



## Photo Finish 7 Manual

Diamond One Touch Video Capture Version

VERSION 7.02



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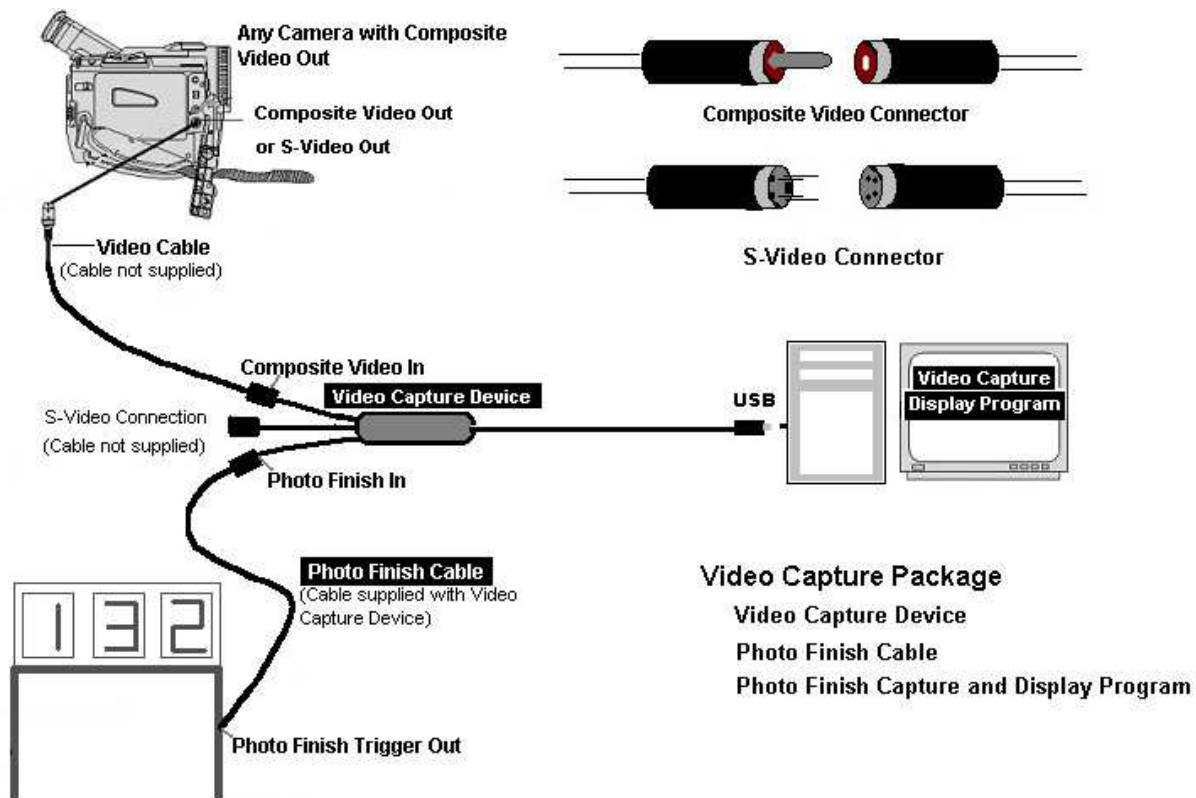
## Photo Finish 7

We thank you for purchasing the SmartLine Photo Finish 7 video capture system. Set up your photo finish system with your timer in advance to familiarize yourself with the software and the timing parameters. Please review the FAQ section on our website for answers to common questions. If you have specific questions, drop us an email to get a quick answer.

The SmartLine Photo Finish software works in tandem with the Diamond One Touch EZGrabber video capture software. You need to install the driver for the video capture device and both software packages, EZGrabber and PhotoFinish7.

Diagram 1 shows how to physically set up the system. There are two types of video inputs that may be used. Check with your camera's documentation to determine which type of output you have. Use the appropriate connector on the Diamond One Touch Video Capture Device. We add the Photo Finish Cable to the Diamond One Touch Video Capture device. Please contact us for any questions or repairs.

Diagram 1



## Photo Finish 7

The SmartLine Photo Finish 7 video capture system includes:

- The Diamond One Touch USB 2.0 video capture device



- Diamond Audio/Video breakout cable (M-M composite video)
- SmartLine Photo Finish Cable (portion added to capture device + 50' extension)
- The SmartLine Photo Finish 7 CD including:
  - Photo Finish 7 Setup Installation Program (Setup.exe)
  - Photo Finish 7 Software (PhotoFinish7.exe)
  - LineSetup4.exe Utility Program
  - Photo Finish 7 Manual
- Diamond One Touch Software Installation CD

### Fundamental Operation of the Photo Finish System

You will need to use the EZGrabber/One Touch Video Capture Application Program and the PhotoFinish7 software to capture and display the photo finish pictures. The EZGrabber software runs minimized in the background and captures pictures from the capture device. It saves them in a directory specified in the Snapshot tab of the Setup function. The PhotoFinish7 software monitors that directory and displays the last picture taken in either jpg or bmp format.

