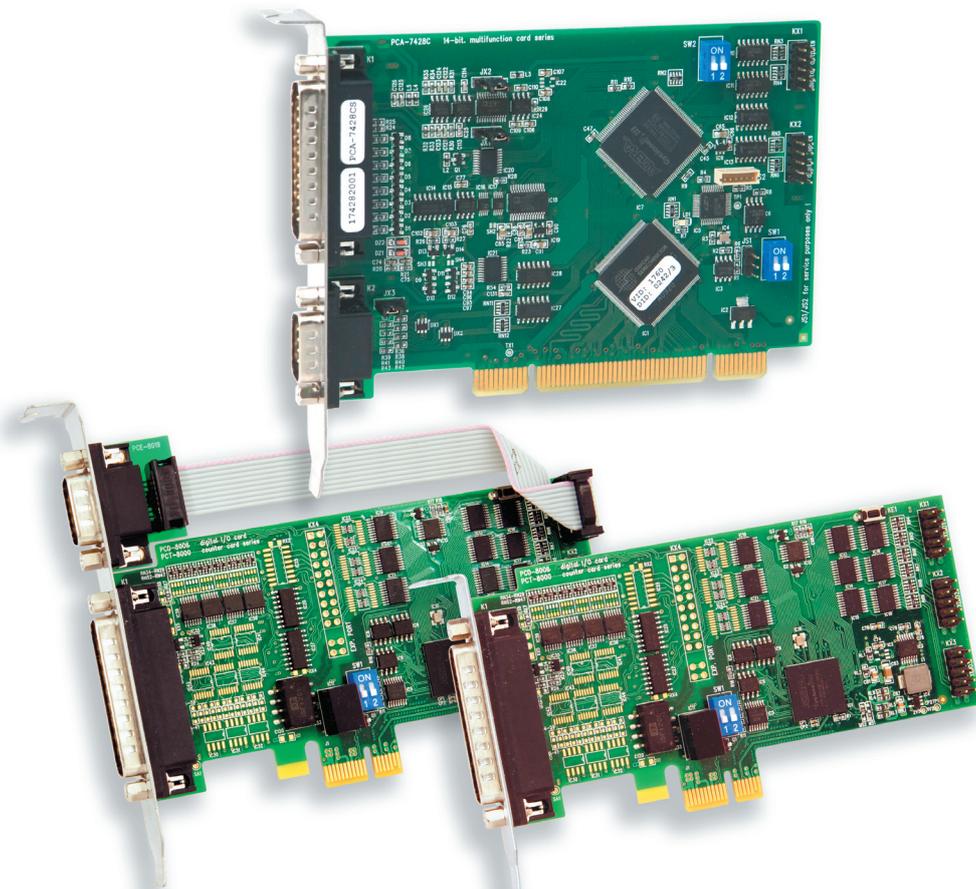




DAQ PCI/PCIe cards Windows driver installation (version 3.x)



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1. Introduction

This manual is intended to guide the reader through the process of installing, updating and uninstalling the DAQ PCI and PCI Express (hereinafter also referred to as PCIe) cards system driver for the Windows operating systems.

Current driver version: 3.15, build 01

Supported operating systems:

- Windows 7, Windows 7 x64
- Windows 8.x, Windows 8.x x64
- Windows 10, Windows 10 x64
- Windows Server 2008-R2
- Windows Server 2012
- Windows Server 2012-R2

Current driver version supports the following DAQ PCI cards TEDIA:

- PCA-7208AL/AS
- PCA-7228AL/AS/EL
- PCA-7288A
- PCA-7408AL/AS
- PCA-7428AL/AS/EL
- PCA-7428CL/CS/CE¹⁾
- PCA-7628AL/AS
- PCD-7004
- PCD-7006C¹⁾
- PCD-7104
- PCD-7106C¹⁾
- PCT-7303A
- PCT-7303B¹⁾
- PCT-7303C¹⁾
- PCT-7303E¹⁾
- PCT-7408A
- PCT-7424
- PCT-7424C¹⁾
- PCT-7424E¹⁾
- PCI-1052
- PCI-1054U²⁾

Current driver version supports the following DAQ PCI Express cards TEDIA:

- PCA-8428
- PCA-8429
- PCA-8438
- PCA-8439
- PCA-8628
- PCA-8629
- PCA-8638
- PCA-8639
- PCA-8288
- PCA-8688
- PC8K-LOADER
- PCD-8006
- PCD-8104
- PCD-8105
- PCD-8106
- PCT-8303
- PCT-8306
- PCT-8360
- PCT-8363
- PCT-8424
- PCT-8425
- PCT-8426

Note: 1) This card contains two PCI functions, so the driver must be installed twice.

