

# A Monero data model and API specification

*with implementations in Java, TypeScript, and C++  
using monero v0.18.4.4 'Flourine Fermi'*

Last updated November 24, 2025



Java implementation: <https://github.com/woodser/monero-java>

TypeScript implementation: <https://github.com/woodser/monero-ts>

C++ implementation: <https://github.com/woodser/monero-cpp>

Document source: <https://github.com/woodser/monero-java/blob/master/docs/monero-spec.drawio>

Document created and revisable using: <https://www.draw.io/>

## Monero Daemon Interface 1/2

```
setProxyUri(string proxyUri): void
isConnected(): bool
getVersion(): MoneroVersion
isTrusted(): bool
getHeight(): ulong
getBlockHash(ulong height): string
getBlockTemplate(string walletAddress, uint reserveSize=null): MoneroBlockTemplate
getLastBlockHeader(): MoneroBlockHeader
getBlockHeaderByHash(string blockHash): MoneroBlockHeader
getBlockHeaderByHeight(ulong height): MoneroBlockHeader
getBlockHeadersByRange(ulong startHeight=0, ulong endHeight=chainHeight): MoneroBlockHeader[]
getBlockByHash(string blockHash): MoneroBlock
getBlocksByHash(string[] blockHashes, ulong startHeight, bool prune=false): MoneroBlock[]
getBlockByHeight(ulong height): MoneroBlock
getBlocksByHeight(ulong[] heights): MoneroBlock[]
getBlocksByRange(ulong startHeight=0, ulong endHeight=chainHeight): MoneroBlock[]
getBlocksByRangeChunked(ulong startHeight=0, ulong endHeight=chainHeight, ulong maxChunkSize=3000000): MoneroBlock[]
getBlockHashes(string[] blockHashes, ulong startHeight): string[]
getTx(string txHash, bool prune=false): MoneroTx
getTxs(string[] txHashes, bool prune=false): MoneroTx[]
getTxHex(string txHash, bool prune=false): string
getTxHexes(string[] txHashes, bool prune=false): string[]
getMinerTxSum(ulong height, ulong numBlocks=chainHeight): MoneroMinerTxSum
getFeeEstimate(ulong graceBlocks=?): MoneroFeeEstimate
submitTxHex(string txHex, bool doNotRelay=false): MoneroSubmitTxResult
relayTxByHash(string txHash): void
relayTxsByHash(string[] txHashes): void
getTxPool(): MoneroTx[]
getTxPoolHashes(): string[]
getTxPoolBacklog(): MoneroTxBacklogEntry[]
getTxPoolStats(): MoneroTxPoolStats
flushTxPool(string[] txHashes=null): void
getKeyImageSpentStatus(string keyImage): MoneroKeyImageSpentStatus
getKeyImageSpentStatuses(string[] keyImages): MoneroKeyImageSpentStatus[]
getOutputs(MoneroOutput[] outputs): MoneroOutput[]
 getInfo(): MoneroDaemonInfo
getSyncInfo(): MoneroDaemonSyncInfo
getHardForkInfo(): MoneroHardForkInfo
```

## Monero Daemon Interface 2/2

```
getAltChains(): MoneroAltChain[]
getAltBlockHashes(): string[]
getDownloadLimit(): uint
setDowloadLimit(uint limit): uint
resetDownloadLimit(): uint
getUploadLimit(): uint
setUploadLimit(uint): uint
resetUploadLimit(): uint
getPeers(): MoneroPeer[]
getKnownPeers(): MoneroPeer[]
setOutgoingPeerLimit(uint limit): void
setIncomingPeerLimit(uint limit): void
getPeerBans(): MoneroBan[]
setPeerBan(MoneroBan ban): void
setPeerBans(MoneroBan[] bans): void
getOutputDistribution(ulong[] amounts, bool isCumulative, ulong startHeight=0, ulong endHeight=chainHeight):
    MoneroOutputDistributionEntry[]
getOutputHistogram(ulong[] amounts, ulong minCount, ulong maxCount, bool isUnlocked, ulong recentCutoff):
    MoneroOutputHistogramEntry[]
startMining(string address, ulong numThreads=null, bool isBackground=false, bool ignoreBattery=false): void
stopMining(): void
getMiningStatus(): MoneroMiningStatus
submitBlock(string blockBlob): void
submitBlocks(string[] blockBlobs): void
checkForUpdate(): MoneroDaemonUpdateCheckResult
downloadUpdate(string path): MoneroDaemonUpdateDownloadResult
addListener(MoneroDaemonListener listener): void
removeListener(MoneroDaemonListener listener): void
waitForNextBlockHeader(): MoneroBlockHeader
stop(): void
pruneBlockchain(bool check): MoneroPruneResult
```