Do not plug the Diamond One Touch USB 2.0 video capture device into your PC until it is fully booted and ready to install the Diamond video capture device driver.

Please follow the instructions below to set up your Photo Finish.

- 1. Setup Photo Finish hardware as shown in Diagram 1**
- 2. Install One Touch Driver and EZGrabber Application (first time only)**
- 3. Install SmartLine Photo Finish 7 Application (first time only)**
- 4. Start the EZGrabber Application software, set directory, minimize program**
- 5. Start the PhotoFinish7 Application software**
- 6. Use the SmartLine LINESETUP4.EXE to fine tune the timer if necessary**

## 1. Setup Photo Finish hardware

Set up the Photo Finish hardware as shown in Diagram 1. Connect the camera and the timer to the Diamond One Touch USB 2.0 video capture device. Connect the power to the camera and timer if they are not already on. Insert the Capture Device into the USB 2.0 port on your computer. If your computer indicates “New Hardware Found” continue with Steps 2 and 3 below. If this is the first time you have used the SmartLine Photo Finish Video Capture device, you need to install the Device Driver and Application software, EZGrabber and SmartLine Photo Finish 7.

## 2. Install One Touch Driver and Application

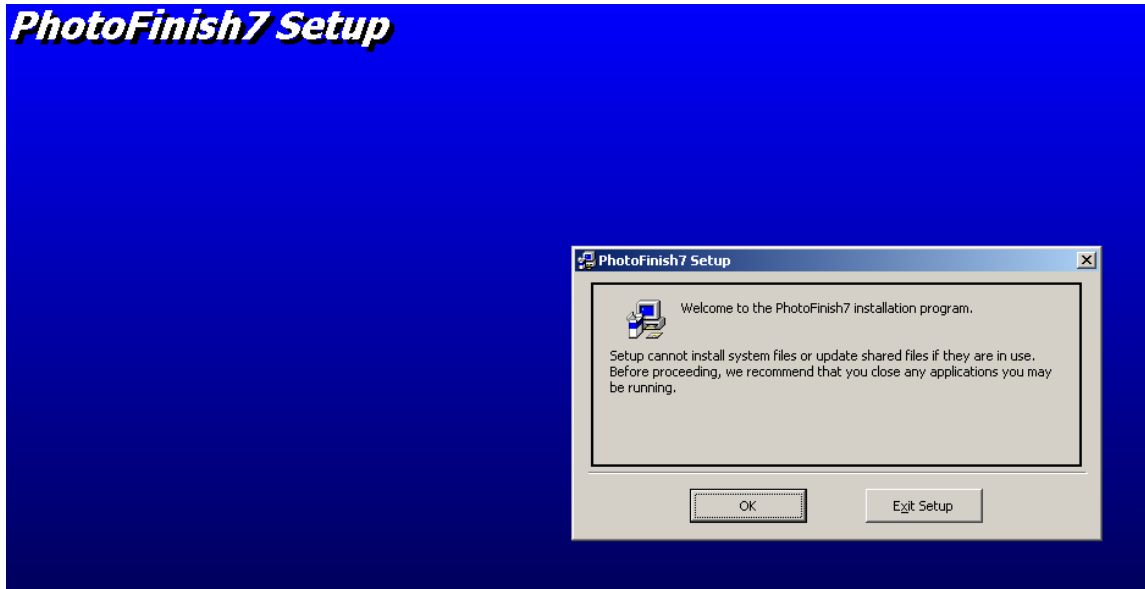
Install the One Touch Video Capture Device DRIVER (selection #1) and EZGrabber SOFTWARE (selection #2) as shown in the One Touch manual. You do NOT need to install the ShowBiz editing software.



