



Orthopedic Imaging Application

Client Overview

The Client is leading solutions provider for display and visualization and has its presence in more than 90 countries. The client is active innovator in medical imaging, traffic management, defense & security, media, digital cinema, avionics, events, presentation, simulation, traffic & surveillance, utilities & process control, broadcasting and textiles & plastics. In these markets the client offers user-friendly and advanced imaging products that optimize productivity and business efficiency. The client's innovative hardware and software solutions integrate all aspects of the imaging chain, from image acquisition and processing to image display and management.

The Challenge

The client wanted to develop user friendly digital templating software for Hospitals & clinics which could be used for entire pre-operative planning and templating system for fracture management, joint replacement, pediatric assessment, report generation.

The client had the following challenges when it approached Optra Systems:

- The software should be operating system independent
- To integrate high quality digital templates in the application
- The software was also required to be easily implemented with the hospitals existing PACS
- The application should work efficiently with major orthopaedic implant manufacturers using their data and clinical guidelines to create the digital templates

Solution

Optra Systems developed software which provides Orthopedics and orthopedic surgeons environment and stop printing films

The project involved:

- Requirement analysis
- Design
- Implementation
- Post implementation support and maintenance

Benefits

The software can be deployed in a number of ways depending on the business need of all sizes of hospitals & clinics. It can be integrated into a PACS viewer for convenience, can also be deployed as a server for ultimate flexibility, as a standalone workstation for the smaller hospitals and clinics.

- Optra Systems technology proficiency and domain expertise assisted the client to reduce the time and cost of operations
- The architecture of the software is modular and based on object oriented technologies
- The software can be implemented with the hospitals existing PACS with least effort
- The software enables quick learning and easy usability
- The software can be used by Orthopedic Surgeons PACS Administrators/Managers and Orthopedic Company Representatives

Features of the Software

- The software assists pre-operative templating for a number of joint replacement
- The software has several modules which enable rapid sizing and placement of trauma implants
- The software has a unique feature which helped in planning of plate contouring and to view resulting screw positions
- The software also facilitates comprehensive report generation which includes the templated images that can be used for clinical audit

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- The software has a customizable notepad which enables detailed surgical plan documentation
- The software has tools to facilitate the specific assessment of Developmental Dysplasia of the Hip (DDH) and other congenital deformities in infants and children
- The software enables scaling for quick and accurate calibration of images on a single click
- The software contains wizards & tool sets for accessing the size and position of digital templates, the tool sets also assist clinical assessments and recording these
- The software automatically updates and manages the templates through web as new template data is available

Technologies

- The user interface was developed using Java technologies (AWT Library). Image processing is done using C++ shared libraries and these libraries are called by the UI using Java Native Interface (JNI)

About Optra Systems

Optra Systems is an ISO-certified global organization with deep domain expertise in medical devices, lab automation, life science informatics and healthcare IT solutions. The company provides a fully-scalable, cost-effective OptiShore™ delivery model. This enables customers to choose the optimal balance between on-site, on-shore, and off-shore development that will best address their budget and collaboration requirements. With Optra Systems, customers are able to shrink their time-to-market by leveraging practical, building-block based solutions. Committed to clear communication and total transparency, the company consistently meets or exceeds its clients' expectations. Offering a full complement of expert engineering and consulting services, Optra Systems is aligned to real business needs applied over the entire product development lifecycle. The robust, scalable and efficient IT infrastructure of the company, together with its outstanding project management team, consistently ensures superior results. Optra Systems 's global delivery model helps its customers cut costs by about 50% without compromising on quality and realize a 200% improved production cycle.

Visit Optra Systems today: <http://www.optrasystems.com>

Contact Optra Systems Today

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