Process to TWAIN

ABOUT TWAIN

TWAIN is the software protocol that makes it possible to directly transfer images from image-capturing devices, like scanners and digital cameras, to applications.

Without **TWAIN,** you would first need to copy and save the image to a disc and only after that the user application will be able to open it.

Thanks to **TWAIN,** application software and image-capturing devices can understand each other and interact.

Image-capturing devices work via **TWAIN** data source usually called **TWAIN** driver. Not only a real device, like scanner and digital camera, but a software as well can serve as a data source.

The following **IDPhotoCapture** products support the work as data sources:

- inPhoto ID Webcam
- inPhoto ID PS
- inPhoto ID SLR
- IDPhoto Processor
- inPhoto Capture PS
- inPhoto Capture SLR

TWAIN protocol comes with a data transfer standard and API interface. **TWAIN** drivers are applications for managing image-capturing devices written on the basis of the **TWAIN** interface. Normally, **TWAIN** drivers have a graphical interface and function as a data source control panel. **TWAIN** drivers also allow configuring image settings, such as colour balance, size, gamma range, etc. before the image is received by the application. Sets of settings in **TWAIN** drivers differ depending on a data source device.

Image transfer with **TWAIN** involves user application, supporting **TWAIN** protocol to which the image will be transferred and **TWAIN** driver which serves as an image source. Most applications for image handling are currently supporting **TWAIN**, however please refer to the application supplier or to the documents to find out about such a possibility.

Only application can initiate an image transfer, so it is from this that the **TWAIN** call have to start.

Various applications have their own commands for receiving files from a data source. Normally, these commands are found in the **File** menu and labelled as **Acquire** or **Import**. In some applications, you need to previously indicate a data source. For this purpose, a **TWAIN source** command is used which is also normally found in the **File** menu.

Diagram of image transfer via **TWAIN**.

1. A user selects and starts the **TWAIN** driver from the application to which the image is to be transferred.
2. After a **TWAIN** driver call, the application enters the standby mode and waits for response of the driver on the image readiness for being transferred. The application may be locked in standby mode. In reality, the behaviour of each application may differ and depends on the features included into it by developers.
3. While the application is waiting, the driver becomes a main controlling unit. The user manages a data acquisition device and captures an image.
4. After the image is captured, the driver transfers it to the waiting application.

5. After the transfer process is finished, the application may demand to close the driver. Further transfer via **TWAIN** is impossible with closed driver. For re-transferring the image, you need to start the procedure from the very beginning, calling out the driver from the application again.

