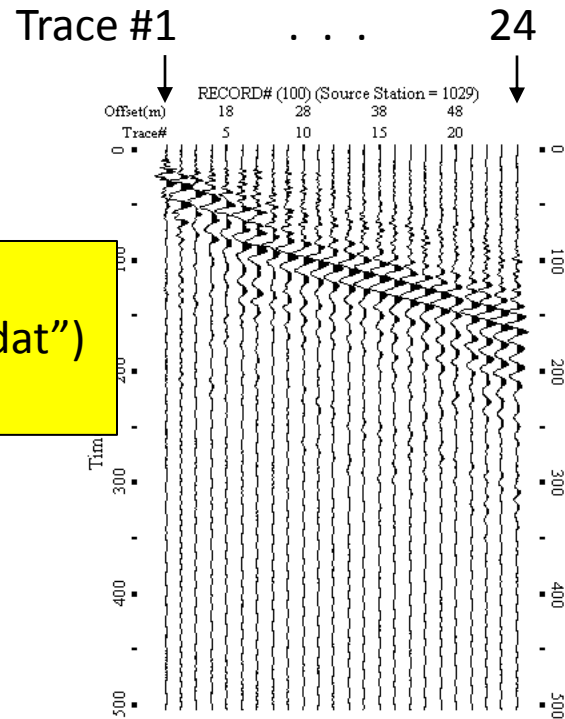


Seismic “Record” (A Fundamental Data Unit)



Display of
One “Record” File (e.g., “100.dat”)
(24-CH Acquisition)

