

Enabling sales through visualization. It's what Rapid Prototyping Systems does best.

They give manufacturers, installers, and salespeople the cutting-edge applications they need to create high-quality architectural visualizations, in real-time, before their client's eyes.

With 23 years of experience creating design-prototyping software for the home-improvement market, RPS strives to challenge visualization technology, and provide outstanding sales support tools for home-improvement professionals worldwide.

Key Results

- Reduced testing cycles from **four months** to **three weeks.**
- Achieved 70% test automation for desktop application and 90% test automation for mobile application
- | Ability to focus on higher value tasks

Seeing Is Believing

For RPS, the phrase "seeing is believing" is more than just a mantra. For customers in the home improvement industry, "seeing" means sales.

Pete Wilson, Head of Testing at RPS, explains the business. "We build high-quality visualization products for conservatory, sunroom, and patio design – we allow the salesperson to show an end-client exactly what they're getting."

By enabling rich digital experiences, RPS helps the companies they work with increase sales, conversions, and margins.

Growing Pains

With a current portfolio of 5 desktop applications and 16 mobile applications, RPS is expanding its visualization portfolio to offer even more complex and flexible tools to its customers. In addition to conservatories and sunrooms, the company is currently working to add bathroom design to its product suite.

With the expansion of the product line and its functionality, the issues that RPS had to deal with were clear: limited resources and increased development were dragging the team down. Test times had to be reduced and software delivered without compromising quality.

A Time for TestComplete

Wilson and the RPS team needed to up their testing game, especially given their limited resources. With only 24 employees at RPS, Wilson explains, "There's a few of us doing a lot of work covering different roles. There are so many applications. It takes time to get them to test and make sure they're all fit for purpose."

The solution for RPS was TestComplete, the SmartBear UI test automation tool. Although TestComplete was already the RPS tool of choice, it was Wilson's responsibility to use it to best effect. "The impetus for going with SmartBear was that our PC applications are written in Delphi – not the most well-used language – and TestComplete supports that," among other modern languages.

Another win for Wilson with TestComplete was its effortless integration with the RPS environment. With RPS using Jenkins for continuous integration, the TestComplete integration was especially welcome. "It nicely builds into that process. I don't have to touch anything now. The developers and I all get feedback from Jenkins via TestComplete."

Sticking to the Script

I've not found a fault with TestComplete at all. The ability to get it off the ground and running, and teach anyone – other people in my team to use it – it's been brilliant.

Asked about how quickly his team can get up to speed with TestComplete, Wilson describes a colleague's recent experience. "I got him to write his own script last week, and that's already built into our test pack now," he said, underlining the ability of all team members to contribute to the automation process.

But it's not just Wilson's colleagues who benefit from the usability of the tools in TestComplete. When asked about his own experience, he points to the TestComplete Object Spy as an example for testing new custom controls. "When I'm building out the new test packs and adding new controls, no matter what it is, I can work out how to best target it," and ensure it's thoroughly tested.

Putting Things Into Place

From his experience using TestComplete, Wilson stresses the necessity of proper preparation, especially where test data is concerned. He's quick to explain the effort is worth it. "Data

setup could take a day or two, maybe three days, but once it is set up, it is set up. After that, TestComplete just runs. It's very unlikely that we'll need to need to move after that."

The time spent is later saved in actually running tests rather than preparing for them on a one-off basis. And as Wilson points out, once the data is prepared, "It's quite easy to pull a TestComplete script over from one app to another one."

Deployment is also simplified, and tweaks or improvements to tests are easily distributed as soon as they are created. "We've built TestComplete into a GIT repository now, so everything can be pulled down on to a new machine from anywhere."

Automatic for the People

The RPS team has achieved a high level of automation using TestComplete. According to Wilson, the team has reduced the amount of testing to "about 30% manual for the PC application." He adds that that number is consistently shrinking. "There's always stuff we're automating on that side." Mobile shows even greater benefits. "We are 90% automated now on the mobile app side."

With automated testing through TestComplete, Wilson and his team also make gains in the reliability of their tests. "Obviously manual testing is quite intensive and you can't reproduce that every single time. The repeatability wasn't always there, because you have different people doing it."

To Wilson, the increase in quality and speed to delivery was clear. Using TestComplete, the team could keep the testing and release cycles going continuously, removing inconsistency and the burden of ownership in the test process. As an added benefit, the automation frees up the RPS team members and allows them to focus on their primary responsibilities.

Final Impressions

When questioned about some of the unexpected benefits of using SmartBear and TestComplete, Wilson is quick to point to the SmartBear Community.

"I found it really helpful just putting my queries on there and finding out how people got around certain issues and testing certain applications. The feedback online was excellent."

Benefits and Results

Reduced Regression Times for Mobile and Desktop Applications – According to Wilson, before he implemented TestComplete to automate the testing process, "Desktop testing took about four months of testing for a release. TestComplete has us down to about three weeks for a release now."

Improved Quality and Efficiency Through Automation – Wilson estimates that with TestComplete, the team has managed to achieve 70% automation of testing for the desktop application and over 90% for their mobile applications. In particular, Wilson points to the system settings for the desktop application. "The more laborious, time-consuming, or less interesting testing, that's all being transferred to TestComplete now."

Better Use of Team Resources – By reducing regression times and automating time-consuming manual testing goals, Wilson points out that team members can focus more completely on other tasks. "Automating on the TestComplete side means that we can still test in the background while they are doing a support role or any of the main roles that they've got within the business."

"I've got a lot of respect for TestComplete if I'm honest. It's given us some amazing time-savings straight off the bat. It's great now, and it's actually going to get better."



About SmartBear

At SmartBear, we focus on your one priority that never changes: quality. We know delivering quality software over and over is complicated. So our tools are built to streamline your process while seamlessly working with the products you use – and will use. Whether it's TestComplete, Swagger, Cucumber, ReadyAPI, Zephyr, or one of our other tools, we span from test automation, API lifecycle, collaboration, performance testing, test management, and more. Whichever you need, they're easy to try, easy to buy, and easy to integrate. We're used by 15 million developers, testers, and operations engineers at 24,000+ organizations – including world-renowned innovators like Adobe, JetBlue, FedEx, and Microsoft. Wherever you're going, we'll help you get there. Learn more at smartbear.com, or follow us on LinkedIn, Twitter, or Facebook.

