AVT Active FirePackage - Release Information

Version: 3.0.5
Date: December 6, 2010

Components and Version Reference

Driver Components

		32-bit	64-bit
- 1394DCAM.sys	AVT 1394 Camera Driver	5.0.2.0*	5.0.2.0*
- AFPDriverInstaller.exe	Driver Installation Tool	1.3.0.2*	1.3.0.2*
- avtactivecam.ds	TWAIN Driver	2.0.4.0	

Application Programming Interfaces (API)

- AVTActiveCam.dll	ActiveX Control	5.0.3.2*

Viewer Applications

- AVTActiveCamViewer.exe	Camera Demo Viewer	2.0.0.2*

Furthermore, a User Guide and an example collection are provided.

Please note:
Components marked with an asterisk have been modified to the previous AVT Active FirePackage version (v2.0).

Changes

There are two main changes with the release of AVT Active FirePackage v3.0:
1. In dependency of the Windows operating system the installer now installs either the 32-bit or 64-bit version of the AVT Active FirePackage.
2. DirectShow support is no longer part of the AVT Active FirePackage, as in future this is only provided by the AVT Direct Stream Package.

Additionally, the following list shows details about the changed components provided with the AVT Active FirePackage with respect to v2.0.

AVT 1394 Camera Driver
- Added support for Windows 7 (32- and 64-bit) operating systems

ActiveX Control
- Added support for several new cameras (like Guppy PRO camera series, Pike 1100 and 1600).
- New methods and events have been added:
  - Monitor synchronization mode (MonitorSync property; requires standard software trigger)
  - New universal functions for accessing and controlling IIDC features: GetFeature, SetFeature, GetFeatureCapability, GetFeatureControl, SetFeatureControl, GetFeatureMin, GetFeatureMax

- Support for absolute feature control via SetFeatureControl and SetFeature
- GetTimeStamp method returns the exact time of the frame acquisition by the driver
- Real-time frame averaging (running average) and integration (Integrate property)
- Software LUTs (SetLUT and GetLUT methods) with an automatic adaptation to a selected video format
- Software Window/Level control (SetLevels method) with auto-contrast option
- Software gain control for individual color channels (SetGain method)
- LoadImage method for reading bmp, jpg and tif images into the ActiveX window
- New events FrameRecorded, FrameLoaded, CaptureCompleted for more control over image recording and loading

- The property pages have been extended by new controls:
  a. Integrate: To enable real-time frame averaging and integration
  b. Software Gain control for individual color channels (R-G-B)
- Behavior change:
  - The mouse wheel now scrolls the image in the ActiveX window
- Additionally, the Bayer layout for raw color modes can now be recognized automatically
- Added codec management for storing compressed image streams
- New sample applications ActiveCamConsole, ActiveCamEnhance and ActiveCamLevels
- Minor improvements and bug fixes

AFPDriverInstaller
- Added 64-bit support
- Minor corrections and improvements

AVTActiveCamViewer
- Corrected display of status bar for different font sizes
- Added info to the status bar: frames dropped, number of recorded frames and capture completed info in status bar
- Minor corrections and improvements

Limitations

ActiveX Control
- The AVTActiveCam control provides only RGB output formats as long as the “display” property is set to 'on' via the corresponding PropertyPage.
- Auto-Shutter: With some camera types, the shutter slider of the property pages is not updated after disabling the auto-shutter checkbox. This is a camera issue.

Windows 7 and Vista
- User Account Control (UAC) of Windows 7 and Vista prevents the compilation of example projects if those are opened directly from a location protected by UAC (i.e. C:\Program Files\...).
  Therefore, to compile the AFP example projects under Windows 7 or Vista, either copy the project to a user-writable location or disable the UAC feature.

General
- For proper operation it is required to uninstall any previous version of the AFP.
- The installation of the AVT Active FirePackage will cause a restricted usage of the ActiveDCAM SDK and vice versa. To ensure proper functions, install only one of the packages.
  Please note that you will still be able to run all applications inside the Sample folder and even the demo viewer, but you will not see AVTActiveCam control in the list of ActiveX controls.