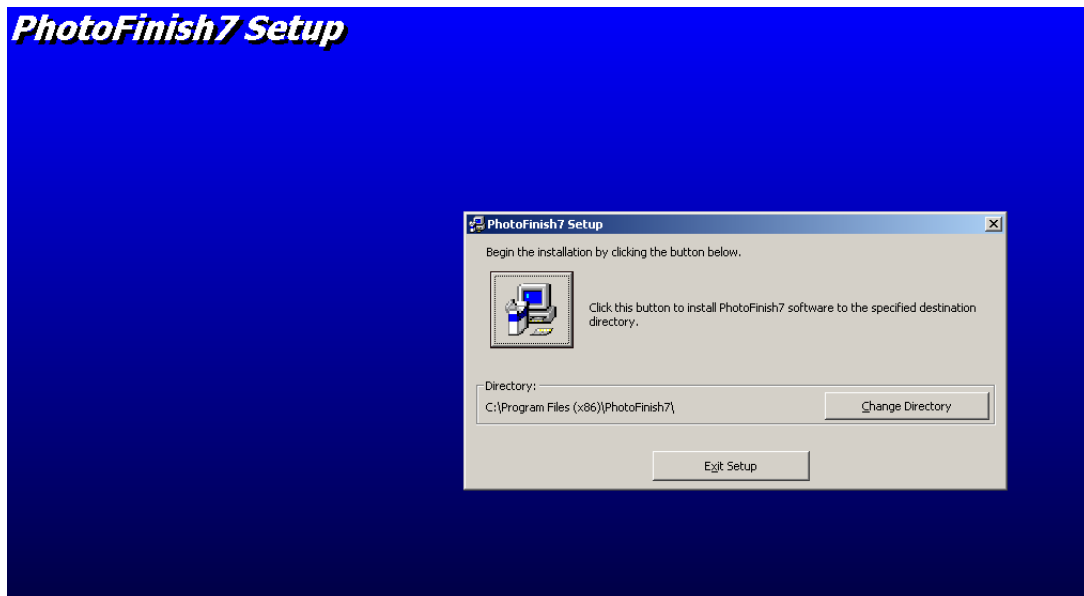
Before you start the Video Capture Application, EZGrabber, install the SmartLine Photo Finish 7 software from the SmartLine Photo Finish 7 CD.

### 3. Install SmartLine Photo Finish Application

Insert the SmartLine Photo Finish 7 CD into the CD drive.  
Using the File Explorer, double-click on SETUP.EXE, in the root directory of the CD.  
Follow the instructions for installing the SmartLine Photo Finish Still Capture Application.



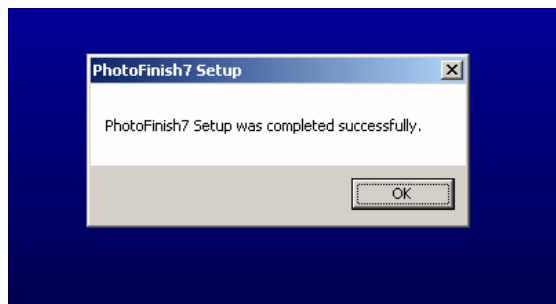
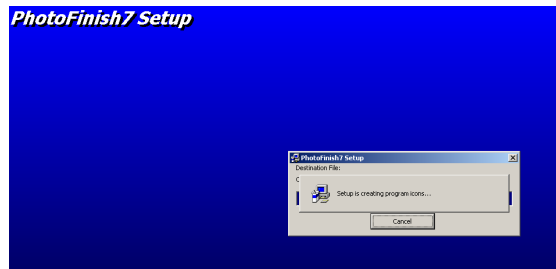
It's a good idea to close other programs while installing a new software package. You may, however, leave the File Explorer running or you may close it from the taskbar.



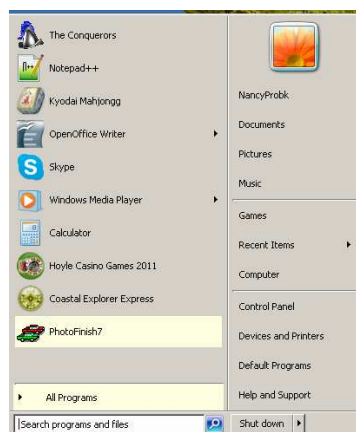
Press the large icon button with the computer on it to install the PhotoFinish7 software into the directory specified below it. It is recommended that you use this directory and do not change it.



Select "Continue" with the default selection PhotoFinish7.



