

Sealed Experiment Record

Sealed 2026-10-11 · Signed by the K-Veritas server
Session adc21a3b · Data hash 691c...59bf

Abstract

This record seals 1 run (kv_run.sh) executed on Intel(R) Xeon(R) W-2145 CPU @ 3.70GHz between 2026-10-11 19:39 and 19:59 UTC. Reported results: coco_val2017_ap 0.485, coco_val2017_ap50 0.6442, coco_val2017_ap75 0.5294, coco_val2017_ap_small 0.3392. 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	adc21a3b-7863-4e2b-9920-38d49550f3a0
Initialized	2026-10-11T19:39:13Z
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	229d62519b964c474ef21d2f00aa9cbc2c7253a9f9abca3ab6f7a93fdfe89760
Disclosure	open
Source code, run 1	f89b38bdd25a7bab80b6ce9359e9cab80df3d37b073bae401165bf3f499724f2

2 Runs

#	Command	Duration	Exit	Anchored
1	bash kv_run.sh	20 minutes 3 seconds	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
coco_val2017_ap	0.485		explicit
coco_val2017_ap50	0.6442		explicit
coco_val2017_ap75	0.5294		explicit

Metric	Final value	Step	Source
coco_val2017_ap_small	0.3392		explicit
coco_val2017_ap_medium	0.5178		explicit
coco_val2017_ap_large	0.6336		explicit

Inline claim	Value	Phase	Output line
coco_val2017_ap	0.485		206
coco_val2017_ap50	0.6442		208
coco_val2017_ap75	0.5294		210
coco_val2017_ap_small	0.3392		212
coco_val2017_ap_medium	0.5178		214
coco_val2017_ap_large	0.6336		216

4 Execution evidence

Coherence

Coherent (0.38): the telemetry channels move together, as one process.

Telemetry

Run	Samples	CPU time	Peak memory	Peak GPU
1	7200	1452.2 s	9.94 GB	83%

5 Provenance

Run 1: kv_run.sh

Disclosure open. 50 tracked files, 3 snapshots. Every snapshot is bound into the signature.

#	Snapshot	Time	Root	Changed
0	run_start	19:39:14	f6e769a6b746c68d	50
2	run_end	19:59:16	f6e769a6b746c68d	0

1 snapshot with no file change omitted here; full timeline in Appendix B.

Activity: 51 files read, 0 files written, 8 subprocesses. Full list in Appendix B.

6 Verification

Field	Value
Signer	Signed by the K-Veritas server
Signed at	2026-10-11T19:59:18.431692+00:00
Algorithm	RSA-PSS-SHA256, 4096-bit key
Key fingerprint	eeac81653cf44ac029c4069cf2a06d9f
Data hash	691cffa200af6c0575a879ea5b1ca268e4e10591af7286339b9b4bab146559bf
Code bundle hash	b8d807082cc966a5073b7329cfee5d5591f02e71253d24c004a1a7cff8a9558d

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
coco_val2017_ap	0.485		205	explicit
coco_val2017_ap50	0.6442		207	explicit
coco_val2017_ap75	0.5294		209	explicit
coco_val2017_ap_small	0.3392		211	explicit
coco_val2017_ap_medium	0.5178		213	explicit
coco_val2017_ap_large	0.6336		215	explicit

Phase	Line	Time	CPU time	Memory	GPU
coco_zero_shot	3	19:39:15	0.1 s	0.02 GB	

B Provenance timeline and activity map

Run 1: kv_run.sh

#	Snapshot	Time	Root	Changed
0	run_start	19:39:14	f6e769a6b746c68d	50
1	phase coco_zero_shot	19:39:15	f6e769a6b746c68d	0
2	run_end	19:59:16	f6e769a6b746c68d	0