Open issues
- Automatic Bayer pattern recognition does not work correctly with Pike 1600.
- Automatic Bayer pattern recognition does not work with multiple cameras. Switching the cameras will always use the Bayer setting of the camera Last opened.

Supported Operating Systems

The AVT Active FirePackage (AFP) supports the following 32-bit operating systems:
 - Windows 7
 - Windows Vista SP1 (with service pack 1)
 - Windows XP SP3 (with service pack 3)

and the following 64-bit operating systems:
 - Windows 7

The AFP should also be compatible with older service pack releases of the named operating systems. However, testing has been performed on the service pack versions listed above.

Please note:
1. Currently there is no S800 support provided by Microsoft for Vista.
   Please use the 'AVT 1394 Bus Driver Package' to overcome this drawback.

2. With Windows XP SP2, 1394b devices are only supported with S100 speed.
   To enable S400 with 1394b, there is an official Microsoft hot-fix KB885222, and S800 support can only be achieved by a ’rollback’ to 1394 OHCI drivers that come with Windows XP SP1.
   With Windows XP SP3, 1394b devices are only supported with S100 speed. S800 support can only be achieved by a ’rollback’ to 1394 OHCI drivers that come with Windows XP SP1.
   Alternatively, in both cases the 'AVT 1394 Bus Driver Package' can be used.

Supported Hardware

The AVT Active FirePackage can be used with all AVT 1394 cameras. Third-party
IIDC 1394-based digital camera as well as DV camcorders and some other cameras that have an IEEE1394 (FireWire) physical interface, cannot be used with the AFP.

However, if there are any problems please feel free to contact our Technical Software Support (see below).

Please note:

Although FireWire devices can be hot-plugged without powering down equipment, we recommend turning the computer power off, before connecting a 1394 digital camera to the system via a FireWire cable.

Installation

To install the AVT Active FirePackage properly, at least one or more 1394a or 1394b interface cards or FireWire PCMCIA or ExpressCard laptop cards should be installed on the system.

In addition, one or more AVT 1394 cameras should be connected to the system.

For .NET compatibility the installation of .NET FrameWork 2.0 or higher is required.

Troubleshooting

Drivers which use the Microsoft FireWire stack under Windows 7 may have a problem in finding a camera. In the worst case, cameras disappear from the application or cannot even be found in the system.

With Windows 7, Microsoft introduced a new driver stack, which works best with 1394b devices.
For more information, please see the Microsoft application note under:
http://download.microsoft.com/download/7/E/7/7E7662CF-CBEA-470B-A97E-CE7CE0D98DC2/1394_Windows7.docx

Please first make sure that the device manager does not show the intek 1394 bus driver provided with AVT FirePackage or Universal Package. If it shows "intek", run the utility to re-install the Microsoft driver.

If the problem persists, please use one of the following solutions:

1. Add or modify the registry key
   HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\1394ohci\Parameters\EnableGapCountOptimization
   By setting the parameter DWORD = 0.
   The 1394a device should now always be recognized.

2. Alternatively, switch the default Microsoft card driver to the legacy version, as shown in the following linked video:
   http://www.youtube.com/watch?v=BHeE6aUlJ2M

Contacting Allied Vision Technologies GmbH

Allied Vision Technologies GmbH
Taschenweg 2a
07646 Stadtroda
Germany

www.alliedvisiontec.com

AVT Technical Software Support

You can reach the AVT Technical Software Support via the corresponding contact form for your region:

Asia Pacific

http://www.alliedvisiontec.com/apac/support/contact-support.html

Europe, Middle East and Africa

http://www.alliedvisiontec.com/emea/support/contact-support.html

Germany

http://www.alliedvisiontec.com/de/support/support-kontaktieren.html

The Americas

http://www.alliedvisiontec.com/us/support/contact-support.html