## DP800 file format description

DP800 data file include record file(.rof), time file(.rtf) and delay file (.rdf).

1. record file (.rof)

Record file is consist of file header ,file data information and file content .File header is 16 bytes ,pic1 shows a record file with hex ,including below information :

- 1. file type ,4 bytes , fixed with .ROF
- 2. equipment model ,1 byte

3. file data information length , 2 bytes , fixed with 12

- 4. data length , 4 bytes , fixed with 0
- 5. file header CRC value ,2 bytes

6. data CRC value, 2 bytes , hasn' t be used

	File type ROF			MO DP8	DEL 32A	File info	data ormat	i tion le	ength	, [	Data lengt	h	File header CRC			DATA CRC		
				7					7			7			7		,	
0000000	00	52	4F	46	00	80	00	0C	00	00	00	00	00	40	0E	96	40	1.1.1.1
0000001	10	01	00	00	00	A2	03	00	00	A2	03	00	00	D8	80	00	00	
0000002	20	C8	01	00	00	AA	00	00	00	91	02	00	00	38	01	00	00	
0000003	80	2C	02	00	00	D8	08	00	00	C8	01	00	00	AA	00	00	00	

Pic 1

File data information has 12 bytes ,as pic 2 shows ,including below items :

- 1. record period , 4 bytes
- 2. sampling points ,4 bytes
- 3. The oldest data subscript ,4 bytes

	Record peri	od 1s	5		Re	ecord	poin	ts 93(	0		Oldest data subscript 930									
					ļ.															
1	00000000	52	4F	46	00	80	00	oc	00	00	00	00	00	40	0E	96	40			
k	00000010	01	00	00	00	A2	03	00	00	A2	03	00	00	D8	80	00	00			
k	00000020	C8	01	00	00	AA	00	00	00	91	02	00	00	38	01	00	00			
0	00000030	2C	02	00	00	D8	80	00	00	<b>C</b> 8	01	00	00	AA	00	00	00			

## Pic 2

the file content shows record channel data include voltage and current value , it starts from  $28^{th}$  byte , record the voltage and current value of channel 1 to the max channel , each record point data structure as below :

- 1. voltage value of channel 1,4 bytes
- 2. current value of channel 1,4 bytes
- 3. …

4. voltage value of the max. channel ,4 bytes

5. current value of the max. channel ,4 bytes

recorded data divide 10000 get the real voltage and current value, as pic 3 shows, for example the  $4^{th}$  point voltage is CF A9 04 00, transfer 00 04 A9 CF to decimal get 305615, divide 10000 get 30.5615

1 <sup>st</sup> samp current	oling point of ch1 0.04	4	1 <sup>st</sup> sampling point voltage of ch2 0.017V									1 <sup>st</sup> s volt	sam age	plin of c	g po ch1	oint 0.22	264∨	
	00000000 52 41						00	0C	00	00	00	00	00	40	0E	96	40	
	00000010 01 0				00	A2	03	00	00	A2	03	00	00	D8	08	00	00	
	00000020	01	00	00	AA	00	00	00	91	02	00	00	38	01	00	00	nd -	
	00000030	000020 C8 000030 2C			00 D8 08 0		00	00	C8	01	00	00	AA	00	00	00	2 <sup>114</sup> sampling point	
	00000040	91	02	00	00	38	01	00	00	2C	02	00	00	D9	80	00	00	voltage of ch1 0.2264V
	00000050	C8	01	00	00	AA	00	00	00	91	02	00	00	38	01	00	00	- LETTERT AND A CONTRACT OF A CONTRACT
	00000060	2C	02	00	00	CF	A9	04	00	D2	01	00	00	AB	00	00	00	4 <sup>th</sup> compling point
	00000070	91	02	00	00	38	01	00	00	2C	02	00	00	C8	B5	04	00	
	0 00 000000 CD				00	AA	00	00	00	91	02	00	00	38	01	00	00	voltage of ch1 30.5615V
	00000090 2C 0					CE	B5	04	00	CC	01	00	00	AA	00	00	00	



## 2. Time file (.rtf)

time file is consist of file header, file data information and file content. File header has 16 bytes, pic 4 shows time file's structure :

