

# Convert old movies into a digital format

We explain how to convert your old home movies from tape and cine film into digital formats so you can preserve your memories for years to come

**H**ome movies are an excellent way to capture precious memories. They are simple to make using a digital camcorder, or the video-recording function of a digital camera or smartphone. The digital format makes it easy to transfer these movies to a computer, or online, for sharing with family and friends.

But it wasn't so long ago that home movies were typically recorded in non-digital formats such as VHS, Video8 and Super 8 film, and many of us still have old footage lying around at home. These archives often provide a welcome glimpse down our personal memory lanes; some even have wider historical value.

Viewing these videos isn't as easy as it once was and often requires specialist equipment, such as a projector for film, or the original camcorder for analogue video tapes. These **analogue** formats also tend to degrade over time and even storing them safely doesn't guarantee that they'll last.

One way to preserve your personal history is to make digital copies of your films and videos – on a DVD, for example. In this article we explore how you can get Super 8 and other film formats digitised, and show you how we helped to save films belonging to two *Which?* members' families. And, you can find a step-by-step guide on how to make digital copies of analogue video tapes (see p26).

## Buried treasure

Many families, including *Which? Computing* members Stephen Chawke and Amreen Kapasi-Chawke from Leeds and Gary and Bianca Crichard from Ilchester, have old films that have gone unseen for several decades. In Gary and Bianca's case, they had a collection of 30 three-inch reels and one 400-foot reel of family memories which had sat in the loft for 30 years.

Stephen and Amreen, meanwhile, had inherited three reels of film from Amreen's late father in the early 1980s. They knew that the reels contained some test footage from a Bollywood-style movie he'd been working on, but they were afraid to even open the canisters for fear of ruining the film.

## Movie formats explained

You may be familiar with the term 'cine film'. This is a general term that you can apply loosely to a variety of non-professional film formats. Many different types of cine film have been used over the years; black and white or colour, some silent and some not.

Pre-1960s, most home movie cameras used either 16mm or standard 8mm film. The 8mm was more popular as it was cheaper and less bulky. In 1965, Kodak launched an 8mm format called Super 8, which quickly became the de facto home film format due to its improved picture quality and convenient cartridge-based loading system. Kodak still produces and processes Super 8 film today. A 50-foot (approximately three-minute) colour Super 8 cartridge currently costs around £15 at Amazon, though you will, of course, need a Super 8 camera in order to record movies onto it.

As with still photographic slides, movie films are exposed during filming and then need to be processed in a lab before you can view them on a projector. Unfortunately, viewing and editing film can easily damage it. Projecting a spool of film can expose it to dust or fingerprints, for example. Even worse, a cranky projector could scratch the film or mangle it as it is fed through the mechanism.

Even if your reels of film have been untouched by human hand, don't assume that they are safe; film is incredibly delicate and simply storing it incorrectly can lead to irrevocable damage. The ideal condition is a cool dark place with low relative humidity. Keep it in a place that's too hot and the film can warp. Store it somewhere which is too damp and it can suffer from water damage or a type of mould that can actually 'eat' the emulsion on the film. Heat or damp can cause some films to release acetic acid, which can result in discolouration and shrinkage. This is known as 'vinegar syndrome' on account of the accompanying vinegary smell. In severe cases these types of damage can render the film completely unviewable.

Those who own film that originates from before 1950 should treat it as a hazardous material. Older film stock contains nitrates, which are chemically unstable and

**We had more than 460 feet of Super 8 film sitting in the loft**



Stephen Chawke and Amreen Kapasi-Chawke were able to view their lost Bollywood movie

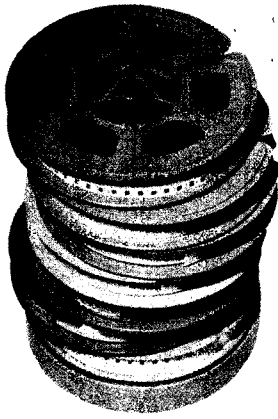
NIGEL HILLIER, SOUTH WEST NEWS



Gary and Blanca Crichtard's footage had been stored in the attic for over 30 years

*Connecting to important moments of loved ones, past and present, is an opportunity that you shouldn't pass up*





**It's vital to store cine film in the right conditions**

highly flammable. Nitrate film needs to be stored in very specific conditions in order to remain safe. If you believe you may have any film from this period, then we recommend contacting your local film archive as soon as possible (see below).

