

The Measurement Computing PCI Quad04 board provides time synchronization data acquisition between DSI's different acquisition hardware.

Provides synchronization between DSI's:

- PhysioTel or PhysioTel HD Implants using the Matrix 2.0 (MX2) and the ACQ-7700.
- PhysioTel Digital Implants using Communication Link Controller (CLC) and the ACQ-7700.

COMPATIBILITY

Requirements:

- Ponemah v5.20 Service Pack 9 and later
 - Windows[®] 7 SP1, 64-bit only
- Ponemah v5.3x
 - Windows[®] 7 SP1, or Windows[®] 10, 64-bit only

Part numbers:

Quad04 Sync Board	271-0401-001		

Compatible Sync Cable 274-0030-002

Note: The CTR05 board (DSI PN: P02369) has been discontinued by the manufacturer and is no longer available. This board is also only supported with Ponemah v5.20 through v5.20-SP7.1 (i.e. 32-bit compatible versions of Ponemah). It requires sync cable DSI PN: J03548.

INSTALLATION

The following steps outline the installation and setup of the Data Synchronization Card using Ponemah v5.20-SP9+ and Ponemah v5.3x.

Notes:

- If you do not have a previous version of the Measurement Computing software installed, please follow all the steps below in order. Please make sure that you do not install the PCI Board until after the Measurement Computing Software is installed from the Service Pack Installation CD.
- If the previous version of Measurement Computing InstaCal is installed, it must be uninstalled prior installing the newer InstalCal v6.60, which is included with the Ponemah v5.3x install.
 - When the Ponemah v5.20-SP9+ install includes InstaCal v6.26; the system will work as intended using this version. However, with v5.3x an updated Sync Service is used to provide more detailed sync messages to the system, which requires the updated InstaCal v6.60. If the updated service is installed on a Ponemah v5.20-SP9+ system, then InstaCal v6.60 must also be used.

To install:

- 1. If using Ponemah v5.32:
 - a. Insert the Ponemah installation USB drive into an open USB port on the PC.
 - b. Navigate to the **install.exe** and double click.
 - c. Click Ponemah 5.32.

Note: The DSI 7700 Time Sync Service will be installed during this process.





d. Follow the onscreen instructions to progress through the install using the default values.

Setup - Ponemah Physiology Pl	latform —	
P.	Welcome to the Ponemah Physiolog Platform Setup Wizard This will install Ponemah Physiology Platform v5.32 on y Computer. It is recommended that you close all other applications b	V Setet Destination Location Where should Ponemah Physiology Platform be installed?
PONEMAH	continuing. Click Next to continue, or Cancel to exit Setup.	Setup will install Ponemah Physiology Platform into the following folder. To continue, click Next. If you would like to select a different folder, click Brown. C()Ponemah Bgowa C()Ponemah Bgowa C()Ponemah
	Net >	C.\Ponemah Data location: (Can be changed later in the application settings) C.\Ponemah, Data C.\Ponemah, Da
		< Back Install Cancel

e. If prompted to stop any services prior to the start of installation, allow to automatically close and click **Next**.

🛃 Setup -	Ponemah Physiology Platform	-		×
Prepar Set	ing to Install up is preparing to install Ponemah Physiology Platform on your computer		6	
8	The following applications are using files that need to be updated by Set recommended that you allow Setup to automatically close these applica installation has completed, Setup will attempt to restart the applications	tup. It is ations. /	; After the	
	DsiClock		^	
			>	
	<u>Automatically close the applications</u> <u>D</u> o not close the applications			
	< Back Next >		Canc	el



f. Wait for installation to complete and click **Finish**.



g. Click Sync card drivers from the installation splash screen.

	Ponemah 5.32
PONEMAH	Sync card drivers Release and Install Documentation Exit
Supported Operating System(s): Microsoft Windows 7 SP1 64-bit Microsoft Windows 10 64-bit	DSI [*] Install options by clicking on the links above.

2. If using Ponemah v5.20-SP9+:

- a. Insert the Ponemah Service Pack installation the PC's CD drive.
 The install should start automatically. If not, use Windows Explorer to run Install.exe.
- b. Click Install ACQ7700 Time Sync Service.



c. Follow the onscreen instructions to progress through the install using the default values.



d. The Measurement Computing install will start automatically.



3. Extract the files and start installation by clicking **OK** and then **Setup**.

	WinZip Self-Extractor	×
	Press OK to continue with installation	n.
	OK Cance	1
WinZip Se	lf-Extractor - icalsetup.exe	
Cli	ck on Setup to install InstaCal.	Setup
		Cancel
		About

4. Use the default values to move through the Install Wizard.

🖟 InstaCal for Windows - Insta	allShield Wizard	×				
	Welcome to the InstallShield Wizard fo InstaCal for Windows	r				
	The InstallShield(R) Wizard will install InstaCal for W your computer. To continue, dick Next.	indows on 👼 InstaCa	l for Windows - InstallShield Wizard	×]	
		Destinal	tion Folder CO	MPUTING		
	WARNING: This program is protected by copyright la international treaties.	6	Install InstaCal for Windows to: C:\Program Files (x86)\Measurement Computing\DAQ\	Ready to The wizard	I for Windows - InstallShield Wizard D Install the Program is ready to begin installation.	
MEASUREMENT COMPUTING	< Back Dext >			Click In If you v exit the	stall to begin the installation. want to review or change any of your inst wizard.	tallation settings, click Back. Click Cancel to
		InstallShield	< Back Next >	-		
				InstallShield	< 5	lack Install Cancel

5. If prompted, choose to Install the Measurement Computing device software (driver). This will happen multiple times, click **Install** though each.



