This master thesis deals with the implementation of a connector between FUSE file system drivers and HelenOS native VFS interface. The thesis first describes the way of finding the best solution and the potential possibilities. The low level layer solution is described as the best one. Further the thesis describes the real implementation of the connector. As the implementation of the connector was successful the thesis then describes in detail the parts of the fully functional solution in real-life HelenOS system. With this solution in place almost no changes are necessary to be done neither in FUSE nor in Helenos VFS. The connector implementation is demonstrated on a real-life FUSE file system exFAT ported to HelenOS.