text, and bulleted and numbered lists. It does not allow any other formatting.

7. Click OK.

Deleting a Note Template

To delete a note template:

1. select the template from the Note Templates list and click the minus icon. The **Confirm Delete** message appears.

2. Select **OK** to delete and the template is removed from the list.



3. Click Cancel to cancel the template deletion.

Open a Note Template for Editing

To edit an existing template, select the template from the Note Templates list and click the pencil icon to edit the template. The note template opens for editing.

Duplicate a Note Template

To duplicate an existing template, select the template you wish to duplicate and click the duplication icon.

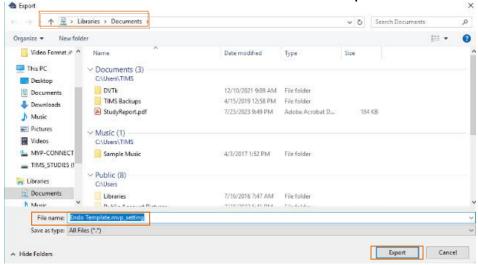
The duplicate note template opens. Enter a new name for the template in the Template Name field to identify the new template.



Export the Note Template

To export a template to your computer, select the export icon. The **Export** dialog appears. Do one of the following:

- 3. Click **Export** to export the template to the folder and filename displayed.
- 4. Select a new folder and/or enter a new filename. Click Export.



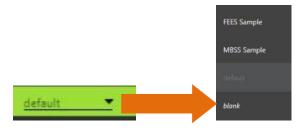
Add a Note to a Study

To add a note to the study:

1. Click the Notes icon at the top of the study page. The notes open.



2. Select the template you want to use for the note from the drop-down menu on the left-hand side of the report.



- 3. Enter the text you want for the note.
- 4. Close the note and it is saved to the study.

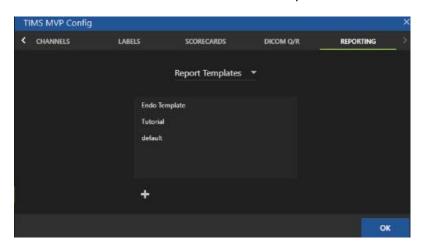
Quick Phrases

Quick Phrases are custom lines or blocks of text which can be placed directly into a report or notes. Quick Phrases save valuable time by allowing frequently used phrases to be quickly placed anywhere in a report

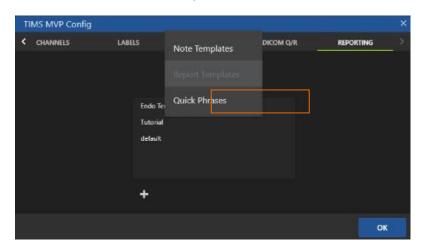
Creating a Quick Phrase

To edit a quick phrase:

- 1. Go to Help and select Configuration.
- 2. Enter the TIMS Admin Password in the Administrator dialog.
- 3. Click the left arrow to display **Reporting** on the top menu.
- 4. Click the down arrow next to the listed template.



5. Select the Quick Phrase Templates from the list.



6. Click the plus (+) sign below the template list. A blank quick phrase template opens.

7. Edit the Quick Phrase Name and Description on the top of the page.

Formatting Note: Quick Phrase templates do not allow for the selection of themes and some formatting. Quick Phrases are imported and adapt the formatting from the report template in which they are used. The Quick Phrase template does allow you to choose some formatting options such as bold, italic, and underlined text, and bulleted and numbered lists. It does not allow any other formatting.

8. Click OK.

Adding a Quick Phrase to a Note or Report

To add a quick phrase to a note or report, you will need the quick phrase name you assigned. For example, if there is a quick phase named LiquidDiet, you would add to a report by first typing a period followed by the first few characters of the name. So for LiquidDiet, you would type:

Liq.

As you start typing, the full name pops up for you to select and add to the note or report.

Deleting a Quick Phrase Template

To delete a quick phrase template, select the template from the Quick Phrase Templates list and click the minus icon. The **Confirm Delete** message appears.

1. Select **OK** to delete and the template is removed from the list.



2. Click Cancel to cancel the template deletion.

Open a Quick Phrase Template for Editing

To edit an existing template, select the template from the Quick Phrase Templates list and click the pencil icon to edit the template. The template opens for editing.

Duplicate a Quick Phrase Template

To duplicate an existing template, select the template you wish to duplicate and click the duplication on.

