# Self-Installing IonOptix Hardware/Software

IonWizard 6x, Mutech, RTD2710 on Windows XP

November 27, 2007

The following instructions explain the procedure required to install hardware and software required to run lonWizard 6x using the Mutech MV510 framegrabber with a RTD2710-based Fluorescence System Interface or Data System Interface. These procedures are for first time installations only. If you are upgrading are running system please refer to other documents.

# 1. Verify computer and Windows version

To run IonWizard 6x you will need:

- One free full-height half-length PCI slot.
- One free full-height half-length ISA slot
- Windows XP. Windows 2000 may work but is not well tested. Windows Vista support is not completed. All other versions of windows are not supported for new installations

# 2. Obtain files

The software is currently distributed as two self-extracting zip files. Please contact IonOptix for instructions on receiving the latest versions. The two files will be

- 1) mutech212.exe
- 2) iwiz6-03jul07.exe ("03jul07" will change for each release)

If you download these files from a separate computer you will have to copy them to your acquisition computer using a CD or USB flash drive. If you have an Internet connection on your acquisition computer simply download files to a temporary directory (say c:\temp)

# 3. Create program directory

Create a directory on your C drive of your acquisition computer called c:\ionoptix.

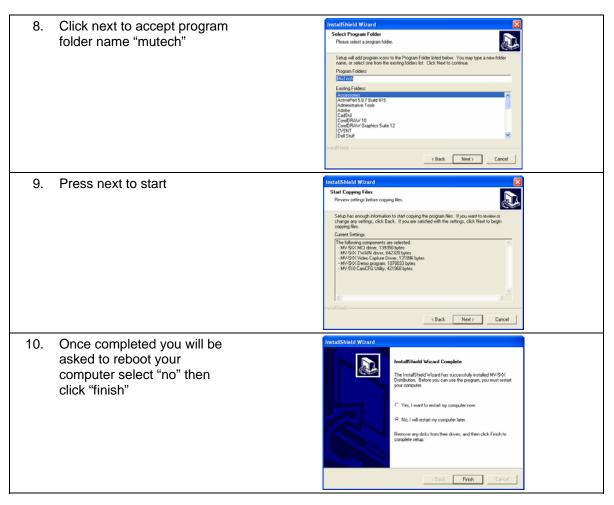
## 4. Unpack files

To unpack the files open my computer and locate the drive/folder that contains the files from step #2. The first step is to install the frame grabber support files....

<ol> <li>Open the drive/folder containing the files from step #2 and double-click on mutech212.exe</li> </ol>	Chample     Image: Second
<ol> <li>After unpacking you will see this message, click ok and the Mutech setup program will start</li> </ol>	bes General 27200721219 Ht Size 2 44 Ht     2 44 Ht     2 Ht Grapher         Mutech Drivers and Utilities       Successfully completed the operation.         OK

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3.	Click next	InstallShield Wizard Control C
4.	Click yes to accept the license	
5.	Click next to confirm	InstallShield Wikard       Image: Comparison of the index any impresentation or claims concentring to the index any impresentation or claims concentring to the use, interpretation, relations or other implementation of laid information.         Multich: Corporation does not wanted or make any impresentations or claims concentring or the use, interpretation, relations upon or other implementation of laid information.         On you accept all the terms of the preceding License Agreement? If you choose No. the sets will doits. To instal MY-SNC Distribution, you must accept this spenter.         InstallShield       Yes
6.	Click next to accept default installation directory of c:\mv-500	InstallSheld Wizard     Image: Choose Destination Location       Setect tabler where Setup will install Res.     Image: Choose Destination Location       Setup will install MY-30x Distribution in the following loblex.     To metal to the index, click Next. To install to a different folder, click Browse and relied another folder.       Destination Folder     Clivel Sect.       Choose Section Folder     Browse
7.	Click next to do a typical installation	InstallShield Wizard       Image: Section Face         Section Face       Image: Section Science (Section Science)         Cloth the type of Setup you prefer, then cloth Next.       Image: Section Science (Section Science)         Cloth the type of Setup you prefer, then cloth Next.       Image: Section Science (Section Science)         Cloth the type of Setup you prefer, then cloth Next.       Image: Section Science (Section Science)         Cloth the type of Setup you prefer, then cloth the most common options. Recommended for advanced users.       Image: Section Science (Section Science)         Image: Section Science (Section Science)       Image: Section Science (Section Science)         Image: Section Science (Section Science)       Image: Section Science (Section Science)



Next you will install the IonWizard files....

