

ChildToParentMessageNitro

Classes

ChildToParentMessageNitro

Base functionality for nitro Child->Parent messages

Extended by

- [ChildToParentMessageReaderNitro](#)

Methods

fromEvent()

static

fromEvent < T

(parentSignerOrProvider :

T , event : object , parentProvider ? : Provider) : ChildToParentMessageReaderOrWriterNitro < T

Instantiates a newChildToParentMessageWriterNitro orChildToParentMessageReaderNitro object.

Type parameters

Type parameter T extends SignerOrProvider

Parameters

Parameter Type Description parentSignerOrProvider T Signer or provider to be used for executing or reading the Child-to-Parent message. event object The event containing the data of the Child-to-Parent message. event.arbBlockNum BigNumber - event.caller ? string - event.callvalue ? BigNumber - event.data ? string - event.destination ? string - event.ethBlockNum ? BigNumber - event.hash ? BigNumber - event.position ? BigNumber - event.timestamp ? BigNumber - parentProvider ? Provider Optional. Used to override the Provider which is attached toparentSignerOrProvider in case you need more control. This will be a required parameter in a future major version update.

Returns

[ChildToParentMessageReaderOrWriterNitro](#) <T

Source

[message/ChildToParentMessageNitro.ts:148](#)

ChildToParentMessageReaderNitro

Provides read-only access nitro for child-to-parent-messages

Extends

- [ChildToParentMessageNitro](#)

Extended by

- [ChildToParentMessageWriterNitro](#)

Methods

getFirstExecutableBlock()

getFirstExecutableBlock (childProvider : Provider) :

Promise < null

| BigNumber

Estimates the L1 block number in which this L2 to L1 tx will be available for execution. If the message can or already has been executed, this returns null

Parameters

Parameter	Type	Description
childProvider	Provider	

Returns

Promise <null |BigNumber

expected parent chain block number where the child chain to parent chain message will be executable. Returns null if the message can be or already has been executed

Source

[message/ChildToParentMessageNitro.ts:596](#)

getRollupAndUpdateNetwork()

private

getRollupAndUpdateNetwork (arbitrumNetwork : ArbitrumNetwork) :

Promise < RollupUserLogic | BoldRollupUserLogic

If the local network is not currently bold, checks if the remote network is bold and if so updates the local network with a new rollup address

Parameters

Parameter	Type	Description
arbitrumNetwork	ArbitrumNetwork	

Returns

Promise <RollupUserLogic |BoldRollupUserLogic

The rollup contract, bold or legacy

Source

[message/ChildToParentMessageNitro.ts:567](#)

hasExecuted()

protected

hasExecuted (childProvider : Provider) :

Promise < boolean

Check if this message has already been executed in the Outbox

Parameters

Parameter	Type	Description
childProvider	Provider	

Returns

Promise <boolean

Source

[message/ChildToParentMessageNitro.ts:225](#)

isBold()

private

isBold (arbitrumNetwork : ArbitrumNetwork , parentProvider : Provider) :

Promise < undefined

|

string

Check whether the provided network has a BoLD rollup

Parameters

Parameter Type arbitrumNetwork [ArbitrumNetwork](#) parentProvider Provider

Returns

Promise <undefined |string

Source

[message/ChildToParentMessageNitro.ts:531](#)

status()

status (childProvider : Provider) :

Promise < ChildToParentMessageStatus

Get the status of this message In order to check if the message has been executed proof info must be provided.

Parameters

Parameter Type childProvider Provider

Returns

Promise <ChildToParentMessageStatus

Source

[message/ChildToParentMessageNitro.ts:240](#)

waitUntilReadyToExecute()

waitUntilReadyToExecute (childProvider : Provider , retryDelay :

number) :

Promise < CONFIRMED

|

EXECUTED

Waits until the outbox entry has been created, and will not return until it has been. WARNING: Outbox entries are only created when the corresponding node is confirmed. Which can take 1 week+, so waiting here could be a very long operation.

Parameters

Parameter Type Default value Description childProvider Provider undefined - retryDelay number 500

Returns

Promise <CONFIRMED |EXECUTED

outbox entry status (either executed or confirmed but not pending)

Source

[message/ChildToParentMessageNitro.ts:507](#)

fromEvent()

static

fromEvent < T

(parentSignerOrProvider :

T , event : object , parentProvider ? : Provider) : ChildToParentMessageReaderOrWriterNitro < T

Instantiates a newChildToParentMessageWriterNitro orChildToParentMessageReaderNitro object.

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Parameters

Parameter Type Description parentSignerOrProvider T Signer or provider to be used for executing or reading the Child-to-Parent message. event object The event containing the data of the Child-to-Parent message. event.arbBlockNum BigNumber - event.caller ? string - event.callvalue ? BigNumber - event.data ? string - event.destination ? string - event.ethBlockNum ? BigNumber - event.hash ? BigNumber - event.position ? BigNumber - event.timestamp ? BigNumber - parentProvider ? Provider Optional. Used to override the Provider which is attached toparentSignerOrProvider in case you need more control. This will be a required parameter in a future major version update.

Returns

[ChildToParentMessageReaderOrWriterNitro](#) <T

Inherited from

[ChildToParentMessageNitro](#) .fromEvent

Source

[message/ChildToParentMessageNitro.ts:148](#)

ChildToParentMessageWriterNitro

Provides read and write access for nitro child-to-Parent-messages

Extends

- [ChildToParentMessageReaderNitro](#)

Constructors

new ChildToParentMessageWriterNitro()

new

ChildToParentMessageWriterNitro (parentSigner : Signer , event : object , parentProvider ? : Provider) :
ChildToParentMessageWriterNitro Instantiates a newChildToParentMessageWriterNitro object.

