



## Role

## Description

Role Description:	Senior R&D Engineer, Navigation Software
Document owner:	Chief Technology Officer
Version:	200901
Keep informed:	Senior R&D Engineer, Navigation Software

### 1. Overview

The position within the R&D team has significant responsibility to research, develop and implement navigation algorithms and software processing systems for navigation data for post-process and real-time applications, for our products. The role is responsible for all aspects of navigation software development from researching algorithms and feasibility to software release. The role requires expert understanding of navigation theory, and expert knowledge of software design.

### 2. Duties and Responsibilities

- 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.
- Develop and implement sophisticated 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.
- Develop complex software, post-process and real-time, covering the full software life-cycle. Capture customer/user requirements, 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.
- Develop and maintain OxTS software libraries and general software. Install, use and maintain tools (e.g. development environments) needed for software development.
- Manage complex projects; plan, track and manage development tasks. Work to deadlines and adapt plans as necessary to meet project objectives. Supervise and work collaboratively with people inside and outside the R&D department to successfully achieve outcomes and results.
- Develop and 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.
- 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.
- 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.
- Identify opportunities, develop proposals and make plans for innovation and improvement in the navigation algorithms and processing of navigation data.
- Ensure compliance with BS EN ISO 17025:2005 requirements.

### 3. Revision History

Revision	Changes
200901	Rebranded, amended document owner to Chief Technology Officer, added in ISO 17025:2005 compliance - AB