

Using Hamamatsu DCAM-API with Orca ER cameras

Overview

- This document describes how to configure the Active Silicon Phoenix boards and Hamamatsu DCAM driver with Hamamatsu Orca ER cameras.
- Active Silicon Phoenix boards and the DCAM driver can be used as a replacement for the Mutech MV1500 board and driver.
- Support for the configuration of Hamamatsu Orca ER and Active Silicon Phoenix boards begins with **Meta Imaging Series[®] 7.6 software**.

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PRODUCTS
MetaMorph[®]
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Active Silicon Phoenix image capture boards

The image capture circuit boards recommended by Hamamatsu to use with RS422 cameras like the Orca ER are the Active Silicon Phoenix boards. Phoenix image capture board's models: **AS-PHX-D36-PCI32** & **AS-PHX-D36-PCI32-B** are supported for use with the Orca ER digital camera.



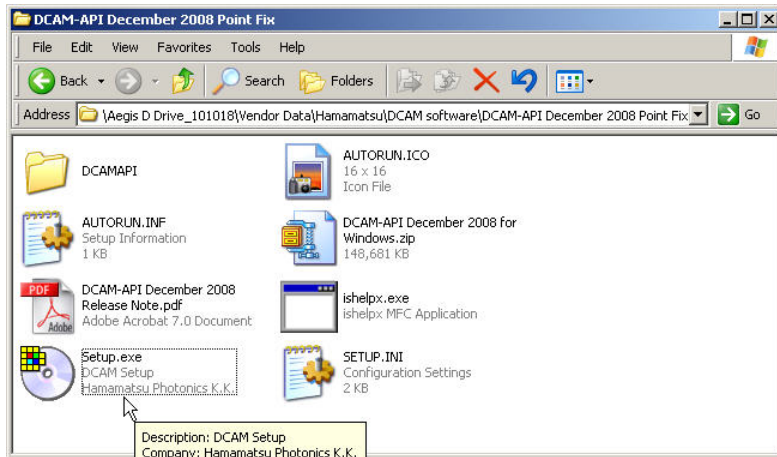
DCAM Driver

The version of the Hamamatsu DCAM-API driver that is supported with the Phoenix boards to control the Orca ER is the **DCAM December 2008** release.

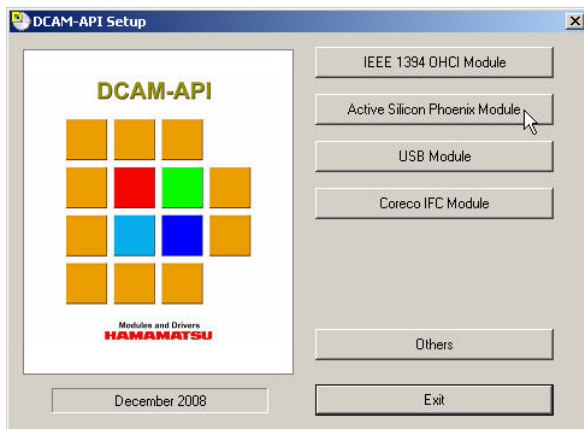
You can download the most recent version of the DCAM-API driver from: <http://www.dcamapi.com/>

Install the DCAM Driver

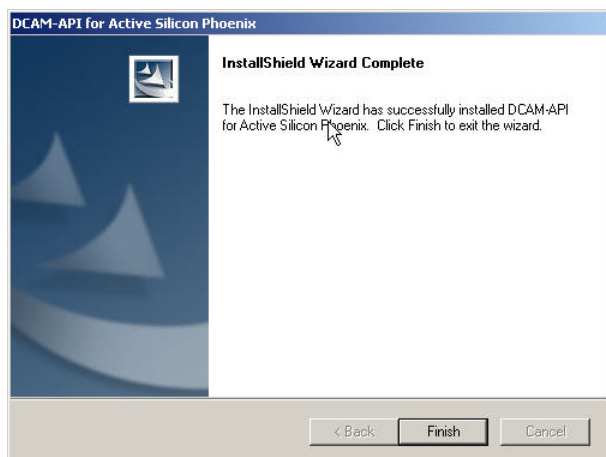
Extract the contents from the driver into a folder on the destination computer. Then, double click or run the Setup.exe program to start the installation.