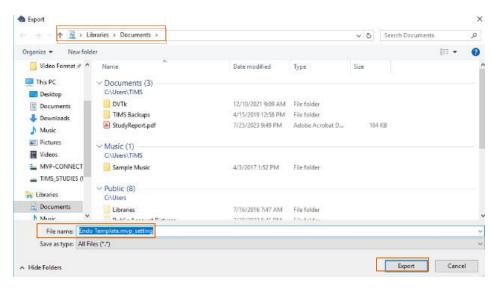
The duplicate template opens. Enter a new name for the template in the **Template Name** field to identify the new template.



Export the Quick Phrase Template

To export a template to your computer, select the export icon. The **Export** dialog appears. Do one of the following:

- 5. Click Export to export the template to the folder and filename displayed.
- 6. Select a new folder and/or enter a new filename. Click Export.



Using a Diagram with a Snapshot

This feature allows you to bring up a diagram while viewing snapshots in a study and mark a position on the diagram. This mark will be tied to the currently viewed snapshot. The diagram with its mark can be included with the snapshot in a report.

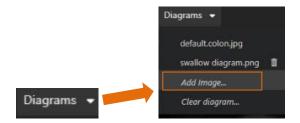
Add a Diagram

To add a diagram:

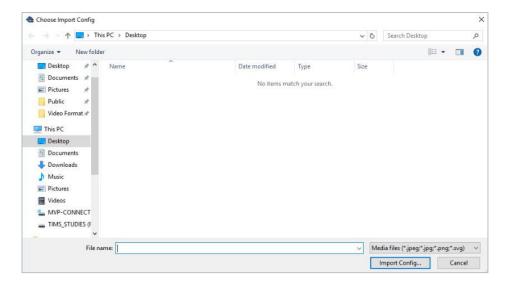
1. Select the **Diagram** icon at the top of the study page.



2. Click the Diagrams down arrow and select Add image.



3. Select the image you want to add and then click Import Config....



The image is now added to the diagram selections menu.

Add a Diagram to a Snapshot

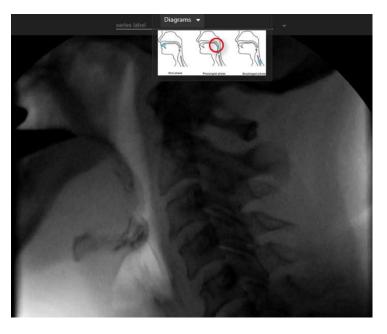
To add the diagram to a snapshot:

- 1. Select the snapshot you want to view.
- 2. Click the **Diagram** icon at the top of the study page.

3. Select the diagram you want to use with the snapshot. In this example, a swallow diagram was selected and added to the snapshot.



4. Mark the diagram to show a location related to the snapshot. See the example below:



This mark will be tied to the currently viewed snapshot. The diagram with its mark can be included with the snapshot in a report.

Reports and Diagram Integration

Diagrams included in reports will be overlayed onto snapshots, allowing you to change the diagram positioning to any of the four corners of the snapshot.

New Triggering Mode

Long Press is the new triggering mode that allows for a dual-purpose trigger. This mode includes:

- A short press recording of a snapshot.
- A long press to start a recording, with a second long press to stop recording. A short press during recording captures a snapshot.

Patient View Feature

Patient View allows a secondary USB camera source to be overlayed as a picture-in-picture onto the primary video source.

The Patient View features include:

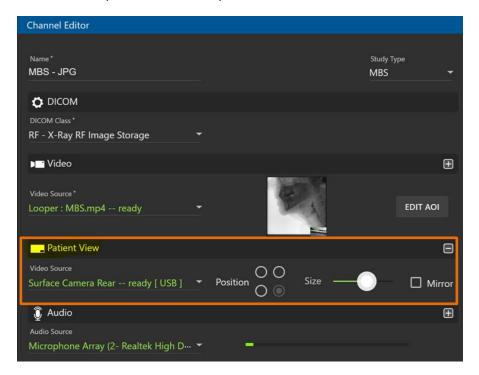
- Is fully customizable so you can place the secondary source in any of the four corners of the primary video source. The size of the secondary source is also customizable.
- Allows you to toggle Patient View off and on while in a study. This allows for the capture
 of a Series snapshot with or without the Patient View overlay without the need to change
 the channel configuration.
- Provides in-room experience for training which includes the patient view, and view of the scope technique. It can see bolus via fluoro/FEES in synch with visible patient aspiration.

