# Namespace chia.dotnet.wallet

### Classes

#### **AssetCoin**

Represents an asset coin, which is a coin that carries an asset ID and lineage proof.

#### AssetToken<T>

Represents a CAT

#### **AssetWallet**

Represents an asset wallet that manages asset tokens.

#### **KeyPair**

Represents a key pair consisting of a public key and an optional private key.

#### **KeyStore**

Represents a key store that holds private and public keys.

#### <u>SpendableAssetCoin</u>

Represents a spendable asset coin.

#### **StandardTransaction**

Represents a standard transaction in the Chia.NET wallet.

#### **StandardWallet**

Represents a standard wallet in the Chia.NET Wallet library.

#### **Tails**

Represents a collection of static methods for creating puzzle programs.

#### **WalletOptions**

Represents the options for a wallet.

#### Wallet<T>

Represents an abstract wallet class that provides common functionality for different types of wallets.

#### **Enums**

#### CoinSelection

Represents the different strategies for selecting coins.

### Class AssetCoin

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents an asset coin, which is a coin that carries an asset ID and lineage proof.

public class AssetCoin

#### Inheritance

<u>object</u> 

✓ AssetCoin

#### **Derived**

<u>SpendableAssetCoin</u>

#### **Inherited Members**

### Constructors

### AssetCoin(CoinSpend, Coin, byte[]?)

Initializes a new instance of the AssetCoin class.

public AssetCoin(CoinSpend parentCoinSpend, Coin coin, byte[]? assetId = null)

#### **Parameters**

parentCoinSpend CoinSpend

The parent coin spend.

coin Coin

The coin.

assetId <u>byte</u>□[]

The asset ID.

# **Properties**

### AssetId

Gets the asset ID of this asset coin.

```
public byte[] AssetId { get; init; }
```

### Property Value

<u>byte</u> []

Represents an asset coin, which is a coin that carries an asset ID and lineage proof.

### Coin

Gets the underlying coin of this asset coin.

```
public Coin Coin { get; init; }
```

### Property Value

Coin

Represents an asset coin, which is a coin that carries an asset ID and lineage proof.

# LineageProof

Gets the lineage proof of this asset coin.

```
public Program LineageProof { get; init; }
```

### Property Value

Program

Represents an asset coin, which is a coin that carries an asset ID and lineage proof.

# ParentCoinSpend

Gets the parent coin spend associated with this asset coin.

```
public CoinSpend ParentCoinSpend { get; init; }
```

# Property Value

#### CoinSpend

Represents an asset coin, which is a coin that carries an asset ID and lineage proof.

### Class AssetToken<T>

```
Namespace: chia.dotnet.wallet
Assembly: chia-dotnet-wallet.dll
Represents a CAT
  public class AssetToken<T> : Program where T : Program
Type Parameters
T
  A Program
Inheritance
<u>object</u> ← Program ← AssetToken<T>
Inherited Members
Program.True, Program.False, Program.Nil, Program.FromCons(Program, Program),
Program.FromBytes(byte[]) / Program.FromJacobianPoint(JacobianPoint) ,
Program.FromPrivateKey(PrivateKey), <u>Program.FromHex(string)</u> ♂, <u>Program.FromBool(bool)</u> ♂,
<u>Program.FromInt(long)</u> ♂, <u>Program.FromBigInt(BigInteger)</u> ♂, <u>Program.FromText(string)</u> ♂,
<u>Program.FromSource(string)</u>  ♂, <u>Program.FromList(IEnumerable<Program>)</u> ♂,
<u>Program.Deserialize(byte[])</u> ♂, <u>Program.DeserializeHex(string)</u> ♂, Program.At(Position),
Program.Curry(IEnumerable < Program > ) // , Program.Uncurry() , Program.Hash() , Program.HashHex() ,
Program.Define(Program), <u>Program.DefineAll(IEnumerable<Program>)</u> ♂,
Program.Compile(CompileOptions), Program.Run(Program, RunOptions), Program.ToBytes(),
Program.ToJacobianPoint(), Program.ToPrivateKey(), Program.ToHex(), Program.ToBool(),
Program.ToInt(), Program.ToBigInt(), Program.ToText(), Program.ToSource(bool) ♂,
Program.ToList(bool) ..., Program.Serialize(), Program.SerializeHex(), Program.Equals(Program),
Program.ToString(), Program.Value, Program.IsAtom, Program.IsCons, Program.IsNull, Program.Atom,
Program.Cons, Program.First, Program.Rest, Program.PositionSuffix, Program.Position,
<u>object.Equals(object)</u> <u>d</u> , <u>object.Equals(object, object)</u> <u>d</u> , <u>object.GetHashCode()</u> <u>d</u> , <u>object.GetType()</u> <u>d</u> ,
```

