

SUCCESS STORY

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Independent School District 196 Uses activePDF to Eliminate Headaches in Online Report Production

Company: Independent School District 196

Industry: Education

Product(s) Used: activePDF Toolkit

Solution Spotlight

ISD 196 implements an activePDF solution to deliver dynamic, platform-independent reports from their web-based student records system.

Company Overview

Independent School District 196 is a state and nationally recognized K-12 public school district located in the south suburban Twin Cities, MN metropolitan area. Serving 28,500 students and staffing over 4,000 employees, ISD 196 is Minnesota’s fourth largest school district.

Business Challenge

ISD 196's paper-based student reporting system needed an overhaul. As is the case in many school districts, the end of the school term found teachers feverishly filling in grade reports by hand. Once the reports were submitted and reviewed by school administrators, the results would be manually keyed into the grade tracking system - all of which needed to occur before the grade submission deadline. A batch of report cards would then be generated for all students within the district.

This labor and time-intensive process was highly subject to user error. In addition, there was no simple means for teachers to view and compare past grade. Evaluation of a student's progress required a visit the building office, where teachers could access and review a printed copy of each student's record. In an effort to reduce costs and improve efficiency, ISD 196 elected to implement an online system to facilitate their student reporting processes. Among its long list of system requirements, the system needed to be able to generate output that would reproduce consistently and accurately, independent of any software or hardware configurations. Further, the solution needed to interface with several independent data repositories, culling all of the relevant information into individual student report cards. Lastly, ISD wanted to be able to deliver those same report cards electronically to teachers, parents, and administrators alike, necessitating a readily-viewable and printable format.

Early in the project, ISD's IS department investigated deploying an off-the-shelf student reporting solution. There were several prebuilt reporting systems which generated HTML output, which was viewable in any web browser. Although HTML met the platform-independence criteria, it provided limited control over formatting for both screen and print. Other alternatives provided layout control via RTF output, but ISD found the resultant documents were not consistently reproducible between Macintosh® and Windows® clients. After dismissing the available solutions, the team at ISD 196 elected to build a custom application specifically designed to meet their rigorous requirements.

Deciding on PDF as its output of choice, ISD 196 investigated available vendor offerings, rejecting many products for the level of programming required to integrate with their custom solution. One potential option was to merge FDF data with PDF form templates, but it was dismissed due to inherent limitations in generating output comprising multiple records spanning multiple pages. Another alternative, Adobe® Document Server, provided a great deal of control over the output but was cost prohibitive and required significant integration effort, meaning a longer implementation period and higher project costs.

activePDF Solution

Upon reviewing the variety of developer-oriented PDF tools available from www.activepdf.com, the team at ISD 196 downloaded the free evaluation version of activePDF Toolkit. Also available from the site were several code samples in various development languages, including one which demonstrated PDF form-filling using Toolkit and ColdFusion®. Within four hours, the team was able to install the trial version of Toolkit, and use the example to successfully generate test output that fully met their requirements. In addition to ease of implementation, activePDF's significant discounts for educational institutions appealed to ISD's budgetary constraints, while Toolkit's compatibility with any COM-enabled language meant it could be used in a variety of other applications. "It is my role to ensure that our district is using best of breed tools to enable our staff to best perform their daily functions," states Tom Voigt, Information Systems Coordinator for ISD-196. "By using activePDF Toolkit, we have eliminated all headaches in producing online reports. We were pleased to find such a cost-effective solution."

In the resultant solution, ISD 196 employs a PDF report card template containing form fields which enables precise positioning of student information. After querying data from various repositories, activePDF Toolkit is used to dynamically fill the report card fields with database data. In generating batches of report cards at end of a term, individual student information is captured on separate pages and Toolkit continues to add pages for each student record, resulting in a single, easy-to-print file. Teachers are also able to generate individual report cards on demand, providing the means to efficiently track a student's progress throughout the semester. Once the report cards are generated, ISD uses Toolkit's form-flattening feature to strip away the field information while leaving the data intact, reducing the output file size and long-term storage requirements. Lastly, the report cards are secured using Toolkit's PDF encryption features, effectively ensuring student privacy and data integrity.

Results

By using activePDF Toolkit in creating its PDF form-filling solution, ISD's development and implementation time was reduced ten-fold. A programmable COM object, Toolkit is easily callable from any COM-enabled language, including ISD's existing ColdFusion environment. Easy to implement yet extremely powerful, activePDF Toolkit was integrated in just a few method calls, without sacrificing features or functionality. As Voigt notes, "The tool can be as easy or complex as you need it to be, depending on the particular need. Features have not been eliminated to make the product simplistic, yet for many projects, only a couple of simple commands are required. It's nice to know we can have it both ways."

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