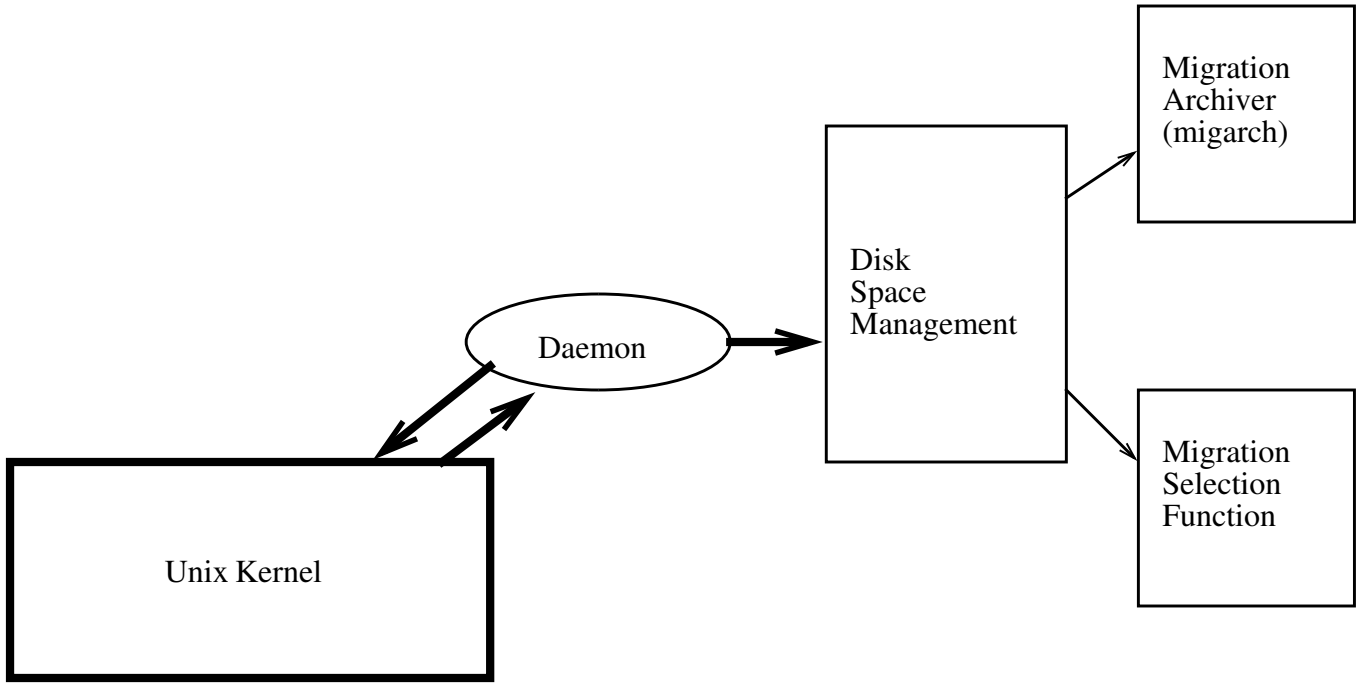
Space Management (migspace)



- The kernel informs the daemon of pending disk space shortfall. The daemon starts space management facility (migspace). Migspace first checks for files which have been pre-migrated and have also been written to archival storage. Pre-migrated files matching this criteria are unlinked (note that the file's original stub inode remains in the file system, only the staged copy is unlinked.)
- The kernel informs the daemon of space exhaustion. The daemon starts the space management function which in turn starts the Migration Selection Function to begin searching the file system for migration candidates. Candidates are Pre-Migrated. It then starts the Migration Archiver to force these files out to backing storage. Only after the file has been written to another archive media is the pre-migrated file allowed to be deleted.
- The kernel is modified to allow processes to block until space is made available.
- The space management function should be very flexible to allow site dependent configuration. Different sites may want different selection criteria of which files to migrate.