### Constructors

# AssetToken(byte[], T)

```
Represents a CAT
```

```
public AssetToken(byte[] assetId, T innerPuzzle)

Parameters
assetId byte@[]
  The asset id
innerPuzzle T
```

The inner puzzle program

# **Properties**

### AssetId

```
The Token's asset id

public byte[] AssetId { get; init; }

Property Value

byte□[]

Represents a CAT
```

### InnerPuzzle

```
The tokens inner puzzle Program
```

public T InnerPuzzle { get; init; }

Property Value

Represents a CAT

# Class AssetWallet

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents an asset wallet that manages asset tokens.

public class AssetWallet : Wallet<AssetToken<StandardTransaction>>

#### Inheritance

#### **Inherited Members**

Wallet < AssetToken < StandardTransaction >> . Node,

Wallet < AssetToken < StandardTransaction >> . KeyStore,

Wallet < AssetToken < StandardTransaction >> . Options ,

Wallet < Asset Token < Standard Transaction > > . Coin Records ,

Wallet < AssetToken < StandardTransaction >> . ArtificialCoinRecords ,

Wallet < AssetToken < StandardTransaction > > . PuzzleCache ,

Wallet < AssetToken < StandardTransaction >> . CoinRecordIndex(CoinRecord),

Wallet < AssetToken < StandardTransaction > > . Sync(WalletOptions, CancellationToken),

Wallet < AssetToken < StandardTransaction >> . FetchCoinRecords(CancellationToken),

Wallet < AssetToken < StandardTransaction >> . ClearUnconfirmedTransactions(CancellationToken),

Wallet < AssetToken < StandardTransaction >> . CreateSpend(),

Wallet < AssetToken < StandardTransaction >> . FindUnusedIndices(int, List < int >, bool, CancellationToken),

Wallet < AssetToken < StandardTransaction >> . GetBalance(),

Wallet < AssetToken < StandardTransaction >> . SelectCoinRecords(BigInteger, CoinSelection, int, bool),

Wallet < AssetToken < StandardTransaction >> . CompleteSpend(SpendBundle, CancellationToken),

object.Equals(object) ♂, object.Equals(object, object) ♂, object.GetHashCode() ♂, object.GetType() ♂,

### **Constructors**

AssetWallet(FullNodeProxy, KeyStore, byte[], byte[]?, WalletOptions?)

Initializes a new instance of the AssetWallet class.

```
public AssetWallet(FullNodeProxy node, KeyStore keyStore, byte[] assetId, byte[]? hiddenPuzzleHash = null, WalletOptions? walletOptions = null)

Parameters

node FullNodeProxy

The full node proxy.

keyStore KeyStore

The key store.

assetId byte@[]

The asset ID.

hiddenPuzzleHash byte@[]

The hidden puzzle hash.

walletOptions WalletOptions

The wallet options.
```

# **Properties**

### AssetId

```
Gets the asset ID.

public byte[] AssetId { get; init; }

Property Value

byte□[]
```

Represents an asset wallet that manages asset tokens.

### HiddenPuzzleHash

Gets the hidden puzzle hash.

```
public byte[] HiddenPuzzleHash { get; init; }
```

### Property Value

<u>byte</u> []

Represents an asset wallet that manages asset tokens.

### **Methods**

### CreatePuzzle(KeyPair)

Creates a puzzle for the specified key pair.

```
public override AssetToken<StandardTransaction> CreatePuzzle(KeyPair keyPair)
```

#### **Parameters**

keyPair <u>KeyPair</u>

The key pair.

#### Returns

AssetToken < StandardTransaction >

The created asset token puzzle.

# FindTail(CancellationToken)

Finds the tail of the asset token.

```
public Task<Program?> FindTail(CancellationToken cancellationToken = default)
```

#### **Parameters**

#### 

The cancellation token.

#### Returns

The tail of the asset token.