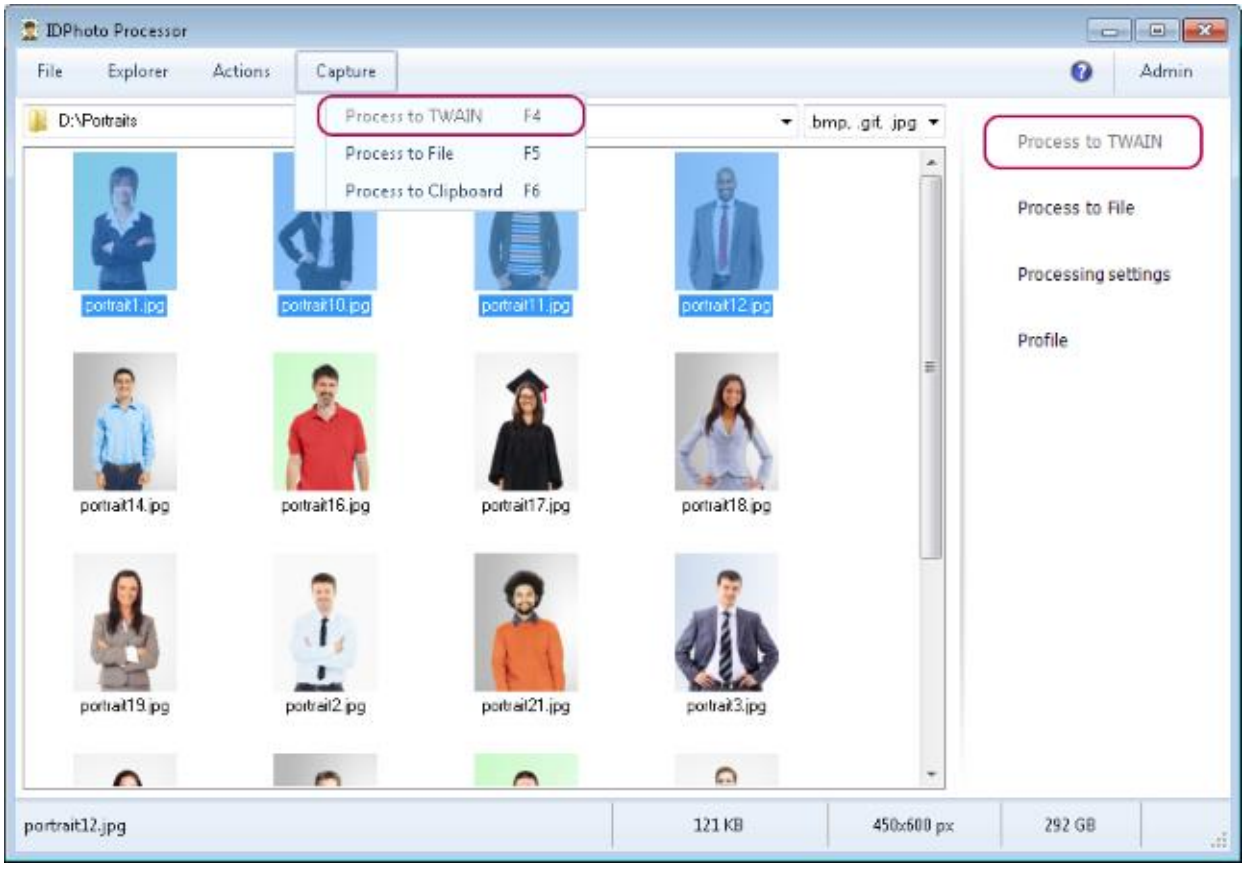
An Example of Processing via TWAIN

The algorithm of processing via **TWAIN** is similar for all the **IDPhotoCapture** products. Let's demonstrate it using **IDPhoto Processor** application as an example. You may use this example when working with **TWAIN** with our other products.

It should be reminded that **IDPhoto Processor** is an image source. Let's take **XnView** image viewer as a calling application.

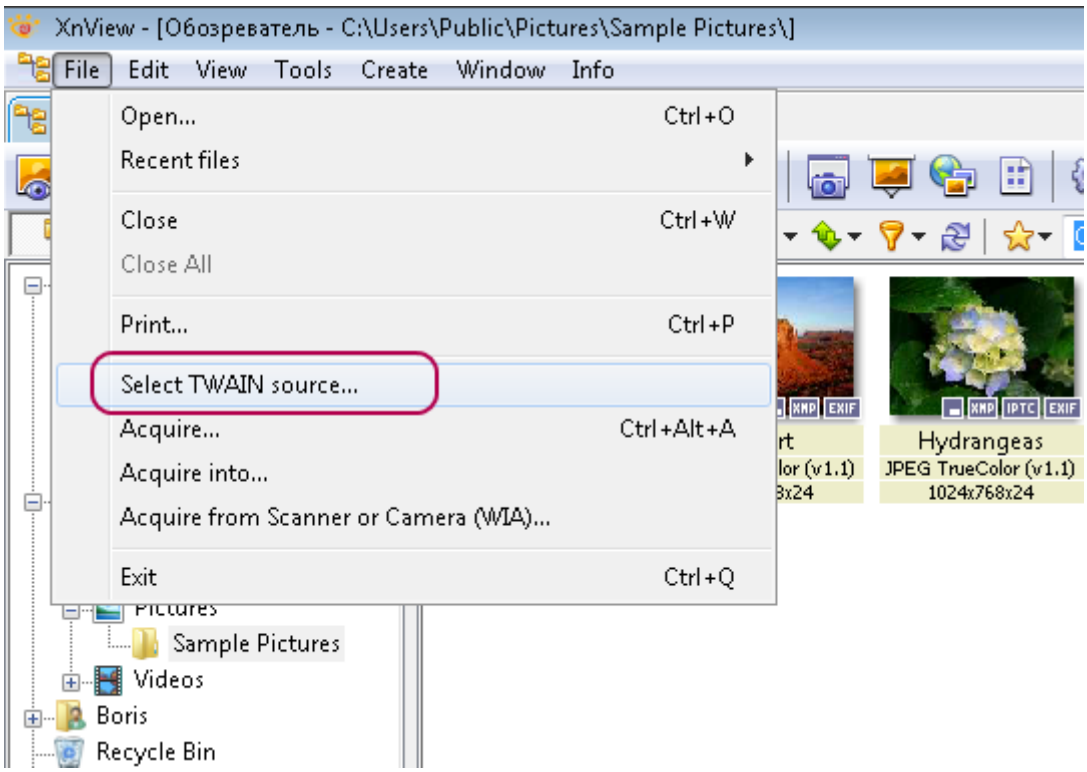
In this example, we'll request from **XnView** to transfer processed images to it from **IDPhoto Processor** via **TWAIN**.

