FT64 Paged Memory Management Unit

Pages are 8kB in size. Each page contains 1024, 64-bit entries.

# Page Table Entry

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31 16 | | 15 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| Physical Address28..13 | | PL | D | U | S | A | C | R | W | X |
| ~13 | Physical Address47..29 | | | | | | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Bit |  |  | |  |
| 0 | X | 1 = executable | Together these three fields combined indicate if the page is present. It must be at least one of readable, writeable, or executable. | |
| 1 | W | 1 = page writeable |
| 2 | R | 1 = readable |
| 3 | C | 1 = cache disabled | |  |
| 4 | A | 1 = accessed | |  |
| 5 | S | 1 = shortcut translation | | Translation shortcut bit eg (8Mib pages) |
| 6 | U | undefined usage | |  |
| 7 | D | 1=dirty | |  |
| 8 to 15 | PL | Privilege level | |  |
| 16 to 31 | PA | Physical Address bits Physical Address bits 13 to 47 | |  |
| 32 to 50 |  |

# Page Directory Entry

Page directory entries have the same format as page table entries.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31 16 | | 15 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| Physical Address28..13 | | PL | D | U | S | A | C | R | W | X |
| ~13 | Physical Address47..29 | | | | | | | | | |