# GetParentCoinSpend(CoinRecord, CancellationToken)

Gets the parent coin spend for the specified coin record.

public Task<CoinSpend> GetParentCoinSpend(CoinRecord coinRecord, CancellationToken
cancellationToken = default)

#### **Parameters**

coinRecord CoinRecord

The coin record.

The cancellation token.

#### Returns

<u>Task</u> doinSpend>

The parent coin spend.

# SignSpend(SpendBundle, byte[])

Signs the spend bundle with the private keys in the key store.

public override SpendBundle SignSpend(SpendBundle spendBundle, byte[] aggSigMeExtraData)

#### spendBundle SpendBundle

The spend bundle to sign.

#### aggSigMeExtraData <u>byte</u>♂[]

The aggregated signature me extra data.

### Returns

SpendBundle

The signed spend bundle.

# **Enum CoinSelection**

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents the different strategies for selecting coins.

public enum CoinSelection

### **Fields**

Largest = 1

Select the largest coins first.

Newest = 2

Select the newest coins first.

Oldest = 3

Select the oldest coins first.

Smallest = 0

Select the smallest coins first.

# Class KeyPair

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents a key pair consisting of a public key and an optional private key.

```
public record KeyPair : IEquatable<KeyPair>
```

#### Inheritance

<u>object</u> 

← KeyPair

#### **Implements**

<u>IEquatable</u> < <u>KeyPair</u>>

#### **Inherited Members**

<u>object.Equals(object)</u> <u>object.Equals(object, object)</u> <u>object.GetHashCode()</u> <u>object.GetType()</u> <u>object.MemberwiseClone()</u> <u>object.ReferenceEquals(object, object)</u> <u>object.ToString()</u> <u>object.ToString() object.ToString() ob</u>

### **Constructors**

### KeyPair(JacobianPoint, PrivateKey?)

Initializes a new instance of the **KeyPair** class.

```
public KeyPair(JacobianPoint publicKey, PrivateKey? privateKey = null)
```

#### **Parameters**

publicKey JacobianPoint

The public key.

privateKey PrivateKey

The private key. Can be null.

# **Properties**

### PrivateKey

Gets or sets the private key. Can be null if the private key is not available.

```
public PrivateKey? PrivateKey { get; init; }
```

### Property Value

PrivateKey

Represents a key pair consisting of a public key and an optional private key.

# **PublicKey**

Gets or sets the public key.

```
public JacobianPoint PublicKey { get; init; }
```

### Property Value

**JacobianPoint** 

Represents a key pair consisting of a public key and an optional private key.

# Class KeyStore

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents a key store that holds private and public keys.

```
public class KeyStore
```

#### Inheritance

<u>object</u> 

✓ KeyStore

#### **Inherited Members**

 $\underline{object.Equals(object)} \ \ \ \ \ \underline{object.Equals(object, object)} \ \ \ \ \ \underline{object.GetHashCode()} \ \ \ \ \ \underline{object.GetType()} \ \ \ \ \ \underline{object.MemberwiseClone()} \ \ \ \ \underline{object.ReferenceEquals(object, object)} \ \ \ \ \underline{object.ToString()} \ \ \ \ \underline{object.ToString()} \ \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \underline{$ 

### Constructors

### KeyStore(object, bool)

Initializes a new instance of the **KeyStore** class.

```
public KeyStore(object key, bool hardened = false)
```

#### **Parameters**

key <u>object</u>♂

The key to initialize the key store with.

hardened boold

A value indicating whether the key store is hardened.

### Exceptions

#### <u>ArgumentException</u> □

Thrown when the key is neither a PrivateKey nor a JacobianPoint.

# **Properties**

### Hardened

Gets or sets a value indicating whether the key store is hardened.

```
public bool Hardened { get; init; }
```

### Property Value

bool ₫

Represents a key store that holds private and public keys.

### Keys

Gets or sets the list of key pairs.

```
public List<KeyPair> Keys { get; init; }
```

### Property Value

<u>List</u> < <u>KeyPair</u> >

Represents a key store that holds private and public keys.

# PrivateKey

Gets or sets the private key.

```
public PrivateKey? PrivateKey { get; init; }
```

### Property Value

PrivateKey

Represents a key store that holds private and public keys.