## Monero Daemon Types 1/3

<table border="1"> <thead> <tr> <th>MoneroBlockHeader</th> </tr> </thead> <tbody> <tr><td>hash: string</td></tr> <tr><td>height: ulong</td></tr> <tr><td>timestamp: ulong</td></tr> <tr><td>size: ulong</td></tr> <tr><td>weight: ulong</td></tr> <tr><td>long_term_weight: ulong</td></tr> <tr><td>depth: ulong</td></tr> <tr><td>difficulty: ulong</td></tr> <tr><td>cumulative_difficulty: ulong</td></tr> <tr><td>major_version: uint</td></tr> <tr><td>minor_version: uint</td></tr> <tr><td>nonce: ulong</td></tr> <tr><td>miner_tx_hash: string</td></tr> <tr><td>num_txs: uint</td></tr> <tr><td>orphan_status: bool</td></tr> <tr><td>prev_hash: string</td></tr> <tr><td>reward: ulong</td></tr> <tr><td>pow_hash: string</td></tr> </tbody> </table> <p style="text-align: center;">Extends</p> <table border="1"> <thead> <tr> <th>MoneroBlock</th> </tr> </thead> <tbody> <tr><td>hex: string</td></tr> <tr><td>miner_tx: MoneroTx</td></tr> <tr><td>txs: MoneroTx[]</td></tr> <tr><td>tx_hashes: string[]</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>MoneroOutput</th> </tr> </thead> <tbody> <tr><td>tx: MoneroTx</td></tr> <tr><td>key_image: MoneroKeyImage</td></tr> <tr><td>amount: ulong</td></tr> <tr><td>index: ulong</td></tr> <tr><td>ring_output_indices: ulong[]</td></tr> <tr><td>stealth_public_key: string</td></tr> </tbody> </table>	MoneroBlockHeader	hash: string	height: ulong	timestamp: ulong	size: ulong	weight: ulong	long_term_weight: ulong	depth: ulong	difficulty: ulong	cumulative_difficulty: ulong	major_version: uint	minor_version: uint	nonce: ulong	miner_tx_hash: string	num_txs: uint	orphan_status: bool	prev_hash: string	reward: ulong	pow_hash: string	MoneroBlock	hex: string	miner_tx: MoneroTx	txs: MoneroTx[]	tx_hashes: string[]	MoneroOutput	tx: MoneroTx	key_image: MoneroKeyImage	amount: ulong	index: ulong	ring_output_indices: ulong[]	stealth_public_key: string	<table border="1"> <thead> <tr> <th>MoneroDaemonInfo</th> </tr> </thead> <tbody> <tr><td>version: string</td></tr> <tr><td>num_alt_blocks: ulong</td></tr> <tr><td>block_size_limit: ulong</td></tr> <tr><td>block_size_median: ulong</td></tr> <tr><td>block_weight_limit: ulong</td></tr> <tr><td>block_weight_median: ulong</td></tr> <tr><td>bootstrap_daemon_address: string</td></tr> <tr><td>difficulty: ulong</td></tr> <tr><td>cumulative_difficulty: ulong</td></tr> <tr><td>free_space: ulong</td></tr> <tr><td>num_offline_peers: uint</td></tr> <tr><td>num_online_peers: uint</td></tr> <tr><td>height: ulong</td></tr> <tr><td>height_without_bootstrap: ulong</td></tr> <tr><td>network_type: MoneroNetworkType</td></tr> <tr><td>is_offline: bool</td></tr> <tr><td>num_incoming_connections: uint</td></tr> <tr><td>num_outgoing_connections: uint</td></tr> <tr><td>num_rpc_connections: uint</td></tr> <tr><td>start_timestamp: ulong</td></tr> <tr><td>adjusted_timestamp: ulong</td></tr> <tr><td>target: ulong</td></tr> <tr><td>target_height: ulong</td></tr> <tr><td>top_block_hash: string</td></tr> <tr><td>num_txs: uint</td></tr> <tr><td>num_txs_pool: uint</td></tr> <tr><td>was_bootstrap_ever_used: bool</td></tr> <tr><td>database_size: uint</td></tr> <tr><td>update_available: bool</td></tr> <tr><td>credits: ulong</td></tr> <tr><td>is_busy_syncing: bool</td></tr> <tr><td>is_synchronized: bool</td></tr> <tr><td>is_restricted: bool</td></tr> </tbody> </table>	MoneroDaemonInfo	version: string	num_alt_blocks: ulong	block_size_limit: ulong	block_size_median: ulong	block_weight_limit: ulong	block_weight_median: ulong	bootstrap_daemon_address: string	difficulty: ulong	cumulative_difficulty: ulong	free_space: ulong	num_offline_peers: uint	num_online_peers: uint	height: ulong	height_without_bootstrap: ulong	network_type: MoneroNetworkType	is_offline: bool	num_incoming_connections: uint	num_outgoing_connections: uint	num_rpc_connections: uint	start_timestamp: ulong	adjusted_timestamp: ulong	target: ulong	target_height: ulong	top_block_hash: string	num_txs: uint	num_txs_pool: uint	was_bootstrap_ever_used: bool	database_size: uint	update_available: bool	credits: ulong	is_busy_syncing: bool	is_synchronized: bool	is_restricted: bool	<table border="1"> <thead> <tr> <th>MoneroTx</th> </tr> </thead> <tbody> <tr><td>block: MoneroBlock</td></tr> <tr><td>height: ulong</td></tr> <tr><td>hash: string</td></tr> <tr><td>version: uint</td></tr> <tr><td>is_coinbase: bool</td></tr> <tr><td>payment_id: string</td></tr> <tr><td>fee: ulong</td></tr> <tr><td>ring_size: uint</td></tr> <tr><td>do_not_relay: bool</td></tr> <tr><td>is_relayed: bool</td></tr> <tr><td>is_confirmed: bool</td></tr> <tr><td>in_tx_pool: bool</td></tr> <tr><td>num_confirmations: ulong</td></tr> <tr><td>unlock_time: ulong</td></tr> <tr><td>last_relayed_timestamp: ulong</td></tr> <tr><td>received_timestamp: ulong</td></tr> <tr><td>is_double_spend: bool</td></tr> <tr><td>key: string</td></tr> <tr><td>full_hex: string</td></tr> <tr><td>pruned_hex: string</td></tr> <tr><td>prunable_hex: string</td></tr> <tr><td>prunable_hash: string</td></tr> <tr><td>size: ulong</td></tr> <tr><td>weight: ulong</td></tr> <tr><td>inputs: MoneroOutput[]</td></tr> <tr><td>outputs: MoneroOutput[]</td></tr> <tr><td>output_indices: ulong[]</td></tr> <tr><td>metadata: string</td></tr> <tr><td>extra: byte[]</td></tr> <tr><td>rct_signatures: string[]</td></tr> <tr><td>rct_sig_prunable: ?</td></tr> <tr><td>is_kept_by_block: bool</td></tr> <tr><td>is_failed: bool</td></tr> <tr><td>last_failed_height: ulong</td></tr> <tr><td>last_failed_hash: string</td></tr> <tr><td>max_used_block_height: ulong</td></tr> </tbody> </table>	MoneroTx	block: MoneroBlock	height: ulong	hash: string	version: uint	is_coinbase: bool	payment_id: string	fee: ulong	ring_size: uint	do_not_relay: bool	is_relayed: bool	is_confirmed: bool	in_tx_pool: bool	num_confirmations: ulong	unlock_time: ulong	last_relayed_timestamp: ulong	received_timestamp: ulong	is_double_spend: bool	key: string	full_hex: string	pruned_hex: string	prunable_hex: string	prunable_hash: string	size: ulong	weight: ulong	inputs: MoneroOutput[]	outputs: MoneroOutput[]	output_indices: ulong[]	metadata: string	extra: byte[]	rct_signatures: string[]	rct_sig_prunable: ?	is_kept_by_block: bool	is_failed: bool	last_failed_height: ulong	last_failed_hash: string	max_used_block_height: ulong
MoneroBlockHeader																																																																																																								
hash: string																																																																																																								
height: ulong																																																																																																								
timestamp: ulong																																																																																																								
size: ulong																																																																																																								
weight: ulong																																																																																																								
long_term_weight: ulong																																																																																																								
depth: ulong																																																																																																								
difficulty: ulong																																																																																																								
cumulative_difficulty: ulong																																																																																																								
major_version: uint																																																																																																								
minor_version: uint																																																																																																								
nonce: ulong																																																																																																								
miner_tx_hash: string																																																																																																								
num_txs: uint																																																																																																								
orphan_status: bool																																																																																																								
prev_hash: string																																																																																																								
reward: ulong																																																																																																								
pow_hash: string																																																																																																								
MoneroBlock																																																																																																								
hex: string																																																																																																								
miner_tx: MoneroTx																																																																																																								
txs: MoneroTx[]																																																																																																								
tx_hashes: string[]																																																																																																								
MoneroOutput																																																																																																								
tx: MoneroTx																																																																																																								
