

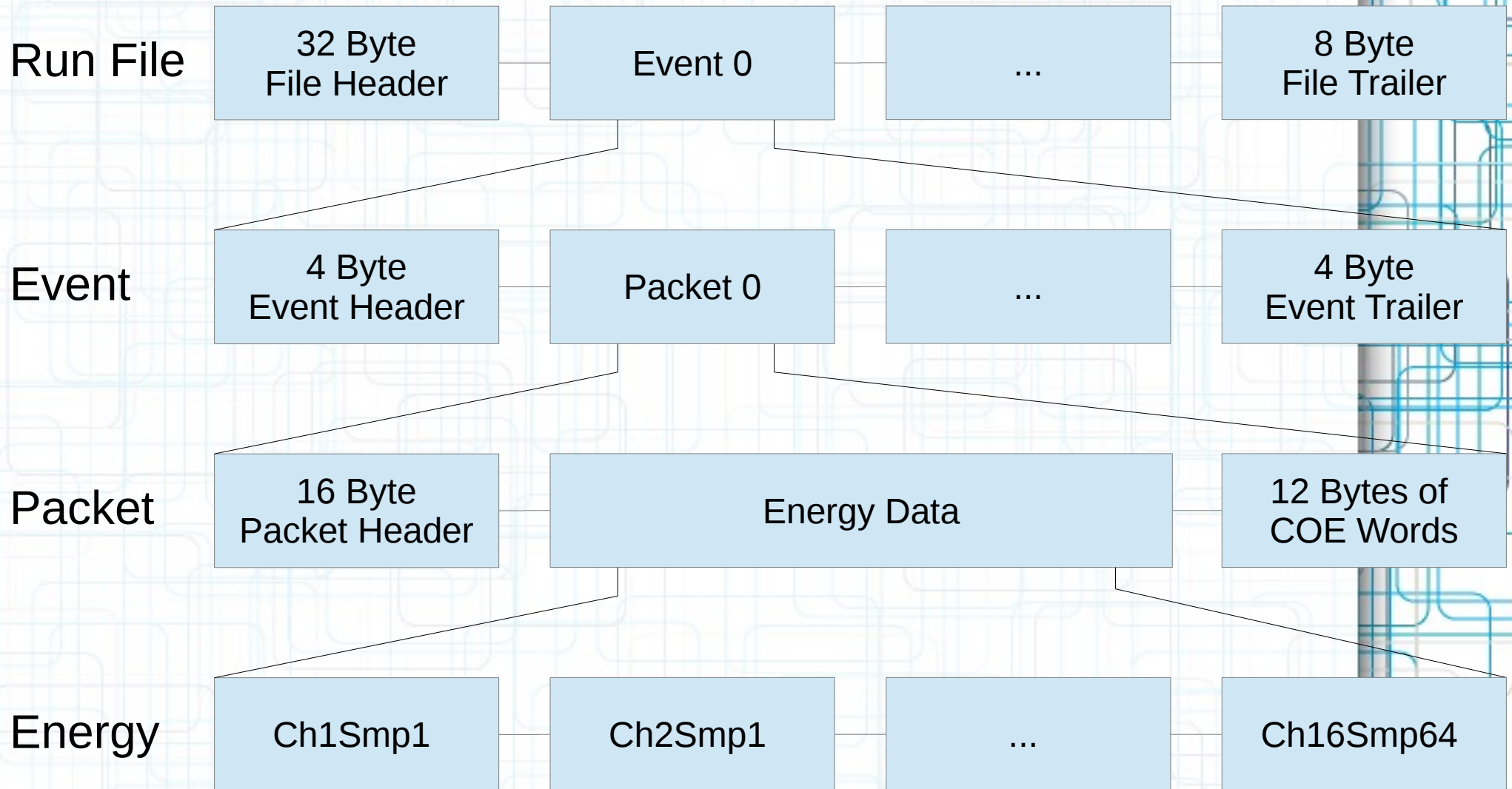
KOTO Run File Format 5

Nikola Whallon

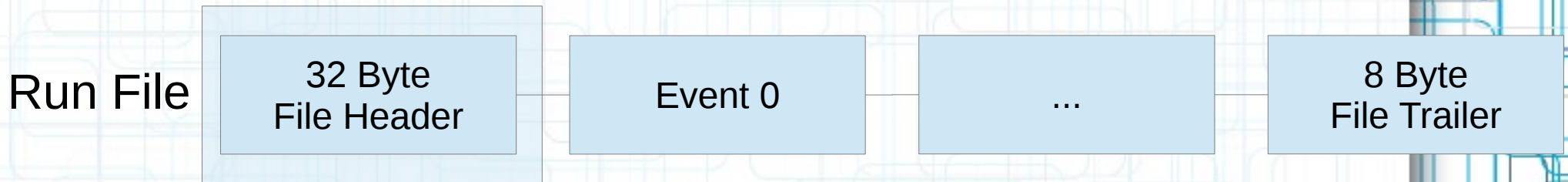
Format 5 Features

- Format 5 was first used in December, 2012.
- Data is uncompressed.
- Energy words have the header 0x8.
- All words are little-endian, and either 16-bit or 32-bit.