Event	Path or command	Hash
read	kv_run.sh	
read	demo/create_coco_dataset.py	
read	demo/gradio_app.py	
read	demo/image_editing_with_groundingdino_gligen.ipynb	
read	demo/image_editing_with_groundingdino_stablediffusion.ipynb	
read	demo/inference_on_a_image.py	
read	demo/test_ap_on_coco.py	
read	docker_test.py	
read	environment.yaml	
read	groundingdino/__init__.py	
read	groundingdino/config/GroundingDINO_SwinB_cfg.py	
read	groundingdino/config/GroundingDINO_SwinT_OGC.py	
read	groundingdino/config/__init__.py	
read	groundingdino/datasets/__init__.py	
read	groundingdino/datasets/cocogrounding_eval.py	
read	groundingdino/datasets/transforms.py	
read	groundingdino/models/GroundingDINO/__init__.py	
read	groundingdino/models/GroundingDINO/backbone/__init__.py	
read	groundingdino/models/GroundingDINO/backbone/backbone.py	
read	groundingdino/models/GroundingDINO/backbone/position_encoding.py	
read	groundingdino/models/GroundingDINO/backbone/swin_transformer.py	
read	groundingdino/models/GroundingDINO/bertwarper.py	
read	groundingdino/models/GroundingDINO/csrc/MsDeformAttn/ms_deform_attn.h	
read	groundingdino/models/GroundingDINO/csrc/MsDeformAttn/ms_deform_attn...	

Event	Path or command	Hash
read	groundingdino/models/GroundingDINO/csrc/MsDeformAttn/ms_deform_attn...	
read	groundingdino/models/GroundingDINO/csrc/MsDeformAttn/ms_deform_attn...	
read	groundingdino/models/GroundingDINO/csrc/vision.cpp	
read	groundingdino/models/GroundingDINO/fuse_modules.py	
read	groundingdino/models/GroundingDINO/groundingdino.py	
read	groundingdino/models/GroundingDINO/ms_deform_attn.py	
read	groundingdino/models/GroundingDINO/transformer.py	
read	groundingdino/models/GroundingDINO/transformer_vanilla.py	
read	groundingdino/models/GroundingDINO/utils.py	
read	groundingdino/models/__init__.py	
read	groundingdino/models/registry.py	
read	groundingdino/util/__init__.py	
read	groundingdino/util/box_ops.py	
read	groundingdino/util/get_tokenlizer.py	
read	groundingdino/util/inference.py	
read	groundingdino/util/logger.py	
read	groundingdino/util/misc.py	
read	groundingdino/util/slconfig.py	
read	groundingdino/util/slio.py	
read	groundingdino/util/time_counter.py	
read	groundingdino/util/utils.py	
read	groundingdino/util/visualizer.py	
read	groundingdino/util/vl_utils.py	
read	groundingdino/version.py	
read	setup.py	
read	test.ipynb	
read	groundingdino/_C.cpython-312-x86_64-linux-gnu.so	
process	sha256sum groundingdino_swint_ogc.pth coco/instances_val2017.json	
process	python demo/test_ap_on_coco.py -c groundingdino/config/GroundingDINO_...	
process	tee /var/tmp/kv-repro/045-IDEA-Research-GroundingDINO/data/eval.log	
process	python demo/test_ap_on_coco.py -c groundingdino/config/GroundingDINO_...	
process	python demo/test_ap_on_coco.py -c groundingdino/config/GroundingDINO_...	
process	python demo/test_ap_on_coco.py -c groundingdino/config/GroundingDINO_...	
process	python demo/test_ap_on_coco.py -c groundingdino/config/GroundingDINO_...	
process	pid 3492496	

C Run history

Invocation 1, OK, 20 minutes 3 seconds, 216 output lines, started 2026-10-11T19:39:13

```
metric_hash 0032d792213171eeefe972621e251f579c1a7968b7dc015582efb05f2ac1621b
run_digest  825e5636d68dbd13194b8559b8f995d557d8e0341541327b1d30461559728e06
anchored    at run end
```

D Raw seal fields and hashes

Seal

```
data_hash          691cffa200af6c0575a879ea5b1ca268e4e10591af7286339b9b4bab146559bf
signed_message_hash bdbc82a97ed6bfb90fcef2302b0bdb24f7acfbcd4cffa45158d8ef11ec5b6e81
nonce             311c0058d331e1e996e36dc1fc5c2008
signed_at         2026-10-11T19:59:18.431692+00:00
sealed_at         2026-10-11T19:59:18.491734837Z
checkout_bundle   b8d807082cc966a5073b7329cfee5d5591f02e71253d24c004a1a7cff8a9558d
```

