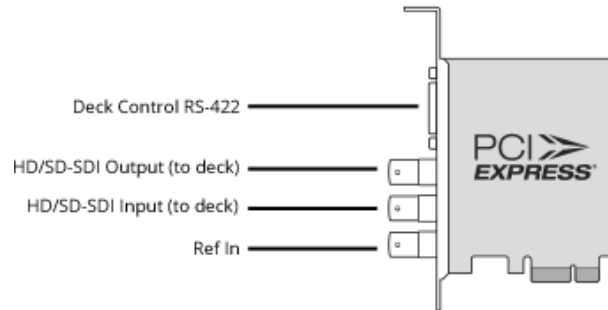


- **For PAL cameras:** Use the Decklink-pro card, which can be used for composite cameras (e.g. when using the Bosch Allegiant + PAL cameras). Note: Each PAL input requires one PCIe slot of the PC.
- **For HD-SDI cameras:** Use either the Decklink Recorder, Decklink SDI, Decklink duo or Decklink Quad cards. A single input Decklink SDI requires one PCIe slot, the Duo and Quad require a PCIe x4 slot. (or x8 or x16).
- You can find a list of recommended motherboards at the BlackMagic design website, go to: <http://www.blackmagicdesign.com> > Capture and playback > Windows PCIe system requirements > Read More.



Decklink SDI

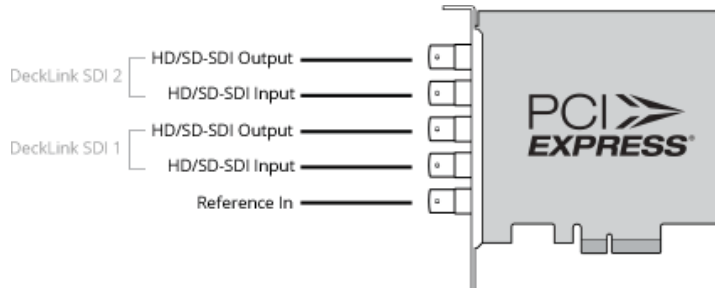
- 1 SDI input.
- Can be used in all PCIe slots.

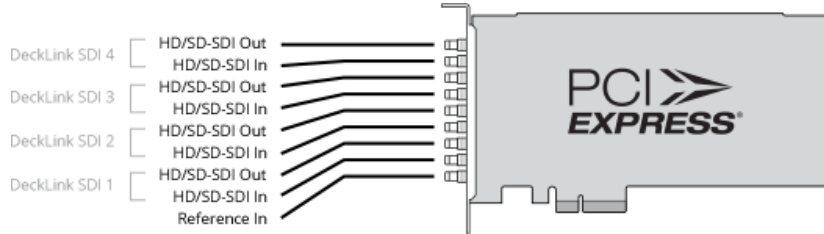




Decklink DUO

- Two independent HD-SDI inputs.
- Requires a PCIe x4, x8 or x16 slot.





Decklink Quad

- Four independent HD-SDI inputs
- Requires a PCIe x4, x8 or x16 slot.
- Uses mini-bnc: Requires BNC Cable Bundle for Decklink Quad / Decklink 4k package to convert to normal BNC.
- For optimal use of PCI-e slots it's recommended to use a quad card over 2 DUO cards.

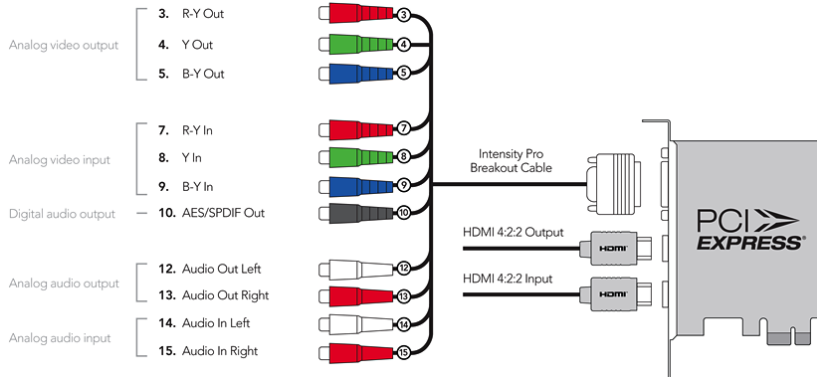


Intensity Pro

- Single input
- PAL Composite and HDMI input
- Requires any PCIe input slot

- For PAL camera use, requires the included bundle, use the green connector called 8 Y in.

- Requires special configuration inside Windows, see next slides for more details.





Other models

- BlackMagic design keeps adding new capture solutions. Most new cards support the new HD standards like 4K support and 60fps.
- These cards are not tested by MVI AudioVisual but share the same BlackMagic drivers and can be used as well.
- Note that the MVI-CAM software has been designed for 1080p 25/30p resolutions. Please test for correct operation if your system demands higher. A Quadro k2200 is minimally advised then.