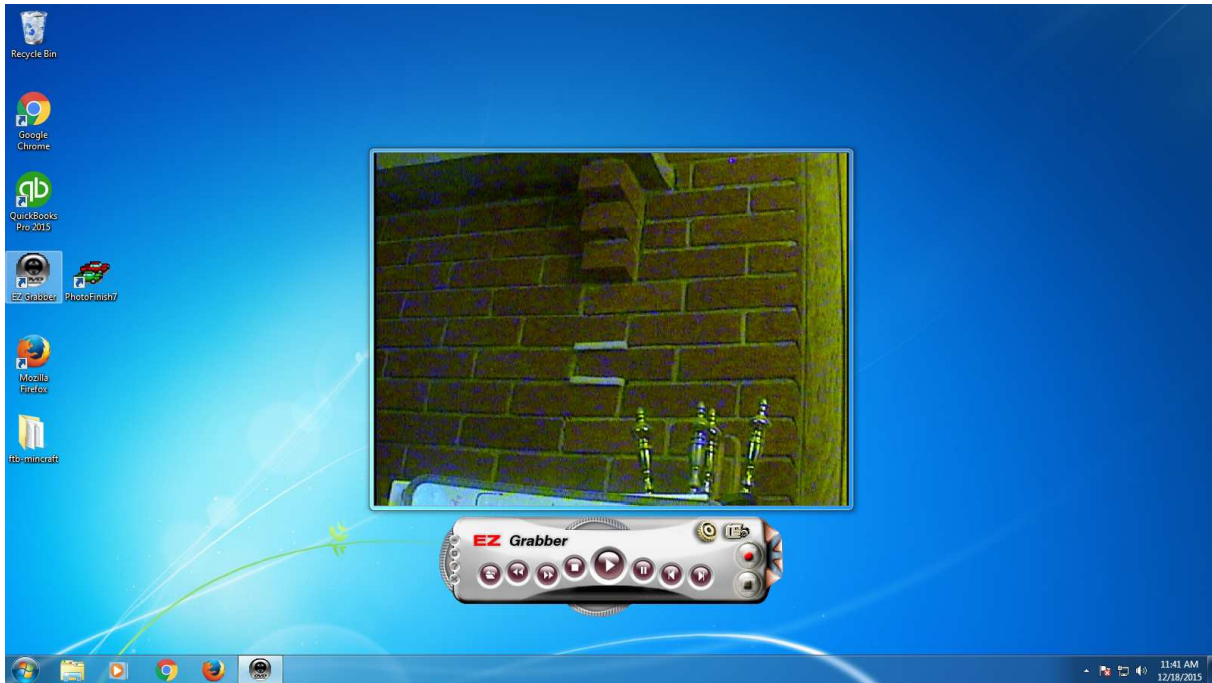
The Photo Finish 7 Application Icon will be put into the Start Menu. You may create a shortcut for it to the desktop for easier access.





## 4. Start the EZGrabber Application

The Diamond One Touch EZGrabber program is will be located on the desktop after you install it. Double click on the EZGrabber icon to start the program. In the following screen shot the PhotoFinish7 is next to the EZGrabber icon. This application shows active video in the box above the control panel if the camera is on.

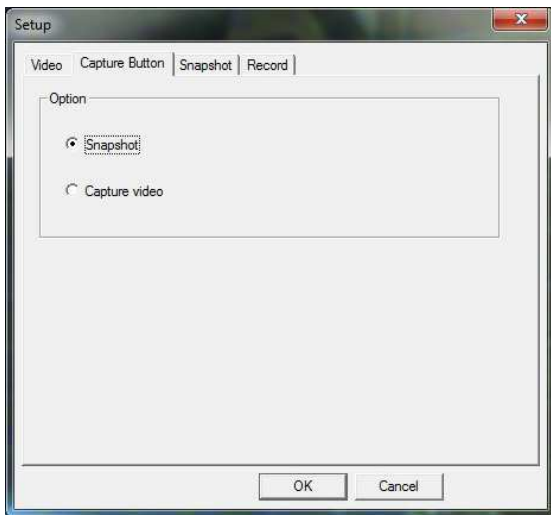


Press the Gear icon to go to the Setup Menu.

