ACTEON

TWAIN Trium 2D INSTALLATION GUIDE



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Quick description of the TWAIN standard

About the TWAIN consortium:

The TWAIN Working Group is a not-for-profit organization which represents the imaging industry. TWAIN's purpose is to provide and foster a universal public standard which links applications and image acquisition devices. The ongoing mission of this organization is to continue to enhance the standard to accommodate future technologies.

The TWAIN consortium does not market any software, hardware or other products. It has a website at http://www.twain.org/ on which you can find a wealth of practical information for people who want further information on the subject.

The TWAIN standard exists for Windows and Macintosh platforms. Only Windows is covered herein. At the present time, there is no Macintosh version of the TWAIN interface for SOPIX sensors.

The TWAIN standard allows total interconnection of software and peripherals. However, software and peripherals are not obliged to comply with the entire standard; so there can be partial or complete incompatibilities in some cases.

Main Description

Objective

Acquire TRIUM PANORAMIC & CEPHALOMETRIC images through TWAIN Source provided by Acteon.

The configuration of TRIUM managed are:

- PANORAMIC
- PANORAMIC/CEPHALOMETRIC

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INTRODUCTION

This document contains the setup and the configuration of the Workstation with for Trium Pan /Ceph tomograph.

This manual is intended only for new installation of the ais 1.6 software on a brand new x-mind trium, and not for the upgrade of a previous version.

Please follow all the instruction included in this manual to correctly install the new version of the software.

Changing some options in the installation could affect the right functionality of ais software, generating some faults.

CONTENT OF THE USB STICK / DVD ROM PROVIDED WITH TRIUM

- 1. DOCUMENTATION
- 2. Setup TWAIN TRIUM
- 3. NEW HAMMAMATSU DCAM SETUP
- 4. TRIUM CONFIG INSTALLER

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WORKSTATION MINIMUM REQUIREMENTS

IT'S MANDATORY TO RESPECT WORKSTATION MINIMUM REQUIREMENTS



THE CHOICE OF WORKSTATION/SERVER FOR X-MIND TRIUM PANO/CEPH, OR OTHER VERSIONS OF TRIUM PROVIDED WITHOUT WORKSTATION, IS UNDER CUSTOMER RESPONSIBILITY. A WRONG CHOICE, WITHOUT RESPECTING MINIMUM REQUIREMENT, WILL NOT BE UNDER ACTEON GROUP RESPONSIBILITY.

Please, take care about workstation minimum requirement to avoid faults, errors, misfunctionality and/or problem during the installation, connection and use of X-MIND Trium.

WORKSTATION:

- MAC Workstations are not supported
- Virtual machines installation is not tested and not permitted

OPERATIVE SYSTEM :

- Microsoft Windows 7 64 bits
- Microsoft Windows 10 professional 64 bits

HARDWARE REQUIREMENTS :

- Processor : INTEL I5 or superior
- RAM : 4GB DDR3 1600MHz in Dual Channel configuration
- Hard Disk : 1TB 7200 rpm or superior
- Network Cards :

2 LAN network boards needed : one of them can be already present on the motherboard and have being used only for network access. The second one MUST be and INTEL CT 1000 pro (provided with Trium PAN/CEPH) and MUST be used for the connection between Trium and workstation

Avoid to use a wireless network card on the workstation : fast connection network (LAN type) are needed to share the patient exams with the clients PCs. Due to this, a WiFi network card could be too slow to transfer patient exams with clients PCs.

- Graphic card : OPEN GL 2.1 compatible (suggested an NVIDIA GT/GTX)
- Monitor : 1280x1024 16 million of colors at least. HD resolution is suggested.

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• Always take care to be the administrator of the workstation, and log in as the same user of the AIS installation.

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INSTALLING THE TWAIN INTERFACE FOR XMIND-TRIUM 2D

Installation is made as simple as possible.

You just need to run the file **TriumTwainDriverSetup_x.x.x-n.exe**, and installation takes only a few seconds. Follow the steps until message informs you when the installation is finished.

