

This is how the version 1.39 archive looks like:

Archive preamble

Test139.bin	Test145.bin
00000000	16 00 00 00 73 65 72 69 61 6C 69 7A 61 74 69 6F
00000010	6E 3A 3A 61 72 63 68 69 76 65 05 04 04 04 08 01
00000020	00 00 00 00 00 04 00 00 00 69 33 38 36 05 00 00
00000030	00 57 69 6E 33 32 07 00 00 00 31 00 2E 00 30 00
00000040	2E 00 30 00 2E 00 30 00 07 00 00 00 31 00 2E 00
00000050	30 00 2E 00 30 00 2E 00 30 00

object information (2 bytes) length (32 bit) and contents of string "i386"

when reading with 1.45, this is the object version number! Should be 0

After the preamble with the magic string, version number (5) and magic sizes for built-in datatypes (4 bytes) there is the 4-byte value of 1 (endianness identifier). Then, two bytes are following characterising the first object, then there are the data of the first string: length (4 bytes: 4) and data (4 bytes: i386).

The same data stored with version 1.45 look like this:

Archive preamble (version no. now 2 bytes)

Test139.bin	Test145.bin
00000000	16 00 00 00 73 65 72 69 61 6C 69 7A 61 74 69 6F
00000010	6E 3A 3A 61 72 63 68 69 76 65 08 00 04 04 04 08
00000020	01 00 00 00 00 00 00 00 00 04 00 00 00 69 33 38
00000030	36 05 00 00 00 57 69 6E 33 32 07 00 00 00 31 00
00000040	2E 00 30 00 2E 00 30 00 2E 00 30 00 07 00 00 00
00000050	31 00 2E 00 30 00 2E 00 30 00 2E 00 30 00

object information (now 5 bytes) length (32 bit) and contents of string "i386"

The version number (8) in the preamble is stored as a 16-bit value, OK. The string data are still there in the same format. However, the object information header is now 5 bytes long.

The object information header consists of 1 byte of serialisation information bits and 4 bytes of version information. In version 5 (1.39), this version information was obviously only 1 byte, thus the object header was only 2 bytes long. Version 8 **does not take this into account**, reads 5 bytes and assigns the number 0x00000400 (1024) as version number (instead of 0) when reading the old archive.

When, during deserialisation, an older archive is detected, the number of bytes read in for the version number must be the same as it was for those older archives.