

# Ethereum Block: Four Merkle Patricia Tries

## Block Header

stateRoot | txRoot | receiptsRoot

### State Trie

Global

Address -> Account

### Storage Trie

Per Contract

Key -> Value

### Transaction Trie

Per Block

Index -> TX

### Receipt Trie

Per Block

Index -> Receipt

Merkle proof:  $O(\log n)$

Deterministic root hash

Efficient updates

Root hashes in block header enable light client verification