key_image: MoneroKeyImage																																																																																																								
amount: ulong																																																																																																								
index: ulong																																																																																																								
ring_output_indices: ulong[]																																																																																																								
stealth_public_key: string																																																																																																								
MoneroDaemonInfo																																																																																																								
version: string																																																																																																								
num_alt_blocks: ulong																																																																																																								
block_size_limit: ulong																																																																																																								
block_size_median: ulong																																																																																																								
block_weight_limit: ulong																																																																																																								
block_weight_median: ulong																																																																																																								
bootstrap_daemon_address: string																																																																																																								
difficulty: ulong																																																																																																								
cumulative_difficulty: ulong																																																																																																								
free_space: ulong																																																																																																								
num_offline_peers: uint																																																																																																								
num_online_peers: uint																																																																																																								
height: ulong																																																																																																								
height_without_bootstrap: ulong																																																																																																								
network_type: MoneroNetworkType																																																																																																								
is_offline: bool																																																																																																								
num_incoming_connections: uint																																																																																																								
num_outgoing_connections: uint																																																																																																								
num_rpc_connections: uint																																																																																																								
start_timestamp: ulong																																																																																																								
adjusted_timestamp: ulong																																																																																																								
target: ulong																																																																																																								
target_height: ulong																																																																																																								
top_block_hash: string																																																																																																								
num_txs: uint																																																																																																								
num_txs_pool: uint																																																																																																								
was_bootstrap_ever_used: bool																																																																																																								
database_size: uint																																																																																																								
update_available: bool																																																																																																								
credits: ulong																																																																																																								
is_busy_syncing: bool																																																																																																								
is_synchronized: bool																																																																																																								
is_restricted: bool																																																																																																								
MoneroTx																																																																																																								
block: MoneroBlock																																																																																																								
height: ulong																																																																																																								
hash: string																																																																																																								
version: uint																																																																																																								
is_coinbase: bool																																																																																																								
payment_id: string																																																																																																								
fee: ulong																																																																																																								
ring_size: uint																																																																																																								
do_not_relay: bool																																																																																																								
is_relayed: bool																																																																																																								
is_confirmed: bool																																																																																																								
in_tx_pool: bool																																																																																																								
num_confirmations: ulong																																																																																																								
unlock_time: ulong																																																																																																								
last_relayed_timestamp: ulong																																																																																																								
received_timestamp: ulong																																																																																																								
is_double_spend: bool																																																																																																								
key: string																																																																																																								
full_hex: string																																																																																																								
pruned_hex: string																																																																																																								
prunable_hex: string																																																																																																								
prunable_hash: string																																																																																																								
size: ulong																																																																																																								
weight: ulong																																																																																																								
inputs: MoneroOutput[]																																																																																																								
outputs: MoneroOutput[]																																																																																																								
output_indices: ulong[]																																																																																																								
metadata: string																																																																																																								
extra: byte[]																																																																																																								
rct_signatures: string[]																																																																																																								
rct_sig_prunable: ?																																																																																																								
is_kept_by_block: bool																																																																																																								
is_failed: bool																																																																																																								
last_failed_height: ulong																																																																																																								
last_failed_hash: string																																																																																																								
max_used_block_height: ulong																																																																																																								

