

Information About: Risk of Using Unsupported Scanners for the Implementation of Scanline

When forming implementation plans for the rollout of Galileo K-12 Online, Assessment Technology Incorporated (ATI) has been asked whether *Scanline* may be used with scanners other than the supported models. This is a reasonable question given that in many cases districts have invested in scanners that are already installed and running. While the desire to use these scanners is understandable, it presents significant risks that should be fully understood.

The reliable, accurate, and consistent processing of student answer sheets is impacted by a number of different issues including but not limited to the following:

- The scanner's capture of black and white: Some scanners are optimized for scanning colors as opposed to black and white images. Optimization of this sort, while ideal for scanning some types of documents, is problematic when scanning and processing student answer sheets. Machines that are optimized for scanning color will likely be less precise in their capture of black and white. As a result, it becomes much more difficult for the scoring program to accurately discern whether a student has filled-in the answer lightly or has made his or her selection and then erased the answer.
- The consistency of image size: There can be quite a bit of variability in the consistency of size of the images produced from one scanner model to another. When different size images are produced the processing software can have difficulty determining not only where on the paper to look for a student response, but also how best to compensate for any twisting of the paper that might have occurred when it was fed through the machine.
- Interaction between the selected driver, scanner, and operating system: As with printers, scanners can respond quite differently when being operated by machines with different drivers and different operating systems. A machine running Windows 2000 and driving the scanner using TWAIN could produce a different result than if the same scanner were being run using Windows XP and WIA. These differences in behavior could impact a number of aspects of image processing including the consistency of image size that is produced and the response to certain interface settings.
- Impact of brightness settings: The image brightness settings that are used can dramatically impact the accurate processing of the answer sheets. The ideal settings can vary from one model machine to another.

In short, the process of determining whether a scanner will allow for the accurate processing of student answer sheets is a complex task that requires a great deal of testing. The supported models have been extensively tested by ATI. Extensive testing would be required to ensure that a new model could process student answer sheets with a same degree of accuracy as the supported models. Use of a scanner that has not been adequately tested would be associated with significant risks. This is the case even if preliminary testing has shown promising results.

The number of variables that would need to be evaluated and the large numbers of different sample forms that would need to be tested in order to perform an adequate evaluation of a scanner would likely make it unfeasible for district staff to attempt.

For more information, [contact ATI Tech Support](#) or visit the [Additional Requirements for Scanline](#) section of the Galileo K-12 Online System Requirements page.



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