Data Format Overview



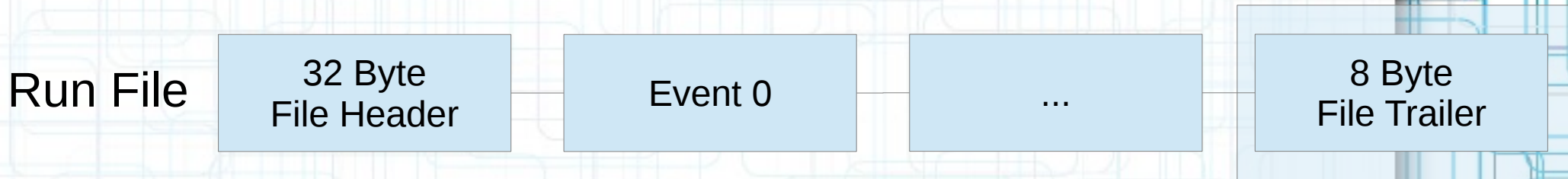
File Header



- File headers consist of the following 8 4-byte, little-endian, words, in order.

File Header Header	0x12341234
File Format Version	5
Run ID	indicates the run
Node Number	indicates the mandolin node
Timestamp	a chronological timestamp
Sample Number	64*
Total Channel Number	245*
File Header Trailer	0x12121212

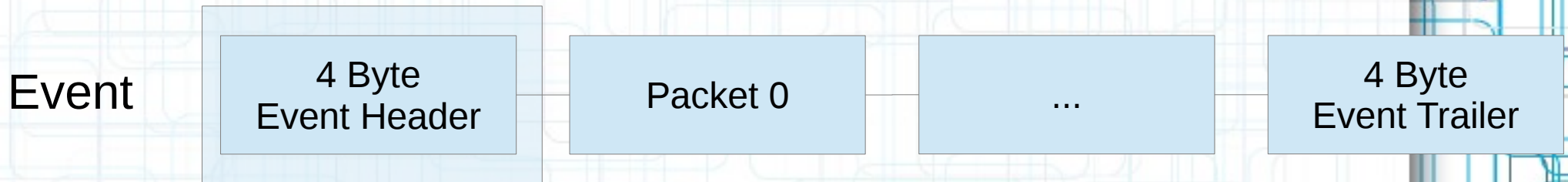
File Trailer



- File trailers consist of the following 2 4-byte, little-endian, words, in order.

Event Number	total number of events in the file
File Trailer	0x43214321

Event Header

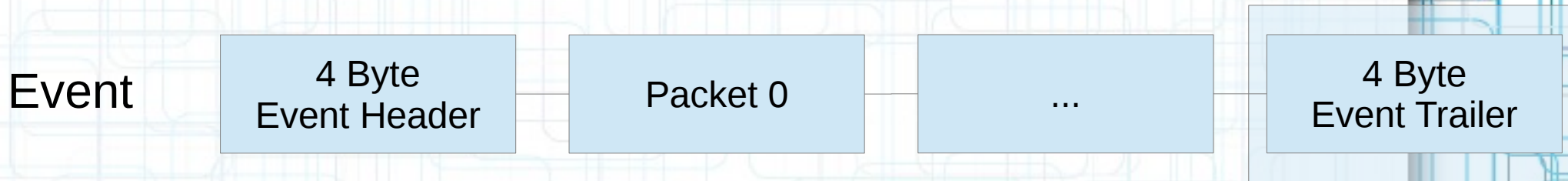


- Event headers consist of the following 4-byte, little-endian, word.

