



STRIPED DONKEY

We do the heavy lifting.

Connected. Longitudinal. Certified.

Synthetic city data where households, education, employment, health and economic activity belong to the same lives.

METHOD & EVIDENCE

Confidence should be inspectable.

3 document pages · Branded download edition

Read the documented coverage, findings and limitations alongside the data. Certification applies to the scope stated in the accompanying report.

Powered by FCTE™ · A Fidelra product

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METHOD & EVIDENCE

Confidence should be inspectable.

FCTE separates observed reference evidence from synthetic generation and then tests the resulting city release against explicit integrity and realism contracts.

Evidence

Inspect source classes and calibration roles

Certification

Review release-level integrity status

Audits

Inspect findings, limitations and revalidation

Verify

Check signed release integrity

EVIDENCE CHAIN

From source to released City Twin.

01 • Reference evidence	City, national and global sources
02 • Calibration contract	Published reference targets, historical anchors and calibration categories
03 • Synthetic model	Synthetic entities and lifecycle behaviors
04 • Certification	Structural, temporal and realism checks
05 • Released asset	City + version + evidence state

ASSURANCE MODEL

Six different questions—not one vague realism score.

Structural integrity

Do keys, relationships and required structures hold?

Statistical integrity

Do distributions and aggregate behaviors remain within expected bands?

Historical integrity

Do events respect chronology and known historical anchors?

Privacy assurance

Does the product remain synthetic and non-identifying?

Reproducibility

Can a release be identified and evaluated as a stable asset?

Explainability

Can a reviewer trace sources, assumptions and quality evidence?

WHAT STAYS PROPRIETARY

Inspectable does not mean publishing the generation model.

FCTE exposes the semantic model, evidence classes, representative relationships, selected query examples, certification outcomes and audit findings. The implementation recipe remains controlled.

Visible to buyers

Public semantic model, representative relationships, sample records, selected SQL examples, evidence register, certification scope, audit findings and release history.

Protected engine IP

Full physical schema, internal dependency graph, generation mechanisms, orchestration, seeds, rule weights, probability distributions, calibration parameters, reconciliation logic and implementation source remain internal.

RELEASE INTEGRITY

Evidence is only useful if the release itself can be identified.

The public release catalog publishes current manifests with artifact-level SHA-256 digests and Merkle roots, while signed snapshots are preserved separately. Institutional users can verify approved downloads without receiving private engine implementation.

Cryptographic release proof

Every covered artifact is hashed and reduced to a Merkle root. When a release is signed, the exact manifest bytes are authenticated with Ed25519; the verifier shows the current signature state explicitly.

[Verify a public release →](#)

Public-safe lineage boundary

Release identity, evidence references and artifact integrity are public. Generation procedures, physical schemas, coefficients, dependency order and repair logic remain controlled.

[View release catalog manifest →](#)

VALIDATION & ASSURANCE

Validation should be measurable, transparent and fit for purpose.

FCTE separates structural certification from empirical benchmarking so buyers can distinguish what the engine has verified, what has been compared with external evidence, and where disclosed limitations remain.

STRUCTURAL VALIDATION

Is the release structurally valid?

Certification checks test chronology, integrity, cross-domain consistency and release-level quality conditions against the published FCTE assurance scope.

EMPIRICAL BENCHMARKING

How closely does the release align with observed benchmarks?

Where suitable external benchmarks exist, FCTE reports the reference family, synthetic result, directional difference and validation status while keeping controlled calibration mechanics private.

Validation envelope

Observed referencePublished source / benchmark family

FCTE resultRelease-specific synthetic measure

DifferenceVisible where publication is appropriate

StatusPASS · REVIEW · DISCLOSED LIMITATION



ASSURANCE LADDER

Certification has levels. FCTE does not equate self-checking with independent proof.

ENGINE VALIDATED

Automated checks

Release-level assertions and integrity checks executed by FCTE.

EVIDENCE

VALIDATED

External references

Selected release measures compared with published benchmark families where appropriate.

INDEPENDENT

REVIEW

Third-party assurance

Claimed only when an external institution has actually reviewed a defined scope. Not implied by FCTE certification alone.

CUSTOMER

VALIDATED

Use-case validation

Customer compares the release against its own empirical context before consequential deployment.

Public FCTE documentation. Validation and evidence enquiries: fidelra.africa@fidelra.ai