

Serget, a Brazilian Traffic Engineering and Technology Company Leverages Dynamsoft Imaging SDK for its Ticket Processing Application in Use by Government Agencies

INDUSTRY

Traffic Engineering, Government

SUMMARY

Serget is a traffic engineering company specializing in providing signaling and road safety services, monitoring and surveillance electronics, fines management (data processing) and ITS (intelligent transport systems). To this end, Serget provides software too. One application is the Promult data processing system. It is provided to process ticket fines by government agencies. Part of this process involves scanning documents, from tickets to ID cards and photos. The end goal is to streamline paperwork by converting them to digital documents. To build this application, the Serget team tasked four of its developer employees to come up with a solution. Right away, they knew that using a software development kit (SDK) for the scanning component would be paramount. The chosen SDK was Dynamsoft's Dynamic Web TWAIN. Today, the application is essentially a website with database connections. It has built-in scanning capabilities thanks to the Dynamsoft SDK. By using Dynamsoft's SDK, they not only knew they had an enterprise-class scanning module but, also a team that could properly support any technical obstacles down the road.

THE COMPANY



SERGET

Serget is a traffic engineering company specializing in providing signaling and road safety services, monitoring and surveillance electronics, fines management (data processing) and ITS (intelligent transport systems). Its products and services are often provided to other companies or directly sold, through (government) bidding processes. The company has approximately 200 employees and was founded and operates out of São Paulo, Brazil.

Serget consistently invests in new equipment, technology and training of its employees. This investment enables higher labor productivity and customer gains. It also contributes to the reduction of traffic accidents, better traffic flow and greater safety for users of highways and urban roads. To this end, Serget provides software too. One provided application is the Promult data processing system. It is used by government agencies to process ticket fines.

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THE APPLICATION

The Promult application currently has around 20+ users, and growing. They use it to process levied fines related to road/highway infrastructure. Part of this process involves scanning documents, such as tickets, ID cards and photos. The end goal is to streamline paperwork by converting it to digital documents.

To accomplish this application, the Serget team tasked four of its developer employees to come up with a solution. Right away, they knew that using a software development kit (SDK) for the scanning component would be paramount. The team couldn't spend a year learning and then programming for necessary standards and technologies. The time consumed for in-house development would also be compounded by the fact the application needed to ensure cross browser-based online scanning.

The chosen path proved correct. Once the team quickly found an imaging SDK, total development time to add the scanning module took just three hours. The chosen SDK was Dynamsoft's Dynamic Web TWAIN. Today, the application functions essentially as a high-performance website with database connections. It has built-in scanning capabilities thanks to the Dynamsoft SDK.

Dynamic Web TWAIN SDK

Dynamsoft's Dynamic Web TWAIN SDK provide developers a simple way to deliver a TWAIN scanning module in a web application so they need write just a couple of lines of code in JavaScript. This is instead of taking months to learn the TWAIN standard. Then many more months would be required to develop an application with hundreds to thousands of lines of code. A finished application gives users key features for document scanning, uploading, editing, and document management within web browsers. The SDK has built-in support for local image editing and saving options to a variety of formats. Documents can be saved to local or remote databases or other repositories. It supports 32-bit / 64-bit Internet Explorer® (IE), Firefox®, Chrome®, Safari® and Opera™ browsers on Windows® and Mac® OS X.

Key technologies built into the SDK are ideal. For example, Sandbox ensures hassle-free communication by improving stability and compatibility with scanning devices while also improving security. Supported devices include TWAIN-compatible scanners, digital cameras or capture cards. Scanned documents can be saved to local, server, remote databases or other repositories. Extensive editing options include rotate, crop, mirror, flip, erase, sizing, zooming, annotating, and more.

A December 2014 update to the SDK added a JavaScript IntelliSense feature to increase programming speed and help reduce programmer errors. A 1D barcode reader was also added. Prior to that, in a June 2014 update, there was a new add-on to facilitate connections to TWAIN-based scanners in Google® Chrome versions requiring HTML5-based plugins. It's now well known in the industry that browser providers are phasing out browser plugins based on the Netscape Plugin Application Programming Interface (NPAPI). In May 2014 Google dropped support of NPAPI plugins for its Chrome browser. For

this purpose, the Dynamic Web TWAIN SDK offers a newly developed HTML5 WebSocket plugin add on. So, it allows document scanning from within newer Google Chrome browser versions that don't allow NPAPI plugins. The SDK also continues to support NPAPI for use in legacy browsers.

ADVANTAGES GAINED

In addition to saving on time and development costs, the Serget team also realized the importance of support options. By using Dynamsoft's SDK, they knew they had an enterprise-class scanning module and a team in Dynamsoft that could support any technical obstacles. Doing it in-house would have also meant spending time and resources to support their own scanning module. This is something most development shops don't want to do as it defocuses programmers and management from core capabilities. Now, they can simply turn to Dynamsoft if any issues arise with the document imaging portion of the web application.

The Serget team also came to understand the importance of finding an SDK that enables cross-browser support. All of these features and capabilities would have otherwise meant a lot of time building and supporting it themselves. Serget advises too that even with an SDK it's important to have some understanding of JavaScript and HTML. Still, the provided Dynamsoft code examples and support helped make things really simple for Serget's programmers.

QUOTE

"It's always important to consider all options when you start to develop an application and this includes identifying third-party resources that can help, like SDKs. In the end, the Dynamsoft SDK we opted for to integrate scanning functions was easy to use. It practically did it all for us in a few hours. This was far preferred over us spending a year to do it ourselves. One also then needs to consider who knows how much more time might be spent to support your own scanning module. The Dynamsoft SDK easily removes these concerns." Lucas Segers Fabro, Senior Programmer, Serget