

PARTRIDGE.

COMPRESS

01

COMPRESSION measured, fitted

Lossless compression,
built for your program's unique sensor data.

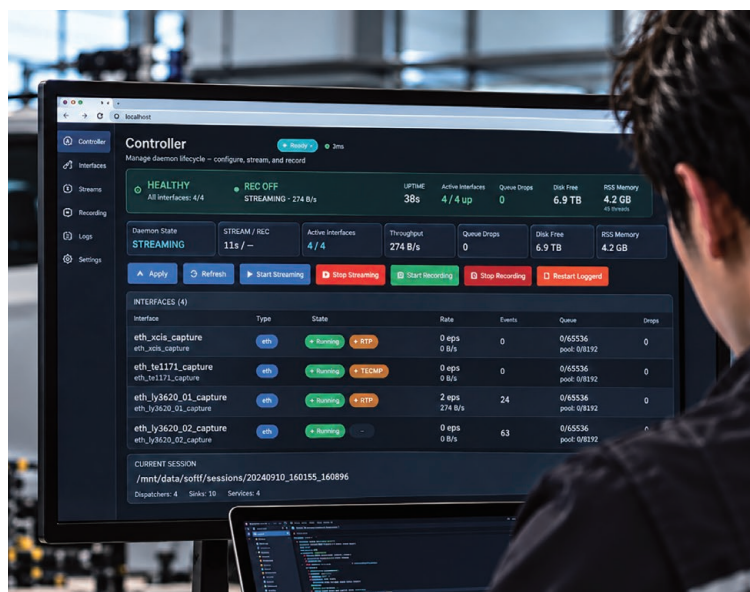
Every codec is fitted to somebody's data.
We fit each one to yours.

Every compression vendor can quote you a ratio.
Ask them what data they measured it on.

Usually the answer is a public dataset or the vendor's own captures, recorded on somebody else's sensors.

We build a codec around one program's own streams, measure it on that program's own bytes and restore every file bit for bit.
No single number can tell a program what it will get.

We will not tell you how your data will perform.
We will go and find out.
First fitting on a small sample is free.

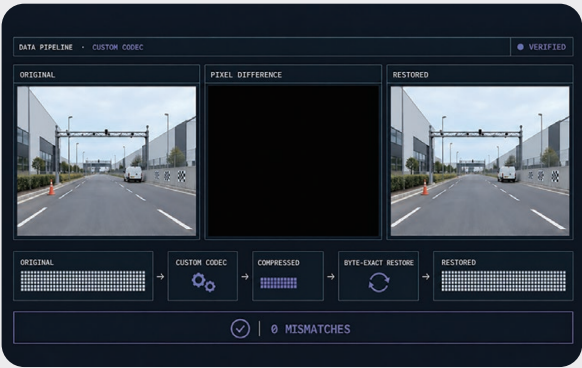


What you get from a fitting:

We promise two things, and both are verifiable.
No data is lost in compression, and the codec keeps up with capture.

Every bit has to come back exactly as it went in, checked file by file.
Keeping up in the vehicle takes a build sized to your compute and a profile for each stream.

01
Bit-identical,
counted file by file



Every round trip.
Every hash matched.

We compress and restore each file and compare SHA-256 digests. On more than a terabyte of a customer's camera and LiDAR data, every round trip matched. One differing bit fails the run.

A fitting also shows where not to bother. On the same data, the maximum profile cut the heaviest camera's output by only about 4%, for nine times the compute. We'll tell you when a stream is already good enough.

02
Fast enough to run
before storage

BOTH CAMERAS, ONE SECOND

One second of recording compresses in less than a second.

