

STEALTH

Bitcoin Wallet Privacy Analyzer

A read-only audit engine that surfaces wallet exposure at the UTXO level before funds move.

No keys

UTXO-level findings

Self-hostable

VISIBILITY GAP

Bitcoin privacy leaks are invisible to users

- Companies like **Chainalysis** can analyze wallet privacy
- **Users cannot**
- People may expose: full transaction history, identity links, and behavioral fingerprints

Companies can analyze your privacy better than you can.

Privacy is broken by **patterns**, not hacks

Common wallet patterns that leak privacy:

- Multi-input transactions (CIOH / consolidation)
- Combining coins
- Address reuse
- Sending change to same input address
- Dust UTXOs
- Exchange linkage / taint signals

Chainalysis users can see wallet-linkage signals that the average user cannot see about themselves.



With Stealth, users gain visibility closer to institutional-grade analysis.

Chainalysis

user
STEALTH



INPUT

- Paste a wallet descriptor

OUTPUT

- Structured findings plus warnings
- Type, severity, description, and evidence
- Severity badges mapped directly from detectors

```
# one click  
wpkh([xpub...]@0/*) → Analyze
```

⇒ Full report with actionable, spend-aware insights

DETECTOR TYPE	MEANING
ADDRESS_REUSE	Repeated receive address links payment history
CIOH	Multi-input ownership clustering signal
DUST / DUST_SPENDING	Dust + normal co-spend linkage pattern
CHANGE_DETECTION	Payment and change outputs become distinguishable
CONSOLIDATION / CLUSTER_MERGE	Input histories merged into one traceable cluster
SCRIPT_TYPE_MIXING	Mixed script families create a wallet fingerprint
UTXO_AGE_SPREAD	Old/new spread leaks dormancy behavior
EXCHANGE_ORIGIN	Probable exchange withdrawal origin signature
TAIANTED_UTXO_MERGE	Tainted + clean merge propagates contamination
BEHAVIORAL_FINGERPRINT	Consistent transaction style re-identifies wallet

Warnings: DORMANT_UTXOS and DIRECT_TAINT are shown as contextual risk signals.

01

Parse

- Extract addresses from descriptor
- Normalize all common formats

02

Fetch

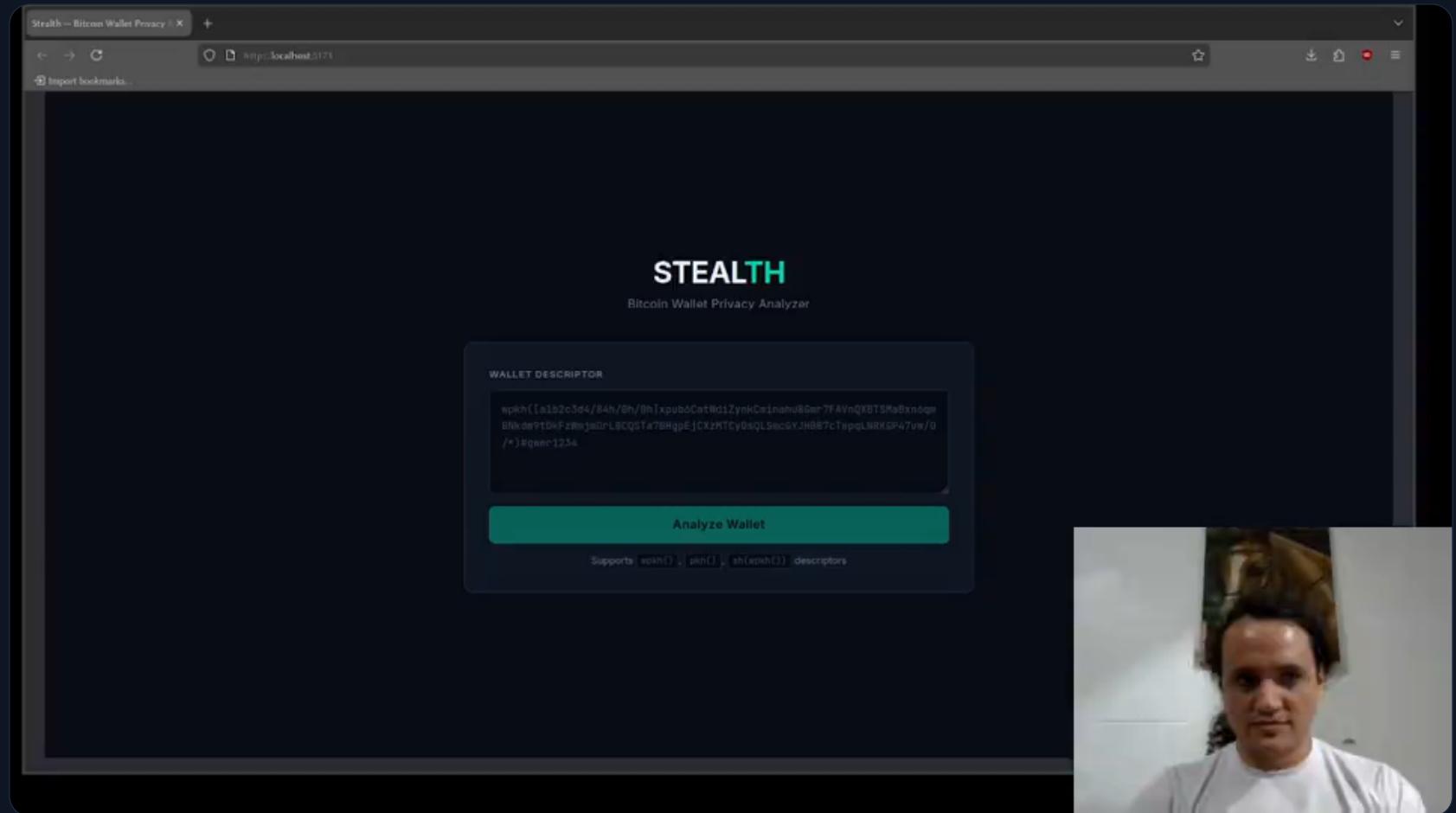
- Load on-chain history per address
- Use Bitcoin node or indexed API source

03

Analyze

- Apply privacy heuristics and warnings
- Flag each UTXO with findings and evidence

1. **Input** Paste descriptor and trigger analysis
2. **Load** Fetch + parse + detect in one pipeline
3. **Report** Summary bar: findings / warnings / transactions
4. **Inspect** Expand finding cards for severity and evidence payloads



2x playback and compressed for lightweight deck rendering.

EXPANDED HEURISTICS

- **LEGACY_SCRIPT_EXPOSURE** — old script usage (p2pkh / nested-only flows) shrinking anonymity set
- **ADDRESS_GAP_LEAK** — sparse derivation usage exposing wallet generation behavior
- **AMOUNT_FINGERPRINT** — repeated denomination templates across spends
- **TIME_PATTERN_FINGERPRINT** — recurring timing cadence linking sessions

IMPROVEMENTS

- **Mainnet Support**
- **Mobile Support**
- **Cluster Visualization**
- **One-click solution**

Roadmap detectors are additive and keep the same read-only, no-key security model.

THANK YOU

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Bitcoin Wallet Privacy Analyzer

Protect privacy before you broadcast intent.