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The Traherne Digital Collator: Image Capture Equipment

The Oxford Traherne project is able to supply portable image capture equipment designed to complement the Traherne digital collation software. It enables the software to be used in a library in conjunction with examination of the physical text.



The image capture equipment has been designed with input from conservation librarians to ensure it is acceptable for use in most libraries. It consists of a compact triangular base, an adjustable support system, and a high-resolution digital camera. The key requirement for the entire support system is stability, which delivers several important benefits. Firstly it ensures that there is no risk of the equipment touching the valuable item being photographed. It also provides a stable and reproducible camera position, which in turn permits longer exposures. This reduces the need for supplementary lighting, and enables the use of a reduced aperture which enhances the depth of field (needed in case of page curvature at the gutter). The supplied equipment is designed to have positive stability in all configurations within the adjustment range. The camera is supported on a ball-joint clamped to a vertical rod, giving easy adjustments in height, pan and tilt. The range of height adjustments permits image capture from volume formats up to standard folio.

A small LED light which mounts directly on the camera and provides a white light diffuse background of adjustable intensity, all within recommended library limits for light intensity, can be supplied as an optional extra. Note, however, that some libraries will not allow any user-supplied lighting!

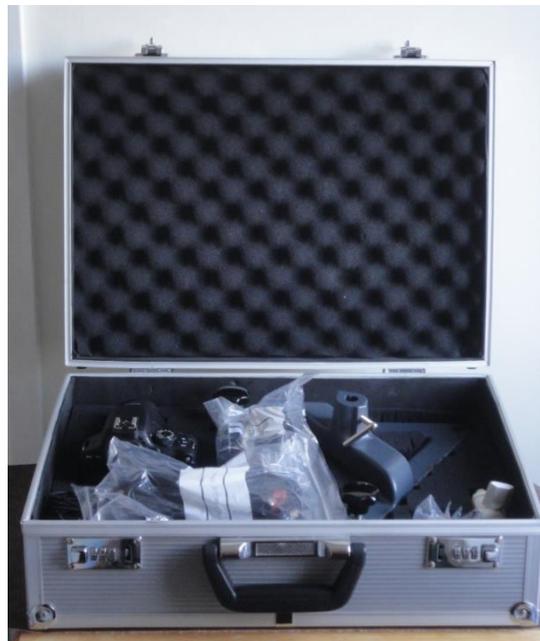
The camera is a Canon DSLR, with a sensor of about 18 Mpixels, giving the necessary digital resolution to capture the finest typographical features on a folio page. The zoom lens enables the field to adjust to any smaller page size. Crucially, all of the camera functions can be operated remotely from a laptop, using a live view screen which displays the camera output. When an image is captured it will be named according to a fully programmable

6 Jan 2017

naming convention defined by the user to identify the item and page uniquely. The naming convention can be set to a standard bibliographical format such as [library]_[shelfmark]_1A01r, which will be applied automatically as pages are turned.

As soon as an image has been captured it can be compared with a stored image set using the Traherne Digital Collator Software. In any dubious cases, the physical text can be examined directly. In libraries not willing to allow an image set to be taken away, the results of the digital collation can be saved as a composite of the newly captured and stored images showing the variants identified.

The equipment is easily assembled and disassembled, is fully portable, and is supplied in a convenient carrying case. For volumes up to folio size, it weighs about 7.7 kg including the case. It may be possible to supply a lighter base for use with smaller format volumes. All parts are robust and durable, but we can supply replacements for lost or damaged parts.



All image processing makes heavy demands on laptop memory: we recommend a laptop operating at 2GHz or higher, with at least a dual core with 8GB RAM. For concurrent use with the Traherne Digital Collator software (which may involve pre-processing large numbers of images) you should consider a quad core with 16GB of memory.

The current price of the image capture equipment is approximately £950, plus carriage and insurance at cost. The price and approximate delivery date will be confirmed at the point of order. 50% of the price is payable with the order, and the remaining 50% when the equipment is ready for delivery.

To order the equipment, please contact the general editor of the Oxford Traherne (julia.smith@ell.ox.ac.uk). We will then discuss options with you, give you an exact price, and ask you to complete an order form and pay the 50% deposit.

Technical enquiries should be sent to Christopher Palmer:
christopher.palmer@balliol.ox.ac.uk

Other enquiries should be sent to the general editor of the Oxford Traherne:
julia.smith@ell.ox.ac.uk