

KDF & PFS TAPE FORMATS

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I. Introduction

This paper describes KDF & PFS tape formats and will serve as a background paper to enable users to more fully understand the PL/1 programs developed to list and copy and fiddle with these tapes on the XXX/360. These programs are described in another working paper entitled "XXX/360 KDF & PFS TAPE FIDDLING ROUTINES".

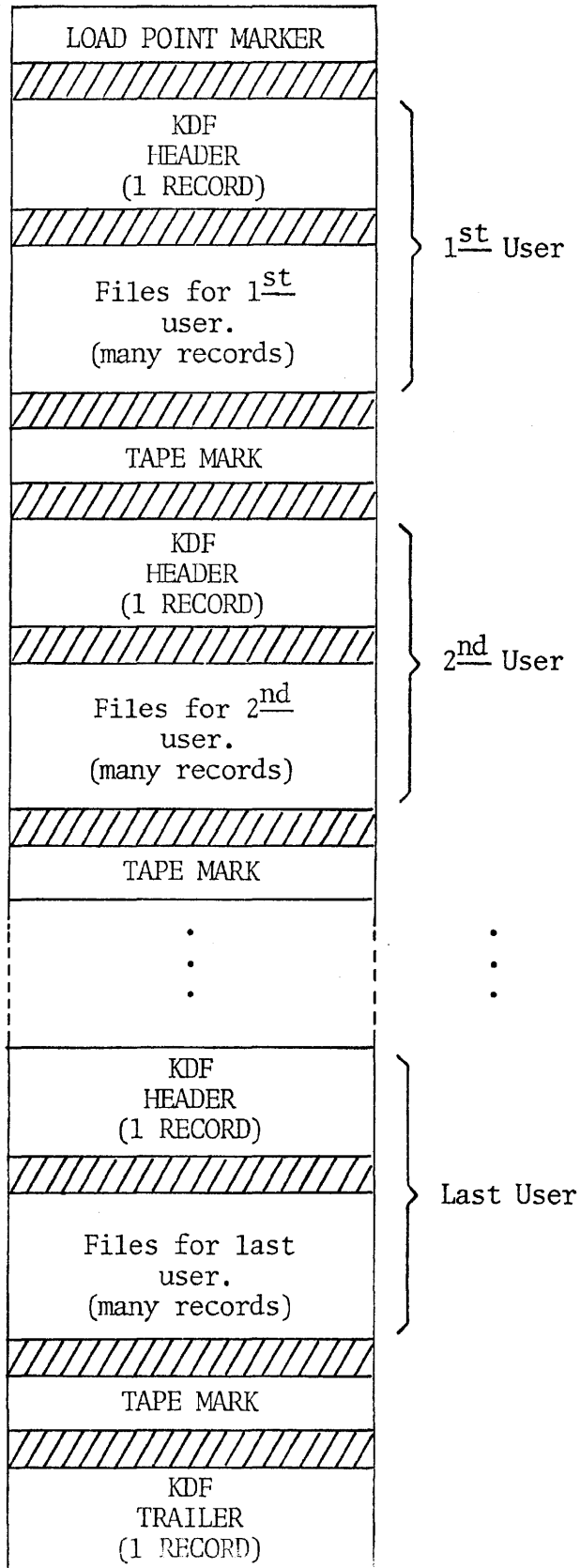
We note here that a PFS tape has the same general format as a KDF tape, since it was produced by the KDF routines, but the specific structure of the PFS user file (usually one on the tape) is considerably different and is separately documented.

The character set used is the "Internal 940 Set (Obsolete)". (See the appendix.)

