

# Boa Repro Digital Capture of Flat Art

## Pricing Summary:

- **\$300 minimum per project**
- **\$100 setup charge for each type of lighting.** For example, cross-lighting vs. dimensional lighting; regular repro size done vertically up to 32" x 40" originals, vs. oversized originals done in adjoining product studio with custom setup; etc.
- **Location work is a minimum of \$1000**, and includes photographer and assistant, portable viewing station, and all necessary equipment to shoot in a large, dark room, or at night, at **\$200 per hour**, including packing, travel, setup, strike, post-production, pack, and unpack at studio, plus \$.33/km fuel & vehicle charge, instead of per piece pricing, and time includes all post-production done on-location.

**Level 1 (micro format)** is suitable for record-keeping and low-budget web **\$15 each** per un-cropped, un-color corrected, **8 bit 3264 x 2448 pixel** capture, with your choice of TIFF or JPEG file. A 1024 x 768 pixel "screen" version available of each at \$5 per.

**Level 2 (small format)** is our "most popular" service for budget-minded professionals, striking a great balance between color accuracy, good printability and enlargement, speed, and economy. 8 or 16 bit TIFFs or 16 bit single layer PSD files, with free screen file, using 21 mp full-frame Canon 5D Mark II with a macro lens. **14 bit, 4368 x 2912 pixel capture.** Suitable for up to 12" x 18" photo paper print or double page magazine reproduction, or a 15" x 22" or even larger Giclee. Includes critical cropping, very minimal retouching, and overall custom color and tonal balancing, individually tuned to each piece. Equivalent to custom color-corrected medium format film transparencies. **\$50 each or RAW capture only \$25 each.**

**Level 3 (medium format)** is for when you need substantially larger, sharper reproductions, or for very critical color applications. This medium format file will provide enough detail for any typical application, or most large print sizes, even up to 36" x 44" gallery prints, or some of the largest advertising posters. Included is overall AND local color and tonal matching, minimal retouching, and cropping. Files delivered as 16 bit multi-layer .PSD (all corrections and retouching on a separate, editable layer), 8 bit TIFF, or 16 bit TIFF, plus a screen file. Level 3 is done with a Hasselblad H3DII-39 and 80mm or 120mm macro lens, with a 39 mp sensor double the physical size of the 5DII sensor, a 12 f-stop tonal range, creating a razor-sharp full **16 bit 7212 x 5412 pixel capture** (117mb). Individually color and tonal corrected, with color matching. Equivalent to large format, custom color and tonal-corrected 4" x 5" transparencies. **\$95 each.**

**Level 4 (large format scanning back - the ultimate quality, at any cost)** Using the best large format camera in the world, the Sinar P2; one of the best Apochromatic Rodenstock lenses available; one of the highest-resolution scanning backs in the world, and the Betterlight Super 6K-2, 16 bit 9,000 x 12,000 pixels, creating a 618mb file, we provide large format scanning back captures of artwork that are the technical pinnacle of what is readily available today. Besides repro size, the other big difference is moire control and even better rendering of fine, curved lines, such as in etchings, currency, stamps, etc, no matter what size it is. **The price of each capture is between \$200-\$300, depending on the final size chosen, charged in \$25 increments.** The larger the size, the longer it takes to scan (up to 10 minutes each), and to do post-production on such large files, and the time and space to archive. Includes all post-production services and file types.

**Level 5 (direct scanning on pro-grade legal size or tabloid size flatbed scanners)** Fastest and most economical reproduction for certain scenarios. One scanner can accommodate up to 8 x10" transparencies, or up to 9" a 12" opaque originals, has a 3200 dpi optical resolution, with a 4.2 optical density range yielding what often looks like a drum scan from large transparencies or negatives. An 8 x 10 transparency can yield a 30k scan (30,000 pixels) across, or a 2000 mb scan. We also have a double-page 11" x 17" 1200 dpi optical resolution scanner which has a document feeder for quick scans of large numbers of prints (inquire about auto-feed pricing). On either of the scanners, There are three components to calculating the total price: We charge \$25 job setup for the order, \$25 per scan, with custom color-matching, and \$.20 per MB of final Photoshop file size - not size on disk

