

SPTS TECHNOLOGIES ELIMINATES PARALLEL DEVELOPMENT COMPLEXITY, IMPROVES QUALITY AND SPEEDS RELEASE PREPARATION

KEY HIGHLIGHTS

- Increased change traceability and visibility
- Eliminated time and cost of daily development operations
- Reduced release preparation time and improved software quality

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The task of managing the merge of new features or patches from one branch to another is greatly simplified”

Richard Prescott

Software Development Technical Lead

COMPANY PROFILE:

SPTS Technologies is a leading manufacturer of etch, deposition and thermal processing equipment for the semiconductor industry. SPTS manufactures products in the UK and US, supported by a network of Sales and Services offices across Asia, Europe and North America, and recently acquired by Orbotech Ltd in a strategic move into the high growth areas of Advanced Packaging and micro-electro mechanical systems (MEMS).

SPTS develop and maintain a suite of sophisticated software for a central PC-based Windows architecture, communicating through multiple controllers to their products.

Richard Prescott, Software Development Technical Lead, had been a long time user of PVCS, and since the mid-2000s had recognized an increasing need for issue & defect management, and an increasingly urgent need for better parallel and concurrent development support, greater insight and visibility into each development change, to significantly improve efficiency of development operations.

CHALLENGES:

As SPTS's business grew, so too did the software development to support

their product line, from largely linear development to significant parallel and concurrent development. With more variants and more customers, development began to struggle with managing the complexity of multiple branches, and tracking the various changes on, across and between branches became increasingly time consuming and error-prone.

With SPTS applications involving up to 10,000 or more files, coordinating and tracking development changes across multiple branches became more and more complex, with detrimental impact to the quality and timeliness of release delivery. Developers spent increasing time on tracking and coordinating their changes across branches, and experiencing slower response time of common development operations such as applying a code label, or fetching the correct branch content into a workspace.

SPTS set about seeking an alternative solution that would accommodate the complexity and improve the efficiency and quality of development releases. In addition to modern development practices, SPTS sought a solution that provided granular traceability and visibility into



Tasks that used to take a considerable length of time and require a lot of manual effort are now being done very quickly with minimal effort



Richard Prescott

Software Development Technical Lead

both individual development changes and changes to the branch itself. Eliminating the complexity, while simplifying development tasks and activities, was a key driver, as was the ability to preserve the entire history from PVCS to minimize any impact to ongoing development and maintenance of existing application releases, ensuring development could be as productive as possible, as quickly as possible.

Consideration was given to a shortlist that included Subversion, Perforce and Serena Dimensions CM and after careful evaluation of all their criteria, including 24x7 official support, Dimensions CM was selected as meeting their development, traceability and visibility requirements, together with full PVCS history migration.

With the release of Dimensions CM 14 imminent, SPTS's implementation team recognized the value of waiting a few weeks to experience its innovative new features such as full support for change sets, the virtual change graph, a best in class merge tool, and an integrated collaborative peer review.

Prior to implementation of Serena Dimensions CM, tracking of each development change and the content of each change was extremely inefficient. Common development and merge operations were increasingly time consuming and error prone, with major challenges identifying which lines of code had changed between branches. Communication and collaboration among team members became insufficient, leading to significant human intervention in remediation activities, and poor performance.

With Dimensions CM 14 installed and populated from PVCS through an automated migration utility preserving full history, SPTS development teams were quickly up and running, maintaining existing application releases, and enhancing or developing new application releases.

THE VALUE SERENA BRINGS:

With a visual and interactive timeline of development changes, SPTS now have real-time insight and visibility into branches/streams, stream dependencies and the status and quality of each development change on each stream.

With the new collaborative development environment, SPTS have now eliminated unnecessary complexity of parallel and concurrent development and simplified daily development tasks and activities.

Software quality is now much improved, and with change traceability there is greater insight into each change and the content of each change, resulting in significantly speeding up merges and the creation of release baselines.

With the successful deployment of Serena Dimensions CM, SPTS now plan to migrate their Subversion development teams to Dimensions CM, enabling them to centralize the SCM function, providing broader insight and visibility across all application code lines, and improving developer productivity and performance.

THE FUTURE:

Participation in the Dimensions CM Virtual User Group and Special Interest Groups continues to provide SPTS with insight and opportunity to contribute into the ongoing product innovations for Dimensions CM.

CONTACT

Website: www.serena.com

Phone: 1-800-457-3736

Email: info@serena.com