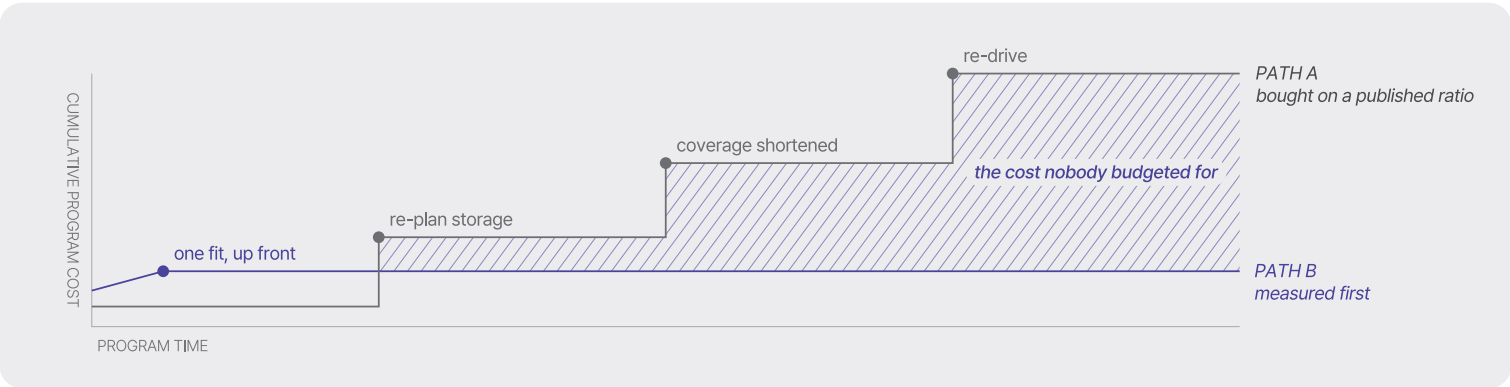


Our fast in-vehicle profile compressed both camera streams roughly 20 to 40% faster than capture, against our logger's validated rate of about 1,200 MB/s. It can run at the source, before storage.

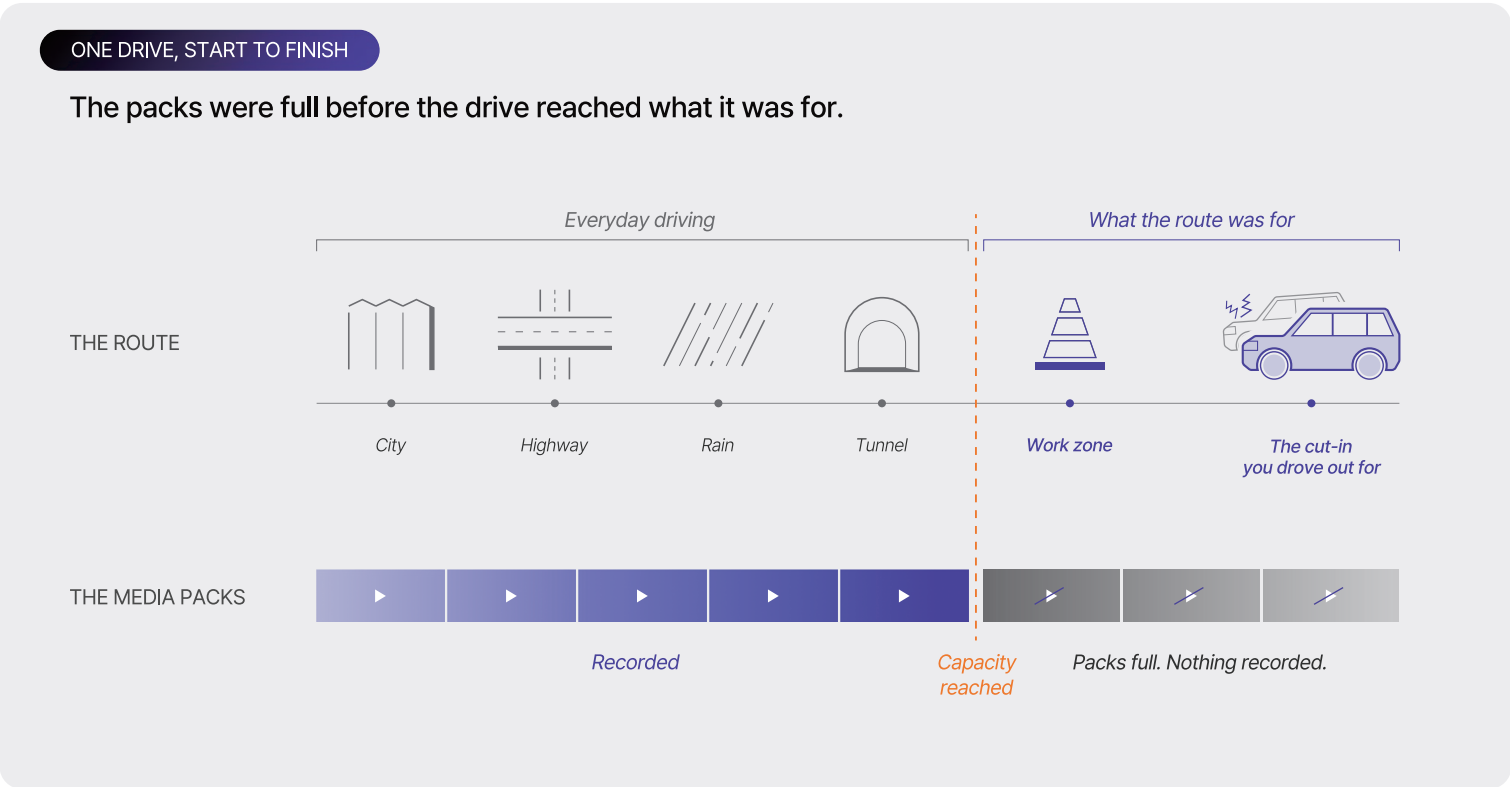
A borrowed ratio costs you coverage.

