

# Module sui::token

The Token module which implements a Closed Loop Token with a configurable policy. The policy is defined by a set of rules that must be satisfied for an action to be performed on the token.

The module is designed to be used with a TreasuryCap to allow for minting and burning of the [Token](#) s. And can act as a replacement / extension or a companion to existing open-loop (Coin) systems.

The Token system allows for fine-grained control over the actions performed on the token. And hence it is highly suitable for applications that require control over the currency which a simple open-loop system can't provide.

A single [Token](#) with Balance inside. Can only be owned by an address, and actions performed on it must be confirmed in a matching [TokenPolicy](#) .

A Capability that manages a single [TokenPolicy](#) specified in the for field. Created together with [TokenPolicy](#) in the new function.

[TokenPolicy](#) represents a set of rules that define what actions can be performed on a [Token](#) and which Rules must be satisfied for the action to succeed.

A request to perform an "Action" on a token. Stores the information about the action to be performed and must be consumed by the [confirm\\_request](#) or [confirm\\_request\\_mut](#) functions when the Rules are satisfied.

Dynamic field key for the [TokenPolicy](#) to store the Config for a specific action Rule. There can be only one configuration per Rule per [TokenPolicy](#) .

An event emitted when a [TokenPolicy](#) is created and shared. Because [TokenPolicy](#) can only be shared (and potentially frozen in the future), we emit this event in the [share\\_policy](#) function and mark it as mutable.

The action is not allowed (defined) in the policy.

The rule was not approved.

Trying to perform an admin action with a wrong cap.

The balance is too low to perform the action.

The balance is not zero.

The balance is not zero when trying to confirm with TransferPolicyCap.

Rule is trying to access a missing config (with type).

Using [confirm\\_request\\_mut](#) without [spent\\_balance](#) . Immutable version of the function must be used instead.

A Tag for the [spend](#) action.

A Tag for the [transfer](#) action.

A Tag for the [to\\_coin](#) action.

A Tag for the [from\\_coin](#) action.

Create a new [TokenPolicy](#) and a matching [TokenPolicyCap](#) . The [TokenPolicy](#) must then be shared using the [share\\_policy](#) method.

TreasuryCap guarantees full ownership over the currency, and is unique, hence it is safe to use it for authorization.

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) .

[spent\\_balance](#) .

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

Join two [Token](#) s into one, always available.

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

Create a zero [Token](#) .

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

Transfer the [Token](#) to the transaction sender.

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

Burn a [Token](#) using the TreasuryCap.

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

Check whether an action is present in the rules VecMap.

Returns the rules required for a specific action.

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

Returns the [balance](#) of the [Token](#) .

Name of the Transfer action.

Name of the Spend action.

Name of the ToCoin action.

Name of the FromCoin action.

The Action in the [ActionRequest](#) .

Amount of the [ActionRequest](#) .

Sender of the [ActionRequest](#) .

Recipient of the [ActionRequest](#) .

Approvals of the [ActionRequest](#) .

Burned balance of the [ActionRequest](#) .

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

## Struct

A single [Token](#) with Balance inside. Can only be owned by an address, and actions performed on it must be confirmed in a matching [TokenPolicy](#) .

```
```bash
```

...

A Capability that manages a single [TokenPolicy](#) specified in the for field. Created together with [TokenPolicy](#) in the new function.

```bash

...

[TokenPolicy](#) represents a set of rules that define what actions can be performed on a [Token](#) and which Rules must be satisfied for the action to succeed.

```bash

...

A request to perform an "Action" on a token. Stores the information about the action to be performed and must be consumed by the [confirm\\_request](#) or [confirm\\_request\\_mut](#) functions when the Rules are satisfied.

```bash

...

Dynamic field key for the [TokenPolicy](#) to store the Config for a specific action Rule. There can be only one configuration per Rule per [TokenPolicy](#).

```bash

...

An event emitted when a [TokenPolicy](#) is created and shared. Because [TokenPolicy](#) can only be shared (and potentially frozen in the future), we emit this event in the [share\\_policy](#) function and mark it as mutable.

```bash

...

The action is not allowed (defined) in the policy.

```bash

...

The rule was not approved.

```bash

...

Trying to perform an admin action with a wrong cap.

```bash

...

The balance is too low to perform the action.

```bash

...

The balance is not zero.

```bash

...

The balance is not zero when trying to confirm with TransferPolicyCap.

```
```bash
```

```
```
```

Rule is trying to access a missing config (with type).

```
```bash
```

```
```
```

Using [confirm\\_request\\_mut](#) without [spent\\_balance](#) . Immutable version of the function must be used instead.