		?		Х
3	X-MIND Trium - TWAIN driver Setup			
	Setup - Trium TWAIN driver			
	Welcome to the Trium TWAIN driver Setup Wizard.			
			D	
	ilext	(Quit	
		?		×
4	👸 X-MIND Trium - TWAIN driver Setup			
	Installation Folder			
	Please specify the folder where Trium TWAIN driver will be installed.			
	C:\TRIUM	Dee	MEG	1

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21	 ← Trium R ← Trium R ✓ Trium R 	rium - TWAIN driver Setup conents components you want to install. equirements wain Driver Installer m Twain Driver demo images m Twain Driver Main Compone ase Select All Deselect All	?) Trium Twain Driver This component will occupy approximately 130.65 MiB on your hard disk drive. Next Cancel ? ?	
	License Agre Please read the fr agreement before de Götzen® S.r.l non-transferable purposes. Customer acknov affiliates and/or the limited license parties of their re I accept the li	eement Not a service of the service	accept the terms contained in this its a limited, non-exclusive and onal or internal business including, without limitation, its juire by virtue of this Agreement, or by the performance by the express or implied license rights to <u>N</u> ext Cancel	▲
	← 😿 X-MIND T Ready to Ins Setup is now read Show Details	rium - TWAIN driver Setup tall y to begin installing Trium TWAIN driv	? >	<
			Install Cancel	
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ACTEON		E TRIUM_installation
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		? ×
← 🐻 x-mind	Trium - TWAIN driver Setup	
Lundo Ilino Te	ium TMAINI dai an	
Instaning II		178/
Installing compo	nent Trium Requirements	12.70
Show Details		
	Install	Cancel
		? ×
← 📸 X-MIND	Trium - TWAIN driver Setup	
Creating Ur	ninstaller	
		100%
Installation finish	ned!	
Hide Details	• • • • • • • • • • • • • • • • • • •	
C:\TRIUM\TRIU C:\TRIUM\TRIU Writing uninstal	Mybearer M ler.	^
Installation finis	hed!	~
	Next >	Cancel
		2 ×
🖏 X-MIND Trium	- TWAIN driver Setun	
Completing	the Trium TWAIN driver Wizard	
Click Hinish to ex	it the frium fivery driver wizard.	
		Einish
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DCAM ISTALLATION

-

1. Install the new DCAM as following:

rganize 🔻 Share wit	th • Burn New folder				E •	0
Favorites	Name	Date modified	Туре	Size		
Desktop	📕 DCAMAPI	25/01/2017 14:39	File folder			
🚺 Downloads	autorun.inf	20/06/2010 00:40	Setup Information	1 KB		
💹 Recent Places	BCAM_2013-05_GigE_x64.msi	09/12/2014 16:22	Windows Installer	2.344 KB		
	SCAM_2013-05_GigE_x64_uninstall.bat	25/01/2017 16:04	Windows Batch File	1 KB		
Libraries	ishelpx.exe	01/11/2002 20:43	Application	26 KB		
Documents	By Setup.exe	08/12/2015 13:03	Application	1.812 KB		
Music Pictures Videos	SETUP.INI	20/12/2016 03:21	Configuration sett	4 KB		
Computer						
Local Disk (C:) RESTORE (D:)						
🖉 20161121-yakkety-a	1					
Vetwork						

- Launch from the provided USB stick/zip\DCam 16.12.5193 folder file the SETUP executable
 - the setup application will allow you to choose the installation type: choose GigE Camera for Flat Panel Sensor, then click on install, accept the license and click on next

DCAM-API	IEEE1394 Camera	
	Active Silicon FireBird / Phoenix	DCAM-API Drivers for GigE Cameras requires the following items to be install your computer. Click Install to begin installing these requirements.
	USB Camera	Status Requirement
	GigE Camera for Flat Panel Sensor	Pending Microsoft Visual C++ 2008 SP1 Redistributable Package (x86) Pending Microsoft Visual C++ 2008 SP1 Redistributable Package (x64)
	Tools	
Modules and Drivers	Others	
16.12.5193	Exit	