6. Click Finish.

🖟 InstaCal for Windows - Insta	allShield Wizard	×
	InstallShield Wizard Completed	
	The InstallShield Wizard has successfully installed InstaCal for Windows. Click Finish to exit the wizard.	
	Show the readme file	
MEASUREMENT COMPUTING		
	< Back Finish Cancel	
	2	

7. A restart will be requested, click **Yes**.



- 8. Once the PC has been restarted, shutdown the PC to physically install the Quad04 Sync Board.
 - a. Remove the power cord from the back of the PC.
 - b. Remove the service panel.
 - c. Install the PCI Board into an available PCI slot.
 - d. Reinstall the service panel and power cord.
 - e. Turn on the PC.
- 9. Once Windows has completed its initial startup, it will then detect the PCI Board and it may automatically install the available driver.





If prompted by Windows, select **No** to **connect to the Internet to search for available drivers**. Select **Yes** if Windows asks to **install automatically to complete the hardware and software installation**.

- 10. Run the InstaCal program to ensure the Quad04 Sync Board is recognized and in the appropriate board location:
 - a. Click **Start | All Programs | Measurement Computing | InstaCal**. The screen should display the following if the PCI-Quad04 card is installed. Click **OK**.

Plug and Play Board Detection					
The following plug and play devices have been detected					
PCI-QUAD04 (bus# 3, dev# 0)					
Check those devices you wish to have added to the configuration file.					

b. It is important to note that if multiple Measurement Computing cards are installed, the PCI Board should be listed as **Board #0** in the InstaCal window. If it is not, this can be done by right-clicking on the PCI Board and selecting Change Board # from the list. **Close InstaCal**.





- 11. Connect the ACQ-7700 or ACQ-16.
 - a. Connect the Sync Cable from the Measurement Computing PCI Board (on the back of the PC) to the Auxiliary port on the ACQ-7700 or ACQ-16.
 - b. Connect the ACQ-7700 or ACQ-16 USB cable to the PC.
 - c. Power on the ACQ-7700 or ACQ-16.
- 12. Start the **Ponemah** application.
- 13. Select the **Options menu | Application Configuration | Acquisition Interface** and then select the appropriate interface, **ACQ7700 USB MX2/PhysioTel** or **ACQ16 USB MX2/PhysioTel**. Then, click **OK**.

Configuration - Acquisition I	interface
Configuration - Acquisition I - Configuration Acquisition Interface Data Paths Miscellaneous Review Animal ID ODBC Interface Email Alerts Advanced	Acquisition Interface Acquisition Interface Acq16 USB AcQ16 USB AcQ16 USB - OpenART AcQ7700 USB AcQ7700 USB - OpenART AcQ7700 USB - MX2 AcQ7700 USB - MX2 AcQ7700 USB - PhysioTel Digital AcQ7700 USB - PhysioTel Digital Jacketed External Telemetry G JET - OpenART
	PhysioTel Digital MX2 Dataquest OpenART ACQ DEMO OK Cancel

14. Restart Ponemah and create (or select) the proper protocol for acquisition.

NOTE: It is recommended to check the following prior to running the program to ensure correct installation.

- DSI 7700 Time Sync Service
 - 1. Select the Windows Start menu, right-click on Computer and select Manage.
 - 2. Expand the Services and Applications selection.
 - 3. Locate DSI 7700 Time Sync and verify that the service is <u>Started</u> and set to <u>Automatic</u>.



- dsiTimeSync log
 - 1. Select the Windows Start menu, right-click on Computer and select Manage
 - 2. Expand the Event Viewer | Applications and Services Log selection.
 - 3. Locate dsiTimeSync.
 - When the ACQ-7700 or ACQ-16 is powered **ON**, the last log entry should display an Informational message indicating the 7700 ticks have started.
 - When the ACQ-7700 or ACQ-16 is powered OFF, the last log entry should display an Error message indicating the 7700 counter could not be read.

E Computer Management	and the second	and have been						
Eile Action View Help								
Computer Management (Local	Level	Date and Time	Source	Event ID	Task Category	Actions		
System Lools Task Schedular	Information	6/26/2017 3:18:46 PM	dsiTimeSyr	nc 0	None	dsiTimeSync 🔺		
Fvent Viewer	Error	6/26/2017 3:18:46 PM	dsiTimeSyr	nc 0	None	👩 Open Saved Log		
Custom Views	 Information 	6/26/2017 3:18:45 PM	dsiTimeSyr	nc 0	None	View		
Windows Logs	U Error	6/26/2017 3:18:44 PM	dsiTimeSyr	nc 0	None	Import Custom View		
A Pplications and Se	(i) Information	6/26/2017 3:18:43 PM	dsiTimeSyr	nc O	None			
📄 dsiTimeSync	1 Information	6/26/2017 3:18:41 PM	dsiTimeSyr	nc 0	None	Clear Log		
Hardware Events	U Error	6/26/2017 3:18:40 PM	dsiTimeSyr	nc U	None	Filter Current Log		
E Internet Explorer						Properties		
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▶ 📕 Microsoft						Save All Events As		
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No Performance						👔 Help 🕨 🕨		
🚔 Device Manager	Event 0, dsiTimeSync				×	Event 0, dsiTimeSync 🔺		
Storage Disk Management	General Details					Event Properties		
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	Log Name:	dsiTimeSvnc			E	Refresh		
	Source:	dsiTimeSync	Logged:	6/26/2017 3:18:46 PI	M	7 Help		
	Event ID:	0	Task Category:	None				
	Level:	Information	Keywords:	Classic				
	User:	N/A	Computer:	lab20494w764				
					+			

