

Sealed Experiment Record

Sealed 2026-10-11 · Signed by the K-Veritas server
Session 9d7bcbe2 · Data hash f2b4...2f21

Abstract

This record seals 1 run (kv_run.sh) executed on Intel(R) Xeon(R) W-2145 CPU @ 3.70GHz between 2026-10-11 16:32 and 17:18 UTC. Reported results: librispeech_clean_val_wer 2.92, benchmark_m4a_min_transcribe_s 46.408, benchmark_m4a_max_gpu_mem_mib 5348. 1 invocation in total, 0 failed. Produced with K-Veritas [1].

What this record proves

These numbers came from the sealed code at this time, unchanged since. Whether the experiment is sound is for the reader to judge.

Verify: kveritas verify <this file> or kveritas.org/verify

1 Setup

Item	Value
Session	9d7bcbe2-a7fb-42cc-9325-954dccb2c28f
Initialized	2026-10-11T16:32:46Z
Machine	167ec0d6dc9a8170
Operating system	linux / amd64
CPU	Intel(R) Xeon(R) W-2145 CPU @ 3.70GHz, 16 cores
Memory	31.0 GB
GPU	NVIDIA GeForce RTX 5060 Ti, 16311 MiB
Environment, run 1	8510b4c4665a16de0e6424f5d0707a502c6a549a8878b13862077fff58416afc
Disclosure	open
Source code, run 1	622e94935e2bc5379cdf816ca87c26796fcf22793e52cb2f840b5ae98de67c74

2 Runs

#	Command	Duration	Exit	Anchored
1	bash kv_run.sh	45 minutes 21 secon...	0	at run end

1 invocation in total: 1 kept in this record, 0 failed, 0 interrupted. Every invocation is recorded by the server, including the ones not kept.

3 Results

Run 1: kv_run.sh

Metric	Final value	Step	Source
librispeech_clean_val_wer	2.92		explicit

Inline claim	Value	Phase	Output line
librispeech_clean_val_wer	2.92		4
benchmark_m4a_min_transcribe_s	46.408		9
benchmark_m4a_max_gpu_mem_mib	5348		16

4 Execution evidence

Coherence

Coherent (0.42): the telemetry channels move together, as one process.

Telemetry

Run	Samples	CPU time	Peak memory	Peak GPU
1	7200	4024.8 s	3.44 GB	98%

5 Provenance

Run 1: kv_run.sh

Disclosure open. 24 tracked files, 5 snapshots. Every snapshot is bound into the signature.

#	Snapshot	Time	Root	Changed
0	run_start	16:32:47	e6b9becbf5b4855a	24
4	run_end	17:18:07	e6b9becbf5b4855a	0

3 snapshots with no file change omitted here; full timeline in Appendix B.

Withheld by .kveritasignore	Size	Hash
docker/infer.py	<1KB	c32d49a2b5e25699e990f2d2
tests/conftest.py	<1KB	6f4d2447300f05f7e686d7c7
tests/test_tokenizer.py	<1MB	9ef5ed69926a57ee8024d962
tests/test_transcribe.py	<1MB	f9124cf934e5464f4fbc521d
tests/test_utils.py	<1KB	65c6e4f7e31ff14ad354fd0b

Activity: 26 files read, 0 files written, 11 subprocesses. Full list in Appendix B.

6 Verification

Field	Value
Signer	Signed by the K-Veritas server
Signed at	2026-10-11T17:18:09.560015+00:00
Algorithm	RSA-PSS-SHA256, 4096-bit key
Key fingerprint	eeac81653cf44ac029c4069cf2a06d9f
Data hash	f2b4af0bfbf1b20524d96f22a17b1ef7f63b8d1026cf8dbdf80420c0dbd52f21
Code bundle hash	b14744aef44990309f121f667f1fd986232b576b91ea12a01a0b561dc2a7e5a6

Run anchors: 1 invocations were anchored at the server when they ended.

Checks a verifier runs

1. The stored canonical data hashes to the data hash above, and the signature verifies over data_hash:nonce:signed_at.
2. The signing key is the K-Veritas server key, not one supplied by the author.
3. Nothing was appended after the seal, and these pages hash to the value bound in the seal.
4. Each run matches the digest the server received when it ended.
5. A supplied code bundle hashes to the code bundle hash above.