2) This card contains two PCI functions, however, this driver is installed only once (for the second PCI function, the COM port driver must be installed).

3) Adding new cards to the list mentioned above does not affect the function of the driver or the installation procedure.

The driver installation package contains only the driver itself, the detection utility for identifying the installed cards and the documentation for installing, updating and uninstalling the driver (ie. this document) are not installed together with the driver. Programmer support (User Guide describing the driver interface, header files, etc.) is available completely separately.

For the latest information on drivers and PCI/PCIe DAQ cards, visit <https://www.tedia.eu>.

Note: The system driver is necessary for the function of DAQ PCI/PCIe cards in the Windows, however, various programs may require the installation of additional drivers that provide a higher API levels. These additional drivers are installed separately.

2. Driver Installation

This chapter describes the installation process of the system driver for Windows 7/8.x/10 and also Windows Server 2008-R2/2012/2012-R2. We recommend you to review the entire process in detail before beginning the installation. The screenshots were captured in Windows 10, in other systems the installation process is analogous.

- 1) Firstly, install the card in your PC (the driver does not support driver pre-installation before inserting the card into PC). Follow the principles for handling the devices sensitive to a electrostatic discharge damage, touch the card carefully only by the edges, and do not touch the components or metal contacts located on the surface of entire card. The PC must be switched off before the card is inserted. After removing the slot cover plate, insert the configured card into a free slot for expansion cards and fix it in place.
- 2) Turn on the PC, log in as a user with administrator privileges and run the Device Manager utility.
- 3) In the Device Manager window, there will be a device under Other Devices with a yellow warning symbol (see Fig. 1.) to indicate a problem „no driver installed“.

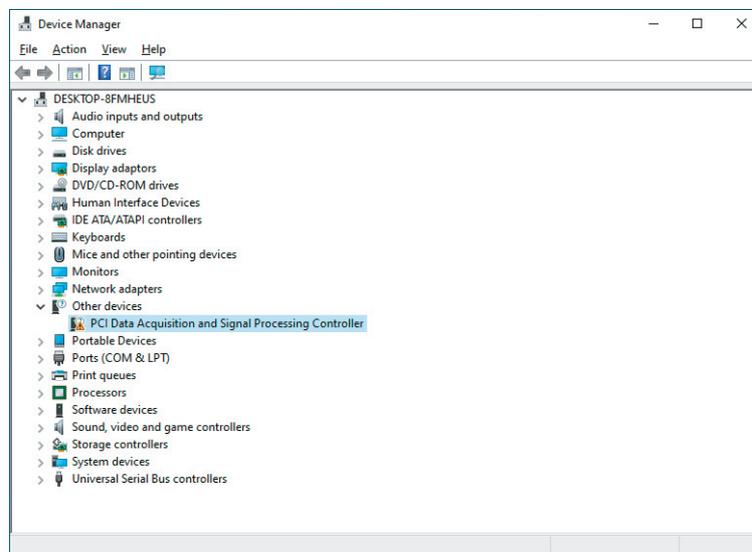


Fig. 1. Device Manager - the device without driver installed.

- 4) Right click on the „PCI Data Acquisition...“ device to bring up a menu as shown in Fig. 2. and select „Update driver“ option.

