Dynamsoft™

Dynamic Web TWAIN
Security Features

Introduction

Dynamsoft's Dynamic Web TWAIN SDK is a scanning software specifically designed for web applications. Developers across the globe have been utilizing the robust library enabling integration of image and document scan, edit and storage functions in a few lines of code. The TWAIN standard is by far the most dominant and required interface for scanning, and Dynamic Web TWAIN fully supports TWAIN-compatible scanners plus ICA-compatible scanners on macOS as well as SANE-compatible scanners on Linux. Dynamic Web TWAIN is integrated into various business workflows where document and image acquisition are an important step and some scanned documents may contain confidential information. So, for application developers, security is always a priority when selecting an image capture solution.

Over the last 15+ years, Dynamic Web TWAIN has been chosen by thousands of well-known enterprises and Fortune 500 organizations requiring stringent security. Our customers include Lockheed Martin, IBM, HP, Intel, Siemens, US Government, and more. Why do our customers that value security highly entrust Dynamic Web TWAIN with their classified documents? In this article, we will go through the security features at the heart of the trust Dynamsoft customers have for Dynamic Web TWAIN.

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Basic Security Features

01 Dynamsoft keeps high standards when it comes to source code security management which eliminates any unexpected threats to the software.

02 Dynamsoft performs regular antivirus scanning of all files within the company regardless of whether they are published or for internal use only.

03 By default, Dynamic Web TWAIN requires administrator rights to install which can then be used by any logon user. Dynamsoft also provides personal installers which will limit the software usage to a particular user.

04 Dynamic Web TWAIN's components including all the library files, service executable files used on Windows and Mac OS are digitally signed by VeriSign.

**05** Dynamic Web TWAIN doesn't send or receive any information on its own.

06 For security reasons, Dynamic Web TWAIN HTML5 edition only listens on 127.0.0.1 and limited ports (can be customized), therefore any attempts to use the software coming from a device other than the actual host machine are denied.

07 Dynamic Web TWAIN HTML5 edition supports SSL ports on 127.0.0.1 when used over a secure network (https://). By default, a certificate generated by Dynamsoft is used which can be replaced with a custom certificate.

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Authorization

✓ Authorization is required for accessing scanners or webcams.
This feature is disabled by default and not available for the ActiveX Edition.
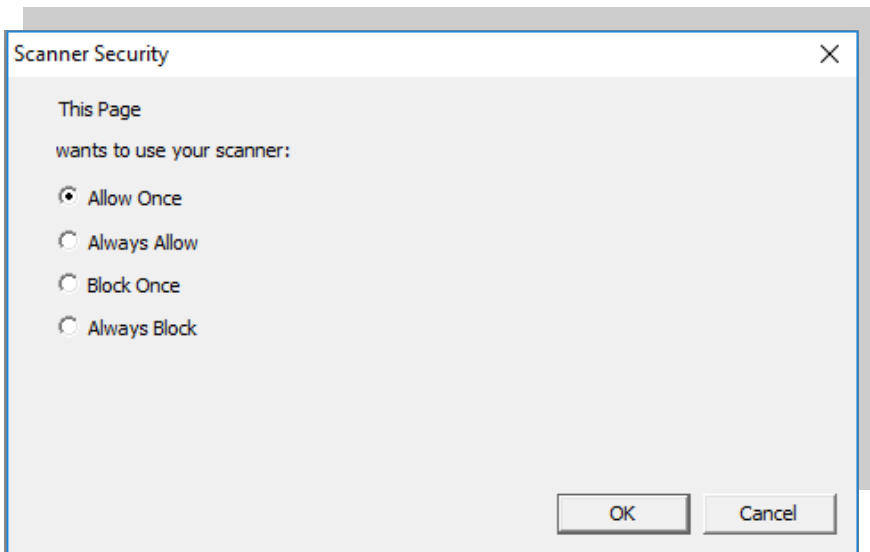
✓ Authorization is also required for accessing local files.
This feature is disabled by default and not available
for the ActiveX Edition.

