

## Overview

Vimba is AVT's all-in-one solution for working with AVT cameras:

- **Vimba Viewer:** The fastest way to get an image
- **Development:** APIs for C, C++, and .NET, with coding examples
- **Third-party applications:** GenICam-compliant transport layers, AVT Cognex Adapter

## Vimba Viewer

Use the Vimba Viewer to instantly view images from your AVT camera and to try out camera features without any programming.

### Using Vimba Viewer

1. Connect the camera to the PC.
2. Start **Vimba Viewer**.  
The **Camera Selector** opens.
3. In the **Camera Selector**, to open a camera, click the appropriate list item:



Figure 1: Camera Selector: Opening a camera by default

Automatically, the **Main window** opens.

4. To start image acquisition, click the **Start button**:

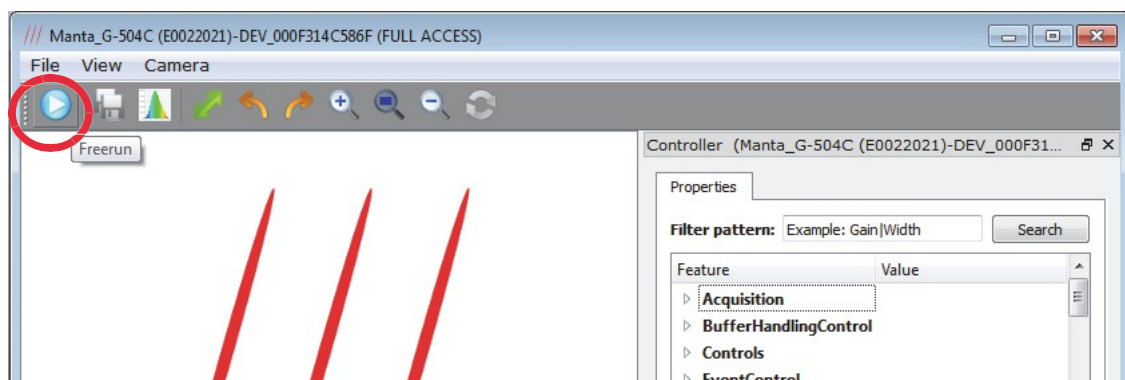


Figure 2: Main window: Starting image acquisition

### If the start button is greyed out with a GigE camera

In this case, the **Main window** is in **Config Mode** to allow the configuration of the interface settings.

- Correct the interface settings:

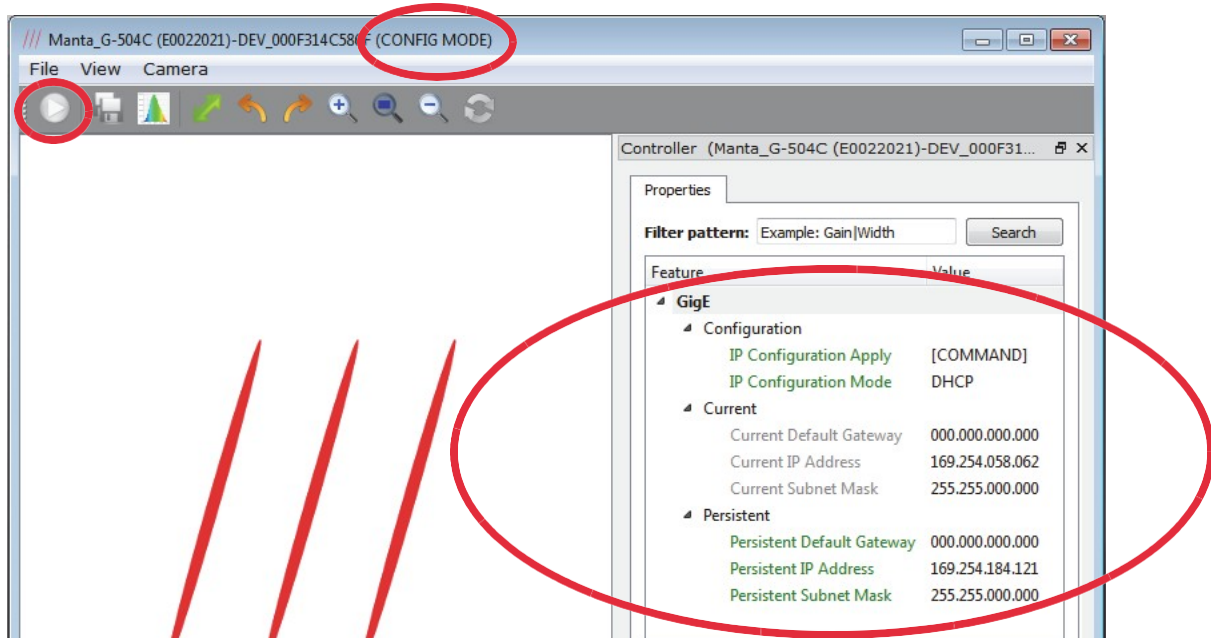


Figure 3: Main window: Configuring the GigE interface settings

- After correcting the interface settings, close the **Main window**.
- In the **Camera Selector**, to open a camera, right-click the appropriate list item.
- Click **Open FULL ACCESS**:

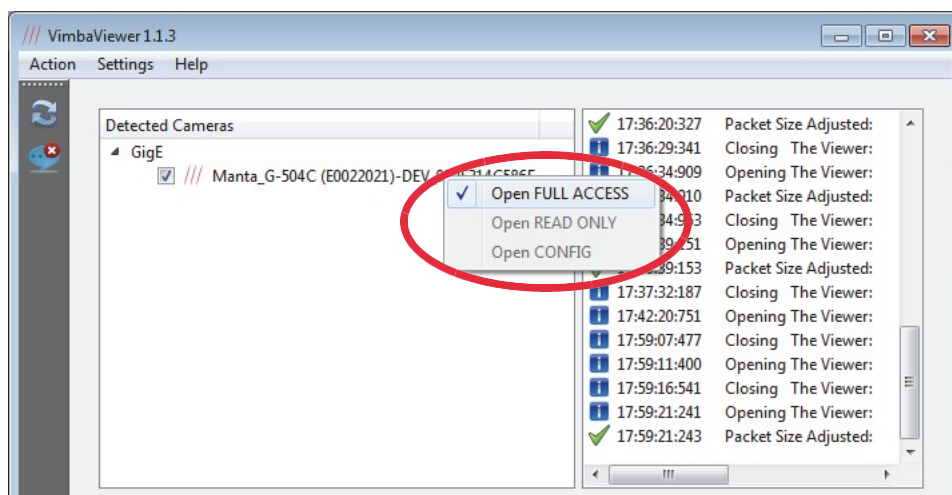


Figure 4: Camera Selector: Opening a camera

Automatically, the **Main window** opens.

- Start image acquisition, [see 4](#).

**To open the camera settings manually:**

1. Close the **Main window**.
2. In the **Camera Selector**, to configure a camera, right-click the appropriate list item.
3. Click **Open CONFIG**:

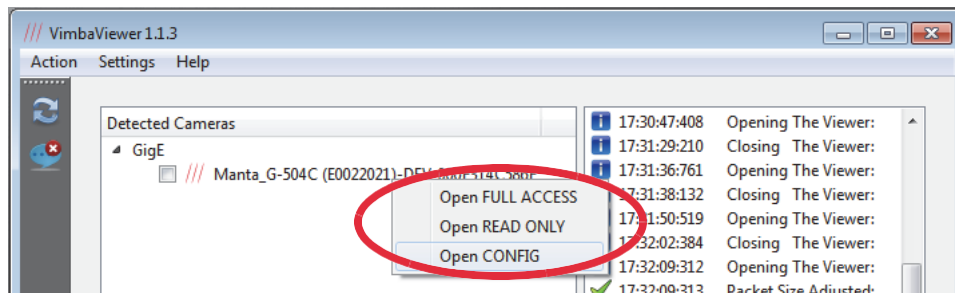


Figure 5: Camera Selector: Configuring a camera

The **Main window** opens in **Config Mode**.

**More information on camera installation**

www



The **Hardware Installation Guides** provide detailed support for installing and configuring the cameras.

For GigE cameras:

[http://www.alliedvisiontec.com/fileadmin/content/PDF/Products/Technical\\_Manual/GigE\\_Install\\_Manual/AVT\\_GigE\\_Installation\\_Manual.pdf](http://www.alliedvisiontec.com/fileadmin/content/PDF/Products/Technical_Manual/GigE_Install_Manual/AVT_GigE_Installation_Manual.pdf)

For IEEE 1394 cameras:

[http://www.alliedvisiontec.com/fileadmin/content/PDF/Products/All\\_Hardware\\_Installation\\_Guide/1394\\_HardInt\\_V8.0.0\\_en.pdf](http://www.alliedvisiontec.com/fileadmin/content/PDF/Products/All_Hardware_Installation_Guide/1394_HardInt_V8.0.0_en.pdf)

## Development

Depending on your programming language and the camera interface, different documents are relevant.