Event Header Header

0xaaaaaaaa

Event Trailer

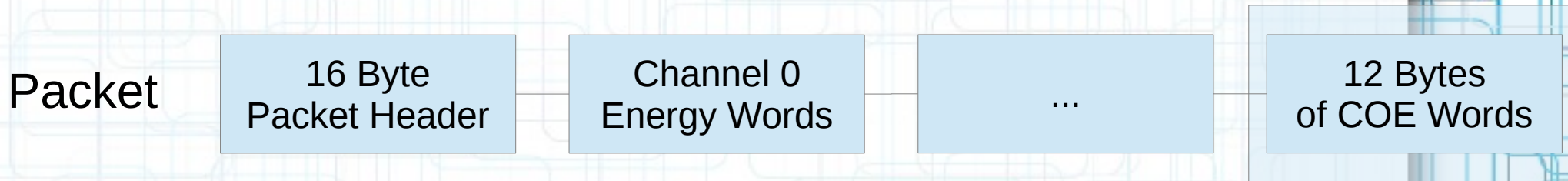


- Event trailers consist of the following 4-byte, little-endian, word.

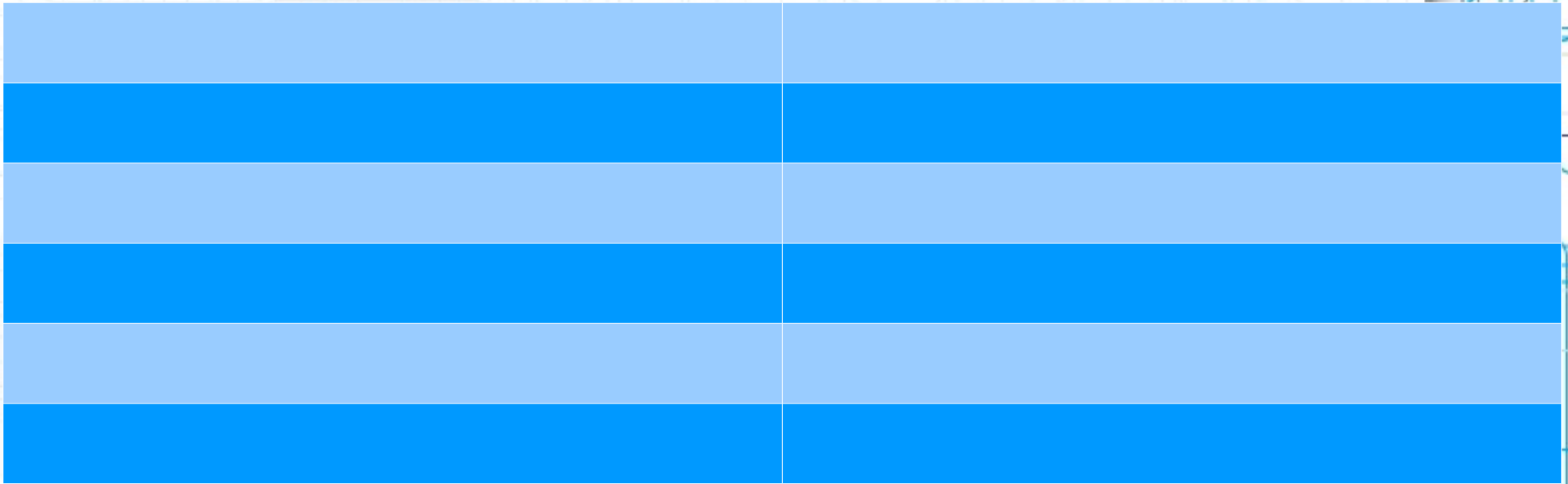
Event Trailer

0xffffffff

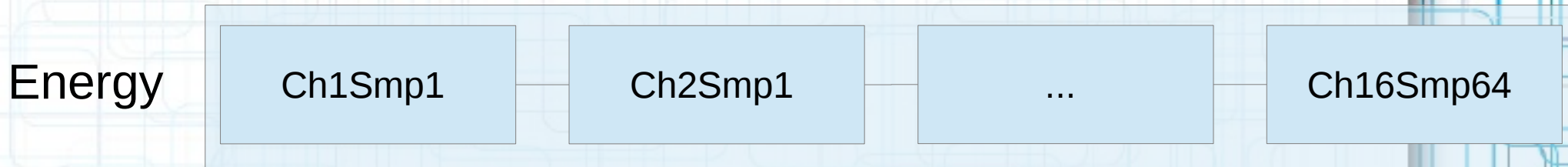
COE Words



- COE words consist of the following 6 2-byte, little-endian, words, in order.



Energy Data



- Energy data is stored by sample. The order of energy words is as follows:

Ch1Smp1 Ch2Smp1 ... Ch16Smp1

Ch1Smp2 Ch2Smp2 ... Ch16Smp2

...

Ch1Smp64 Ch2Smp64 ... Ch16Smp64

- Energy words are 16-bits each and little endian.