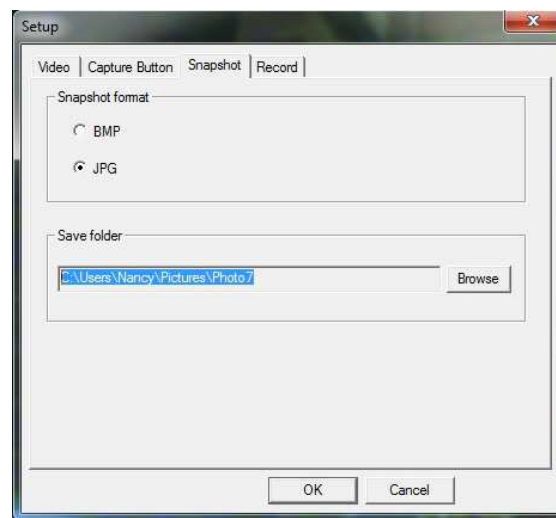
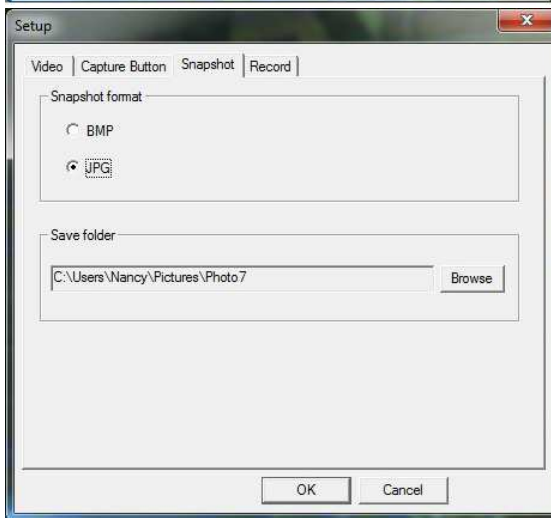


The video format and source are set up automatically by detecting your camera source.





Make sure Snapshot is selected on the Capture Button tab.



You may select either BMP or JPG on the Snapshot tab. It is best to be consistent in your selection.

You may leave the default directory, "C:\Program Files (x86)\EZ Grabber\MyPictures\", as the destination for your images but you may want to change the directory to organize the images into more manageable groups.

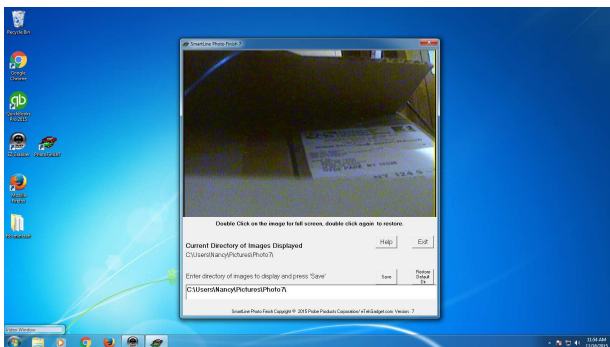
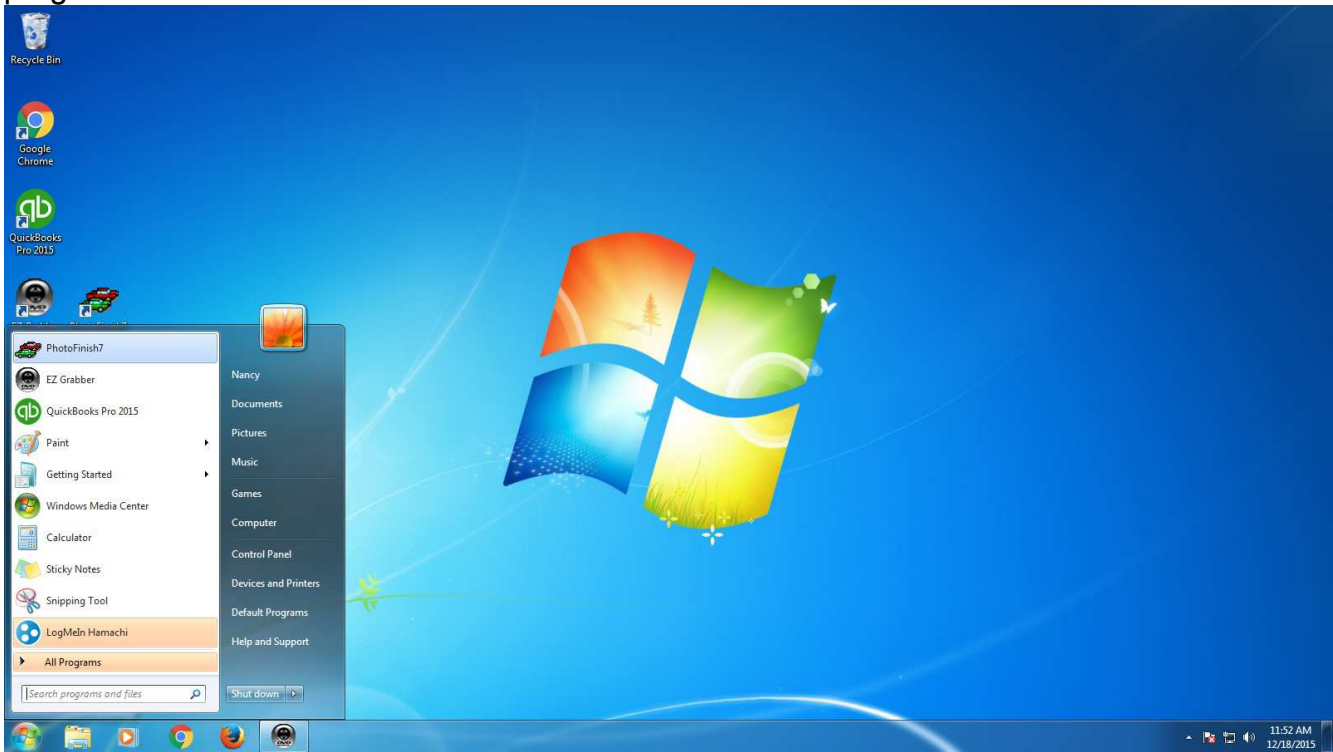
**Use the EZGrabber program to set the directory where the pictures will be stored.** Use the Browse button to set or create the directory in the EZGrabber Application. You may cut (CTRL-C) and paste (CTRL-V) the directory name from the EZGrabber application into the SmartLine Photo Finish 7 application.



