

# 主引导扇区

位于磁盘的第一个扇区，占据512个字节的空間，由三个部分组成：

- 1. 引导程序MBR：位于主引导扇区的前446个字节，是一段代码，它会在计算机启动时被加载到内存，并执行。引导程序的主要作用是找到操作系统的引导文件，并将控制权交给它。
- 2. 分区表DPT：位于主引导扇区的第446到第510个字节，用于描述磁盘的分区情况。主引导扇区最多可以记录四个主分区，或者三个主分区和一个扩展分区。每个分区表项占据16个字节，这16个字节中存有活动状态标志、文件系统标识、起止柱面号、磁头号、扇区号、隐含扇区数目(4个字节)、分区总扇区数目(4个字节)等内容。
- 3. 结束标志：位于主引导扇区的最后两个字节，用于标识主引导扇区的有效性，0x55AA。

## Winhex

### 主引导扇区

| Offset     | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0000000000 | FA | 31 | C0 | 8E | D8 | 8E | C0 | 8E | D0 | BC | 00 | 7C | FB | FC | 89 | E6 |
| 0000000010 | BF | 00 | 06 | B9 | 00 | 01 | F3 | A5 | EA | DC | 06 | 00 | 00 | 10 | 00 | 01 |
| 0000000020 | 00 | 00 | 7C | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 80 | 3F | 00 |
| 0000000030 | FF | 00 | FF | 03 | 1E | 0E | 1F | 3A | 16 | 10 | 00 | 74 | 06 | 1F | EA | 36 |
| 0000000040 | E7 | 00 | F0 | 3D | FB | 54 | 75 | 05 | 8C | D8 | FB | EB | 1D | 80 | FC | 08 |
| 0000000050 | 75 | 1B | E8 | 81 | 00 | 8A | 36 | 13 | 00 | FE | CE | 8B | 0E | 15 | 00 | 86 |
| 0000000060 | CD | C0 | E1 | 06 | 0A | 0E | 11 | 00 | 31 | C0 | F8 | EB | 65 | 80 | FC | 02 |
| 0000000070 | 72 | CB | 80 | FC | 04 | 77 | C6 | 60 | 80 | CC | 40 | 50 | BE | 00 | 00 | C7 |
| 0000000080 | 04 | 10 | 00 | 30 | E4 | 89 | 44 | 02 | 89 | 5C | 04 | 8C | 44 | 06 | 66 | 31 |
| 0000000090 | C0 | 66 | 89 | 44 | 0C | 88 | F0 | F6 | 26 | 11 | 00 | 88 | CF | 88 | EB | C0 |
| 00000000A0 | EF | 06 | 81 | E1 | 3F | 00 | 01 | C8 | 48 | 89 | C7 | A1 | 13 | 00 | F7 | 26 |
| 00000000B0 | 11 | 00 | F7 | E3 | 01 | F8 | 81 | D2 | 00 | 00 | 89 | 44 | 08 | 89 | 54 | 0A |
| 00000000C0 | 58 | 30 | C0 | 8A | 16 | 10 | 00 | E8 | 0C | 00 | 88 | 26 | 03 | 00 | 61 | A1 |
| 00000000D0 | 02 | 00 | 1F | CA | 02 | 00 | 9C | FF | 1E | 22 | 00 | C3 | 80 | FA | 8F | 7F |
| 00000000E0 | 04 | 88 | 16 | 2D | 06 | BE | 87 | 07 | E8 | 8D | 00 | BE | BE | 07 | 31 | C0 |
| 00000000F0 | B9 | 04 | 00 | F6 | 04 | 80 | 74 | 03 | 40 | 89 | F5 | 81 | C6 | 10 | 00 | E2 |
| 0000000100 | F2 | 48 | 74 | 02 | CD | 18 | BF | 05 | 00 | BE | 1D | 06 | C7 | 44 | 02 | 01 |
| 0000000110 | 00 | 66 | 8B | 46 | 08 | 66 | 89 | 44 | 08 | B8 | 00 | 42 | 8A | 16 | 2D | 06 |
| 0000000120 | CD | 13 | 73 | 0D | 4F | 74 | 49 | 30 | E4 | 8A | 16 | 2D | 06 | CD | 13 | EB |
| 0000000130 | D8 | A1 | FE | 7D | 3D | 55 | AA | 75 | 37 | FA | 66 | A1 | 4C | 00 | 66 | A3 |
| 0000000140 | 3F | 06 | BE | 13 | 04 | 8B | 04 | 48 | 89 | 04 | C1 | E0 | 06 | 8E | C0 | 31 |
| 0000000150 | FF | BE | 1D | 06 | B9 | 60 | 00 | FC | F3 | A5 | C7 | 06 | 4C | 00 | 17 | 00 |
| 0000000160 | A3 | 4E | 00 | FB | 8A | 16 | 2D | 06 | 89 | EE | FA | EA | 00 | 7C | 00 | 00 |
| 0000000170 | BE | AA | 07 | E8 | 02 | 00 | EB | FE | AC | 20 | C0 | 74 | 09 | B4 | 0E | BB |
| 0000000180 | 07 | 00 | CD | 10 | EB | F2 | C3 | 53 | 74 | 61 | 72 | 74 | 20 | 62 | 6F | 6F |
| 0000000190 | 74 | 69 | 6E | 67 | 20 | 66 | 72 | 6F | 6D | 20 | 55 | 53 | 42 | 20 | 64 | 65 |
| 00000001A0 | 76 | 69 | 63 | 65 | 2E | 2E | 2E | 0D | 0A | 00 | 42 | 6F | 6F | 74 | 20 | 66 |
| 00000001B0 | 61 | 69 | 6C | 65 | 64 | 00 | 00 | 00 | CE | 76 | 28 | DA | 00 | 00 | 80 | 20 |
| 00000001C0 | 21 | 00 | 07 | D5 | 89 | 8C | 00 | 08 | 00 | 00 | 00 | 00 | A0 | 00 | 00 | D6 |
| 00000001D0 | 8B | 8C | 07 | FE | FF | FF | 40 | 08 | A0 | 00 | 81 | 0F | A0 | 00 | 00 | FE |
| 00000001E0 | FF | FF | 07 | FE | FF | FF | 00 | 18 | 40 | 01 | 00 | 08 | A0 | 00 | 00 | FE |
| 00000001F0 | FF | FF | 0F | FE | FF | FF | 00 | 20 | E0 | 01 | 00 | E0 | BF | 0D | 55 | AA |