II. KDF Tape Format

The general format of a KDF tape is as follows on the next five pages:

Overall Format of a KDF Tape



FORMAT OF KDF HEADER AND TRAILERKDF Header

(8 words)

0	user number
1	user number
2	user number
3	user number
4	user number
5	0
6	0
7	0

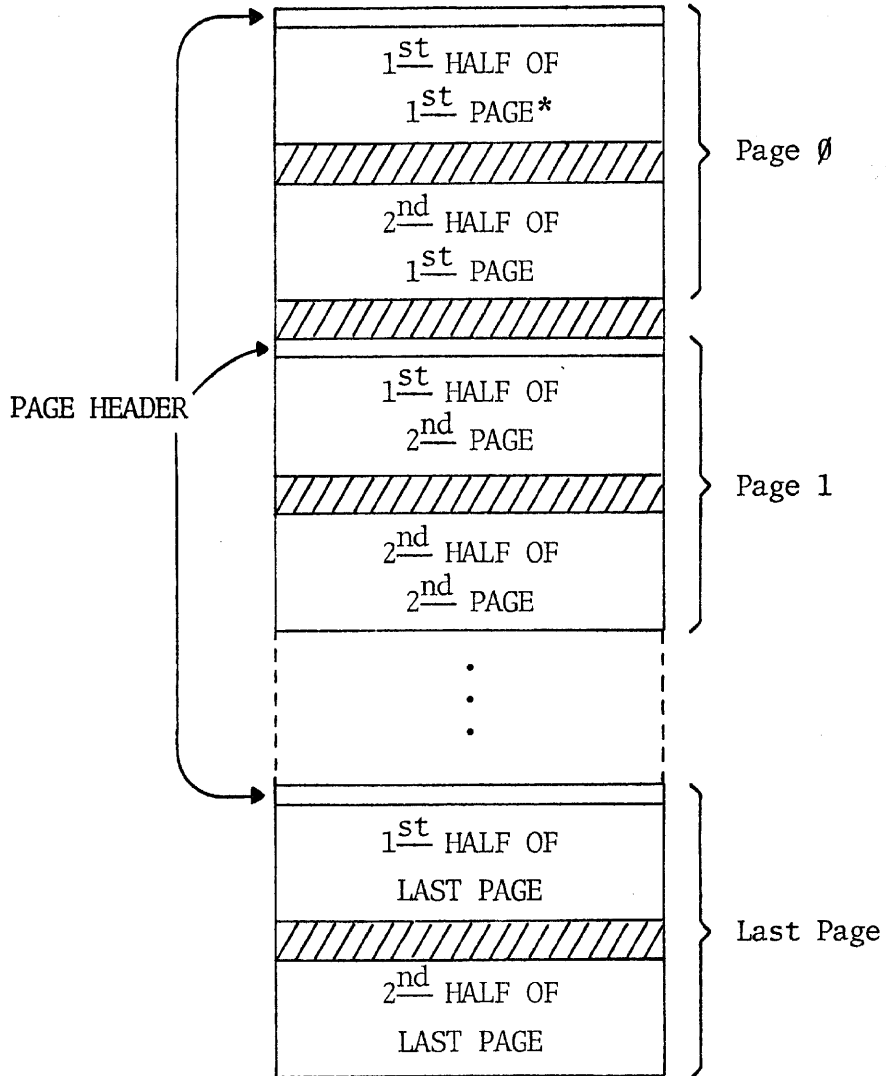
User number is an integer > 0 .

KDF Trailer

(8 words)

