



## Recapture Lost Memories: Turn Old Photographic Negatives into Digital Picture Files

This article shows you how to:

- ✓ Convert negatives and slides into colourful photos
- ✓ Compare the three scanning options you can use
- ✓ Scan negatives and slides yourself

After a lifetime of taking photographs, you probably have quite a hoard of old photo negatives in drawers and cupboards. But what use are they in this 'digital age'?



In fact, they could be very useful indeed! Whereas the prints you took from them 'back in the day' may be lost, faded or cracked, those negatives have probably been well protected. Why not scan them into your PC to turn them into high-quality digital photos? It should be easy, and it needn't cost the earth! Read on to find out how to go about it.

- 
- **Choose Between Your Three Scanning Options .....** S 066/2
  - **Option 1: Pay for a Scanning Service .....** S 066/4
  - **Option 2: Home Scanning with a Professional Film Scanner .....** S 066/5
  - **Option 3: Using a Simple Negative Scanner .....** S 066/8
  - **Which Option is the Best Choice? .....** S 066/16
- 





## Choose Between Your Three Scanning Options

**Photography has gone digital**

There's no doubt about it – the photographic world has gone digital. Granted, there are certainly some old-school photographers around who will always prefer film cameras, but their numbers are dwindling (not least because it's becoming increasingly hard to find that kind of camera and the film it requires).

**Digital cameras have many benefits**

But even the most ardent admirers of film photography have to admit that digital photography has a tremendous amount to recommend it. You can see the picture you've taken instantly on the camera's screen, rather than waiting days for your prints; your camera (or phone) might be able to take a range of shots at different settings automatically and let you pick the best of them to keep; you can edit the pictures before printing them; and you can always print out an extra copy of a photo if someone wants one.

**But where does that leave your old negatives?**

So there's a lot to be said for 'going digital', and perhaps you've done so already, but that doesn't change the fact that all your old photos were taken in the analogue age. However, if you stored your slides or negatives somewhere clean and dust-free, they should still be perfectly useable decades later.





## Scan Slides & Negatives to Keep Forever

S 066/3

So what can you do to digitise all your old treasured photos? Simple – you can scan the negatives into your computer yourself using a scanner. This way, you'll have good-quality image files of all those old photos stored on your PC. And, just like your more-recent digital snaps, you'll be able to edit them in a photo-editing program, view them as a slideshow, and print them.

Convert them to digital photos!

There are three different ways in which you can digitise your negatives:

Three options

- **Option 1:** pay to have the negatives scanned by a professional.
- **Option 2:** scan the negatives yourself using a (semi-) professional scanner.
- **Option 3:** scan the negatives yourself using a cheaper scanner.

Each of these options has its pros and cons, so which is likely to suit you the best?

- **You want to digitise your entire collection of negatives at once.** In this case, you're best suited to either option 1 (having the negatives scanned for you) or option 2 (using a professional scanner). Cheaper scanners are not recommended for such large-scale projects, unless you have inordinate patience!
- **You need a few negatives now and again.** In this case, option 3 should suffice. You won't get the best quality pictures, but it's certainly the most economical approach. You can either use a separate slide- or negative-scanner connected directly to your PC or a flatbed scanner with an attachment for scanning negatives.

A large collection?

A cheaper option for small collections

Of course, the picture quality doesn't just depend on the type or quality of scanner you use, but on the quality of the negatives too. If the negatives are faded or damaged,





that will obviously affect the quality of the images you're able to produce from them.

However, some scanners offer settings that can reduce or remove certain imperfections during the scanning process, and you may be able to make significant improvements to the images after scanning by using the simple editing tools in programs like Windows 10's Photos app or the excellent free Paint.NET ([www.getpaint.net](http://www.getpaint.net)).

### Option 1: Pay for a Scanning Service

#### Online prices

You can find many UK-based services online who will scan your negatives for a price, and some High Street photo labs offer this service too. The prices vary between about 20p and 50p per negative. (Note that a typical strip of six negatives is counted as six, not one!)

#### Extra options inflate the price

The price depends upon the quantity of negatives to be scanned – the larger your order, the lower the price per negative – as well as the resolution (quality) of the scans, whether they should be delivered to you on a DVD or USB flash drive, and whether any extra services are required, such as digital processing to remove flaws or to rotate pictures.

#### You might pay 50p per negative

The result is that scanning 100 negatives at a good resolution of 3000 dpi (dots per inch) with processing to remove imperfections could easily cost you close to 50p per negative – something like £50 – and that generally doesn't include the cost of postage to send you the disc of digital photos and your original negatives.



On top of what you'll pay for the processing service and return postage, remember that you'll have the extra cost of packing up your negatives and posting them to the





## Scan Slides & Negatives to Keep Forever

S 066/5

scanning service in the first place, for which registered post is recommended.

