



User Guide

V3.2.0

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Introduction

AVT FirePackage is an SDK that provides support for the following application development tools: Visual Studio 6/2003/2005 as well as all programming languages capable of using .NET dlls or plain C dlls.

The additionally provided AVT SmartView viewer application allows customers to operate multiple cameras and save images in a number of formats. Also included are ready-for-use example programs provided as source code. With **AVT FirePackage**, your application immediately supports AVT's 1394a and 1394b digital cameras.

- Advantages**
- FireWire according IEEE 1394 a/b up to 800 Mbit/s supported
 - Convenient and powerful viewer application (SmartView) is provided to explore every AVT FireWire camera and their SmartFeatures
 - Direct Bus Access for high performance and high speed applications
 - Supports the Pike, Guppy and Stingray feature **Firmware update via FireWire** by using the SmartView application

- FirePackage Restrictions**
- When using the AVT FireWire driver set other devices requiring a different FireWire driver will not work as usual
 - The usage of the AVT FireWire driver set requires a license. This license is already included inside the AVT FireWire cameras. For other devices/cameras, a special license has to be acquired.
 - The AVT FirePackage provides only C, C++ and .NET APIs.

Document history

Version	Date	Remarks
V2.0.0	20.03.2008	New Manual 32-bit version AVT FirePackage: RELEASE status
V3.0.0	02.08.2010	This FirePackage Manual is for 32-bit and 64-bit Windows operating systems: Windows XP, Windows Vista and greater

Table 1: Document history

Version	Date	Remarks
V3.1.0	08.09.10	Some smaller corrections: <ul style="list-style-type: none"> • Changed <i>Destination Folder</i> to <i>Installation Options</i> in Figure 4: AVT FirePackage setup: Installation options on page 13 • Adapted the directory for the license file (32-bit and 64-bit systems) in Chapter Licensing on page 29
V3.2.0	22.09.10	<ul style="list-style-type: none"> • Windows 2000 and Windows NT are officially not supported any more: <ul style="list-style-type: none"> – see Chapter Operating system requirements on page 9. – see Chapter Intek driver requirements on page 30 • New licensing model for 32-bit and 64-bit systems in Chapter Licensing on page 29 and in Chapter Redistribution of AVT FirePackage components on page 30.

Table 1: Document history

Manual overview

The manual overview describes each chapter of this manual in short.

- Chapter [System requirements](#) on page 8 lists conditions for hardware, operating system and software.
 - **Read the Chapter [Special advice when working with Windows Vista and greater](#) on page 9.**
- Chapter [Package installation](#) on page 11 describes how to install **AVT FirePackage** incl. **intek** driver. You can install the **intek** driver automatically or manually.
- Chapter [Components overview](#) on page 24 describes the SDK components of **AVT FirePackage** and the example projects, which you may use immediately to test the AVT camera and acquire your first images.
- Chapter [Package architecture](#) on page 26 gives you an overview of the package architecture.
- Chapter [Working with examples](#) on page 27 describes how to work with examples.
 - **Read the explanations to the User Account Control (UAC) very carefully before starting any project.**
- Chapter [Licensing](#) on page 29 describes the licensing procedure for AVT cameras.
 - **Read the license information before starting any AVT camera.**

Conventions used in this manual

To give this manual an easily understood layout and to emphasize important information, the following typographical styles and symbols are used:

Styles

Style	Function	Example
Bold	Programs, inputs or highlighting important things	bold
Courier	Code listings etc.	Input
Upper case	Register	REGISTER
Italics	Modes, fields	<i>Mode</i>
Parentheses and/or blue	Links	(Link)

Table 2: Styles

Symbols

Note This symbol highlights important information.



Caution This symbol highlights important instructions. You have to follow these instructions to avoid malfunctions.



www This symbol highlights URLs for further information. The URL itself is shown in blue.



Example:

<http://www.alliedvisiontec.com>

Before operation

We place the highest demands for quality on our software.
The **AVT FirePackage User Guide** describes the installation of the **AVT FirePackage** and gives also some hints how to work with examples.

Note _____ **Please read through this manual carefully before operating AVT cameras with AVT FirePackage.**



System requirements

This chapter describes the requirements for installing **AVT FirePackage**:

- Hardware requirements
- Operating system requirements
- Software requirements
- Special advice when working with Windows Vista and greater (UAC)

Hardware requirements

- PC or laptop with 1 GHz 32-bit (x86) or 64-bit (x64) processor or better
- Built-in IEEE 1394 interface or IEEE 1394 host adapter (OHCI) card (one or more) for PCI or PCI Express bus or PC card or ExpressCard with IEEE 1394 port(s)
- One or more AVT 1394a or 1394b cameras connected to the system

Note AVT offers a wide range of IEEE 1394 host adapters, both 1394a or 1394b for different requirements.



FireWire hot-plug precautions

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



If you hot-plug a 1394 digital camera, it may be damaged.

Operating system requirements

- Windows 7 (32 bit and 64 bit)
- Windows Vista (32 bit and 64 bit)
- Windows XP (32 bit and 64 bit)

Note

AVT FirePackage V3.0 and higher does no longer support Windows 2000 and Windows NT officially.



However, the components of this SDK may be useable also on these operating systems, but no corresponding tests have been performed in our labs.

Software requirements

- **AVT FirePackage installation file**

Note

The **AVT FirePackage** includes a special IEEE 1394 bus driver from intek suitable for all AVT cameras.



Special advice when working with Windows Vista and greater

This chapter gives you a short introduction to a new technology that Microsoft introduced with Vista operating systems: the so-called **User Account Control**.

Basic information

User Account Control (UAC) is a technology and security infrastructure for Windows **Vista** and succeeding Microsoft operating systems. It aims at improving the security of the operating system by limiting application software to standard user privileges until an administrator authorizes an increase in privilege level. In this way, only applications that the user trusts receive higher privileges, and malware is kept from receiving the privileges necessary to compromise the operating system. So a user account may have administrator privileges assigned to it, but applications that the user runs do not have those privileges automatically unless the user explicitly authorizes them to have higher privileges.

Effects

Windows **User Account Control (UAC)** 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 **AVT FirePackage** example projects under Windows Vista and greater, copy the project to a user-writable location as described in Chapter [Workaround for UAC problems](#) on page 27.