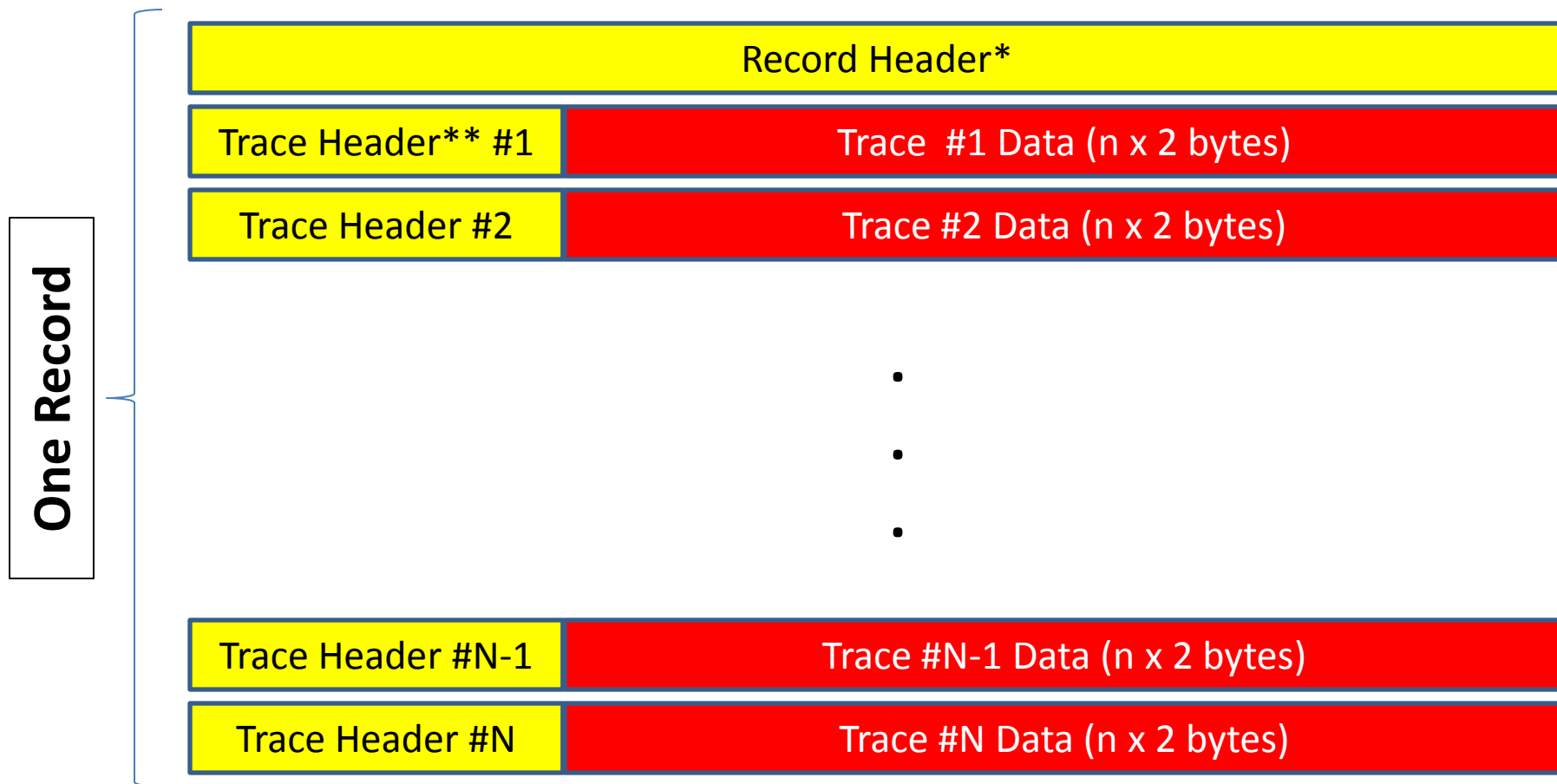


A “**record**” is the fundamental data unit being handled in ‘*binary form*’ by the analysis software package (“ParkSEIS-HMA”). It may (or may not) consist of **record header** at the beginning, and then **each channel’s data follows**.

A data set from each channel is called a “**trace**” that may (or may not) consist of **trace header** at the beginning and then a **fixed number of data samples follow**.

Proposed HMA **Record⁺** Format

**File extension = HMA (e.g., "1.HMA", "2.HMA", etc.)*



**For example, number of traces (N), number of samples per trace (n), sampling interval, etc.*

***For example, channel #, channel location, etc.*

More details are described in the following pages.

Proposed HMA Format (Record Header⁺)

⁺20 elements of 4-byte floating-point data (20 x 4 bytes)

Header #	Usage	Default Value
1	HMA format indicator (e.g., 1234.567)	1234.567
2	Record number (e.g., '1' for file "1.HMA")	0.0
3	Number of channels (traces) (e.g., 24, 48, etc.)	N/A*
4	Sampling interval in microseconds (e.g., 10.0)	N/A*
5	Number of samples per trace (e.g., 15000)(<i>Note: should be ≤ 32000</i>)	N/A*
6	X (longitudinal coordinate) (e.g., GPS-Longitude for source or any ref. point)	0.0
7	Y (transverse coordinate) (e.g., GPS-Latitude for source or any ref. point)	0.0
8	Z (elevation) (e.g., GPS-elevation for source or any ref. point)	0.0
9	Future use	0.0
10	Future use	0.0
11	Future use	0.0
12	Future use	0.0
13	Future use	0.0
14	Future use	0.0
15	Future use	0.0
16	Future use	0.0
17	Future use	0.0
18	Future use	0.0
19	Future use	0.0
20	Future use	0.0

**No default value available (i.e., always specifically assigned)*

Proposed HMA Format (Trace Header⁺)

⁺10 elements of 4-byte floating-point data (10 x 4 bytes)

Header #	Usage	Default Value
1	Channel # (e.g., 1, 2, etc.)	N/A*
2	X (longitudinal coordinate) (e.g., GPS-Longitude for this channel or any point)	0.0
3	Y (transverse coordinate) (e.g., GPS-Latitude for this channel or any point)	0.0
4	Z (elevation) (e.g., GPS-elevation for this channel or any point)	0.0
5	Future use	0.0
6	Future use	0.0
7	Future use	0.0
8	Future use	0.0
9	Future use	0.0
10	Future use	0.0

**No default value available (i.e., always specifically assigned)*