

Imaginant HR Digital Camera Quick Start Guide

Thank you for purchasing the Imaginant HR Digital Camera. The intent of this document is to get you up and running as quickly as possible. For a detailed explanation of your cameras' features and controls please refer to the Operator Manual and Demo Application Manual available on the CD.

Contents of this document:

1. What's in the box
2. What's NOT in the box
3. Requirements and Setup
4. Installing the HR Demo Application
5. Installing the HR Software Development Kit (SDK)
6. Using the camera with the HR Demo Application
7. Troubleshooting

1. What's in the box?

The full package contains the following items:

Imaginant HR Digital Camera	CD (contains Camera S/W, Manuals, FAQ files)
Ethernet Cable	AC Line Cord
EC Declaration of Conformity	This Document

2. What's NOT in the box?

An EF-style lens or a Gigabit Ethernet Card are NOT included. These can be purchased separately through Imaginant.

3. Requirements and Setup

Make sure your workstation has an Ethernet port, at least 256 MB of RAM, 1 GB of free hard disk space, and is running Windows 2000 or XP. Attach EF style lens to the camera and mount the camera in the desired location.

Connect the Ethernet cable to the camera and to a dedicated Ethernet port set to IP address 194.194.194.206 on your workstation. See the section "Workstation Setup" in the Operator Manual for details on doing this.

Connect cables to the trigger inputs and strobe outputs (if desired).

Connect the AC power cord to the camera and turn on the camera power switch.

Blinking light activity on the camera Ethernet connector indicates that the camera is connected properly.

4. Installing the HR Demo Application:

Open the CD and expand HR_DemoApp_Win_1.0.0.6.zip into a folder on your workstation. The folder may be moved or copied as needed, but always keep HR_Lib.dll in the same folder as HRDemo.exe.

You may make the usual Windows shortcuts to launch HRDemo.exe from the desktop, a different folder, or a menu.

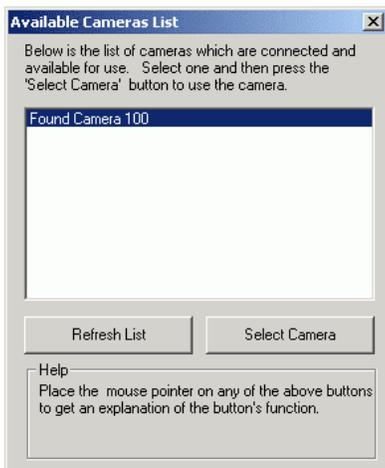
Double click HRDemo.exe to launch the HR Camera Demo Application.

5. Installing the HR Software Development Kit (SDK):

Open the CD and expand HR_SDK_Win_1.0.0.8.zip into a folder. No installation is necessary. The files are arranged in folders so SampleCode01.cpp can be compiled, linked, and run in debug mode without moving any files. SampleCode01.dsp is a Project file for Microsoft Developer Studio, but the sample code can be compiled with any C++ compiler tool. Only one copy of HR_Lib.dll is provided, (In the Debug folder). See HR_SDK_ProgrammersReferenceManual.pdf for further information.

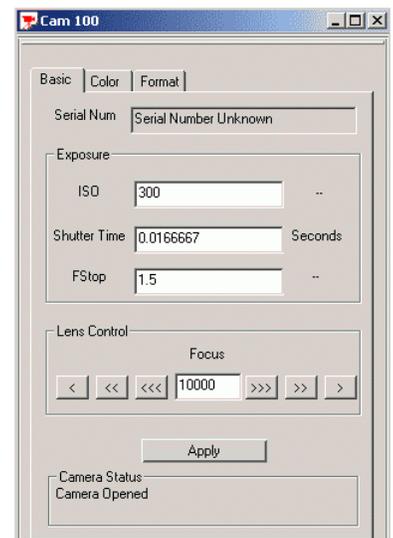
6. Using the Camera with the HR Demo Application

With the camera powered up and the workstation properly set up, launch the HR Demo Application. A dialog box as seen below left will show any cameras that are trying to connect.



To continue, click on the 'Select Camera' button. The program will now display the 'Camera Startup Settings' dialog box. This dialog provides a way to specify camera settings. For most uses, the default settings are fine, so simply press the 'Open Camera' button.

