

Bcdedit

BCDEDIT - Boot Configuration Data Store Editor

The Bcdedit.exe command-line tool modifies the boot configuration data store.

The boot configuration data store contains boot configuration parameters and

controls how the operating system is booted. These parameters were previously

in the Boot.ini file (in BIOS-based operating systems) or in the nonvolatile

RAM entries (in Extensible Firmware Interface-based operating systems). You can

use Bcdedit.exe to add, delete, edit, and append entries in the boot configuration data store.

For detailed command and option information, type bcdedit.exe /? <command>.

For

example, to display detailed information about the /createstore command, type:

```
bcdedit.exe /? /createstore
```

For an alphabetical list of topics in this help file, run "bcdedit /? TOPICS".

Commands that operate on a store

=====

/createstore	Creates a new and empty boot configuration data store.
/export	Exports the contents of the system store to a file. This file
	can be used later to restore the state of the system store.
/import	Restores the state of the system store using a backup file created with the /export command.
/sysstore	Sets the system store device (only affects EFI systems, does
	not persist across reboots, and is only used in cases where the system store device is ambiguous).

Commands that operate on entries in a store

=====

/copy	Makes copies of entries in the store.
/create	Creates new entries in the store.
/delete	Deletes entries from the store.

Run bcdedit /? ID for information about identifiers used by these commands.

Commands that operate on entry options

=====

/deletevalue	Deletes entry options from the store.
/set	Sets entry option values in the store.

Run bcdedit /? TYPES for a list of datatypes used by these commands.

Run bcdedit /? FORMATS for a list of valid data formats.

Commands that control output

=====

/enum	Lists entries in the store.
-------	-----------------------------

/v Command-line option that displays entry identifiers in full,
 rather than using names for well-known identifiers.
 Use /v by itself as a command to display entry identifiers in full for the ACTIVE type.

Running "bcdedit" by itself is equivalent to running "bcdedit /enum ACTIVE".

Commands that control the boot manager

```
=====
/bootsequence        Sets the one-time boot sequence for the boot manager.
/default             Sets the default entry that the boot manager will use.
/displayorder        Sets the order in which the boot manager displays the
                      multiboot menu.
/timeout             Sets the boot manager time-out value.
/toolsdisplayorder   Sets the order in which the boot manager displays
                      the tools menu.
```

Commands that control Emergency Management Services for a boot application

```
=====
/bootems             Enables or disables Emergency Management Services
                      for a boot application.
/ems                  Enables or disables Emergency Management Services for an
                      operating system entry.
/emssettings         Sets the global Emergency Management Services parameters.
```

Command that control debugging

```
=====
/bootdebug           Enables or disables boot debugging for a boot application.
/dbgsettings         Sets the global debugger parameters.
/debug                Enables or disables kernel debugging for an operating
system
                      entry.
/hypervisorsettings   Sets the hypervisor parameters.
```

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For detailed command and option information, type `bcdedit.exe /? <command>`. For example, to display detailed information about the `/createstore` command, type:

```
bcdedit.exe /? /createstore
```

For an alphabetical list of topics in this help file, run "`bcdedit /? TOPICS`".

Commands that operate on a store

```
=====
/createstore  Creates a new and empty boot configuration data store.
/export       Exports the contents of the system store to a file. This file
               can be used later to restore the state of the system store.
/import       Restores the state of the system store using a backup file
               created with the /export command.
/sysstore     Sets the system store device (only affects EFI systems, does
               not persist across reboots, and is only used in cases where
               the system store device is ambiguous).
```

Commands that operate on entries in a store

```
=====
/copy         Makes copies of entries in the store.
/create       Creates new entries in the store.
/delete       Deletes entries from the store.
/mirror       Creates mirror of entries in the store.
```

Run `bcdedit /? ID` for information about identifiers used by these commands.

Commands that operate on entry options

```
=====
/deletevalue  Deletes entry options from the store.
/set         Sets entry option values in the store.
```

Run `bcdedit /? TYPES` for a list of datatypes used by these commands.

Run `bcdedit /? FORMATS` for a list of valid data formats.

