

Assignment 120: How does the Linux OS know if we have registered a signal or not?

The Linux operating system keeps track of registered signals and their associated handlers through the use of data structures and kernel mechanisms. When a signal is registered using the "signal" function or similar methods, the kernel updates its internal data structures to associate the signal with the provided signal handler function.

The kernel maintains a list of registered signal handlers for each signal. When a signal is sent to a process, the kernel checks its list of registered handlers for that signal. If there is a handler registered, the kernel invokes the associated handler function. If no handler is registered, the kernel uses the default behavior for the signal, which may involve terminating the process, sending a core dump, or ignoring the signal.

In this way, the Linux kernel is aware of registered signal handlers and can properly handle them when a signal is received by a process.