At this point a new dialog box appears and will remain present as long as the camera is open. The control panel seen below represents the camera.



Once the camera is opened, the dialog should look similar to the figure to the right. The 'Camera Status' box at the bottom should read 'Camera Opened'

6a. Starting Preview Mode

Press the 'P' button on the toolbar. The camera control panel will expand in size and a black and white preview image will appear. Use Preview to setup a scene and to adjust focus and exposure parameters.

6b. Changing Camera Settings

Camera ISO, Shutter Time and FStop can be changed by editing their respective values. Lens Control Focus can be changed by editing its value or by clicking on the arrow buttons. Whenever a value is changed, the 'Apply' button or 'Enter' key must be pressed in order for the change to take effect. If the camera is in preview mode, the change will be visible in the preview pane.

6c. Capturing an Image

PREVIEW MODE MUST BE TURNED OFF TO CAPTURE AN IMAGE. Click on the 'Trigger' toolbar button (which looks like a finger pressing a shutter button) to capture an image. A captured image will then be displayed and the user can save it to disk or close it, or simply leave it on screen. If another image is captured, it will appear as a separate document.

6d. Saving Images

To save an image, simply select it and choose 'Save' or 'Save As' from the file menu. Images can be saved as JPEG or Windows BMP files.

6e. Other Features

Zooming and Navigating

In order to zoom in and see details, simply click on the image with the left mouse button. Clicking with the right mouse button will zoom out.

The '+' and '-' keys on the keypad may be used for zooming as well.

Examining Pixel Values

The status bar in the lower right corner of the application will display the current pixel coordinates of the mouse pointer, and the code value of the underlying pixel. The pixel at coordinates (0,0) is located at the upper left corner of the window.

Save and Load of Camera Settings

'Save and Load Camera Settings' is a menu item for this purpose.

Automatic Repeat Triggering

A feature called 'Auto Repeat Image Capture' is available in the camera menu. When enabled, when the transfer of an image is complete, another will be triggered. It can be stopped via the 'Stop Sign' toolbar button.

Max Num Image Documents

Each displayed image can use up to about 40 megabytes of system memory on your workstation. In order to limit the number of image documents to avoid slow performance and crashes due to lack of memory use 'Max Num Image Documents' to define the maximum number of simultaneous open image documents. If another capture causes the number of open document to exceed the maximum, the oldest image document is automatically closed. The image is not saved automatically unless Auto Save Collected Images is enabled, in which case the image was saved before it was displayed.

Base Filename

The default filename for an image will be the base filename followed by the image sequence number, followed by the default file extension for that type. For example, when the base filename is 'img', then the first image will have a default filename as img1.jpg.

Create Displayed Image Documents

If this option is enabled, image documents will be created when a capture completes. If Automatic Save Mode is enabled, the image will be saved to disk, even though it will not be displayed. If Automatic Save Mode is not enabled, the image will be discarded after being captured.

Automatic Save Mode

When Automatic Save mode is engaged, the images are saved with their default names as soon as they become available. The image will be saved even if the application is not displaying image documents because of another option. It can also be used in conjunction with Automatic Repeat Triggering, but be careful not to run out of storage space on your workstation.

Camera Info

Enable 'Camera Info' to view the make, model and serial number of the camera, as well as the firmware version.

7. Troubleshooting

Camera Connection Problems

If the HR Camera Demo Application starts up normally, and the camera does not show up in the camera list after 30 seconds, then it is likely there is a connection problem. Check that the camera has power. If it does and still no link lights are lit, check the Ethernet cable connections. Normally, the camera forms a link, which then goes down again for a second or so, then the link comes back and the lights will start to blink about once per second. No blinking lights mean the camera is not trying to connect. Verify the camera is connected to a dedicated network card set to an IP of 194.194.194.206.

Application Problems

If the camera menu is not present on your workstation monitor, click on the camera document to make it the active window. This will bring the camera menu back, and will enable the camera toolbar buttons. If the trigger toolbar button is grayed out, check to make sure preview mode is off.

We encourage you to let us know how your camera is operating and what applications you are imaging. Feel free to contact us via e-mail at camerasales@imaginant.com.