分区表

主引导扇区偏移446字节

|            |   |
|------------|---|
| 00000001B0 | 61 69 6C 65 64 00 00 00 CE 76 28 DA 00 00 80 20 |
| 00000001C0 | 21 00 07 D5 89 8C 00 08 00 00 00 00 A0 00 00 D6 |
| 00000001D0 | 8B 8C 07 FE FF FF 40 08 A0 00 81 0F A0 00 00 FE |
| 00000001E0 | FF FF 07 FE FF FF 00 18 40 01 00 08 A0 00 00 FE |
| 00000001F0 | FF FF 0F FE FF FF 00 20 E0 01 00 E0 BF 0D 55 AA |

| *分区* | *起始位置*                    | *大小*     |
|------|---------------------------|----------|
| 主分区1 | 00000800, 起始扇区数: 2048     | 00A00000 |
| 主分区2 | 00A00840, 起始扇区数: 10487872 | 00A00F81 |
| 主分区3 | 01401800, 起始扇区数: 20977664 | 00A00800 |
| 扩展分区 | 01E02000, 起始扇区数: 31465472 | 0DBFE000 |

主分区

主分区1

| Offset     | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  | ANSI ASCII       |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------------------|
| 0000100000 | EB | 52 | 90 | 4E | 54 | 46 | 53 | 20 | 20 | 20 | 00 | 02 | 08 | 00 | 00 | 00 | NTFS             |
| 0000100010 | 00 | 00 | 00 | 00 | 00 | F8 | 00 | 00 | 3F | 00 | FF | 00 | 00 | 08 | 00 | 00 | ø ? ý            |
| 0000100020 | 00 | 00 | 00 | 00 | 80 | 00 | 80 | 00 | FF | FF | 9F | 00 | 00 | 00 | 00 | 00 | € € ýý           |
| 0000100030 | 00 | 00 | 0C | 00 | 00 | 00 | 00 | 00 | 02 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |                  |
| 0000100040 | F6 | 00 | 00 | 00 | 01 | 00 | 00 | 00 | C2 | F2 | D0 | A5 | 40 | 5A | 58 | 1F | ö Åð¥@ZX         |
| 0000100050 | 00 | 00 | 00 | 00 | FA | 33 | C0 | 8E | D0 | BC | 00 | 7C | FB | 68 | C0 | 07 | ú3ÀŽĐ¼  ûhÀ      |
| 0000100060 | 1F | 1E | 68 | 66 | 00 | CB | 88 | 16 | 0E | 00 | 66 | 81 | 3E | 03 | 00 | 4E | hf È^ f > N      |
| 0000100070 | 54 | 46 | 53 | 75 | 15 | B4 | 41 | BB | AA | 55 | CD | 13 | 72 | 0C | 81 | FB | TFSu 'A»^UÍ r û  |
| 0000100080 | 55 | AA | 75 | 06 | F7 | C1 | 01 | 00 | 75 | 03 | E9 | DD | 00 | 1E | 83 | EC | U^u ÷Á u éÝ fì   |
| 0000100090 | 18 | 68 | 1A | 00 | B4 | 48 | 8A | 16 | 0E | 00 | 8B | F4 | 16 | 1F | CD | 13 | h 'HŠ <ô í       |
| 00001000A0 | 9F | 83 | C4 | 18 | 9E | 58 | 1F | 72 | E1 | 3B | 06 | 0B | 00 | 75 | DB | A3 | ŸfĂ ŽX rá; uŬ£   |
| 00001000B0 | 0F | 00 | C1 | 2E | 0F | 00 | 04 | 1E | 5A | 33 | DB | B9 | 00 | 20 | 2B | C8 | Á. Z3Ŭ^ +È       |
| 00001000C0 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF | 06 | 16 | 00 | E8 | fŸ ŽĂŸ è         |
| 00001000D0 | 4B | 00 | 2B | C8 | 77 | EF | B8 | 00 | BB | CD | 1A | 66 | 23 | C0 | 75 | 2D | K +Èwì, »Í f#Àu- |
| 00001000E0 | 66 | 81 | FB | 54 | 43 | 50 | 41 | 75 | 24 | 81 | F9 | 02 | 01 | 72 | 1E | 16 | f ûTCFAu\$ ù r   |
| 00001000F0 | 68 | 07 | BB | 16 | 68 | 70 | 0E | 16 | 68 | 09 | 00 | 66 | 53 | 66 | 53 | 66 | h » hp h fSfSf   |

