Dynamic Web TWAIN

Dynamsoft Dynamic Web TWAIN (DWT) is a software development kit (SDK) that enables users to scan and upload documents from a web environment. DWT handles the whole data flow, from image acquisition at the scanner, to displaying and editing scanned images in the browser, and finally uploading to the server.

Here we provide a series of usage guides, so that you can quickly start making use of both basic and advanced features of DWT with just a few lines of code - see our general usage and extended usage guides for more. You can also use our Hello World demo that demonstrates how to enable basic scanning, viewing, and uploading functionality in a web application.

DWT add-ons provide additional features such as scanning using a webcam video feed, document barcode reading, and PDF rasterization.

We also have an API reference where you can find more comprehensive descriptions of our product.

System Requirements

DWT supports most major operating systems, browsers, and printers using standard drivers. Learn more about hardware requirements here. Other environments not officially listed may still support DWT, but Dynamsoft does not officially support these environments as they are not tested. If you have questions about unofficially supported environments, please contact our support team for more information.

Features

1, Platform support:
Broad compatibility with browsers, operating systems, and image sources

2, Image acquisition:
Connect to scanners from web browser with industry standard protocols
Communicate with scanners using a background service (The Dynamsoft Service) with flexible configurations

3, Image upload:
Upload over HTTP, HTTPS (HTTP + TLS), and FTP
Optionally upload large files through background service

4, Document management:
Configurable document viewer for scanned images
Visual editor for reordering, marking up, cropping images, etc.

5, Secure data handling:
Encrypted data pipeline
Cache sanitization even upon unexpected shutdown of SDK

Imaging Hardware

Dynamic Web TWAIN's main feature is interacting with imaging devices like scanners and cameras. In this section, we'll look at the supported devices.

Imaging Hardware:

- TWAIN Scanners
- Facts about TWAIN
- ICA Scanners: Facts about ICA
- SANE Scanners: Facts about SANE
- DirectShow Cameras

Supported File Formats

1, BMP

BMP is an uncompressed image format. Such a file is huge because of the lack of compression. A lower limit on storage size for a n-bit-per-pixel bitmap, in bytes, can be calculated as:

```
size = width * height * n/8;
// where height and width are given in pixels
```

For example, a US Letter sized paper scanned in 300 DPI and in colour has the size of (8.5 * 300) * (11 * 300) * 24 / 8 = 25, 245, 000 bytes which is close to 24 MB.

2, JPEG

The JPEG format supports eight-bit grayscale images and 24-bit color images (eight bits each for red, green, and blue). Black & white image data which is 1-bit can not be saved in this format.

This format applies lossy compression to images, which can result in a significant reduction of the file size. Applications can determine the degree of compression to apply, and the amount of compression affects the visual quality of the result.

Dynamic Web TWAIN uses the API JPEGQuality to control this.

NOTE
The API JPEGQuality affects the degree of compression of the file as long as it uses the JPEG compression type. In other words, a TIFF file or a PDF file using JPEG compression will also be affected.

3, TIFF

Compared with BMP and JPEG , the TIFF format is more like a container that holds image(s) and data in a single file. A TIFF file uses tags to describe the data it holds so that applications know how to read it. Dynamic Web TWAIN allows custom tags with the APIs ClearTiffCustomTag() and SetTiffCustomTag() .

TIFF also allows multiple images in the same file. Dynamic Web TWAIN controls this with the API IfTiffMultiPage .

4, PNG

The PNG format supports lossless data compression. The same image may save bigger as a .png than a .jpg but it preserves all information.

5, PDF

The PDF format is an advanced and popular file format that allows a variety of content. Because of the complexity of the format, it is impractical for a lightweight SDK such as Dynamic Web TWAIN to have full support for it. Instead, Dynamic Web TWAIN supports the format in two ways

Dynamic Web TWAIN can read and write a pure-image-based PDF file;
Dynamic Web TWAIN can use its PDF Rasterizer module to rasterize almost any PDF file and convert its visible content into images so as to "read" it.