<ol> <li>Open the drive/folder containing the files from step #2 and double-click on iwiz-03jul07.exe</li> <li>Note the actual name of the file will vary based on the date it was released</li> </ol>	C Stample     Image: Control of Stample       File: Elit: Veno: Fronties: Tools: Help     Image: Control of Stample       File: Elit: Control of Stample     Image: Control of Stample       File: Elit: Control of Stample     Image: Control of Stample       File: Elit: Control of Stample     Image: Control of Stample       File: Elit: Control of Tool of File: Control of Stample     Image: Control of Stample       File: Elit: Control of Tool of File: Control of Stample     Image: Control of Stample       File: File: Control of Tool of File: Control of File: C
	Date Created: 7/3/2007 2:35 FM Stat: 2:46 MB 2:46 MB 2:46 MB
<ol> <li>After unpacking you will see this message, click ok</li> </ol>	IonWizard July 3, 2007 Successfully completed the operation. OK

#### 5. Insert the Cards

#### Be sure to power down the computer be inserting any cards!

Install the Mutech and RTD cards in any available slots. Be sure to screw in (or clip for some cases) the card supporting bracket to the back of the case so the cards do not work free.

## 6. Load the drivers

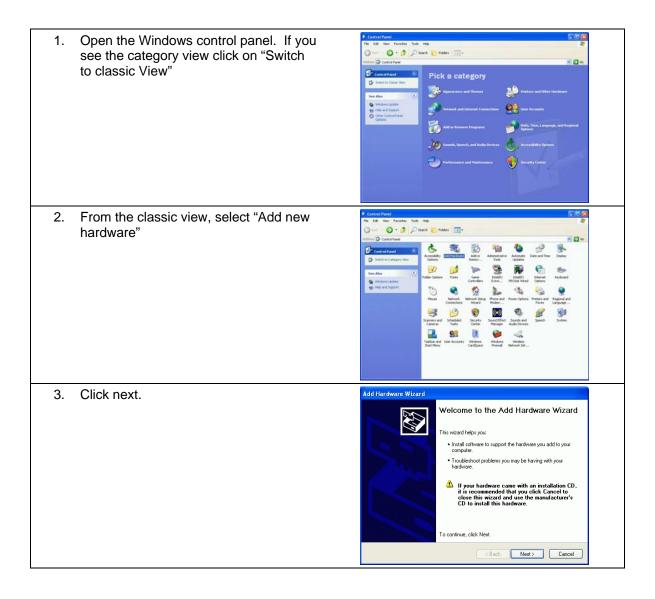
The first time that you boot the computer after inserting new hardware Windows will automatically start the process for selecting and loading the driver. Windows will automatically recognize the PCI Mutch frame grabber. You will see a "ballon" in the lower right-corner of the screen.

To install driver for the "Mutimedia Controller" (Mutech) driver		
<ol> <li>Select "no" you d windows update</li> </ol>	on't want to search and click next.	Found New Hardware Wizard Wickowski Back for super target and under software by Ardware Wizard Windows Ubdate Web alle (with your permission). Bread our privacy under Can Windows Ubdate Web alle (with your permission). Bread our privacy under Can Windows connect to Windows Update to search for software?
2. Select "Install fro location (Adance	m a list or specific d)" the click next.	Found New Hardware Witzard         Found New Hardware Witzard         Witzeda Contoller         Witzeda Contoller         Witzeda Contoller         If your hardware came with an installation CD or loppy disk, insert it now.         What do you want the witzed to do?         Install from sit or specific colorin (Advanced)         Install from sit or specific colorin (Advanced)         Cick Next to continue.
<ul> <li>3 Select "search f</li> <li>- uncheck "search</li> <li>- check "include f</li> <li>- enter or browse</li> <li>c:\ionoptix\mu</li> <li>then click next</li> </ul>	n removable media…", his location…" to	Hardware Update Wizard         Please choose your search and installation options.         Search for the best driver in these locations.         Use the check boxes below to fink to expand the default search, which includes local parts and removable media. The best driver found will be installed.         Search for the best driver in these search:         Include this location in the search:         Microsoftwideentp21g?         Don't search. I will choose the driver to install.         Choose this option to select the device driver fion a list. Windows does not guarantee that the driver you choose will be the best include to regress.
<ol> <li>Windows will star then display this "Continue Anywa"</li> </ol>		Hardware Installation         Inthe software you are installing for this hardware: MuTech MV-5% Frame Grabber         has not passed Windows Logo testing to verify its compatibility with Windows X-P. (Tell me why this testing is insortant.)         Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.         Continue Anyway       STOP Installation



The RTD2710 ISA card is not a plug-an-play devices so Windows will not automatically recognize the new card. You will have to "manually" install the card