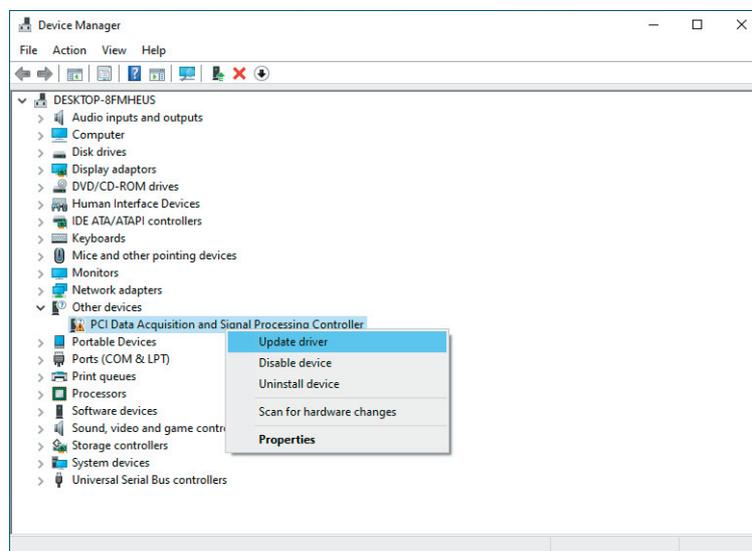


Fig. 2. Device Manager - the process of updating drivers.

5) This then displays the option for an automatic search or a manual search. Select the second option to browse manually (see Fig. 3.).

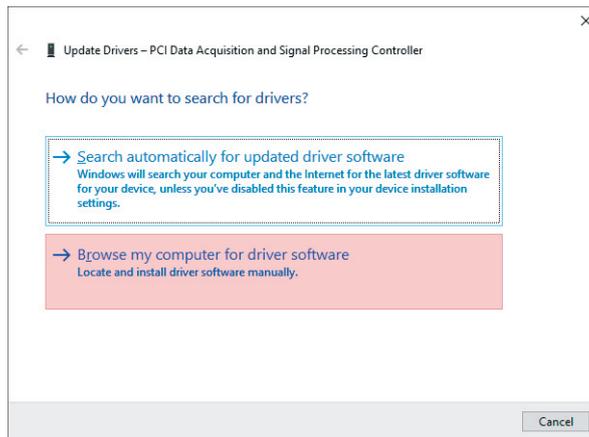


Fig. 3. Driver update process.

6) Use the „Browse“ option and select the folder containing the files with the appropriate driver. **It is really important to select the folder with the driver for your operating system.** After selecting a location use the button „Next“ (see Fig. 4.).

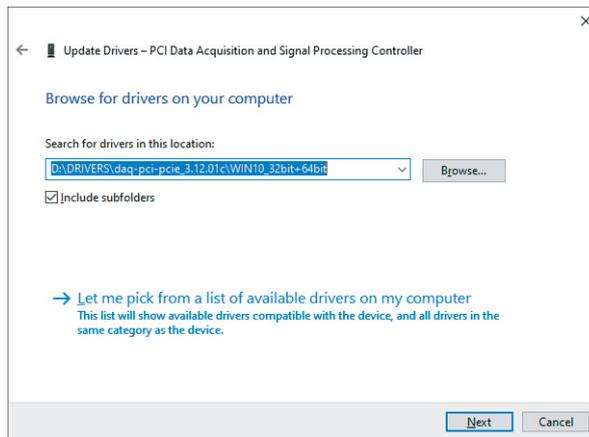


Fig. 4. Choosing a folder with driver files.

7) Depending on version of Windows, you may be asked if you trust TEDIA software (see Fig. 5). Confirm with „Install“ button.



Fig. 5. Driver publisher verification.

Note: This prompt appears if the driver is signed only with a TEDIA digital signature. The driver for Windows 10 contains a Microsoft digital signature in addition to the TEDIA signature, and the query should not be displayed (ie. this step of the procedure is skipped); therefore, if this query appears, verify correct path to the Windows 10 driver files folder.

8) In the next step, the driver will be installed (see Fig. 6.).

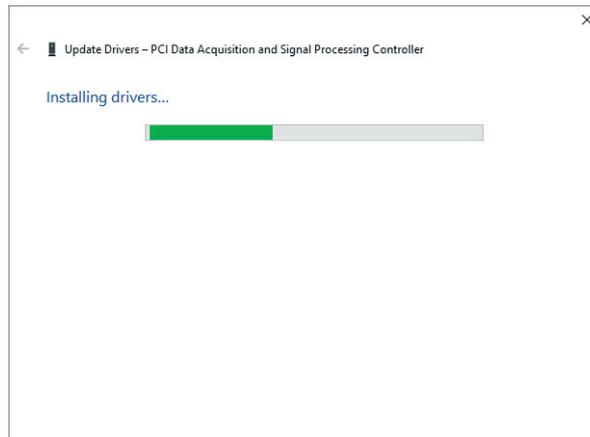


Fig. 6. Driver update process.