### Converting to digital

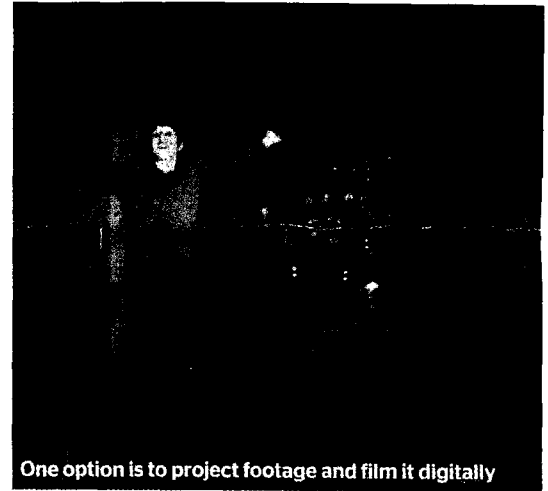
There are a number of ways to transfer film to a digital format. Those who still own a working projector can simply project the film and re-film it on a tripod-mounted digital camcorder as it plays back. However, techniques like this rarely yield satisfactory results. As Ian Litchfield, technical director of transfer studio Timeless Moments explains, one of the big issues is the **frame rate** difference between cine film cameras and modern TVs. 'Unless the frame rate is exactly matched there will be a horrible flicker across the screen,' he says. Home conversions also tend to suffer from focus issues, washed-out colours and a bright flare in the centre of the image, where the projector bulb is brightest.

You can buy specialist home conversion devices such as the Hama Telescreen Videotransfer (£75, [www.hama.co.uk/003012](http://www.hama.co.uk/003012)) but these don't always guarantee success, either. Gary Crichard had attempted to use a similar transfer box to convert his own films back in the 1990s, but he discovered that 'the process was long and frustrating, with a relatively poor end result.'

### Film archives

An alternative is to contact one of a number of local film archives dotted around the country (find your nearest at <http://filmarchives.org.uk/filmarchiveforum/members.htm>). Your local film archive may be able to provide you with the means to view your film. Better still, it may offer to convert the film free of charge.

Old films – even personal recordings of family occasions – can hold some historical value to a film archive, particularly if the film was originally shot in an area of the country covered by the archive. Assuming you're happy to donate your film to the archive, it may provide you with a free DVD copy. Bear in mind that by donating the film you would be allowing the archive to make its own copy and to use the footage for any purpose it sees fit. The archive may



One option is to project footage and film it digitally

offer to store the original reels too; in other instances an archive may return the film to you once it has made its own digital copy.

We approached two local film archives on behalf of our members. Gary and Bianca's nearest was the South West Film and Television Archive (SWFTA) in Plymouth. Stephen and Amreen's was the Yorkshire Film Archive in York. Both offered to screen the films in question, but in both instances there were issues involved in donating and converting the footage.

In Stephen and Amreen's case, the Yorkshire Film Archive explained that, since the majority of their footage was potentially shot in London, it had little local value and was, therefore, unlikely to meet the archive's donation requirements.

When we spoke to SWFTA about Gary and Bianca's films, we were told that if the footage was deemed suitable for donation, then the archive would indeed provide the family with a digital copy free of charge. However, we were warned that staff shortages and a huge backlog of films meant that the Crichards would be unlikely to receive their copy for 12 months.

As Jennie Constable, administrator at SWFTA explained, 'we are not so much providing a service to owners of cine film, as acquiring material for heritage purposes. Therefore we do not offer a routine facility to members of the public to view their own films. But if they wished to donate the films we would be happy to provide them with a viewing copy.'

However, it's still worth contacting your local archive for advice and, if you aren't interested in the contents of your old films, you can still donate them.

## Preserving the past

Digital formats are less prone to damage than analogue video and film but they aren't invincible. You can expect a carefully maintained DVD to last for anything up to 100 years. Exposure to sunlight, extreme temperatures and adhesives can, however, drastically reduce a disc's lifespan. Similarly, hard disk drives can suffer from mechanical failure. As such, it's vital to make your backup copies of any cine film transfers.

Another factor to consider is that, just like the analogue formats that preceded it, DVD may one

day become an obsolete format. So, if you're using a professional transfer company to make a film-to-DVD conversion, it is often advisable to ask them to provide the raw footage as a computer file, which you can keep as a backup and convert into future formats. This will usually cost more.

As for DVD movie discs, protect DVDs in plastic cases and store them somewhere cool and dry. Don't write on your DVDs with a pen or use sticky labels. Following these simple rules will keep your discs healthy and your memories safe for as long as possible.

**Commercial companies**

There are several companies offering film-to-digital conversions in the UK. On the high street, for example, Snappy Snaps ([www.snappysnaps.co.uk](http://www.snappysnaps.co.uk)) will convert Super 8 and other types of film to DVD. The process takes about seven working days, during which your branch will send the films away to a specialist studio. Prices start at £35 for a single 50ft reel of Super 8, with a further £8 per subsequent reel. Snappy Snaps doesn't offer any editing or restoration services.

For additional services, including editing, colour correction and transfer to a digital video file (such as AVI or MOV) or high-definition formats as well as DVD, you may need to take your film to a specialist. There are dozens of websites for companies offering cine film transfer.