# PublicKey

Gets or sets the public key.

```
public JacobianPoint PublicKey { get; init; }
```

### Property Value

**JacobianPoint** 

Represents a key store that holds private and public keys.

### **Methods**

### Generate(int)

Generates the specified number of key pairs and adds them to the key store.

```
public void Generate(int amount)
```

#### **Parameters**

```
amount int♂
```

The number of key pairs to generate.

### GenerateUntil(int)

Generates key pairs until the specified number of key pairs is reached.

```
public void GenerateUntil(int amount)
```

#### **Parameters**

```
amount \ \underline{int} \square
```

The number of key pairs to generate.

# Class SpendableAssetCoin

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents a spendable asset coin.

```
public class SpendableAssetCoin : AssetCoin
```

#### Inheritance

<u>object</u> 

✓ 

✓ 

AssetCoin ← SpendableAssetCoin

#### **Inherited Members**

AssetCoin.ParentCoinSpend, AssetCoin.AssetId, AssetCoin.LineageProof, AssetCoin.Coin, object.Equals(object) , object.Equals(object, object), object.GetHashCode(), object.GetType(), object.MemberwiseClone(), object.ReferenceEquals(object, object), object.ToString(), object.ToStri

### Constructors

SpendableAssetCoin(CoinSpend, Coin, Program, Program, int, byte[]?)

Initializes a new instance of the <a href="SpendableAssetCoin">SpendableAssetCoin</a> class.

```
public SpendableAssetCoin(CoinSpend parentCoinSpend, Coin coin, Program innerPuzzle, Program
innerSolution, int extraDelta = 0, byte[]? assetId = null)
```

#### **Parameters**

parentCoinSpend CoinSpend

The parent coin spend.

coin Coin

The coin.

innerPuzzle Program

The inner puzzle program.

```
innerSolution Program
```

The inner solution program.

```
extraDelta <u>int</u>♂
```

The extra delta value.

```
assetId <u>byte</u>□[]
```

The asset ID.

# **Properties**

### ExtraDelta

Gets or sets the extra delta value.

```
public int ExtraDelta { get; init; }
```

### Property Value

<u>int</u>♂

Represents a spendable asset coin.

### InnerPuzzle

Gets or sets the inner puzzle program.

```
public Program InnerPuzzle { get; init; }
```

### Property Value

Program

Represents a spendable asset coin.

### **InnerSolution**

Gets or sets the inner solution program.

```
public Program InnerSolution { get; init; }
```

### Property Value

Program

Represents a spendable asset coin.

### Puzzle

Gets or sets the puzzle program.

```
public Program Puzzle { get; init; }
```

### Property Value

Program

Represents a spendable asset coin.

### **Methods**

# CalculateDeltas(List < SpendableAssetCoin > )

Calculates the deltas based on the given spendable asset coins.

```
public static long[] CalculateDeltas(List<SpendableAssetCoin> spendableAssetCoins)
```

#### **Parameters**

spendableAssetCoins <u>List</u>♂<<u>SpendableAssetCoin</u>>

The spendable asset coins.

### Returns

### <u>long</u> ☑[]

An array of deltas.

# CalculateSubtotals(long[])

Calculates the subtotals based on the given deltas.

```
public static long[] CalculateSubtotals(long[] deltas)
```

### Parameters

deltas <u>long</u>♂[]

The deltas.

### Returns

### <u>long</u> []

An array of subtotals.

### Class StandardTransaction

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents a standard transaction in the Chia.NET wallet.

public class StandardTransaction : Program

#### Inheritance

<u>object</u> ✓ ← Program ← StandardTransaction

#### **Inherited Members**

Program.True, Program.False, Program.Nil, Program.FromCons(Program, Program), Program.FromPrivateKey(PrivateKey), <u>Program.FromHex(string)</u> ♂, <u>Program.FromBool(bool)</u> ♂, <u>Program.FromSource(string)</u> ♂, <u>Program.FromList(IEnumerable < Program > )</u> ♂, Program.Deserialize(byte[]) . Program.DeserializeHex(string) . Program.At(Position), Program.Define(Program), <u>Program.DefineAll(IEnumerable<Program>)</u> ♂, Program.Compile(CompileOptions), Program.Run(Program, RunOptions), Program.ToBytes(), Program.ToJacobianPoint(), Program.ToPrivateKey(), Program.ToHex(), Program.ToBool(), Program.ToInt(), Program.ToBigInt(), Program.ToText(), Program.ToSource(bool), <u>Program.ToList(bool)</u> ✓, Program.Serialize(), Program.SerializeHex(), Program.Equals(Program), Program.ToString(), Program.Value, Program.IsAtom, Program.IsCons, Program.IsNull, Program.Atom, Program.Cons, Program.First, Program.Rest, Program.PositionSuffix, Program.Position, object.Equals(object) ♂, object.Equals(object, object) ♂, object.GetHashCode() ♂, object.GetType() ♂, object.MemberwiseClone() □ , object.ReferenceEquals(object, object) □