It looks like a small decision on day one.
The cost shows up months later.

Size storage on somebody else's ratio, and your real number shows up weeks into the campaign, because sensor noise and scene detail set a different floor for every program. With the storage already ordered, the drive plan gets cut, and coverage with it.



The rare events a campaign drives for often come near the end, after the media packs have filled, and the gap only shows up at ingest. Measure first, and every plan is sized on real numbers.



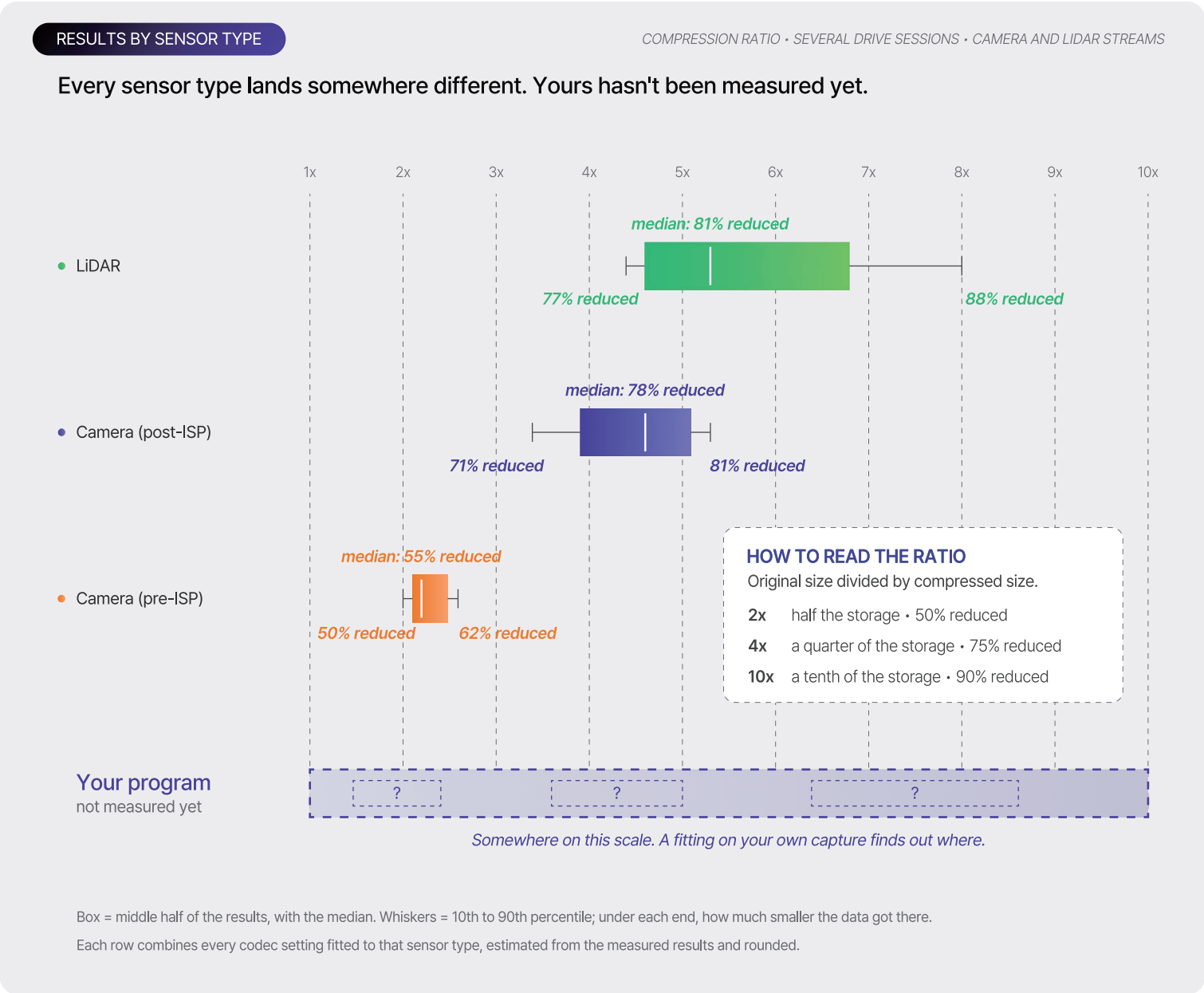
Here's what we've measured.