*Boa Repro provides integrated services, ranging from photography / digital capture of two and three-dimensional artwork, both digitally and with film; sophisticated, high-usability portfolio web sites and online database solutions; slide, transparency, and flat art scanning; and photo prints and Giclees on fine art paper, canvas, and other materials. Best quality and pricing are obtained when Boa handles a number of key services, ensuring speed and consistency, and the most efficient use of your precious time. Getting the best possible reproduction of your artwork relies on several key areas working harmoniously:*

- Careful handling and storage of the artwork.
- Matching the photograph / capture equipment to the specifics of the type of art, level of detail, color rendering, and final output.
- Perfectly parallel, calibrated capture device, in a dedicated, lightproof black room, with blackout over any equipment or people that may reflect in the artwork. This is most important for pieces behind glass, or with highly reflective finishes or materials.
- Deciding whether double polarized lights, or a single soft, light with a shadow, is most appropriate for the type of finish and texture of a piece.
- Meticulous, repeatable photo techniques, including lighting, digital capture,, and post-production workflow
- Depending on level of service, post production using the best, calibrated equipment possible, working in front of a huge 6500k artwork viewing station, and creating the most usable file formats, ready for their final uses, together with the most effective communication, delivery, and archive methods.
- Full guarantee of price, turnaround, quality, and customer service. We guarantee the best value for you, if you are after the highest quality results and personal, professional service for that price-point.

### **Common to all levels of service:**

**Pricing model for in-studio, flat rate services:** Each project has a \$300 minimum, and a \$100 setup fee for each type of lighting or camera setup. For example. If you just have one or two pieces, than you might as well go for the Level 3, since it will be the same price as the other lower levels. If you have 10 pieces, including post-production, than Level 1 repros would be a project total \$350, Level 2 would be \$600, and Level 3 would be \$1100.

**Detail:** Please note that all Level 3 and 4 captures record every tiny dot, hair, and dust speck. The included retouching is for everything that could have been introduced by us in the capture, and for several very noticeable, unintentional marks. A work that has been painted or varnished in a dusty

environment, or with pet hairs, could have hours of retouching per piece, when shot at such high resolution and sharpness. Sometimes it is difficult for us to tell what is intentional and not, so for work that shows a substantial amount of this service needed, and you have indicated a cost sensitivity, we will ask you to come in after we have done the captures and color correction, and take look and make the call of whether you want to incur the extra charges, do it yourself, or forego it for now and see how your prints, press proofs, or Giclees are looking (which can often be a more expensive route than to just do it preventatively).

**Printed artwork:** With the reproduction of printed matter, there is the potential introduction of Moire patterns. If reproducing using an inkjet method, the original dot pattern may be reproduced, especially if the final repro size is larger than the original. You have the option of asking for a removal of the pattern, creating a look like an original photo or artwork, which involves a combination of software and some specific blurring. There is often an extra charge for this, depending on the amount of work involved. We would always save this as a separate layer. However, if the repro will be printed again, especially at anything close (50-200%) to original size, you must get the pattern removed by us or the printer, or else there will be very noticeable visual patterns introduced.

**Extra retouching:** Such extra retouching is offered at \$80 per hour, and is only done per your request. Often this is area where paints did not adhere to the canvas in a specific square of weave. These often are not noticeable to the naked eye, but with polarization removing all glare dots, the number of these areas of missing pigment can be come significant, and can look terrible in a large reproduction.

**Economy pricing:** reflecting a 20% discount, is available for all services by having your project being completely pre-paid, and having "standby" completion date, rather than a guaranteed delivery date. If your project is ordered as "economy", you always have the option of upgrading it to regular turnaround time and pricing at any time, or canceling it with a pro-rated refund depending on how much work has been done.

**Large quantity discounts:** available (more than 20 similar pieces). Please inquire about specifics according to your project description and type of work being reproduced.