### Constructors

### StandardTransaction(JacobianPoint)

Initializes a new instance of the <u>StandardTransaction</u> class with the specified synthetic public key.

public StandardTransaction(JacobianPoint syntheticPublicKey)

#### **Parameters**

syntheticPublicKey JacobianPoint

The synthetic public key to use.

# **Properties**

### SyntheticPublicKey

Gets or sets the synthetic public key associated with the transaction.

```
public JacobianPoint SyntheticPublicKey { get; init; }
```

### Property Value

**JacobianPoint** 

Represents a standard transaction in the Chia.NET wallet.

### **Methods**

# GetSolution(List<Program>)

Gets the solution program for the specified conditions.

```
public static Program GetSolution(List<Program> conditions)
```

#### **Parameters**

```
conditions <u>List</u> < Program >
```

The conditions to use in the solution.

#### Returns

Program

The solution program.

# Spend(Coin, Program)

Creates a coin spend using the specified coin and solution program.

public CoinSpend Spend(Coin coin, Program solution)

### Parameters

coin Coin

The coin to spend.

solution Program

The solution program to use.

### Returns

CoinSpend

The created coin spend.

### Class StandardWallet

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents a standard wallet in the Chia.NET Wallet library.

```
public class StandardWallet : Wallet<StandardTransaction>
```

#### Inheritance

 $\underline{object} \boxtimes \leftarrow \underline{Wallet} < \underline{StandardTransaction} > \leftarrow \underline{StandardWallet}$ 

#### **Inherited Members**

Wallet < Standard Transaction > . Node , Wallet < Standard Transaction > . KeyStore ,

Wallet < Standard Transaction > . Options , Wallet < Standard Transaction > . CoinRecords ,

Wallet < Standard Transaction > . Artificial Coin Records , Wallet < Standard Transaction > . Puzzle Cache ,

<u>Wallet<StandardTransaction>.CoinRecordIndex(CoinRecord)</u>,

Wallet < Standard Transaction > . Sync (Wallet Options, Cancellation Token),

Wallet < StandardTransaction > . FetchCoinRecords(CancellationToken),

Wallet < Standard Transaction > . Clear Unconfirmed Transactions (Cancellation Token),

Wallet < Standard Transaction > . Create Spend(),

Wallet < Standard Transaction > . Find Unused Indices (int, List < int > , bool, Cancellation Token) ,

Wallet < Standard Transaction > . GetBalance(),

Wallet < Standard Transaction > . Select Coin Records (BigInteger, Coin Selection, int, bool),

Wallet < Standard Transaction > . Complete Spend (Spend Bundle, Cancellation Token),

#### Constructors

# StandardWallet(FullNodeProxy, KeyStore, byte[]?, WalletOptions?)

Represents a standard wallet in the Chia.NET Wallet library.

```
public StandardWallet(FullNodeProxy node, KeyStore keyStore, byte[]? hiddenPuzzleHash =
null, WalletOptions? walletOptions = null)
```

#### **Parameters**

#### node FullNodeProxy

Represents a standard wallet in the Chia.NET Wallet library.

#### keyStore KeyStore

Represents a standard wallet in the Chia.NET Wallet library.

#### hiddenPuzzleHash <u>byte</u> []

Represents a standard wallet in the Chia.NET Wallet library.

#### walletOptions WalletOptions

Represents a standard wallet in the Chia.NET Wallet library.

# **Properties**

### HiddenPuzzleHash

Gets the hidden puzzle hash.

```
public byte[] HiddenPuzzleHash { get; }
```

### Property Value

#### <u>byte</u>[]

Represents a standard wallet in the Chia.NET Wallet library.

