



Flashing the VBOB for Use with HD GVO (DG5-2/TVO)

You must flash the firmware in this Video Breakout Box (VBOB) if you plan to use it with the DG5-2/TVO board set and TOI option for HD GVO (high-definition graphics-to-video out).

SGI flashed the VBOB firmware for use with the DMediaPro™ DM5 graphics-to-video output option. However, HD GVO requires different firmware.

Affected hardware:

- VBOB version 013-2746-004 or greater that SGI ships as *spares* for *HD GVO* applications

Unaffected hardware:

- VBOBs shipped from SGI manufacturing (rather than as spares)
- VBOB spares used with DMediaPro DM5
- VBOB version 013-2746-003 or lower

Flashing the VBOB via a DMediaPro DM3 (XT-DigVid) Option

The flash process is faster when you use a DM3 option.

1. Verify that the DM3 (XT-DIGVID) and the DG5-2/TVO board set are installed:

```
1% hinv | grep XT-DIGVID
XT-DIGVID Multi-standard Digital Video: controller 0, unit 0, version 0x0
2% /usr/gfx/gfxinfo | grep TVO
TVO option detected
```

2. Verify that vbob 1.3 or greater and xtdigvid 1.1.1 or greater are installed:

```
1% versions -b | grep vbob
I vbob 01/10/2003 VBOB Execution Environment, 1.3 for IRIX 6.5
2% versions -b | grep xtdigvid
I xtdigvid 01/08/2003 DMediaPro DM2/DM3 dmSDK Execution Environment, 1.1.1 for IRIX 6.5
```

3. If necessary, install vbob 1.3 or greater and xtdigvid 1.1.1 or greater from the following CD:

```
dmediapro-dm2-and-dmediapro-dm3-software-1.1.1
```

4. If the VBOB contains a TOI daughtercard, have an SGI qualified service provider power down the VBOB, remove the cover, remove the TOI daughtercard, and replace the cover.

5. Connect LVDS cables between the VBOB and DM3 LVDS ports.
6. Power up the VBOB and restart dmdaemon as follows:


```
# /etc/init.d/dmdaemon stop
# /etc/init.d/dmdaemon start
```
7. Run `/usr/dmedia/bin/vbob/vbob_update1`.
8. If you removed the TOI daughtercard, power down the VBOB, replace the TOI daughtercard, replace the cover, power up the VBOB, and restart dmdaemon as described in Step 6. (Leave the LVDS connections in place.)
9. Run `/usr/dmedia/bin/vbob/vbob_update2` to flash the VBOB firmware.
10. When the flash completes, power down the VBOB and connect it to the DG5-2/TVO board set with TMDS cables.
11. Verify that the system recognizes the DM3 card:

```
1% dmquery
SYSTEM: Silicon Graphics IRIX Workstation
DEVICES:
    RAD1 [0]
    nullXcode [0]
    xt-digvid [0]
```

Flashing the VBOB without a DMediaPro DM3 (XT-DigVid) Option

The flash process takes 15 to 20 minutes when you do not use a DM3 option.

1. Verify that the DG5-2/TVO board set is installed:

```
1% /usr/gfx/gfxinfo | grep TVO
TVO option detected
```

2. Verify that vbob 1.3 or greater is installed:

```
1% versions -b | grep vbob
I vbob 01/10/2003 VBOB Execution Environment, 1.3 for IRIX 6.5
```

3. Connect the VBOB to the DG5-2/TVO board set with TMDS cables.
4. Run `/usr/dmedia/bin/vbob/vbob_update1`.
5. Run `/usr/dmedia/bin/vbob/vbob_update2` to flash the VBOB firmware.