Customizing A Solution For Customized Reports

SPK helps a respected medical device maker to eliminate the tedious and time-consuming manual steps required to produce essential reports—by developing a custom adapter that collapses the entire process for grateful users.

A Manual Approach To Multilayered Reports

For this client—a global developer and manufacturer of innovative medical products and services—reporting on different internal tests and procedures was becoming at least as cumbersome as the testing itself.

The division in this story is tasked with defining the requirements for the tools and systems that are to be used by the company's manufacturing facilities—and their R&D departments. They're also responsible for validating that the delivered systems meet their requirements.

But creating reports was, to put it bluntly, a pain. Users—up to 100 for this division and the R&D teams it supported—were forced, due to system limitations, to "build" extensive reports, cobbled together from numerous disparate sources. These could include screen shots of waveforms from analytical programs. They could be downloaded images of the equipment used for testing. They could be Word docs. Excel sheets. And they all needed to be collated together into a single, cohesive report—which could exceed 100 pages. And after all that work, they then needed to (try and) convert the final report into a PDF, for uploading into the company's document-management system which they used as their design history file or DHF.

Initially, the division was using PTC Windchill RV&S (Requirements, Validation & Source) to manage the definition, qualification, and commissioning of tools and systems to support their development and manufacturing activities. And then there was the layered kluge of Word docs, Excel sheets, screen shots, and PDFs.

So they turned to SPK and Associates.

Working Toward A Custom Configuration

Initially, SPK implemented a reporting solution based on our SPK Trace Report Engine. On the plus side, this could take the Windchill RV&S data and report on the requirements that were to be tested, in addition to the test cases and the test results, by following trace relationships between the various artifacts within the Windchill RV&S system. It could generate reports... in Excel.

But the client still wanted more. They sought a solution which could include rich-text support in the report, including the embedding of attached images; this is more than Excel can handle.

1-Click Reporting

20% Cost Reduction

8% Efficiency Improvement

And so SPK proposed a custom enhancement—an "adaptor"—for an existing component in Windchill called Gateway.

Out-of-the-box, Gateway can handle the import and export of individual documents in either Excel or Word. While its ability to export a Word document addressed the need

for rich-text support and attachments included as embedded images, it still couldn't collate the details of the test-execution session, the test results, and the exception report with the test-protocol document used for the test-execution session. Thus the need for the custom adaptor to add that functionality.

SPK's approach not only leveraged the proven ability of PTC Gateway to export RV&S documents into Word format, but it was also far less costly than creating a from-scratch custom tool, which would've easily taken about six months.

Our "adaptor" approach was scoped out in a matter of days—and developed and validated in just one month.

The "Push-Button Future"

Today, users of the new Gateway adaptor can generate test-session reports in less than five minutes, with just a few clicks in their RV&S client. The test-protocol data extracted from RV&S is automatically augmented with the related test-session data, test results, and exception reports which correspond to the selected test-protocol document and test-session item.

And with the click of a button, users can convert that rich, all-in-one Word doc into an equally rich, all-in-one PDF for uploading into the document-management system.

All In all:

- Manual effort is dramatically reduced.

- Months of potential development time were shaved to just one month.

- Proven technology was leveraged, keeping customization—and expense—to a minimum.

- Users can now focus on testing, rather than the cumbersome collation of reports.

> **Management of the screenshots and other artifacts associated with test protocol objective evidence is a time consuming task. The SPK Gateway adapter helped to reduce our manual steps and improve our test process turn-around time.**

Get A No-Obligation Initial Assessment

For every company that needs to do extensive testing and report on it, there are issues that out-of-the-box systems can fail to address. Make life easier for your valued engineers; contact SPK and Associates for a complimentary initial consultation at (888) 310-4540 or info@spkaa.com.