




## Basic Tutorial (XIV.1) - Set the default boot item to UEFI Shell

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This article describes how to customize the priority of boot items by modifying the UEFI source code. It uses UEFIShell as an example to show how to make it the default boot item and provides methods for adjusting the priority of other boot items.

y is generated in [C Know](#) , supported by DeepSeek-R1 full version, [go to experience](#)>

**source code**

```
Library/PlatformBootManagerLib/BdsPlatform.c
```

### AI generated projects

```

N
OptionPriority (
INST EFI_BOOT_MANAGER_LOAD_OPTION *BootOption

;BUG ((EFI_D_ERROR," [CSDN] BootOptionPriority %S .\n", BootOption->Description));

; (StrCmp (BootOption->Description, L"Boot Device List") == 0) {
    return 4;
}

;
; Make sure Shell is last
;
; ( StrStr (BootOption->Description, L"EFI Internal Shell" ) != NULL) {
    return 1;
}

;return 30;

GC_TODO: add routine description

@param Left - GC_TODO: add arg description
@param Right - GC_TODO: add arg description

@retval (BOOLEAN) (BootOptionPriority (Left) < BootOptionPriority (Right)) - GC_TODO: add retval description

I
;PI
;areBootOption (
I CONST VOID *Buffer1,
I CONST VOID *Buffer2

;return (BOOLEAN) (BootOptionPriority ((EFI_BOOT_MANAGER_LOAD_OPTION *) Buffer1) > BootOptionPriority ((EFI_BOOT_MANAGER_LOAD_OPTION *) Bu

)
;PI
;formBootManagerAfterConsole (
)ID
;

```

```

' Register UEFI Shell
,

atformRegisterFvBootOption (
&gUefiShellFileGuid, L"EFI Internal Shell", LOAD_OPTION_ACTIVE
);

.

'Add default boot first option as uefi shell
:BUG ((EFI_D_ERROR," [CSDN]: EfiBootManagerSortLoadOptionVariable before.\n"));
iBootManagerSortLoadOptionVariable (LoadOptionTypeBoot, CompareBootOption);
:BUG ((EFI_D_ERROR," [CSDN]: EfiBootManagerSortLoadOptionVariable after.\n"));
.

```

收起 ^

## Generate EFI file & 运行

```

s Pages Pages
=====
004 00000022 0000002A
008 00000008 00000008
004 00000022 0000002A
024 00000092 000000B6
030 00000030 00000030
080 0000043D 0000054C
000 00001149 0000159B
Information settings change.
JEFI QEMU QEMU USB HARDDRIVE 1-0000:00:01.2-1
12
001F
12
001F
PciRoot(0x0)/Pci(0x1,0x2)/USB(0x0,0x0) -> <null string>
to load Boot0002 "UEFI QEMU QEMU USB HARDDRIVE 1-0000:00:01.2-1" from PciRoot(0x0)/Pci(0x1,0x2)/USB(0x0,0x0)
ous Current Next
s Pages Pages
=====
004 00000022 0000002A
008 00000008 00000008
004 00000022 0000002A
024 00000092 000000B6
030 00000030 00000030
080 0000043D 0000054C
000 00001149 0000159B