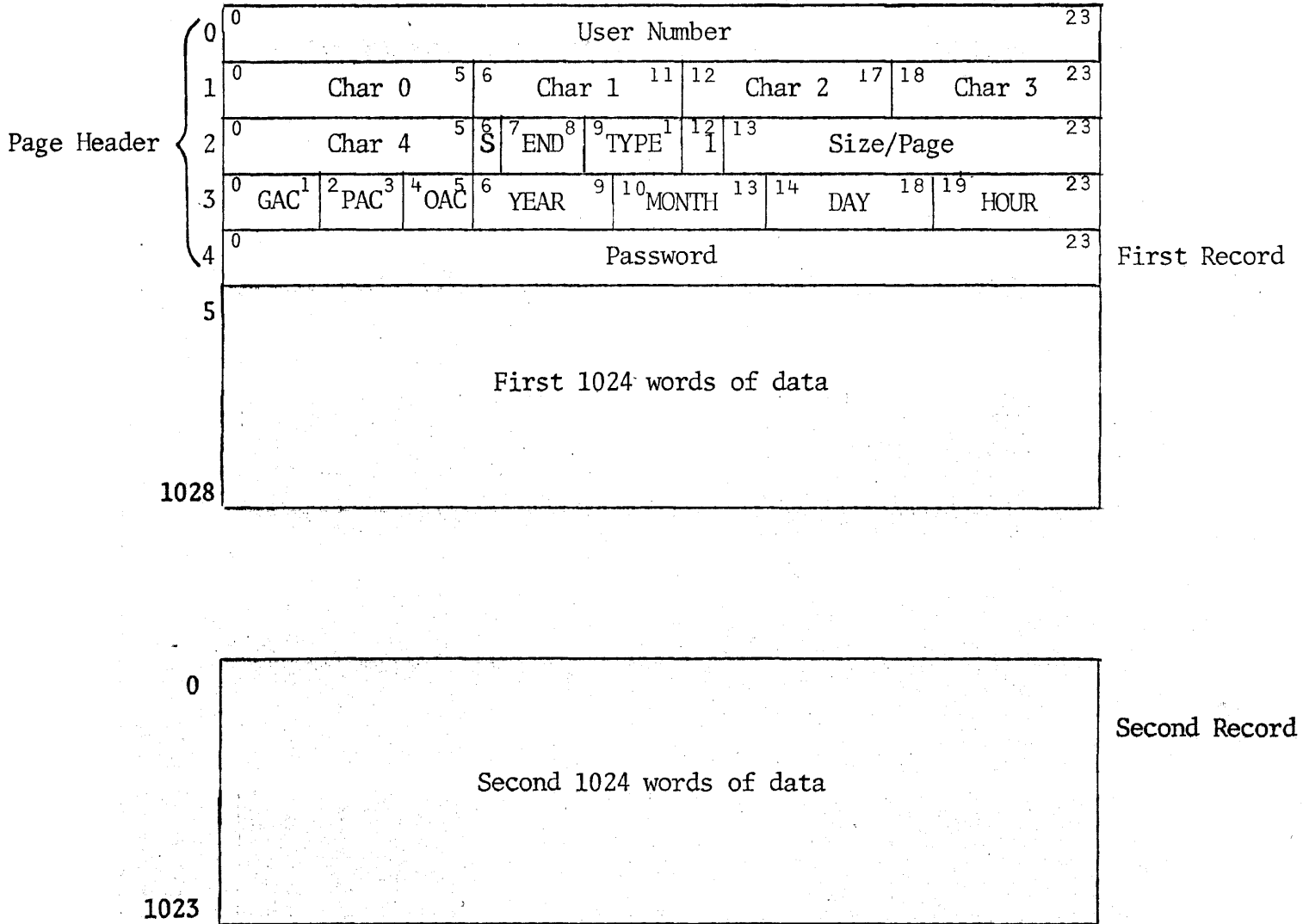
0	-1
1	-1
2	-1
3	-1
4	-1
5	-1
6	-1
7	-1

Format of a Single File on a KDF Tape



* A "page" is 2048 24-bit words.

FORMAT OF A 2K FILE PAGE



A description of each field will be found on the next page. It should be kept in mind that the pages of a file occur sequentially on the tape but not necessarily consecutively. Pages from other files may be interspersed.

Char 0 through Char 4: Characters of name, left justified and padded with blanks.

S: 0 if sequential, 1 if random.

END: 01₂ if not last block of file, 10₂ if last.

TYPE: File type as for TSS scratch files.

Size/Page: Page number of block in file if not last block,
number of data words in block (decremented by 1)
if last.

GAC: Public access key: 00₂ = invisible, 01₂ = no access,
10₂ = read-only, 11₂ = write.

PAC: Password access key.

OAC: Owner access key.

YEAR: Year last written - 1960. (e.g. YEAR = 1 means 1961)

MONTH: Month last written, January = 1.