主分区2

| Offset     | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  | v            | ANSI ASCII   |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|--------------|
| 0140108000 | E8 | 52 | 90 | 4E | 54 | 46 | 53 | 20 | 20 | 20 | 20 | 00 | 02 | 08 | 00 | 00 | ËR           | NTFS         |
| 0140108010 | 00 | 00 | 00 | 00 | 00 | F8 | 00 | 00 | 3F | 00 | FF | 00 | 40 | 00 | 00 | 00 | ø ? ý @      |              |
| 0140108020 | 00 | 00 | 00 | 00 | 80 | 00 | 80 | 00 | 80 | 0F | A0 | 00 | 00 | 00 | 00 | 00 | € € €        |              |
| 0140108030 | 00 | 00 | 04 | 00 | 00 | 00 | 00 | 00 | 02 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |              |              |
| 0140108040 | F6 | 00 | 00 | 00 | 01 | 00 | 00 | 00 | E3 | 03 | 79 | 5C | 6C | 06 | F3 | F4 | ö            | ã y\l óô     |
| 0140108050 | 00 | 00 | 00 | 00 | FA | 33 | C0 | 8E | D0 | BC | 00 | 7C | FB | 68 | C0 | 07 |              | ú3ÀŽĐ¼  ûhÀ  |
| 0140108060 | 1F | 1E | 68 | 66 | 00 | CB | 88 | 16 | 0E | 00 | 66 | 81 | 3E | 03 | 00 | 4E | hf           | Ë^ f > N     |
| 0140108070 | 54 | 46 | 53 | 75 | 15 | B4 | 41 | BB | AA | 55 | CD | 13 | 72 | 0C | 81 | FB | TFSu         | 'A»^UÍ r û   |
| 0140108080 | 55 | AA | 75 | 06 | F7 | C1 | 01 | 00 | 75 | 03 | E9 | DD | 00 | 1E | 83 | EC | U^u ÷Á       | u éÝ fì      |
| 0140108090 | 18 | 68 | 1A | 00 | B4 | 48 | 8A | 16 | 0E | 00 | 8B | F4 | 16 | 1F | CD | 13 | h            | 'HŠ <ô Í     |
| 01401080A0 | 9F | 83 | C4 | 18 | 9E | 58 | 1F | 72 | E1 | 3B | 06 | 0B | 00 | 75 | DB | A3 | ŸfÃ ŽX rá;   | uÛž          |
| 01401080B0 | 0F | 00 | C1 | 2E | 0F | 00 | 04 | 1E | 5A | 33 | DB | B9 | 00 | 20 | 2B | C8 | Á.           | Z3Û^ +È      |
| 01401080C0 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF | 06 | 16 | 00 | E8 | fÿ           | ŽÃÿ è        |
| 01401080D0 | 4B | 00 | 2B | C8 | 77 | EF | B8 | 00 | BB | CD | 1A | 66 | 23 | C0 | 75 | 2D | K +Èwì,      | »í f#Àu-     |
| 01401080E0 | 66 | 81 | FB | 54 | 43 | 50 | 41 | 75 | 24 | 81 | F9 | 02 | 01 | 72 | 1E | 16 | f            | ûTCFAu\$ ù r |
| 01401080F0 | 68 | 07 | BB | 16 | 68 | 70 | 0E | 16 | 68 | 09 | 00 | 66 | 53 | 66 | 53 | 66 | h            | » hp h fsfsf |
| 0140108100 | 55 | 16 | 16 | 16 | 68 | B8 | 01 | 66 | 61 | 0E | 07 | CD | 1A | 33 | C0 | BF | U            | h, fa í 3À¿  |
| 0140108110 | 28 | 10 | B9 | D8 | 0F | FC | F3 | AA | E9 | 5F | 01 | 90 | 90 | 66 | 60 | 1E | (            | ¹ø üó^é_ f`  |
| 0140108120 | 06 | 66 | A1 | 11 | 00 | 66 | 03 | 06 | 1C | 00 | 1E | 66 | 68 | 00 | 00 | 00 | f;           | f fh         |
| 0140108130 | 00 | 66 | 50 | 06 | 53 | 68 | 01 | 00 | 68 | 10 | 00 | B4 | 42 | 8A | 16 | 0E | fP           | Sh h 'BŠ     |
| 0140108140 | 00 | 16 | 1F | 8B | F4 | CD | 13 | 66 | 59 | 5B | 5A | 66 | 59 | 66 | 59 | 1F | <ôí fY[ZfYfY |              |
| 0140108150 | 0F | 82 | 16 | 00 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF | ,            | fÿ ŽÃÿ       |
| 0140108160 | 0E | 16 | 00 | 75 | BC | 07 | 1F | 66 | 61 | C3 | A0 | F8 | 01 | E8 | 09 | 00 | u¼           | faÃ ø è      |
| 0140108170 | A0 | FB | 01 | E8 | 03 | 00 | F4 | EB | FD | B4 | 01 | 8B | F0 | AC | 3C | 00 | û            | è ôëý' <ð-<  |
| 0140108180 | 74 | 09 | B4 | 0E | BB | 07 | 00 | CD | 10 | EB | F2 | C3 | 0D | 0A | 41 | 20 | t            | ' » í ëcÃ A  |
| 0140108190 | 64 | 69 | 73 | 6B | 20 | 72 | 65 | 61 | 64 | 20 | 65 | 72 | 72 | 6F | 72 | 20 | disk         | read error   |
| 01401081A0 | 6F | 63 | 63 | 75 | 72 | 72 | 65 | 64 | 00 | 0D | 0A | 42 | 4F | 4F | 54 | 4D | occurred     | BOOTM        |
| 01401081B0 | 47 | 52 | 20 | 69 | 73 | 20 | 6D | 69 | 73 | 73 | 69 | 6E | 67 | 00 | 0D | 0A | GR           | is missing   |
| 01401081C0 | 42 | 4F | 4F | 54 | 4D | 47 | 52 | 20 | 69 | 73 | 20 | 63 | 6F | 6D | 70 | 72 | BOOTMGR      | is compr     |
| 01401081D0 | 65 | 73 | 73 | 65 | 64 | 00 | 0D | 0A | 50 | 72 | 65 | 73 | 73 | 20 | 43 | 74 | essed        | Press Ct     |
| 01401081E0 | 72 | 6C | 2B | 41 | 6C | 74 | 2B | 44 | 65 | 6C | 20 | 74 | 6F | 20 | 72 | 65 | rl+Alt+Del   | to re        |
| 01401081F0 | 73 | 74 | 61 | 72 | 74 | 0D | 0A | 00 | 8C | A9 | BE | D6 | 00 | 00 | 55 | AA | start        | €€¼Ö U^      |