UAC warning An example of an **UAC warning** when a program (e.g. **AVT FirePackage** installation program) wants to write in a system folder is the following:

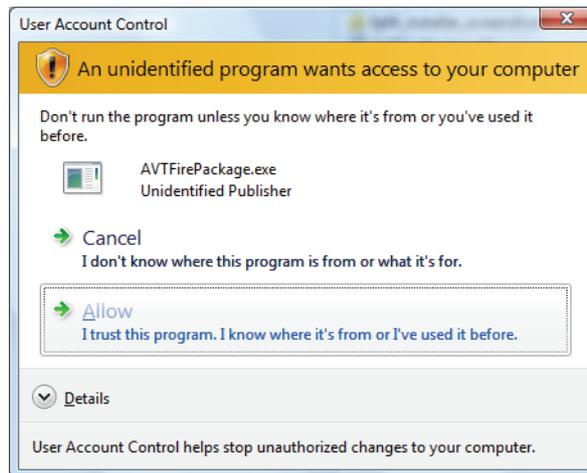


Figure 1: UAC warning: example

Perform the following steps:

1. In this case just click **Allow** because the shown program (AVTFirePackage.exe) is the installer of the FirePackage and needs to write certain files to the system folder for general use.
2. Go on working.

Note



You may prevent this UAC warning by right-clicking the **AVTFirePackage.exe** and select **Run as administrator** before you install the software.

Package installation

Overview

We assume that you have already installed the IEEE 1394 interface card in your system. What happens when you do this is the following:

First of all Plug & Play will find the IEEE 1394 interface card and starts searching for appropriate drivers. Normally the standard Microsoft driver for OHCI cards will be installed.

After the IEEE 1394 interface card installation is completed, you have to replace the standard Microsoft OHCI driver with the so-called **intek 1394 bus driver (AVT 1394 driver, firedrv.sys)**. In the following we call this driver **intek driver** for abbreviation purposes.

You can do this in two ways:

- Using the **Driver Installation Utility** or
- Installing the driver **manually**

In any of the two cases you start with installation of the **AVT FirePackage**. During this installation you can decide to install the driver automatically or install the driver later.

Note



With **AVT FirePackage V3.0** the UniAPI and related components are **not** provided any longer. This is due to the fact that since UniAPI V2.0 besides FireWire cameras also GigE cameras are supported.

UniAPI is part of the Universal Package. Please refer to the documentation of this package for more information.

Note



If you have more than one FireWire card in your system and you want to use other FireWire devices:

- Only replace the standard Microsoft driver for those cards that shall be owned by the **intek** driver.
- The **intek** driver can live side by side with the Microsoft driver when multiple cards are present in your system.

Installing AVT FirePackage

To install **AVT FirePackage**, perform the following steps:

1. Save and exit out of all currently running applications.

Caution



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.**

If you hot-plug a 1394 digital camera, it may be damaged.

2. **Shut down your system.**
3. **Turn computer power off.**
4. Connect your camera to the 1394 (FireWire) port.
5. Turn computer power on.
6. Restart your system.
7. Download the **AVT FirePackage** zip file from the AVT web site. Unpack it and start the corresponding *.exe.

The **Windows Installer** box with a status bar will appear while setup prepares to start the installation process.

Now you are ready to start installing **AVT FirePackage**.

Note



Before installation **AVT FirePackage** will remove (old) FirePackage V2.11 and will remove **AVT Universal Package**.

These steps are necessary and will be done automatically by the installer.

The Installer will also install the necessary .NET Framework.

The **Welcome** dialog box will appear:



Figure 2: AVT FirePackage setup: Welcome

8. Read the information in the **Welcome** dialog box.

- If any programs are running on your system, click **Cancel** to quit the setup program, then close any programs you have running.
- If you already closed all your programs, click **Next** to continue the installation.

The **Readme Information** dialog box will appear:

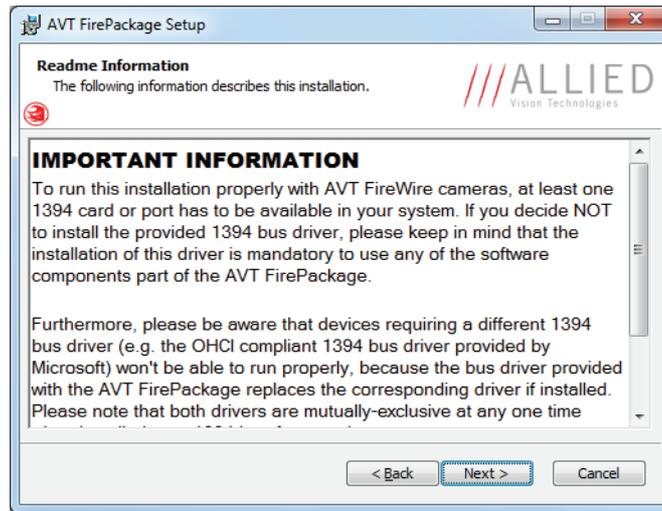


Figure 3: AVT FirePackage setup: Readme Information

9. Read the **IMPORTANT INFORMATION**.
10. Click **Next** to proceed.

The following dialog will appear:

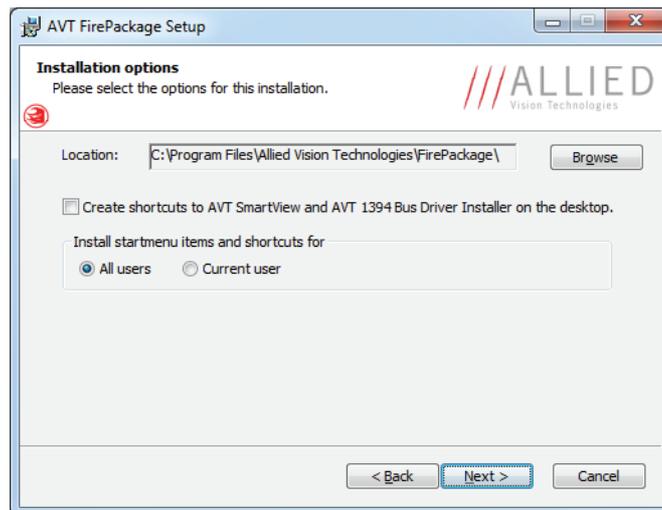


Figure 4: AVT FirePackage setup: Installation options

The default location of AVT FirePackage files is

C:\Program Files\Allied Vision Technologies\FirePackage

11. If you want to change the location, click **Browse**, enter drive and path for the desired folder and click **OK**.
12. Furthermore you set a few general **Installation Options**:

