

# Teledyne TSS Requirements Management

SyntheSys Aids in Integration

## Teledyne TSS Integrates Requirements. Everywhere it Looks



Teledyne TSS design and manufacture marine sensors for navigation, motion sensing and cable and pipeline detection. The process of moving from a market requirement to the delivery of powerful industrial software systems involves the development of many requirements models with integrated traceability. This was a significant challenge faced by Teledyne TSS in which SyntheSys has been fundamental in transforming the Requirements Management aspects of this process.

### Taking Action

On discovering a traditional automated approach to managing requirements, which relied on open source configuration tools, Lead Software Engineer Nigel Garbett took immediate action. His vision for a fully automated, integrated Requirements Management approach which offered high level diagram designs and models led Nigel to investigate IBM® Engineering Lifecycle Management Solutions. SyntheSys also facilitated attendance at IBM® Proof of Technology events to reinforce the extended capabilities of the solution. This level of solution capability awareness provided Teledyne TSS with the confidence to invest in IBM Watson IoT™.

Nigel's previous experience of using IBM® Engineering Requirements Management DOORS® Family had left a positive impression, which made it easier to select an extended integrated tool through SyntheSys. We engaged with Nigel and discussed his immediate requirements and carried out a business analysis of his needs offering best practice advice and recommendations for appropriate licensing to meet Teledyne TSS needs.

### Short Listing the Solution: An Integrated Approach

At the top of Nigel's list sat four main things - the necessity of a Unified Modelling Language (UML) Model creation which integrated into a Requirements Management tool, the capture and management of project requirements, Workflow Management and Defect Tracking.

So, we set to work, firstly looking at the requirement from a UML Modelling viewpoint. SyntheSys worked with Nigel to explore different levels of UML Modelling and how these could be applied to Teledyne TSS infrastructure. Once we had a clear understanding of how Teledyne TSS would use a UML Model, we started to apply this to project requirement mapping specifically, diagramming throughout the initial requirements stage. Once a blend of UML Modelling and Project Requirement Management via diagramming was clear, we introduced the concept of workflow management and defect tracking.

SyntheSys implemented a combination of flexible IBM Watson IoT™ Licences (IBM® DOORS®, IBM® Engineering Systems Design Rhapsody®, IBM® Engineering Workflow Management) and provided expert knowledge to create a hybrid solution which transformed the Requirements Management process for Teledyne TSS.

"Mark at SyntheSys was extremely helpful during the evaluation and procurement process, arranging a demonstration at short notice to meet our requirements."

CUSTOMER SUCCESS STORY

## A Catalyst for Change

Teledyne TSS's new-found approach to Diagramming, UML Modelling and Requirements Management, has proven to be a significant catalyst for change.

The main benefits come from time and cost savings which are attributable to a more effective transfer of solutions developed within one operation system to another. Connecting requirements and designs quickly and effectively also saves time.

The defect tracking functionality which Teledyne TSS now relies on improves system integrity, visibility and the Lead Software Engineer now has greater control of software development projects.

“Following the purchase of our system, SyntheSys has supported installation at our site and has remained in contact since to ensure that we have no issues and to provide assistance.”

## Using More Than Just the Licence

Teledyne TSS's route to success was enhanced with the Technical Services we provided in the form of on-site visits, system setup, installation and configuration which empowered Nigel and his team to fully realise the capabilities of this powerful IBM Watson IoT™ tool set.

### About SyntheSys

SyntheSys provides defence systems, training, systems and software engineering and technical management services over a spectrum of different industry sectors. Along with distinct support and consultancy services, our innovative product range makes us first choice provider for both large and small organisations. Established in 1988, the company focus is on fusing technical expertise with intuitive software applications to solve common industry challenges.