Commands that control output

```
=====
/enum        Lists entries in the store.
```

/v Command-line option that displays entry identifiers in full, rather than using names for well-known identifiers.
Use /v by itself as a command to display entry identifiers in full for the ACTIVE type.

Running "bcdedit" by itself is equivalent to running "bcdedit /enum ACTIVE".

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=====
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/default       Sets the default entry that the boot manager will use.
/displayorder  Sets the order in which the boot manager displays the
               multiboot menu.
/timeout       Sets the boot manager time-out value.
/toolsdisplayorder Sets the order in which the boot manager displays
               the tools menu.
```

Commands that control Emergency Management Services for a boot application

```
=====
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/ems          Enables or disables Emergency Management Services for an
               operating system entry.
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Command that control debugging

```
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/bootdebug    Enables or disables boot debugging for a boot application.
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/debug        Enables or disables kernel debugging for an operating system
               entry.
/hypervisorsettings Sets the hypervisor parameters.
```

“Oh my!” you eyes pop open as you wonder how you’ll ever put a leash on this beast. But it’s not so scary.

Really there’s only a few options I’ve had to learn to work with to get the control I need.

Really. That’s it.

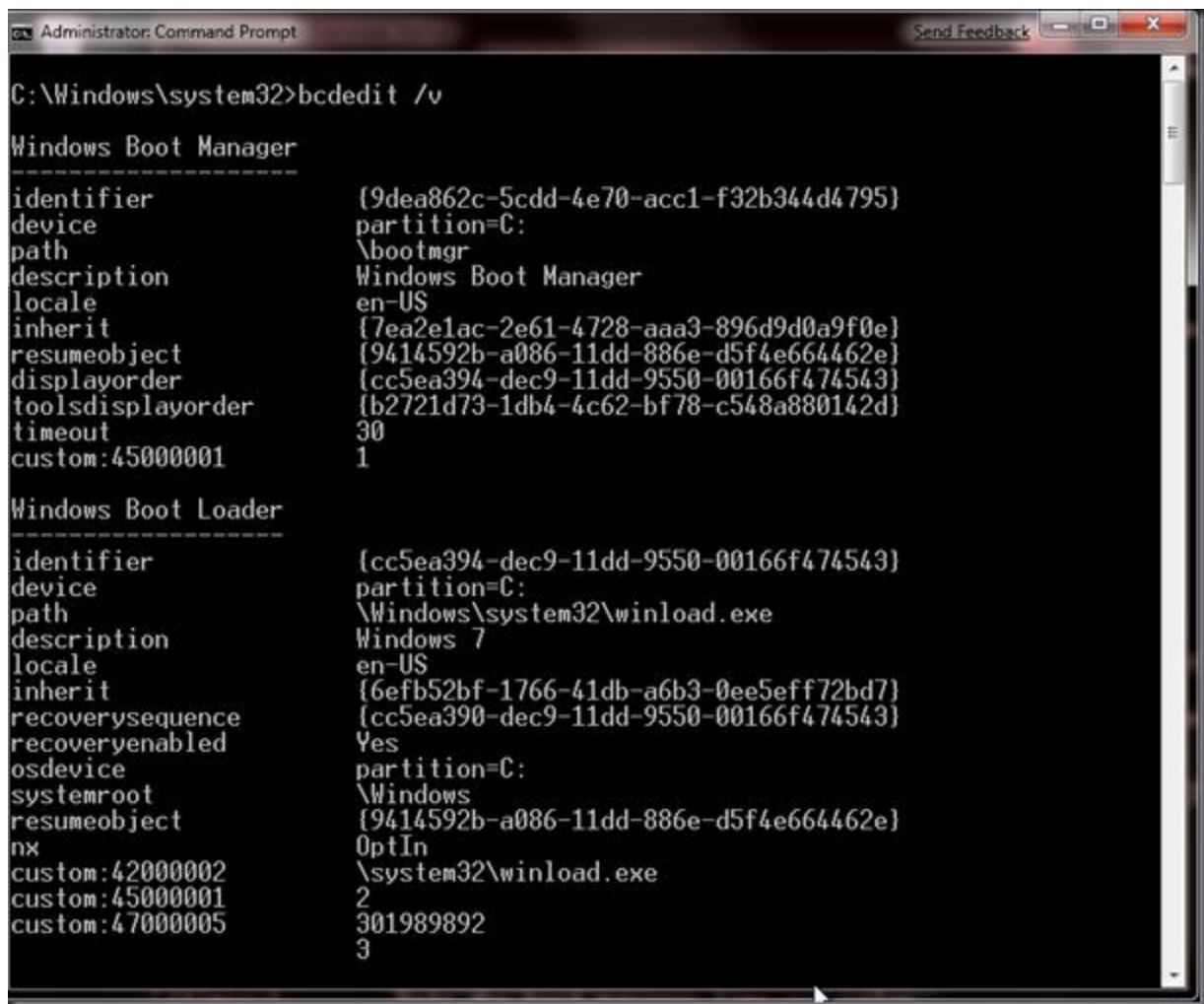
BCDEDIT /COPY (To make copy of an entry to work it)