### **Methods**

### CreatePuzzle(KeyPair)

Creates a puzzle for the specified key pair.

```
public override StandardTransaction CreatePuzzle(KeyPair keyPair)
```

#### **Parameters**

keyPair <u>KeyPair</u>

The key pair.

#### Returns

#### **StandardTransaction**

A new instance of the **StandardTransaction** class.

# Send(byte[], long, long, CancellationToken)

Sends a transaction.

```
public Task<List<CoinSpend>> Send(byte[] puzzleHash, long amount, long fee,
CancellationToken cancellationToken = default)
```

#### **Parameters**

puzzleHash <u>byte</u> []

The puzzle hash.

amount <u>long</u> ☑

The amount to send.

fee <u>long</u> ♂

The fee amount.

The cancellation token.

#### Returns

<u>Task</u> ♂ < <u>List</u> ♂ < CoinSpend > >

A list of coin spends.

# SendFee(long, CancellationToken)

Sends a fee transaction.

```
public Task<List<CoinSpend>> SendFee(long amount, CancellationToken cancellationToken
= default)
```

#### **Parameters**

amount <u>long</u> ☑

The amount to send as a fee.

cancellationToken CancellationToken ☑

The cancellation token.

#### Returns

<u>Task</u> d' < <u>List</u> d' < CoinSpend>>

A list of coin spends.

# SignSpend(SpendBundle, byte[])

Signs a spend bundle with the specified aggregated signature me extra data.

```
public override SpendBundle SignSpend(SpendBundle spendBundle, byte[] aggSigMeExtraData)
```

### Parameters

spendBundle SpendBundle

The spend bundle to sign.

aggSigMeExtraData <u>byte</u> []

The aggregated signature me extra data.

#### Returns

SpendBundle

The signed spend bundle.

### **Class Tails**

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents a collection of static methods for creating puzzle programs.

```
public static class Tails
```

#### Inheritance

<u>object</u> d ← Tails

#### **Inherited Members**

 $\underline{object.Equals(object)} \ \ \ \ \ \underline{object.Equals(object, object)} \ \ \ \ \ \underline{object.GetHashCode()} \ \ \ \ \ \underline{object.GetType()} \ \ \ \ \ \underline{object.MemberwiseClone()} \ \ \ \ \underline{object.ReferenceEquals(object, object)} \ \ \ \ \underline{object.ToString()} \ \ \ \ \underline{object.ToString()} \ \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \underline{$ 

### **Methods**

### Delegated(JacobianPoint)

Creates a puzzle program using the "delegated" puzzle with the specified public key.

```
public static Program Delegated(JacobianPoint publicKey)
```

#### **Parameters**

publicKey JacobianPoint

The public key to be used in the puzzle program.

#### Returns

Program

A puzzle program.

### EverythingWithSignature(JacobianPoint)

Creates a puzzle program using the "everythingWithSignature" puzzle with the specified public key.

```
public static Program EverythingWithSignature(JacobianPoint publicKey)
```

#### **Parameters**

publicKey JacobianPoint

The public key to be used in the puzzle program.

Returns

Program

A puzzle program.

### GenesisByCoinId(byte[])

Creates a puzzle program using the "genesisByCoinId" puzzle with the specified coin ID.

```
public static Program GenesisByCoinId(byte[] coinId)
```

#### **Parameters**

coinId <u>byte</u> []

The coin ID to be used in the puzzle program.

Returns

Program

A puzzle program.

### IndexedWithSignature(JacobianPoint, int)

Creates a puzzle program using the "indexedWithSignature" puzzle with the specified public key and index.

```
public static Program IndexedWithSignature(JacobianPoint publicKey, int index)
```

#### **Parameters**

#### publicKey JacobianPoint

The public key to be used in the puzzle program.

#### index <u>int</u>♂

The index to be used in the puzzle program.

#### Returns

Program

A puzzle program.

# MeltableGenesisByCoinId(byte[])

Creates a puzzle program using the "meltableGenesisByCoinId" puzzle with the specified coin ID.

```
public static Program MeltableGenesisByCoinId(byte[] coinId)
```

#### **Parameters**

#### coinId <u>byte</u> []

The coin ID to be used in the puzzle program.

#### Returns

Program

A puzzle program.