✓ By binding the domain in the product key, Dynamic Web TWAIN can be limited to work only for specified domains which means the access to scanners/webcams and files is limited to only the registered web application by matching the current website domain to the registered domain in the product key.


Registered domain name

Web TWAIN windows service

Unregistered domain name
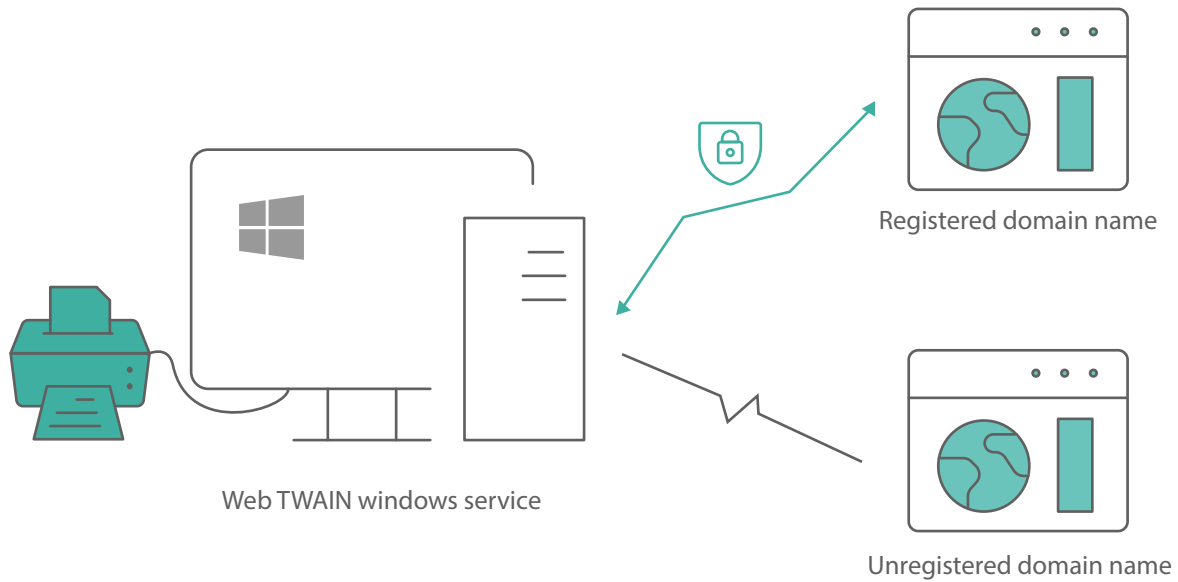
For example, the following product key is bound to the domain: *dynamsoft.com
Dynamsoft.WebTwainEnv.ProductKey =
'f0068QAAAAJeOM3wpVk3A+GasmtDar4BhXpjxeBeyDqMjLK+DpZICi6MSzTcw8JYyu6tZn6J
CHveD10sac09OXKKPCFyzYMY='
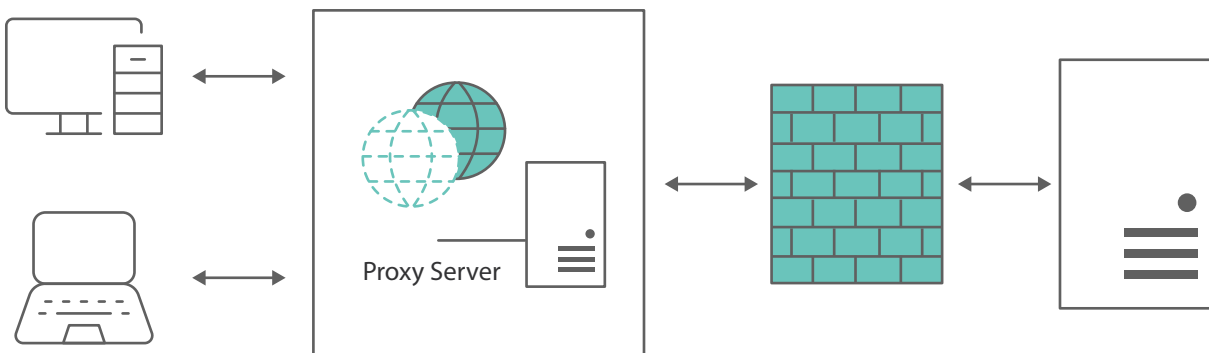
```
Product:    DWT,
Version:    14.0
Edition:    Full
Expire:     2018-11-02
OS:         Win,Mac,Linux,
Distribute: Production,
Count:      1
Unit:
Domain:     *dynamsoft.com
Other:
```