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M-API Drivers for GigE Comeras Welcome to the InstallShield Wizard for D The InstallShield Wizard will install DCAM-API Driv continue, did: Next.	CAH-API Drivers for GigE Cameras rers for GigE Cameras on your computer. To	DCAM-API Drivers for GigE Cameras License Agreement Pease read the following locate agreement confudy. THIS LICENS License License I. Cleaning the License License and warransp and all brane systems, ping.	Software User Agreement CACHERENEMT ("Agreement") CACHERENEMT ("Agreement") So accepting this agreement between Hamansta, a Japanese corporation with its registered office at to, Higashi-ku, Hamanstau CUC, Japan ("Herk") and do corporate office of the LICENSEE representative software. Octor-APD to resincidedine supported to go any ("Be associated therwith, or the supported camera using the hardware or software (whether embedded using the hardware or software (whether embedded)

when the installation is finished, you don't need to set the configuration of the driver



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NETWORK CARD INTEL CT CONFIGURATION

- 1. Install from the provided USB stick the INTEL CT network driver
- 2. From network connection properties set TCP/IP internet protocol with persistent IP address as follow:

Conservation ()	County
Avanzate	Generale
Connetti tramite: Broadcom NetLink (TM) Gigabit Ether Configura	È possible ottenere l'assegnazione autornatica delle impostazioni IP se la rete supporta tale caratteristica. In caso contrato, sarà necessario schiedere all'amministratore di rete le impostazioni IP corrette.
La connessione utilizza i componenti seguenti:	O Qtieni automaticamente un indrizzo IP
Se OSA NdisFilter Protocol	🕢 🕤 Ublizza il seguente indrizzo IP
	Jnditazo IP. 192 . 168 . 111 4
	Sybret mask: 255 . 255 . 255 . 0
	Gateway predefinito:
Installa	C Otteni indiraze server DNS automaticamente
TCP/IP. Protocollo predefinito per le WAN che permette la	Utilizza i seguenti indrizzi server QNS:
comunicazione tra diverse reti interconnesse.	Server DNS preferito:
Mostra un'icona sull'area di notifica quando connesso	Server DNS atemativo:
Ngtifica in caso di connettività limitata o assente	Avangate
OK Annulla	OK Annula

- 3. SET NIC IP address to 192.168.111.4
- 4. SET Subnet mask to 255.255.255.0.
- 5. Rename the NIC connection to the EUT as "TRIUM NOT TO MODIFY".



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2. Wait until the two different progress bars are completed and appears the GREEN flag icon

VERTER •	UPDATE	INVERTER
Main MODE=1 VLD=1 VE	ER=0.43.2 (C:0.43.2)	INSTRUCTIONS
inverter MODE=2 VLD=0 VE	ER=2.2.0 (C:2.2.0)	Use the following instructions when the upgrade of the FW o one or more XMtrium boards is required:
Power MODE=1 VLD=1 VE MODE=1 VLD=1 VE Aux Cbct	3R=0.9.2 (C:0.0.0) 5R=0.7.0 (C:0.7.0)	 Select the board that requires FW upgrade; Click on UPDATE button; Wait until the two different progress bars are completed and appears the GREEN flag icon.
Aux Ceph MODE=0 VLD=0 V	ER=0.0.0 (C:0.3.0)	Repeat 1 to3 for each of the boards that require FW upgrade.
UPGR	IDriver	
		Update Status =8 (WRITE)
	-	Error code =0 (OK)
		MODE=UPDATE VALID=0 CRC=

3. When the GREEN round icon stops blinking and becomes a flag, the upgrade is finished

ialog			P
NVERTER .]	UPDATE	INVERTER
Main) MODE=1 VLD=1 VER=0.43.2 (C;0.43.2)		INSTRUCTIONS
inverter	MODE=2 VLD=0 VER=2.2.0 (C:2.2.0)		Use the following instructions when the upgrade of the FW of one or more XMtrium boards is required:
Power	MODE=1 VLD=1 VER=0.9.2 (C:0.0.0)		
Aux Cbct	MODE=1 VLD=1 VER=0.7.0 (C:0.7.0)		 Select the board that requires FW upgrade; Cick on UPDATE button; Wait until the two different progress bars are completed and appears the GREEN flag icon.
Aux Ceph	MODE=0 VLD=0 VER=0.0.0 (C:0.3.0)		Repeat 1 to 3 for each of the boards that require FW upgrade.