Signature (base64)

```
FLHQW68J3jhExpInZjg1eViWlmcSP2MgzHIGFEJbAwcURL3Gmr9ySgajBFbRek/N6l3ZtvkSlfKNTUMxiJFDnc
Qc3BQx8i9GE0QtXWCSA0EVOQrBJ9HonoHzK7yNqBr+07b8YD/VRpvQJusufevPg76IVr3EU0h/BZrvv4gSW0i4qa
r+hCRzNNXLwxDWrmCji4ikB+HXRAt3pmCIynfArmc9zYXkeWYMo6UCjQg4ewqKxJKz2AUlHMmsWfqzhvG0mc45Un
pl+Rfx0mgK/gfmj1AM2HTXcx1vuum0LSQD+LzmqJWHA0YHF2VBR8W87kewh7zmqnEDr9wAWaVNKP/wFdkK+RXnqX
pnry3hU4cyTay+y+Y7YjXR4HzbCv/t0eVvPS4vhYjrkRo/lxajTEQUL9PQtZ/AxP9J98Wxk80uuYS0/H2Y1Z090z
nn+ZjFDH0rm30dKRaassBF1ImenugY7DDHoh/rzY4aAG0/ZX4AhgE7sCSKkId2UabJ3V+qXgbWb6zN3mGtt4iiLm
8Q3tqEKSpQrJv/U2cyJPfXcwHggzICrv8m5FC9ukf9qGwD8qP//DcQmj/PBSWI5DqlAE3ksov11E5vBfMn7VMKZK
2+nrhE0Cc3HZ9joA80NPEbP6M84xh6XuLijFHYvsopd1ttCA2jdJmIVY3/NSPXTou6E=
```

Public key

```
-----BEGIN PUBLIC KEY-----
MIICIjANBgkqhkiG9w0BAQEFAAOCAg8AMIICCgKCAgEA1QL3YyMgeShx8IhTC7jb
sM0w2BnRXgsBn3+SMXKjtwHATqdekmlP1cjayJxD5fcPrOPPCqp/LouFz5CUZzRi
6+8FTv70dHuIz5A4LAT4vcgwP+iWscPc3HzpmjpsKbTm0emqgp6RB6GNNpXyA5X
7qU95EFEEisX/GfoS9ToxtqPBwCcVWSPBX8efec4TC58m96Fsp4mC8KICeadbIbHN
av0JjdTJ//CM0WZSIbdzE6qvEbNfcqDB5tNU7oHfYvBeNLrvPU9TAqdbtozdHq+D
AhfTRuJNgWEkjwD5lboVhi4qlkweSOEMTKT3ye9IL5xEaJn4bku4eKqes7VSZt3o
XbUcmr2H5mKcKsvt6bXmX6ajAmgi900Cm9QJlaQkJM6z2iITnyvDMgueJtFxQpC9
HNBPGpZ242NH8JgE6CNF7ToL9syans67u7UMgIcNgeNHnCy9bLgPU5annzP9gN2l
6HEMldkXNdKQRb1rDWyEJf3N/50YHnXXPmuf5sb8R/pxWNqtF04R5UGVV92qd2Mi
1GN7lE3mbQRbPsLL/JApDXMNzNikaFfBsQK7iKxr7vIaTeZckFZWfThcYNT7Hasg
+eE4bf/olCHBCf1VIDCKDxoehdZ0WRRcgM9iK3I/0zZdaBsgdc8WuJRMb8LPP9v
8Jap/1PWjNcNku5cdW3gHLcCAwEAAQ==
-----END PUBLIC KEY-----
```

Run 1 outputs

```
stdout 010105ccbfed1d2344f7d7d68c0720db0eba08b2d86503ad9d84e92f8ddb16be
stderr e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855
metrics 0032d792213171eeefe972621e251f579c1a7968b7dc015582efb05f2ac1621b
digest 825e5636d68dbd13194b8559b8f995d557d8e0341541327b1d30461559728e06
kv_run.sh (unchanged)
pre 07ad34230c3c70910511d2277df2d736ea58b40dcc9714c7fd9dfaacc1bb6119e
post 07ad34230c3c70910511d2277df2d736ea58b40dcc9714c7fd9dfaacc1bb6119e
```

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},
}
```