## Monero Daemon Types 2/3

```
max_used_block_hash: string
signatures: string[]
```

MoneroDaemonSyncInfo
height: ulong
connections: MoneroDaemonConnection[]
spans: MoneroDaemonConnectionSpan[]
target_height: ulong
next_needed_pruning_seed: uint
overview: ?

MoneroDaemonListener
onBlockHeader(MoneroBlockHeader header): void

<enumeration>
MoneroNetworkType
mainnet: 0
testnet: 1
stagenet: 2

MoneroBan
host: string
ip: string
is_banned: bool
seconds: ulong

MoneroKeyImage
hex: string
signature: string

MoneroPeer
id: string
address: string
host: string
port: uint
is_online: boolean
last_seen_timestamp: ulong
pruning_seed: uint
rpc_port: uint
rpc_credits_per_hash: ulong
type: ConnectionType
num_support_flags: uint
state: string
send_idle_time: ulong
receive_idle_time: ulong
num_sends: uint
num_receives: uint
is_local_host: bool
is_local_ip: bool
live_time: ulong
is_incoming: bool
height: ulong
current_upload: ulong
current_download: ulong
avg_upload: ulong
avg_download: ulong

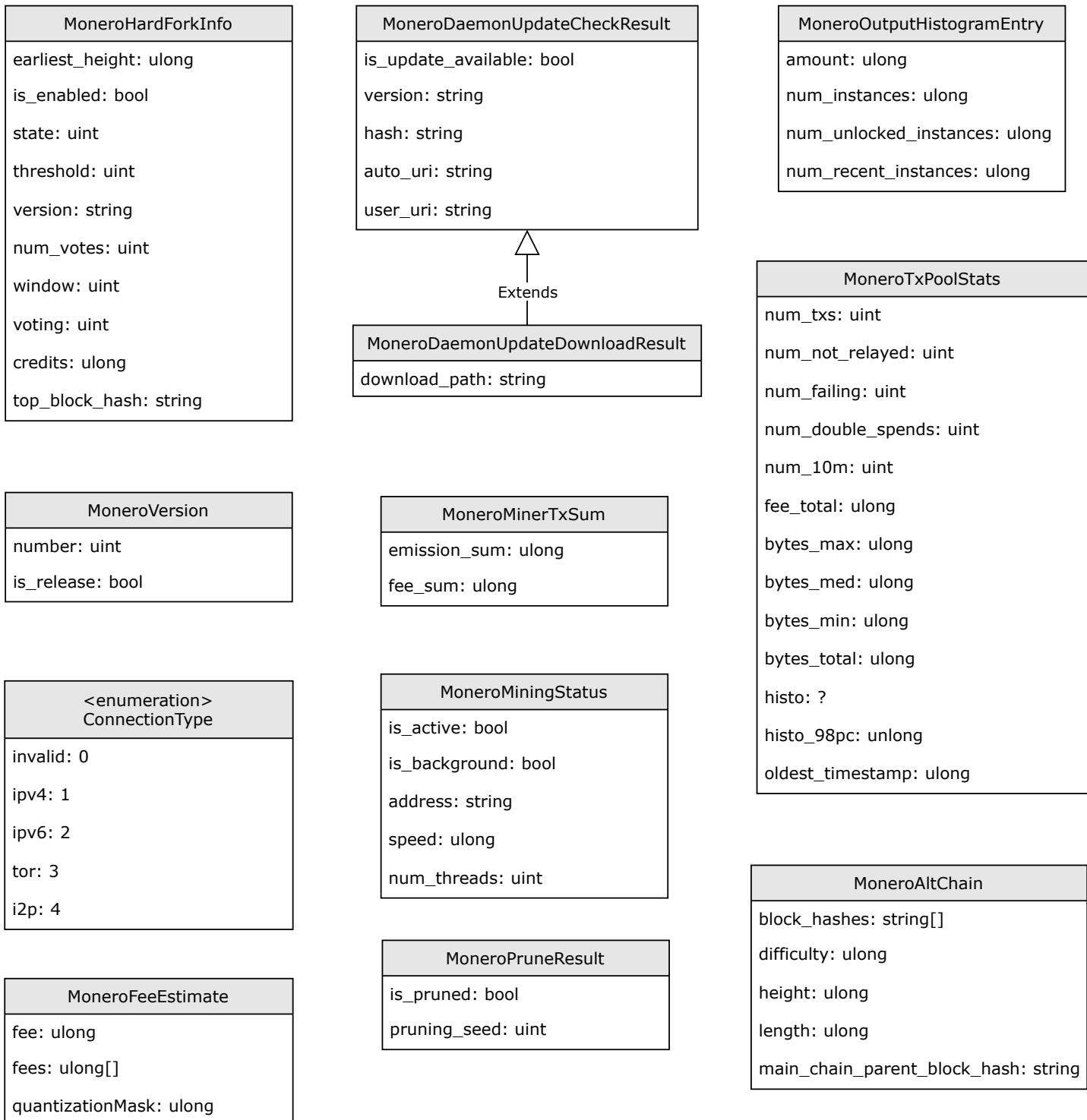
MoneroBlockTemplate
block_template_blob: string
block_hashing_blob: string
difficulty: ulong
expected_reward: ulong
height: ulong
prev_hash: string
reserved_offset: ulong
seed_height: ulong
seed_hash: string
next_seed_hash: string

<enumeration>
MoneroKeyImageSpentStatus
not_spent: 0
confirmed: 1
tx_pool: 2

MoneroSubmitTxResult
is_good: bool
is_relayed: bool
is_double_spend_seen: bool
is_fee_too_low: bool
is_mixin_too_low: bool
has_invalid_input: bool
has_invalid_output: bool
has_too_few_outputs: bool
is_rct: bool
is_overspend: bool
is_too_big: bool
sanity_check_failed: bool
reason: string
credits: ulong
top_block_hash: string
is_tx_result_too_big: bool
nonzero_unlock_time: bool

MoneroDaemonConnectionSpan