References

[1] M. K. Keita and C. Homan. Computer Science Conferences Should Require Nonrepudiable Experimental Results. NeurIPS 2026 Position Paper Track. arXiv:2605.08586.

Appendix

A Full metric series

Run 1: kv_run.sh

Metric	Value	Step	Line	Source
librispeech_clean_val_wer	2.92		3	explicit

Phase	Line	Time	CPU time	Memory	GPU
wer	1	16:32:47	1.3 s	0.12 GB	
speed	5	16:54:02	0.1 s	0.04 GB	
memory	10	17:17:18	0.1 s	0.03 GB	

B Provenance timeline and activity map

Run 1: kv_run.sh

#	Snapshot	Time	Root	Changed
0	run_start	16:32:47	e6b9becbf5b4855a	24
1	phase wer	16:32:47	e6b9becbf5b4855a	0
2	phase speed	16:54:02	e6b9becbf5b4855a	0
3	phase memory	17:17:18	e6b9becbf5b4855a	0
4	run_end	17:18:07	e6b9becbf5b4855a	0

Event	Path or command	Hash
read	kv_run.sh	
read	benchmark/wer_benchmark.py	
read	.kveritasignore	
read	.github/workflows/ci.yml	
read	benchmark/evaluate_yt_commons.py	
read	benchmark/memory_benchmark.py	
read	benchmark/normalizer.json	
read	benchmark/speed_benchmark.py	
read	benchmark/utlis.py	
read	docker/infer.py	
read	faster_whisper/__init__.py	
read	faster_whisper/assets/__init__.py	
read	faster_whisper/audio.py	
read	faster_whisper/feature_extractor.py	
read	faster_whisper/tokenizer.py	
read	faster_whisper/transcribe.py	
read	faster_whisper/utlis.py	
read	faster_whisper/vad.py	
read	faster_whisper/version.py	
read	setup.cfg	
read	setup.py	
read	tests/conftest.py	
read	tests/test_tokenizer.py	
read	tests/test_transcribe.py	
read	tests/test_utlis.py	

Event	Path or command	Hash
read	benchmark/benchmark.m4a	
process	tee /var/tmp/kv-repro/042-SYSTRAN-faster-whisper/data/wer.log	
process	grep -v Evaluating\\.\\.:	
process	python wer_benchmark.py	
process	grep -v ^Extension modules ^ File ^Thread <no Python frame>	
process	python speed_benchmark.py	
process	tee /var/tmp/kv-repro/042-SYSTRAN-faster-whisper/data/speed.log	
process	tail -3	
process	grep -v ^[	
process	tail -6	
process	python memory_benchmark.py --gpu_memory	
process	tee /var/tmp/kv-repro/042-SYSTRAN-faster-whisper/data/mem.log	

C Run history

Invocation 1, OK, 45 minutes 21 seconds, 16 output lines, started 2026-10-11T16:32:46

metric_hash 7282a347e1c77e986cebf8d132720892aca56add3cc67cbac7defee626e9c7
run_digest 4925f8de92cafe35c883bb2f322ce105c8e4577c3ba5a4118a00b082106a2ba1
anchored at run end

D Raw seal fields and hashes

Seal

data_hash f2b4af0bfbf1b20524d96f22a17b1ef7f63b8d1026cf8dbdf80420c0dbd52f21
signed_message_hash f8b9426d30230cb15e0634a3ebc8a27074922e77cd551cf6c9695b91e4c35f24
nonce 12a98c57671371cd2711c1a8af7fd1f4
signed_at 2026-10-11T17:18:09.560015+00:00
sealed_at 2026-10-11T17:18:09.647424781Z
checkout_bundle b14744aef44990309f121f667f1fd986232b576b91ea12a01a0b561dc2a7e5a6

Signature (base64)

