Ring of UNIX processes using named pipes for concurrency studies

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The process management calls and the names pipe (FIFO) facility of UNIX system have been used to implement a virtual ring. Each node is simulated by a process which communicates with its neighbors via named pipes. One node, designated the monitor, can accept input from the keyboard, thus allowing a user to interact with the ring. A user can change the ring configuration dynamically by adding and deleting nodes. Furthermore, any node can be asked to execute a program. The ring can be used to implement and study various mutual exclusion and synchronization algorithms.