Here are some UK negative-scanning services worth exploring:

Service	Website
Exposure 22	<a href="http://www.exposure22.com">www.exposure22.com</a>
Mr Scan	<a href="http://www.mr-scan.co.uk">www.mr-scan.co.uk</a>
Photo S.O.S	<a href="http://www.photosos.co.uk">www.photosos.co.uk</a>
PiciScan	<a href="http://www.piciscan.co.uk">www.piciscan.co.uk</a>
Pixave	<a href="http://www.pixave.co.uk">www.pixave.co.uk</a>

If you want to get a large quantity of negatives scanned, and you think you've found a suitable service for the job, it's a good idea to start by having just a small number scanned in order to check the quality. Alternatively, it's worth asking for a free 'test scan': many professional services will agree to this, or at least will offer a reduced-price test.

Online scanning services

Try a small sample first!

The risk in using this type of service is that you're trusting your only copies of your negatives to the postal service, and to the scanning company you've chosen, and there's always the danger they'll be lost or mis-handled. Of course, that's the risk we always took when sending off our rolls of film to have them developed in the old days, but you may feel different about it when it involves these treasured old negatives.



## Option 2: Home Scanning with a Professional Film Scanner

Many professional scanning services like to use Nikon film scanners, but the best-loved model – the Super Coolscan

A quality scanner plus software





## S 066/6

## Scan Slides & Negatives to Keep Forever

5000 ED – is no longer produced. As a result, this popular device which sold for around £1,000 back in 2003 can now command more than double that price – used, of course! – on eBay.

### Popular brands

If you set your sights a little lower, you'll find an array of quite-acceptable, and more affordable professional and semi-professional film scanners from brands such as Plustek, Reflecta and Pacific Image. If the scanner comes bundled with a program named SilverFast (from a company named LaserSoft), that improves things still further, since SilverFast is acclaimed for getting better results from a scanner than most basic scanning software. However, that copy of SilverFast tends to increase the price still further.

### Pricing

The relatively cheap Plustek OpticFilm8100 film scanner costs around £180 from Amazon ([www.amazon.co.uk](http://www.amazon.co.uk)). However, the similar OpticFilm8200iAi model with a copy of SilverFast costs roughly twice as much, and the popular Reflecta ProScan 7200 with a copy of SilverFast is edging towards the £500 mark. Better film scanners can easily cost over £1,000.





## Scan Slides & Negatives to Keep Forever

S 066/7

So what does SilverFast do that the scanner itself – or other software – doesn't? The scanning software does much more than simply control the scanner: digitising negatives and slides is a complex task, and SilverFast is the frontrunner. It has options such as running multiple scans to improve image quality, and useful options to filter out dust particles from scans and improve the colour quality of the scanner being used.



In summary, then, professional film scanners are an expensive hobby and, for most of us, not worth the investment. An exception might be if you can split the cost with friends and share the device between you, or if you have so many old negatives to digitise that they justify the expense. If you're happy to take the risk of buying a used scanner, have a look on eBay ([www.ebay.co.uk](http://www.ebay.co.uk)) to see what's available at a more affordable price.

Worth buying?



But perhaps a better alternative would be to see if you can rent a professional film scanner. With a bit of luck, a photo lab in your area could supply something suitable at a reasonable price. However, do make sure the price really is reasonable, and compare it with what it would cost to have someone scan your negatives for you (perhaps even the same photo lab!).

Can you rent a scanner?

If you can rent a professional scanner, make sure you receive a manual with it too. Although a hands-on demonstration would be helpful, these professional devices can take some time and patience to get used to and you may not pick everything up from just a quick tour of the device!





S 066/8

## Scan Slides & Negatives to Keep Forever



For some older scanners, such as the popular Nikon models, the software drivers that make it work with your computer may not be available for the latest versions of Windows (Windows 10, 8.1 and 7). In this situation, you'll have to beg or borrow a Windows XP computer (unless the rental company can supply an XP notebook computer too).

### Option 3: Using a Simple Negative Scanner

A flatbed scanner

An ordinary flatbed scanner can be used as a simple negative scanner as long as it's equipped for scanning negatives. Indeed, if you have a flatbed scanner, you may already be the proud owner of a negative scanner: lift the lid and have a look for something that's a suitable size and shape to hold a strip of negatives (or check the scanner's manual).

Choose a model that scans slides and negatives

Or perhaps you're thinking of buying a flatbed scanner anyway? If so, make sure you choose a model which can scan negatives as well as ordinary documents and photos, such as the Canon CanoScan 9000F which costs around £165.





## Scan Slides & Negatives to Keep Forever

S 066/9

Also popular, although rather more expensive, are scanners from the Epson V series, such as the Epson V600 at around £200, which have a built-in 'transparency unit' able to scan two 35mm strips of negatives (12 frames) or four slides at a time.