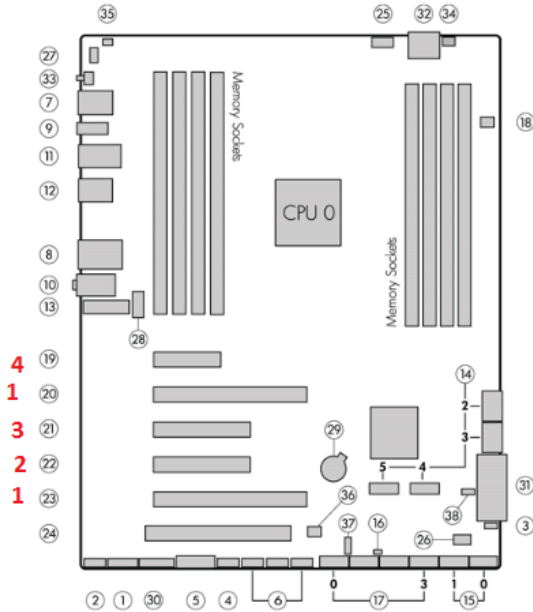


UltraStudio SDI



USB 3.0 models

- There are different types of Blackmagic USB models to allow both PAL and HD-SDI feeds to be inserted into the PC.
- We strongly advise not to use these cards in fixed installations. There is a chance the device is not enumerated at boot, and because of power-saving features of the USB 2.0 and 3.0 specification, these may fail after they have been used once. E.g. after restarting the MVI-CAM software they may fail to work.
- **Demo:** They can be used for demo purposes, since this allows a laptop to be used to demonstrate features to customers. We also use the ultraStudio SDI for this.



(4) = PCIe1 slot, only for single decklink or Intensity pro

Modern motherboards have multiple PCIe slots. Choosing the correct slot is important to allow the use of the full bandwidth channels.

For the HP-Z420 and HP-Z440, the left image shows preferred slots with 1 as best option, then 2,....

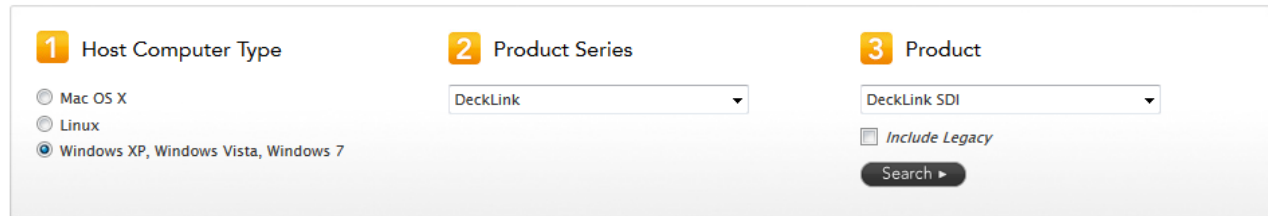
For other PC's:

Please find the technical documentation of the PC motherboard.

Then try to find if a PCIe slot lanes go directly to the processor. If so, this is a preferred slot.

In this example: The HP-Z440 has 40 direct lanes, occupied by 1 (16 lanes), 1(16 lanes), and 2(8 lanes). The rest go to the 'south bridge' chipset.

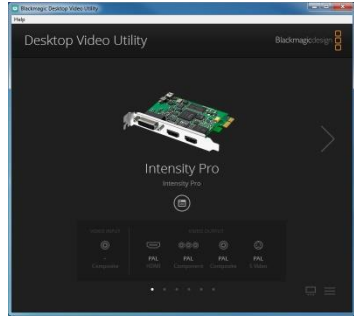
- To use EasyCam it's **mandatory** to install the Desktop Video software of BlackMagic design.
- This comes included with the purchase of any BlackMagic design capture card, or can be downloaded from the support pages of Black Magic design:
- www.blackmagicdesign.com/support
- Once here, select the entries in below screenshot and press search. In the next presented list, select the Desktop Video software suite and perform a full install.
- Once installed, a reboot is required, and your capture-card(s) will be upgraded to the latest version.
- **Important:** When upgrading BM drivers, please uninstall the previous version first. This adds a reboot but prevents problems.
- Minimal software driver version:
10.4



The screenshot shows a search interface with three main sections:

- 1 Host Computer Type:** Radio buttons for Mac OS X, Linux, and Windows XP, Windows Vista, Windows 7. The Windows option is selected.
- 2 Product Series:** A dropdown menu with "DeckLink" selected.
- 3 Product:** A dropdown menu with "DeckLink SDI" selected. Below it is a checkbox for "Include Legacy" which is unchecked.

A "Search" button with a right-pointing arrow is located at the bottom right of the form.