Set Up the Patient View Feature

To configure Patient View:

- 1. Click Help and then select Configuration.
- 2. Enter your admin password and click **OK**.
- 3. Select **Channels** from the top-level menu and then select the channel where you want to set up the feature.

- 4. In the Channel Editor, open the Patient View options by clicking the plus sign to the right of the selection. The Patient View options display.
- 5. Select the USB Video Source from the drop-down menu.
- 6. Select the video source Position on the primary video source using the radio buttons.
- 7. Select a video size using the slider to choose the video size you want to use for the secondary video source.
- 8. Select the Mirror option if you do not want to use the reverse video image for Patient View. An example of the screen options is shown below:



9. Click **OK** when you complete making the Patient View settings. It is now ready to use.

New Telestration Features

There are three new telestration features available with this release.

Freehand Telestration Extension

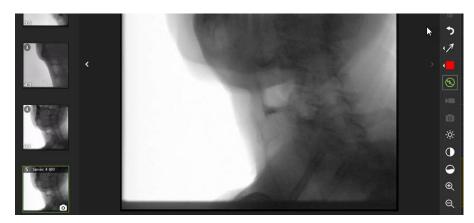
Freehand-drawn telestrations can now be extended by pressing the **Ctrl + Shift** keys while drawing to automatically continue a previously drawn telestration.

Snapshot Telestration

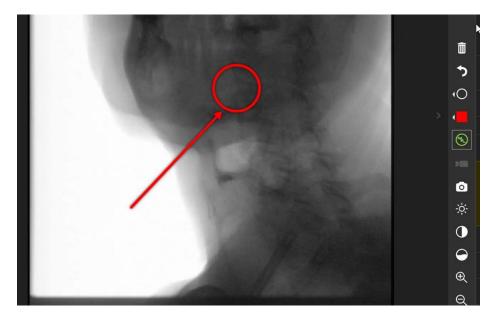
Taking a snapshot of a snapshot with telestrations now marks the original snapshot for deletion and replaces it in line with the newly annotated snapshot.

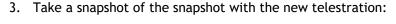
Here is an example of the workflow for this new feature.

1. Open a snapshot.



2. Draw a telestration on the snapshot shown above:







The new snapshot with the telestration has replaced the original snapshot in the timeline on the left. To confirm this, you can use the Show Deleted option to see the original snapshot above the new snapshot with the telestration.



Measurement Calibration

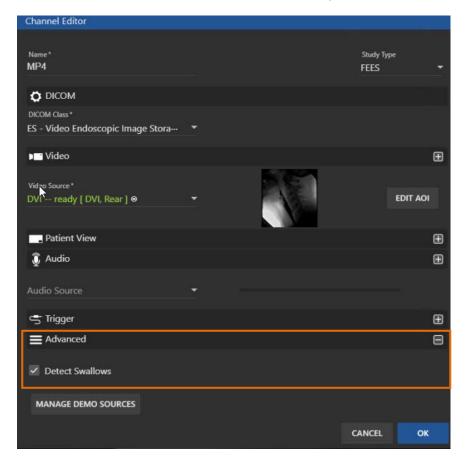
When using the magic tools to determine measurements, there is a new button that automatically provides a line indicating the widest point of the given shape, allowing for faster and more precise calibration for image measurements.

Detect Swallow Events

This new option for FEES studies is available under the Channels configuration option. It automatically marks swallow events in FEES recordings by detecting the moment the camera view becomes obscured by the tongue. This type of event is marked as **Interesting Times**.

To select this option:

- 1. Click Help and then select Configuration.
- 2. Enter your admin password and click OK.
- 3. Select **Channels** from the top-level menu and then select the channel where you want to set up the feature.
- 4. In the Channel Editor, open the **Advanced** options by clicking the plus sign to the right of the selection.
- 5. Click the **Detect Swallows** checkbox to select this option.



6. Click OK.

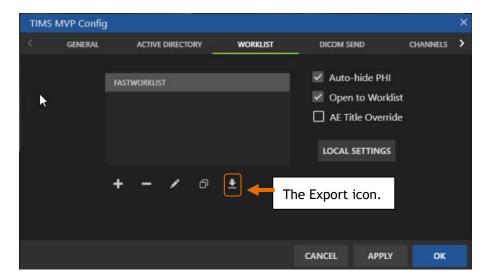
Export TIMS MVP Settings

The TIMS MVP Config console now includes the ability to export and import capabilities for worklists, DICOM send destinations, channels, labels, scorecards, DICOM query/retrieve, and report and note templates.