Parameters

Parameter Type Description parentSigner Signer The signer to be used for executing the Child-to-Parent message. event object The event containing the data of the Child-to-Parent message. event.arbBlockNum BigNumber - event.caller ? string - event.callvalue ? BigNumber - event.data ? string - event.destination ? string - event.ethBlockNum ? BigNumber -

event.hash ? BigNumber - event.position ? BigNumber - event.timestamp ? BigNumber - parentProvider ? Provider Optional. Used to override the Provider which is attached to parentSigner in case you need more control. This will be a required parameter in a future major version update.

Returns

[ChildToParentMessageWriterNitro](#)

Overrides

ChildToParentMessageReaderNitro.constructor

Source

[message/ChildToParentMessageNitro.ts:724](#)

Properties

Property Modifier Type Description parentSigner private Signer The signer to be used for executing the Child-to-Parent message.

Methods

execute()

execute (childProvider : Provider , overrides ? : Overrides) :

Promise < ContractTransaction

Executes the ChildToParentMessage on Parent Chain. Will throw an error if the outbox entry has not been created, which happens when the corresponding assertion is confirmed.

Parameters

Parameter Type childProvider Provider overrides ? Overrides

Returns

Promise <ContractTransaction

Source

[message/ChildToParentMessageNitro.ts:738](#)

getFirstExecutableBlock()

getFirstExecutableBlock (childProvider : Provider) :

Promise < null

| BigNumber

Estimates the L1 block number in which this L2 to L1 tx will be available for execution. If the message can or already has been executed, this returns null

Parameters

Parameter Type Description childProvider Provider

Returns

Promise <null |BigNumber

expected parent chain block number where the child chain to parent chain message will be executable. Returns null if the message can be or already has been executed

Inherited from

[ChildToParentMessageReaderNitro .getFirstExecutableBlock](#)

Source

[message/ChildToParentMessageNitro.ts:596](#)

hasExecuted()

protected

hasExecuted (childProvider : Provider) :

Promise < boolean

Check if this message has already been executed in the Outbox

Parameters

Parameter Type childProvider Provider

Returns

Promise <boolean

Inherited from

[ChildToParentMessageReaderNitro .hasExecuted](#)

Source

[message/ChildToParentMessageNitro.ts:225](#)

status()

status (childProvider : Provider) :

Promise < ChildToParentMessageStatus

Get the status of this message In order to check if the message has been executed proof info must be provided.

Parameters

Parameter Type childProvider Provider

Returns

Promise <ChildToParentMessageStatus

Inherited from

[ChildToParentMessageReaderNitro .status](#)

Source

[message/ChildToParentMessageNitro.ts:240](#)

waitUntilReadyToExecute()

waitUntilReadyToExecute (childProvider : Provider , retryDelay :
number) :

Promise < CONFIRMED

|

EXECUTED

Waits until the outbox entry has been created, and will not return until it has been. WARNING: Outbox entries are only created when the corresponding node is confirmed. Which can take 1 week+, so waiting here could be a very long operation.

Parameters

Parameter	Type	Default value	Description
childProvider	Provider	undefined	retryDelay number 500

Returns

Promise <CONFIRMED | EXECUTED

outbox entry status (either executed or confirmed but not pending)

Inherited from

[ChildToParentMessageReaderNitro](#) .[waitUntilReadyToExecute](#)

Source

[message/ChildToParentMessageNitro.ts:507](#)

fromEvent()

static

fromEvent < T

(parentSignerOrProvider :

T , event : object , parentProvider ? : Provider) : ChildToParentMessageReaderOrWriterNitro < T

Instantiates a newChildToParentMessageWriterNitro orChildToParentMessageReaderNitro object.

Type parameters

Type parameter T extends SignerOrProvider

Parameters

Parameter	Type	Description
parentSignerOrProvider	T	Signer or provider to be used for executing or reading the Child-to-Parent message.
event	object	The event containing the data of the Child-to-Parent message.
event.arbBlockNum	BigNumber	- event.caller ? string - event.callvalue ? BigNumber - event.data ? string - event.destination ? string - event.ethBlockNum ? BigNumber - event.hash ? BigNumber - event.position ? BigNumber - event.timestamp ? BigNumber - parentProvider ? Provider
parentProvider	Provider	Optional. Used to override the Provider which is attached toparentSignerOrProvider in case you need more control. This will be a required parameter in a future major version update.

Returns

[ChildToParentMessageReaderOrWriterNitro](#) <T

Inherited from

[ChildToParentMessageReaderNitro](#) .[fromEvent](#)

Source

[message/ChildToParentMessageNitro.ts:148](#)

Type Aliases

ChildToParentMessageReaderOrWriterNitro

type

ChildToParentMessageReaderOrWriterNitro < T

:

T

extends

Provider

? ChildToParentMessageReaderNitro : ChildToParentMessageWriterNitro ; Conditional type for Signer or Provider. If T is of type Provider then ChildToParentMessageReaderOrWriter will be of type ChildToParentMessageReader. If T is of type Signer then ChildToParentMessageReaderOrWriter will be of type ChildToParentMessageWriter.

Type parameters

Type parameter T extends SignerOrProvider

Source

[message/ChildToParentMessageNitro.ts:64](#) [Edit this page](#) [Previous](#) [ChildToParentMessageClassic](#) [Next](#) [ChildTransaction](#)