

# Archiving to do # 7

This is my seventh of these articles in the series  
March 2006

Also available in PDF format from my Web site  
[www.paradox.com.au/~jcdalton/JCED04](http://www.paradox.com.au/~jcdalton/JCED04)



ATD  
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## This issue

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## Resolution of digital cameras

The resolution is measured in megapixels (MP). I won't go into a technical discussion of what a pixel is other than to say a Pixel is one piece of a photo, graphic, drawing etc. A pixel is a very small item, a very small portion of an image. A pixel is the item when a computer or printer is used in conjunction with it. Another computer based item is the Vector system in relation to images but that is another story so I will not mention it again here.

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I hope that my little "Archiving To Do" articles are helpful to people.

There have been a few house fires in recent months caused by various things. Some people have used candles when there has been a power blackout. There are a multitude of ways a house fire can start. Then there is the case of houses are burnt due to bush fires. In any case there are plenty of reasons why people should archive their items now.

Don't wait until it's too late. I have seen on TV news people who have said that their home can be rebuilt but their precious photographs and video tapes were burnt and lost forever. So if you have not done anything to archive or have backup copies of your valuable possessions then it's time you did.

## Records and the Stylus

Sounds on any old records whether they be 78RPM (remember those?) 33RPM and 45RPM can all be archived. A record player or turntable is needed so that the sound is "fed" into a computer and the sound saved in digital format. The correct cables and connection, plugs are required. The record playing device needs to be running at the correct speed by using a stroboscope.



A 78RPM stroboscope



A special styli magnifying device

Then the most important thing is the stylus needs to be checked which should not be worn otherwise the sound will not be 100%.

Here is a photo of a simple stylus viewer which one can hold the stylus in the little hole and can be seen magnified after adjusting the focus and position of the stylus point.

The first digital cameras had a small pixel rating, in the hundreds. By mid 1990s digital cameras for sale to the public had a resolution called megapixel. One megapixel (MP) is one million pixels. In 2006 as I type this the expensive digital cameras for professional photographers are ten MP (10MP) which is much too high for the masses, the man in the street so to speak. The greed of the commerce sector wants, no I should say, coheres people by telling the masses "bigger is better". People are told that they need a camera with a high pixel rating. Of course with professional people/photographers this is the case but for the ordinary man in the street it is not necessary.

<i>Resolution (megapixels)</i>	<i>Approximate max print size in CM</i>
1	13 x 8 almost normal print size
2	18 x 13 almost A5
3	25 x 20 almost A4
4	36 x 28 bigger
5	51 x 41 bigger

I take most of my photographs with my camera set at 2MP and change to 4MP for special reasons.

### Camera resolution

The camera resolution is the number of pixels that a camera is capable of capturing on the image sensor. The headline figure quoted by camera manufacturers will be as a total (1.3 million) or as the pixel dimensions (1280 x 960). Most cameras have at least two settings, so you can have a low resolution (640 x 480) if you only want to display an image on a computer monitor or email it to a friend, or a higher resolution (1280 x 960) for printing images.

### Camera compression

In order to reduce file size, digital cameras can compress images by discarding unnecessary or redundant pixels. This creates smaller files and also results in images with a lower resolution.

Since all digital cameras deal with compression differently it is not possible to give a definitive guide to how this will affect separate systems. One way to judge the compression of comparable cameras is to see how many images they can store on the same memory card at the maximum compression setting. If one model can store more images it means that it creates smaller file sizes but the resolution is not as high.

## Resolution, compression and file size

How you use the resolution and compression settings on your camera will determine not only the quality of your images but also the size of the files that you create. For instance, on low compression and high resolution an image could take up 1.5 Mb, while on high compression and low resolution the same image may only be 500 Kb, or less. Before you start taking pictures it is worth determining what the final image is going to be used for so that you can set your resolution and compression accordingly.

I suggest for photos to be printed about the usual print 15cm x 10cm 2MP is sufficient.

For A4 size prints then 4MP is OK.

### Faded Prints Photos



I have spoken about this in earlier *ATDs*. Images on paper media will fade in time. Whether it be prints which have been developed and printed by a commercial place or printed by a standard colour printer (an inkjet) the print will fade or lose some colour/s. Here are two images of two of our grandchildren to demonstrate.

The image below is the file

which I produced when I worked the photo in 2004.

The second image is of the photo which had been on our refrigerator in our well lighted kitchen. The reader can see the difference, the colours have changed. I suspect the cyan has "faded" more than the magenta or yellow.



I have also shown another photo which would have printed on one of my colour inkjet printers about the same time in 2000 of us on our panorama lounge patio.

Again I probably used the same glossy photo paper/card but one has been on Marie's dressing table all those six years and the other has been in a book with other photos so being in the dark.

Marie's dressing table is in the corner of a room which is at the south western corner of our home.

The dressing table is in the north western corner of the room. There is a window about 1mt X 1mt about



1mt from the photo. So you may understand that the photo was in a fairly dark position all those years.

The fading of photos whether printed on a common inkjet printer or done chemically is a well known problem.



