

SEMINAR 11

FILE DESCRIPTOR COPIES AND UNNAMED PIPES

FCNTL PROVIDES COMMANDS
F_DUPFD AND **F_DUPFD_CLOEXEC**
TO CREATE **COPIES** OF FILE DESCRIPTORS

SYSCALLS

DUP AND DUP2

OFFER A MORE CONVENIENT WAY

```
int dup(int oldfd);  
int dup2(int oldfd, int newfd);  
int dup3(int oldfd, int newfd, int flags);
```

DEMO

**REDIRECTING IO
FROM / TO FILE**

UNNAMED PIPE
IS SIMILAR TO |
IN SH

**PIPE IS UNIDIRECTIONAL
COMMUNICATION CHANNEL**

PIPE HAS A BUFFER
WITH DEFAULT SIZE OF 64 KB


```
int pipe_fds[2] = {};  
pipe(pipe_fds);
```

```
// now pipe_fds[0] is for read  
//      pipe_fds[1] is for write
```

WHEN WORKING WITH
PIPES AND FD COPIES
WE SHOULD BE AWARE
OF POSSIBLE DEADLOCK

DEMO