

Software engineering in 3D - 18 month project

Summary

Hexner Limited provided management the opportunity to discuss their ideas and implement effective solutions :

- boosting confidence of the investors regarding new technology
- justify expenditure connected with licensing various pieces of technology
- help in procurement process of the technology
- implement best practices and manage key structuring
- provide expertise on software optimisation and profiling
- 3D modelling of : well trajectory, functional parts and mechanical assembly
- help in production debugging using: **ReSharper, dotTrace, WinDBG, SOS and SOSEX**
- create software components and help with several releases of the Product

An initial version of the Product has been demonstrated at various trade shows.

Details

Enhancement of software used to design and manage well completion projects for the oil and gas industry. The Product was expected to maintain interoperability with major CAD drawing formats in order to import models of well completion parts and display them as a photo realistic 3D view.

Unable to progress with existing company technology Hexner Limited was hired in order to perform technical assessment, evaluate the options, and present the need for further technological investment. This included a review of their software development process to introduce Agile methods.

Hexner formulated an agenda for the assignment based on the issues critical for Product success.

Replacement dated display technology was key – **Tech Soft 3D** in San Francisco and their subscription based model **HOOPS** library was identified as appropriate technology,

In 2 months Hexner's role was to evaluate suitability and technically assess HOOPS for product development. Working with Tech Soft the study prepared 3 spatial models of the most frequently used parts of well assembly. Confidence of both the development team and investors was boosted to proceed to project completion.

Technological platform for the Product was further enhanced with the use of:

- **Syncfusion** – package for user interface design
- **StrataFrame** – package for object relational mapping of databases
- **Rally** - web system for management of software development activities.