**Prices do not include:** shooting behind glass; pieces with metallic paint or ink, glass, metal, or protruding elements; pieces larger than 32" x 40"; or pieces requiring unique handling or storage. These extras are quoted separately. Unless a piece is done on a material that is severely crinkled or wavy, and the glass actually is keeping it flat, we recommend shooting pieces without glass, especially at Levels 3 and 4.

**Final delivered** on CD-R or DVD-R, copied to your portable drive or key drive, all for free, and/or FTP'd to our server for \$.10 per MB. Duplicate disks are \$10 each. Archived for 1 month at studio. You have the option of having extra pair of disks burned for \$20 per set, that we will keep at the studio and off-site.

**Double archiving** (on-site and off-site) @ Boa Repro is free, but by written request only. Actual retrieval from archives is \$40 per disk, plus disk charge.

**Turnaround times** are quoted on request, for specific days. Depending on our other work at the studio, it may be as little as 3 workdays for Level One to Level Three projects, to several weeks

for say 50 Level Five super high res scanning back reproductions. "Drop everything else" guaranteed delivery date rush service available at +50%, which can even be as little as several hours. Please inquire about specific turnaround guarantees for this service.

**Liability:** All clients must sign a waiver for any loss or damage to their artwork, and should check with their own insurance provider on how to best protect their works. We are in a private access, video-monitored building, with an alarmed studio, and take the greatest physical care with your work, but cannot be held financially responsible for anything that may happen to it while with us, or en-route to or from the studio.

**50% deposit** required on all orders of \$1000 or more, or those that do not have original artwork submitted.

**Prices do not include PST and GST.** PST exemptions must be presented at time of order. We accept cash, Interac, checks with ID, and MasterCard / Visa, in that order of preference.

**Any projects receiving physical deliverables** (disks, film, prints) are subject to 8% PST, unless a suitable exemption certificate is provided, updated, and retained on file. FTP and in-studio drive transfers, as well as consulting, training, space rental, etc, are only subject to GST.

Finals delivered on DVD are saved as both 16-bit Photoshop layer files and 8 bit TIFFs, as well as getting a web-optimized jpeg. Electronic delivery via FTP is either a ZIPPED 8 bit TIFF, or 8 bit JPEG. We keep the Photoshop layer files archived, in case you ever need them in the future (\$30 archive retrieval, copy, and burn fee per disk)

Customers with consistent monthly orders (at least 3 consecutive months) of over \$1000 each, can apply for **monthly billing via account**.

### **Location services:**

When artwork is too fragile, expensive, large, or numerous to bring to the studio, a location option is available at a flat rate of \$200 per hour for photographer and assistant, which includes packing, unpacking, setup, shoot, color and tonal balance, strike, pack, and unpack. In instances where travel time is likely to be over one hour each way, travel rate is charged at half-rate. There is a minimum charge of \$1000 per day for time. The client also pays for the equipment kits, which are based on typical rental value. We have purchased, and maintain many specialized pieces of equipment, and run a rental operation as well, and for the cost of having this available to your production, there is an industry-standard rental charge per day, which varies depending on the equipment, typically anywhere from several hundred dollars to just over a thousand. This would be the cost of any photographer wanting to get access to the same equipment. The better the equipment, the faster the job can be done, saving hourly rates. Our advantage is that we are used to it, so we work much faster with it. Final retouching, file prep, and archiving is often done back at our studio at a rate of \$80 per hour. Vehicle expenses are \$.33 per km. If requested, we can provide as detailed of a quote as possible with the information you provide, and can keep you abreast of progress and costs on a multi-day shoot.

On location, we will need a large room, with very little light, and no reflective surfaces, and ideally dark walls. If an appropriate shooting area cannot be configured for us, location prep may get expensive. On location, please keep in mind that we also need to do all the post-production color

correction, and will bring in a mobile workstation, and mobile 5k viewing lights, to be set up ideally in another room, also with dark walls and controllable light. This allows us to do color-matching and retouching, at the same time as the photography. It is possible that depending on facilities and type of artwork, services on-location may be more economical than in-studio, for works larger than 32" x 40". It is a lot of work to go on location without sacrificing quality and safety of work, and that is reflected in the per day base charge.