Check box / option	Description
Create shortcuts ... on the desktop.	When chosen: for AVT SmartView and AVT 1394 Bus Driver Installer , shortcuts for desktop are created.
Install startmenu items and shortcuts for...	Choose an option to install the items/shortcuts for <ul style="list-style-type: none"> • All users • Current user

Table 3: **AVT Universal Package** setup: Installation options (shortcuts)

13. Click **Next** to proceed.

The following dialog will appear:

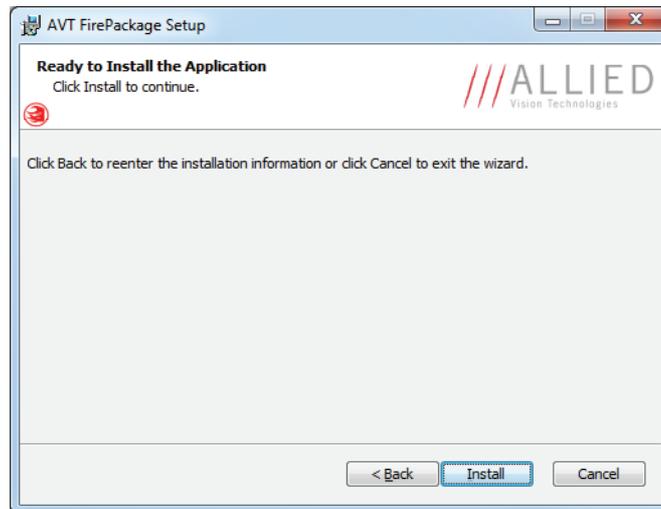


Figure 5: AVT FirePackage setup: Ready to Install the Application

14. Click **Next**.

The following dialog will appear:

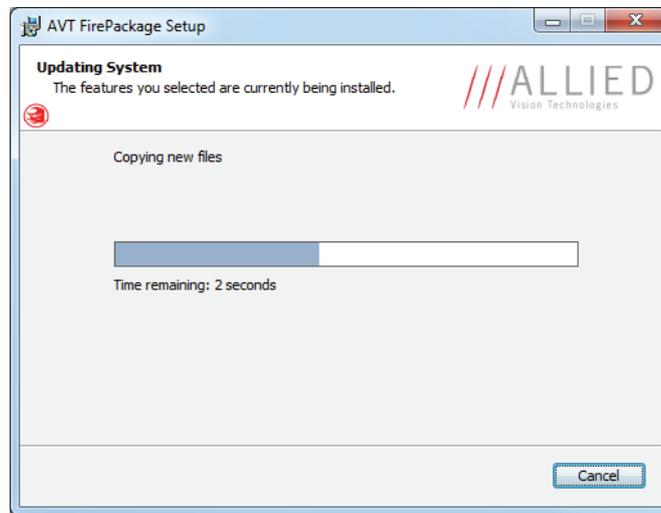


Figure 6: AVT FirePackage setup: Updating System

AVT FirePackage will be installed.

Once the installation is finished, the following dialog box will appear:



Figure 7: AVT FirePackage setup: Successfully installed

15. Activate **Run Driver Installer** to call setup of **AVT 1394 Bus Driver Installer** automatically after the installation is finished. Activate **Show Release Notes**, if you want to read the release notes with the last informations and **Launch AVT SmartView** to start SmartView immediately after the installation is finished.

16. Click **Finish** to exit the installer.

Note

Depending on your operating system you might need to reboot your system at this point. You will be prompted if a reboot is required; if a message appears, follow the on-screen instructions.

Driver management

Generally: If you want to change a driver that is bound to a device (e.g. changing from Microsoft 1394 driver to **intek** driver), you have the following two choices to do this:

- Using **AVT 1394 Bus Driver Installer** (see Chapter [Using the AVT 1394 Bus Driver Installer](#) on page 16) or
- Installing driver manually (see Chapter [Installing driver manually](#) on page 19)

Note

Description and screenshots in this chapter were done under **Windows 7**.

The procedure under Windows XP / Vista is similar.

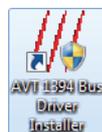
Using the AVT 1394 Bus Driver Installer

Perform the following steps:

1. Start **AVT 1394 Bus Driver Installer**: AVT1394BusDriverInstaller.exe
If you have chosen **Run Driver installer**, the setup of **AVT 1394 Bus Driver Installer** starts automatically, then go on with [Figure 8: AVT 1394 Bus Driver Installer: Initial screen](#) on page 17. Otherwise:

You have two choices to open the **AVT 1394 Bus Driver Installer**:

- **First choice**: Double-click icon on desktop:

**Note**

This is only possible if you activated **Create shortcuts ... on the desktop** check box during the installation process.

- **Second choice:**
Start → All Programs → Allied Vision Technologies → FirePackage → AVT 1394 Bus Driver Installer.

In both cases the following window will appear:

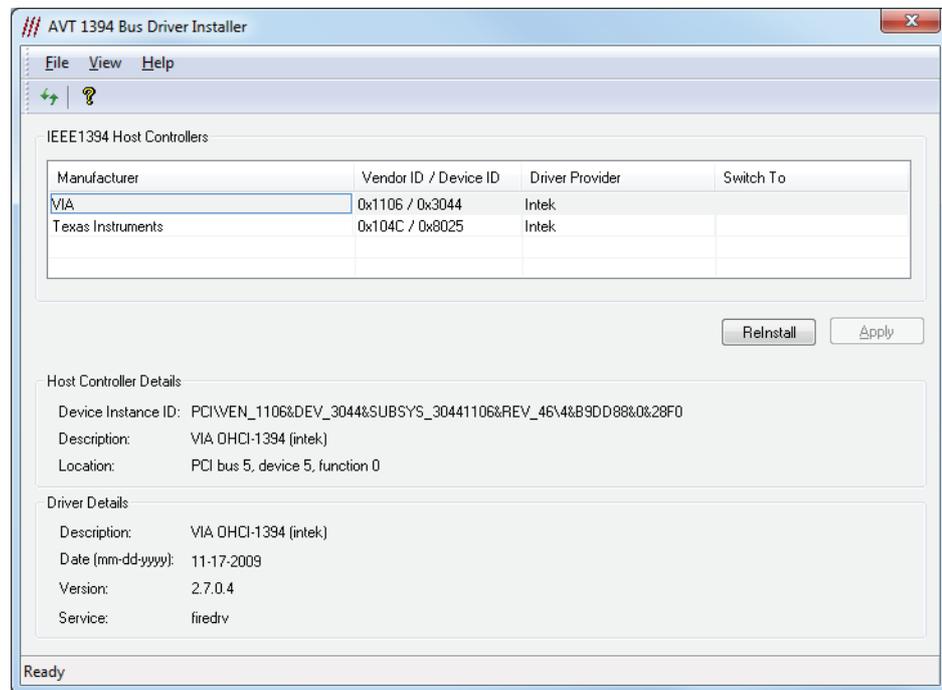


Figure 8: AVT 1394 Bus Driver Installer: Initial screen

In the list you find one entry per 1394 host controller.