connection_id: string
num_blocks: ulong
remote_address: string
rate: ulong
speed: ulong
size: ulong
start_block_height: ulong

## Monero Daemon Types 3/3



## Monero Wallet Interface 1/3

```
addListener(MoneroWalletListener listener): void
removeListener(MoneroWalletListener): void
getListeners(): MoneroWalletListener[]
isViewOnly(): bool
setDaemonConnection(MoneroDaemonConnection connection): void
getDaemonConnection(): MoneroDaemonConnection
isConnectedToDaemon(): bool
getVersion(): MoneroVersion
getNetworkType(): MoneroNetworkType
getPath(): string
getSeed(): string
getSeedLanguage(): string
getSeedLanguages(): string[]
getPrivateSpendKey(): string
getPrivateViewKey(): string
getPublicSpendKey(): string
getPublicViewKey(): string
getPrimaryAddress(): string
getAddress(uint accountIdx, uint subaddressIdx): string
getAddressIndex(string address): MoneroSubaddress
getDaemonConnection(): MoneroRpcConnection
getDaemonHeight(): ulong
getDaemonMaxPeerHeight(): ulong
getApproximateChainHeight(): ulong
getHeight(): ulong
getHeightByDate(uint year, uint month, uint day): ulong
sync(ulong startHeight=null, MoneroSyncListener listener=null): MoneroSyncResult
startSyncing(): void
stopSyncing(): void
scanTxs(string[] txHashes): void
rescanSpent(): void
rescanBlockchain(): void
getBalance(uint accountIdx=null, uint subaddressIdx=null): ulong
getUnlockedBalance(uint accountIdx=null, uint subaddressIdx=null): ulong
getAccounts(bool includeSubaddresses=false, string tag=null): MoneroAccount[]
getAccount(uint accountIdx, bool includeSubaddresses=false): MoneroAccount
createAccount(string label=null): void
getSubaddresses(uint accountIdx, uint[] subaddressIndices): void
getSubaddress(uint accountIdx, uint subaddressIdx): MoneroSubaddress
```