BCDEDIT /DELETE (To delete an Entry)

BCDEDIT /SET (To set information within an entry)

So how do we use them? I’ll try and keep this as simple as can be.

First you run in that Command Prompt a BCDEDIT /V to see what entries you do have.



```
Administrator: Command Prompt
C:\Windows\system32>bcdedit /v

Windows Boot Manager
-----
identifier                {9dea862c-5cdd-4e70-acc1-f32b344d4795}
device                    partition=C:
path                      \bootmgr
description                Windows Boot Manager
locale                    en-US
inherit                    {7ea2e1ac-2e61-4728-aaa3-896d9d0a9f0e}
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
displayorder              {cc5ea394-dec9-11dd-9550-00166f474543}
toolsdisplayorder         {b2721d73-1db4-4c62-bf78-c548a880142d}
timeout                   30
custom:45000001            1

Windows Boot Loader
-----
identifier                {cc5ea394-dec9-11dd-9550-00166f474543}
device                    partition=C:
path                      \Windows\system32\winload.exe
description                Windows 7
locale                    en-US
inherit                    {6efb52bf-1766-41db-a6b3-0ee5eff72bd7}
recoverysequence          {cc5ea390-dec9-11dd-9550-00166f474543}
recoveryenabled            Yes
osdevice                  partition=C:
systemroot                 \Windows
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
nx                         OptIn
custom:42000002            \system32\winload.exe
custom:45000001            2
custom:47000005            301989892
                           3
```

What you're seeing is the equivalent to the old "BOOT.INI". The top half marked "Windows Boot Manager" is similar to the old [boot loader] section

```
[boot loader]
timeout=30
default=multi(0)disk(0)rdisk(0)partition(1)\WINDOWS
```

The next section marked "Windows Boot Loader" is the equivalent to the individual lines you used to have under the [operating systems] entry in "BOOT.INI" like below

```
[operating systems]
multi(0)disk(0)rdisk(0)partition(1)\WINDOWS="Microsoft Windows XP Professional"
/fastdetect
```

So the basics.

First off, we're going to make a copy of an existing entry and work with that copy.

