



DiCentra FAQs – 11

Updated 22nd January 2020

Using 4K Screens and Projectors

Question: Our club has moved away from using a projector for its competitions to a 60inch 4K smart TV.

We have run into some difficulties with the competition images appearing very small on the screen. Does DiCentra support 4K resolution?

Answer: Yes, DiCentra supports 4k screens but you will need to change competition rules to get the best out of them.

DiCentra has been built on the principle of pixel-for-pixel display of images to the screen. This has worked well until recently and means that DiCentra did no up-scaling of entrants' images which could introduce artefacts ("jaggies") or softening of the image. It does support 4k screens, but as you have found, with traditional 1400 x 1050 or 1600 x 1200 images only part of the screen is used.

There are several things that you might do.

1. Change the image size requirements for your competitions to something like 2800 x 2100. This is the best solution since you will be taking advantage of the TV's greater resolution and will not have re-scaling and artefacts. Members will need to submit appropriately larger images to achieve this.
2. If you are using 1920 x 1080 image size or 1400 x 1050 and do not wish to change the image size that members submit, you could check whether the TV has an HD mode (1920 x 1080) and set it to that. This means the TV will use 4 pixels for each image pixel and should look fine.
3. Alternatively, in Windows you could set text scaling for the TV to 200%. This way Windows will do the scaling for you. (**Right-click blank area of desktop**; Select **Display Settings**; **Select the TV** screen and change **Scale and Layout** to 200%).
4. If you are using 1600 x 1200 images and you do not want to use option 1, the only option is to use option 3 and set the scaling to 150% or 175%. In this case I would suggest you try it out with some previous competitions to see if any softening or artefacts are acceptable.

I am working on software which will provide adaptive re-scaling, but that won't be available till later in 2020. It will allow up-scaling of submitted images under your control, but at the risk of softening and artefacts. Up-scaling by other than 200% is not desirable for best quality images.