### 主分区3

| Offset     | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  | ANSI ASCII       |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------------------|
| 0280300000 | EB | 52 | 90 | 4E | 54 | 46 | 53 | 20 | 20 | 20 | 20 | 00 | 02 | 08 | 00 | 00 | NTFS             |
| 0280300010 | 00 | 00 | 00 | 00 | 00 | F8 | 00 | 00 | 3F | 00 | FF | 00 | 00 | 08 | 00 | 00 | ø ? ý            |
| 0280300020 | 00 | 00 | 00 | 00 | 80 | 00 | 80 | 00 | FF | 07 | A0 | 00 | 00 | 00 | 00 | 00 | € € ý            |
| 0280300030 | 00 | 00 | 04 | 00 | 00 | 00 | 00 | 00 | 02 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |                  |
| 0280300040 | F6 | 00 | 00 | 00 | 01 | 00 | 00 | 00 | C2 | 06 | 04 | 4D | A0 | EE | 68 | 93 | ö Â M ìh"        |
| 0280300050 | 00 | 00 | 00 | 00 | FA | 33 | C0 | 8E | D0 | BC | 00 | 7C | FB | 68 | C0 | 07 | ú3ÀŽĐ¼  ûhÀ      |
| 0280300060 | 1F | 1E | 68 | 66 | 00 | CB | 88 | 16 | 0E | 00 | 66 | 81 | 3E | 03 | 00 | 4E | hf È^ f > N      |
| 0280300070 | 54 | 46 | 53 | 75 | 15 | B4 | 41 | BB | AA | 55 | CD | 13 | 72 | 0C | 81 | FB | TFSu 'A»^UÍ r û  |
| 0280300080 | 55 | AA | 75 | 06 | F7 | C1 | 01 | 00 | 75 | 03 | E9 | DD | 00 | 1E | 83 | EC | U^u ÷Á u éý fì   |
| 0280300090 | 18 | 68 | 1A | 00 | B4 | 48 | 8A | 16 | 0E | 00 | 8B | F4 | 16 | 1F | CD | 13 | h 'HŠ <ô í       |
| 02803000A0 | 9F | 83 | C4 | 18 | 9E | 58 | 1F | 72 | E1 | 3B | 06 | 0B | 00 | 75 | DB | A3 | ŸfÄ žX rá; uŮ£   |
| 02803000B0 | 0F | 00 | C1 | 2E | 0F | 00 | 04 | 1E | 5A | 33 | DB | B9 | 00 | 20 | 2B | C8 | Á. Z3Ů¹ +È       |
| 02803000C0 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF | 06 | 16 | 00 | E8 | fÿ ŽÄÿ è         |
| 02803000D0 | 4B | 00 | 2B | C8 | 77 | EF | B8 | 00 | BB | CD | 1A | 66 | 23 | C0 | 75 | 2D | K +Èwî, »Í f#Àu- |
| 02803000E0 | 66 | 81 | FB | 54 | 43 | 50 | 41 | 75 | 24 | 81 | F9 | 02 | 01 | 72 | 1E | 16 | f ûTCFAu\$ ù r   |
| 02803000F0 | 68 | 07 | BB | 16 | 68 | 70 | 0E | 16 | 68 | 09 | 00 | 66 | 53 | 66 | 53 | 66 | h » hp h fsfsf   |
| 0280300100 | 55 | 16 | 16 | 16 | 68 | B8 | 01 | 66 | 61 | 0E | 07 | CD | 1A | 33 | C0 | BF | U h, fa í 3À¿    |
| 0280300110 | 28 | 10 | B9 | D8 | 0F | FC | F3 | AA | E9 | 5F | 01 | 90 | 90 | 66 | 60 | 1E | ( 'ø üó^é_ f'    |
| 0280300120 | 06 | 66 | A1 | 11 | 00 | 66 | 03 | 06 | 1C | 00 | 1E | 66 | 68 | 00 | 00 | 00 | f; f fh          |
| 0280300130 | 00 | 66 | 50 | 06 | 53 | 68 | 01 | 00 | 68 | 10 | 00 | B4 | 42 | 8A | 16 | 0E | fP Sh h 'BŠ      |
| 0280300140 | 00 | 16 | 1F | 8B | F4 | CD | 13 | 66 | 59 | 5B | 5A | 66 | 59 | 66 | 59 | 1F | <óÍ fY[ZfYfY     |
| 0280300150 | 0F | 82 | 16 | 00 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF | , fÿ ŽÄÿ         |
| 0280300160 | 0E | 16 | 00 | 75 | BC | 07 | 1F | 66 | 61 | C3 | A0 | F8 | 01 | E8 | 09 | 00 | u¼ faÄ ø è       |
| 0280300170 | A0 | FB | 01 | E8 | 03 | 00 | F4 | EB | FD | B4 | 01 | 8B | F0 | AC | 3C | 00 | û è ôëý' <ô-<    |
| 0280300180 | 74 | 09 | B4 | 0E | BB | 07 | 00 | CD | 10 | EB | F2 | C3 | 0D | 0A | 41 | 20 | t ' » Í ècÄ A    |
| 0280300190 | 64 | 69 | 73 | 6B | 20 | 72 | 65 | 61 | 64 | 20 | 65 | 72 | 72 | 6F | 72 | 20 | disk read error  |
| 02803001A0 | 6F | 63 | 63 | 75 | 72 | 72 | 65 | 64 | 00 | 0D | 0A | 42 | 4F | 4F | 54 | 4D | occurred BOOTM   |
| 02803001B0 | 47 | 52 | 20 | 69 | 73 | 20 | 6D | 69 | 73 | 73 | 69 | 6E | 67 | 00 | 0D | 0A | GR is missing    |
| 02803001C0 | 42 | 4F | 4F | 54 | 4D | 47 | 52 | 20 | 69 | 73 | 20 | 63 | 6F | 6D | 70 | 72 | BOOTMGR is compr |
| 02803001D0 | 65 | 73 | 73 | 65 | 64 | 00 | 0D | 0A | 50 | 72 | 65 | 73 | 73 | 20 | 43 | 74 | essed Press Ct   |
| 02803001E0 | 72 | 6C | 2B | 41 | 6C | 74 | 2B | 44 | 65 | 6C | 20 | 74 | 6F | 20 | 72 | 65 | rl+Alt+Del to re |
| 02803001F0 | 73 | 74 | 61 | 72 | 74 | 0D | 0A | 00 | 8C | A9 | BE | D6 | 00 | 00 | 55 | AA | start €€¼Ö U^    |

## 扩展分区

|            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 03C04001B0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 20 |
| 03C04001C0 | 21 | 00 | 07 | F5 | A9 | 8C | 00 | 08 | 00 | 00 | 00 | 08 | A0 | 00 | 00 | F5 |    |
| 03C04001D0 | AA | 8C | 05 | FE | FF | FF | 00 | 10 | A0 | 00 | 00 | 10 | A0 | 00 | 00 | 00 |    |
| 03C04001E0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |    |
| 03C04001F0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 55 | AA |

| *分区*   | *起始位置*                     | *大小*     |
|--------|----------------------------|----------|
| 扩展分区1  | 00000800+01E02000=01E02800 | 00A00800 |
| 下一扩展分区 | 00A01000+01E02000=2803000  | 00A01000 |

