## DIRECT EXTENT TABLE:

**FDT/DDT Offset 5 – Extent Allocation Type = 0**

| | SECTOR INDEX | EXTENT ADDRESS |
|---|---|---|
| FDT/DDT Offset 128: | Extent 0 – Start Sector = 0 | Extent 0 – LBA |
| FDT/DDT Offset 136: | Extent 1 – Start Sector | Extent 1 – LBA |
| FDT/DDT Offset 144: | Extent 2 – Start Sector | Extent 2 – LBA |
| FDT/DDT Offset 152: | Extent 3 – Start Sector | Extent 3 – LBA |
| FDT/DDT Offset 160: | Extent 4 – Start Sector | Extent 4 – LBA |
| FDT/DDT Offset 168: | Extent 5 – Start Sector | Extent 5 – LBA |
| FDT/DDT Offset 176: | Extent 6 – Start Sector | Extent 6 – LBA |
| FDT/DDT Offset 184: | Extent 7 – Start Sector | Extent 7 – LBA |
| ..... | ..... | ..... |
| FDT/DDT Offset 224: | Extent 12 – Start Sector | Extent 12 – LBA |
| FDT/DDT Offset 232: | Extent 13 – Start Sector | Extent 13 – LBA |
| FDT/DDT Offset 240: | Extent 14 – Start Sector | Extent 14 – LBA |
| FDT/DDT Offset 248: | Extent 15 – Start Sector | Extent 15 – LBA |

## INDIRECT EXTENT TABLE:

**FDT/DDT Offset 5 – Extent Allocation Type = 1**

| | INDIRECT SECTOR INDEX | DIRECT EXTENT TABLE ADDRESS |
|---|---|---|
| FDT/DDT Offset 128: | Direct Table 1 – Start Sector = 0 | Direct Table 1 – LBA |
| FDT/DDT Offset 136: | Direct Table 2 – Start Sector | Direct Table 2 – LBA |
| FDT/DDT Offset 144: | Direct Table 3 – Start Sector | Direct Table 3 – LBA |
| FDT/DDT Offset 152: | Direct Table 4 – Start Sector | Direct Table 4 – LBA |
| ..... | ..... | ..... |
| FDT/DDT Offset 232: | Direct Table 14 – Start Sector | Direct Table 14 – LBA |
| FDT/DDT Offset 240: | Direct Table 15 – Start Sector | Direct Table 15 – LBA |
| FDT/DDT Offset 248: | Direct Table 16 – Start Sector | Direct Table 16 – LBA |

## DOUBLE INDIRECT EXTENT TABLE:

**FDT/DDT Offset 5 – Extent Allocation Type = 2**

| | DOUBLE INDIRECT SECTOR INDEX | DIRECT EXTENT TABLE ADDRESS |
|---|---|---|
| FDT/DDT Offset 128: | Indirect Table 1 – Start Sector = 0 | Indirect Table 1 – LBA |
| FDT/DDT Offset 136: | Indirect Table 2 – Start Sector | Indirect Table 2 – LBA |
| FDT/DDT Offset 144: | Indirect Table 3 – Start Sector | Indirect Table 3 – LBA |
| FDT/DDT Offset 152: | Indirect Table 4 – Start Sector | Indirect Table 4 – LBA |
| ..... | ..... | ..... |
| FDT/DDT Offset 232: | Indirect Table 14 – Start Sector | Indirect Table 14 – LBA |
| FDT/DDT Offset 240: | Indirect Table 15 – Start Sector | Indirect Table 15 – LBA |
| FDT/DDT Offset 248: | Indirect Table 16 – Start Sector | Indirect Table 16 – LBA |

**NOTES:**

- If the extent (starting sector) address is 0, it means the end of the file.
- There are at most 16 direct extents, each containing at least 1 consecutive sector.
- An extent is pointed to using 2 dwords. The 1st is for the starting sector sequence (index) number and the 2nd is for the starting sector address of the extent.
- An empty extent contains zero in it's pointers (at least the address).
- Extents are designed using the sector unit, not the cluster. (Extents are already variable-sized clusters. They contain consecutive sectors.)
- Using the starting sector address instead of the sector count makes it a bit easier to check if the sector is in extent. (This is why sector counts are not used in the table.)
- An indirect extent table contains 512/8 = 64 pairs of direct extent (dword) pointers.
- It is possible to use 1024 extents with indirect extent tables. (16*64)
- A double indirect extent table contains 512/8 = 64 pairs of indirect table (dword) pointers.
- It is possible to use 65536 extents with double indirect extent tables. (16*64*64)

**TRIPLE INDIRECT EXTENT TABLE:**

**FDT/DDT Offset 5 – Extent Allocation Type = 3**

| | TRIPLE INDIRECT SECTOR INDEX | INDIRECT EXTENT TABLE ADDRESS |
|---|---|---|
| FDT/DDT Offset 128: | Double Indirect Table 1 – Start Sector = 0 | Double Indirect Table 1 – LBA |
| FDT/DDT Offset 136: | Double Indirect Table 2 – Start Sector | Double Indirect Table 2 – LBA |
| FDT/DDT Offset 144: | Double Indirect Table 3 – Start Sector | Double Indirect Table 3 – LBA |
| FDT/DDT Offset 152: | Double Indirect Table 4 – Start Sector | Double Indirect Table 4 – LBA |
| ..... | ..... | ..... |
| FDT/DDT Offset 232: | Double Indirect Table 14 – Start Sector | Double Indirect Table 14 – LBA |
| FDT/DDT Offset 240: | Double Indirect Table 15 – Start Sector | Double Indirect Table 15 – LBA |
| FDT/DDT Offset 248: | Double Indirect Table 16 – Start Sector | Double Indirect Table 16 – LBA |

* It is possible to use 1048576 extents with triple indirect extent tables. (16*64*64*64)