

Block header

(go-ethereum version 1.8)

[core/types/block.go] - FIXME: update reference slide to geth 1.9+

```
type Header struct {
```

ParentHash	common.Hash	`json:"parentHash"	gencodec:"required"
UncleHash	common.Hash	`json:"sha3Uncles"	gencodec:"required"
Coinbase	common.Address	`json:"miner"	gencodec:"required"
Root	common.Hash	`json:"stateRoot"	gencodec:"required"
TxHash	common.Hash	`json:"transactionsRoot"	gencodec:"required"
ReceiptHash	common.Hash	`json:"receiptsRoot"	gencodec:"required"
Bloom	Bloom	`json:"logsBloom"	gencodec:"required"
Difficulty	*big.Int	`json:"difficulty"	gencodec:"required"
Number	*big.Int	`json:"number"	gencodec:"required"
GasLimit	uint64	`json:"gasLimit"	gencodec:"required"
GasUsed	uint64	`json:"gasUsed"	gencodec:"required"
Time	*big.Int	`json:"timestamp"	gencodec:"required"
Extra	[]byte	`json:"extraData"	gencodec:"required"
MixDigest	common.Hash	`json:"mixHash"	gencodec:"required"
Nonce	BlockNonce	`json:"nonce"	gencodec:"required"

```
}
```

Block header

Root of State

Root of Transaction

Transaction

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[core/types/transaction.go]

```
type txdata struct {
    AccountNonce uint64           `json:"nonce" gencodec:"required"`
    Price         *big.Int        `json:"gasPrice" gencodec:"required"`
    GasLimit      uint64         `json:"gas" gencodec:"required"`
    Recipient     *common.Address `json:"to" rlp:"nil" // nil means contract creation`
    Amount        *big.Int        `json:"value" gencodec:"required"`
    Payload       []byte         `json:"input" gencodec:"required"`

    // Signature values
    V *big.Int `json:"v" gencodec:"required"`
    R *big.Int `json:"r" gencodec:"required"`
    S *big.Int `json:"s" gencodec:"required"`

    // This is only used when marshaling to JSON.
    Hash *common.Hash `json:"hash" rlp:"- "`
}
```

Transaction

to address

value (Wei)

input data