

fsck sets up tables for storing inodes and comparisons, verifies validity of fsck options, then runs through the 6 phases.

After initializing it's tables fsck runs through:

Phase 1: Check Blocks and Sizes - checks inodes for inconsistencies

Phase 2: Check Path-Names - checks directory <-> inode consistencies

Phase 3: Check Connectivity - checks that all directories are connected to the file system

Phase 4: Check Reference Counts - compares link count information from Phases 2 & 3, correcting discrepancies

Phase 5: Check Cylinder Groups - checks free blocks and the used inode maps for consistency

Phase 6: Salvage Cylinder Groups - update the tables to reflect any changes made in earlier passes