

Code Documentation Scope Statement

Introduction

The following scope statement applies to the [Code Documentation \(Implementation\)](#) project within the Technical Proposal by High Performance Data Division of Intel for OpenSFS Solicitation Number W4570 Delivered April 5th 2013.

Problem Statement

Many subsystems of the Lustre* source code do not have sufficient internal documentation (code comments) to describe the implementation sufficiently, and some of the comments are out of date. In order to facilitate developer understanding of the code; and in turn improve their ability to enhance and fix code in a robust manner, a project will be undertaken to add and improve structured comments within select subsystems. Code commenting best practices will be added/updated to the Lustre Coding Guidelines wiki page.

Comments added to each file will include an introductory comment block describing the high-level functionality (at least two or three paragraphs) in the updated subsystem. A comment block describing each function will be added to all functions more than a few lines in length, including input/output arguments, locking requirements, code caveats and complexities. Additional comments will be added inline with the code as necessary.

The Lustre subsystems to be commented in Phase 1 of this project will be lustre/lod, lustre/osp, and lustre/ofd. These subsystems were chosen because while they have had significant rework recently, there were large parts of the code copied from old Lustre code (lov, osc, and obdfilter respectively) that were lacking in clear documentation. This project will prove beneficial from the review of the existing comments, as well as benefit others that are not familiar with the significant changes that this code has undergone.

Project Goals

- Add an introductory comment block for approximately 50 functions for each subsystem.

In Scope

- Target functions within lustre/lod, lustre/osp, and lustre/ofd for new documentation.
- Document input and output arguments.
- Document locking requirements.
- Document code complexities.
- Update Lustre [Coding Guidelines](#) with comment block formatting style.

Out of Scope

- Automated style checking of newly submitted patches.

Project Constraints

Andreas Dilger is the preferred engineer for this project.

Key Deliverables

- Updated Coding Style guidelines.
- Documentation as code patches.
- Landing of patches.

*Other names and brands may be the property of others.