

The TAP- (and BLK-) format is nearly a direct copy of the data that is stored in real tapes, as it is 'written' by the ROM save routine of the ZX-Spectrum:

TAP file:				
Offset:	Field type:	Length:	Description:	Additional information:
0	1st datablock	?	first datablock	a TAP file is simply one datablock or a group of 2 or more datablocks, one followed by the other. The TAP file may be empty. Then it has a size of 0 bytes. There's no real file size limit, like real tapes, TAP files can also contain huge amounts of datablocks.
???	2nd datablock	?	second datablock	
???	last datablock	?	last datablock	

TAP files use the following sub-format only:

any datablock (2+[length] bytes):				
Offset:	Field type:	Length:	Description:	Additional information:
+0	WORD LSB MSB	2	[length]	length of the following datablock in bytes (0..65535)
+2	BYTE -ARRAY	[length]	tape data	data as it is stored on tape, may be a header or any data from ZX-Spectrum

Each tape data can be one of the following cases:

case #1: program header or program autostart header				
Offset:	Field type:	Length:	Description:	Additional information:
+0	BYTE	1	flag byte	always 0. Byte indicating a standard ROM loading header
+1	BYTE	1	data type	always 0: Byte indicating a program header
+2	CHAR -ARRAY	10	file name	loading name of the program. filled with spaces (CHR\$(32))
+12	WORD LSB MSB	2	[data length]	length of the following data (after the header)
+14	WORD LSB MSB	2	autostart line	LINE parameter of SAVE command. Value 32768 means "no auto-loading"; 0..9999 are valid line numbers.
+16	WORD LSB MSB	2	[program length]	length of BASIC program; remaining bytes ([data length] - [program length]) = length of variables.
+17	BYTE	1	checksum byte	simply all bytes (including flag byte) XORed