

HelenOS is an experimental operating system based on microkernel. It's developed by people related to Faculty of Mathematics and Physics at Charles University in Prague. The present implementation is prepared to support a scale of filesystems because of VFS abstraction, but actually only a few of filesystems are supported. Ext4 is modern filesystem, developed Linux kernel developers. The previous releases ext2 and especially ext3 are still very popular in many Linux distributions. Implementation of ext2/3/4 filesystems can be also found in other unix-based operating systems, for example *BSD or OpenSolaris. The main goal of this thesis is to extend HelenOS operating system to support previously mentioned filesystems.