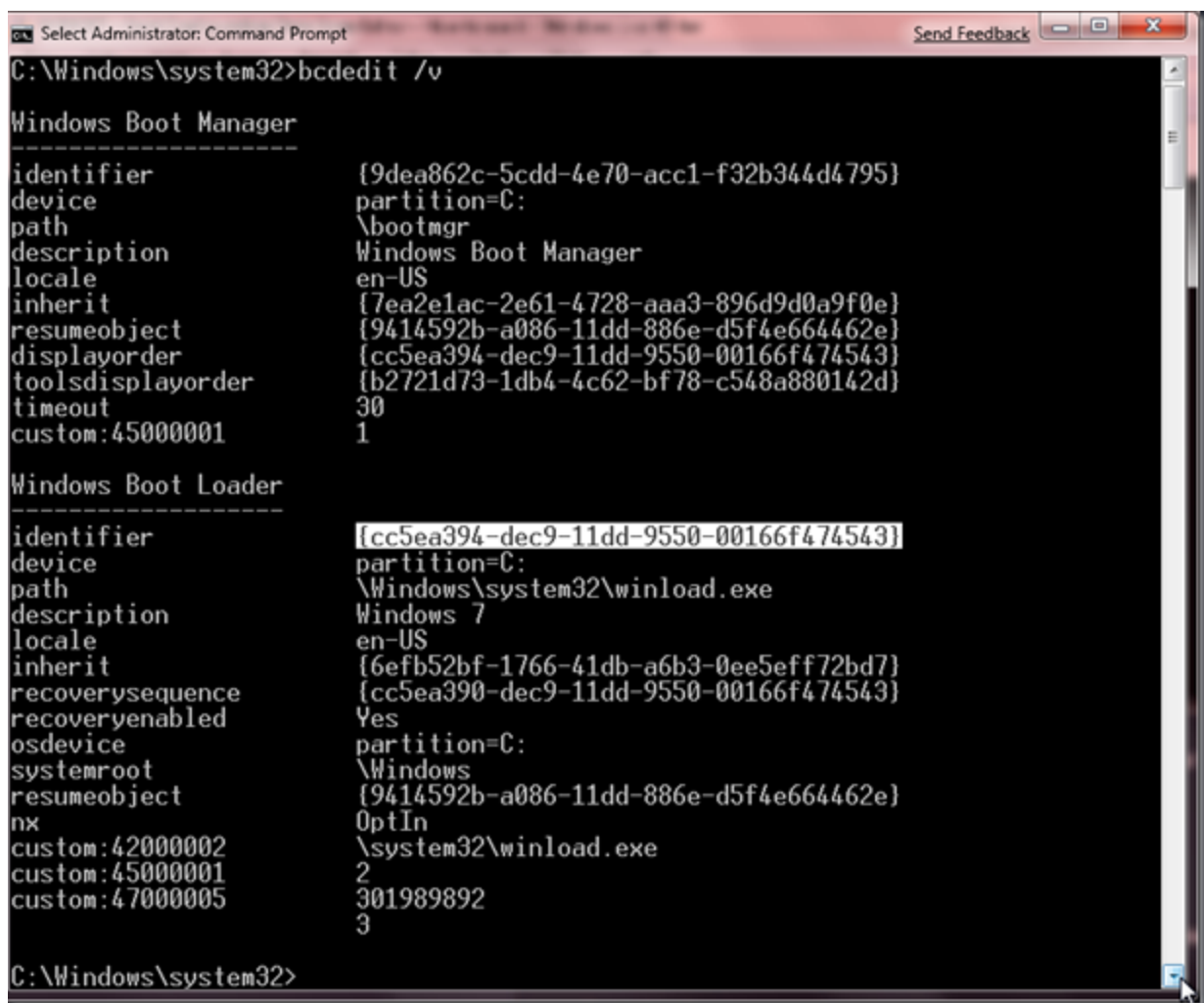
You'll notice in each entry displayed by BCDEDIT is a line marked "identifier". Since we're editing entries for bootable operating system, we're going to copy a "Windows Boot Loader" entry.

The process is dead simple. Execute a

BCDEDIT /COPY {SID} /D "Name of New Entry"

where the {SID} is the unique number to the right of the identifier line in the "Windows Boot Loader" entry you wish to copy and "Name of New Entry" is the description you wish to give that Entry.