# **Class WalletOptions**

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents the options for a wallet.

public class WalletOptions

#### Inheritance

object <a>□</a> ← WalletOptions

#### **Inherited Members**

 $\underline{object.Equals(object)} \ \ \ \ \ \underline{object.Equals(object, object)} \ \ \ \ \ \underline{object.MemberwiseClone()} \ \ \ \ \underline{object.ReferenceEquals(object, object)} \ \ \ \ \underline{object.ToString()} \ \ \ \ \underline{object.ToString()} \ \ \ \ \underline{object.ToString()} \ \ \underline{object.ToStr$ 

### **Fields**

# DefaultWalletOptions

Gets the default wallet options.

public static readonly WalletOptions DefaultWalletOptions

#### Field Value

**WalletOptions** 

Represents the options for a wallet.

# **Properties**

### InstantCoinRecords

Gets or sets a value indicating whether instant coin records are enabled.

```
public bool InstantCoinRecords { get; init; }
```

### Property Value

Represents the options for a wallet.

### MaxAddressCount

Gets or sets the maximum address count.

```
public int MaxAddressCount { get; init; }
```

### Property Value

<u>int</u>♂

Represents the options for a wallet.

### MinAddressCount

Gets or sets the minimum address count.

```
public int MinAddressCount { get; init; }
```

### Property Value

<u>int</u>♂

Represents the options for a wallet.

### UnusedAddressCount

Gets or sets the count of unused addresses.

```
public int UnusedAddressCount { get; init; }
```

# Property Value

<u>int</u>♂

Represents the options for a wallet.

### Class Wallet<T>

Namespace: <a href="mailto:chia.dotnet.wallet">chia.dotnet.wallet</a>. Assembly: <a href="mailto:chia-dotnet-wallet.dll">chia.dotnet-wallet.dll</a>

Represents an abstract wallet class that provides common functionality for different types of wallets.

```
public abstract class Wallet<T> where T : Program
```

### Type Parameters

T

The type of program associated with the wallet.

#### Inheritance

object d ← Wallet<T>

#### **Derived**

AssetWallet, StandardWallet

#### **Inherited Members**

 $\underline{object.Equals(object)} \ \ \ \ \ \underline{object.Equals(object, object)} \ \ \ \ \ \ \underline{object.GetHashCode()} \ \ \ \ \ \underline{object.GetType()} \ \ \ \ \ \ \underline{object.MemberwiseClone()} \ \ \ \ \ \underline{object.ReferenceEquals(object, object)} \ \ \ \ \ \underline{object.ToString()} \ \ \ \ \ \underline{object.ToString()} \ \ \ \ \ \underline{object.ToString()} \ \ \ \ \ \ \underline{object.ToString()} \ \ \ \ \underline{object.ToString()} \ \ \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \underline{object.ToString($ 

#### Constructors

### Wallet(FullNodeProxy, KeyStore, WalletOptions?)

Represents an abstract wallet class that provides common functionality for different types of wallets.

```
protected Wallet(FullNodeProxy node, KeyStore keyStore, WalletOptions? walletOptions = null)
```

#### **Parameters**

node FullNodeProxy

Represents an abstract wallet class that provides common functionality for different types of wallets.

#### keyStore KeyStore

Represents an abstract wallet class that provides common functionality for different types of wallets.

#### walletOptions WalletOptions

Represents an abstract wallet class that provides common functionality for different types of wallets.

# **Properties**

### ArtificialCoinRecords

Gets the list of chia.dotnet.CoinRecord instances representing the artificial coin records associated with the wallet.

```
public List<CoinRecord> ArtificialCoinRecords { get; }
```

### Property Value

<u>List</u> < CoinRecord >

Represents an abstract wallet class that provides common functionality for different types of wallets.

### CoinRecords

Gets or sets the list of lists of chia.dotnet.CoinRecord instances representing the coin records associated with the wallet.

```
public List<List<CoinRecord>> CoinRecords { get; }
```

### Property Value

```
<u>List</u> ♂ < <u>List</u> ♂ < CoinRecord > >
```

Represents an abstract wallet class that provides common functionality for different types of wallets.

# KeyStore

Gets or sets the **KeyStore** instance used for managing keys.

```
public KeyStore KeyStore { get; init; }
```

### Property Value

#### **KeyStore**

Represents an abstract wallet class that provides common functionality for different types of wallets.