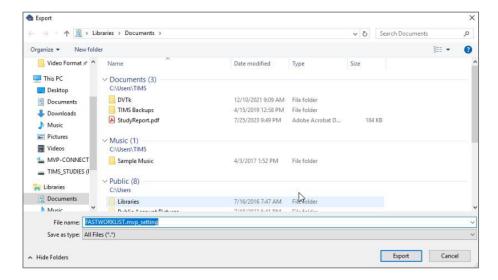
When configuring these options, use the Export icon after making your selection to export settings.

For example, to export a Worklist:

- 1. Select Help and then select Configuration.
- 2. Enter your admin password and click OK.
- 3. Select Worklist from the top menu.
- 4. Select a Worklist from your list.
- 5. Click the **Export** icon below the list to export the Worklist.



6. Select the folder and enter the filename for the Worklist and click Export.



Media Import

TIMS MVP now supports the import of JPG, PNG, and MP4 files into a TIMS MVP study The imported media integrates directly with TIMS MVP workflow, allowing for editing, annotation, labeling, and sending to PACS.

How to Import

There are two ways to import media into TIMS MVP:

- If you have a study open in TIMS MVP, then drag and drop the media file into the study.
- Go to File and select Import Media Files. Select the media file using the Import dialog.

Export and Import Settings

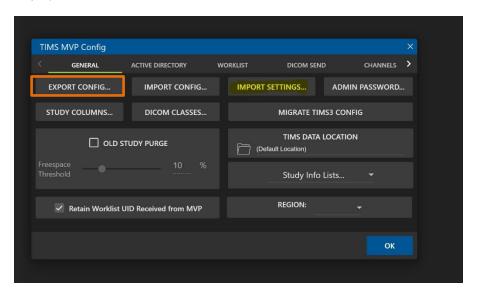
To move one or more settings files to another TIMS MVP system, you use the TIMS MVP Config's **Export Config** and **Import Config** buttons.

Export Settings

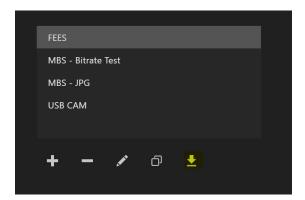
To export settings:

- 1. Go to Help and select Configuration.
- 2. Enter the administrator password when prompted and then click **OK**. The TIMS MVP Config dialog appears.

3. Go to the **General** tab and click the **Export Config** button. A list of settings files is displayed.



4. Select one or more of the settings you want to export. It can be a worklist, send location, QR location, or report template file.



5. Click the Export icon. This creates an MVP_SETTING file that you can import to another TIMS MVP version 5.0 or higher system.

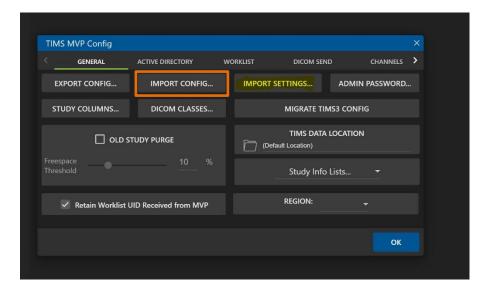
Import Settings

To import settings you saved for reports, notes, or quick phrases:

NOTE: You can import a settings file to any version of TIMS MVP 5.0 or higher.

- 1. Go to Help and select Configuration.
- 2. Enter the administrator password when prompted and then click **OK**. The TIMS MVP Config dialog appears.

3. Go to the **General** tab and click the **Import Config** button.



4. Select the file to import and click Import. The file is imported into TIMS MVP.

Appendix A

Hazardous Substance Statement

The following table lists toxic or hazardous elements by product:

- **O:** Indicates that this toxic or hazardous substance is contained in all of the homogeneous materials for this part is *below the limit requirement*.
- **X:** Indicates that this toxic or hazardous substance is contained in at least one of the homogenous materials for this part is *above the limit requirement*.

	TOXIC OR HAZARDOUS SUBSTANCES AND ELEMENTS					
PRODUCT				HEXAVALENT	POLYBROMINATED	POLYBROMINATED
	LEAD	MERCURY	CADMIUM	CHROMIUM	BIPHENYLS	DIPHENYL ETHERS
	(Pb)	(Hg)	(Cd)	(Cr(VI))	(PBB)	(PBDE)
AccuStream Express HD+	0	0	0	0	0	o

TIMS MVP Operator's Guide



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