In any case, starting with the **Vimba User Guide** is recommended. To ease programming with Vimba, read the documentation in the order suggested in the table below:

**Note** The documentation is available for the installed components only.



Reading order	Component	Documentation	x = necessary / o = optional				
			C	C++	.NET	IEEE 1394	GigE
1	Vimba	<a href="#">Vimba User Guide.pdf</a>	x	x	x		
2	Vimba C API	<a href="#">Vimba C Manual.pdf</a>	x				
	Vimba C++ API	<a href="#">Vimba CPP Manual.pdf</a>		x			
	Vimba .NET API	<a href="#">Vimba NET Manual.pdf</a>			x		
3	Camera Features	<a href="#">AVT1394TLManual.pdf</a>				x	
		<a href="#">AVT_GigE_Camera_and_Driver_Features.pdf</a>					x
4	Vimba Features	<a href="#">Vimba Features.pdf</a>	x	x	x		
5	AVT Image Transform Library	<a href="#">AVTImageTransform Manual.pdf</a>	o	o			
6	Transport Layer	<a href="#">AVT1394TLManual.pdf</a>				o	
		<a href="#">AVTGigETLManual.pdf</a>					o

Table 1: Manuals for the developer

 Windows only

## Coding examples

For a practical introduction to Vimba coding, Vimba Examples will be helpful:

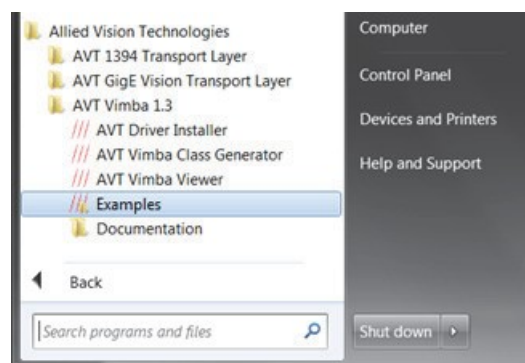


Figure 6: Windows Start Menu: Access to Vimba Examples

In the Examples directory, ExamplesOverview.hta provides an overview of and links to the enclosed examples:

C	C++	.NET
<b>Examples</b> <ul style="list-style-type: none"><li><a href="#">ListCameras</a></li><li><a href="#">ListFeatures</a></li><li><a href="#">SynchronousGrab</a></li><li><a href="#">AsynchronousGrab</a></li></ul> <b>Helpers</b> <ul style="list-style-type: none"><li><a href="#">ForceIP</a></li></ul>	<b>Examples</b> <ul style="list-style-type: none"><li><a href="#">ListCameras</a></li><li><a href="#">ListFeatures</a></li><li><a href="#">SynchronousGrab</a></li><li><a href="#">AsynchronousGrab</a></li><li><a href="#">CameraFactory</a></li><li><a href="#">VimbaViewer</a></li></ul> <b>Helpers</b> <ul style="list-style-type: none"><li><a href="#">BandwidthHelper</a></li><li><a href="#">LoadSaveSettings</a></li><li><a href="#">UserSet</a></li><li><a href="#">LookUpTable</a></li><li><a href="#">ShadingData</a></li></ul>	<b>Examples</b> <ul style="list-style-type: none"><li><a href="#">ListCameras</a></li><li><a href="#">ListFeatures</a></li><li><a href="#">SynchronousGrab</a></li><li><a href="#">AsynchronousGrab</a></li><li><a href="#">CameraFactory</a></li></ul> <b>Helpers</b> <ul style="list-style-type: none"><li><a href="#">BandwidthHelper</a></li><li><a href="#">LoadSaveSettings</a></li><li><a href="#">UserSet</a></li><li><a href="#">LookUpTable</a></li><li><a href="#">ShadingData</a></li></ul>

Figure 7: ExamplesOverview.hta

## Third-party applications

Vimba provides GenICam-compliant TLs (transport layers) for AVT GigE and 1394 cameras. To use AVT cameras with a third-party application, read the documentation in the order suggested in the table below:

### Note



After the Vimba installation, GenICam-compliant third-party applications automatically find and use the AVT TL.  
For third-party applications not compliant with GenICam, read the corresponding manual.

Reading order	Component	Documentation	
		IEEE 1394	GigE
1	GenICam-compliant third-party applications	Please read the documentation of the third-party application. Depending on the third-party application, also see the following:	
2	Camera Features	<a href="#">AVT1394TLManual.pdf</a>	x
		<a href="#">AVT_GigE_Camera_and_Driver_Features.pdf</a>	x
3	Transport Layer	<a href="#">AVT1394TLManual.pdf</a>	o
		<a href="#">AVTGigETLManual.pdf</a>	o

Table 2: Manuals for the third-party application user

 Windows only

### Note



Cognex VisionPro is supported by the AVT Cognex Adapter (Windows only).  
For more information see [Vimba Cognex Adapter User Guide](#).

For extended functionality of the AVT Cognex Adapter, see [AVT1394TLManual.pdf](#) or [AVT\\_GigE\\_Camera\\_and\\_Driver\\_Features.pdf](#).

## Contacting Allied Vision Technologies

Technical information:

<http://www.alliedvisiontec.com>

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