

TWAIN Notes for Altamira Composer Release 1.01

Altamira Composer supports the device-independent TWAIN specification for image input scanners and other devices. These notes give further details on TWAIN support.

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1.0 Buffered v Unbuffered Image Data Transfers with TWAIN

To save memory, Altamira Composer by default uses TWAIN's so-called Buffered transfer mode that transfers data one scanline at a time or several scanlines at a time if implemented in the spirit of the TWAIN specification. An alternative TWAIN transfer mode, also supported by Altamira Composer, is called the Native, or unbuffered, mode. In this mode, a TWAIN device will allocate sufficient memory to hold an entire image, in effect doubling the image memory requirement over that of Buffered transfer mode. Altamira Composer inquires of a TWAIN device if it supports Buffered transfer mode and uses it if the device reports affirmatively. Otherwise it automatically uses the device's Native mode.

Unfortunately, some TWAIN devices claim to support Buffered transfer mode but do not. If such is the case for your device, exit Altamira Composer and edit the *composer.ini* file in the Windows directory with a text editor, such as Notepad, as follows: In the section entitled "[FileSettings]", find the line "TWAIN Buffered Xfers=Yes". Change the "Yes" to a "No", exit the editor, and try the TWAIN device in Altamira Composer again. This puts the TWAIN device into Native mode.

If you continue to have TWAIN problems, then there is probably a fault in the vendor's implementation of the TWAIN specification. We include a TWAIN test program written by the TWAIN Working Group for testing the conformance of your device to the TWAIN standard. It is called *twacker.exe*. See the Twacker Troubleshooting Guide section below for details on running it.

2.0 TWAIN Input Device Notes

Following is a list of devices that we know to work with Altamira Composer.

Since the TWAIN specification is in its infancy, many devices do not yet correctly implement it.

For all devices we have checked so far, the version number of the TWAIN driver is very important to the success of the device under Altamira Composer. This can usually be found in the About box of the software interface distributed with each device. We will give our experience, per version number, below for each device.

2.1 Agfa Arcus and Arcus Plus Scanners

The latest version of the Agfa software as of this writing is called FotoLook 1.25.5. It is still in beta test, but works well with Altamira Composer in Buffered (default) mode. The commercially available software is version 0.4 which will fail with Altamira Composer. If you have one of these scanners, please obtain the latest software from the vendor.

2.2 Hewlett-Packard ScanJet IIc Scanner

The latest version of the Hewlett-Packard software as of this writing is 1.6.2. It works excellently with Altamira Composer in both Buffered (default) and Native modes. Avoid version 1.6.1. Get an update as explained below. Version 1.5.2 works for the default Buffered mode, but version 1.5.1 reverses the red and blue channels of images scanned. You can reach Hewlett-Packard through their CompuServe HPPERIPH forum. The latest version of their TWAIN software can be downloaded from the ScanJet library.

2.3 Kodak DCS-200 Digital Camera

Kodak has reported that this device works with Altamira Composer in Buffered mode.

3.0 Twacker Troubleshooting Guide

3.1 TWAIN Conformance Check

Twacker (*twacker.exe* actually) is a stand-alone test program for TWAIN devices, written by the TWAIN Working Group itself, designers of the TWAIN specification. Our experience so far is that many scanning devices do not correctly implement the TWAIN spec, especially the Buffered transfer mode, preferred by Altamira Composer. A typical problem we encounter is that the TWAIN device claims to honor Buffered mode, when queried with software, but doesn't do so.

We would greatly appreciate it if you would run Twacker as described below on your scanning device before contacting our Customer Support. We would like to know the results you obtain.

3.2 How to Run Twacker

As part of the normal Altamira Composer setup procedure, *twacker.exe* and *twacker.ini* have been copied to your hard disk from the setup diskettes. Run *twacker.exe* from Windows (double click on *twacker.exe* in File Manager). *twacker.ini* should be in the same directory as *twacker.exe*.

Under the File menu in Twacker, select Message Level and then select Full on its popup menu. Also select Buffer on this menu since Buffered mode is the memory-saving mode preferred by Altamira Composer. (But see Native Mode paragraph below.)

Use Acquire under File to initiate a scan on your device. If you have more than one TWAIN device, you may have to first use Select Source under File to select your particular scanner.

If your scanner scans in different color modes, be sure to select RGB, or 24-bit, or "millions of colors" mode since Altamira Composer is a full 24-bit color application.

A known bug in the current version of Twacker is that RGB data is returned in BGR order (i.e., red and green channels are reversed). If Twacker correctly retrieves Buffered mode TWAIN scans from your device (with red and green reversed however), and if Altamira Composer fails to do so, please inform us immediately.

Point of reference: We have carefully checked both Buffered and Native transfer modes on the Hewlett-Packard ScanJet IIc with v1.6.2 of their software (the latest released as of this writing). It works fine with Altamira Composer (and the red and green channels are not reversed!). Twacker also reads Buffered and Native transfers from from the ScanJet (but reverses the red and green channels in Buffered mode as described above). The Agfa Arcus and Arcus Plus scanners with v1.25.5 of its TWAIN driver (the latest version as of this writing) also works fine with Altamira Composer in Buffered mode. Twacker works with the Agfa scanners in buffered mode (with the usual reversal of red and green channels).

Native Mode: We would greatly appreciate it if you would also test Native TWAIN mode with your device. To do this select Native under the File menu of Twacker. Then use Acquire to initiate a scan. We would like to know if this mode works on your device under Twacker. Be sure the Message Level is set to Full, and select a full-color scanning mode as described above.

3.3 Latest Version of Twacker

Twacker can also be obtained from the GO HPPERIPH forum in CompuServe, under the TWAIN library. Check this forum for the latest version (perhaps with the red/green reversal problem fixed). Source code is also available there.