## 逻辑分区1



| Offset     | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  | ✓ | ANSI ASCII       |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|------------------|
| 03C0500000 | E2 | 52 | 90 | 4E | 54 | 46 | 53 | 20 | 20 | 20 | 20 | 00 | 02 | 08 | 00 | 00 | ✓ | R NTFS           |
| 03C0500010 | 00 | 00 | 00 | 00 | 00 | F8 | 00 | 00 | 3F | 00 | FF | 00 | 00 | 08 | 00 | 00 |   | ø ? ý            |
| 03C0500020 | 00 | 00 | 00 | 00 | 80 | 00 | 80 | 00 | FF | 07 | A0 | 00 | 00 | 00 | 00 | 00 |   | € € ý            |
| 03C0500030 | 00 | 00 | 04 | 00 | 00 | 00 | 00 | 00 | 02 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |   |                  |
| 03C0500040 | F6 | 00 | 00 | 00 | 01 | 00 | 00 | 00 | 8C | 24 | FF | C2 | D4 | 76 | 37 | 38 |   | ö ĞŞÿÂôv78       |
| 03C0500050 | 00 | 00 | 00 | 00 | FA | 33 | C0 | 8E | D0 | BC | 00 | 7C | FB | 68 | C0 | 07 |   | ú3ÀŽĐ¼  ûhÀ      |
| 03C0500060 | 1F | 1E | 68 | 66 | 00 | CB | 88 | 16 | 0E | 00 | 66 | 81 | 3E | 03 | 00 | 4E |   | hf È^ f > N      |
| 03C0500070 | 54 | 46 | 53 | 75 | 15 | B4 | 41 | BB | AA | 55 | CD | 13 | 72 | 0C | 81 | FB |   | TFSu 'A»^UÍ r û  |
| 03C0500080 | 55 | AA | 75 | 06 | F7 | C1 | 01 | 00 | 75 | 03 | E9 | DD | 00 | 1E | 83 | EC |   | U^u ÷Á u éÝ fi   |
| 03C0500090 | 18 | 68 | 1A | 00 | B4 | 48 | 8A | 16 | 0E | 00 | 8B | F4 | 16 | 1F | CD | 13 |   | h 'HŠ <ô í       |
| 03C05000A0 | 9F | 83 | C4 | 18 | 9E | 58 | 1F | 72 | E1 | 3B | 06 | 0B | 00 | 75 | DB | A3 |   | ŸfÄ ŽX rá; uŮε   |
| 03C05000B0 | 0F | 00 | C1 | 2E | 0F | 00 | 04 | 1E | 5A | 33 | DB | B9 | 00 | 20 | 2B | C8 |   | Á. Z3Ů^ +È       |
| 03C05000C0 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF | 06 | 16 | 00 | E8 |   | fÿ ŽÄÿ è         |
| 03C05000D0 | 4B | 00 | 2B | C8 | 77 | EF | B8 | 00 | BB | CD | 1A | 66 | 23 | C0 | 75 | 2D |   | K +Èwì, »Í f#Au- |
| 03C05000E0 | 66 | 81 | FB | 54 | 43 | 50 | 41 | 75 | 24 | 81 | F9 | 02 | 01 | 72 | 1E | 16 |   | f ûTCFAu\$ ù r   |
| 03C05000F0 | 68 | 07 | BB | 16 | 68 | 70 | 0E | 16 | 68 | 09 | 00 | 66 | 53 | 66 | 53 | 66 |   | h » hp h fsfsf   |
| 03C0500100 | 55 | 16 | 16 | 16 | 68 | B8 | 01 | 66 | 61 | 0E | 07 | CD | 1A | 33 | C0 | BF |   | U h, fa í 3Ä;    |
| 03C0500110 | 28 | 10 | B9 | D8 | 0F | FC | F3 | AA | E9 | 5F | 01 | 90 | 90 | 66 | 60 | 1E |   | ( 'ø üó^é_ f`    |
| 03C0500120 | 06 | 66 | A1 | 11 | 00 | 66 | 03 | 06 | 1C | 00 | 1E | 66 | 68 | 00 | 00 | 00 |   | fi f fh          |
| 03C0500130 | 00 | 66 | 50 | 06 | 53 | 68 | 01 | 00 | 68 | 10 | 00 | B4 | 42 | 8A | 16 | 0E |   | fp Sh h 'BŠ      |
| 03C0500140 | 00 | 16 | 1F | 8B | F4 | CD | 13 | 66 | 59 | 5B | 5A | 66 | 59 | 66 | 59 | 1F |   | <ôÍ fY[ZfYfY     |
| 03C0500150 | 0F | 82 | 16 | 00 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF |   | , fÿ ŽÄÿ         |
| 03C0500160 | 0E | 16 | 00 | 75 | BC | 07 | 1F | 66 | 61 | C3 | A0 | F8 | 01 | E8 | 09 | 00 |   | u¼ faÄ ø è       |
| 03C0500170 | A0 | FB | 01 | E8 | 03 | 00 | F4 | EB | FD | B4 | 01 | 8B | F0 | AC | 3C | 00 |   | û è ôëý' <ö- <   |
| 03C0500180 | 74 | 09 | B4 | 0E | BB | 07 | 00 | CD | 10 | EB | F2 | C3 | 0D | 0A | 41 | 20 |   | t ' » í èöÄ A    |
| 03C0500190 | 64 | 69 | 73 | 6B | 20 | 72 | 65 | 61 | 64 | 20 | 65 | 72 | 72 | 6F | 72 | 20 |   | disk read error  |
| 03C05001A0 | 6F | 63 | 63 | 75 | 72 | 72 | 65 | 64 | 00 | 0D | 0A | 42 | 4F | 4F | 54 | 4D |   | occurred BOOTM   |
| 03C05001B0 | 47 | 52 | 20 | 69 | 73 | 20 | 6D | 69 | 73 | 73 | 69 | 6E | 67 | 00 | 0D | 0A |   | GR is missing    |
| 03C05001C0 | 42 | 4F | 4F | 54 | 4D | 47 | 52 | 20 | 69 | 73 | 20 | 63 | 6F | 6D | 70 | 72 |   | BOOTMGR is compr |
| 03C05001D0 | 65 | 73 | 73 | 65 | 64 | 00 | 0D | 0A | 50 | 72 | 65 | 73 | 73 | 20 | 43 | 74 |   | essed Press Ct   |
| 03C05001E0 | 72 | 6C | 2B | 41 | 6C | 74 | 2B | 44 | 65 | 6C | 20 | 74 | 6F | 20 | 72 | 65 |   | rl+Alt+Del to re |
| 03C05001F0 | 73 | 74 | 61 | 72 | 74 | 0D | 0A | 00 | 8C | A9 | BE | D6 | 00 | 00 | 55 | AA |   | start Ğ€¼Ö U^    |

