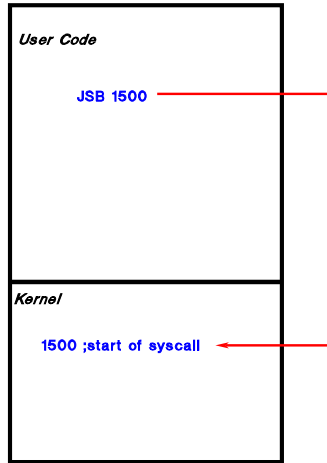
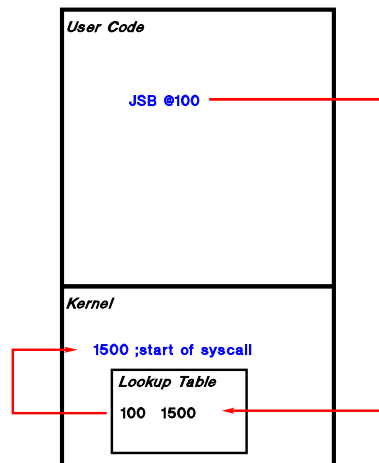


## System Calls Using Subroutines



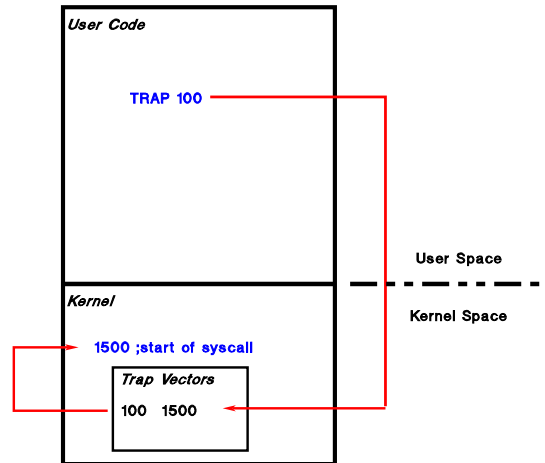
TRAP010

## System Calls Using Lookup Tables



TRAP020

## System Calls Using the Trap Instruction



TRAP030

## Traps and Interrupts and Exceptions (Oh my!)

Trap – caused by executing a "trap" instruction. Used to perform system calls. Also called a "syscall" or "synchronous trap."

Interrupt – caused by a hardware device when it needs service. Also called an "asynchronous trap."

Exception – caused when an illegal operation is attempted.

With all three, the processor response is the same – an "indirect subroutine call" through the vector table, along with a change from user to kernel mode.

TRAP040