9) A message about successful driver installation will be displayed (see Fig. 7.). Close this window.

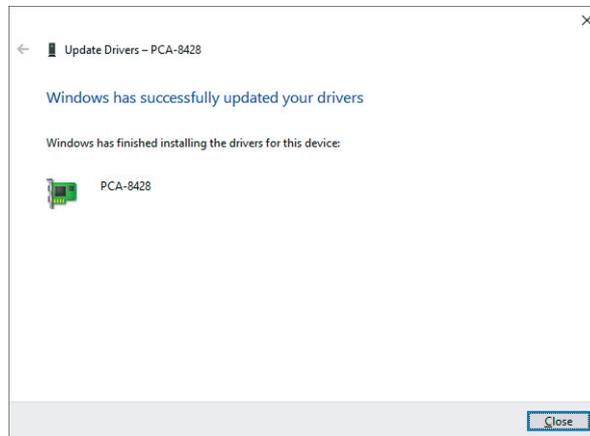


Fig. 7. Successfully installed driver.

10) Go back to the Device Manager. The „TEDIA DAQ PCI/PCIe card“ section now shows the device with the successfully installed driver (see Fig. 8.).

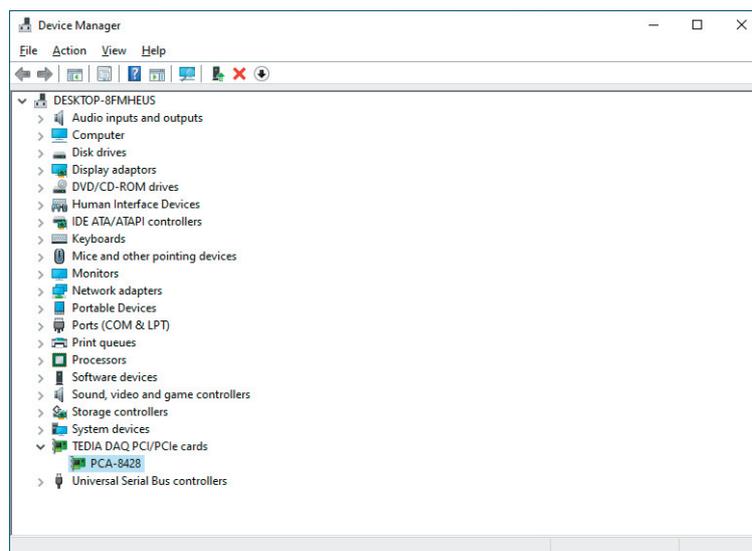


Fig. 8. Successfully installed driver in Device Manager.

11) Some TEDIA PCI cards are equipped with a dual-function controller (see the list of supported cards at the beginning of this manual), ie. one card appears in the system as two independent PCI devices. In this case, the second device without the driver installed will appear in the Device Manager, so the procedure described in steps 3) through 10) must be repeated. For initial state before installation and final state after installation of both device see Fig. 9.

The same procedure should be performed if the driver is installed for multiple cards at the same time.



Fig. 9. The dual-function PCI card in Device Manager.

12) It is strongly recommended to restart the computer after the installation is completed regardless of whether Windows requested restart or not.

Note: During the installation of a dual-function card or multiple cards at the same time, you can ignore the prompt to restart the computer and perform the restart after the installation of the driver for all cards is completed.

3. Driver Updating

This chapter describes the update process of the system driver of TEDIA DAQ PCI/PCIe cards. The procedure is analogous in all supported versions of Windows.

There are two ways how to update a driver (ie. it means replacing current driver version 3.x with a newer version 3.x).

The first option is to uninstall the current driver and install the new driver (see the description in the next and previous chapter), the second and easier option is to use the „Update driver“ menu in the Device Manager (see Fig. 10.).