So, start **IDPhoto Processor** and select some images in the explorer. Unlike the rest of the program functions, the **Process to TWAIN** button and the menu item are disabled.

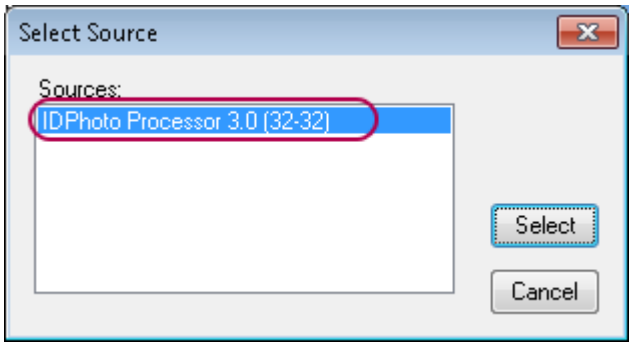


This is right. The possibility to transfer images via **TWAIN** driver will arise when **IDPhoto Processor** receives a request from the third-party application for opening **TWAIN** connection. By this moment, the **Process to TWAIN** elements will be disabled.

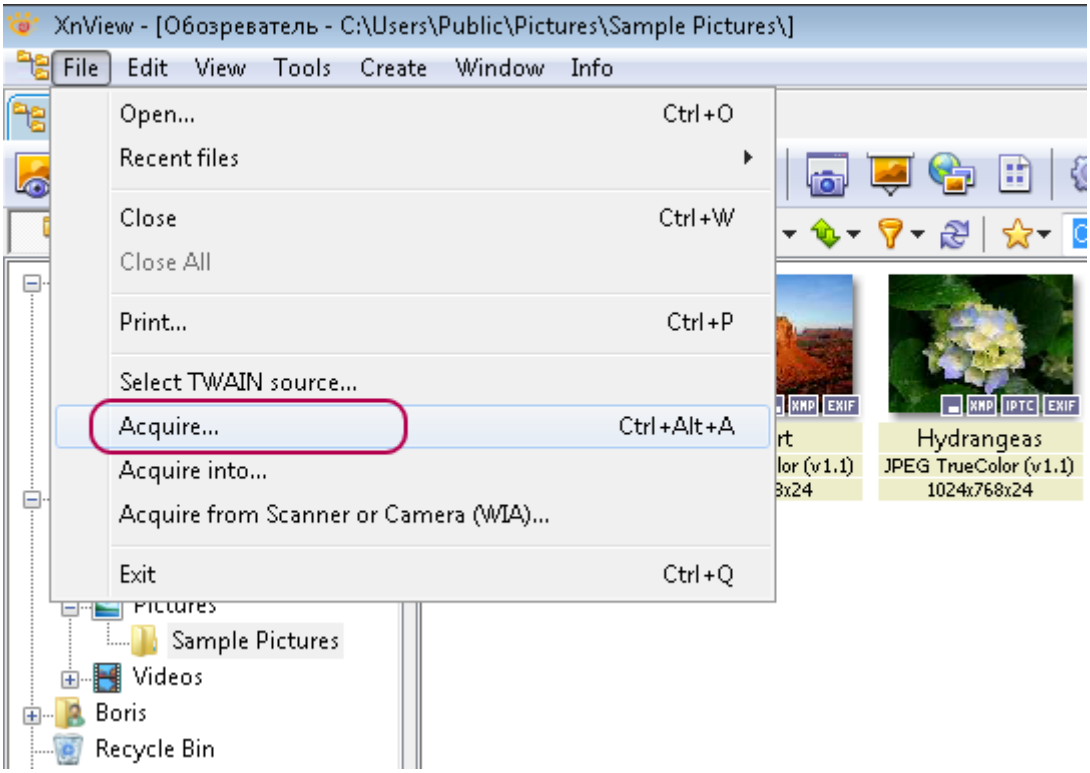
Let's open **TWAIN** connection and enable **Process to TWAIN** function. For this purpose, start **XnView**, enter **File** main menu and select **Select TWAIN source**.



