Postchain Client for Unity

Documentation for v0.4.0

Abstract

The Postchain Client C# for Unity offers a library that can interact with the Chromia platform “Postchain”. The source code can be found on GitHub, where the README contains a code example which shows how to use the library. For information about Rell, visit Chromias official documentation or the Developer Chat on Telegram.

Dependencies

A Newtonsoft.Json library is needed for operation. Either use the framework available on nuget or from the Unity Asset Store. The latter is strongly recommended.

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API

Chromia.Postchain.Client.RESTClient

Properties

BlockchainRID	Gets the blockchain RID of the session.
RequestTimeout	Gets and sets the timeout for REST calls. Behaves like HttpWebRequest.Timeout. The default value is 1000 milliseconds (1 second).

Constructors

RestClient(string)	Initializes a new instance of the RestClient class, using the specified URL base for transactions.
RestClient(string, string)	Initializes a new instance of the RestClient class, using the specified URL base and fixed blockchain RID for transactions.

Methods

InitializeBRIDFromChainID(int)	Retrieves the blockchain RID for the chain ID given as parameter asynchronously from the Postchain node and saves it. Returns a PostchainErrorControl object.

Chromia.Postchain.Client.GTXClient

Constructors

GTXClient(RESTClient)	Initializes a new instance of the GTXClient class, using the specified RestClient to interact with the Postchain.

Methods

NewTransaction(byte[][])	Creates a new Transaction object. Takes a set of signers (i.e. pubkeys) for the transaction as parameter. Returns an empty Transaction object.
Query<T>(string, params (string, object))	Executes the query with the given name asynchronously at the Postchain. Takes a variable amount of parameters, which consists of parameter name in the Rell query and its content. Returns a tuple of the query content parsed to the given generic type and a PostchainErrorControl object.

Chromia.Postchain.Client.Transaction

Methods

AddOperation(string, params object)	Adds a call to a Rell operation to the transaction. Takes a variable amount of parameters for the Rell operation (the order of the parameters has to match).
Sign(byte[], byte[])	Signs the transaction with the given public/private key pair.
PostAndWaitConfirmation()	Sends the transaction to the Postchain and waits asynchronously for the confirmation. Returns a PostchainErrorControl object.

Chromia.Postchain.Client.PostchainErrorControl

Properties

Error	Indicates whether an error occurred while communicating with the Postchain.
ErrorMessage	Gives an approximation why the call failed.

Constructors

PostchainErrorControl()	Initializes a new instance of the PostchainErrorControl class.
PostchainErrorControl(bool, string)	Initializes a new instance of the PostchainErrorControl class and sets the Error and ErrorMessage properties.

Chromia.Postchain.Client.PostchainUtil (static)

Methods

Sha256(byte[])	Hashes a buffer with the sha256 hashing function.
Sign(byte[], byte[])	Signs a buffer with the given private key.
MakeKeyPair()	Creates a new public/private key pair and returns it in a dictionary with keys “privKey” and “pubKey”.
HexStringToBuffer(string)	Converts a string which represents a hex number to a byte array.
ByteArrayToString(byte[])	Converts a byte array to a readable string.
StringToByteArray(string)	Converts each character in the given string to its byte representation.