### **The different levels of service vary in the following ways:**

- **Resolution:** The higher-priced the capture, generally the more real sensor (not interpolated) resolution you will get. Real resolution is judged by how much quality the image has at 100% on-screen. Ideally, it should look perfect. If it doesn't, then it is not real resolution, just specs. Overall resolution is a product of the sensor design, sensor size, lens quality, and aperture used. We have chosen the best solutions at each level of quality, regardless of expense.
- **Bit depth:** most full-quality, dedicated cameras start at 8 bit, which means it is capturing just enough information to properly display in full-color, but has no leeway for color adjusting and shifting. Our Level 1 camera is 8 bit. 12 bit is a good compromise between having more recolor information, and having a fast workflow and reasonable file sizes. Most full-featured DSLR's nowadays are 12 or 14 bit. 16 bit is the holy grail, only reserved for very high-end professional cameras. Our Level 3 and 4 camera systems are 16 bit, meaning that they capture very accurate, deep color, without ever "going flat", or posterizing in extreme scenarios. The 16 bit file also allows for the greatest ability to bring back on track some very unique colors in the original art.
- **Color interpolation:** It is a little known fact that all digital cameras except scanning backs do not actually have an equal number of RGB sensors. They actually interpolate (figure out) the color that is supposed to be there, based on the neighboring pixels. What that means is that it is not 100% pure color information. On the other hand, a scan back such as the BetterLight backs truly do scan every color, all the time. This translates into the smoothest, most realistic color possible to achieve photographically. Medium-format digital backs used in level 3 capture have much less apparent interpolation than level 1 and 2 equipment.
- **Lighting:** we generally use the same lighting setups for all the levels, but the extra budget of the higher levels allows independent adjustments from work to work, if needed. We use either tungsten-balanced halogen "hot lights" or daylight-balanced "cool lights", with double-polarization when appropriate.
- **Regional micro-adjustments of color and tone:** With the higher levels, starting at Level 3, we get more into the very fine details of a piece, working at 100%, pixel by pixel, constantly matching colors back to the original, color by color, area by area.
- **Retouching:** With the higher levels, it is necessary to spend more time in the retouching stage. Some is included, but full retouching may be extra. Artwork specific.

**The following are service levels and pricing for repro work done at our studios at Queen & Dufferin, in Toronto, up to 32" x 40" maximum original artwork size. Of course, larger works can be accommodated in our adjoining photo studio, but that and location services are available at extra cost. All repros come with a high res master in a suitable uncompressed format, and a compressed website / digital projection / video optimized jpeg in what we call "screen" size, fitting within 1024w x 768h pixels.**

**Level 1 (micro format)** "budget" capture is suitable for "lower budget" websites, online profiles and galleries, videos, multimedia, insurance records, and digital projection. This camera we use actually has a unique 4 color CCD, called RGBE, with an extra "aqua" color sensor, besides the standard RGB. because of the camera used, and lower tolerances at this service level, the workflow is quite quick, and that is why we can offer a very low price-point for this.. The workflow produces visually pleasing color on electronic displays, but is not ideal for critical printing on anything other than small sizes (4" x 6") of photo paper. We use an 8mp, 8 bit Sony F828 digital camera with a very sharp Carl Zeiss zoom lens. Optional optical correction can be accomplished by the client with the DxO plug-in (paid software) or by us as an extra service (price depends on quantity). Visual feedback is done via quality video monitor, not computer monitor. Great for documents that will be shown in videos with minimal zooming. Sensor size is 8.8 x 6.6 mm, yielding 3264 x 2448 pixel capture. Final files are captured to CF card, then transferred and delivered as full resolution, uncropped jpegs. **\$15 each.** Digital post, ordered before the shoot, with overall white balance per job, suitable for on-screen viewing, cropping, and a web -optimized file, is available for **\$5 per file extra.** Think of these as the digital equivalent of 35mm slides. And, they are actually the same price that we used to charge for slides in the film days.

