What to Look for When Evaluating Web Scanning Components

RULE 1

A web scanning component should make web development easier.

The TWAIN 2.1 specification is a painful 664 pages long. It can take weeks just to read through the document, let alone to fully understand the specification. Additionally, after understanding TWAIN there is still an overwhelming amount of work to enable features like image compression, image uploading, and image downloading. Developing a web scanning solution from the scratch is almost impossible.

RULE 2

A web scanning component must be small for lightning-fast rendering.

When a user for the first time visits a web page requiring a component, the control must be downloaded from the web server to the user's browser and then installed. The larger the control size, the longer it takes to download. A users' patience for slow downloads is thin. One well- known analyst research firm study found that waiting more than 3 seconds for a page load will cause a large share of users to abandon a site. So every second counts.

RULE 3

A web scanning component must support multiple compression formats.

When a scanned image makes for a large file size, the upload time increases. As a result, the chance for an upload failure also increases. Here's an example: it's common that an image size of a color A4 document scanned at 200 DPI is 10.41 megabytes. This can take minutes to upload. A three-page document can take three times longer to load.

You can counter potential upload and storage problems by using image compression technologies, like JPEG and PNG. They significantly reduce the size of the image and, in turn, the time for uploading files. Thus, they also reduce the risk of upload failure.

Different compression methods have distinct features. For example, JPEG has a high compression rate but is lossy. This lossy characteristic makes the JPEG format unsuitable for document images that require high precision. On the other hand, the PNG format is lossless, which means it retains all the information during the compression process. But, file sizes are usually larger than with JPEG.

RULE 4

A web scanning component must allow you to build rich user interface applications.

User interaction or user interface (UI) is an important part of every application. The importance of a highly engaging UI is no longer debatable. In many cases, a good UI is the key to a web application's success. Your web scanning application might use the scanner's built-in UI or your own custom-developed interface to control the scanner. The choice is highly dependent on the scenario but, it must ensure a good UI regardless.

Additionally, users may need to preview scanned images or edit them before uploading them to a web server. A scanning control that allows a rich user experience can differentiate your applications from competitors' products. It can also elevate productivity and efficiency to new heights.

RULE 5

A TWAIN component must support a multi-page format, such as TIFF and PDF.

Many documents have multiple pages. If each page is stored as a separate scanned image, retrieving and viewing the document becomes highly cumbersome and counter-productive. Being able to store all pages of a document in a single file makes it much easier to manage multiple-page documents.