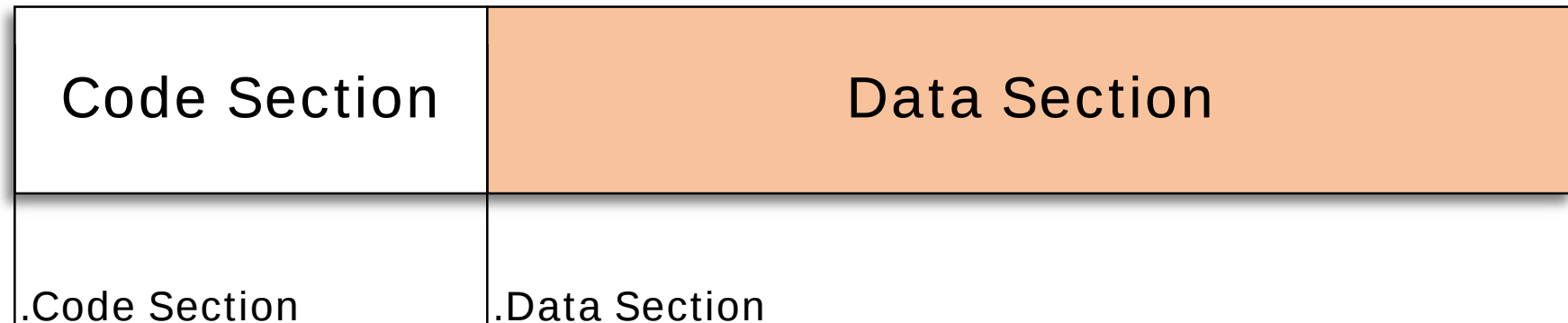


Memory Map



Since Breakpoint can be manipulated by program, or bypassed by jumping beyond BP into Data Section (hard to do in high level languages) Hardware DEP maps all memory Code / Data (Like user / kernel) and interrupts the OS if Instruction Pointer enters Data Memory area.

Ring 0 (kernel mode) interrupt cannot be programmatically changed by user mode program. Illegal Operation interrupt would be called if it tried.

Software DEP inserts Breakpoint here.

Pseudo Code

```
.Code Section
Begin
    Decode (Data Section)
    Jump [past end]
End

.past end

.Data Section
```