**Level 2 (small format)** is our "most popular" service for budget-minded professionals, striking a great balance between color accuracy, good printability and enlargement, speed, and economy. Final files are delivered in your choice of 8 or 16 bit TIFFs or 16 bit single layer PSD files, and also come with a free 1024 pixel wide by 768 pixel high, website / digital projection / video optimized jpeg. Photographed with a 21 mp full-frame 24mm x 36mm sensor Canon 5D Mark II with a Sigma 50mm macro lens especially suited for copywork, ensuring corner to corner sharpness and no distortion, and creating a 14 bit, 4368 x 2912 pixel capture. This camera saves in Adobe RGB color space, which has a greater color gamut (space), than the sRGB Level 1 camera. This resolution and capture quality can accommodate at least a 12" x 18" photo paper print or double page magazine reproduction, and can often go up to a 15" x 22" or even larger Giclee, depending on original artwork media/style, and type of printing media. For example, soft, broad details can enlarge much larger, while very fine detail with a small brush / pencil, or actual objects / collage would not be recommended going larger. Level 2 includes critical cropping, very minimal retouching, and overall custom color and tonal balancing, individually tuned to each piece, rather than the whole job as in Level 1. Equivalent to custom color-corrected medium format film transparencies. **\$50 each.** For very digitally-savvy photoshop color experts (designers, pre-press, etc), we offer just a **RAW capture only option**, which still requires RAW processing, retouching, cropping, etc, for **\$25 each.** there is no jpeg included. So, if you have the time, experience, and a color-balanced viewing environment and a great color-calibrated monitor, this can add up to substantial savings on larger projects.

**Level 3 (medium format)** is for when you need substantially larger, sharper reproductions. Although Level 2 looks good to all but the most discerning viewers at smaller sizes, with Level 3, it is

so real you can reach out and touch it, and seeing an 8x10 print from one next to a Level 2 repro, everybody will notice a difference. There is also no noise, pixellation, or limitations in rendering very bright and dark colors and details. You will notice that the 16 bit digital back, coupled with the finer control of the software, and the time we invest, can create very noticeable greater separation and rendition of difficult to capture colors and color differences. The camera equipment is about 10x the cost of that which is used in level 2. So, here are the key reasons why there will be such a difference between level 2 and level 3:

- 1) Bit depth: 16 bits vs 12 or 8 bits means that there are smoother gradients from one color to another, or from dark to light. It also gives more leeway for correcting tone or color shifts.
- 2) Sensor size: The sensor is 200% the size of full-frame small format, meaning that, all things being equal, it would have twice the quality. But the reality is that it is even more of a difference with the other factors.
- 3) Ant-Aliasing filter: All small format cameras have an anti-alias filter, which essentially diffuses the image in a certain way to prevent moire patterns from emerging with textures, lines, etc. All small format cameras then need extra digital sharpening for a good image. With no filter, we get pure, sharp information recorded, but then need to manually deal with any moire issues through raw conversion settings. More work, but sharper images.
- 4) When you have a technology that is 10x the cost, it will naturally give certain advantages to the quality...just like a \$200 guitar vs. a \$2000 guitar, or an \$800 "home video HD" consumer video camera vs an \$8000 "broadcast quality HD" pro camera. It is the same reason that perhaps your home video is technically the same resolution as a network broadcast, you would never be able to get such a pro look from a consumer camcorder. Some people wouldn't notice the difference on its own, but show the two side by side, 100% of people will pick the pro equipment as being higher quality.

This medium format file will provide enough detail for any typical application, or most large print sizes, even up to 36" x 44" gallery prints, or some of the largest advertising posters. Included is overall AND local color and tonal matching, minimal retouching, and cropping. Files delivered as 16 bit multi-layer .PSD (all corrections and retouching on a separate, editable layer), 8 bit TIFF, or 16 bit TIFF. Level 3C will deliver the most information, closely followed by Level 3A.