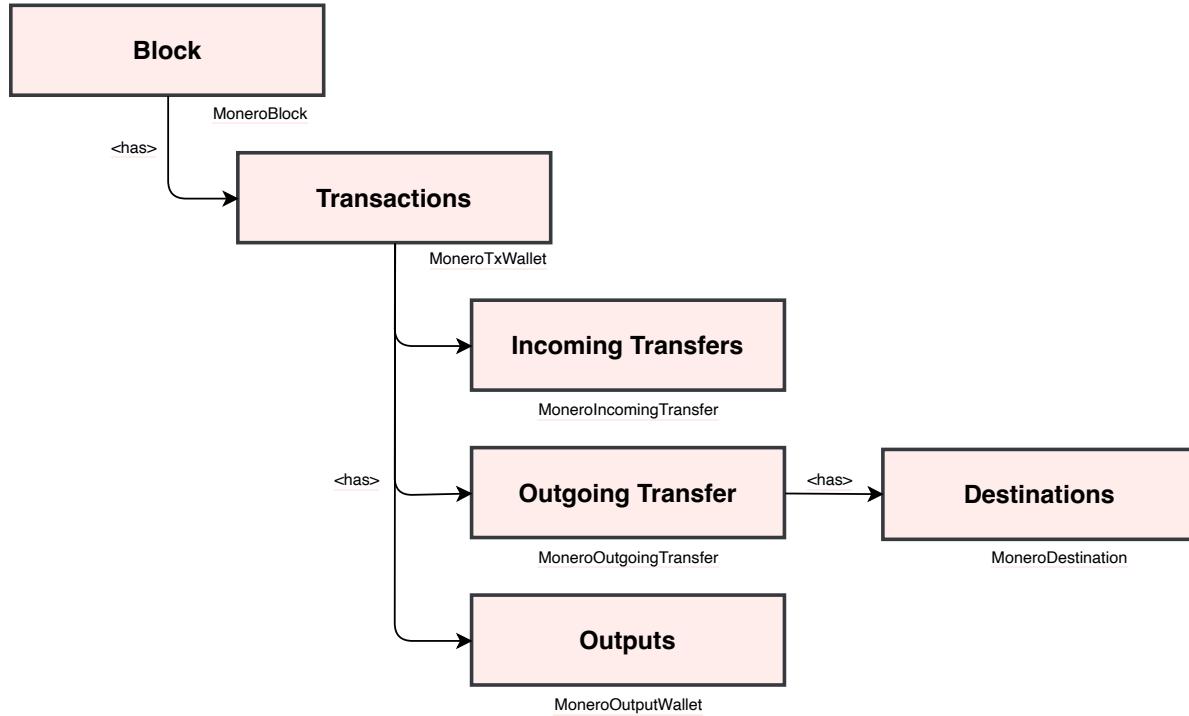
## Monero Wallet Interface 2/3

```
createSubaddress(uint accountIdx, string label=null): MoneroSubaddress
setAccountLabel(uint accountIdx, string label): void
setSubaddressLabel(uint accountIdx, string subaddressIdx, string label): void
getTx(string txId): MoneroTxWallet
getTxs(MoneroTxQuery query=null): MoneroTxWallet[]
getTransfers(uint accountIdx=null, uint subaddressIdx=null): MoneroTransfer[]
getOutputs(MoneroOutputQuery query=null): MoneroOutputWallet[]
getOutgoingTransfers(MoneroTransferQuery query=null): MoneroOutgoingTransfer[]
getIncomingTransfers(MoneroTransferQuery query=null): MoneroIncomingTransfer[]
getTransfers(MoneroTransferQuery query=null): void
exportOutputs(bool all=false): string
importOutputs(string outputsHex): uint
exportKeyImages(bool all=false): MoneroKeyImage[]
importKeyImages(MoneroKeyImage[] keyImages): MoneroKeyImageImportResult
freezeOutput(String keyImage): void
thawOutput(String keyImage): void
isOutputFrozen(String keyImage): bool
getNewKeyImagesFromLastImport(): MoneroKeyImage[]
getDefaultFeePriority(): MoneroTxPriority
createTx(MoneroTxConfig config): MoneroTxWallet
createTxs(MoneroTxConfig config): MoneroTxWallet[]
sweepOutput(MoneroTxConfig config): MoneroTxWallet
sweepUnlocked(MoneroTxConfig config): MoneroTxWallet[]
sweepDust(bool relay=false): MoneroTxWallet[]
relayTx(string txMetadata): string
relayTx(MoneroTxWallet tx): string
relayTxs(string[] txMetadatas): string[]
relayTxs(MoneroTxWallet[] txs): string[]
describeTxSet(MoneroTxSet txSet): MoneroTxSet
signTxs(string unsignedTxHex): MoneroTxSet
submitTxs(string signedTxHex): string[]
signMessage(string message, MoneroMessageSignatureType type, int accountIdx, int subaddressIdx): string
verifyMessage(string message, string address, string signature): MoneroMessageSignatureResult
getTxKey(string txId): string
checkTxKey(string txId, string txKey, string address): MoneroCheckTx
getTxProof(String txId, string address, string message=null): string
checkTxProof(string txId, string address, string message, string signature): MoneroCheckTx
getSpendProof(string txId, string message=null): string
checkSpendProof(string txId, string message, string signature): bool
```

