

This thesis describes the primary goal of the HelenOS microkernel multiserver operating system. The primary goal of the HelenOS project is to create a comprehensive research and development platform in the domain of general-purpose operating systems that would support state-of-the-art approaches and methods (such as verification of correctness) while at the same time focusing on practical relevance. The text of the thesis describes what specific means in terms of design (based on software components), implementation, development process and verification are used to achieve the primary goal. The thesis also evaluates the current state of HelenOS.