## 下一扩展分区

|            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 05006001B0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 20 |
| 05006001C0 | 21 | 00 | 07 | F5 | A9 | 8C | 00 | 08 | 00 | 00 | 00 | 08 | A0 | 00 | 00 | FE |
| 05006001D0 | FF | FF | 05 | FE | FF | FF | 00 | 20 | 40 | 01 | 00 | 10 | A0 | 00 | 00 | 00 |
| 05006001E0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 05006001F0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 55 | AA |

| *分区*   | *起始位置*                                     | *大小*   |
|--------|--|--------|
| 扩展分区2  | 00000800+2803000=2803800, 起始扇区数: 41957376  | A00800 |
| 下一扩展分区 | 01402000+01E02000=3204000, 起始扇区数: 52445184 | A0083F |

## 逻辑分区2

| Offset     | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  | ✓ | ANSI ASCII       |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|------------------|
| 0500700000 | E5 | 52 | 90 | 4E | 54 | 46 | 53 | 20 | 20 | 20 | 20 | 00 | 02 | 08 | 00 | 00 | ✓ | NTFS             |
| 0500700010 | 00 | 00 | 00 | 00 | 00 | F8 | 00 | 00 | 3F | 00 | FF | 00 | 00 | 08 | 00 | 00 |   | ø ? Ÿ            |
| 0500700020 | 00 | 00 | 00 | 00 | 80 | 00 | 80 | 00 | FF | 07 | A0 | 00 | 00 | 00 | 00 | 00 |   | € € Ÿ            |
| 0500700030 | 00 | 00 | 04 | 00 | 00 | 00 | 00 | 00 | 02 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |   |                  |
| 0500700040 | F6 | 00 | 00 | 00 | 01 | 00 | 00 | 00 | 0C | 10 | BA | FB | B0 | 16 | D2 | E1 |   | ö °û° òá         |
| 0500700050 | 00 | 00 | 00 | 00 | FA | 33 | C0 | 8E | D0 | BC | 00 | 7C | FB | 68 | C0 | 07 |   | ú3ÀŽĐ¼  ûhÀ      |
| 0500700060 | 1F | 1E | 68 | 66 | 00 | CB | 88 | 16 | 0E | 00 | 66 | 81 | 3E | 03 | 00 | 4E |   | hf È^ f > N      |
| 0500700070 | 54 | 46 | 53 | 75 | 15 | B4 | 41 | BB | AA | 55 | CD | 13 | 72 | 0C | 81 | FB |   | TFSu 'A»^UÍ r û  |
| 0500700080 | 55 | AA | 75 | 06 | F7 | C1 | 01 | 00 | 75 | 03 | E9 | DD | 00 | 1E | 83 | EC |   | U^u ÷Á u éÝ fì   |
| 0500700090 | 18 | 68 | 1A | 00 | B4 | 48 | 8A | 16 | 0E | 00 | 8B | F4 | 16 | 1F | CD | 13 |   | h 'HŠ <ô Í       |
| 05007000A0 | 9F | 83 | C4 | 18 | 9E | 58 | 1F | 72 | E1 | 3B | 06 | 0B | 00 | 75 | DB | A3 |   | ŸfĂ žX rá; uŮε   |
| 05007000B0 | 0F | 00 | C1 | 2E | 0F | 00 | 04 | 1E | 5A | 33 | DB | B9 | 00 | 20 | 2B | C8 |   | Á. Z3Ů¹ +È       |
| 05007000C0 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF | 06 | 16 | 00 | E8 |   | fÿ ŽĂÿ è         |
| 05007000D0 | 4B | 00 | 2B | C8 | 77 | EF | B8 | 00 | BB | CD | 1A | 66 | 23 | C0 | 75 | 2D |   | K +Èwİ, »Í f#Àu- |
| 05007000E0 | 66 | 81 | FB | 54 | 43 | 50 | 41 | 75 | 24 | 81 | F9 | 02 | 01 | 72 | 1E | 16 |   | f ûTCEAu\$ ù r   |
| 05007000F0 | 68 | 07 | BB | 16 | 68 | 70 | 0E | 16 | 68 | 09 | 00 | 66 | 53 | 66 | 53 | 66 |   | h » hp h fsfsf   |
| 0500700100 | 55 | 16 | 16 | 16 | 68 | B8 | 01 | 66 | 61 | 0E | 07 | CD | 1A | 33 | C0 | BF |   | U h, fa Í 3ÀĴ    |
| 0500700110 | 28 | 10 | B9 | D8 | 0F | FC | F3 | AA | E9 | 5F | 01 | 90 | 90 | 66 | 60 | 1E |   | ( 'ø üó^é_ f`    |
| 0500700120 | 06 | 66 | A1 | 11 | 00 | 66 | 03 | 06 | 1C | 00 | 1E | 66 | 68 | 00 | 00 | 00 |   | f; f fh          |
| 0500700130 | 00 | 66 | 50 | 06 | 53 | 68 | 01 | 00 | 68 | 10 | 00 | B4 | 42 | 8A | 16 | 0E |   | fP Sh h 'BŠ      |
| 0500700140 | 00 | 16 | 1F | 8B | F4 | CD | 13 | 66 | 59 | 5B | 5A | 66 | 59 | 66 | 59 | 1F |   | <ôÍ fY[ZfYfY     |
| 0500700150 | 0F | 82 | 16 | 00 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF |   | , fÿ ŽĂÿ         |
| 0500700160 | 0E | 16 | 00 | 75 | BC | 07 | 1F | 66 | 61 | C3 | A0 | F8 | 01 | E8 | 09 | 00 |   | u¼ faĂ ø è       |
| 0500700170 | A0 | FB | 01 | E8 | 03 | 00 | F4 | EB | FD | B4 | 01 | 8B | F0 | AC | 3C | 00 |   | û è ôËÿ' <Ĉ-<    |
| 0500700180 | 74 | 09 | B4 | 0E | BB | 07 | 00 | CD | 10 | EB | F2 | C3 | 0D | 0A | 41 | 20 |   | t ' » Í èòĂ A    |
| 0500700190 | 64 | 69 | 73 | 6B | 20 | 72 | 65 | 61 | 64 | 20 | 65 | 72 | 72 | 6F | 72 | 20 |   | disk read error  |
| 05007001A0 | 6F | 63 | 63 | 75 | 72 | 72 | 65 | 64 | 00 | 0D | 0A | 42 | 4F | 4F | 54 | 4D |   | occurred BOOTM   |
| 05007001B0 | 47 | 52 | 20 | 69 | 73 | 20 | 6D | 69 | 73 | 73 | 69 | 6E | 67 | 00 | 0D | 0A |   | GR is missing    |
| 05007001C0 | 42 | 4F | 4F | 54 | 4D | 47 | 52 | 20 | 69 | 73 | 20 | 63 | 6F | 6D | 70 | 72 |   | BOOTMGR is compr |
| 05007001D0 | 65 | 73 | 73 | 65 | 64 | 00 | 0D | 0A | 50 | 72 | 65 | 73 | 73 | 20 | 43 | 74 |   | essed Press Ct   |
| 05007001E0 | 72 | 6C | 2B | 41 | 6C | 74 | 2B | 44 | 65 | 6C | 20 | 74 | 6F | 20 | 72 | 65 |   | rl+Alt+Del to re |
| 05007001F0 | 73 | 74 | 61 | 72 | 74 | 0D | 0A | 00 | 8C | A9 | BE | D6 | 00 | 00 | 55 | AA |   | start Ą€¼Ö U^    |