### Monero Wallet Interface 3/3

```
getReserveProofWallet(string message): string
getReserveProofAccount(uint accountIdx, ulong amount, string message): string
checkReserveProof(string address, string message, string signature): MoneroCheckReserve
setTxNotes(string[] txHashes, string[] notes): void
setTxNote(string txHash, string note): void
getTxNotes(string[] txHashes): string[]
getTxNote(string txHash): string
getAddressBookEntries(uint[] entryIndices=null): MoneroAddressBookEntry[]
addAddressBookEntry(string address, string description): uint
editAddressBookEntry(uint entryIdx, bool setAddress, string address, bool setDescription, string description): void
deleteAddressBookEntry(uint entryIdx): void
tagAccounts(string tag, uint[] accountIndices): void
untagAccounts(uint[] accountIndices): void
getAccountTags(): MoneroAccountTag[]
setAccountTagLabel(string tag, string label): void
getPaymentUri(MoneroTxConfig request): string
parsePaymentUri(string uri): MoneroSendRequest
getAttribute(string key): string
setAttribute(string key, string val): void
startMining(uint numThreads=null, bool backgroundMining=false, bool ignoreBattery=true): void
stopMining(): void
isMultisigImportNeeded(): bool
isMultisig(): bool
getMultisigInfo(): MoneroMultisigInfo
prepareMultisig(): string
makeMultisig(string[] multisigHexes, uint threshold, string password): string
exchangeMultisigKeys(string[] multisigHexes, string password): MoneroMultisigInitResult
exportMultisigHex(): string
importMultisigHex(string[] multisigHexes): uint
signMultisigTxHex(string multisigTxHex): MoneroMultisigSignResult
submitMultisig(string signedMultisigHex): string[]
moveTo(string path): void
changePassword(string oldPassword, string newPassword): void
save(): void
close(bool save=false): void
isClosed(): bool
getIntegratedAddress(string standardAddress=null, string paymentId=null): MoneroIntegratedAddress (deprecated)
decodeIntegratedAddress(string integratedAddress): MoneroIntegratedAddress (deprecated)
```

## Monero Wallet Types 1/4 - Transactions, Transfers, and Outputs



Transactions are part of a block and have incoming transfers and/or an outgoing transfer.

The outgoing transfer may have destination amounts and addresses which are saved locally with the wallet and are not recoverable from the blockchain.

Transactions may also have outputs received by the wallet when requested.

## Monero Wallet Types 2/4 - Send Request and Queries for Transactions, Transfers, and Outputs

MoneroTxConfig
address: string
amount: ulong
destinations: MoneroDestination[]
subtract_fee_from: int[]
payment_id: string
priority: MoneroTxPriority
fee: ulong
account_index: uint
subaddress_index: uint
subaddress_indices: uint[]
can_split: bool
relay: bool
note: string
recipient_name: string
below_amount: ulong
sweep_each_subaddress: bool
key_image: string

MoneroTxQuery extends MoneroTxWallet
is_outgoing: bool
is_incoming: bool
hashes: string[]
has_payment_id: bool
payment_ids: string[]
height: ulong
min_height: ulong
max_height: ulong
include_outputs: bool
transfer_request: MoneroTransferQuery
output_request: MoneroOutputQuery

Configures a query to get wallet transactions.

MoneroOutputQuery extends MoneroOutputWallet
subaddress_indices: uint[]
tx_query: MoneroTxQuery
min_amount: ulong
max_amount: ulong