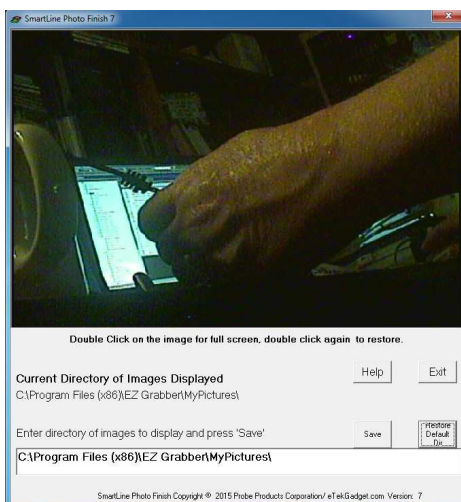
**The EZGrabber software must remain running and minimized.** It will capture the images displayed in the Photo Finish 7 software. If you want to restore the program

## 5. Start the PhotoFinish7 Application

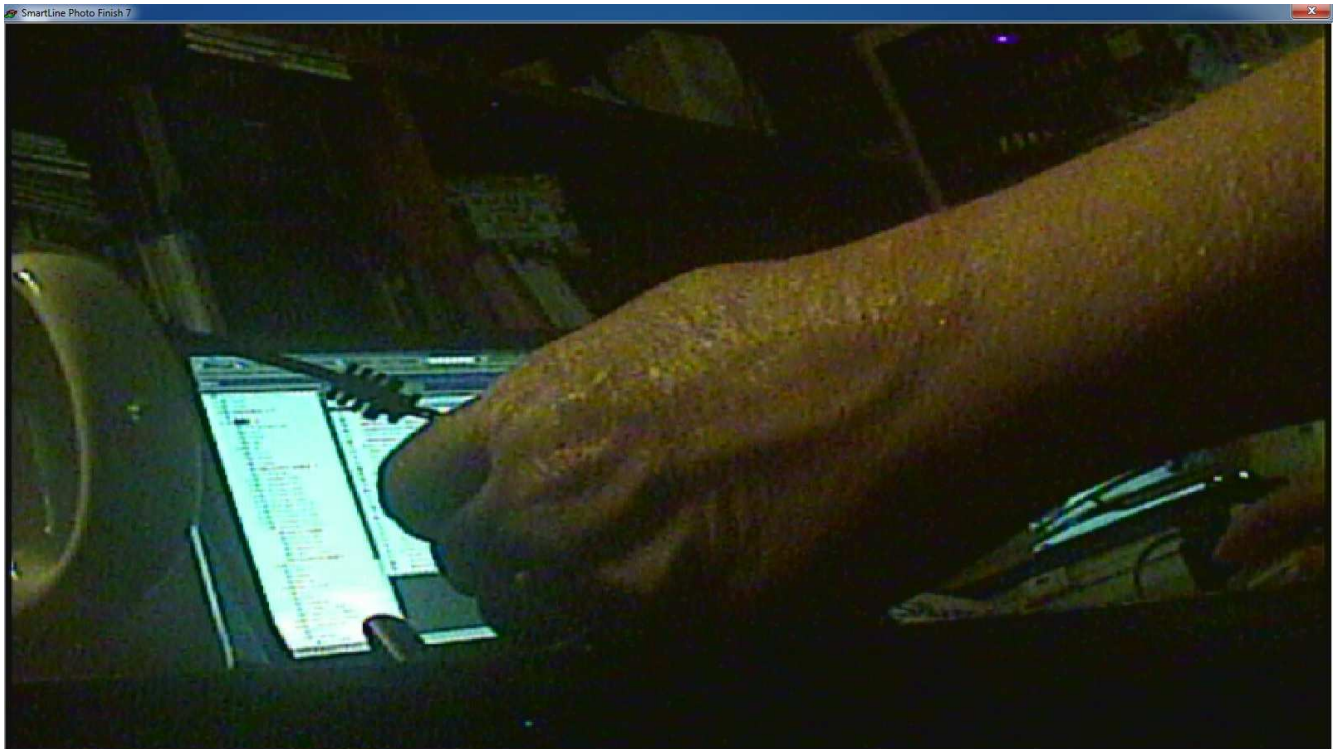
The PhotoFinish7.EXE program is included in the Start menu or on the desktop as shown below. Click on the name in the Start menu or Double click on the icon to start the Application program.