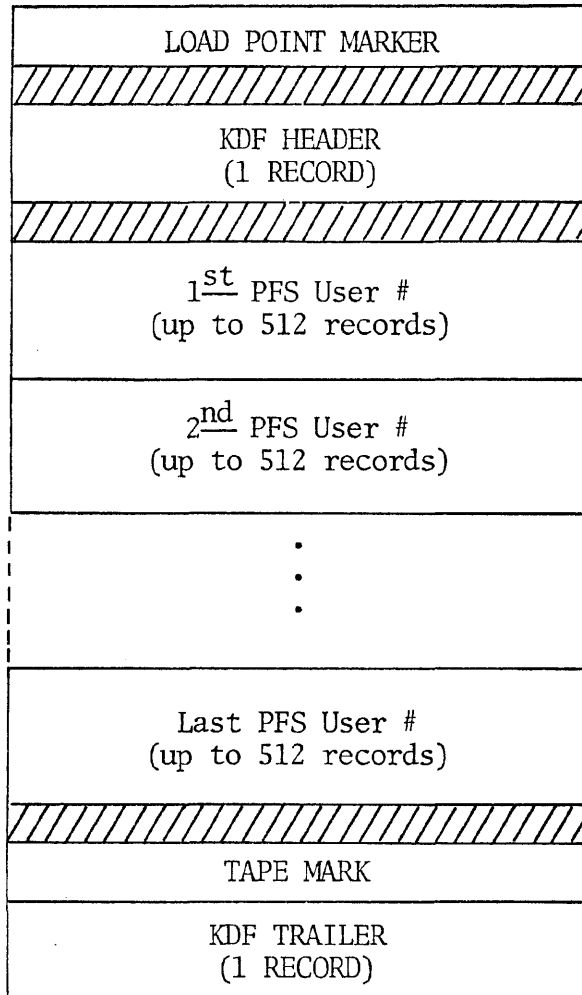
DAY: Day of month last written.

HOURL: Hour last written, 0 to 23.

Password: File password.

III. PFS Tape Format

Essentially a PFS tape is a dump of the disc file and has the following general format:



Each PFS User file can have up to 256 pages and each page is split into 2 records.

Format of Index Record

(1st Half Page Only)

1st Half of 1st Half Page	Word																							
	0	77777777B																						
	1	0						I ₁						I ₂										
	2	0	Char 0			5	6	Char 1			11	12	Char 2			17	18	Char 3			23			
	3	0	Char 4			5	6	S	7	8	END	9	11	TYPE	12	13	Size/Page			23				
		⋮																						
	510	0	Char 0			5	6	Char 1			11	12	Char 2			17	18	Char 3			23			
	511	0	Char 4			5	6	S	7	8	END	9	11	TYPE	12	13	Size/Page			23				
		⋮																						
	2nd Half of 1st Half Page	512	J ₁						J ₂						J ₃									
513		J ₄						J ₅						J ₆										
		0	1	2	3	4	5	6	9	10	13	14	18	19	23	GAC	PAC	OAC	YEAR	MONTH	DAY	HOUR		
		0	PASSWORD																				23	
		⋮																						
1022		0	1	2	3	4	5	6	9	10	13	14	18	19	23	GAC	PAC	OAC	YEAR	MONTH	DAY	HOUR		
1023		0	PASSWORD																				23	

AND THAT'S ALL FOLKS

APPENDIX I

INTERNAL 940 SET (OBSOLETE)

	0	1	2	3	4	5	6	7	10	11	12	13	14	15	16	17
0	Ø	!	"	#	\$	%	&	'	()	*	+	,	-	.	/	
20	Ø	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
40	e	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
60	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	↑	←
100	_	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
120	p	q	r	s	t	u	v	w	x	y	z	{		ALT }	↵	→ EOF
140	NUL	&A	&B	&C	&D	&E	&F	&G	&H	&I	LF	&K	FF &L	CR	&N	&O
160	&P	&Q	&R	&S	&T	&U	&V	&W	&X	&Y	&Z	&[&\	&]	&↑	&←

Reference: Old folk legend

ALT: altmode (escape to multiple blanks)
 CR : carriage return
 EOF: end of file
 FF: form feed (page eject)
 LF: line feed
 NUL: null character