Your program's row is still empty.

Results for each sensor type, with the spread shown.

On one customer's fleet, we fitted a codec to each camera and LiDAR stream over several drive sessions. LiDAR came in around 5x, the post-ISP camera between 4x and 5x, and the pre-ISP camera around 2x. The pre-ISP camera is about two-thirds of the bytes and compresses the least.

The empty box is for your program. Nobody knows yet where it will fall, including anyone who has quoted you a figure.

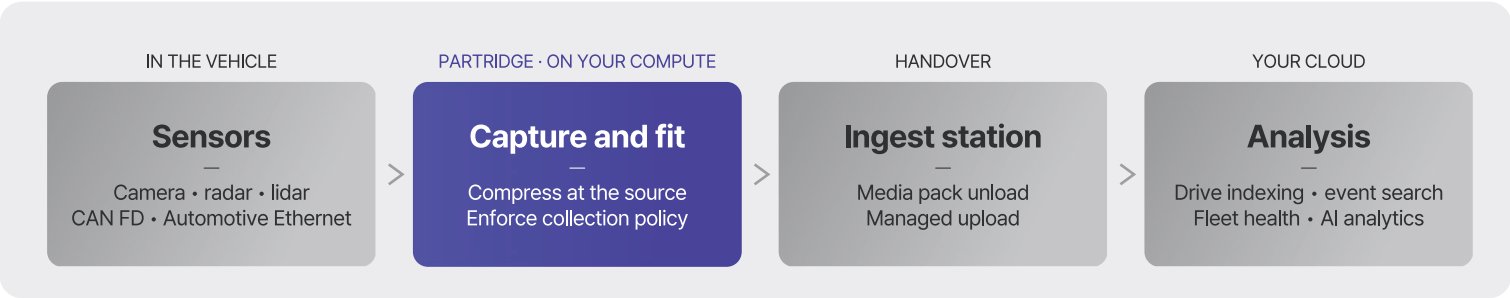


One pipeline from sensor to cloud. Use as much of it as you need.

Compression is usually where we start, and every part is sold on its own.

We capture and compress losslessly at the source, on compute you already run, then manage the upload and index your recordings inside your own cloud.

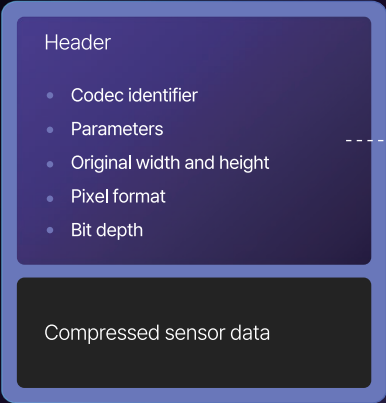
Each stage is sold on its own. Taking the compression work doesn't commit you to the rest.



No lock-in, because the files describe themselves.

The container describes itself:
codec identifier, parameters, original width, height, pixel format and bit depth. An engineer can read your files years from now without us. An independent decoder is available for any codec we fit, as scoped work.

WHAT TRAVELS WITH EVERY FILE



Each file says which codec made it, with which parameters, and what the original looked like.

THE SAME FILE AT EVERY STOP



optional: an independent decoder, as scoped work

The first step is small and has a clear end.

Find out how your data performs before you decide anything.

Send us thirty to sixty minutes of your own capture. We'll fit a codec to it and send back a measured figure with the conditions attached.

The first fitting on a small sample is free. It has taken one to three weeks, and the usual delay is getting the data to us. If the result isn't worth acting on, we'll say so.

01

Measurement across varied data

Quoted work on more of your data, if the first sample justifies it.

02

An independent decoder

A second decoder in another language, checked bit for bit against the encoder on every change.
Available for any codec we fit, as scoped work at your cost.

03

A fitted codec pair

Compressor and decompressor libraries for your formats.
No Partridge hardware or logger stack needed.

04

The pipeline around it

Capture, ingest and cloud analysis, when they're worth discussing.

We've saved a row on our chart for your program.
Send us a sample, and we'll fill it in.

The first fitting, on thirty to sixty minutes of your own capture, is free.



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