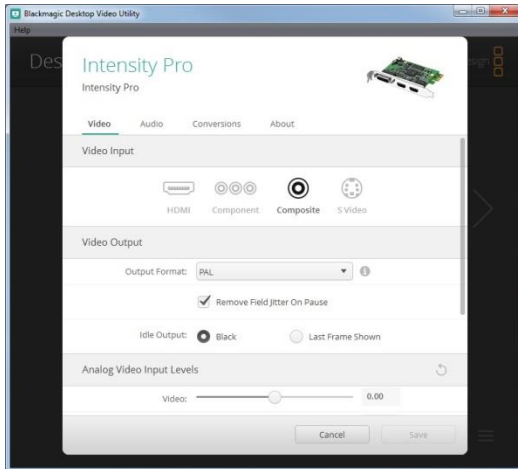


The following steps are required when an Intensity Pro card is used for PAL mode:

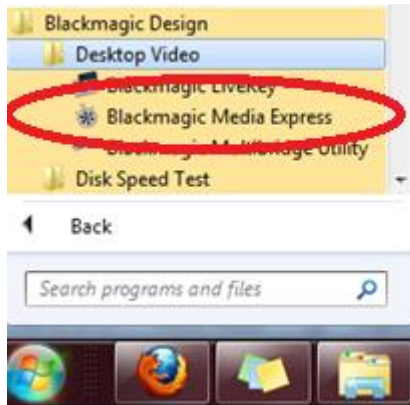
- The intensity pro is default set to HDMI. The MVI-CAM software sets the resolution.

For PAL:

- Press the windows key and type **video utility**. Select the BlackMagic desktop video utility (since BM version 10.4). Click on the icon in the middle of the screen.
- Click on **Composite** or another input type to meet your requirements. Press **Save**.

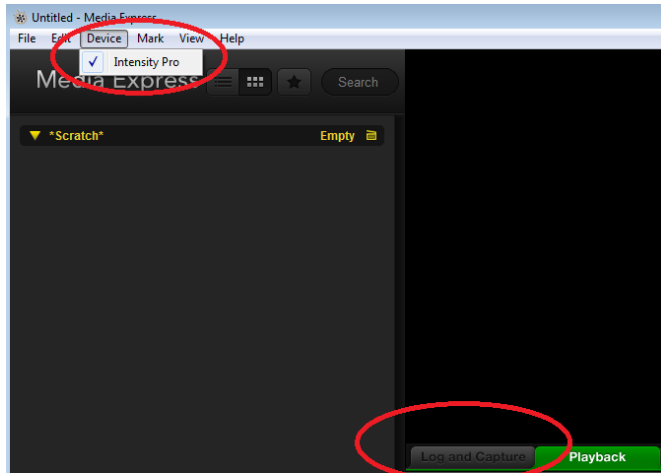


- **Hint:** If you are an experienced MVI-CAM software user, these steps can be skipped.
- In order to test your BlackMagic design cards and the camera feeds, we will use the desktop-video software from BlackMagic design.
- It's important all required inputs have its video source connected and the video-format is known (e.g 720p50, 1080p25,..)

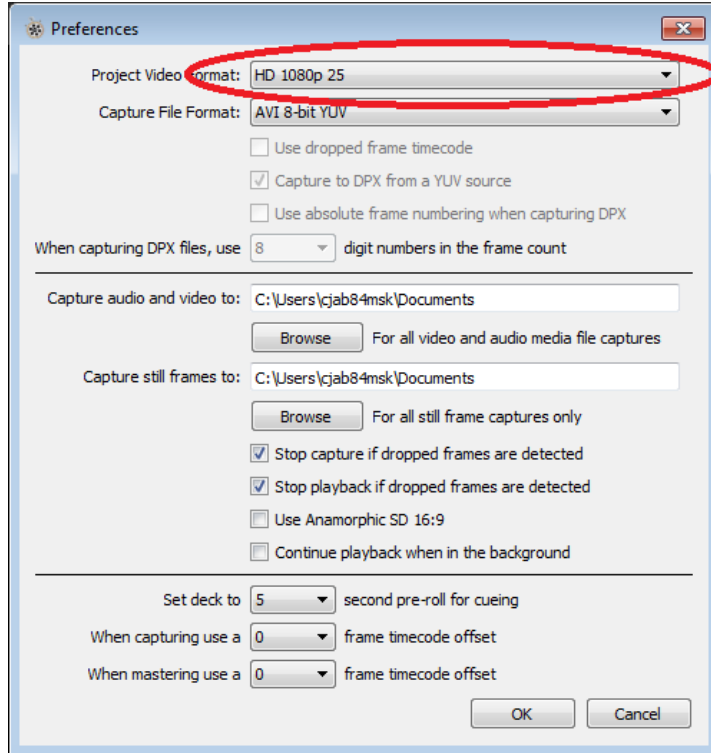


- Open the BlackMagic Media express software from your windows start-menu. Go to BlackMagic design -> Desktop Video -> BlackMagic Media express.

Please test all your capture sources first using below instructions before proceeding.



- Open Media Express.
- Select **log and capture**
- Go to the top of the screen, select **Device** and select your first camera input.



- Only change 'Project Video Format'
- Select your camera input format:
 - 1080p 25 or
 - 720p 50 or
 - PAL
- Press OK



- Your camera source must be visible in the preview window.
- When using the TvOne HD-SDI switcher: manually press all inputs to test all your camera's.