

Main Film's P2 Pre-flight checklist

by Mark Morgenstern

1 Do you have any time limitations on set?

Actors waiting for the next take? Important, busy people to interview? Sun setting?

- YES** You will need an assistant whose only job is to carefully unload the P2 cards & manage the data while you continue shooting, just like a film-style 2nd A.C.
NO You'll be stopping to unload the data when the P2 cards fill up.

2 Will you have a laptop or computer on set?

Advantage: you get to make sure the material is ingested properly into your editing software and actually see the footage before reformatting the P2 cards
Disadvantage: carrying around a fragile, expensive piece of equipment not suitable for all environments, with more limited battery life & mobility.

- YES** Download & install the latest drivers from the Panasonic website, or from the CD in the kit.
Note: their P2 management software is available for PCs and Intel Macs, but not PPC Macs. You can offload P2 cards with a PowerPC Mac driver, but you'll need to open the files in Final Cut or something to check them visually.

2A Does your computer have a PCMCIA slot?

- YES** Great: use a laptop with a PCMCIA slot for fastest copying. If you have an Express slot (newer, less wide), you'll need an adapter.
NO You'll need to use either the camera or the portable P2 reader unit (AG-HPG10PE) as an interface, in "DEVICE" mode.

2B Can you afford to stop shooting while offloading P2 cards?

- YES** You can use the camera, in either USB DEVICE or 1394 DEVICE mode, to transfer your footage to a hard drive.
The P2 card(s) will appear as an external drive on your desktop.
NO You'll need to use the portable P2 reader unit (AG-HPG10PE) as an interface, in "DEVICE" mode. (1394 is faster than USB)

- NO** You'll need a portable external hard drive or a P2Store unit (AJ-PCS060G) to offload the cards.
Or you can rent enough P2 cards to cover the whole day or whole shoot, but that may cost more: they're disproportionately expensive.

2C Were you thinking of using a Panasonic P2Store unit?

- YES** Advantage: single, rugged, battery-powered, portable unit, no laptop or external drive needed.
NO Disadvantage: no screen to see what you're copying, and it only stores 60G, which is not even four 16G P2 cards...
You see why Main Film didn't buy one.

2D Can you afford to stop shooting while offloading P2 cards?

- YES** You can use the camera, in 1394 HOST mode, to transfer your footage to a Firewire hard drive.
NO You'll need to use the portable P2 reader unit (AG-HPG10PE) in HOST mode. USB is as fast as 1394 here in this case and handles 23 P2 card offloads instead of just 15.

In both of the above cases, you will need an external hard drive that you can format in Panasonic's custom P2 format, whether it's Main Film's or yours. If your project is anything semi-serious, you might as well go ahead and buy your own hard drive: it's now or later, baby. In most editing systems, the act of loading the footage creates a digital copy in the platform-dependent format the software wants to work in: we recommend keeping the original P2 format contents as well. Do not use these drives for editing, keep them offline as soon as you've copied them into your edit system: You'll always want to keep your electronic "original negative" for security.

Very important: When copying the contents of each P2 card to your edit system, note that by default, unless you rename them with the P2 reader unit, they'll all appear as "NO NAME" external drives on your desktop: be very careful to **transfer just one P2 card at a time** to prevent confusion, and **immediately rename it** with a name that actually tells you what it contains. (see Main Film website for examples and counter-examples) And when copying, you absolutely must preserve the "CONTENTS" directory structure: if you mess with it, it won't be recognised and imported by your edit system.

3 Do I shoot in SD? (standard definition, 480 lines) Or HD? (High def, 720 or 1080)

What's the end result of your production? A DVD for friends and family? A DVD for a broadcaster, what's the delivery requirement? Hoping to blow up to film?

- SD** Advantage: much more shooting time per P2 card, more time between reloads, less interruptions, lower file sizes in postproduction, fewer hard drives.
Disadvantage: less resolution, less image quality. (note: same dynamic range, same colour rendition)
HD Advantage: higher quality end product, ability to reframe shots (this is useful even for an SD finish!) Better results for blow-up or projection.
Disadvantage: more resource consumption, higher costs in postproduction, more demanding in the focus department.

Which of all these resolutions do I choose?

3A Are you going for the 24fps film look? (This is an aesthetic choice, not a purely technical one.)

- YES** Then use the 720PN (Native) mode (see "progressive", below) and choose Cinema gamma & matrix settings in your "Scene" file.
Advantage: Native mode records exactly 24 fps and doesn't waste any storage space: you get 40 minutes per 16G P2 card instead of 11.
Disadvantage: this is a format that can only exist in a computer - it cannot be put on tape without some transcoding.
NO Then use 1080i/60i mode and choose a gamma curve and matrix to your taste in your "Scene" file.
Advantage: sharpest possible video look.
Disadvantage: much shorter recording times, more hard drive space consumption, and I'm not sure the camera's chip actually delivers that much resolution anyway!

4 Do I pick a progressive (ending in P) setting instead of an interlaced (ending in i) one?

- YES** If you are going for a film-like look, or your end product is for the web. (Computer screens are all progressive)
NO If you want the normal video look. (sharper, less blurry, but more electronic-looking, more "live", like news footage)

5 Do I pick an "Advanced" (ending in A) setting?

- YES** If you want to edit in 24fps but you're not using the "Native" (N) mode. Your editing software will extract the original frames from the 30fps recorded ones, if you tell it to "remove 3:2 pulldown" during the import process.
Advantage: frame-accurate editing, you will save 20% hard drive space, you'll get better compression quality on your final result, DVDs, and the web.
Disadvantage: TVs don't normally play 24fps video, you'll have to keep track of what's in 24 and what's rendered into 30. And if you don't remove the pulldown, it's not the right "film" look.
NO If you are going to edit in 30fps. Which is what you would do if your final product is 30fps, even if you shot with 24P for the "film look".
Advantage: simpler postproduction, all in the same timebase. It's like your material went through a telecine.
Disadvantage: consumes more hard drive space, and not frame-accurate editing if you shot in 24P.

6 Are you doing time lapse or single-frame recording?

- NO** Then go ahead and choose the mode and resolution appropriate for your project, as per above guidelines.
YES Then you are counterintuitively forced to use the camera in "video" camera mode instead of "film" camera mode: if you don't choose a video mode, the step recording options are not available to you: you can't use Native mode for animation. I have no idea why they did this. Firmware update, anyone?