Here's an example



```
C:\Windows\system32>bcdedit /v

Windows Boot Manager
-----
identifier                {9dea862c-5cdd-4e70-acc1-f32b344d4795}
device                    partition=C:
path                      \bootmgr
description                Windows Boot Manager
locale                    en-US
inherit                    {7ea2e1ac-2e61-4728-aaa3-896d9d0a9f0e}
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
displayorder              {cc5ea394-dec9-11dd-9550-00166f474543}
toolsdisplayorder         {b2721d73-1db4-4c62-bf78-c548a880142d}
timeout                   30
custom:45000001           1

Windows Boot Loader
-----
identifier                {cc5ea394-dec9-11dd-9550-00166f474543}
device                    partition=C:
path                      \Windows\system32\winload.exe
description                Windows 7
locale                    en-US
inherit                    {6efb52bf-1766-41db-a6b3-0ee5eff72bd7}
recoverysequence          {cc5ea390-dec9-11dd-9550-00166f474543}
recoveryenabled            Yes
osdevice                  partition=C:
systemroot                \Windows
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
nx                        OptIn
custom:42000002            \system32\winload.exe
custom:45000001            2
custom:47000005            301989892
                           3

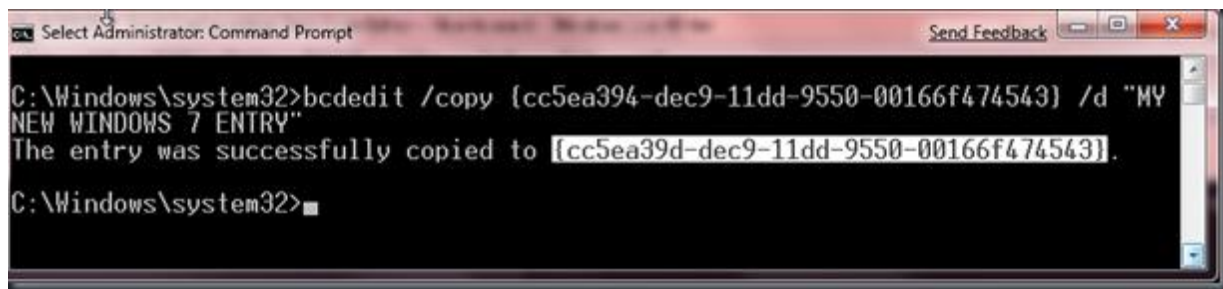
C:\Windows\system32>
```

The line highlighted in WHITE is the {SID} for the Windows Boot Loader entry.

So to make a copy of that entry execute the following command

BCDEDIT /COPY {cc5ea394-dec9-11dd-9550-00166f474543} /D "MY NEW WINDOWS 7 ENTRY"

You'll get the following result. Yes I wasn't very creative with my naming was I? :)



```
Select Administrator: Command Prompt
C:\Windows\system32>bcdedit /copy {cc5ea394-dec9-11dd-9550-00166f474543} /d "MY
NEW WINDOWS 7 ENTRY"
The entry was successfully copied to {cc5ea39d-dec9-11dd-9550-00166f474543}.
C:\Windows\system32>
```

The new entry will be identified by the line highlighted in White above. The end results can be viewed with a BCDEDIT /V command

```
Select Administrator: Command Prompt
C:\Windows\system32>bcdedit /v

Windows Boot Manager
-----
identifier                {9dea862c-5cdd-4e70-acc1-f32b344d4795}
device                    partition=C:
path                      \bootmgr
description               Windows Boot Manager
locale                    en-US
inherit                   {7ea2e1ac-2e61-4728-aaa3-896d9d0a9f0e}
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
displayorder              {cc5ea394-dec9-11dd-9550-00166f474543}
toolsdisplayorder         {cc5ea39d-dec9-11dd-9550-00166f474543}
timeout                   30
custom:45000001           1

Windows Boot Loader
-----
identifier                {cc5ea394-dec9-11dd-9550-00166f474543}
device                    partition=C:
path                      \Windows\system32\winload.exe
description               Windows 7
locale                    en-US
inherit                   {6efb52bf-1766-41db-a6b3-0ee5eff72bd7}
recoverysequence          {cc5ea390-dec9-11dd-9550-00166f474543}
recoveryenabled            Yes
osdevice                  partition=C:
systemroot                \Windows
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
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custom:42000002            \system32\winload.exe
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                           3

Windows Boot Loader
-----
identifier                {cc5ea39d-dec9-11dd-9550-00166f474543}
device                    partition=C:
path                      \Windows\system32\winload.exe
description               MY NEW WINDOWS 7 ENTRY
locale                    en-US
inherit                   {6efb52bf-1766-41db-a6b3-0ee5eff72bd7}
recoverysequence          {cc5ea390-dec9-11dd-9550-00166f474543}
recoveryenabled            Yes
osdevice                  partition=C:
systemroot                \Windows
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
nx                         OptIn
custom:42000002            \system32\winload.exe
custom:45000001            2
custom:47000005            301989892
                           3

C:\Windows\system32>
```

The new entry is highlighted in White (Sorry, my command prompt may not be the prettiest environment in colours. But it is incredibly powerful) ;)

Setting or edit changes, now that you understand where the {SID} is, is quite easy.