### 下一扩展分区

|            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 06408001B0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 20 |
| 06408001C0 | 21 | 00 | 07 | F5 | A9 | 8C | 00 | 08 | 00 | 00 | 00 | 08 | A0 | 00 | 00 | 00 | 00 |
| 06408001D0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 06408001E0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 06408001F0 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 55 | AA |

| *分区*   | *起始位置*                                | *大小*   |
|--------|---------------------------------------|--------|
| 扩展分区3  | 0800+3204000=3204800, 起始扇区数: 52447232 | A00800 |
| 下一扩展分区 |                                       |        |

### 逻辑分区3

| Offset      | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | v           | ANSI ASCII  |
|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------------|-------------|
| 16111370240 | EB | 52 | 90 | 4E | 54 | 46 | 53 | 20 | 20 | 20 | 00 | 02 | 08 | 00 | 00 | 00 | Ë           | R NTFS      |
| 16111370256 | 00 | 00 | 00 | 00 | 00 | F8 | 00 | 00 | 3F | 00 | FF | 00 | 00 | 08 | 00 | 00 | ø           | ? Ÿ         |
| 16111370272 | 00 | 00 | 00 | 00 | 80 | 00 | 80 | 00 | FF | 07 | A0 | 00 | 00 | 00 | 00 | 00 | €           | € Ÿ         |
| 16111370288 | 00 | 00 | 04 | 00 | 00 | 00 | 00 | 00 | 02 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |             |             |
| 16111370304 | F6 | 00 | 00 | 00 | 01 | 00 | 00 | 00 | 8C | 24 | FF | C2 | D4 | 76 | 37 | 38 | ö           | Œ\$ÿÂÔv78   |
| 16111370320 | 00 | 00 | 00 | 00 | FA | 33 | C0 | 8E | D0 | BC | 00 | 7C | FB | 68 | C0 | 07 |             | ú3ÀŽĐ¼  ûhÀ |
| 16111370336 | 1F | 1E | 68 | 66 | 00 | CB | 88 | 16 | 0E | 00 | 66 | 81 | 3E | 03 | 00 | 4E | h           | f Ë^ f > N  |
| 16111370352 | 54 | 46 | 53 | 75 | 15 | B4 | 41 | BB | AA | 55 | CD | 13 | 72 | 0C | 81 | FB | TFSu        | 'A»ªUÍ r û  |
| 16111370368 | 55 | AA | 75 | 06 | F7 | C1 | 01 | 00 | 75 | 03 | E9 | DD | 00 | 1E | 83 | EC | Uªu ÷Á u éÝ | fì          |
| 16111370384 | 18 | 68 | 1A | 00 | B4 | 48 | 8A | 16 | 0E | 00 | 8B | F4 | 16 | 1F | CD | 13 | h           | 'HŠ <ô í    |
| 16111370400 | 9F | 83 | C4 | 18 | 9E | 58 | 1F | 72 | E1 | 3B | 06 | 0B | 00 | 75 | DB | A3 | ŸfÄ žX rá;  | uû£         |
| 16111370416 | 0F | 00 | C1 | 2E | 0F | 00 | 04 | 1E | 5A | 33 | DB | B9 | 00 | 20 | 2B | C8 | Á.          | Z3Û¹ +È     |
| 16111370432 | 66 | FF | 06 | 11 | 00 | 03 | 16 | 0F | 00 | 8E | C2 | FF | 06 | 16 | 00 | E8 | fÿ          | ŽÂÿ è       |
| 16111370448 | 4B | 00 | 2B | C8 | 77 | EF | B8 | 00 | BB | CD | 1A | 66 | 23 | C0 | 75 | 2D | K +Èwï,     | »Í f#Àu-    |
| 16111370464 | 66 | 81 | FB | 54 | 43 | 50 | 41 | 75 | 24 | 81 | F9 | 02 | 01 | 72 | 1E | 16 | f ûTCFAu\$  | ù r         |
| 16111370480 | 68 | 07 | BB | 16 | 68 | 70 | 0E | 16 | 68 | 09 | 00 | 66 | 53 | 66 | 53 | 66 | h »         | hp h fsfsf  |
| 16111370496 | 55 | 16 | 16 | 16 | 68 | B8 | 01 | 66 | 61 | 0E | 07 | CD | 1A | 33 | C0 | BF | U           | h, fa í 3À¿ |
| 16111370512 | 28 | 10 | B9 | D8 | 0F | FC | F3 | AA | E9 | 5F | 01 | 90 | 90 | 66 | 60 | 1E | (           | ¹ø üóªé_ f` |

