- Boot sector: contain volume’s information, first sector

|  |  |  |
| --- | --- | --- |
| Offset | Size | Description |
| 00 | 8 | String “ AKCMTU ” |
| 08 | 4 | Bytes per sector |
| 0C | 4 | Sector per cluster |
| 10 | 8 | Total sector |
| 18 | 4 | Sector begins of Cluster manager |
| 1C | 4 | Cluster begins of RDET |
| 20 | 48 | String “Copyright belong to Anh Khoa vs Cong Minh vs Minh Tu” |
| 54 | 2 | End Marker 55 AA |

- Cluster manager: sequence bit represent cluster in use (0 mean free, 1 mean occupation), size 1 sector.

- RDET: about 12.5 % volume

Header

|  |  |  |
| --- | --- | --- |
| Offset | Size | Description |
| 00 | 1 | Flag: 1 means file is using, 2 mean folder is using, E5 means death |
| 01 | 3 | String “KMT” |
| 04 | 4 | Number of entries |
| 08 | 8 | Sector of Entry’s parent (00 00 00 00 00 00 00 00 when it is root) |
| 10 | 8 | Sector of next Entry (FF FF FF FF FF FF FF FF when it is the last entry) |
| 18 | 8 | Sector of parent folder (00 00 00 00 00 00 00 00 when it belongs to root folder) |
| 20 | 4 | Offset of first attribute |
| 24 | 4 | Raw bytes |

Attributes:

Attribute type

|  |  |
| --- | --- |
| Attribute type | Description |
| 10 00 00 00 | File name attribute |
| 20 00 00 00 | Security attribute |
| 30 00 00 00 | Data attribute (just for file) |
| 40 00 00 00 | List file name (or folder) in this folder (just for folder) |
| FF FF FF FF | End Marker |

Attribute header

|  |  |  |
| --- | --- | --- |
| Offset | Size | Description |
| 00 | 4 | Attribute type |
| 04 | 4 | Attribute length |
| 08 | 1 | Flag: 0 mean resident, 1 mean non-resident |
| 09 | 7 | Raw byte |

File name attribute

|  |  |  |
| --- | --- | --- |
| Offset | Size | Description |
| ~~ |  | Attribute header |
| 00 | 8 | File time creation |
| 08 | 8 | File time update |
| 10 | 8 | Sector of base entry |
| 18 | 4 | Length of file name (L) |
| 1C | 4 | Offset of file name (S) |
| 20 | 4 | Size of file |
| S | L | File Name |
| L + S |  | Raw byte to align to 8 bytes |

Security attribute

|  |  |  |
| --- | --- | --- |
| Offset | Size | Description |
| ~~ |  | Attribute header |
| 00 | 4 | Length of pass (L) |
| 04 | 4 | Offset of pass (S) |
| L | S | Pass |
| L + S |  | Raw byte to align to 8 bytes |

Data Attribute

|  |  |  |
| --- | --- | --- |
| Offset | Size | Description |
| ~~ |  | Attribute header |
| 00 | 4 | Length of data run (L) |
| 04 | 4 | Offset of data run (S) |
| L | S | Data run |
| L + S |  | Raw byte to align to 8 bytes |

List file name (or folder) in this folder

|  |  |  |
| --- | --- | --- |
| Offset | Size | Description |
| ~~ |  | Attribute header |
| 00 | 4 | Length of data run (L) |
| 04 | 4 | Offset of data run (S) |
| 08 | 4 | Number of file (or subfolder) |
| L | S | File name attribute of files (or subfolder) |
| L + S |  | Raw byte to align to 8 bytes |