

Appendix A

Source code in Go-Ethereum (LGPL)

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