

[\[DVI SOLVED\] Gainward 8600GT 256mb VGA-DVI-HDMI](#)

by [wildfire2004](#) on Sun Jul 05, 2009 11:57 pm

[SOLVED DVI NOW WORKING]... 😊😊😊

I have a pci-express Gainward 8600gt 256mb graphics card - which has DVI, VGA & HDMI connector

[http://www.farayandmea.com/Productsview ... CWl4f8xw==](http://www.farayandmea.com/Productsview...CWl4f8xw==)

I could NOT get the DVI connector to work - VGA was OK. As I got no response or assistance - I did some reseach and SOLVED the problem. It all to do with the NVCAP ROM string that is associated with Nvidia graphics card

You need to get system on VGA with Nvidia options working with NVinject. I got fully Nvidia working with NVinstaller v.52 - download from here <http://scottdangel.com/blog/?p=27>

To get the DVI to work you have to do the following

1. Download NVFLASH from [http://www.softpedia.com/get/Tweak/Vide ... lash.shtml](http://www.softpedia.com/get/Tweak/Vide...lash.shtml) and place on system where you can get access via MSDOS

2. Boot system in MSDOS (floppy, CDROM or USB) and type

A:\ **CD D:** <drive that MSDOS can see and where you placed the NVFLASH utility>

D:\NVFLASH -B BACKUP.ROM

3. Boot to MACOS - download NVCAP MAKER from here - <http://www.mediafire.com/?emwvmcqnvg> and install

4. Copy BACKUP.ROM to the MACOS desktop

5. Use MACOS NVCAP Maker to extract NVCAP string from the BACKUP.ROM file - it will look something like this 040000000000090006000000000000700000000 with spaces

Code: [Select all](#)

```
04000000 00000900 06000000 00000007 00000000
```

< this is the code on my card>

This is the NVCAP Number

6. Now we need to add the NVCAP data to the /System/Library/Extentions/nvinject.kext

7. you will need to download PlistEditPro 1.4 from here [http://www.apple.com/downloads/macosx/d ... itpro.html](http://www.apple.com/downloads/macosx/d...itpro.html)

6. To edit the nvinject.kxt driver, browse the package content (right click on NVinject.kext, "show package content" open Contents directory) and then double click on the **info.plist** file to open, it will open with PlistEditPro

7. Now this is where it took me a while to discover. The file format is XML and when you look at the string under NVCAP it looks like this

Code: [Select all](#)

```
<key>NVCAP</key>
<data>
BAAAAAAAAQACAAAAAAAAAA==
</data>
```

which has no resemblance on the NVCAP data above 4000000 00000900 06000000 00000007 00000000

Here is the interesting bit, goto

PlistEditPro -> Operations -> Change Format -> ASCII <select ASCII>

you see something like this

Code: [Select all](#)

```
NVCAP = <04000000 00000100 02000000 00000000>;
```

directly edit the code to match your NVCAP data of your graphics card 😊

Change back to XML

PlistEditPro -> Operations -> Change Format -> XML

save file and exit

delete files

/System/Library/Extensions.kextcache

/System/Library/Extensions.mkext

Shutdown system

Connect DVI connector from the graphics card to the monitor - power up system - DVI should **NOW** be working 😊😊😊

I hope this helps anyone having issues with Nvidia Graphics Cards and getting DVI to work.
This also work for me for Dual Screen support I have

I have DVI as main screen and VGA as extended screen 😊😊😊

Last edited by [wildfire2004](#) on Fri Aug 27, 2010 6:48 pm, edited 21 times in total.

[wildfire2004](#)

osx86 manipulator

Posts: 152

Joined: Thu Jul 17, 2008 9:39 pm

[Top](#)

[Re: NVAP entry for Gainward 8600GT 256mb VGA-DVI-HDMI](#)

by [Pere](#) on Wed Jul 08, 2009 1:23 am

Nice you did t work finally.... 😊 congratulations. A reward for your hard work with this card.

But i have find nvcap maker is buggy and can't find correctly some nvcaps , then it uses a "generic" string, leading you to think it's the right one.. 😊

MACSONY CR11Z/R

SnowKitty 10.6.4 Bios modded with custom DSDT.



[Pere](#)

Site Admin

Posts: 5949

Joined: Tue Dec 18, 2007 9:15 pm

[Top](#)

[Re: \[DVI SOLVED\] Gainward 8600GT 256mb VGA-DVI-HDMI](#)

by [wildfire2004](#) on Wed Jul 08, 2009 4:30 pm

Pere, given your experience I am sure this is the case.

