

Sedimetrics® Digital Gravelometer™: Image collection checklist

This checklist may be printed and used as guide when collecting images in the field.

Sampling area:

- There must be four markers in each image defining the corners of a rectangular sampling area of known dimensions
- Make the shape of the sampling area rectangular to reflect the aspect ratio of your image (usually 4:3)
- The sampling area should be small enough that the diameter of the smallest grain of interest is more than 23 pixels in the image

Composing the photograph:

- Nothing other than sediment and the control markers should appear in the image (no frame etc)
- All grains that intersect the boundary of the sampling area must be entirely contained within the image (i.e. ensure that the photograph is bigger than the sampling area)
- Avoid using a very wide angle lens setting – raise the camera height instead
- Ideally the ground surface should be dry (dampness in the interstices is fine)

Lighting:

- The sampling area must be shaded from direct sunlight
- The flash should be set to 'always on'
- If possible, use a camera-mounted external flash to increase the overhead lighting intensity
- Try to ensure even illumination – this is easier if the camera is held higher

Camera settings:

- Set the camera pixel resolution to maximum and store the images as JPEG using the minimum compression supported
- All other parameters should be left at their default values (other than the flash)

Taking the photograph:

- The camera may be held in the hand
- Try to take the photograph as vertically as possible

Treatment of the images:

- After downloading the images from the camera, don't modify them in any other software – this may degrade their quality and result in loss of metadata