



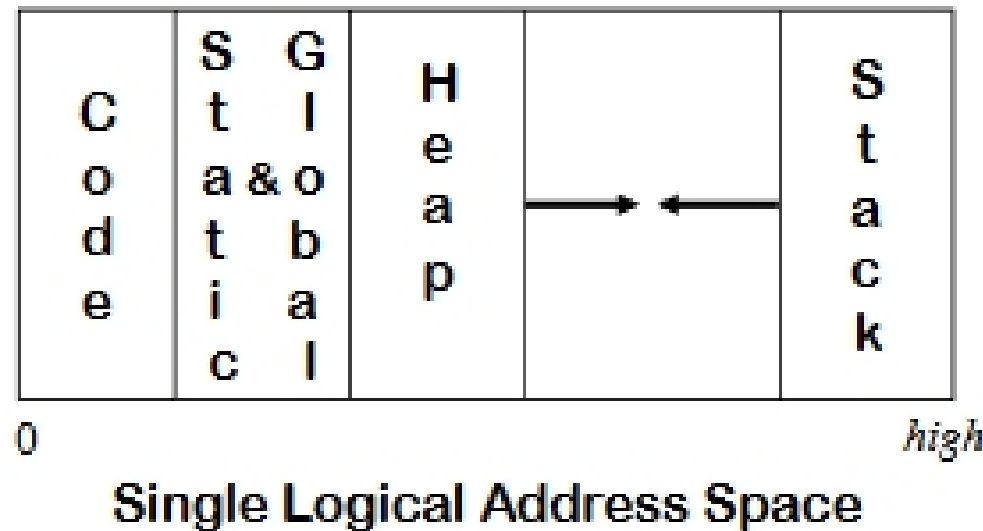
# The Procedure Abstraction

## Part III: Allocating Storage & Establishing Addressability



# Placing Run-time Data Structures

## Classic Organization



- Better utilization if stack & heap grow toward each other
- Very old result (Knuth)
- Code & data separate or interleaved
- Uses address space, not allocated memory

- Code, static, & global data have known size
  - Use symbolic labels in the code
- Heap & stack both grow & shrink over time
- This is a virtual address space



# How Does This Really Work?

## The Big Picture

