

Re: IRQL_NOT_LESS_OR_EQUAL and EWF

Source:

<http://www.tech-archive.net/Archive/WinXP/microsoft.public.windowsxp.embedded/2006-11/msg00103.html>

- *From:* "mike-ca" <bosanovav1@xxxxxxxxxx>
 - *Date:* 3 Nov 2006 16:55:52 -0800
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KM,

here is what i did, i got it from google group with a few of my own comments added, but i cannot find the link anymore

create DVD

Required:

- 1) Embedded Windows XP SP1 Disc 1
- 2) Windows XP Professional installation Disc
- 3) Download <http://nu2.nu/nu2files/bcd111.zip> or the latest version of BCD (Build CD-ROM) on <http://nu2.nu/bcd>.
- 4) Download <http://nu2.nu/nu2files/bbie10.zip> or the latest version of BBIE (Bart's Boot Image Extractor) on <http://nu2.nu/bbie>.
- 5) Optional to burn ISO Image. Download <ftp://ftp6.nero.com/wnaspi32.dll>.

Here are the steps:

- 1) Make a temporary folder C:\BuildWinPE (where C: can be any drive and BuildWinPE can be any directory name)
- 2) Extract with directories the bcd111.zip to C:\BuildWinPE. It will create a 'Bin' Directory.
- 3) Extract the file in the the bbie10.zip into the 'Bin' directory created by step 2.
- 4) Copy wnaspi32.dll to C:\BuildWinPe\Bin.
- 5) Insert the Window XP Professional installation Disc into CD Drive d:
- 6) Open a DOS box window and enter following the commands. Note that "winpebootsect.bin" is case sensitive in a later step.
>CD C:\BuildWinPE
>MKDIR cds
>MKDIR cds\WinPE
>MKDIR cds\WinPE\Files
>CDDIR cds\WinPe\Files
>..\..\Bin\bbie d:

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>rename image1.bin winpebootsect.bin

7) Remove the XP installation DisC

8) Insert the WinXPE SP1 Disk 1 CD

9) Enter the following commands in the DOS box window

```
>copy d:\Win51*
```

```
>Xcopy d:\I386 I386 /S
```

```
>Xcopy d:\XPE XPE
```

```
>cd ..
```

10) If you need customize network driver files:

copy custom inf file to C:\BuildWinPE\cds\winpe\files\i386\inf

copy custom sys file to

C:\BuildWinPE\cds\winpe\files\i386\system32\drivers

11) If you need network support, append the following section to

C:\BuildWinPE\Cds\WinPE\Files\I386\winbom.ini:

```
[WinPE.Net]
```

```
IPConfig = DHCP
```

```
StartNet = Yes
```

12) Delete C:\BuildWinPE\cds\winpe\files\i386\bootfix.bin if you want

to boot from CD always and not be prompted with

"Hit any key to boot from CD..."

13) Create and copy the following lines into the file bcd.cfg in the

C:\BuildWinPe\Cds\WinPe directory.

```
mkisofsargs -N -l -no-iso-translate -relaxed-filenames
```

```
#case must match that on the file when copied in previous steps !
```

```
bootfile Winpebootsect.bin
```

```
system WinPE
```

```
application embeddedXP
```

13) In the DOS box enter "bcd -b winpe" to create the ISO in the file

"%temp%\BCD.iso" or enter the command "bcd WinPe" to create

and burn a WinPE CD.

The CD should boot WinPE and connect to the network.

note: "bcd" cannot create bootable DVD, but you can create ISO, then

use thirdparty software like UltraISO

how is EL-Torito related to EWF??

thanks!

KM wrote:

mike,

I apology. I forgot that we already discussed the EWF points.

But now I have to back up and ask you again how you're creating the bootable CD? Do you use El-Torito technology to create one? How then you avoided EWF?

Where exactly you are seeing the BSOD? Booting off the CD or hard drive?