2. Choose the 1394 host controller on which the driver should be changed.
Driver Provider column shows the driver which is currently in action: **Microsoft** or **intek** or **AVT**. A tooltip lists the software packages for which the driver is suitable.

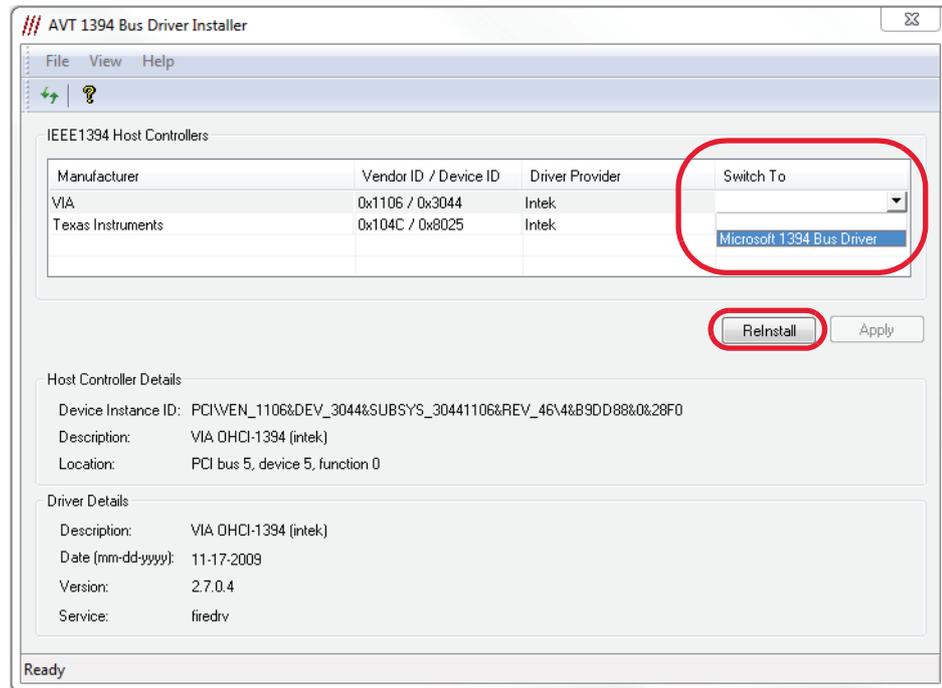


Figure 9: AVT 1394 Bus Driver Installer: Choosing 1394 host controller

3. In the **Switch To** column, click in the appropriate cell.
 A combo box will appear.
 - Having the **intek** driver active, you can switch to the Microsoft driver (**Microsoft 1394 Bus Driver**).
 - Having the Microsoft driver active, you can switch to the **intek** driver (**intek 1394 Bus Driver**).
4. If necessary, click on **ReInstall**:
 This can be useful to:
 - Uninstall currently used driver.
 - Install the driver again.
 - Do a driver reset.
5. Click **Apply**.

Note



The drivers shown in the combo box depend on what packages you have installed on your system.

If **AVT 1394 Bus Driver Package** is installed on your system, the combo box lists also the **AVT 1394 Bus Driver**.

For more information see **AVT 1394 Bus Driver User Guide**.

If a **Windows Security** window appears, click **Install** to continue.

Note — If you installed a driver manually, click  .



This refreshes the list of host controllers.

Installing driver manually

In most cases we recommend an installation via the driver install tool. But there may be scenarios where it's advisable to install the driver manually, e.g.:

- If the software package installation via the **Driver Installation Utility** fails, you may try to install the driver manually.
- If an unknown FireWire card cannot be identified by the driver install tool, you have to install the driver manually.

To install the driver manually, perform the following steps under Windows Vista and greater. (Under Windows XP, a similar procedure is necessary.)

1. Call the device manager: click on **Start**, right-click **Computer**, click **Properties** and then click **Device Manager**.

The **Device Manager** window will appear:

