

Metadata standard

Table 1: Hydrophone entry metadata

Field	Type / example	Notes
Hydrophone		
owner	string (URI)	institute or organisation owning the hydrophone (e.g., https://marineinfo.org/id/institute/12345)
model	string	hydrophone model name
serial_number	string	hydrophone serial number
manufacturer	string	manufacturer name
sensitivity	number	sensitivity (dB re 1V/μPa)
description	string	free-text description

Table 2: Recorder entry metadata

Field	Type / example	Notes
Recorder		
hydrophone_id	string	hydrophone identifier in the database
owner	string (URI)	institute or organisation owning the recorder (e.g., https://marineinfo.org/id/institute/12345)
model	string	recorder model name
serial_number	string	recorder serial number
manufacturer	string	recorder manufacturer
description	string	free-text description

Table 3: Station entry metadata

Field	Type / example	Notes
Station		
name	string	human-readable station name
longitude	number	station longitude in decimal degrees
latitude	number	station latitude in decimal degrees

Table 4: Deployment entry metadata

Field	Type / example	Notes
Deployment		
dataset_id	string (URI)	dataset identifier (e.g., https://marineinfo.org/id/dataset/12345)
station_id	string	station identifier in the database
name	string	human-readable deployment name
start_time	string (date-time)	ISO 8601 deployment start timestamp (UTC)
end_time	string (date-time)	ISO 8601 deployment end timestamp (UTC)
geom	string	WKT representation of a point (for stationary deployments) or a line (track of the hydrophone)
author	string (URI)	author identifier (e.g., https://marineinfo.org/id/person/12345)
licence	string	licence or usage statement
comments	string	free-text comments
depth	number	instrument depth (m)
bottom_depth	number	bottom depth (m)
mooring_type	string	mooring type description
start_ship	string	vessel used at deployment start
end_ship	string	vessel used at deployment retrieval

Table 5: Recording entry metadata

Field	Type / example	Notes
Recording		
deployment_id	string	deployment identifier linking to Table 4
recorder_id	string	recorder identifier linking to Table 2
start_time	string (date-time)	ISO 8601 recording start timestamp (UTC)
end_time	string (date-time)	ISO 8601 recording end timestamp (UTC)
sample_size	integer	sample size (bits)
sample_rate	number	sample rate (Hz)
vpp	number	peak-to-peak voltage (V)
stop_reason	integer	stop reason code (0 running, 1 stop cmd, 2 battery end, 3 storage full, 4 electrical err, 5 battery fail, 6 unknown, 8 other, 9 lost)
preamp_gain	number	preamplifier gain (dB)
valid_times	array of [start,end]	list of valid intervals (ISO 8601 timestamps, UTC)
channels[]		
hydrophone_id	string	hydrophone identifier linking to Table 1
correction_factor	number	calibration correction applied per channel (dB)
files[]		
name	string	recording segment file name
url	string	file URL or URI to access the recording segment
size	number	file size in bytes
sha256	string	SHA256 checksum of the file contents
frame_offset	integer	frame offset at which the file starts
frame_count	integer	number of frames contained in the file
events[]		
channel	integer	zero-based channel index for the event
name	string	event name or identifier
description	string	free-text event description
start_frame	integer	frame index at which the event starts
end_frame	integer	frame index at which the event ends
licence	string	licence governing the event metadata
peak_frequency	number	peak frequency (Hz)
low_frequency	number	low frequency bound (Hz)
high_frequency	number	high frequency bound (Hz)
prf	number	pulse repetition rate (Hz)
snr	number	signal-to-noise ratio (dB)
distance_to_source	number	estimated distance from recorder to source (m)
events[].embeddings[]		
model_name	string	the model used to generate the embedding
embedding	array of number	embedding vector generated by the model
events[].annotations[]		
user	string (URI)	contributor identifier (e.g., https://marineinfo.org/id/person/12345)
confidence	number	confidence score provided by the annotator
class	string	top-level class label (e.g., anthrophony)
subclass	string	subclass or specific sound type
timestamp	string (date-time)	ISO 8601 annotation timestamp (UTC)