From the DCAM-API Setup window that gets displayed, press the button to run the install for the "Active Silicon Phoenix Module. This will install the driver required for Microsoft Windows to recognize the Phoenix board.



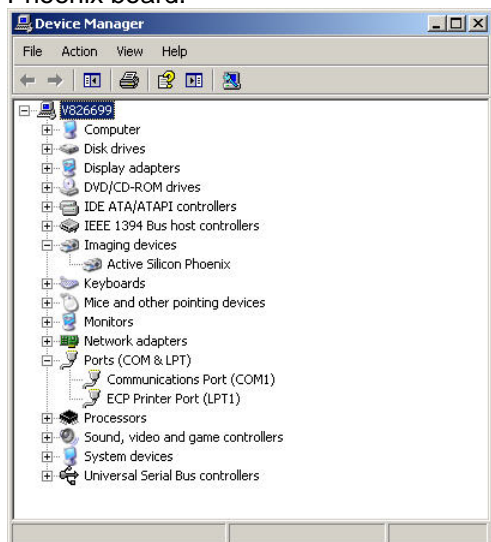
Follow through the installation wizard and when the installation is complete this window will be displayed confirming the successful DCAM install.



Install the Hardware

When the installation of the DCAM-API driver is complete, shut down the computer and physically install the Active Silicon Phoenix board and connect the cables to the camera and board.

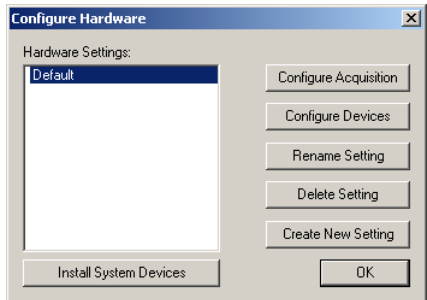
When installed successfully, in Device Manager, you will see an Imaging Device for the Active Silicon Phoenix board.



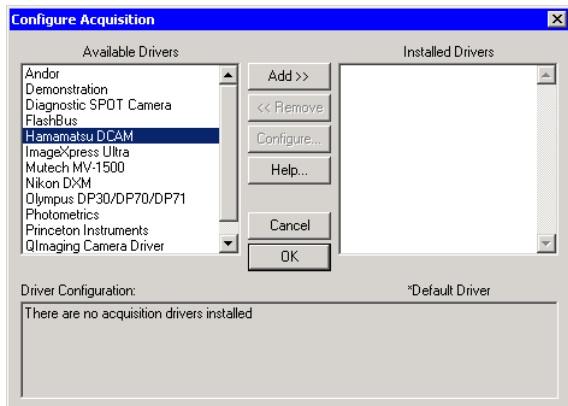
FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.

Configure the Hamamatsu DCAM Driver

Now to configure the Orca ER to be used within the Meta Imaging Series[®] software, run the Meta Imaging Series[®] Administrator program and press the Configure Hardware button, the Configure Hardware window is displayed as shown below. Press “Configure Acquisition” to open next the window for configuring image capture hardware.



From the Configure Acquisition window, select the “Hamamatsu DCAM driver from the Available Drivers list on the left side of the window. The press Add to move the driver to the Installed Drivers List. The “Configure” button is now enabled and can be pressed to show the settings for the Hamamatsu DCAM acquisition driver.



From the Hamamatsu DCAM Camera Driver configuration window, you can confirm the detection of the correct camera by the name. Other attributes of the camera and driver are displayed and some settings for Software Triggering, Memory Management, and messaging are available. Press OK to close all the windows. The camera is now ready to use to acquire images your Meta Imaging Series[®] software.