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Authentication

✓ Dynamic Web TWAIN supports seamless integration with the security certification for all modern browsers including but not limited to Windows Authentication, Forms Authentication, and Basic Authentication, etc.
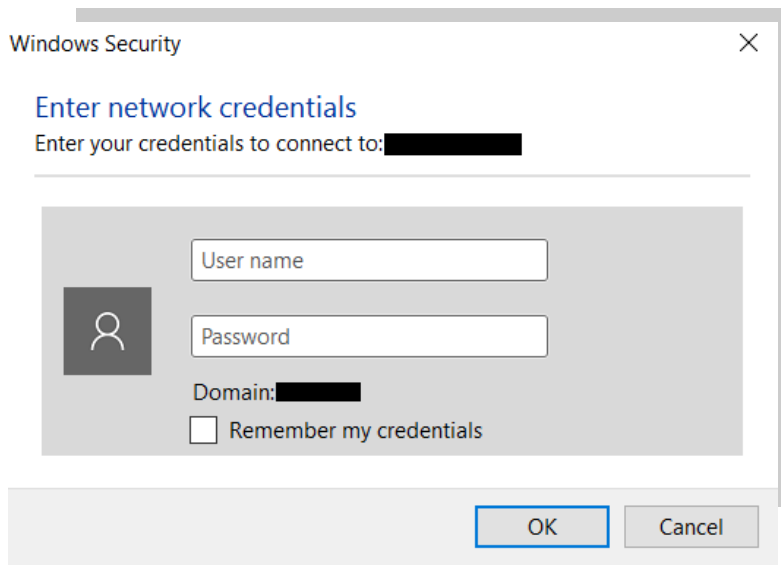
✓ Widely used by many companies as a security measure, proxy connections are also supported by Dynamic Web TWAIN. There is no need for customers to reconfigure their firewalls assuming 127.0.0.1 is whitelisted.

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A randomly generated ID is assigned when each Dynamic Web TWAIN control is initialized. This ID works like a session ID, when an application tries to view any images the ID is required for access.

For example,
http://127.0.0.1:18618/img?id=803777483&index=5&width=1&height=1&ticks=6

Also, if Cross-Origin Resources Sharing is disabled all other users who are not on the current domain can no longer access the resources.