To change a value in this entry use the

BCDEDIT /SET {ID} <datatype> <value>

We're going to change the "description" from "MY NEW WINDOWS 7 ENTRY" to something more useful like "WINDOWS 7 TEST"

BCEDIT /SET {cc5ea39d-dec9-11dd-9550-00166f474543} description "WINDOWS 7 TEST"

You will find the entry is now changed. As can be seen below

```

C:\Windows\system32>bcdedit /v
'bcdedit' is not recognized as an internal or external command,
operable program or batch file.

C:\Windows\system32>bcdedit /v

Windows Boot Manager
-----
identifier                {9dea862c-5cdd-4e70-acc1-f32b344d4795}
device                    partition=C:
path                      \bootmgr
description                Windows Boot Manager
locale                    en-US
inherit                    {7ea2e1ac-2e61-4728-aaa3-896d9d0a9f0e}
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
displayorder              {cc5ea394-dec9-11dd-9550-00166f474543}
toolsdisplayorder         {cc5ea39d-dec9-11dd-9550-00166f474543}
timeout                   30
custom:45000001           1

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identifier                {cc5ea394-dec9-11dd-9550-00166f474543}
device                    partition=C:
path                      \Windows\system32\winload.exe
description                Windows 7
locale                    en-US
inherit                    {6efb52bf-1766-41db-a6b3-0ee5eff72bd7}
recoverysequence          {cc5ea390-dec9-11dd-9550-00166f474543}
recoveryenabled            Yes
osdevice                  partition=C:
systemroot                \Windows
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
nx                         OptIn
custom:42000002            \system32\winload.exe
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Windows Boot Loader
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identifier                {cc5ea39d-dec9-11dd-9550-00166f474543}
device                    partition=C:
path                      \Windows\system32\winload.exe
description                WINDOWS 7 TEST
locale                    en-US
inherit                    {6efb52bf-1766-41db-a6b3-0ee5eff72bd7}
recoverysequence          {cc5ea390-dec9-11dd-9550-00166f474543}
recoveryenabled            Yes
osdevice                  partition=C:
systemroot                \Windows
resumeobject              {9414592b-a086-11dd-886e-d5f4e664462e}
nx                         OptIn
custom:42000002            \system32\winload.exe
custom:45000001            2
custom:47000005            301989892
                           3

C:\Windows\system32>
```

