Overview
This world-class aerospace manufacturer has boosted their pace of innovation and lowered their cost of compliance by successfully deploying Micro Focus® SBM-based applications for Design Review, shop floor Incident Review, Document Review, and management of the Engineering Change process. The result is better communication throughout these processes, exception-driven management, easier audits, and continued progress towards zero defects.

Challenge
Martin-Baker is the number one supplier of ejector seats in the world. Nearly 7,500 aircrew lives have been saved by M-B seats over seven decades of service.

Martin-Baker was operating with manual systems for several key processes: Design Review, Document Review, Engineering Change Notices and production Incident Review. Given that the annual volume of Engineering Change Notices alone exceeded 1,000, these critical processes were an impediment to productivity and to Martin-Baker’s journey to zero defects.

Thus Martin-Baker’s goal became linking all engineering activities to provide controlled and auditable workflows for “Work to” lists, to enforce company standards and best practices, and to provide notification of outstanding actions.

Solution
A Martin-Baker team evaluated a variety of solutions for automating these three key processes. They needed a system that would allow a skeletal team to quickly develop and deploy custom workflow applications for their processes, integrate with adjacent systems, be continuously updated as their needs evolve, and maintain audit trails to lower their cost of compliance.

They found their solution in Micro Focus SBM, a workflow system that brings vast productivity improvement to process automation. They determined that their colleagues who participate in the various processes would value SBM for its orchestrating effect on their workflow, and that they would achieve more throughput with audit-able visibility and a zeroing-out of busy work.
“Vastly improved visibility is the largest area of benefit. Improved cost-of-compliance is another area of benefit.”

NEIL GILL
Martin-Baker Aircraft Co.

Wearing their administrative hats, they determined that SBM’s ultra-quick development and deployment capabilities would allow them to deliver and evolve outstanding process apps with minimal staffing.

Starting with the engineering change system, they were up and running in six months, including several rounds of user refinements. They’ve continued to evolve the Engineering Change Notification (ECN) while moving ahead to automate the design review, document review and incident management processes. A number of other supporting systems, such as centralized drawing registers (around which most of the other applications interlink) and meeting actions have also been developed and released.

Results
Martin-Baker has seen impressive results from their SBM-based workflow systems. Vastly improved visibility is the largest area of benefit. For instance, the ECN system is now transparent, with its statistics and reviews published to all stakeholders. Urgent ECNs now jump to the top of the queue, allowing them to be reviewed and executed much faster than before. Improved cost of compliance is another area of benefit. The Engineering Change process auditors are now very impressed with the transparency of the system, making it faster and easier for them to audit. Similarly, the design review system auditors are thrilled, calling it a major upgrade from the previous spreadsheet-based system.

The engineering change system now manages around 100 ECNs and 400 drawing changes a month. The document review process facilitates easy cross-departmental review and approval. The design review process captures actions and tasks from review sessions and is interlinked with the ECN process, giving ECN owners and reviewers visibility into outstanding design actions. This ensures all tasks are closed off prior to release. Finally, the incident management system now tracks and manages five types of incidents, boosting Martin-Baker’s drive for zero defects.

Various automated features have also been included across the applications, further enhancing their effectiveness. These include the automated secure archiving of mark-up information, PDF form generation via Adobe LiveCycle, and electronic signature enabling of documents.