Ghost would work better around deploying disk data but nothing is perfect. Sometimes you have to use -IR switch to fix some MBR/BPB related issues and then issue gets bigger.

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Regards,
KM

"mike-ca" <bosanovav1@xxxxxxxx> wrote in message
news:1162582931.482285.228920@xx

KM,

- yes, i use SDI loader to create a sdi file, then copy all the files created by TD to the sdi file.

- i didn't include any EWF components in my image, why did you ask about EWF? is there something i am missing??

i use "sdimg /writedisk:0" to write the image to my disk, then did some configurations afterwards, then create a golden image

on my bootable CD, i use "sdimg /writepart:c:" to write the image to the target

- yes, the image on my bootable CD is the same as the one i created in Step 6: golden.sdi

- if i use Ghost to capture the post-FBA and post-Fbreseal image, when that image generate unique SID once it's written to the target and then rebooted.

-so far, SDI approach has worked without any problem. my developing and target machines have the same hardwares(motherboard, hard drive, and so on), i guess that's why i haven't encounter any problem. will

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Ghost approach preserves disk geometry parameters??

i guess another way i can do it is to copy all the files on c: drive to my bootable CD, then write a scrip to format the targe and xcopy those files.

thanks!

KM wrote:

mike,

Please disregard my question about the SDI file size. It wasn't relevant to your issues.

With Ghost you won't end up with 40Gb size. Ghost will only capture the data sectors on the disk and will also compress the image (you will likely end up with even smaller size than 750M).

When you say "copy the image files to a SDI file", do you mean you used SDI Loader on your dev machine? The thing is that it better be done on the target to preserve disk geometry parameters. Let me put it this way, to get media to boot you should partition and format it on target machine. But again, since you got the image booted you may not want to worry about it now.

What EWF mode do you use? Since you are switching from reading *partition* and writing *disk* it should be EWF RAM Reg mode.

And, I suppose, on the step 7 you write a *different* image to CD, not the same golden image you just captured, right?

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Regards,
KM

KM,

why did you say

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```
sdimg  
myimage.sdi  
/writedisk:0  
/yes
```

"The approach is pretty dangerous since SDI doesn't deal with MBR properly. But since you got your image booted, it is not an issue for you.
What's the SDI file size?
Did you try using Ghost or other cloning tools?
Or, better, did you try formatting the target partition and [x]copying all the files and folders of your image over there? "

- what is wrong with SDI file?? i am worried now.....
- the combine size of my image is about 750MB, my hard drive is about 40GB, if i use Ghost, will that create a image of 40GB, which is not what i want

here is my process:

- 1.) build the image using TD
- 2.) copy the image files to a SDI file, the SDI file size is about 750MB, put this image on the network share (will run "net use y: \\192.144.0.1\\shared" to mount it later
- 3.) boot up to WPE, write the image to the disk
>diskpart
diskpart>select disk 0
diskpart>clean
diskpart>create partition primary
diskpart>select partition 1
diskpart>exit
>sdimg y:\image.sdi /writedisk:0: /yes
>diskpart
diskpart>select disk 0
diskpart>select partition 1
diskpart>active
diskpart>exit
>exit
- 4.) reboot to the image on disk, this will run

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through FBA process, and
etc (why did you say this approach is
dangerous?? should i format a
NTFS partition of about 750 MB, then
xcopy all the files)
5.) add some software and configurations to
the image and run
"fbreseat"
6.) reboot back to WPE, write the image to a
SDI file on the network
share

```
>sdimg y:\golden.sdi /readpart:c:
```

7.) create a bootable CD with the image
here is the script on the CD, which i use to
write the image to the
target