```
```bash
```

```
```
```

A Tag for the [spend](#) action.

```
```bash
```

```
```
```

A Tag for the [transfer](#) action.

```
```bash
```

```
```
```

A Tag for the [to\\_coin](#) action.

```
```bash
```

```
```
```

A Tag for the [from\\_coin](#) action.

```
```bash
```

```
```
```

Create a new [TokenPolicy](#) and a matching [TokenPolicyCap](#) . The [TokenPolicy](#) must then be shared using the [share\\_policy](#) method.

TreasuryCap guarantees full ownership over the currency, and is unique, hence it is safe to use it for authorization.

```
```bash
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```bash
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```
```
```

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

```
```bash
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```
```bash
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```
```
```

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

```
```bash
```

```
'''
```

```
'''bash
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```
'''
```

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
'''bash
```

```
'''
```

```
'''bash
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```
'''
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
'''bash
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```
'''
```

```
'''bash
```

```
'''
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
'''bash
```

```
'''
```

```
'''bash
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```
'''
```

Join two [Token](#) s into one, always available.

```
'''bash
```

```
'''
```

```
'''bash
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```
'''
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
'''bash
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```
'''
```

```
'''bash
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```
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```

Create a zero [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

'''

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

'''bash

'''

'''bash

'''

Transfer the [Token](#) to the transaction sender.

'''bash

'''

'''bash

'''

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

'''bash

'''

'''bash

'''

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

'''bash

'''

'''bash

'''

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

'''bash

'''

'''bash

'''

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
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```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```



'''

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

'''bash

'''

'''bash

'''

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

'''bash

'''

'''bash

'''

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

'''bash

'''

'''bash

'''

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

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```
'''bash
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```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the rules required for a specific action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
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```
```
```

```
```bash
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```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
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```bash
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```
```
```

Name of the Transfer action.

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```bash
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```
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```

```
```bash
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```
```
```

Name of the Spend action.

```
```bash
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```bash
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```
```
```

Name of the ToCoin action.

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```bash
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```
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```
```bash
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```
```
```

Name of the FromCoin action.

```
```bash
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```bash
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```
```

The Action in the [ActionRequest](#) .

```
```bash
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```
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```bash
```

'''

Amount of the [ActionRequest](#) .

'''bash

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'''bash

'''

Sender of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Recipient of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Approvals of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Burned balance of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

'''bash

'''

'''bash

'''

**Struct**

A Capability that manages a single [TokenPolicy](#) specified in the for field. Created together with [TokenPolicy](#) in the new function.

```
```bash
```

```
```
```

[TokenPolicy](#) represents a set of rules that define what actions can be performed on a [Token](#) and which Rules must be satisfied for the action to succeed.

```
```bash
```

```
```
```

A request to perform an "Action" on a token. Stores the information about the action to be performed and must be consumed by the [confirm\\_request](#) or [confirm\\_request\\_mut](#) functions when the Rules are satisfied.

```
```bash
```

```
```
```

Dynamic field key for the [TokenPolicy](#) to store the Config for a specific action Rule. There can be only one configuration per Rule per [TokenPolicy](#).

```
```bash
```

```
```
```

An event emitted when a [TokenPolicy](#) is created and shared. Because [TokenPolicy](#) can only be shared (and potentially frozen in the future), we emit this event in the [share\\_policy](#) function and mark it as mutable.

```
```bash
```

```
```
```

The action is not allowed (defined) in the policy.

```
```bash
```

```
```
```

The rule was not approved.

```
```bash
```

```
```
```

Trying to perform an admin action with a wrong cap.

```
```bash
```

```
```
```

The balance is too low to perform the action.

```
```bash
```

```
```
```

The balance is not zero.

```
```bash
```

```
```
```

The balance is not zero when trying to confirm with TransferPolicyCap.

```
```bash
```

'''

Rule is trying to access a missing config (with type).

'''bash

'''

Using [confirm\\_request\\_mut](#) without [spent\\_balance](#) . Immutable version of the function must be used instead.

'''bash

'''

A Tag for the [spend](#) action.

'''bash

'''

A Tag for the [transfer](#) action.

'''bash

'''

A Tag for the [to\\_coin](#) action.

'''bash

'''

A Tag for the [from\\_coin](#) action.

'''bash

'''

Create a new [TokenPolicy](#) and a matching [TokenPolicyCap](#) . The [TokenPolicy](#) must then be shared using the [share\\_policy](#) method.

TreasuryCap guarantees full ownership over the currency, and is unique, hence it is safe to use it for authorization.

'''bash

'''

'''bash

'''

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

'''bash

'''

'''bash

'''

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

'''bash

'''

```
```bash
```

```
```
```

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
```bash
```

```
```
```

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```bash
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```
```
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
```bash
```

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```

```
```bash
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```
```
```

Join two [Token](#) s into one, always available.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
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```
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```

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```bash
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```
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```

Create a zero [Token](#) .