X4f7BhHE9I1U0nQapLyh++0jGque96tVcsA9Jf6arwVs9N59rkbPBxtGLMU2KceY0enYu5y74M8MxzP8LJPbY8mp
4F6mdnSad5/40aqVDjdcUwAQRYyVTQsQ33EF9UX9Tap89/tzHhhiIxfgbJ3YZodHFGmLKwEVFhIlc0LzAkftq+/H
U2dQwqCgnbNgbCILy6tEky3GNe90wdnyNNPKy8u1EURF3Xu8gGm13L0mCdUDz72rmYZhqSvxfPGg0LSCpw0PseQA
yLKKVkoYwmYkZjcNcwPCUeE1J8p6EdvIitaDxdAwjsCS2EQa8ahxpGDbd+FbJE8HM+HJdoNLIKDLC0b0ZxwKPADz
Urokp8nQdEwQP22wHYH4x00JWe9zsw0cgzcolLym2gD9bqAMbEnzgI7RmHkVlxhc9jhQRE8ugNkCpe0mgV9XDBSW
dbzs7uj0LZorsA3z4ba3fouxdlc2GdG4hZZisH6w7ii8SvYKY/g4HE5joK0xbEJsy+BXYPtSdqMyaL1m2D0c0tJH
Orux9vXwXE/W6s3INbGHfPFUqM45JnEh/dH3+oIBBbQQX7DC08mMrnn5fnJn9qaU5Ey9nx30ItRRAHWSg7KVDzm
vLrCIZmJewiTOgjt/70/jw1SYbSCAfcAu9MBEA5HLALQuBdqoDpMkLHskmV7IHUhc6o=

Public key

-----BEGIN PUBLIC KEY-----
MIICIjANBgkqhkiG9w0BAQEFAAOCAg8AMIICCgKCAgEAlQL3YyMgeShx8IhTC7jb
sM0w2BnRXgsBn3+SMXktwHATqdekmlPlcjayJxD5fcPrOPPCqp/LoUFz5CUZzRi
6+8FTv70dHuIz5A4Lat4vcgwP+iWscPc3HzpmjpsKbTm0emqgp6RB6GnnPpxYa5X
7qU95EfEisX/GfoS9ToxtqPBwCcVwSPBX8efec4TC58m96Fsp4mC8KICeAdbIbHN
av0JjdTJ//CM0WZSIbdzE6qvEbNfcqDB5tNU7oHfYvBenLrvPU9TAqdbtozdHQ+D
AhfTRuJNgWEkjWD5lb0Vhi4qlkweSOEMTKT3ye9IL5xEaJn4bku4eKqes7VSZt3o
XbUcmr2H5mKcKsvt6bXmX6ajAmgi900Cm9QJlaQkJM6z2iITnyvDMgueJtFxQpC9
HNBPgPZ242NH8JgE6CNF7ToL9syasS67u7UMgIcNgeNHncy9bLgPU5annzP9gN2l
6HEmlkXNdKQRb1rDwyEJf3N/50YHnXXPmuf5sb8R/pxWNqtF04R5UGVV92qd2Mi
1GN7LE3mbQRbPsLL/JApDXMNzNikaFbSQK7iKxr7vIaTeZckFZwfThcYNT7Hasg
+eE4bf/olCHBCf1VIDcDxohehdZ0WRRcgM9iK3I/0zZdaBsgdc8WuJRmb8LPP9v
8Jap/1PwjNcNku5cdw3gHLcCAwEAAQ==
-----END PUBLIC KEY-----

Run 1 outputs

```
stdout b6248126fdfa788357cc6fa570c654769f9fe3d84f9b0a05f50acb0ef790cc30
stderr e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855
metrics 7282a347e1c77e986cebf8d132720892aca56add3cc67cbac7defeefe626e9c7
digest 4925f8de92cafe35c883bb2f322ce105c8e4577c3ba5a4118a00b082106a2ba1
```

kv_run.sh (unchanged)

```
pre a5feb11db88e590843135608eb5a6bca3ba44e72dc478e3c685bcf0fb53b41
post a5feb11db88e590843135608eb5a6bca3ba44e72dc478e3c685bcf0fb53b41
```

E BibTeX for [1]

```
@misc{keita2026computerscienceconferencesrequire,
  title={Computer Science Conferences Should Require Nonrepudiable Experimental Results},
  author={Mamadou K. Keita and Christopher Homan},
  year={2026},
  eprint={2605.08586},
  archivePrefix={arXiv},
  primaryClass={cs.CR},
  url={https://arxiv.org/abs/2605.08586},
}
```