```

```

1716 Type Pages Pages Pages
1717
1718 0A 00000004 00000022 0000002A
1719 09 00000008 00000008 00000008
1720 00 00000004 00000022 0000002A
1721 06 00000024 00000092 000000B6
1722 05 00000030 00000030 00000030
1723 03 00000180 0000043F 0000054E
1724 04 00000F00 00001149 0000159A
1725 Memory Type Information settings change.
1726 [Bds][CSDN ] Booting EFI Internal Shell
1727 [Bds] Expand Fv(7CB8BDC9-F8EB-4F34-AAEA-3EE4AF6516A1)/FvFile(7C04A583-9E
1728 BdsDxe: loading Boot0004 "EFI Internal Shell" from Fv(7CB8BDC9-F8EB-4F34-AAEA-
1729 InstallProtocolInterface: 5B1B31A1-9562-11D2-8E3F-00A0C969723B 1EF81040
1730 Loading driver at 0x0001E23D000 EntryPoint=0x0001E23D3C0 Shell.efi
1731 InstallProtocolInterface: BC62157E-3E33-4FEC-9920-2D3B36D750DF 1EFC7E18
1732 ProtectUefiImageCommon - 0x1EF81040
1733 - 0x000000001E23D000 - 0x00000000000E0160
1734 BdsDxe: starting Boot0004 "EFI Internal Shell" from Fv(7CB8BDC9-F8EB-4F34-AAEA-
1735 [BS][2][BS][01;01H]InstallProtocolInterface: 387477C2-69C7-11D2-8E39-00A0C969
1736 InstallProtocolInterface: 752F3136-4E16-4FDC-A22A-E5F46812F4CA 1EF77E18
1737 InstallProtocolInterface: 6302D008-7F9B-4F30-87AC-60C9FEF5DA4E 1E2B7920
1738 [BS][01;01H]UEFI Interactive Shell v2.2
1739 EDK II
1740 UEFI v2.70 (EDK II, 0x00010000)
1741

```

首先从SHELL!

Ctrl+Alt+G to release grab

QEMU - Press Ctrl+Alt+G to release grab

Machine View

```

II> dmpstore BootOrder
Variable NU*RT*BS 'EFIGlobalVariable:BootOrder' DataSize = 0x0A
00000000: 00 00 01 00 02 00 03 00-04 00 *.....*
II> dmpstore Boot0004
Variable NU*RT*BS 'EFIGlobalVariable:Boot0004' DataSize = 0x58
00000000: 01 00 00 00 2C 00 45 00-46 00 49 00 20 00 49 00 *.....E.F.I..I.*
00000010: 6E 00 74 00 65 00 72 00-6E 00 61 00 6C 00 20 00 *n.t.e.r.n.a.l..*
00000020: 53 00 68 00 65 00 6C 00-6C 00 00 00 04 07 14 00 *S.h.e.l.l.....*
00000030: C9 BD B8 7C EB F8 34 4F-AA EA 3E E4 AF 65 16 A1 *...l..40..>..e..*
00000040: 04 06 14 00 83 A5 04 7C-3E 9E 1C 4F AD 65 E0 52 *.....l>..0.e.R*
00000050: 68 D0 B4 D1 7F FF 04 00- *h.....*
II> _

```

设置前

```

FS0:\> dmpstore BootOrder
Variable NU*RT*BS 'EFIGlobalVariable:BootOrder' DataSize = 0x0A
00000000: 04 00 01 00 02 00 03 00-00 00 *.....*
FS0:\> dmpstore Boot0004
Variable NU*RT*BS 'EFIGlobalVariable:Boot0004' DataSize = 0x58
00000000: 01 00 00 00 2C 00 45 00-46 00 49 00 20 00 49 00 *.....E.F.I..I.*
00000010: 6E 00 74 00 65 00 72 00-6E 00 61 00 6C 00 20 00 *n.t.e.r.n.a.l..*
00000020: 53 00 68 00 65 00 6C 00-6C 00 00 00 04 07 14 00 *S.h.e.l.l.....*
00000030: C9 BD B8 7C EB F8 34 4F-AA EA 3E E4 AF 65 16 A1 *...l..40..>..e..*
00000040: 04 06 14 00 83 A5 04 7C-3E 9E 1C 4F AD 65 E0 52 *.....l>..0.e.R*
00000050: 68 D0 B4 D1 7F FF 04 00- *h.....*
FS0:\> _

```

设置后

Shell as the default startup item, the BIOS will load Shell first when it starts (for OVMF, it does not need to wait for the previous PXE and QEMU USB to load, while of course, if you need to set other startup items as the default, you only need to **BootOptionPriority** modify. **StrCmp (BootOption->Description, L"EFI Internal Shell")** **StrCmp (BootOption->Description, L"XXXX")**

Default Boot Order DEMO source code

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