# 程序实现

整个实验是需要调用 Windows.h 记得引入

首先需要你声明一个结构体MBR，这样做的好处在于在你你将结构体传入进行读取数据后，你解析数据会更方便

便，也更清晰。

```

struct MBR_disk_entry
{
    uint8_t bootflag;//引导标志
    uint8_t citouhao;//磁头号
    uint8_t shanquhao;//扇区号
    uint8_t zhumianhao;//柱面号
    uint8_t disk_flag;//分区类型标志
    uint8_t someinfo[3];//id、结束磁头号、结束柱面号、结束扇区号
    uint8_t relative[4];//相对起始扇区
    uint8_t sectors[4];//总扇区数
};

struct MBR
{
    uint8_t boot_code[446];//引导代码
    //4个分区表，每个16字节，只有一个分区表有内容，对应的标志是0xEE
    MBR_disk_entry pation_table_entry[4];
    uint8_t endflag[2];//55AA
};

```

uint8\_t 实际上就是 unsigned char ，也就是一个字节。

## Windows API

然后是你需要获取物理磁盘内容，这里可以调用windows API创建文件句柄。

# CreateFile

获得设备句柄

```
HANDLE CreateFile(  
    LPCTSTR lpFileName,           // file name对象路径名  
    DWORD dwDesiredAccess,        // access mode控制模式  
    DWORD dwShareMode,            // share mode共享模式  
    LPSECURITY_ATTRIBUTES lpSecurityAttributes, // SD 安全属性(也即销毁方式)  
    DWORD dwCreationDisposition,  // how to create, 通常设置为  
    OPEN_EXISTING  
    DWORD dwFlagsAndAttributes,   // file attributes  
    HANDLE hTemplateFile           // handle to template file  
);
```

```
hDevice = CreateFile(TEXT("\\\\.\\PhysicalDrive2"),  
    GENERIC_READ,  
    FILE_SHARE_READ | FILE_SHARE_WRITE,  
    NULL,  
    OPEN_EXISTING,  
    0,  
    NULL);
```

因为是从0编号，我的电脑自身的物理磁盘是0和1，所以要解析我的U盘就是物理磁盘号2。

OPEN\_EXISTING：仅当文件或设备存在时，才打开该文件或设备。如果指定的文件或设备不存在，函数将失败

## DeviceIoControl

这个函数直接向指定的设备驱动程序发送控制码，使响应的设备产生响应的操作。

```
BOOL DeviceIoControl(  
    HANDLE hDevice,               // 用CreateFile获得的设备句柄  
    DWORD dwIoControlCode,        // 指定操作码  
    LPVOID lpInBuffer,            // 指向存放操作所需数据的缓冲区的指针  
    DWORD nInBufferSize,          // 以字节为单位，指定输入缓冲区的大小  
    LPVOID lpOutBuffer,           // 指向用来存放输出数据的缓冲区的指针  
    DWORD nOutBufferSize,         // 以字节为单位，指定输出缓冲区的大小  
    LPDWORD lpBytesReturned,      // 指向一个存放输出数据长度的变量的指针  
    LPOVERLAPPED lpOverlapped    // 指向OVERLAPPED结构体的指针  
);
```

```
bResult = DeviceIoControl(  
    hDevice,  
    IOCTL_DISK_GET_DRIVE_GEOMETRY,  
    NULL,  
    0,  
    pdg,  
    sizeof(*pdg),  
    &junk,  
    (LPOVERLAPPED)NULL  
);
```



# SetFilePointer

移动指定文件的文件指针

```
DWORD SetFilePointer(  
    HANDLE hFile,                //文件句柄  
    LONG lDistanceToMove,        //指定移动文件指针的字节数  
    PLONG lpDistanceToMoveHigh,  //指向要移动的有符号64位距离的高32位  
    DWORD dwMoveMethod           //文件指针移动的起点  
);
```

```
SetFilePointer(  
    hdrive,  
    offset.LowPart,  
    &offset.HighPart,  
    FILE_BEGIN  
);
```

如果lpDistanceToMoveHigh不为NULL，则lpDistanceToMoveHigh和lDistanceToMove将形成一个指定要移动的距离的单个64位有符号值。如果lpDistanceToMoveHigh为NULL，则lDistanceToMove是一个32位有符号值。lDistanceToMove的正值在文件中向前移动文件指针，负值则向后移动文件指针。

## ReadFile

从指定的文件或输入/输出 (I/O) 设备读取数据。

```
BOOL ReadFile(  
    HANDLE hFile,                // 文件句柄  
    LPVOID lpBuffer,            // 用来接收从文件中读出的数据的缓冲区指针  
    DWORD nNumberOfBytesToRead, // 要读的字节总数  
    LPDWORD lpNumberOfBytesRead, // 用来存储实际传输的字节总数的指针  
    LPOVERLAPPED lpOverlapped   // 一个指向OVERLAPPED结构体的指针  
);
```

```
bRet = ReadFile(  
    hDevice,  
    &the_mbr,  
    512,  
    &dwCB,  
    NULL  
);
```

lpOverlapped: 如果使用 **FILE\_FLAG\_OVERLAPPED** 打开 *hFile* 参数，则需要指向 [OVERLAPPED](#) 结构的指针，否则可为 **NULL**。

剩下的部分就是你们根据分区的解析规则去解析。