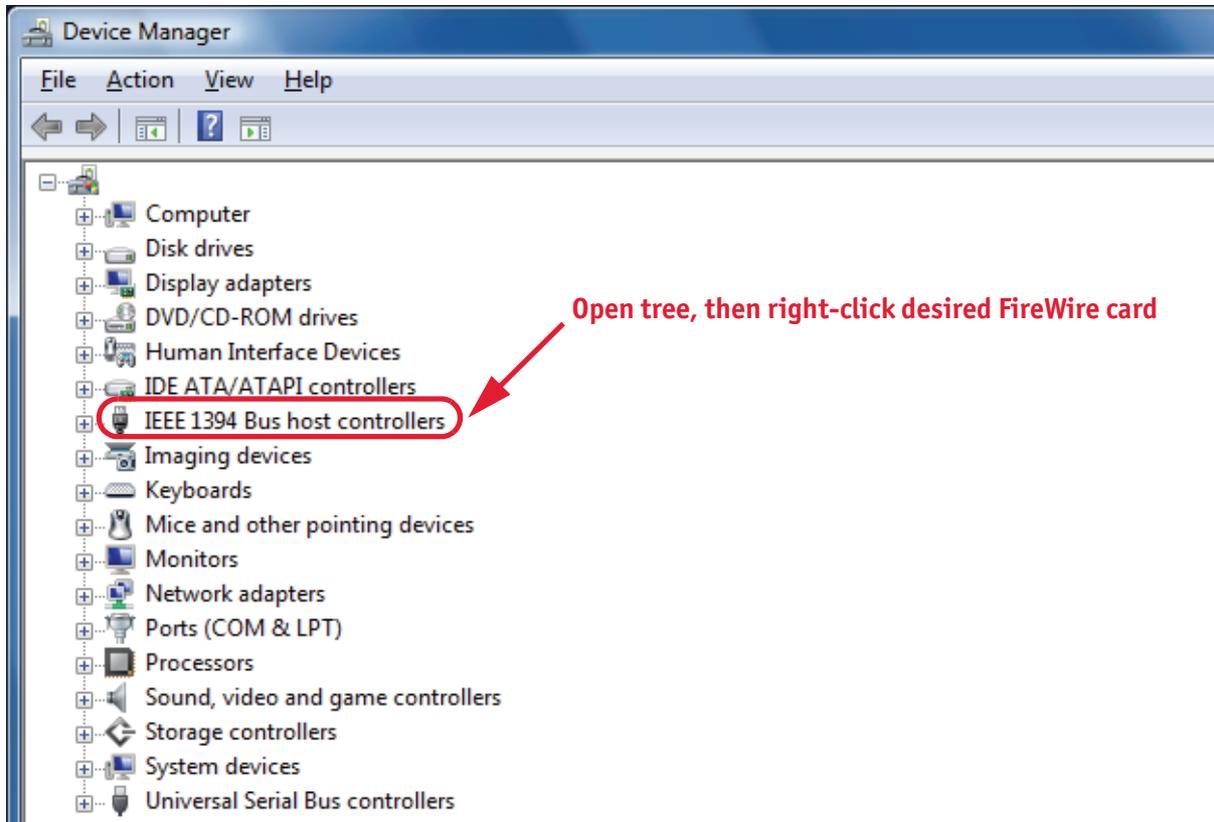


Figure 10: AVT FirePackage: manual driver installation (Device Manager)

2. Open the **IEEE 1394 Bus host controllers** tree, right-click the desired FireWire card and choose **Update Driver Software...**

The following dialog will appear:

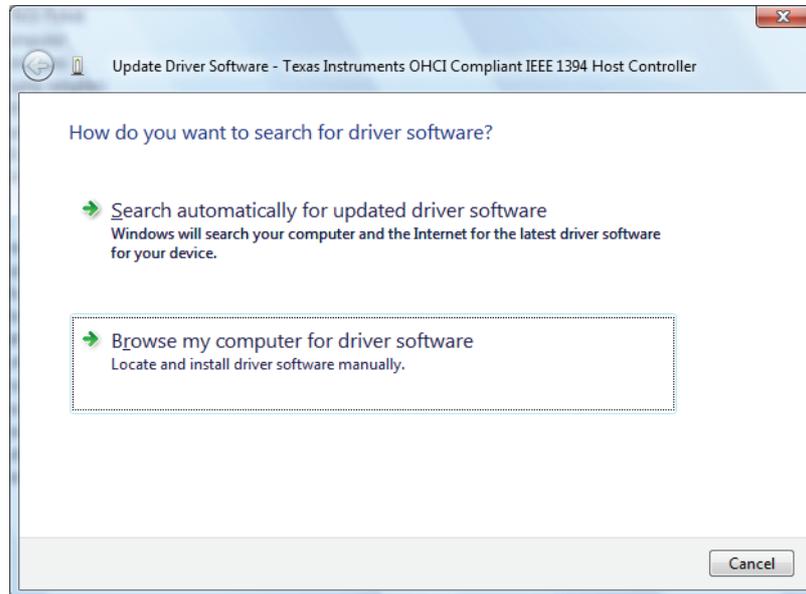


Figure 11: AVT FirePackage: manual driver installation (locate driver manually)

3. Choose **Browse my computer for driver software**.

The following dialog will appear:

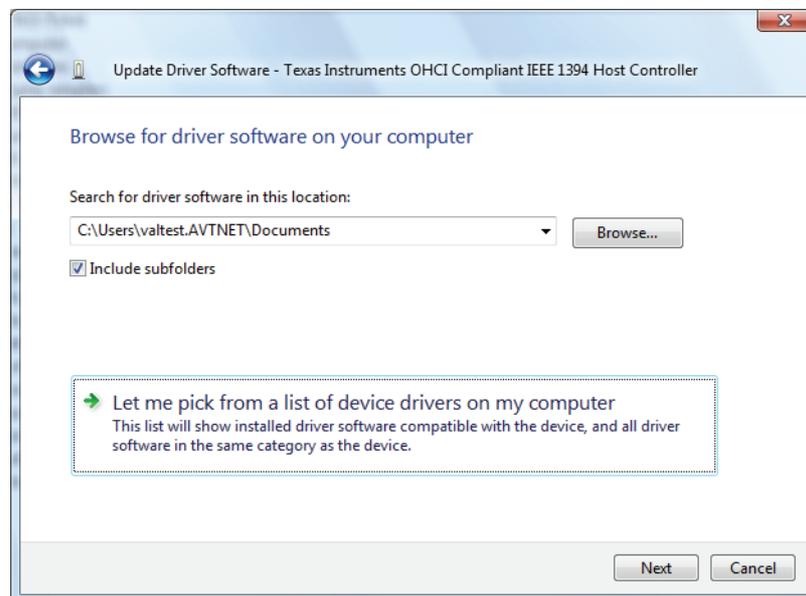


Figure 12: AVT FirePackage: manual driver installation (pick from a list)

4. Choose **Let me pick from a list of device drivers on my computer**.

The following dialog will appear:

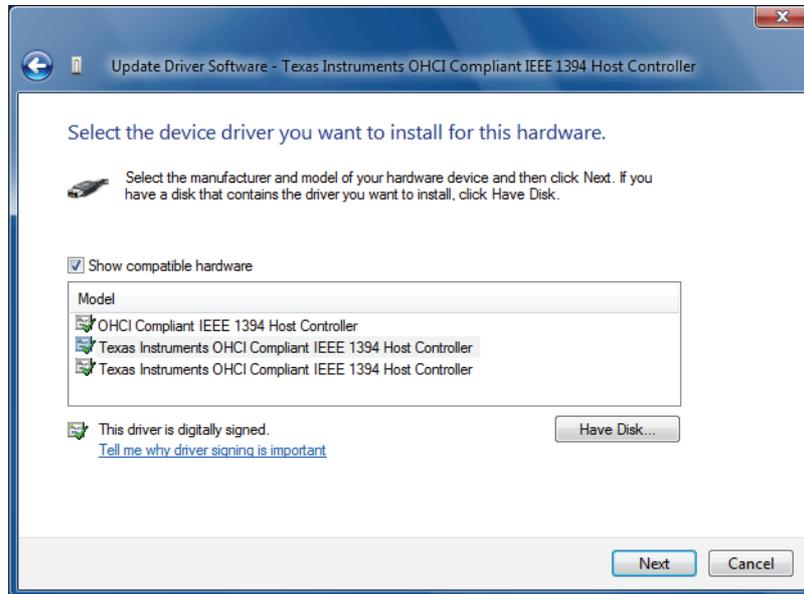


Figure 13: AVT FirePackage: manual driver installation (Select device driver)

