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CANON INC. Eastman Kodak Company Fuji Photo Film Co., Ltd. Matsushita Electric Industrial Co., Ltd.

This document gives a summary on the specification of the DPOF Version 1.10, which is released on July 17, 2000 by CANON INC., Eastman Kodak Company, Fuji Photo Film Co., Ltd., and Matsushita Electric Industrial Co., Ltd. (collectively, the DPOF Originators). The copyright of this document is vested in the DPOF Originators. It is strictly prohibited to quote, copy and/or re-distribute this document without any permission from the DPOF Originators. For the use in publication, please send an Email to the address listed at the end.

1.Introduction

More than a year has passed since the launch of the DPOF Version 1.00, and a variety of DPOF products such as digital cameras and printers have been introduced to the market and the photofinishing services for the DPOF have been established. With requests from the users and licensees, the DPOF Originators have been working on the revision works to add functions and released Version 1.10 on July 17, 2000.

In Version 1.10, we have added "Multi-Image Print", which enables several images to be printed on one sheet, "Size Specifying Print", which specifies the sizes of the images, "Auto Transfer", which is used in sending images via internet and fax, and "Auto Play", which can operate slide shows using digital cameras and video projectors. Also, Unicode can be used to satisfy the needs for multilingual description, which is increasingly required with the worldwide spread of digital cameras.

More attractive products and better services for users are possible with Version 1.10 and new applications will be available, including the transfer of images via Internet and fax with cellular phones or PDAs, auto presentation or slide show without using personal computers.

2.Scope of Applications

DPOF can be applied not only to digital cameras, photofinishing services, printers for personal use, but also to PC applications like image processing. The applications to mobile information devices such as cellular phones and PDAs, and TVs ,video projectors are available as well.

<u>3.Supported Functions</u>

3-1.Basic functions (same as Version 1.00)

(1) Specifying the print images

You can specify the image and the number of prints while checking the images on digital cameras.

(2) Electronic print order process

Since the necessary information is stored automatically in the storage device, you do not need to mind the file names and path of images to be printed. Your digital camera shows the preview of the images, even complicated printing like cropping, putting caption, etc.. Thanks to this function, even your printer does not have preview function, you can get prints without mistake.

3-2. Advanced functions (Extended from Version 1.00)

In addition to the above functions of Version 1.00, the following functions are also available.

(1) Multi-Image Print

Multi-Image Print enables you to specify the number of images you want to print on one sheet, which makes it easier to edit albums.

(2) Specifying the size of printed images

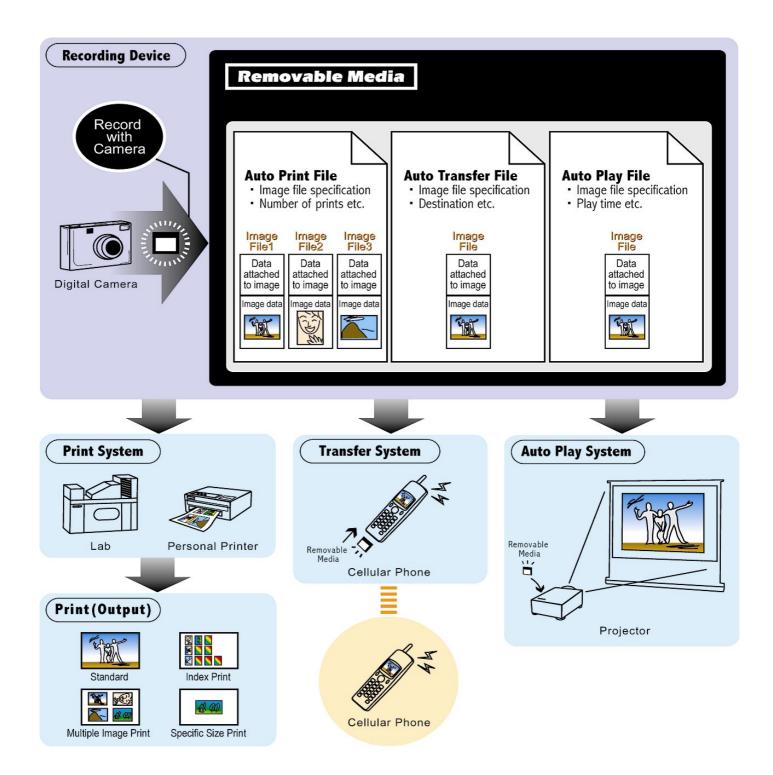
You can specify the size of the printed images, so you can use them for a variety of applications, like displays and certificate materials.

