Dynamic Web TWAIN OCR PRO ADD-ON LICENSE TRACKING MECHANISM

Dynamsoft offers two OCR engines

OCR Basic Module

OCR Basic Module is developed on top of Tesseract, an intelligent learning open-source OCR engine sponsored by Google since 2006.

OCR Professional Module

OCR Professional Module is fast and robust. It delivers great accuracy with built-in image pre-processing (de-speckle, de-skew, autorotation), auto font matching, and more advanced imaging technology. Additionally, OCR Professional Module supports multi-thread processing.

Both engines are designed to work on the client-side and on the server-side. **However, OCR Professional Module requires special license tracking since it's built on top of Kofax's OCR engine and usage tracking is requested by Kofax.** As a comparison, the Basic Module license only has a time limitation (annual or perpetual) while the Professional Module license is limited both by time and usage (annual plus how many pages can be processed).

When working as a server-side service, the OCR Pro Module processes all requests from the clients on the server which makes it easy to track the total pages processed. On the other hand, when working as a client-side component or add-on to the Dynamic Web TWAIN library, it's impossible to keep track of the number of pages on the client-side because these clients are scattered, and one is unaware of the others at runtime. Due to this, Dynamsoft implemented a feature to track all consumptions on a server at runtime as a requirement to use the module. This feature consists of two parts: an API inside the library and a server-side software to process the authorization requests and usage reports submitted by that API at runtime.

This API is called LicenseChecker and it dictates where an authorization request can be sent and where the usage reports should be submitted.

At runtime, a **CheckLicense** request is sent to the server with the OCR pro module license to get an authorization. If it fails, the OCR operation fails.

When the authorization is returned and the OCR is done, the count of processed pages will be sent to the server with a **WriteOCRCount** call.

While the two POSTs are assembled and sent to the server within JavaScript code, the server-side software receiving and processing the requests is the core piece in this mechanism. Officially, Dynamsoft offers the software written in C# which can be hosted in servers like IIS. For a server that doesn't support C# (ASP.NET), other programming languages can be worked out upon request.

How to implement the mechanism

We will take the official sample for example. Here are the steps:

1. Prepare an IIS capable of executing C# (ASP.NET v4)
2. Download the project from the GitHub repo
3. Open the solution with Visual Studio and compile the solution
4. Open the file OCRClient\ocrproclientside.js, find the following line and add the correct full license (Dynamic Web TWAIN & OCR Pro)
   `//Dynamsoft.WebTwainEnv.ProductKey = "A-Valid-Product-Key";`
5. Open IIS, create a website and point to the directory /OCRClient/
6. Make sure you have already installed Dynamic Web TWAIN full version (and the OCR Pro module too if possible, as downloading the module can take quite some time)
7. Try to access the file OCRClient/Default.aspx which will redirect to OCRClient/OCRProClientSide.aspx
8. Scan or load an image with text on it and try to perform OCR. The result string will show up on the page
9. The page LicenseChecker.aspx is what you need to set to the API LicenseChecker, the sample is using a relative path. But in your case, you should use an absolute path (URL)
10. Another thing to note is that the license checker could be on a different domain in which case you may get an error like

Access to XMLHttpRequest at 'http://192.168.3.22/LicenseChecker.aspx' from origin 'http://localhost:90' has been blocked by CORS policy: No 'Access-Control-Allow-Origin' header is present on the requested resource.

In this case, add the following rule to your web.config for that IIS website

```
<?xml version="1.0" encoding="utf-8"?>
 <configuration>
  <system.webServer>
   <httpProtocol>
    <customHeaders>
     <add name="Access-Control-Allow-Origin" value="*" />
    </customHeaders>
   </httpProtocol>
  </system.webServer>
 </configuration>
```


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