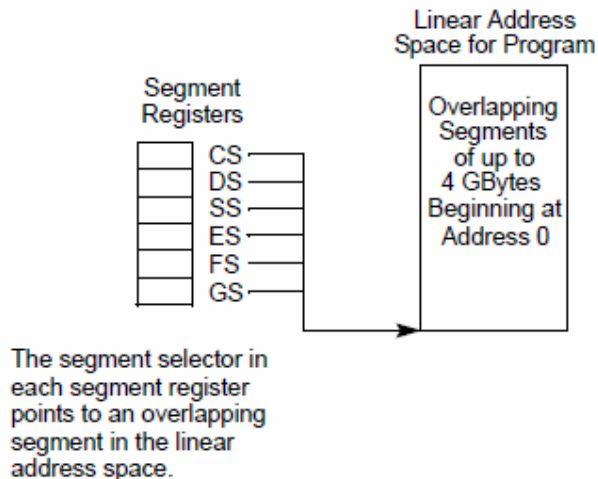


33. Flat vs. Segmented Memory Model

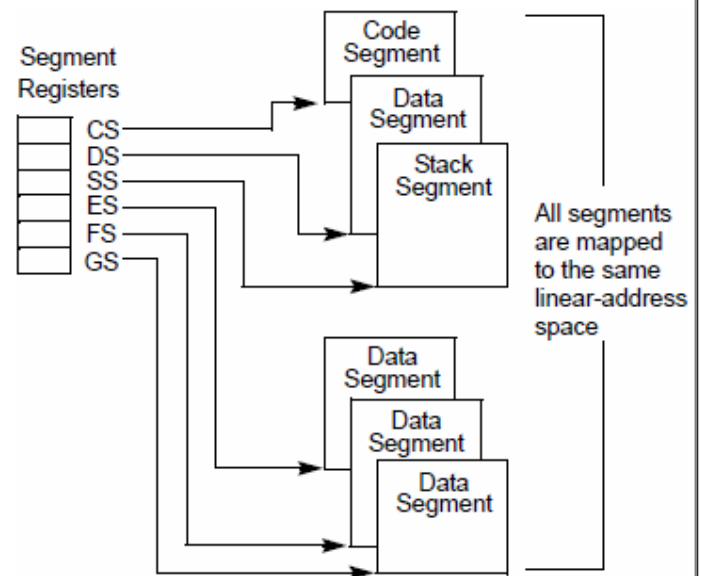
32 and 64-bit Intel systems using a **flat memory model**:



The segment selector in each segment register points to an overlapping segment in the linear address space.

Use of Segment Registers for Flat Memory Model

Segmented memory is preferred model on 16-bit systems as it allows for flexibility in memory allocation and can also prevent buffer overruns:



Use of Segment Registers in Segmented Memory Model