```
>diskpart /s format.bat
```

```
-----format.bat-----
```

```
>select disk 0
```

```
>clean
```

```
>create partition primary size=750
```

```
>assign letter=c
```

```
>select partition 1
```

```
-----
```

```
>sdimg x:\golden.sdi /writepart:c: /yes
```

```
>diskpart /s extend.bat
```

```
-----extend.bat-----
```

```
>select disk 0
```

```
>select partition 1
```

```
>extend disk 0
```

```
>active
```

```
-----
```

extend.bat will extend the C drive from
750MB to 40GB

could you please let me if you see any
problem in my approach. i have
been doing this for a while, have not seen
any noticeable problem so
far

thanks!

p.s. i wil look into your suggestions about
blue screen later

KM wrote:

Mike,

Comments inline..

i just read
somewhere
which
mentioned
always add
EWF
components
in TD
to the
image. since
i am not
booting
from
read-only
media, i
don't
understand
why i need
EWF
componennts
at all.

Well, read-only media is
not only the application of
EWF. But if you system
specs do not require EWF,
you don't need to
include
it.

this doesn't
happen
consistantly
on the
system, i
just
installed my
image on a

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system, it
wrote the
image to the
disk, then
reboot;
when i
login, it
says
something
like "new
hardward
detected, it
needs to be
rebooted....."(do
you know
why it
always has
to be
rebooted
twice after
writing the
image to
disk?),

It does't.

Does the new hardware
identical to the old hardware
where you capture the
image from?

Do you use system cloning?

If you do, what setings you
are removing or keeping?

Also, what new hardward is
getting detected? If you
click on he notificaiton (or
go to Device Manager
directly) it will show
you.

so i
rebooted,
then i got
this
"IRQL_NOT_LESS_OR_EQUAL
" error.

Anything on that BSOD

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screen beside the
IRQL_NOT_LESS_OR_EQUAL?

so i turned
off the
power,
rebooted
again, this
time, it
worked
fine.

if i got the
error first
time, why i
didn't get it
the second
time?
should this
happen
consistently
instead of
randomly??

With the
IRQL_NOT_LESS_OR_EQUAL
it may happen
inconsistently, depending on
the faulty driver.

How does your
\Windows\SetupApi.log file
look like after the new
image deployment?
In other words, what's the
difference you can see in
that log file if you compare
it before and after the new
image install?

oh, my
image is
using
NTFS, so i
didn't
format my
disk, just
write the

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That's fine. You don't have to since you are transferring raw disk data.

image to it directly, will that cause this problem.

```
diskpart>select
disk 0
diskpart>clean
diskpart>create
partition
primary
diskpart>selection
partition 1
```

Better make this partition active.

```
sdimg
myimage.sdi
/writedisk:0
/yes
```

The approach is pretty dangerous since SDI doesn't deal with MBR properly. But since you got your image booted, it is not an issue for you. What's the SDI file size? Did you try using Ghost or other cloning tools? Or, better, did you try formatting the target partition and [x]copying all the files and folders of your image over there?

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Regards,

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KM

KM wrote:

mike,

That

is

a

bad

one.

I

suppose

you

already

looked

here:

<http://groups-beta.google.com/group/microsoft.public.windows>

Do

you

have

EWF

enabled

on

the

image?

What

mode

of

EWF

you

use?

Does

the

BSOD

screen

show

the

faulty

driver?

Were

there

any

errors

in

FBALog.txt?

Could

you

check

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the
Ever
Viewer
log
to
see
if
any
error
appears
there
related
to
the
BSOD?

I
couldn't
quite
understand
your
second
sentence.
What
you
meant
by
"always
include
EWF
in
XPE
image"?

Are
you
working
with
SP2?
(EWF
on
SP1
had
some
problems
on
certain
MBs).

And,
very

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blue
screen
with
the
message
"IRQL_NOT_LESS_OR_EQUAL".

i
googled
this,
someone
suggest
to
always
include
EWF
in
XPE
image
to
avoid
this
problem.
is
that
true?
i
don't
understand
the
connection
here.
can
anyone
explain
this
to
me.

thanks!