In the appeared **Select Source** dialogue, select **IDPhoto Processor** from the source list.



Then, in the same **File** menu, select **Acquire**.

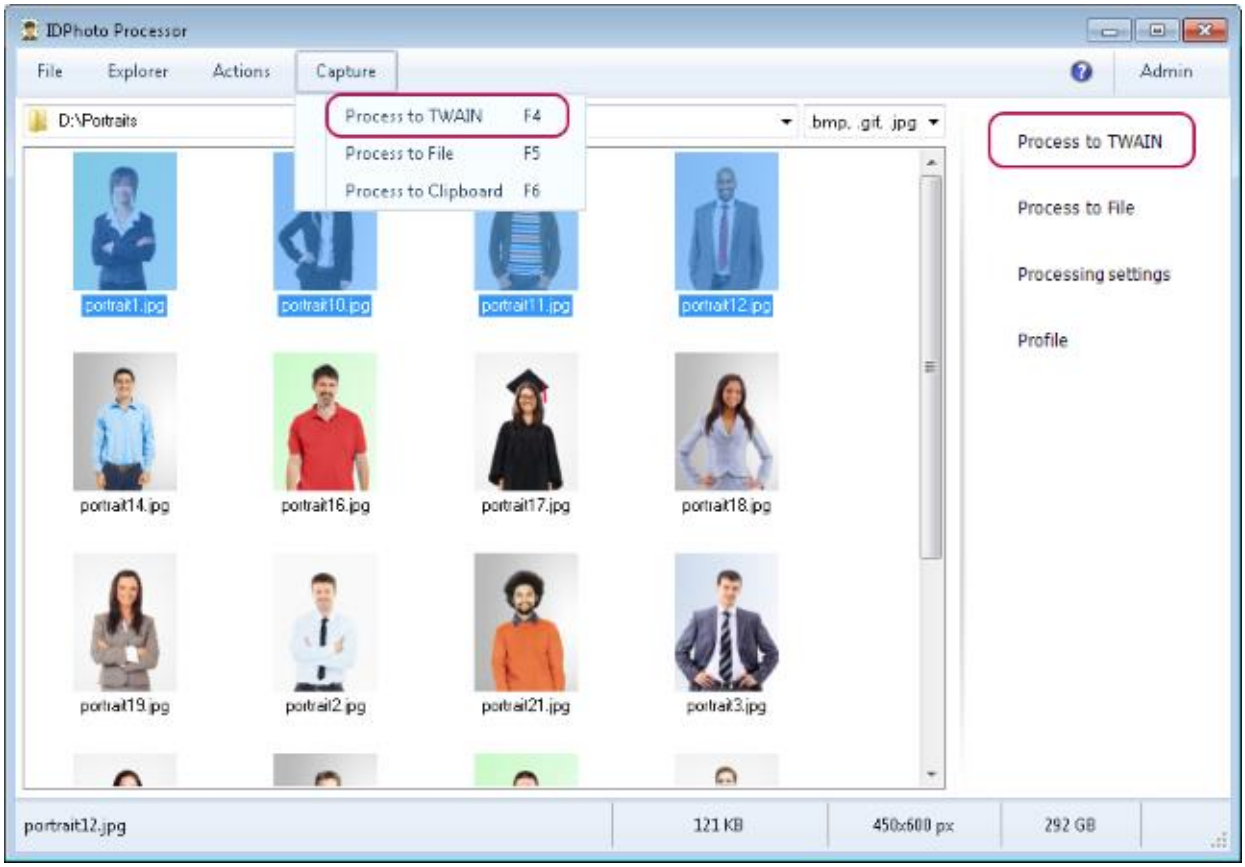


If by that moment, **IDPhoto Processor** has been closed or minimized to a tray, now it will be started.

