

**Photron BC-2 HD Workflow Information.**

*Section 1:*

*When the full 12bit images are required in post (i.e. for TV production/commercials) and usually studio based. Images are downloaded to computer hard drive.*

Download times using a powerful computer supplied by Slowmo - 1000 Raw full HD (1920 x 1080) images in around 1 min 20 s. Put another way, a 4 s shot captured at 1000 fps will take less than 5 minutes to download (a lot less than you may have read somewhere else). A 4 s shot at 1000fps is typically quite long and would result in 2 min 40 s video. In our own experience, across a range of shoots, the average download time is about 1-2 minutes and can be as little as 30s. Far more time is usually spent reviewing the shot and the subsequent reset.

When operating the camera, the operator will quickly download and save a RAW file after each good take (Note: during the download process, the shot can be viewed via the HD-SDI ports). A copy of this file will also be made to an external hard drive. So even while the shoot is ongoing, there will always be two copies. On a big budget shoot, this is vital and certainly reassuring to all concerned. A conversion of the RAW to a 16bit TIFF sequence is also done during any downtime on the shoot resulting in the client being able to walk away with, or send to edit, a drive containing all the shots shortly after wrap is called. Only one operator is required to operate the camera and data handle, thus keeping costs down.

Should a series of takes be required in a very short space of time (thus discounting any chance to download the last take) then one can partition the on board memory. The Photron BC-2 has 32Gb on board resulting in approximately 20s recording time at 500fps @ full HD. This 20s single recording capability can be split into any number of smaller shots. One can partition this 20 s into, for example, 5 x 4 s captures. A separate shot can be saved to each of the 5 partitions without the need to download in between takes. Individual partitions can be overwritten several times until essentially 5 good shots have been captured. These can then be downloaded in turn.

In practice, especially for studio shoots, the time needed to reset each take/performance is normally longer than the time needed to download the shot. Hence there is no lost of time. More importantly, the saved files are stored and backed up on a safe storage medium with no further processing required.

*Section 2:*

*When there are time and power restraints and portability is important. Images can be recorded to a HD-SDI recorder.*

Images are recorded straight to a HD-SDI recorder on standard 2.5" hard drive. This produces 10-bit Apple Pro res HQ movie files. The time taken for this recording is the playback time at 25Hz of the chosen clip. For example 1s at 1000fps would take 40s to playback.

The recorder hard drive is inserted into a docking station and the movies simply copied off onto another drive. The main disadvantage of this system is that you are losing 2 bits of image information. The movies files are 10bit whilst the Photron sensor is 12bit.

If you need any more information regards the Photron workflow, please do not hesitate to contact Mark Johnson on 07961 483137 [info@slowmo.co.uk](mailto:info@slowmo.co.uk)