Data Integrity

01 Scanned image data or cached scanned data is encrypted and only accessible by Dynamsoft's scanning service. Blowfish symmetric encryption is used.
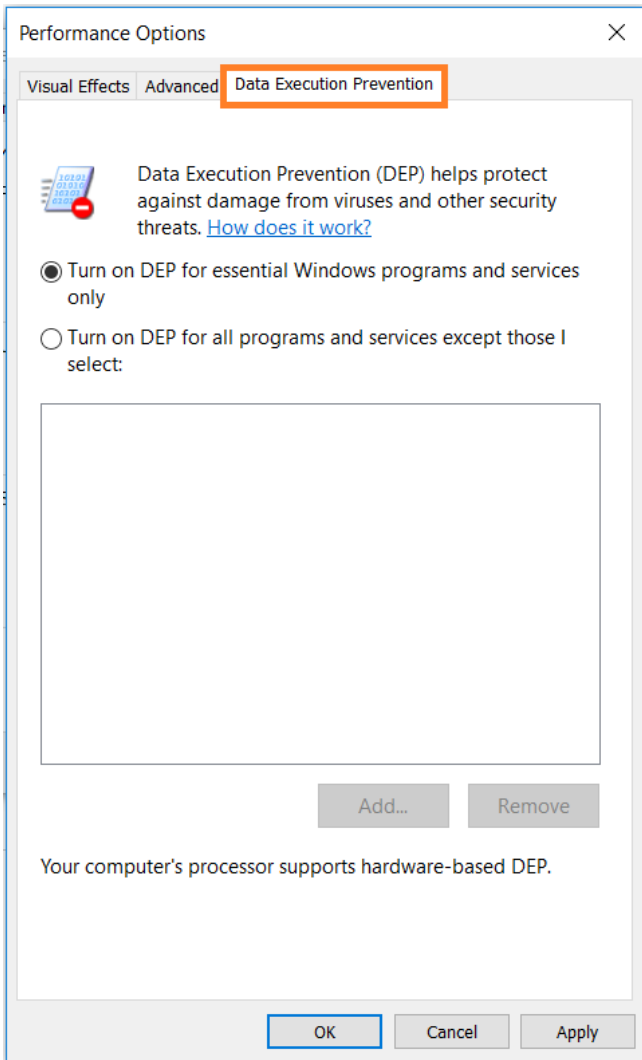
02 The data is only in the memory or encrypted on the disk when Dynamic Web TWAIN is being used which means as soon as the tab or browser closes, the data is also destroyed. Should the software exit unexpectedly, all cached data will be destroyed within 48 hours of the next connection.
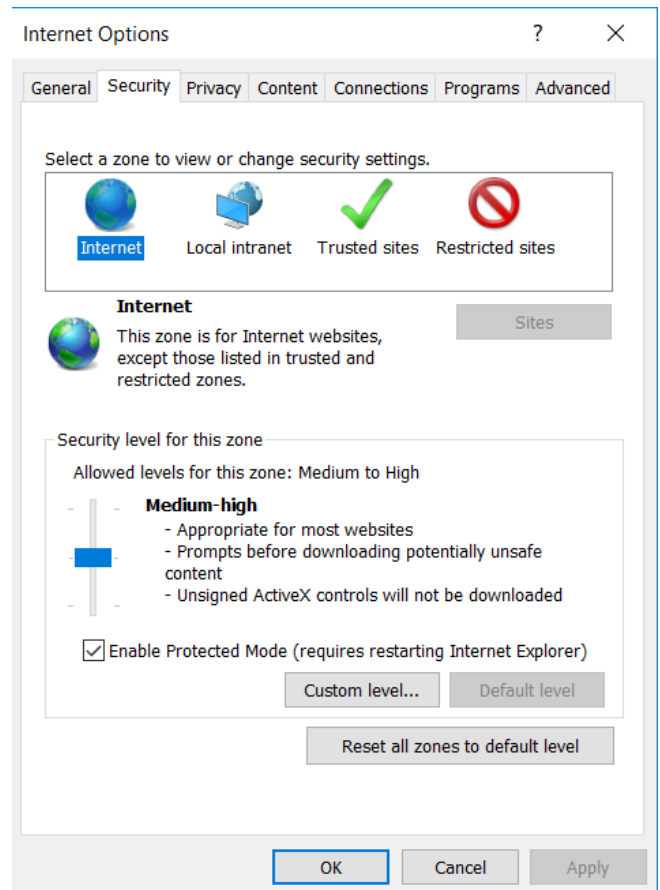
03 To ensure data security during transfer, Dynamic Web TWAIN support SSL for HTTP uploading and downloading.

