

Record Layouts for AV Bible binary files

Authorized Version (aka King James Bible) - 2008 Edition – Rev 7A5

AVBible.2008 (4-byte records)

Record #	WordKey(2) <small>see AVEnglish.2008</small>	Punctuation(1)	VerseNum(1)
0	0x0000 (delimiter)	size ^{gen} & 0xFF	size ^{gen} / 0x100
1	WordKey of “In”	0x0	1
2	WordKey of “the”	0x0	1
3	WordKey of “beginning”	0x0	1
... (until end of chapter, then start again with chapter 2 of Genesis)			
38263	WordKey of “Thus”	0x0	1
38263	WordKey of “the”	0x0	1
38264	WordKey of “heavens”	0x0	1
... (until end of book; Genesis depicted)			
size ^{gen} -1	WordKey of “coffin”	0x0	26
size ^{gen}	WordKey of “in”	0x0	26
size ^{gen} +1	WordKey of “Egypt”	0x81	26
size ^{gen} +2	0x0000 (delimiter)	size ^{exo} & 0xFF	size ^{exo} / 0x100
... (until last word of last chapter of the 66 th book: namely Revelation)			
789716	WordKey of “Amen”	0x81	21
789717	0x0000 (delimiter)	0x00	0x00

Bit patterns for Punctuation Byte

Description	Bit Pattern (Hex)
PUNCclause	0xE0
PUNCexclamatory	0x80
PUNCinterogative	0xC0
PUNCdeclarative	0xE0
PUNCdash	0xA0
PUNCsemicolon	0x20
PUNCcomma	0x40
PUNCcolon	0x60
PUNCpossessive	0x10
PUNCparagraph	0x08
MODEparenthetical	0x04
MODEitalics	0x02
MODEjesus	0x01

Bit patterns for Top 2 bits of WordKey

Description	Bit Pattern (Hex)
English Word	0x3FFF (This mask provides index into AVEnglish.2008)
Illegal Word	0xFFFF (Delimiter that represents end-of-lists)
1 st Letter Cap	0x8000 (example: Lord)
All Letters CAPS	0x4000 (example: LORD)
Use Mixed CaPs	0xC000 (Use captitolization from AVEnglish.2008)

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AVEnglish.2008 (variable-length records)

Offset	WordSize (2 bytes)	Word Count (2 bytes)
0: Max Len	Two-Byte record = 18 (Word Count field not present in 1 st record)	
2: Header	1	3
6 6 = 2 + 4	CLOB [†] = { 'a' }, key=1 { 'i' }, key=2 { 'o' }, key=3	
9: Header 9 = 6 + (3 x 1)	2	40
12 12 = 9 + 3	CLOB = { 'a', 'h' }, key = 4 { 'a', 'i' }, key = 5 { 'a', 'm' }, key = 6 { 'a', 'n' }, key = 7 { 'a', 'r' }, key = 8 { 'a', 's' }, key = 9 { 'a', 't' }, key = 10 { 'b', 'e' }, key = 11 { 'b', 'y' }, key = 12 { 'd', 'o' }, key = 13 { 'e', 'd' }, key = 14 { 'e', 'r' }, key = 15 { 'g', 'o' }, key = 16 { 'h', 'a' }, key = 17 { 'h', 'e' }, key = 18 { 'h', 'o' }, key = 19 { 'i', 'f' }, key = 20 { 'i', 'n' }, key = 21 { 'i', 'r' }, key = 22 { 'i', 's' }, key = 23 { 'i', 't' }, key = 24 { 'l', 'o' }, key = 25 { 'm', 'e' }, key = 26 { 'm', 'y' }, key = 27 { 'n', 'o' }, key = 28 { 'o', 'f' }, key = 29 { 'o', 'g' }, key = 30 { 'o', 'h' }, key = 31 { 'o', 'n' }, key = 32 { 'o', 'r' }, key = 33 { 'o', 'x' }, key = 34 { 'p', 'e' }, key = 35 { 's', 'o' }, key = 36 { 't', 'o' }, key = 37 { 'u', 'p' }, key = 38 { 'u', 'r' }, key = 39 { 'u', 's' }, key = 40 { 'u', 'z' }, key = 41 { 'w', 'e' }, key = 42 { 'y', 'e' }, key = 43	
92: Header 92 = 12+(40x2)	3	Word count of 3-letter words
96 96 = 92 + 4	CLOB = { 'a', 'b', 'i' }, key = 44 { 'a', 'c', 't' }, key = 45 ...	

[†] CLOB is an acronym for Character-Large-Object (these character arrays are NOT null-terminated).

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AVLemma.2008 (2-byte records)

Record #	LemmaKey(2)
0	size ^{gen}
1	Index number to the AVHebrew array of Strong's numbers for "In"
2	Index number to the AVHebrew array of Strong's numbers for "the"
3	Index number to the AVHebrew array of Strong's numbers for "beginning"
... (until end of chapter, then start again with chapter 2 of Genesis)	
X	Index number to the AVHebrew array of Strong's numbers for "Thus"
Y	Index number to the AVHebrew array of Strong's numbers for "the"
Z	Index number to the AVHebrew array of Strong's numbers for "heavens"
... (until end of book; Genesis depicted)	
size ^{gen} -1	Index number to the AVHebrew array of Strong's numbers for "coffin"
size ^{gen}	Index number to the AVHebrew array of Strong's numbers for "in"
size ^{gen} +1	Index number to the AVHebrew array of Strong's numbers for "Egypt"
size ^{gen} +2	size ^{exo}
... (until last word of last chapter of the 66 th book: namely Revelation)	
789716	Index number to the AVGreek array of Strong's numbers for "Amen"
789717	0x0000 (delimiter)

AVHebrew.2008 (6-byte records; 3-words)

Record #	Strong's #1	Strong's #2	Strong's #3
0 (record-cnt)	MAX(avnum)	(int) 'H'	3
1 (avnum = 1)	1 st Strong's #	2 nd Strong's #	3 rd Strong's #
2 (avnum = 2)	1 st Strong's #	2 nd Strong's #	3 rd Strong's #
3 (avnum = 3)	1 st Strong's #	2 nd Strong's #	3 rd Strong's #

...

AVGreek.2008 (8-byte records; 4-words)

Record #	Strong's #1	Strong's #2	Strong's #3	Strong's #4
0 (record-cnt)	MAX(avnum)	(int) 'G'	4	0
1 (avnum = 1)	1 st Strong's #	2 nd Strong's #	3 rd Strong's #	4 th Strong's #
2 (avnum = 2)	1 st Strong's #	2 nd Strong's #	3 rd Strong's #	4 th Strong's #
3 (avnum = 3)	1 st Strong's #	2 nd Strong's #	3 rd Strong's #	4 th Strong's #

...