**# Title:**

Clarification of DevicePath examples using 0xFF for End of HW DP

**# Status:**

Draft

**# Document:**

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**# License:**

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**# Summary of the change**

UEFI 2.9 section 10.3.1 states that type 0x7F is the "End of Hardware Device Path". This type is further refined with a subtype to identify the "nature" of separator:

• Sub-Type 0xFF – End Entire Device Path, or

• Sub-Type 0x01 – End This Instance of a Device Path and start a new Device Path

But later, in the samples, the actual type used is 0xFF and not 0x7F.

**# Benefits of the change**

Correct Device Path examples in the UEFI spec to match the spec definitions

**# Impact of the change**

Only spec clarification. Confirmed that both EDK2 and UBoot implement the correct value (0x7F) and not 0xFF as suggested by the UEFI spec incorrect examples.

**# Detailed description of the change [normative updates]**

* Insertions in yellow
* Removals in **~~red~~**

Table 10-17 Fibre Channel Ex Device Path Example

|  |  |  |  |
| --- | --- | --- | --- |
| 37 | 1 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 10-20 USB Device Path Examples

|  |  |  |  |
| --- | --- | --- | --- |
| 0x18 | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 10-21 Another USB Device Path Example

|  |  |  |  |
| --- | --- | --- | --- |
| 0x1E | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 10-37 IPv4 configuration

|  |  |  |  |
| --- | --- | --- | --- |
| 0xC5 | 1 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 10-38 IPv6 configuration

|  |  |  |  |
| --- | --- | --- | --- |
| 0xF1 | 1 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 12-5 PS/2 Mouse Device Path

|  |  |  |  |
| --- | --- | --- | --- |
| 0x1E | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 12-6 Serial Mouse Device Path

|  |  |  |  |
| --- | --- | --- | --- |
| 0x3D | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 12-7 USB Mouse Device Path

|  |  |  |  |
| --- | --- | --- | --- |
| 0x18 | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 14-4 PCI Root Bridge Device Path for a Desktop System

|  |  |  |  |
| --- | --- | --- | --- |
| 0x0C | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 14-5 PCI Root Bridge Device Path for Bridge #0 in a Server System

|  |  |  |  |
| --- | --- | --- | --- |
| 0x0C | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 14-6 PCI Root Bridge Device Path for Bridge #1 in a Server System

|  |  |  |  |
| --- | --- | --- | --- |
| 0x0C | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 14-7 PCI Root Bridge Device Path for Bridge #2 in a Server System

|  |  |  |  |
| --- | --- | --- | --- |
| 0x0C | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 14-8 PCI Root Bridge Device Path for Bridge #3 in a Server System

|  |  |  |  |
| --- | --- | --- | --- |
| 0x0C | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 14-9 PCI Root Bridge Device Path Using Expanded ACPI Device Path

|  |  |  |  |
| --- | --- | --- | --- |
| 0x10 | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 14-12 PCI Device 7, Function 0 on PCI Root Bridge 0

|  |  |  |  |
| --- | --- | --- | --- |
| 0x12 | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 14-13 PCI Device 7, Function 0 behind PCI to PCI bridge

|  |  |  |  |
| --- | --- | --- | --- |
| 0x18 | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 14-17 Device Path for an EFI Driver loaded from PCI Option ROM

|  |  |  |  |
| --- | --- | --- | --- |
| 0x2C | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 15-1 SCSI Device Path Examples

|  |  |  |  |
| --- | --- | --- | --- |
| 0x1A | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 15-2 ATAPI Device Path Examples

|  |  |  |  |
| --- | --- | --- | --- |
| 0x1A | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 15-3 Fibre Channel Device Path Examples

|  |  |  |  |
| --- | --- | --- | --- |
| 0x2A | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 15-4 InfiniBand Device Path Examples

|  |  |  |  |
| --- | --- | --- | --- |
| 0x32 | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 15-5 Single Channel PCI SCSI Controller

|  |  |  |  |
| --- | --- | --- | --- |
| 0x12 | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

**Table 15-6 Single Channel PCI SCSI Controller behind a PCI Bridge**

|  |  |  |  |
| --- | --- | --- | --- |
| 0x18 | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table 15-7 Channel #3 of a PCI SCSI Controller behind a PCI Bridge

|  |  |  |  |
| --- | --- | --- | --- |
| 0x20 | 0x01 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table C-1 Legacy Floppy Device Path

|  |  |  |  |
| --- | --- | --- | --- |
| 1E | 1 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table C-2 IDE Disk Device Path

|  |  |  |  |
| --- | --- | --- | --- |
| 1A | 1 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |

Table C-3 Secondary Root PCI Bus with PCI to PCI Bridge Device Path

|  |  |  |  |
| --- | --- | --- | --- |
| 18 | 1 | ~~0xFF~~0x7F | Generic Device Path Header – Type End of Hardware Device Path |