

Overview of Process Management in Operating Systems

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Abstract: *Process management is a fundamental aspect of operating systems that ensures efficient execution, scheduling, and coordination of multiple processes. It involves creating, executing, suspending, and terminating processes while managing system resources such as CPU time and memory. The operating system maintains various process states—New, Ready, Running, Waiting, and Terminated—to track process execution. Key components of process management include process scheduling, context switching, and inter-process communication (IPC), all of which contribute to system responsiveness and multitasking. Efficient process management enhances overall system performance, optimizing resource utilization and enabling smooth concurrent execution of applications.*

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