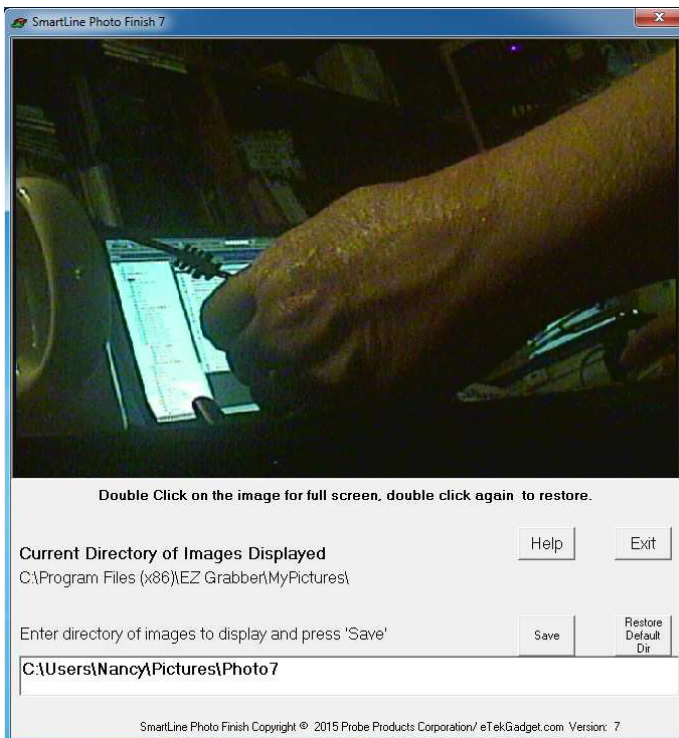
If you are changing the directory, paste it (CTRL-V) from the EZGrabber Setup Menu into the Entry box in the Photo Finish 7 Application. Press the Save button to set the directory to where the images will be stored. The Photo Finish software checks that the directory exists. If the directory does not exist, you will be asked to set it in the EZGrabber software first.



You may use the Restore Default Dir button to set it back to the original EZGrabber directory, "C:\Program Files (x86)\EZ Grabber\MyPictures\".



Double Click on the image for full screen, double click again to restore.



Change the directory to the same one that is set in the EZGrabber Application to see the current pictures. The Photo Finish 7 Application scans the directory for the newest date and displays that picture. If there are no pictures to display, PhotoFinish7 will show a SmartLine splash picture.

## **LINESETUP4 Application for setting Delay and Width**

The LINESETUP4.EXE Utility program is included on the Photo Finish CD so that you may use it to change the Delay and Width parameters that the SmartLine or Champ Timer uses to capture the picture at just the right moment. The LineSetup4.exe is a stand-alone program and does not need a Setup.exe program to install it. Simply copy the LineSetup4.exe program to your computer in the directory of your choice and double click on it in the File Explorer to run it. You may also run it directly from the CD.

Use either LineSetup4 or a race management software package such as GrandPrix Race Manager to change these parameters. Do not run these programs at the same time.

The Delay is the duration of the delay from the first car crossing the line to the start of the photo finish signal. The value selected is the number of milliseconds the triggers signal will be delayed. When this delay is set too low, the photo finish pictures will be taken before the displays indicate the winning lane. If the delay time is too high, the displays will show multiple cars finished. You need to "fine tune" the delay time to capture the picture just after the first place is indicated on the display.

The Width is the duration of the photo finish signal, such as the length of time you hold the button down. The capture device will take more than one picture if the triggering signal is too long. If the time is set too short, you will miss pictures. The number in the Width parameter is the number of milliseconds the trigger signal will last.

