

BGEN Format 1.2

Abbreviations		Endian	File offset (bytes)	Field name	Field size (bytes)	Example		
						Hexadecimal	Human-friendly	
		little	0	variant_offset	4	40 00 00 00	64	
		little	4	header_length	4	14 00 00 00	20	
		little	8	number_variants	4	02 00 00 00	2	
		little	12	number_samples	4	03 00 00 00	3	
		undefined	16	magic_number	4	62 67 65 6E	"bgen"	
		undefined	20	free_storage	header_length - 20	undefined	undefined	
V:variant_offset		little	header_length	flags	4	09 00 00 00	01b, 0010b, 0_0b, 1b	flags
S_0:sample0_id_length		little	header_length + 4	sample_block_length	4	78 17 00 00	6008	snps_compression: 1 (zlib)
I_0:variant0_id_length		little	header_length + 8	number_samples	4	03 00 00 00	3	layout: 2
R_0:variant0_rsid_length		little	header_length + 12	sample0_id_length	2	0A 00	10	undefined
C_0:variant0_chrom_length		undefined	header_length + 14	sample0_id	sample0_length	73 61 6D 70 6C 65 5F 30 30 31	"sample_001"	has_sample_ids: 1
A_00: variant0_allele0_length		little	header_length + S_0 + 14	sample1_id_length	2	0A 00	10	
		undefined	header_length + S_0 + 16	sample1_id	sample1_length	73 61 6D 70 6C 65 5F 30 30 32	"sample_002"	
		
		little	V + 4	variant0_id_length	2	07 00	7	
			V + 6	variant0_id	variant0_id_length	53 4E 50 49 44 5F 32	"SNPID_2"	
		little	V + I_0 + 6	variant0_rsid_length	2	06 00	6	
			V + I_0 + 8	variant0_rsid	variant0_rsid_length	52 53 49 44 5F 32	"RSID_2"	
		little	V + I_0 + R_0 + 8	variant0_chrom_length	2	02 00	2	
			V + I_0 + R_0 + 10	variant0_chrom	variant0_chrom_length	30 31	"01"	
		little	V + I_0 + R_0 + C_0 + 10	variant0_position	4	D0 07 00 00	2000	
		little	V + I_0 + R_0 + C_0 + 14	variant0_number_alleles	2	02 00	2	
		little	V + I_0 + R_0 + C_0 + 16	variant0_allele0_length	4	01 00 00 00	1	
			V + I_0 + R_0 + C_0 + 20	variant0_allele0	variant0_allele0_length	41	"A"	
		little	V + I_0 + R_0 + C_0 + A_00 + 20	variant0_allele1_length	4	01 00 00 00		
		little	V + I_0 + R_0 + C_0 + A_00 + 24	variant0_allele1	variant0_allele1_length	47	"G"	
				
		little		variant0_genotype_block_length	4	C5 0D 00 00	3525	
		little		variant0_genotype_data_length	4	9E 11 00 00	4510	
		undefined		variant_genotype_zdata	variant_genotype_block_length			