5. Click on **Have Disk...**

The following dialog will appear:

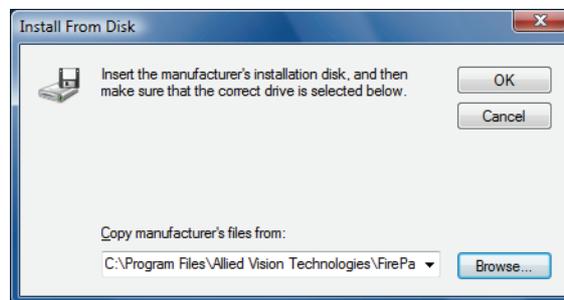


Figure 14: AVT FirePackage: manual driver installation (Copy manufacturer's files)

6. Enter the path to where the **firedrv.inf** has been copied to and click **OK**.
The default path is:

C:\Program Files\Allied Vision Technologies\FirePackage\Driver\WDM

The following dialog will appear:

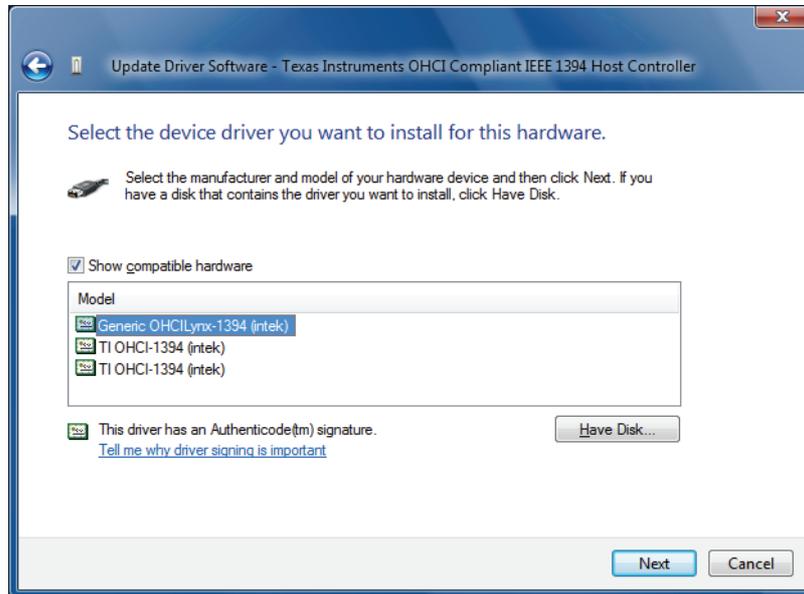


Figure 15: AVT FirePackage: manual driver installation (Choose **intek** driver)

7. Select the shown hardware with the name **Generic OHCIlynx_1394 (intek)** and click **Next**.
8. Ignore all signature warnings and continue until you reach the following dialog:

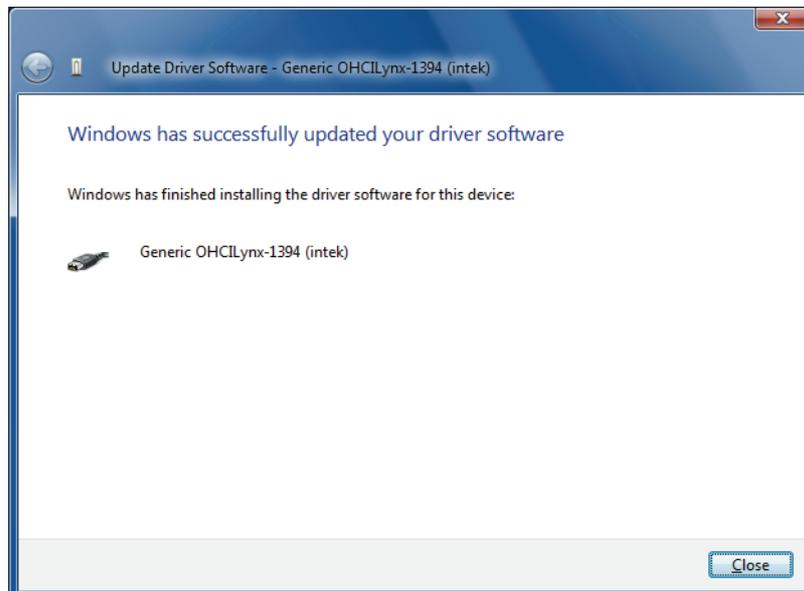


Figure 16: AVT FirePackage: manual driver installation (finished installing driver)

9. Click on **Close**.
The manual driver installation process is completed.

Components overview

This chapter describes the **package content** and the **package architecture** of AVT FirePackage.

Package content

The **AVT FirePackage** consists of the following SDK components:

SDK component	Description
Firedrv.sys	High performance IEEE 1394 bus driver (including Svcinst.exe)
AVT 1394 Bus Driver Installer	Easy-to-use driver installation tool
FireControl and FireStack API	Two C-type APIs that provide low-level bus access commands to get 100% control over the FireWire bus
FireClass API	C++ class model API built upon the FireStack API
FireGrab API	Simple C++ camera API to deal with calls to the driver in a quite simple way via a simplified camera interface Additionally, there is also a C wrapper and a .NET wrapper for FireGrab.
AVT SmartView	Comprehensive camera viewer optimized for usage with AVT IEEE 1394 cameras: <ul style="list-style-type: none"> • Evaluate SmartFeatures • Test AVT cameras • Configure AVT cameras
FireView	Simple viewer for IIDC-compliant cameras, only supporting standard features. Feature support is discontinued. Does not need any dll, just the installed driver.