```
```bash
```

```
```
```

```
```bash
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```
```
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
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```bash
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```
```

Transfer the [Token](#) to the transaction sender.

```
```bash
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```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
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```
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```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```



```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
'''bash
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```
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'''bash
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```
'''
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
...
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the rules required for a specific action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [balance](#) of the [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the Transfer action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the Spend action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the ToCoin action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the FromCoin action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

The Action in the [ActionRequest](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Struct

[TokenPolicy](#) represents a set of rules that define what actions can be performed on a [Token](#) and which Rules must be satisfied for

the action to succeed.

```
```bash
```

```
```
```

A request to perform an "Action" on a token. Stores the information about the action to be performed and must be consumed by the [confirm\\_request](#) or [confirm\\_request\\_mut](#) functions when the Rules are satisfied.

```
```bash
```

```
```
```

Dynamic field key for the [TokenPolicy](#) to store the Config for a specific action Rule. There can be only one configuration per Rule per [TokenPolicy](#).

```
```bash
```

```
```
```

An event emitted when a [TokenPolicy](#) is created and shared. Because [TokenPolicy](#) can only be shared (and potentially frozen in the future), we emit this event in the [share\\_policy](#) function and mark it as mutable.

```
```bash
```

```
```
```

The action is not allowed (defined) in the policy.

```
```bash
```

```
```
```

The rule was not approved.

```
```bash
```

```
```
```

Trying to perform an admin action with a wrong cap.

```
```bash
```

```
```
```

The balance is too low to perform the action.

```
```bash
```

```
```
```

The balance is not zero.

```
```bash
```

```
```
```

The balance is not zero when trying to confirm with TransferPolicyCap.

```
```bash
```

```
```
```

Rule is trying to access a missing config (with type).

```
```bash
```

'''

Using [confirm\\_request\\_mut](#) without [spent\\_balance](#) . Immutable version of the function must be used instead.

'''bash

'''

A Tag for the [spend](#) action.

'''bash

'''

A Tag for the [transfer](#) action.

'''bash

'''

A Tag for the [to\\_coin](#) action.

'''bash

'''

A Tag for the [from\\_coin](#) action.

'''bash

'''

Create a new [TokenPolicy](#) and a matching [TokenPolicyCap](#) . The [TokenPolicy](#) must then be shared using the [share\\_policy](#) method.

TreasuryCap guarantees full ownership over the currency, and is unique, hence it is safe to use it for authorization.

'''bash

'''

'''bash

'''

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

'''bash

'''

'''bash

'''

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

'''bash

'''

'''bash

'''

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Join two [Token](#) s into one, always available.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a zero [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
```

```
```
```



```
```bash
```

```
```
```

Transfer the [Token](#) to the transaction sender.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Returns the rules required for a specific action.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
...
```

```
```bash
```

'''

Returns the [balance](#) of the [Token](#) .

'''bash

'''

'''bash

'''

Name of the Transfer action.

'''bash

'''

'''bash

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Struct

A request to perform an "Action" on a token. Stores the information about the action to be performed and must be consumed by the [confirm\\_request](#) or [confirm\\_request\\_mut](#) functions when the Rules are satisfied.

```
```bash
```

```
```
```

Dynamic field key for the [TokenPolicy](#) to store the Config for a specific action Rule. There can be only one configuration per Rule per [TokenPolicy](#) .

```
```bash
```

```
```
```

An event emitted when a [TokenPolicy](#) is created and shared. Because [TokenPolicy](#) can only be shared (and potentially frozen in the future), we emit this event in the [share\\_policy](#) function and mark it as mutable.

```
```bash
```

```
```
```

The action is not allowed (defined) in the policy.

```
```bash
```

```
```
```

The rule was not approved.

```
```bash
```

```
```
```

Trying to perform an admin action with a wrong cap.

```
```bash
```

```
```
```

The balance is too low to perform the action.

```
```bash
```

```
```
```

The balance is not zero.

```
```bash
```

```
```
```

The balance is not zero when trying to confirm with TransferPolicyCap.

```
```bash
```

```
```
```

Rule is trying to access a missing config (with type).