### Node

Gets or sets the chia.dotnet.FullNodeProxy instance used for interacting with the Chia full node.

```
public FullNodeProxy Node { get; init; }
```

### Property Value

FullNodeProxy

Represents an abstract wallet class that provides common functionality for different types of wallets.

# **Options**

Gets or sets the WalletOptions instance used for configuring wallet options.

```
public WalletOptions Options { get; init; }
```

### Property Value

#### **WalletOptions**

Represents an abstract wallet class that provides common functionality for different types of wallets.

### PuzzleCache

Gets the list of T instances representing the puzzle cache associated with the wallet.

```
public List<T> PuzzleCache { get; }
```

### Property Value

<u>List</u> d' <T>

Represents an abstract wallet class that provides common functionality for different types of wallets.

### **Methods**

### ClearUnconfirmedTransactions(CancellationToken)

Clears the unconfirmed transactions associated with the wallet.

public Task ClearUnconfirmedTransactions(CancellationToken cancellationToken = default)

#### **Parameters**

cancellationToken CancellationToken ☑

Returns

**Task** ☑

### CoinRecordIndex(CoinRecord)

Gets the index of the given coin record in the puzzle cache.

public int CoinRecordIndex(CoinRecord coinRecord)

#### **Parameters**

coinRecord CoinRecord

The coin record to find the index of.

Returns

#### <u>int</u>♂

The index of the coin record in the puzzle cache.

# CompleteSpend(SpendBundle, CancellationToken)

Completes the spend of the given spend bundle.

public Task CompleteSpend(SpendBundle spendBundle, CancellationToken cancellationToken
= default)

#### **Parameters**

spendBundle SpendBundle

Returns

<u>Task</u> ☑

Exceptions

**Exception** □

# CreatePuzzle(KeyPair)

Creates a new instance of the program associated with the wallet using the given key pair.

```
public abstract T CreatePuzzle(KeyPair keyPair)
```

#### **Parameters**

keyPair <u>KeyPair</u>

The key pair to use for creating the program.

Returns

The created program instance.

# CreateSpend()

Creates a new spend bundle.

```
public SpendBundle CreateSpend()
```

#### Returns

SpendBundle

SpendBundle

### FetchCoinRecords(CancellationToken)

Fetches the coin records associated with the wallet from the Chia network.

```
public Task FetchCoinRecords(CancellationToken cancellationToken = default)
```

#### **Parameters**

cancellationToken CancellationToken ☑

#### Returns

<u>Task</u> ☑

An awaitable Task

### FindUnusedIndices(int, List<int>, bool, CancellationToken)

Finds the unused indices for the wallet.

```
public Task<List<int>> FindUnusedIndices(int amount, List<int> used, bool presynced = false,
```

#### **Parameters**

amount <u>int</u>♂

used <u>List</u>♂<<u>int</u>♂>

Returns

Task♂ < List♂ < int♂ > >

The list of indices

### Exceptions

**Exception** ☑

# GetBalance()

Gets the balance of the wallet.

public BigInteger GetBalance()

#### Returns

<u>BigInteger</u> ☑

The balance

# SelectCoinRecords(BigInteger, CoinSelection, int, bool)

Selects coin records for spending.

public List<CoinRecord> SelectCoinRecords(BigInteger amount, CoinSelection coinSelection,

```
int minimumCoinRecords = 0, bool required = true)
Parameters
amount <u>BigInteger</u> □
coinSelection CoinSelection
minimumCoinRecords int♂
required <u>bool</u>♂
Returns
<u>List</u> < CoinRecord >
Exceptions
Exception □
SignSpend(SpendBundle, byte[])
Signs the given spend bundle with the wallet's private key and returns the signed spend bundle.
 public abstract SpendBundle SignSpend(SpendBundle spendBundle, byte[] aggSigMeExtraData)
Parameters
spendBundle SpendBundle
  The spend bundle to sign.
aggSigMeExtraData <u>byte</u> []
  The extra data to include in the aggregated signature.
```

### Returns

SpendBundle

The signed spend bundle.

# Sync(WalletOptions?, CancellationToken)

Synchronizes the wallet with the Chia network, fetching new coin records and updating the puzzle cache.

#### **Parameters**

#### overrideOptions WalletOptions

The wallet options to use for synchronization. If null, the default wallet options will be used.

#### 

The cancellation token.

#### Returns

#### <u>Task</u> ☑

A task representing the asynchronous synchronization operation.