We connected to **TWAIN** driver of **IDPhoto Processor** via **XnView**. Move to **IDPhoto Processor** and select one or several images in the explorer. Please note that **Process to TWAIN** menu item and button now have been enabled.

Process to TWAIN *may be disabled if no images are selected in the explorer.*

For more details on selecting objects in the explorer, see chapter ***Explorer****.*

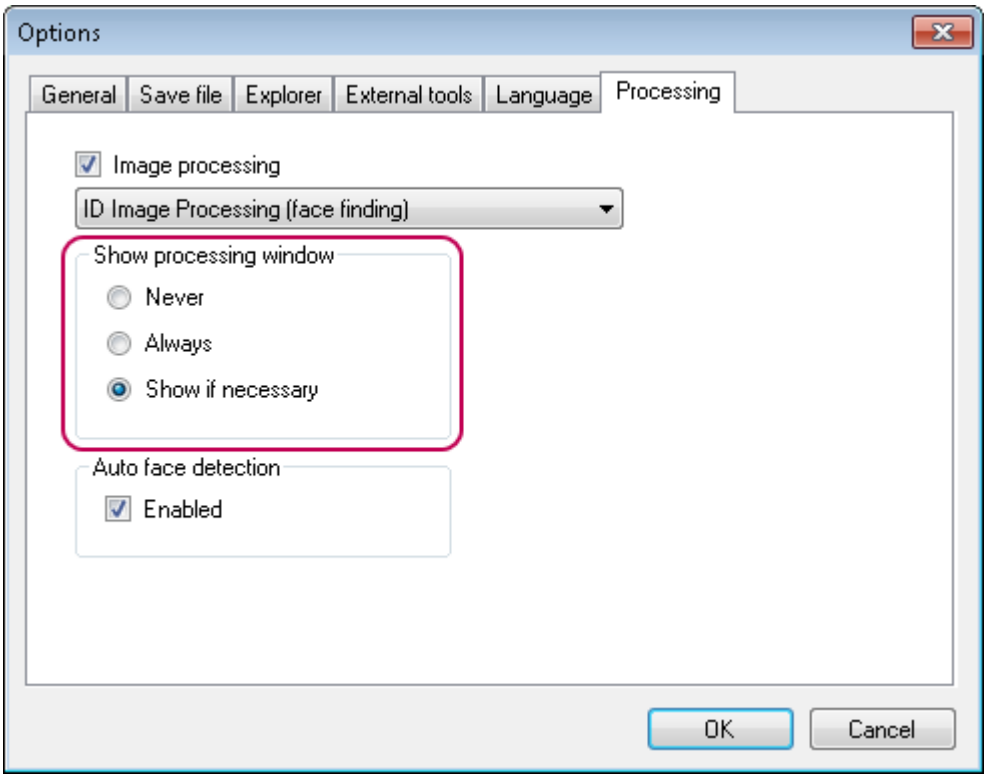


Having selected required images, start **Process to TWAIN**.

Process to TWAIN may be started from **Capture** main menu > **Process to TWAIN**, from the side menu by clicking **Process to TWAIN** button, or from the context menu in the explorer.

*The **Process to TWAIN** button from the side menu may be hidden if the application interface is set up in such a way. To make the button visible, enter **File** menu > **Options**> **General** tab and set up **Show Capture to TWAIN button**. For more details on setting the interface, see chapter **Setting Interface**.*

Further application behaviour depends on the processing settings.

