

4-level paging for both 32-bit and 64-bit

► 64-bit: four-level paging

1. Page Global Directory
2. Page Upper Directory
3. Page Middle Directory
4. Page Table

► 32-bit: two-level paging

1. Page Global Directory
2. Page Upper Directory — 0 bits; 1 entry
3. Page Middle Directory — 0 bits; 1 entry
4. Page Table

The same code can work on 32-bit and 64-bit architectures

| Arch | Page size | Address bits | Paging levels | Address splitting |
|---------|-------------|--------------|---------------|----------------------|
| x86 | 4KB(12bits) | 32 | 2 | 10 + 0 + 0 + 10 + 12 |
| x86-PAE | 4KB(12bits) | 32 | 3 | 2 + 0 + 9 + 9 + 12 |
| x86-64 | 4KB(12bits) | 48 | 4 | 9 + 9 + 9 + 9 + 12 |