

# Lustre Tools

In addition to the Lustre code, a number of tools exist to help maintain a Lustre filesystem

## e2fsprogs

e2fsprogs is a set of utilities for maintaining ext2, ext3 and ext4 filesystems. Lustre servers using `ldiskfs` require the Lustre-specific version of e2fsprogs to create and check `ldiskfs` filesystems because of features that have not yet landed into the upstream e2fsprogs. The `filefrag` utility included in the Lustre e2fsprogs is also useful on the client to report file block allocations for striped files (the standard `filefrag` utility can work with 1-stripe files).

## Getting e2fsprogs

We recommend using the latest binary, pre-built RPMs from the [Whamcloud download site](#).

## Installing e2fsprogs

e2fsprogs and e2fsprogs-libs must be simultaneously installed with `rpm -U`:

```
rpm -Uvh ./e2fsprogs-1.41.90.wc2-7.el6.x86_64.rpm ./e2fsprogs-libs-1.41.90.wc2-7.el6.x86_64.rpm
```

## lustre-tar

Lustre-tar is a modified version of tar, patched to enhance tar on a Lustre filesystem.

Whamcloud provide a tar 1.19 with specific patches.

These patches include:

- Support for `xattrs` - necessary to record file and directory striping information.
- fix for: `--sparse` fails to restore file names longer than 100 chars from PAX header [LU-504](#).
- Optimization for Lustre-tar on completely sparse files [LU-682](#).

**NOTE** RHEL 6.{0,1,2} package a version of `tar` includes `xattr` patches necessary to record striping. However, depending on your use case, you may wish to use the Whamcloud build on RHEL 6.{0,1,2}.



### tar from RHEL 6.3

The release of RHEL 6.3 includes `tar` version `tar 1.26`, which has support for backup and restore of `xattrs` and sparse files optimization. Using the RHEL 6.3 or later version of `tar` alleviates the needs for the Lustre-specific version available below.

## Getting lustre-tar

Lustre-tar is available as [source and pre-built x86 and x86\\_64 RPMs for RHEL](#).

## lustre-diagnostics

Lustre-diagnostics is a tool to that enables system debugging. The tool works by collecting relevant system and Lustre configuration information. The information is saved into a standard format.

## Getting lustre-diagnostics

Lustre-diagnostics is available from the [Whamcloud download site](#). The code consists of a series of scripts.

## lustre-iokit

Lustre-iokit is a suite of tools for benchmarking Lustre systems, from the underlying disks, to the OST filesystem, the network, through to the client.

## Getting lustre-iokit

The installation and source rpms for lustre-iokit are available in the RPMS and SRPMS directories for each Lustre release, available from the [Whamcloud download site](#).