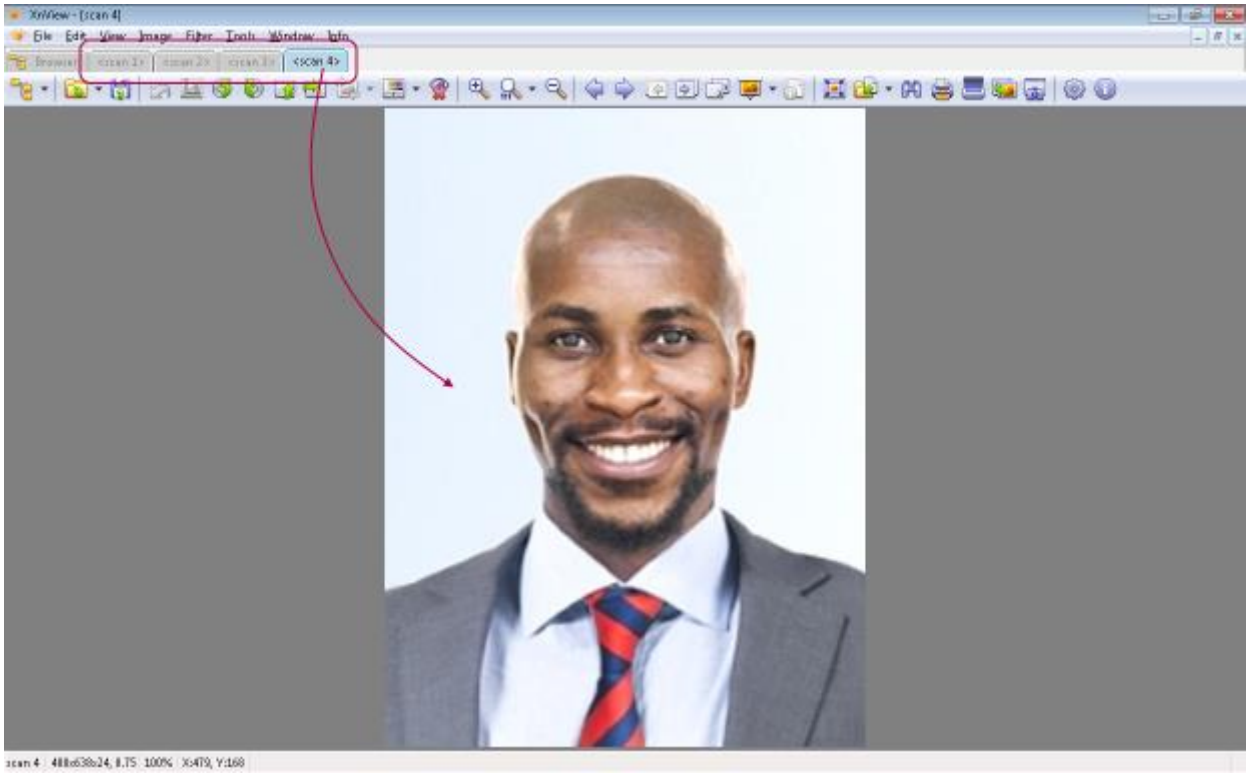


If it is specified in the settings to always show the processing window, then the **ID Image Processing** dialogue will be opened for every image.

If the **Show if necessary** option is set for the dialogue opening (a default setting), then the dialogue will be opened only for the images whose processing needs the user's participation. The dialogue will not be opened for successfully processed photos.

If the **Never** option is selected, processing will be carried out without opening the **ID Image Processing** dialogue. Images that cannot be processed automatically will remain unchanged. Please read further details on the **ID Image Processing** dialogue setting and actions in chapter **Processing**.

Now, let's return to **XnView**. As can be seen on the picture, all the images are successfully processed and transferred to the viewer.



The process of connecting to other applications via **TWAIN** driver is similar to that, exemplified by **XnView**. It is noteworthy that applications may close the channel for **TWAIN** driver after image transfer is completed. Because of this, **Process to TWAIN** button will be disabled. To enable it, you need to repeat the process of selecting a scanner.

XnView can also accept several images at a time, as it was demonstrated in the example. Not all the applications support this option. For some applications, you have to start the processing for each separate image.