This is a solution that worked on my Gainward Nvidia 8600GT 256MB graphics card and I thought I would share.

As Pere rightfully highlighted it is not intended to solve every Nvidia graphics card situation.

You may find enclosed information useful

From Nvinject gotoh <http://nvinject.free.fr/forums/viewtopic.php?t=214>

NVCAP is now mostly mastered. As I've said here, NVCAP can't fix everything, but it is necessary to get proper display detection on VGA and DVI outputs. TV out and laptops' displays may require further research...

Anyway, first I'll show what are the important part in NVCAP and how they work :

```
04000000 0000xx00 xx000000 00000000 00000000
```

the bold bytes define output channels. They are using a "bitmap" setting to define which output is used on which channel, and there's actually not so many possibilities for usual cards.

Most cards are using 4 or 5 outputs :

```
1/ DVI - 2/ VGA, 3/ VGA, 4/ TV out
1/ DVI - 2/ VGA, 3/ DVI - 4/ VGA, 5/ TV out
```

Later I'll show how this is defined in a PC NVIDIA ROM for GeForce 5/6/7/8 series.

- so most dual DVI cards will have channels using this settings (5 different outputs) :

```
channel 1 :
DVI + VGA --> bitmap 0 0 0 1 1 --> hex 03
channel 2 :
DVI + VGA + TV --> bitmap 1 1 1 0 0 --> hex 1c
```

or

```
channel 1 :
DVI + VGA + TV --> bitmap 1 0 0 1 1 --> hex 13
channel 2 :
DVI + VGA + TV --> bitmap 0 1 1 0 0 --> hex 0c
```

TV output is usually defined a the last entry in the output definitions in VGA ROM, that's why it is using the last position (5th position on dual DVI cards, or 4th position on DVI + VGA cards)

- for DVI + VGA cards (4 different outputs) :

```
channel 1 :
DVI + VGA --> bitmap 0 0 1 1 --> hex 03
channel 2 :
VGA + TV --> bitmap 1 1 0 0 --> hex 0c
```

or

```
channel 1 :
DVI + VGA + TV--> bitmap 1 0 1 1 --> hex 0b
channel 2 :
VGA --> bitmap 0 1 0 0 --> hex 04
(as you can see, TV out is on last available position, so 4th position for 4 available outputs)
```

or

```
channel 1 :
VGA --> bitmap 0 0 0 1 --> hex 01
channel 2 :
DVI + VGA + TV --> bitmap 1 1 1 0 --> hex 0e
```

or

```
channel 1 :
VGA + TV --> bitmap 1 0 0 1 --> hex 09
channel 2 :
DVI + VGA --> bitmap 0 1 1 0 --> hex 06
```

The main difference with windows behaviour is that Windows NVIDIA drivers are able to dynamically define which channel to use for TV output, whereas OS X drivers use a fixed position for TV out, NVCAP being defined in VGA ROM and saved in IOreg. This setting is not able to change in OS X once drivers are loaded.

So usual NVCAP for standard cards would be :

dual DVI cards :

04000000 00000300 0c000000 00000000 00000000 --> disabling 5th position, no TV output.

04000000 00001300 0c000000 00000000 00000000 --> 5th position for TV out set on channel 1, TV out available when no other display is connected on channel 1.

04000000 00000300 1c000000 00000000 00000000 --> 5th position for TV out set on channel 2, TV out available when no other display is connected on channel 2.

DVI + VGA cards :

04000000 00000100 06000000 00000000 00000000 --> disabling 4th position, no TV output, only 1 output on channel 1 and DVI + VGA on channel 2

04000000 00000300 04000000 00000000 00000000 --> disabling 4th position, no TV output, only 1 output on channel 2 and DVI + VGA on channel 1

04000000 00000300 0e000000 00000000 00000000 --> VGA only on channel 1, 4th position for TV out set on channel 2, TV out available when no other display is connected on channel 2.

04000000 00000900 06000000 00000000 00000000 --> VGA only on channel 1, 4th position for TV out set on channel 1, TV out available when no other display is connected on channel 1 (DVI + VGA on channel 2 using position 2 and 3, bitmap 0 1 1 0)

Laptops usually have first channel using only 1 output for internal panel, on position 1, and depending on how many other outputs are available, second channel can use positions 2, 3, and 4 :

04000000 00000100 02000000 00000000 00000000

04000000 00000100 06000000 00000000 00000000

04000000 00000100 0e000000 00000000 00000000

Last edited by [wildfire2004](#) on Mon Jul 13, 2009 11:10 pm, edited 1 time in total.