

# VectorCAST RTCA/DO-178B Tool Qualification Process SOW

## Background

The Requirements and Technical Concepts for Aviation (RTCA) Document Number RTCA/DO-178B specify that qualification of a software tool is necessary when processes of the DO-178B document are eliminated, reduced, or automated by the use of a software tool without its output being verified. VectorCAST addresses the automation of the software verification process as defined by DO-178B.

The qualification of a software tool is mandated by DO-178B on a project-by-project basis. The qualification data produced for each project operating under the DO-178B guideline is done under the guidance of the project certification authority and Designated Engineering Representative (DER). Responsibility for qualifying software verification tools (VectorCAST) is usually a joint effort between the prime contractor and the tool vendor.

## Tool Qualification Data Deliverables

To qualify a software verification tool (VectorCAST), the following information is produced for each project that the tool is to be used on:

Tool Operational Requirements Document includes:

- Tools functionality in verifiable requirements
- Project operational environment
- Configuration management process
- Method for attaining verification that VectorCAST has been satisfactorily tested against specified requirements

Tool Qualification Document includes:

- Tool qualification test data and results

The tool qualification process normally includes interaction with the qualifying user as well as the associated certification authority and/or DER.

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