



# Role Description

Role Description:	R&D Engineer, Navigation Software
Document owner:	R&D Manager
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Keep informed:	R&D Engineer, Navigation Software

## 1. Overview

The position within the R&D team is to research, develop and implement navigation algorithms and software processing systems for navigation data for post-process and real-time applications, to integrate into our products. The role is involved in all aspects of navigation software development from researching algorithms and feasibility to software release. The role requires a grounding in navigation theory, and good knowledge of software design.

## 2. Duties and Responsibilities

1. Research new ideas, develop concepts and undertake investigative / feasibility work to develop and prove software navigation algorithms and processing systems for navigation data. Able to capture and communicate ideas and solutions verbally and in written technical documentation.
2. Develop and implement navigation algorithms (including Kalman filters) and processing systems in software (C/C++ and other languages as needed). Requires knowledge of operating systems, including POSIX standard operating systems. Write test harness software to validate software.
3. Develop software, post-process and real-time, covering the full software life-cycle. Capture customer/user requirements, then design, develop, test and maintain software, including release process, version control of software releases, and bug management. Write and maintain suitable documentation for designs to describe functionality, their use and reasons for design decisions.
4. Develop and maintain OxTS software libraries and general software. Install, use and maintain tools (e.g. development environments) needed for software development.
5. Work both as team member on larger software projects and manage own smaller software projects; plan, track and manage development tasks. Work to deadlines and adapt plans as necessary to meet project objectives. Work collaboratively with people inside and outside R&D department to successfully achieve outcomes and results.
6. Use company procedures, processes, and consistent styles. Adhere to coding standards when developing software. Maintain software traceability, update software documentation, use version control for all software and document changes.
7. Provide expert help for the support team by analysing interesting and unusual customer data, with the aim of helping the customer, improving the results and improving our software.
8. Investigate ideas, suggestions and problems related to existing and new software products raised by OXTs staff, reps and customers, communicating and responding to ensure issues are resolved promptly and appropriately.

### 3. Revision History

Revision	Changes
200812	Rebranded, reviewed no content changes - MAP
150624	