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- 4. Make effective the modification:
 - ✓ Turn OFF XM trium (do not use emergency stop to turn OFF trium) and leave OFF at least:
 - 2 minutes after inverter board FW upgrade
 - 30 seconds after other boards FW upgrade

For each board mounting old versions, upgrade the firmware, restarting from step 1 of this chapter

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TRIUM VARIABLE CONFIGURATION SERVICE TOOL

After the installation of AIS 1.6 run this tool to transfer and configure the Trium variable data setting in the workstation. This operation is mandatory having the Trium calibration data and factory test data inserted in the workstation. Without this data setting, the machine will not be functional.

- 1. Run TriumConfig_Installer_v1.4, double clicking on the setup file.
- 2. Click on 'Next' to proceed with the installation path :

		?	Х
🔯 Trium Config Installer v1.4.0-1 Setup			
Setup - Trium SN:XT0			
Welcome to the Trium SN:XT			
	Next	Q	uit

3. You MUST change the installation path to C:\TRIUM, or the machine will not be functional.

		E aldar			
Ple	ase specify the	e folder where Trium SN:XT	will be installed.		
C:	\TRIUM			Brows	e

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- 4. Proceed with license agreement, the click on 'Next'
- 5. Click in 'Install' to start the installation
- 6. Click on 'Finish' to complete the installation.

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RX TUBEHEAD CALIBRATION

INTRODUCTION

In this paragraph you can find instructions to calibrate the RX tube.

These instructions are applicable to all the X-MIND Trium models.

Perform this calibration when:

- ✓ You replace the whole U-arm group
- ✓ You replace the RX tube
- ✓ You replace the Inverter board
- \checkmark In some cases of RX tube failures, depending on troubleshooting diagnostic messages.

PROCEDURE

LOGIN to SERVICE

- a. End execution of AIS.
- b. Turn OFF then ON X-MIND trium.
- c. Start XMdriver Show double clicking on the file: C:\AISSoftware\XMdriver\XMdriverShow.bat
- d. Verify that SERVICE tab has green flag (WorkStation and X-MIND trium are communicating).
- e. Click on SERVICE tab and enter the required password: rdtech.

✓ Disconnect	XM-Driver				
	V Disconnect	🛠 хм	SIM	SERVICE (9229)	FACTORY (9779)



RX TUBE CALIBRATION

f. Click on Calibration tab and then click on RX tube tab.

	antiometer R Colu	mn Potentiometer	tiometer Nasion U-arm Encod		Mechanical axes	Collimator CRX Tube	
	START TUBE	CALIBRATION	TextLabel	*	Servi ? S	<u>]</u>	
	ABORT	ABORT			SET IP Address	ons when recalibration only under supervision	
	Enable Advan	Enable Advanced Mode			SET Model	BRATION button;	
	film_ratio_num (1)	1			Calibration	tton and keep it pressed ears the GREEN flag icon;	
	film_ratio_den (1) film_curr_stby (15	1 00) 1500			Calib Collimator		
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g. Click on on START tube calibration.

U-arm Potentiometer R	Column Potentiometer	Nasion	U-arm Encoder	Mechanical axes	Collimator	RX Tube	**
START TUBE CALIBRATION		INSTRUCTIONS Use the following instructions when recalibration of TUBEHEAD is required (on under supervision of ACTEON representative):			required (only		
Advanced Enable Advanced Mode							

h. Keep continuously pressed the X-ray exposure button

START TUBE CALL	IBRATION		INSTRUCTIONS	
44775 000 1			Use the following	. Inteller
Advanced	M		under supervisio	on of AC
Enable Advanced M	Mode		1) Click on START 2) Press the XRay of CREEN fan icon:	TUBE C
	Advanced Enable Advanced I film_ratio_num (1)	Advanced Enable Advanced Mode film_ratio_num (1)	Advanced Enable Advanced Mode film_ratio_num (1)	Advanced Enable Advanced Mode I) Clok on START 2) Press the XRAy GREEN flag icon; GREEN flag icon; 3) Clok on Close b

until the buzzer is OFF and appears the green fixed icon.

U-arm Potentiometer R	Column Potentiometer	Nasion	U-arm Encoder	Mech
START TUBE CALL		5	INSTRUCTIONS	ginstra
Advanced			under supervisio	on of A
-			1) Cick on START	TURE (

→ It can take up to 2 minutes: DO NOT INTERRUPT the procedure

- i. To make effective the modification turn OFF X-MIND trium.
- **j.** End X-MIND driver SERVICE.

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