PLEASE NOTE: We test it with the delay and width set to over 200 on a Win 7 AMD Athlon II 3.40GHz computer.

## SmartLine LINESETUP4.EXE Setup Program

We supply the SmartLine Setup Program (LINESETUP4.EXE) on the SmartLine Timer and photo finish CD to establish the initial communication and also for updating any settings that you may wish to change. You only need the one file, LINESETUP4.EXE, to run this program.

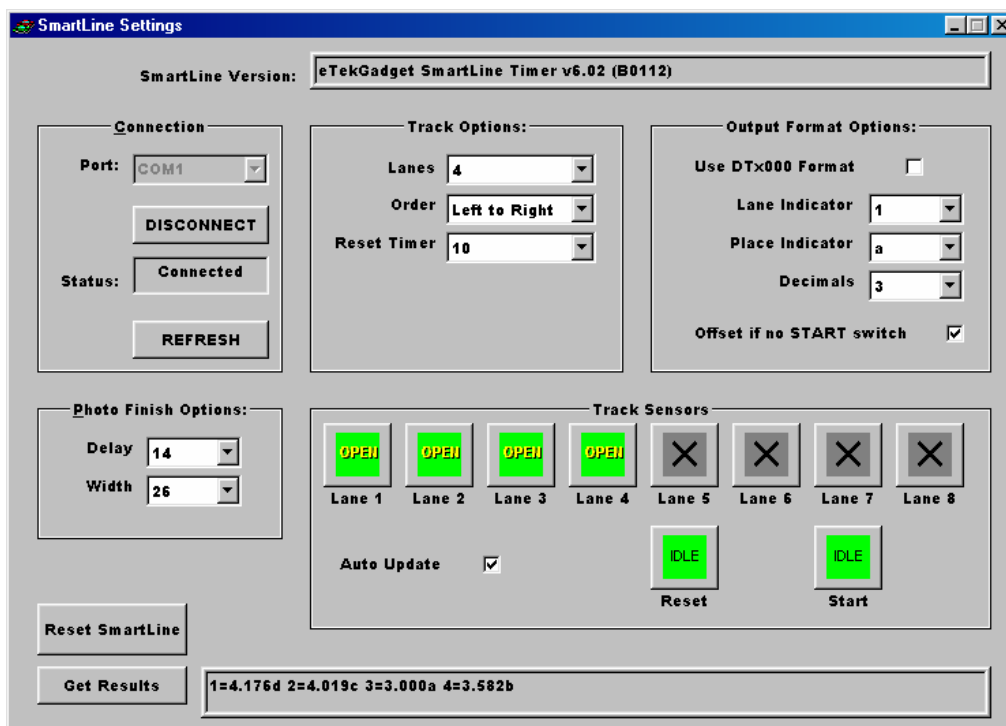
Before you start the LINESETUP4.EXE program make sure that the SmartLine Timer is plugged into the computer and turned on. Also make sure that you do NOT have any other programs running that use the same COM port, such as the GrandPrix Race Manager program.

To start the SmartLine Setup Program, simply double-click on the LINESETUP4.EXE program name.

Select the COM port you will be using for communication in the Connection box.

Click the 'CONNECT AUTO' button. The 'CONNECT' button is currently displaying 'DISCONNECT' in the picture below because it has already been pressed and the status is Connected.

The SmartLine Version will appear at the top of the box if the timer is connected.



This is the display as it appears when there are 4 lanes and communication has been established successfully.

You may change any of the settings such as Photo Finish Delay simply by selecting a new value in the drop-down box. The timer is immediately updated with the new value and saves it until it is changed again. Different computers require different settings so you need to adjust it until you have the correct values for your computer. The Delay value is the time between the first car and the photo capture trigger. The width is the time that "the button" is held down. If the width is too long you may get more than one picture or if it is too short you may not get any pictures.

## SmartLine Technical Support

The SmartLine team is here to assist you with any questions you may have while installing the SmartLine Photo Finish 7 System. Please refer any questions to us before contacting Diamond technical support. The capture device has been modified to be able to connect to the SmartLine Timer so that it will trigger the pictures at the correct time. We have also added the SmartLine PhotoFinish7 Application that Diamond will not support.

Please contact SmartLine directly for any warranty issues. All cables, accessories and software are warranted to be free from defects in materials or workmanship under normal use and service for a period of 90 days. All materials must be included if returned or warranty is void.

Questions and comments may be directed to us through our email at [nfritz@etekgadget.com](mailto:nfritz@etekgadget.com) or our Facebook page at "SmartLine Timers".

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