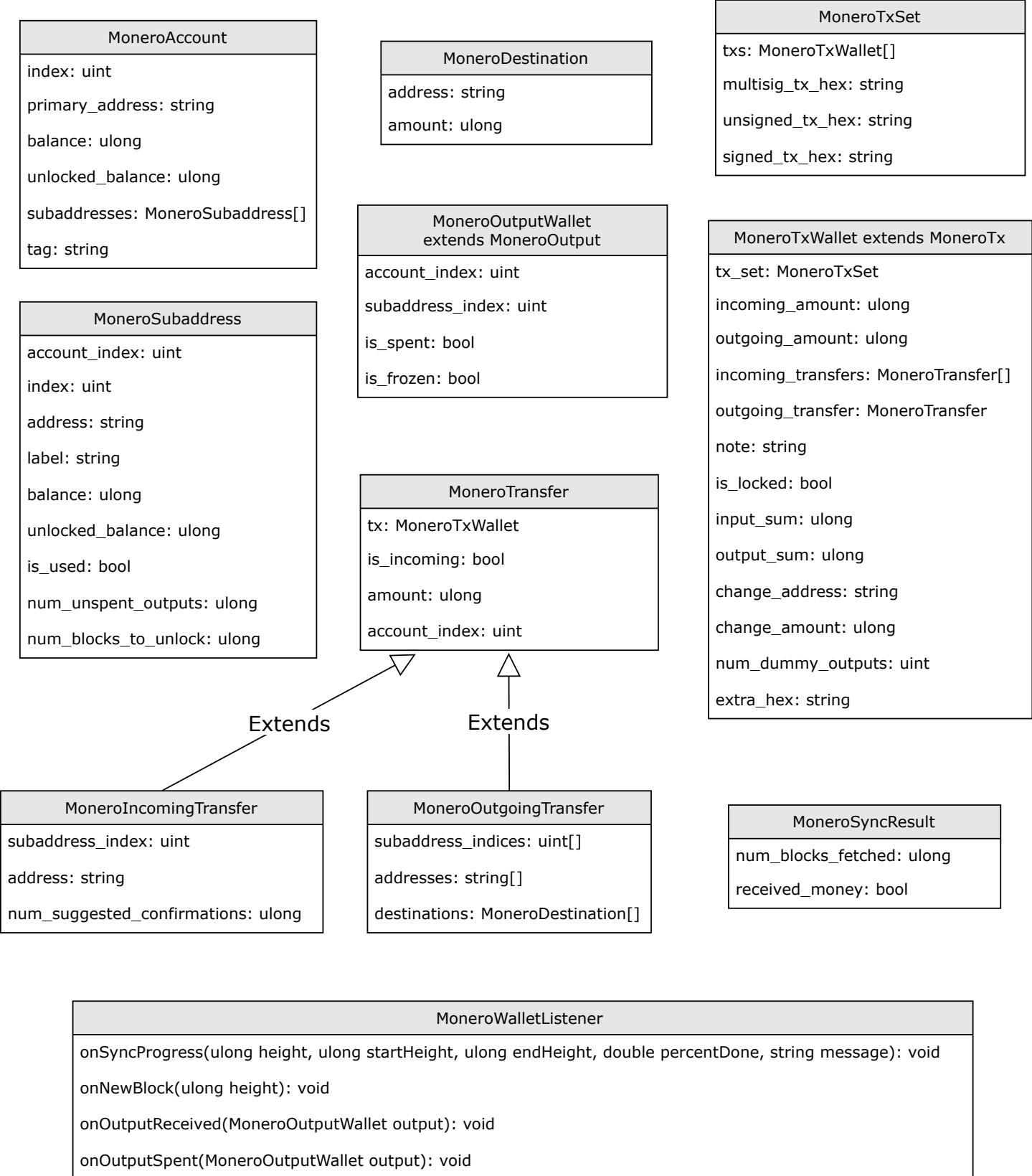
MoneroTransferQuery extends MoneroTransfer
is_incoming: bool
address: string
addresses: string[]
subaddress_index: uint
subaddress_indices: uint[]
destinations: MoneroDestination[]
has_destinations: bool
tx_query: MoneroTxQuery

Configures a query to get wallet transfers.

Configures creating transactions to send funds.

Configures a query to get wallet outputs.

## Monero Wallet Types 3/4



## Monero Wallet Types 4/4

MoneroAccountTag
tag: string
label: string
account_indices: uint[]

MoneroMultisigInfo
is_multisig: bool
is_ready: bool
threshold: uint
num_participants: uint

MoneroKeyImageImportResult
height: ulong
spent_amount: ulong
unspent_amount: ulong

MoneroAddressBookEntry
index: uint
address: string
description: string
payment_id: string

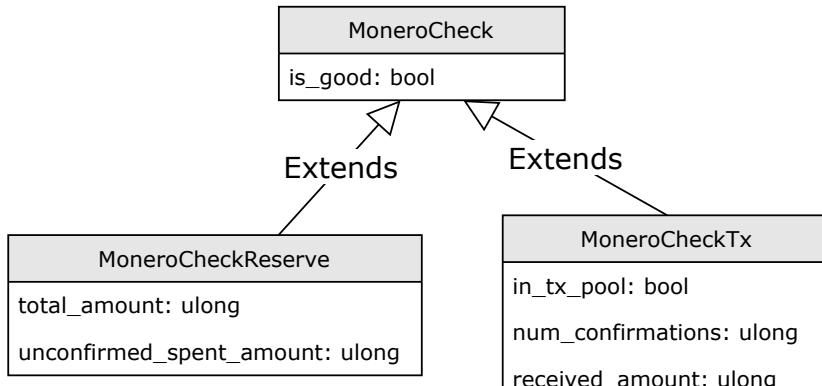
MoneroMultisigInitResult
address: string
multisig_hex: string

MoneroIntegratedAddress (deprecated)
standard_address: string
payment_id: string
integrated_address: string

<<enumeration>>
MoneroSendPriority
default: 0
unimportant: 1
normal: 2
elevated: 3

MoneroMultisigSignResult
signed_multisig_tx_hex: string
tx_hashes: string[]

<<enumeration>>
MoneroMessageSignatureType
spend_key: 0
view_key: 1



MoneroMessageSignatureResult
is_good: bool
is_old: bool
signature_type: MoneroMessageSignatureType
version: int

## woodser API 1/1



46FR1GKVqFNQnDiFkH7AuzbUBrGQwz2VdaXTDD4jcjRE8YkkotYTmZ2Vohsz9gLsqkj5EM6ai9Q7sBoX4FPPYJdGKQQXPVz