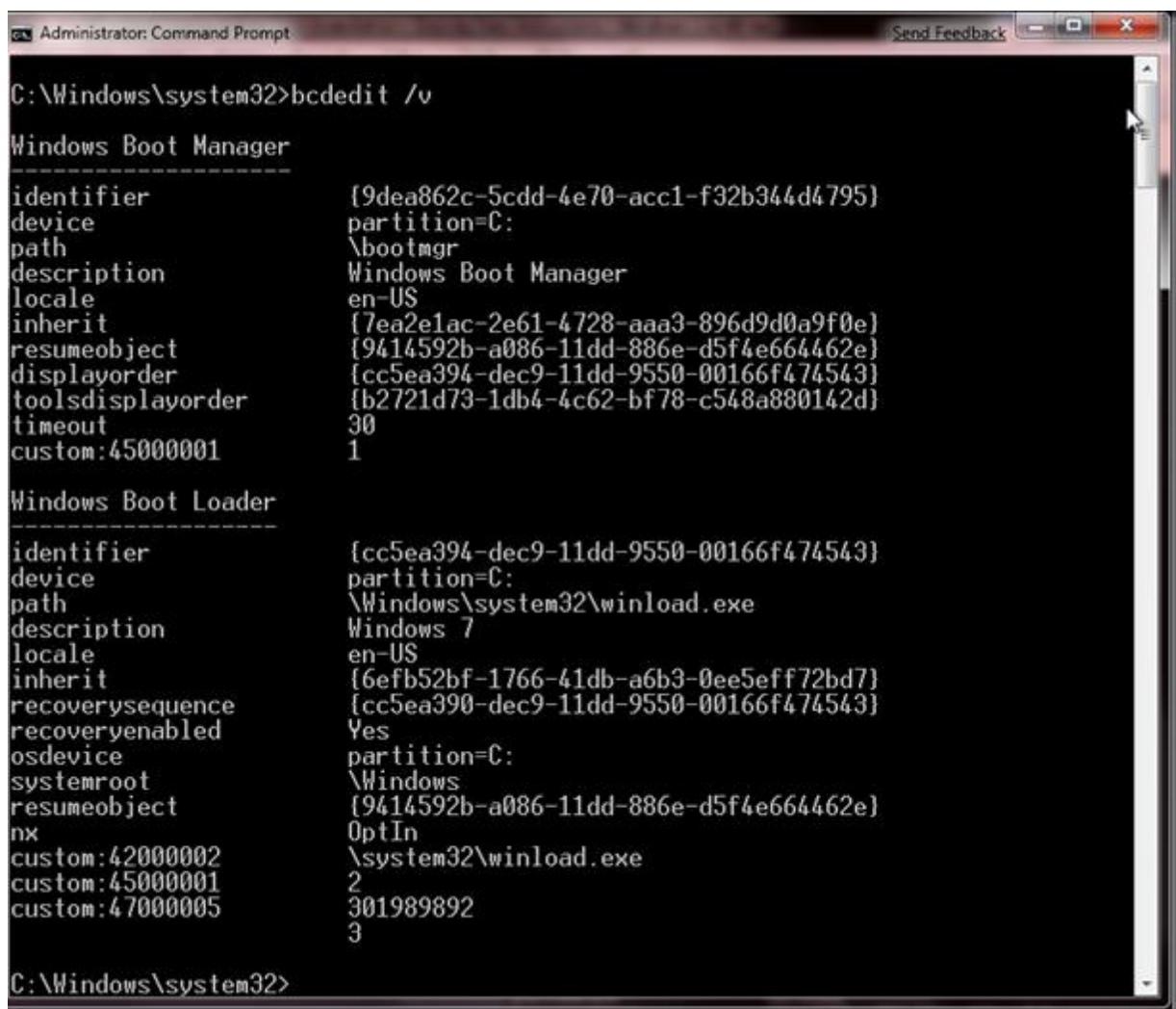
IF you wish delete this entire “Windows Boot Loader” entry just execute a

BCDEDIT /DELETE {ID}

Like so...

BCDEDIT /DELETE {cc5ea39d-dec9-11dd-9550-00166f474543}

and if you run a BCDEDIT /V you'll find the list is now missing the new entry since we have deleted it.



```
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C:\Windows\system32>bcdedit /v

Windows Boot Manager
-----
identifier           {9dea862c-5cdd-4e70-acc1-f32b344d4795}
device               partition=C:
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description           Windows Boot Manager
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inherit              {7ea2e1ac-2e61-4728-aaa3-896d9d0a9f0e}
resumeobject         {9414592b-a086-11dd-886e-d5f4e664462e}
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toolsdisplayorder    {b2721d73-1db4-4c62-bf78-c548a880142d}
timeout              30
custom:45000001      1

Windows Boot Loader
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identifier           {cc5ea394-dec9-11dd-9550-00166f474543}
device               partition=C:
path                 \Windows\system32\winload.exe
description           Windows 7
locale               en-US
inherit              {6efb52bf-1766-41db-a6b3-0ee5eff72bd7}
recoverysequence     {cc5ea390-dec9-11dd-9550-00166f474543}
recoveryenabled       Yes
osdevice             partition=C:
systemroot           \Windows
resumeobject         {9414592b-a086-11dd-886e-d5f4e664462e}
nx                   OptIn
custom:42000002      \system32\winload.exe
custom:45000001      2
custom:47000005      301989892
                    3

C:\Windows\system32>
```