Table 4: AVT FirePackage SDK components

Note



With **AVT FirePackage V3.0** the UniAPI and related components are **not** provided any longer. This is due to the fact that since UniAPI V2.0 besides FireWire cameras also GigE cameras are supported.

UniAPI is part of the Universal Package. Please refer to the documentation of this package for more information.

Together with the **AVT FirePackage** the following examples are provided:

Example	... for following SDK component	Description
FireDemo Project	FireStack	Viewer based on FireStack
FireGrab Console Project	FireGrab	Minimal console example based on FireGrab (only console output, no GUI)
GrabDemo Project	FireGrab	Viewer based on FireGrab
WrapSample Project	FireWrap (FireGrab)	Minimal console example for FireWrap. (FireWrap is a C wrapper for (C++)-FireGrab)

Table 5: AVT FirePackage example collection

Package architecture

The following diagram describes the package architecture of **AVT FirePackage**:

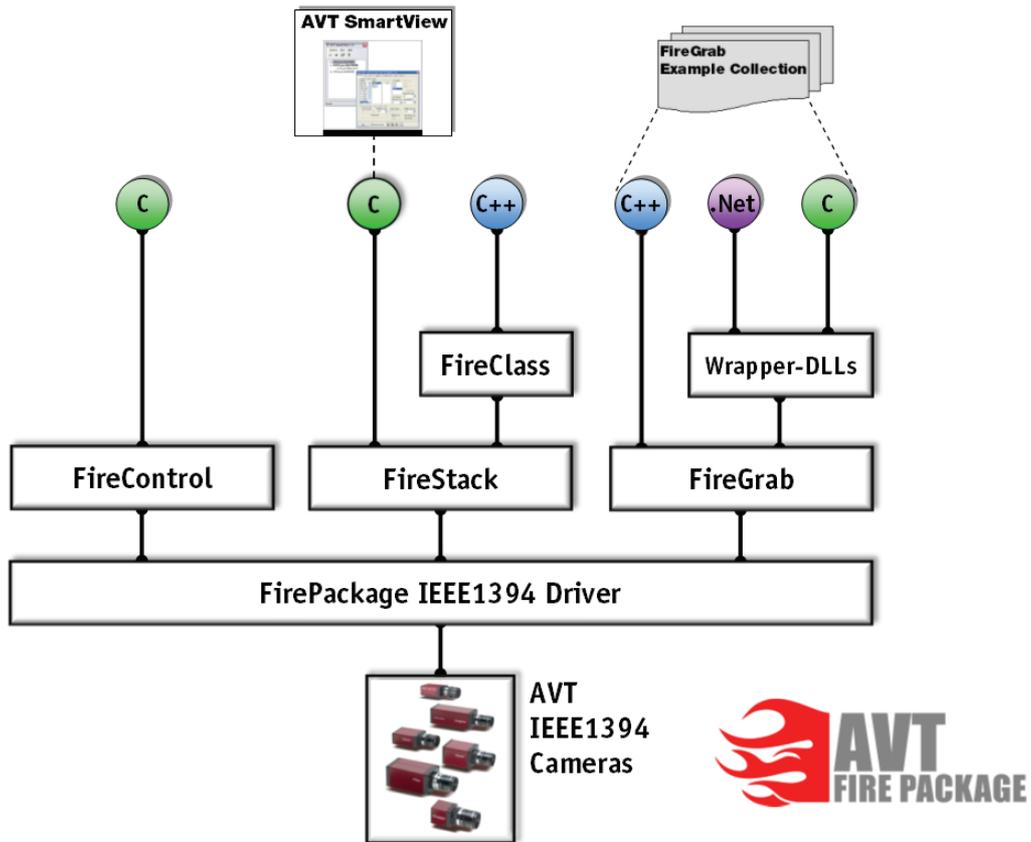


Figure 17: Architecture of **AVT FirePackage**

Working with examples

As already mentioned in [Table 5: AVT FirePackage example collection](#) on page 25, **AVT FirePackage** comes with example projects for FireStack and FireGrab. You can open these projects and adjust them to your needs.

Note



If **User Account Control (UAC)** is activated, the example projects cannot be compiled directly (i.e. from the `C:\Program Files` directory).

In this case you get one or more error messages:

e.g. *Could not create output directory*

The reason for these messages are missing write permissions due to **User Account Control (UAC)**.

Read Chapter [Workaround for UAC problems](#) on page 27.

For basic information on **User Account Control (UAC)** read Chapter [User Account Control \(UAC\)](#) on page 28.

Workaround for UAC problems

To solve the compiling problems under UAC, perform the following steps:

1. Locate the installation directory:
e.g.
`C:\Program files\Allied Vision Technologies\FirePackage`
2. Copy `FirePackage` directory to your desktop (or one of your user directories).
3. On desktop open `Samples` directory and search for `*.sln`.
4. Doubleclick desired `*.sln`.
Visual Studio opens this file.
5. You can work with this files as usual (e.g. compile) without getting the error messages listed above.

User Account Control (UAC)

Compiling projects To compile the example projects under Windows Vista and greater, copy the project to a user-writable location as described in Chapter [Workaround for UAC problems](#) on page 27.

Note For more information on Microsoft Vista User Account Control (UAC) read **Chapter Special advice when working with Windows Vista and greater on page 9.**



UAC warning An example of an **UAC warning** when a program wants to write in a system folder is the following:

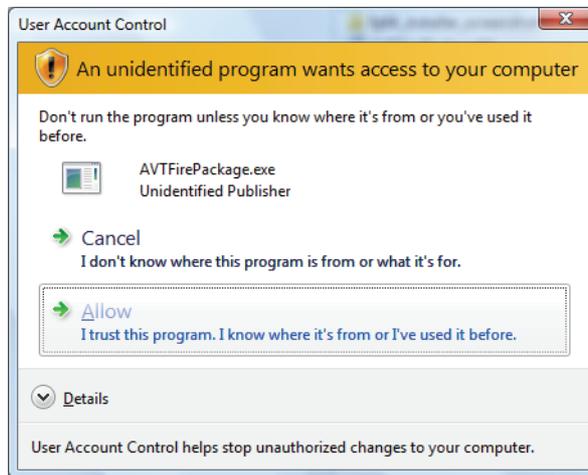


Figure 18: UAC warning

In this case just click **Allow** and go on working.

