

QualityLogic Automation Tools Cut Development Costs

On July 23, QualityLogic (Moorpark, CA) launched two new tools that automate the process of printer testing. TestJob Builder enables a customer to rapidly assemble a suite of test files with specific characteristics, while TestJob Sender provides an automated way to send a test file suite to a printer. "This is our first real focused effort to figure out how to help customers drive cost out of the testing process," says Dave Jollota, president of QualityLogic's Imaging Test Solutions Group.

QualityLogic is the dominant vendor of test-file suites used by printer and copier vendors to ensure that their machines are compatible with print languages such as PCL, PDF, PostScript and XPS. The firm markets application test suites (ATS) consisting of actual files generated by applications such as Microsoft Word or Adobe Photoshop; functional test suites (FTS) that test major features of a page description language (PDL); and comprehensive evaluation tests (CET) that fully exercise a printer's ability to handle a PDL.

QualityLogic has developed tens of thousands of test files for these products. TestJob Builder and TestJob Sender are intended to streamline the cumbersome process of selecting and sending these thousands of files to a printer during the development process.

TestJob Builder is a database that compiles the key characteristics of each test file in QualityLogic's test suites. Customers who want to find a group of test files with certain characteristics or commands can search the TestJob Builder database and instantly identify every file that meets their requirements.

"Let's say a customer wants to find test files that meet a certain criteria," says Jollota. "They have to either look at a thousand pages of output, or they can look through our test specifications and try and identify a file that way. It could very easily take someone a couple of days just to build a small test suite for a particular targeted purpose. It's a ten-minute process with TestJob Builder, and it's a lot more accurate."

QualityLogic offers a hypothetical case study of a firm that needs to find PDF files with

a very particular set of characteristics: a page size greater than A4, TrueType and Type 1 fonts, and embedded annotations and JavaScript. QualityLogic says that doing this manually would take two employees about 26 hours and would waste a ream and a half of paper. Doing the same task with TestJob Builder takes one employee seven minutes and one sheet of paper. The cost and time savings are huge, and Jollota notes that the paper savings are important to the growing number of customers with "green" initiatives.

QualityLogic thus far has built TestJob Builder databases covering its entire series of XPS test suites (ATS, FTS, CET, and Color), its HD Photo FTS, and its PDF 1.7 FTS. Jollota says that QualityLogic hopes to have TestJob Builder databases of its PostScript and PCL test suites ready before the end of the year. "It's a fairly straightforward process to parse test suites and add them to the database," he explains.

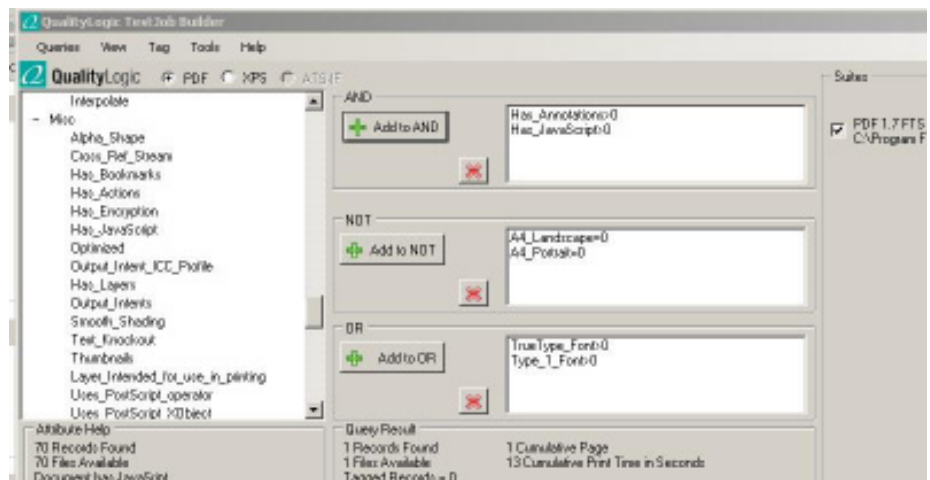
Self Service

TestJob Builder can be used to manage a customer's own test files as well as QualityLogic test files. "Especially for older PDLs, a customer might have fifteen or twenty thousand files they are testing with," Jollota says. "They're really looking for us to help them manage those test files and make the test process more efficient."

Right now, QualityLogic handles the process of adding a customer's files to TestJob Builder as a service it sells, but Jollota says that the firm is engineering the software so that customers will be able to add their files to TestJob Builder independently. Pricing on this feature has not been established, but Jollota anticipates that customers will be able to buy rights to add 500 or 1,000 files for a certain fee. "Maybe we'll have some counter in the software, a dongle or something."

Pricing on TestJob Builder has been set at roughly 20 percent of the cost of a test suite, according to Jollota. Test suites typically sell for around \$30,000 or more, so a customer can add the corresponding TestJob Builder database for roughly \$6,000. Jollota expects most test suite customers to buy the corresponding TestJob Builder database.

While TestJob Builder automates the process of creating a specific test suite, TestJob Sender automates the process of sending a test suite to the printer. "There's freeware out there that does this," Jollota says. "But we have heard from customers that the freeware isn't very robust and lacks some optional features we have put into TestJob Sender that they needed us to focus on." Jollota says that QualityLogic gives the basic TestJob Sender software away for free to all test suite customers but charges \$1,500 to \$2,500 for each of the three TestJob Sender options.



This TestJob Builder screen shot shows a list of searchable file characteristics on the left and a series of selected file characteristics on the right. This particular query has found one file out of 1,232 with the specified characteristics, something that would take a person days.

These options include a performance module that measures how fast a file is printed. The module has a sensor developed for QualityLogic's PageSense product that detects when a page is printed. "Firmware guys not only want to fix a bug, but want to understand the performance hit that the fix causes," says Jollota.

Another TestJob Sender option is a scheduler that automatically sends test files to a printer on a prearranged schedule. "We have customers who say to us, 'My boss asked me to work the weekend to get this done. I need to set up the test job on Friday, then get away and let it run, reporting its status to me remotely,'" Jollota explains. The TestJob Sender scheduler provides this scheduling and remote status monitoring feature.

The third TestJob Sender option is an automatic remote power cycle. "You can

automatically cycle the power to the printer between print jobs," Jollota says, which ensures that the printer is in a known state when the next test begins. The option is a piece of hardware into which the test printer is plugged.

Our View

Jollota says that QualityLogic is looking for additional opportunities to automate the printer testing process. One idea is to expand TestJob Builder so that it can search for file characteristics across different PDLs. "If you want files with, say, transparency, you want to be able to search across all PDLs," Jollota says. The trick is getting customers to agree with the search categories, because every PDL has different definitions. "We will have to work with customers to do this, it is more a logistical challenge than a technical challenge," Jollota explains. He hopes to have this feature ready by the beginning of 2009.

An even bigger automation opportunity is the "back end" of the testing process, that is, the tedious task of comparing a test device's output to the corresponding correct output. "We want to help our customers stop flipping pages and manually comparing them, it's amazing to me how prevalent that still is," says Jollota. He says QualityLogic is working on research to make this possible.

"There are so many PDFs, so many operating systems, the testing challenge just continues to grow, not shrink," says Jollota. "We want to take all of that and help customers get their products to market quicker." Although PDL testing is far down a printer manufacturer's list of expenses to be cut, in an industry where cost saving has become ever more important, QualityLogic's automation efforts are right on the money. 