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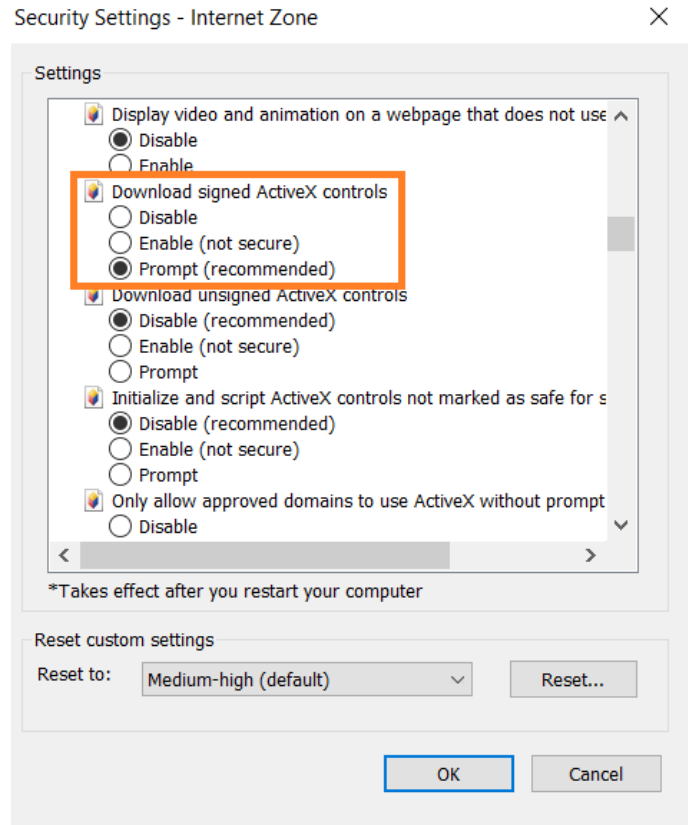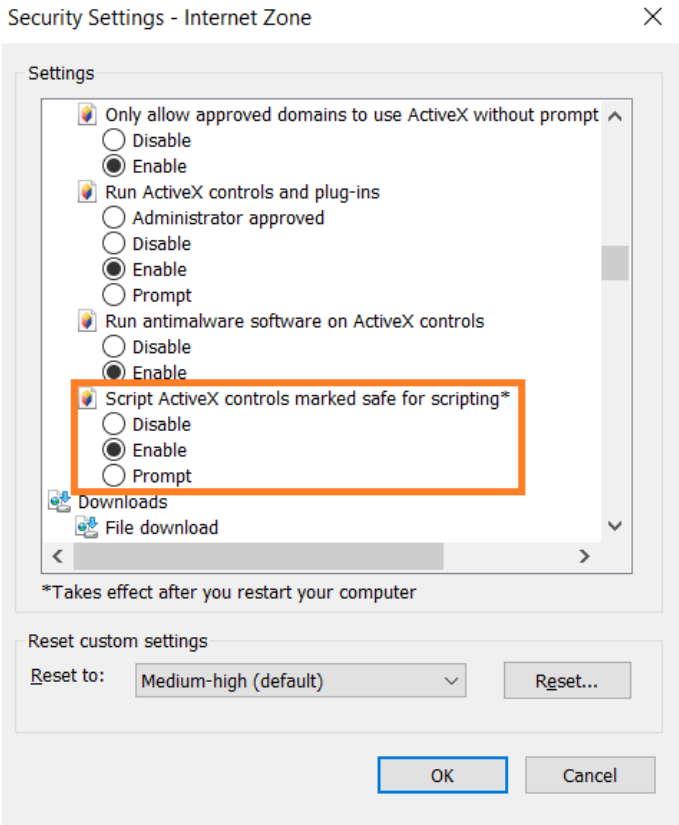
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Additional Security for ActiveX Edition

Dynamic Web TWAIN is compatible with **Data Execution Prevention** (DEP), which can be configured in Control Panel\System andSecurity\System\Advanced System Setting\Advanced (tab)\Settings (button) \ Data Execution Prevention (tab).

Dynamic Web TWAIN is also compatible with **Protected Mode**.

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The ActiveX Edition is marked safe for initializing and scripting.

Summary

Dynamsoft's Dynamic Web TWAIN SDK provides an abundance of advanced capabilities that help reduce development costs and time in addition to reducing the footprint of technical support requirements. Cross-platform and cross-browser support eliminates the need for relying on multiple solutions and more predictability in project planning. End-users love advanced scan and edit features alongside simple storage and retrieval capabilities. Nonetheless, data security remains paramount regardless of the application. Dynamsoft has been enhancing the security of Dynamic Web TWAIN over many generations of the SDK in the past one and half decades. It's why Dynamic Web TWAIN continues to deliver enterprise-class security that is trusted by the most security-athirst organizations in the world.

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