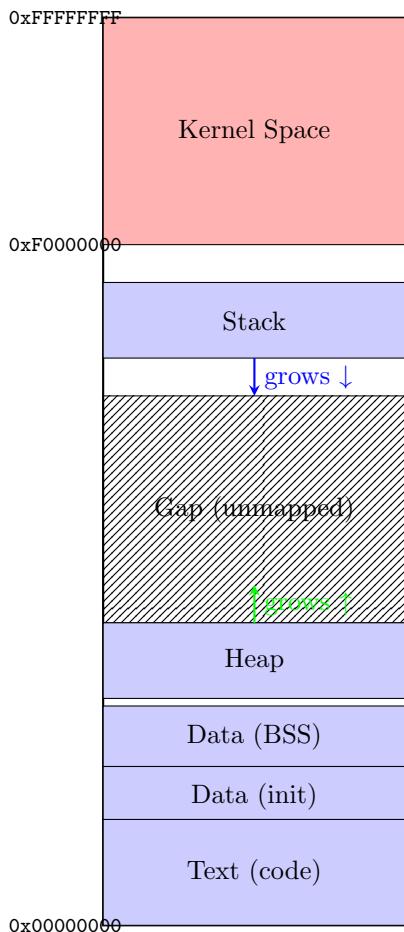


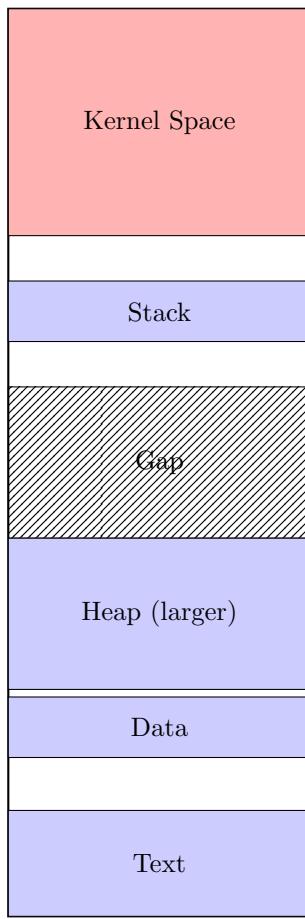
# MINIX Virtual Memory Layout

32-bit Address Space Organization

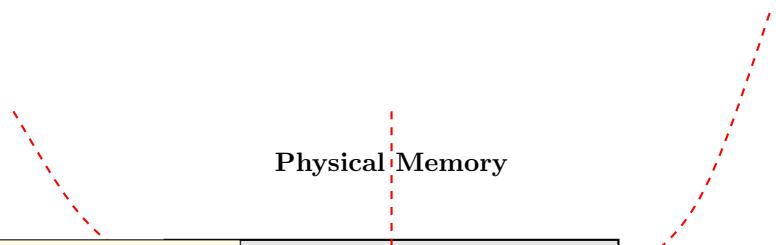
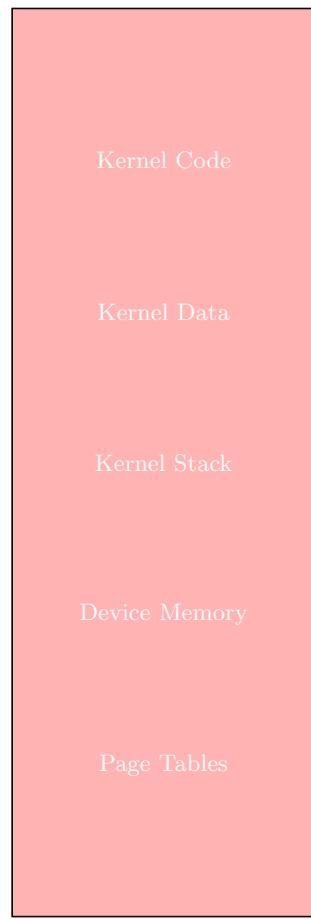
Process 1



Process 2



Kernel Process



## Segment Purposes

- Text:** Executable code (read-only)
- Data:** Initialized globals
- BSS:** Uninitialized globals
- Heap:** Dynamic allocation (malloc)
- Stack:** Local variables, call frames

## Physical Memory

## Address Translation

Actual  
Virtual Address → Page Table → Physical Address  
Each process sees full 4GB space  
Kernel space mapped identically in all processes

## Protection Levels:

Kernel (Ring 0)

User (Ring 3)