

Software Development for Digital Generator Control Unit (DGCU)

- Software starts the jet engine in the Starter mode
- Software monitors the proper functioning of the Starter / Generator Electrical System
- Implementation of Protection functionality with Fail Safe Action in case of failure in the Aircraft Electrical System

Salient Features

- Full Software Development Life Cycle as per DO 178B Level B Guidelines
- Rapid Prototype development
- Participated from System Level Requirement analysis
- Compiler and Test tool selection
- Software Certification Support for DO-178 B Level B
- Interaction with SQA consultants / DER for SOI
- Use of client supplied web based tool for high level and low level requirement analysis
- Use of client supplied web based tool for reviews and status tracking

Outline Specification

Technology

Real time embedded software for Airborne Electrical System

Platform

- Custom developed DGCU hardware based on MPC555 Controller

Tools

- Green Hills MULTI for C/C++
- LDRA
- VISIO
- VSS



Challenges

- Adopting to the client supplied tools and templates
- Schedule for Rapid Proto Type development
- Changes after the HSIT on the Proto Type
- System Integration on the Aircraft
- Co-ordination between Client, End User(OEM) ,HW supplier ,Tool Suppliers, SQA consultants and DER