Besides flatbed scanners, there are slide/negative scanners available that really aren't scanners at all. Known as 'film scanners', they have a built in image sensor, much like a digital camera, which takes a photograph of the slide or negative. This means that the whole process is a lot quicker than it would be with a flatbed scanner which has to scan the negative line-by-line.

Slide/negative  
scanners



The drawback to these devices is that they won't have any dust- or scratch-removal features, which makes quite a difference to the picture quality. You may be able to make improvements using photo-editing software afterwards, but you won't achieve the quality of something like the Epson V600. In their favour, though, these little devices are cheap, starting from around £40, and more expensive versions offer extra features such as a built-in viewing screen.

Much cheaper,  
but less capable

In summary, you can choose between three types of simple negative scanner:

The scanners  
compared



- **Flatbed scanner:** good-quality scans with features to clean up the scanned images automatically. The scans are sent straight to your PC via a USB cable.
- **Stand-alone slide/negative scanner:** comparatively cheap, but without any photo processing. Scans are stored on an SD memory card and the photos then have to be transferred to your PC from the card.
- **USB slide/negative scanner:** as above, but the scanner is connected to your PC via a USB cable, so the scans are saved straight to your computer.

### Preparing to scan negatives

Before you can start scanning, you have to do a little preparation:



1. **Install drivers and software** (not applicable to a stand-alone scanner). Find the CD that came with your scanner and insert it into your PC's DVD/CD drive. If a 'Select what to do' dialog appears, choose the option to **Run *program.exe*** on the CD. (You may also have to confirm a security prompt asking whether you're willing to allow this program to start.



It's worth having a look at the manufacturer's website to see whether any recently-updated drivers and software are available. If there are new versions, download those and install them rather than using the CD.

**Install the scanner's software**

In the CD menu, follow the instructions to install the driver software, the scanning software and (if it's offered separately, perhaps as a PDF document) the manual or help file. When the installation is complete, restart your computer. When the computer has restarted, connect the scanner to your PC using its USB cable.



## Scan Slides & Negatives to Keep Forever

S 066/11

2. **Electrical power.** Depending on the device, the power will either come from the USB cable or the device will have its own mains plug.
3. **Prepare the negatives.** Before placing them in the scanner, be sure to remove as much dust as you can from the negatives using an anti-static brush or cloth, an air-bulb or a can of compressed air.



4. **Place the negatives into the holder.** If you have a flatbed scanner, place the negative holder on to the glass surface and insert the strip of negatives. With a slide/negative scanner, open the hinged holder as indicated on the device or in its manual (which might take a bit of getting used to!), insert the strip of negatives and close the lid.

Clean up the  
negatives

Place in the  
negative holder

Since you can scan slides as well as negatives, you'll often receive a slide holder with the device, and this is where things might get confusing. If in doubt, consult the manual to find out what's what and how things fit together. It won't be difficult, but it might not be obvious!



Flatbed scanners: how to scan your negatives



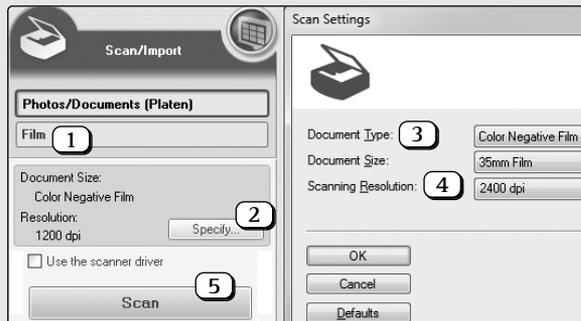
Scanning software  
Choose settings for scanning negatives

1. Does your scanner have a film adapter? If so, attach it now and insert your first strip of negatives. Does the scanner have a Transparency Unit? If so, remove its cover.



Lower the scanner's cover and switch on the scanner.

2. Start the scanner software you installed earlier (in this example, I'm using 'Canon MP Navigator EX').
3. Make sure the scanner program is set to scan 'Film' (1) (rather than a text document or photo), or, if appropriate, select the Transparency Unit. Click on Specify (2) to choose the scan settings. Select the type of negative you're scanning (3) (in this case, 'Color Negative Film') and specify the scanning resolution required (4) (here 2400 dpi).





## Scan Slides & Negatives to Keep Forever

S 066/13

Note that all scanning software is different, and although Canon scanners and their MP Navigator EX software (shown here) are common and popular, your own software probably won't look quite the same. However, although the layout of the program may differ, the basic steps will be the same for any scanning procedure.



4. There may well be other settings available, but a worthwhile step now is to click the **Scan** button (5) or **Preview** button to scan the negatives and see how the photos look.
5. If you're happy with the result, click **Scan** to produce a finished version and then save it to your computer (usually by clicking a **Save** or **Save As** button).