- 1. file type ,4 bytes , fixed with .RTF
- 2. equipment model ,1 byte
- 3. file data information length, 2 bytes , fixed with 1
- 4. data length , 4 bytes , fixed with 24576
- 5. file header CRC value ,2 bytes
- 6. data CRC value ,2 bytes, hasn' t been used

File type MODEL RTF DP832A						le dat form	ta ation	leng	th	Dat len 245	ta gth 576		File he	eader	(	DATA CRC		
0000	0000	52	54	46	00	08	00	01	00	00	60	00	00	21	54	DO	40	
0000	0010	00	00	00	00	00	10 01	27 00	00	00	01 20	00 4E	00	00	10	27 27	00	
								pic	4									

File data information length is 1 byte ,shows current channel information ,the file saved edited 2048 timing parameter in order from 0 to 2047, including voltage ,current and duration time information .Pic 5 shows timing file's structure .

- voltage setting value, 4 bytes, the data divide 10000 get the real voltage value.
- current setting value, 4 bytes, the data divide 10000 get the real current value

Channel 1	Voltag 1 <sup>st</sup> pc 0V	ge of bint	Cur poir	rent o nt 1A	of 1 <sup>s</sup>	t	C ti p	ourat ime oint	ion of 1s	1 <sup>st</sup>		Vol poi	tage nt 1\	of 2 <sup>nd</sup>
00000000 52	54 46	00	08 00	01	00	00	60	00	00	21	54	DO	40	
00000010 00	00 00	00	00 10	27	00	00	01	00	00	00	10	27	00	Voltage of 3 <sup>rd</sup>
00000020 00	10 27	00	00 01	00	00	00	20	4E	00	00	10	27	00	voltage of 5
00000030 00	01 00	00	00 30	75	00	00	10	27	00	00	01	00	00	point 2V
00000040 00	10 00	00	00 10	27	00	00	01	00	00	00	10	27	00	

3. duration time , 4 bytes

pic 5

## 3. delay file (.rdf)

Delay file is consist of file header , file data information and file content .File header has 16 bytes ,pic 6 shows delay file's structure .

- 1. file type ,4 bytes ,fixed with .rdf
- 2. equipment model ,1 byte
- 3. data information length, 2 bytes , fixed with 1
- 4. data length , 4 bytes , fixed with 16384

5. file header CRC value ,2 bytes

6. data CRC value ,2 bytes ,hasn' t been used

	File type MODEL RDF DP832A					File da inforn 1	ata natio	n len	gth	Da ler 16	ta Igth 384		File h	eader		DATA CRC		
00000	000 010 020 030	52 01 00 00	44 00 00 00	46 00 00 00	00	08 00 00 00	00 08 02 01	01 00 00 00	00 00 00	00 00 00 00	40 01 01 01	00 00 00 00	00 00 00 00	DA 00 00 00	87 01 05 01	D0 00 00 00	40 00 00 00	
						PIC 6												

File data information length is 1 byte ,save current channel information ,that are 2048 delay settings in order from 0 to 2047, including switch state and delay time, as pic 7 shows, the delay file structure .

1. switch state ,1 byte, 0 means off ,1 means on .

2. delay time ,4 bytes

Channel 2				Sta po	ate c int c	of 1 <sup>st</sup> off	Delay time of 1 <sup>st</sup> point 8s						State of 2 <sup>nd</sup> point on				lay t poi	ime of nt 1s			
												- F									
000	00	0000	52	44	46	00	80	00	01	00	00	40	00	00	DA	87	DO	40			
000	00	0010	01	00	00	00	00	08	00	00	00	01	00	00	00	01	00	00			
000	00	0020	00	00	00	00	00	02	00	00	00	01	00	00	00	05	00	00	Delay tim	e of 3 <sup>rd</sup>	
000	00	0030	00	00	00	00	00	01	00	00	00	01	00	00	00	01	00	00	point 2s		
000	00	0040	00	00	00	00	00	01	00	00	00	01	00	00	00	01	00	00			
000	00	0050	00	00	00	00	00	01	00	00	00	01	00	00	00	01	00	00	State of 3	rd	
000	00	0060	00	00	00	00	00	01	00	00	00	01	00	00	00	01	00	00	point off		
0.00	0.0	0020	00	00	00	00	00	01	00	00	00	01	00	00	00	01	00	00			

pic 7