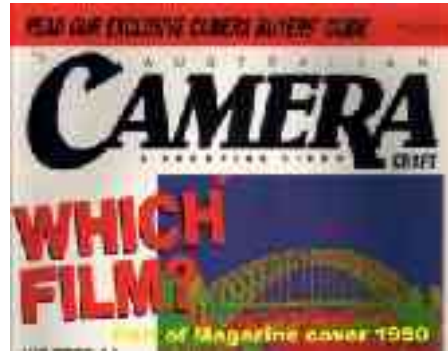
## CD players

Data, documents, photos, sounds, video can be saved onto CDs in various formats. These can be played on a computer and many CD and DVD players. These players are sometimes referred to as “stand alone” or “household” devices.

## Film will be superseded by digital

Kodak has given notice that they will not be producing print film or negative items soon. I understand by 2007.

Here is a photo of part of the front cover of a photographic magazine of April 1990. “Which film” shows.



Twenty four types and brands of film were tested. The article included photos where one could see the differences in the colours. Other comments and prices were given. I remember as a child it was most unusual to take a photograph as film and the developing and printing of the negatives was expensive. This carried over until the 1980s.

Yes digital photography is the in thing.

As a rule of thumb at 2006 most CDS and DVDs can be played on most computers whatever the operating system. Most of these same CDs and DVDs can be played on most household VHS-CD – Tape recorders - DVD – Player/recorders. The operative words here are **many** and **most**. Perhaps in a few years it will all be sorted out but be aware that a CD/DVD you can play may not played on someone else's unit.

## VHS and DVD players

For those who need to archive video and sounds from VHS tapes, commonly called **video**, these house hold units are quite cheap compared to a couple of years ago. We bought ours early this year (2006) which has a six head video head system for the VHS tapes and a DVD player for about \$160.00.

These newer units will play various onto ones CTV (colour television) which includes directly from a digital camera, files on a CD, VCD, SVCD, and DVD. This can be images in various formats and video in various formats. This is in addition to the usual movies on DVD.

To do the job of capturing video from VHS tapes one needs a special piece of hardware that connects to a fairly modern powerful computer running GNU/Linux or M\$Soft Windows. This is a very difficult process which is not



possible if one is only a intermediate computer user. One needs to be quite advanced because the process is complicated to do a good job. MovieMaker is an application that is included in MSoft XP operating system but it is only a beginners choice.

This is a big subject which I will not attempt to write about in my ATDs.

Suffice to say that if the reader wants to do this then go ahead because hopefully it will add to the persons archiving of history.

## Capturing Video

I will mention a little about capturing video from VHS tapes which people incorrectly call "video". The capturing of video from film, tape and other formats is similar in very general terms. I can't possibly go into the fine details here as it's a special subject on it's own. If the reader is comfortable in capturing sounds from the various media then I suggest you have a go at capturing video which also captures sounds at the same time. If not then don't attempt it, it's just too complicated.

Early this year, 2006, I purchased a **video capture card** which I installed into my 2.4 GHz computer.



The Leadtek capture card box and items

The photo shows the carton, three CDs, remote control and booklet. I have not shown the card because it's now inside the computer.

The photo of our son John

nursing his baby son, Joshua is the first video taken in July 1988 of our family after that of our daughter's wedding, Maria in June 1986. I captured the wedding and it from VHS tapes this year 2006. It is a very time consuming exercise so one has to be very patient. As I do not yet own a DVD writer (burner) I have saved the captures I have done on CDs. It could take another year or so to complete my project, about twenty three hour VHS tapes.

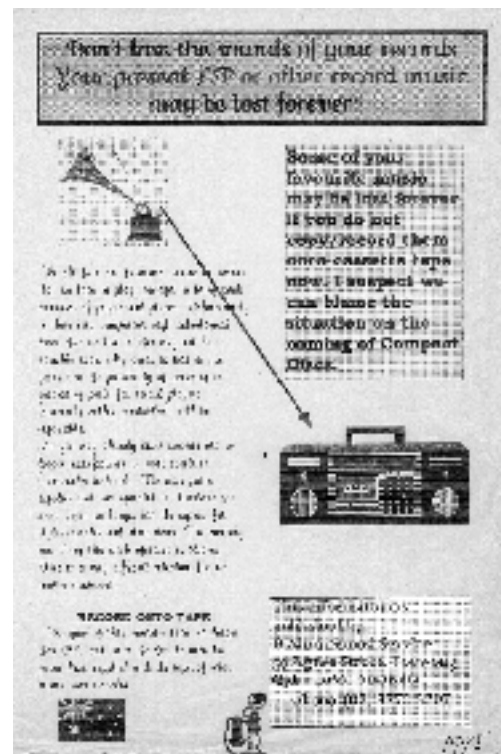


John and Joshua

## Archive sounds

This is a brochure I produced in 1995 for our own Electronics business called D'Alton Sound Service where we serviced home and commercial sound

and electric equipment. From about 1990 I advised people to transfer their sounds from 78, 33 and 45 RPM records to cassette tape as the brochure says.



JD

This "Archiving\_to\_do\_7.sxw" was built up using OpenOffice.org which I refer to as "OOo". OOo is an Open Source application which is a free Office Suite that I use in GNU/Linux Mandrake and MS Windows 98.

The file is Exported as a PDF directly from OOo.

This ATD PDF and earlier ones are obtainable on my Web site at;

[www.paradox.com.au/~jcdalton/JCED04/htm](http://www.paradox.com.au/~jcdalton/JCED04/htm)

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