Licensing

In order to run a camera with **AVT FirePackage**, your system (PC or laptop) or your camera needs a license. All AVT 1394 cameras have an embedded license.

This license will be read out with the help of a license file on the PC.

Primary the system examines the license file specified by the subkey `LicenseFile` in

```
[HKEY_LOCAL_MACHINE\SOFTWARE\intek\FirePackage]
```

This registry key is not overwritten during a subsequent AVT FirePackage installation.

Note

The **AVT FirePackage** installer uses by default (32-bit and 64-bit systems) the following file:



`avtfplic.txt`

in the following directory:

```
XP: %ALLUSERPROFILE%\ApplicationData\
AlliedVisionTechnologies\Firepackage
```

```
Win7: %PROGRAMDATA%\AlliedVisionTechnologies\Firepackage
```

If no registry key is found, the file name **LICENSE.TXT** is assumed, which has to be in the same directory as the used DLL (**FCTLMAIN.DLL**, **FGCamera.DLL** or **FireCtrl.DLL**).

Note



- By default **AVT FirePackage** will look for the DLLs in the current directory.
- Normally the DLLs are used from the Windows System32 directory:

```
%SYSTEMROOT%\system32 or
```

```
%SYSTEMROOT%\SysWOW64 for 32-bit applications at 64-bit OS.
```

A typical license file for AVT cameras looks like this:

```
* FireControl License File
1EEAF9B450220075 Devicecontained Offset=F1000008 (AVT)
...
...
```

After the top line starting with `*`, each line contains one license. The line after the top line is exactly as shown above.

The license file will be read from top to bottom until a valid license is found.

Redistribution of AVT FirePackage components

Distribution of **AVT FirePackage**-based software also requires the redistribution of **AVT FirePackage** components. The actual set of necessary components depends on the utilized API. This section describes the redistribution of components on a file basis. When this approach is chosen, it lies in the responsibility of the packager that all required components are installed on the target system. Alternatively, the whole installer package provided by AVT may be integrated in third-party installers.

Note To assure compatibility with installers provided by AVT, predetermined component GUIDs should be used for all redistributed components. Component GUIDs are listed at the end of this chapter.



Mandatory requirements

The following requirements are mandatory for the installation of any other **AVT FirePackage** component to be installed on a target system.

Intek license requirements

A valid **intek** license file needs to be present in the same directory as the utilized DLL (usually at %SYSTEMROOT%\system32\LICENSE.TXT) or in any path pointed to by the registry entry
[HKEY_LOCAL_MACHINE\SOFTWARE\intek\FirePackage]

Intek driver requirements

The **intek** host controller driver needs to be installed for each 1394 host controller to be used with **AVT FirePackage** components.

The driver files can be found at the following location:

Windows 7, Windows Vista, Windows XP (32 bit)
AVT FirePackage installation folder under <code>Driver/WDM</code>

Table 6: Locations for driver files 32-bit Windows versions

Windows 7, Windows Vista, Windows XP (64 bit)
AVT FirePackage installation folder under <code>Driver/Amd64</code>

Table 7: Locations for driver files 64-bit Windows versions

.NET Framework requirements

.NET components of the **AVT FirePackage** require the .NET Framework version 2.0 to be installed on the target computer. Furthermore, redistributed **.NET** components need to be installed either side by side with the application or into the target system's Global Assembly Cache.

www  For detailed information see [http://msdn2.microsoft.com/en-us/library/yx7xezcf\(VS.80\).aspx](http://msdn2.microsoft.com/en-us/library/yx7xezcf(VS.80).aspx)

Requirements matrix for API files

In dependency of the application programming interface (API) used for the development of an application, different files need to be installed on the target system. The following table provides an overview about the files that belong to a certain API.

API	C++	C	.NET
FireStack		FCTLMAIN.dll (1)	
FireControl		FireCtrl.dll (1)	
FireGrab	FGCamera.dll (1)	FGCamera.dll (1) FGWrap.dll (1)	FGCamera.dll (1) FireWrap.Net.dll (2)

Table 8: File requirement reference matrix for AVT FirePackage APIs

- (1) These files have to be stored in the application folder or in a folder referenced in the PATH variable (usually `%SYSTEMROOT%\system32` or `%SYSTEMROOT%\SysWOW64` for 32-bit applications at 64-bit OS).
- (2) These files have to be referenced in the target application project directly, and are found by the application via .Net assembly cache.

Requirements for the usage of AVT SmartView

In case the AVT SmartView application should be used, the following files need to be installed on the target system:

- FCTLMAIN.dll (1)
- SmartView.exe has to be installed
- GdiPlus and MSXML3 components provided by Microsoft need to be installed on the target system. GdiPlus is normally included on XP, Vista systems and greater, but not on Windows 2000 systems

(1) This file has to be stored in the application folder or in a folder referenced in the PATH variable (usually %SYSTEMROOT%\system32)

Component GUIDs

The MSI installer engine allows a single file to be installed by more than one installer package at a time. However, special care needs to be taken to prevent conflicts between installation packages redistributing AVT components and a possibly installed AVT FirePackage.

When installed to the mentioned location, the files below should be installed as single-file **MSI Components** and the following **Component GUIDs** should be used:

File	Component GUID 32 bit
%SYSTEMROOT%\system32\FCTLMAIN.DLL	{9C351B2D-E8CE-64C5-DB8F-4EF089D72EB6}
%SYSTEMROOT%\system32\FireCtrl.DLL	{D427FE2B-AFF1-07F3-1C85-0DA9FB1ED9F0}
%SYSTEMROOT%\system32\FGCamera.dll	{B597DEDC-ECDD-914F-53F8-F16EC045B761}

Table 9: MSI components and component GUIDs (32 bit)

File	Component GUID 64 bit
%SYSTEMROOT%\system32\FCTLMAIN.DLL	{251CFD36-EC0C-445C-B9C5-B2639A6A0ED5}
%SYSTEMROOT%\system32\FireCtrl.DLL	{DDD7516A-F1EA-4A27-AB47-86F49EE4CE9B}
%SYSTEMROOT%\system32\FGCamera.dll	{A11D7ABD-7D08-4C70-800D-A952ED613682}

Table 10: MSI components and component GUIDs (64 bit)

If these files are installed to locations other than %SYSTEMROOT%\system32, self-generated GUIDs should be used instead.

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