Start scanning

Check and save

If the previews are crooked, you probably need to adjust the position of the negative strip in its holder. It's also possible that an incorrectly-placed scanner cover could cause a crooked scan.



If you're not happy with the results of the preview, it's worth investigating any other scan settings offered by the scanning software. Alternatively, as in the Canon software pictured, it may be possible to switch modes to get more-precise control over the settings: in this example, tick the box beside **Use the scanner driver** and then click **Open scanner driver**. In other programs, there may be a fine-tuning mode (for example, there's a 'Professional Mode' in the software accompanying Epson scanners). Here you can choose the exact settings you want for resolution, colour tone, dust and scratch removal, smoothing and quite a lot more. There's no particular 'golden rule' you can apply for the best scan – it's a case of experimenting with the settings, trying to identify what it is about the scan that isn't quite 'right', and which setting it is that governs that aspect.

Fine-tune  
the settings?



## S 066/14

## Scan Slides & Negatives to Keep Forever



Remove any documents you don't need

The higher the resolution you choose, the larger and more detailed your resulting scan will be, but the longer it will take to produce. If you select a high resolution like 4800 dpi on a flatbed scanner, don't be surprised if it takes a few minutes to produce the scan!

### Slide/negative scanners: how to scan your negatives

Merge these documents into one

1. Begin by switching on your scanner (if necessary) using its On/Off button.
2. Carefully insert the negative holder into the appropriate slot in the device. Take note of any directional arrows on the device or the holder to make sure you insert the holder the right way!



Now follow the appropriate steps below according to whether you're using a stand-alone scanner or a scanner connected to your PC:

Supply file details and save the PDF

**Stand-alone slide/negative scanner:** here you manage all the scan settings directly on the device itself. Here's what to do:



1. Insert an SD (Secure Digital) memory card into the device's card slot.
2. Using the device's menus, specify the type of negative you're scanning (colour or black-and-white) and set the scan resolution (typically 5–10 megapixels).





## Scan Slides & Negatives to Keep Forever

S 066/15

3. To start the scan, press the Scan or Copy button (and follow any other instructions presented at this point). Shortly afterwards you'll see a preview of the photo on the scanner's screen, and you may be able to use on-screen options or buttons to carry out simple alterations such as rotating or brightening the image.
4. Save the result by pressing the Save button. The scanned photo will be saved to the SD card, and the device will be ready to scan the next negative in the same way.
5. When you've finished (or when the memory card is full), eject it from the device and copy the images from the card to your PC. (If your PC doesn't have a built-in SD card reader, you can buy a card reader that connects to a USB socket for just a few pounds.)

Save the result

Transfer photos  
from the SD card

**Slide/negative scanner connected to your PC:** with this type of device, which connects to your PC via a USB cable, the procedure is similar to that for a flatbed scanner:

1. Open the scanning program on your PC and select your film scanner as the source from which scans should be received.
2. You should now see the settings available for the scanner. Choose the appropriate settings for negative type (colour or black-and-white), scan resolution, and so on, as well as any options relating to the type of file to be saved (you'll usually want to save the result as a JPEG picture file).
3. Click the Scan or Preview button to have the negative scanned and displayed on your screen.
4. At this point, you may be able to fine-tune the settings based on the preview – for instance, to adjust the brightness, contrast or colour balance.



Choose the  
scan settings

Start scanning

Check and save





5. When you're happy with the preview, click the obvious button to produce the finished scan and save it to your PC.

## Which Option is the Best Choice?

**Scanning negatives can be costly!**

When it comes to scanning negatives, cost is obviously a huge determining factor in how you choose to do it. It's very easy to spend upwards of £1,000 on the hardware and software required to produce the most professional results.

**Cheaper to pay for professional results**

Of course, those last few words are important: are you really worried about producing the most professional results? If you are, it's almost certainly more practical to pay to have your negatives scanned for you. It will probably be a good deal cheaper (unless you have thousands of negatives to scan) and it will certainly be quicker and far less tedious!

**A flatbed scanner for good results (with patience!)**

If you're not worried about producing the most top-notch results – and, crucially, if you have the time and patience to sit and work your way through your negatives yourself – a flatbed scanner with a film adapter might be a good investment. For £150–200, you should produce results that are good enough to print at standard photo sizes, and you'll be able to scan as many negatives as you like, whenever you like. If you were to pay someone else to do the job, your £150 would get no more than a few hundred negatives scanned.

**A slide/negative scanner for light use**

The small film scanner is worth considering if you have only a few negatives to scan and/or you're not too worried about achieving the best quality. Of these, the type that connects to your PC via a USB cable is generally the better choice: it should be easier to use (by virtue of being controlled from software on your computer screen), and you have the benefit that the photos are saved straight to where you want them – your PC itself.