**Level 3** is performed with the Hasselblad H3DII-39, which costs as much as a good new car, with a 39 mp sensor double the physical size (36mm x 48mm) of the 5DMIII sensor, full 16 bit capture, and a 12 f-stop tonal range! It yields a razor-sharp 7212 x 5412 pixel capture (117mb), with completely neutral, accurate color. The innovative Hasselblad software applies subtle corrections for each lens, ensuring absolutely no optical flaws like chromatic aberration and vignetting. It creates the greatest value for our customers that need very high quality, yet at a more reasonable price and fast turnaround. This is what we usually recommend for quality-conscious customers who need a more reasonable price point and turnaround time than scanning backs allow. Quality is equivalent to large format, custom color and tonal-corrected 4" x 5" transparencies scanned on a high-end drum scanner. **\$95 each.**

#### **Level 4 (large format scanning back - the ultimate quality, at any cost)**

Using the best large format camera in the world, the Sinar P2; the best Apochromatic Rodenstock lenses available; one of the highest-resolution scanning backs in the world, the Betterlight Super 6K-2, and safe, cool-temperature, low infra-red, archival fluorescent or HID light sources, we provide large format scanning back captures of artwork that are the technical pinnacle of what is readily available today. This is the highest quality art reproduction possible, and this equipment, combined with our over 10 years of art repro experience, meticulous technique, and knowledge

base, provides you with the ultimate way of translating your artwork and documents into whatever medium you desire, and whatever size you desire. 44" x 65" Giclee prints are a breeze with this. This is the recommended method for artwork that also has fine patterns in it, such as fine etching, fabrics, or any mechanical pattern, as the scanning method doesn't have any moire issues to contend with. **The price of each capture is between \$200-\$300, depending on the final size chosen, charged in \$25 increments.** The larger the size, the longer it takes to scan (up to 10 minutes), and to do post-production on such large files, and the time and space to archive.

The final resolution of the BetterLight Super 6K-2 is 9,000 x 12,000 pixels, creating a 618mb file when working in 16 bit for each color channel. Meticulous camera technique, and isolation from vibration is necessary with exposures lasting several minutes each. Work files in the multi-gigabyte range need the fastest imaging machines, which we have.

Going back to the video camera comparison, this is like shooting IMAX. It just doesn't get any better.

#### **Level 5 (direct scanning on legal size or tabloid size scanners)**

Direct scanning can result in the fastest and most economical reproduction for certain scenarios. We have two main scanners. One can accommodate up to 8 x10" transparencies, and has a 3200 dpi optical resolution, with a 4.2 optical density range yielding what often looks like a drum scan from large transparencies or negatives. It also does very nice medium and small format scans as well, down to 35mm film. The scalability and resolution from large format film and sharp prints is fantastic. An 8 x 10 transparency can yield a 30k scan (30,000 pixels) across, or a 2000 mb scan. For prints at 9" x 12" or less, we use this scanner

We also have a double-page 11" x 17" 1200 dpi optical resolution scanner which is great for flat art originals larger than than 8.5" x 14", and has a document feeder for quick scans of large numbers of prints (inquire about auto-feed pricing).

The perfect subject matter to scan, instead of photograph, are photographic prints, drawings, or any art that is done with a relatively flat, smooth medium. Where it is not as suitable are things that have a distinct texture, shadows, or relief surface. However, one artist we have worked with did a series of small paintings done on old cloth-covered book covers, which we scanned, with amazing results. The threads would not have reproduced as well unless done with at least a level 3 solution, and scanning was faster and more economical.

On either of the scanners, There are three components to calculating the total price:

- 1) \$25 job setup for the whole order,
- 2) \$25 per scan, with custom color-matching, and retouching and
- 3) \$.20 per MB of final Photoshop file size - not size on disk, which is compressed and smaller

**see [www.artworkreproduction.com](http://www.artworkreproduction.com) for more details**

Boa Repro is a division of Boa Solutions Inc., providers of integrated services for the communications, design, and fine art sectors. [www.boasolutions.com](http://www.boasolutions.com)

1266 Queen Street West, suite 6 Toronto, ON M6K 1L3 phone: 416.539.9585