(3) Auto Transfer via internet and fax

You can send the message with image as e-mail by specifying the images and message with internet address and fax number to be sent.

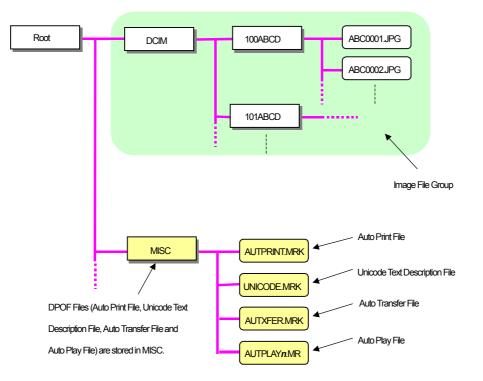
(4) Auto Play for slide show

You can specify the images to be played back on LCDs of your digital cameras, video projectors and PCs for slide show.



4.Directory Structure

DPOF files (Auto Print File, Unicode Text Description File, Auto Transfer File and Auto Play File) are stored in the 'MISC' directory under the media root directory. The storage directory of other image files etc. besides DPOF files is not specified. For MISC', all characters are made single byte capital letters.



5.File Structure 5-1.Sections

Header and Job section are the main components. Each description includes the following items.

(1) [HDR] Header - corresponds to General Information and User Information

1)Version of the DPOF

2)Name and type of the Product which made DPOF file(s)

3)Date when the DPOF file(s) was made

4)User's name

5)User's address

6)User's telephone number

(2) [JOB] Job corresponds to item 3-8 in Table 6-1.6-2,6-3

Auto Print File	Auto Transfer File	Auto Play File
1)Print product ID	1)ID for each JOB	1)ID for each Job
2)Print type	2)Destination	2)Duration of playback
3)Number of prints	3)Image file format	3)Image file format
4)Format of the file	4)Name and path	4)Name and path
5)File name and path	(Image/Others)	(Still/Motion/Sound)
6)Other specifications		
(Cropping, rotation)		

5-2.Prameter description

XXX_XXX=YYYYYYYY | | Prefix Suffix "_" means ASCII code 20h(space)

6.Parameters

6-1.Auto Print File

	Function	Details	Notes
1	General Information	Version of the DPOF specification Name and version of the products Date and time when the DPOF files were saved last	
2	User Information	User's name, address, telephone number Unicode of the user's name and address	
3	Print Management	Product ID Print type Number of prints Type of paper, size Error handling for non-supported items	
4	Image File	Format of the image files Name and path of image files	
5	Print Configuration	Putting captions in each print Printing the date, title, and numbering Trimming specification Rotation of the images	
6	Vendor Unique	Areas for each vendor to define unique functions	

<u>6-2.Auto Transfer File</u>

Function		Details	Notes
1	General Information	Version of the DPOF specification Name and version of the products (hardware, software) under which the products were saved last Date and time when the products were saved last	
2	User Information	User's name, address and telephone number Unicode of the user's name and address	
3	Destination	Internet address, fax number to be sent	
4	Message	Title of the message Type of content(TEXT/HTML) Name and path of the message	
5	Process Management	IDs unique to each transfer	
6	Image File	Format of the image files Name and path of image files	
7	Data File	Name and path of the data file (except still image)	
8	Vender Unique	Areas for each vendor to define unique functions	

6-3.Auto Play File

Function		Details	Notes
1	General Information	Version of the DPOF specification Name and version of the products (hardware, software) under which the product was saved last Date and time when the product was saved last	
2	User Information	User's name, address and telephone number Unicode of the user's name and address	
3	Auto Play Management	IDs unique to each process Duration of each frame	
4	Image File	Format of the image files Name and path of the image file	
5	Configuration	Putting captions Rotation	
6	Video File	Format of the motion pictures Name and path of the motion picture file	
7	Sound File	Name and path of the sound file	
8	Vendor Unique	Areas for each vendor to define unique functions	

7.Full Specification and License Contact

A LICENSING AGREEMENT IS REQUIRED to receive the DPOF full Specification and introduce DPOF Products. For further information and license, please send an E-mail to the following address with Your Name, Company Name, Address, Telephone number, Fax number and Email Address. We are unable to accept any inquiry by telephone or fax. Your e-mails will be automatically transferred to the DPOF Originators, and will be answered by the company in charge.

For the licensees of DPOF Version 1.00, we will send the notice for new agreement of DPOF Version 1.10.

(1) Licensing: license@dpof.ved.mei.co.jp

(2) Publication: pub@dpof.ved.mei.co.jp

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