Some companies have a minimum charge per order; this is usually low (£25 to £40). The going rate for converting film is between £5 and £8 for a straightforward transfer of a 50-foot reel of 8mm film. The cheaper companies tend to use a glorified version of the DIY re-filming technique we mentioned earlier. However, far superior results can be achieved by companies that use professional telecine systems (machines specially designed to convert film to video) and digital frame rate synchronisation, which reduces the flicker caused by the difference in frame rates. Check the online FAQs for each service to find out how they perform conversions.

Some companies offer free examples of their work. During our research to select a company to convert our members' footage, we considered several different firms, including Cine Conversions ([www.cineconversions.co.uk](http://www.cineconversions.co.uk)), Cine-to-DVD-Transfer ([www.cine-to-dvd-transfer.co.uk](http://www.cine-to-dvd-transfer.co.uk)) and Timeless Moments ([www.timeless-moments.co.uk](http://www.timeless-moments.co.uk)), all of which used professional telecine systems and provided the facility to clean and digitally remaster the films to improve colour and exposure.

In the end we limited our choices to Timeless Moments and Cine Conversions, both of which provide a selection of viewable samples on their websites. Cine Conversions will post you a free demo disc on request. Finally, we settled on Timeless Moments, based on its straightforward price plan (15p per foot of film) and the quality of the samples we were able to view. You will find local recommendations listed on Which? Local (<http://local.which.co.uk/>).

**Video conversion**

0800 075 4064  
0115 9301 699

Our families carefully packed up their reels and sent them to the firm's Derbyshire offices via Royal Mail Special Delivery. The Crichards' footage consisted of 460 feet of Super 8 film (about half an hour's worth). Timeless Moments initially produced an edited DVD for a total cost of £74. The quality of the conversion and restoration was of a very high standard but Gary wasn't entirely satisfied with the finished product.

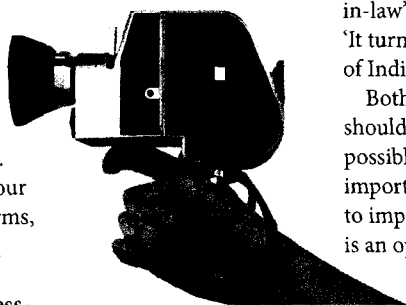
Despite a good level of communication via email, the company had accidentally used an image for the front cover of the DVD Gary thought unsuitable and added



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"TELECINE SYSTEM"



background music not to Gary's taste. In fairness, this wasn't necessarily the company's fault. 'The firm did its best to find out what the films were about', says Gary, who hadn't viewed the films for a long time.

In the end, Gary requested a copy of the raw footage in AVI file format instead. 'Rather than transfer the cine film to DVD, the cheaper and, in my view, better option is to transfer it to a hard drive', Gary told us. He was then able to use free editing software (Windows Movie Maker) to author his own DVD. In the end, Gary was very pleased with the results.

From Timeless Moments' point of view, Stephen and Amreen's films proved more of a challenge. The films were in 16mm format. 'Some of it was a colour negative, so this had to be inverted in the computer. Some was mirrored and even upside down', says Timeless Moments' Ian Litchfield.

Due to the nature of the content, there wasn't a great deal of editing that could be performed, so Timeless Moments converted the movies directly to raw AVI files (for a total cost of £45), which the family could then view and edit on their computer. 'It was certainly as professional as the footage could be', says Stephen who finally had a chance to see what was on his father-in-law's mysterious Bollywood-related recordings. 'It turned out to be out-takes and footage of a party of Indian VIPs, perhaps at a screening of the film.'

Both families agree that anyone with old films should try to convert them to digital as soon as possible. 'There is always something that seems more important to spend your money on, but connecting to important moments of loved ones, past and present, is an opportunity that you shouldn't pass up.'

**Your legal rights**

Before sending your films to a professional transfer company, it's worth checking its terms and conditions first to see where you stand. These should be presented clearly on the company's website. Here you should find any limitations; for example, the company may not accept footage that is violent, obscene or pornographic and, in most cases it will not provide conversions of any films that are protected by trademarks or copyright.

The company's T&Cs should also explain its liability in terms of loss or damage. Some firms, including [www.cine-to-dvd-transfer.co.uk](http://www.cine-to-dvd-transfer.co.uk), claim to provide insurance against loss or damage, compensating, in this case, up to a maximum of £25,000. Other companies make the point that it is hard to put a value on the priceless memories. If a transfer company loses or damages your film whilst it is in its care, you may be able

to claim from them for breach of contract, but it may be difficult to put a figure on your claim. You may be able to claim back the cost of the film but you are less likely to be awarded compensation for the loss of the record of a particular event. If the dispute ends up in court, there is a possibility that a judge will award something for this element but the sum may be relatively low, and is unlikely to be more than a few hundred pounds.