

Silicon Graphics, Inc.

XFS Overview & Internals

10 - QA

November 2006

QA

- TODO: Incorporate Nathan's stuff here

QA Kernel

- Tools:
 - KDB
 - blktrace, strace, ltrace
 - sparse
 - lockdep
 - stackcheck
 - Generic kernel debug options
 - SLAB, PAGE_ALLOC, SPINLOCKS, MUTEXES
 - PREEMPT
 - XFS debug (assert, runtime checks)
 - XFS tracing option (event history)
 - XFS error injection option (xfs_io “inject”, fsstress)

QA Large Filesystems

- Will always lack hardware to test the high end of filesystem size, inode count, etc.
- Can use large sparse files for this
 - led to allocation group size changes
- `mkfs -dfile,name=/tmp/x,size=1p)`
- `mount -o loop /tmp/x /mnt/x`
- `xfstests/tools/ag-wipe`
 - uses `xfs_db` to mark some AG's as “full”
 - integrated in QA (check/repair issues)
 - `xfs_repair` undergoing surgery
 - maybe done all we can with this approach

sgi®