#### To install driver for the "RTD2710"....



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4.	Wait will Windows attempts to find non-	Add Hardware Wizard
	plug-and-play hardware it knows about. It will not find the RTD	Please wait while the wizard searches
		This wizard is searching for hardware that has been connected to your computer recently but has not yet been installed.
		5
		~
		< Back Next > Cancel
5.	Select yes, then click next.	Add Hardware Wizard
		Is the hardware connected?
		Have you already connected this hardware to your computer? <ul> <li>Yes, I have already connected the hardware</li> </ul>
		No, I have not added the hardware yet
		< Back Next> Cancel
6.	Scroll down to the bottom of the list and	Add Hardware Wizard
6.	Scroll down to the bottom of the list and select "Add a new hardware device"	
6.		
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6.	select "Add a new hardware device"	The following hardware is already installed on your computer       Image: Comparison of the stalled hardware device, then click Next to check properties or troubleshoot a problem you might be having.         To add hardware not shown in the list, click. "Add a new hardware device."         Installed hardware:         Image: USB Root Hub
6.	select "Add a new hardware device"	The following hardware is already installed on your computer       Image: Compute State Stat
6.	select "Add a new hardware device"	The following hardware is already installed on your computer       Image: Compute the set below, select an installed hardware device, then click Next to check provide the other you might be having.         To add hardware not shown in the list, click "Add a new hardware device."         Installed hardware:         Image: USB Root Hub         Image: USB Root Hub
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	select "Add a new hardware device" then click next. Select "Install the hardware that I manually select from a list (Advanced)"	The following hardware is already installed on your computer       Image: Compute Section 1 and Section 2 and Sectio
	select "Add a new hardware device" then click next. Select "Install the hardware that I manually select from a list (Advanced)"	The following hardware is already installed on your computer       Image: Compute State Stat
	select "Add a new hardware device" then click next. Select "Install the hardware that I manually select from a list (Advanced)"	The following hardware is already installed on your computer       Image: Compute Section 1 and Section 2 and Sectio
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	select "Add a new hardware device" then click next. Select "Install the hardware that I manually select from a list (Advanced)"	The following hardware is already installed on your computer       Image: Compute Computer Compute
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Cancel
<b>N</b>
n click Next. If you sk.
Have Disk
Have Disk
Have Disk
L'S Cancel

13. Select r2710_I	kw.inf, then click "Open"	Locate File
14. Click "Ok"		Install From Disk         Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.         Copy manufacturer's files from:         C.\u00edynoptix\current\2k\XP\Rtd2710         Browse
15. Click next to a digitally signed	ccept that the driver is not	Add Hardware Wizard         Select the device driver you want to install for this hardware.         Image: Select the manufacturer and model of your hardware device and then click. Next. If you have a disk that contains the driver you want to install, click. Have Disk.         Model         RTD 2710         Its driver is not digitally signed!         Lell me why driver signing is important          Rext >         Cancel
16. Click next to in	nstall the hardware	Add Hardware Wizard         The wizard is ready to install your hardware         Hardware to install:         Image: Constall is a stall of the stall stal
	e Anyway" to accept that not Windows Logo	Hardware Installation         Image: Second

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18.	Click "View or change resource for this hardware (Advanced)" link	Add Hardware Wizard         Image: Stand Stan
		To close this wizard, click Finish.
19.	Click "Set Configuration Manually" button	Add Hardware Wizard Properties       Image: Comparison of the second secon
20.	Highlight the "I/O Range" resource type then click the "Change Setting…" button	Add Hardware Wizard Properties       Image: Constraint of the second secon
21.	Pick the value "02E0 – 02FF" then click OK.	Edit Input/Output Range       Image: The second secon

the "C	the "IRQ" resource type then click Change Setting…" button. ct the value "03" from the list then OK.	Edit Interrupt Request       Image: The second
	a view and dates the Decourses	The setting you have chosen does not conflict with any other devices. No devices are conflicting. OK Cancel
shoul	n you are done the Resources ld look like this. Click "OK" to the settings	Add Hardware Wizard Properties
24. Click	the "Finish" button.	Add Hardware Wizard  Completing the Add Hardware Wizard  The following hardware was installed:  The following hardware was installed:  The software for this device is now installed, but may not window convert detamine the software with the device and use the Resource tab to set the configuration. (Code 34)  Wew or charace resources for this hardware (Advanced)  To close this wizard, click Finish.  Cancel
25. Say " comp	Yes" you want to restart your outer.	System Settings Change       You must restart your computer before the new settings will take effect.       Do you want to restart your computer now?       Yes

#### 7. Test the frame grabber

To test that the frame grabber driver and support software are functioning

- 1. Attach a video camera to the RCA input on the back of the frame grabber card
- 2. Run "Start->Programs->Mutech->MV5XX Demo".
- 3. Click "ok" to dismiss any "No Input" messages
- 4. Select "Video Adjustment" from the "Adjust" menu, select "Channel 2" then click "Ok"
- 5. If you have a non-interlaced camera (all IonOptix cameras are non-interlaced) Select "Grab Next Field" from the "Grab" menu. If you have an interlaced camera select "Grab Frame"
- 6. Select "Start Grab" from the "Grab" menu. Live video should now be displayed

#### 8. IonWizard

The IonWizard program (IONWIZRD.EXE) has been installed in c:\ionoptix\current. Please refer to separate documents for configuration and operation instructions.