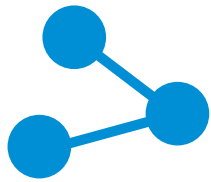




Innovating the solution for pacemakers



We helped to deliver the innovative solution for pacemaker development in Vitatron.

A client medical device company, specializing in pacemakers, and delivering complex medical systems for implantable devices requested our services on a project to develop a new and innovative solution. CertiCon, as a long-term partner in software development, verification testing, applied research, and ASIC design development, was pleased to co-operate on this project.

Having the high-level requirements, the challenge was to deliver completed valuable product features while complying with all required standards for medical device development within short intense periods of 6 week intervals.

The challenge

Completed and successful delivery of the following items:

- System requirements specification
- Software architecture design
- Software development (including unit testing)
- Test design

- Test dry-run
- Test execution and reporting

The nature of the traditional waterfall model as well as strict regulatory process constraints dictates the release of project deliverables sequentially, following the development process rules.

This process had to be fitted to the short interval approach required by the client. This created a challenging opportunity for project team work organization.

Journey and Solution

There is a mandatory step in the methodology to have in place and follow quality system documentation describing the overall process complying with all constraints. From the project management point of view, the journey to success was through the Agile approach and Pull model.

Traditionally, verification testing activities start at a latter phase of a project. In this project though, all the engineering activities were

executed in parallel. The verification testing activities were started immediately, forcing software developers and system engineers to deliver the most critical parts as soon as possible. Thus, the traditional flow was inverted.

Results

Having the most critical parts tested at the beginning of each project phase resulted in:

- On-time delivery of complete features
- The majority of issues detected at early stages
- Multidisciplinary team cohesiveness rapidly increased
- Wasted and waiting time significantly reduced No scope creep

At the end of each 6-week interval, a completed feature, with released system requirements, software implementation and verification tests was delivered and successfully approved by the quality system gate ■



About CERTICON

For more than 14 years, CERTICON has been improving the competitiveness of our clients around the world. CERTICON's solutions comprise the full spectrum of services and solutions in software development and quality-assurance verification testing. Our experience in the fields of medical and mission-critical applications and high-tech industrial applications enables us to harness the best practices and solutions for the clients. CERTICON designs, develops, rapid-prototypes and deploys sophisticated software solutions. Our projects and solutions cross medical and industrial domains by leveraging state-of-the-art methodologies and technologies

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