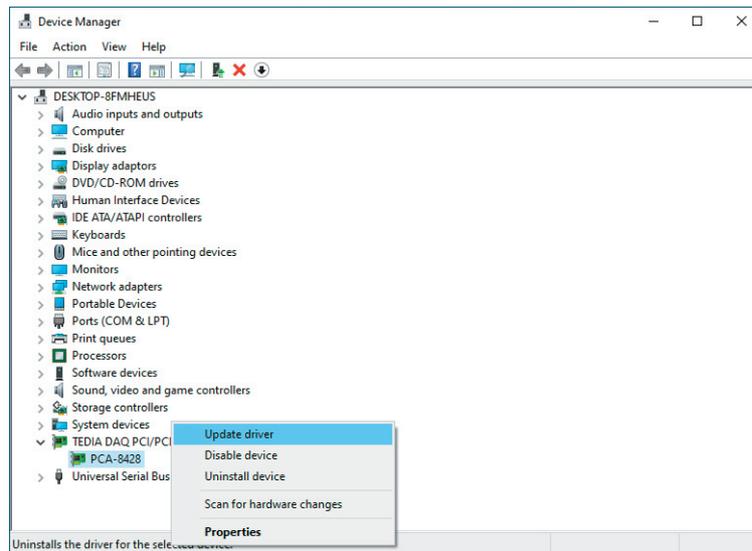


Fig. 10. Driver update in Device Manager.

The update procedure is completely analogous to the driver installation procedure described in the previous chapter.

If more than one card or dual-function card is installed in the computer, it is necessary to update the driver for all devices displayed in Device Manager (otherwise, the information displayed in Device Manager will not be updated). Restart prompts can be ignored during the update and computer can be restarted after driver for all cards have been updated.

Warning: If a 1.x or 2.x version system driver is currently installed in your computer, you must first uninstall it and then install the 3.x version driver in the second step.

4. Driver Uninstallation

This chapter describes the uninstallation process of the system driver of TEDIA DAQ PCI/PCIe cards. The procedure is analogous in all supported versions of Windows.

- 1) Before removing the card from the computer it is appropriate to first uninstall the driver. In the Device Manager, select the card you want to uninstall, right-click and select „Uninstall“ option (see Fig. 11.). In the case of dual-function card (see the overview of cards in the introduction to this manual), it is necessary to perform an uninstall for both devices one after the other.

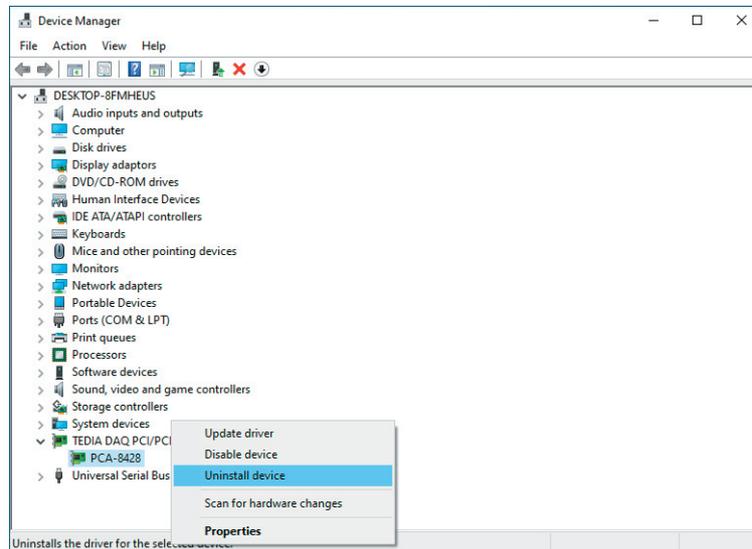


Fig. 11. Driver uninstallation in Device Manager.

- 2) A window „Uninstall Device“ appears (see Fig. 12.). Select „Delete the driver software for this device“ if you want to completely uninstall the driver of TEDIA DAQ PCI/PCIe cards (ie. no other TEDIA card remains in the computer). If you do not check this option, only records to the selected card will be removed from the Windows registry. Then select „Uninstall“.

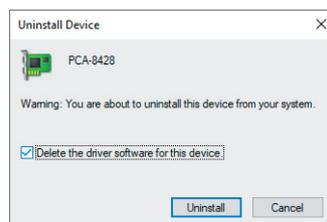


Fig. 12. Remove the device driver from the computer.

- 3) Turn off the computer and remove the card from the computer. The driver is now uninstalled.



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