# Cumana Photo Album Volume 1

## What is Kodak Photo CD?

Kodak Photo CD is a new way of storing images in a digital format, usually for display on TV or computer screens. Although Photo CD is available in several guises, such as ProPhoto CD (extra high quality) and Portfolio/Catalogue CD (high capacity), most users will simply wish to use the original Kodak Photo CD format.

### How does it work?

Digital imaging is not new. Everyday in newspapers we see images which will probably have been scanned and retouched or changed in some way before going to print. With the sophistication of modern image processing the camera really can lie!

Digital imaging, however, can be very expensive especially if high image quality is required. Apart from the computer cost, a high quality scanner or other analogue/digital converter must be available. Also, storage of digital images can be a major problem unless you have Gigabytes of hard disc space!

Photo CD offers a cost effective alternative. Images are scanned by Kodak (or one of their agents) from standard 35mm negatives or transparencies (slides) onto a recordable compact disc. This service can be accessed via specialist imaging bureaus or High Street photolabs.

Each image on the CD is held at five different resolutions (magnifications). They are:

Wallet	Base/16	192 x 128 pixels
Snapshot	Base/4	384 x 256 pixels
Standard	Base	768 x 512 pixels
Large	4/Base	1536 x 1024 pixels
Poster	16 Base	3072 x 2048 pixels

For each photo on the disc, the five resolutions constitute a Kodak PhotoPac. The file type in which the images are held is Kodak YCC, a proprietary standard specially created.

Once held on the CD the images can be viewed using a Kodak Photo CD player, Philips CD-I player or a Photo CD capable CD-ROM drive attached to a computer with appropriate software.

When viewed on the Kodak or Philips systems, images are usually viewed via a TV screen. When used with a computer and CD-ROM drive, however, the images will appear on screen within a computer program. At this point you can manipulate the image with whatever software tools you have available.

**Note** The Photo CD is not platform dependant and may be moved between different computer standards, e.g. IBM PCs, Apple Macintosh and Acorn computers, as well as other viewing systems.

For convenience, when used on a computer, the CD can display a contact sheet showing the contents of the CD in miniature. This can be used to 'zoom in' to the full image at whichever resolution you choose to indicate.

## How can Photo CD be obtained?

For most school and home users the consumer service for Photo CD transfer is most appropriate. Look out for the Photo CD logo in the High Street developing labs in your area. Boots Photoshop, Supasnaps and Tecno are among the many outlets which offer the service. Hand over an undeveloped 35mm film, a set of mounted slides or a strip of negatives and the lab will do the rest. Allow seven to ten days for your Photo CD to be ready as it is not usually done on the premises.

Unless you are in a hurry it may be better to have your films developed normally first. Then check the prints or slides and submit only the best for inclusion on the CD. Remember that most films usually contain one or two 'dud' pictures which cannot be removed from the CD if the photographs are transferred straight to the CD. Also, each CD can hold, typically, 100 images so it is best not to waste space. The disc can be made up over a period of time with just a few images added on each occasion, although most labs have a minimum order of 10 photographs at each visit (don't forget to take the CD back when you want to add more!).

Note: Single-session CD-ROM drive users can only access the first set of photographs transferred to the CD.

#### Why not use a scanner or video camera?

Every technology has its place. In the case of digital imaging, Photo CD is only one of many possible solutions. A quick look at a couple of alternatives will help to position it.

A reasonable quality scanner that can cope with photographs or documents will cost around double the price of a CD-ROM drive with Photo CD software. It is unlikely to have the same depth of resolution offered by Photo CD or have the flexibility of the CD-ROM drive in performing other tasks. It is, however, virtually immediate in producing a scanned image from a photograph.

A video camera/digitiser combination will cost at least as much as the scanner while probably offering even less definition. The main advantage here is in the number of images available for capture from a single sequence. Still video cameras - such as the Canon Ion, offer immediacy and small camera convenience, but again without the high resolution.

Photo CD offers the highest quality with the lowest initial outlay. By far the most important factor is that most people already have access to a 35mm camera ( they can now be bought for as little as  $\pounds$ 5) thus making it possible for a whole group of children, for example, to record a school field trip or holiday from their own individual perspective.

## How much does it cost?

The first time you request a Photo CD you will be charged approximately £5 for the blank CD and then you can add your images in one go or just a few at a time. An approximate price guide (as at April 1994) for adding images is shown below.

	High St. Service	<b>Commercial Bureau</b>
Blank Photo CD	£5.00	£5 - £10
24 exp. Dev. print transfer	£13.00	n/a
36 exp. Dev. print transfer	£17.00	n/a
Single image transfer (negative)	£0.60	£1.10
Single image transfer (slide)	£0.60	£2.50

Selecting single images for transfer in the High Street is by far the most cost effective route for most people.

#### **Uses for Photo CD**

The benefits of being able to use your own pictures in documents, presentations or simply for fun are many, at home, in business and in the classroom.

In schools Photo CD offers pupils the chance to have the exact image they wish to use instead of, as in many cases, using traditional 'clip art' which can only offer a near match.

Photo CD can also be used to archive images and then prints of equivalent quality to those made from negatives can be obtained from the CD via the High Street labs.

Once photographic-quality colour printers become widely available to schools at an affordable price those prints may be produced in the classroom with whatever software enhancements you choose to include.

## **Credits - Cumana Photo Album Volume One**

1-9	© Neil Coote, Cumana Limited
10 - 24	© Dennis Miller, Cumana Limited
25 - 39	© David Jackson, Clares
40 - 44	© Paul McKinnon, Cumana Limited
45 - 61	© Frank Dart, Clares
62 - 64	© John Simnett, Cumana Limited
65 - 81	© Chris Magee, Cumana Limited
82	© Richard Lockyer, Cumana Limited

# End-user licence conditions for Cumana Photo Album

YOU MAY use the images in word processed and DTP documents and they can be printed out and duplicated as necessary. Individual images may be freely modified and amalgamated into creative visual work. Sets of the images can be distributed on disc to other users on the same site to be used in projects and displays, or to illustrate talks and lectures.

YOU MAY NOT re-sell any of the images as they are not copyright free. Users who wish to publish any of the material in any form may do so only with the written agreement of the publishers, Cumana Limited

Published by: Cumana Limited, Pines Trading Estate, Broad Street, Guildford, Surrey, GU3 3BH



Photo CD symbol is a trademark of Kodak used under license