Protected-Mode Address Translation

- CPU
- Segment Translation
- Linear Address
- Page Translation
- Physical Address
- RAM

Logical Address:
16
Selector
Offset

GDT/LDT
Base Limit Flags

CR3
Page Directory

Physical Address:
20
PPN Offset

Page Table

Logical Address: 32
Linear Address: 10 10 12
Physical Address: 20 12

PPN Flags

31
121110 9 8 7 6 5 4 3 2 1 0
Physical Page Number

Page table and page directory entries are identical except for the D bit.

- P - Present
- W - Writable
- U - User
- WT - 1=Write-through, 0=Write-back
- CD - Cache Disabled
- A - Accessed
- D - Dirty (0 in page directory)
- AVL - Available for system use