```
```bash
```

```
```
```

Using [confirm\\_request\\_mut](#) without [spent\\_balance](#) . Immutable version of the function must be used instead.

```
```bash
```

```
```
```

A Tag for the [spend](#) action.

```
```bash
```

```
```
```

A Tag for the [transfer](#) action.

```
```bash
```

```
```
```

A Tag for the [to\\_coin](#) action.

```
```bash
```

```
```
```

A Tag for the [from\\_coin](#) action.

```
```bash
```

```
```
```

Create a new [TokenPolicy](#) and a matching [TokenPolicyCap](#) . The [TokenPolicy](#) must then be shared using the [share\\_policy](#) method. TreasuryCap guarantees full ownership over the currency, and is unique, hence it is safe to use it for authorization.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.



```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Join two [Token](#) s into one, always available.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a zero [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer the [Token](#) to the transaction sender.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

'''

'''bash

'''

Burn a [Token](#) using the TreasuryCap.

'''bash

'''

'''bash

'''

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

'''bash

'''

'''bash

'''

Check whether an action is present in the rules VecMap.

'''bash

'''

'''bash

'''

Returns the rules required for a specific action.

'''bash

'''

'''bash

'''

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Returns the [balance](#) of the [Token](#) .

'''bash

'''

'''bash

'''

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition/ replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Struct

Dynamic field key for the [TokenPolicy](#) to store the Config for a specific action Rule. There can be only one configuration per Rule per [TokenPolicy](#) .

```
```bash
```

```
```
```

An event emitted when a [TokenPolicy](#) is created and shared. Because [TokenPolicy](#) can only be shared (and potentially frozen in the future), we emit this event in the [share\\_policy](#) function and mark it as mutable.

```
```bash
```

```
```
```

The action is not allowed (defined) in the policy.

```
```bash
```

```
```
```

The rule was not approved.

```
```bash
```

```
```
```

Trying to perform an admin action with a wrong cap.

```
```bash
```

```
```
```

The balance is too low to perform the action.

```
```bash
```

```
```
```

The balance is not zero.

```
```bash
```

```
```
```

The balance is not zero when trying to confirm with TransferPolicyCap.

```
```bash
```

```
```
```

Rule is trying to access a missing config (with type).

```
```bash
```

```
```
```

Using [confirm\\_request\\_mut](#) without [spent\\_balance](#) . Immutable version of the function must be used instead.

```
```bash
```

```
```
```

A Tag for the [spend](#) action.

```
```bash
```

```
```
```

A Tag for the [transfer](#) action.

```
```bash
```

```
```
```

A Tag for the [to\\_coin](#) action.

```
```bash
```

```
```
```

A Tag for the [from\\_coin](#) action.

```
```bash
```

```
```
```

Create a new [TokenPolicy](#) and a matching [TokenPolicyCap](#) . The [TokenPolicy](#) must then be shared using the [share\\_policy](#) method.

TreasuryCap guarantees full ownership over the currency, and is unique, hence it is safe to use it for authorization.



```
```bash
```

```
```
```

```
```bash
```

```
```
```

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Join two [Token](#) s into one, always available.

```
```bash
```

'''

'''bash

'''

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

'''bash

'''

'''bash

'''

Create a zero [Token](#) .

'''bash

'''

'''bash

'''

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

'''bash

'''

'''bash

'''

Transfer the [Token](#) to the transaction sender.

'''bash

'''

'''bash

'''

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

'''bash

'''

'''bash

'''

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

'''bash

'''

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#).

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#)).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#).

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#)).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#). Rule configuration is independent from the [TokenPolicy.rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Recipient of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Approvals of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Struct

An event emitted when a [TokenPolicy](#) is created and shared. Because [TokenPolicy](#) can only be shared (and potentially frozen in the future), we emit this event in the [share\\_policy](#) function and mark it as mutable.

```
```bash
```

```
```
```

The action is not allowed (defined) in the policy.

```
```bash
```

```
```
```

The rule was not approved.

```
```bash
```

```
```
```

Trying to perform an admin action with a wrong cap.

```
```bash
```

```
```
```

The balance is too low to perform the action.

```
```bash
```

```
```
```

The balance is not zero.

```
```bash
```

```
```
```

The balance is not zero when trying to confirm with TransferPolicyCap.

```
```bash
```

```
```
```



Rule is trying to access a missing config (with type).

```
```bash
```

```
```
```

Using [confirm\\_request\\_mut](#) without [spent\\_balance](#) . Immutable version of the function must be used instead.

```
```bash
```

```
```
```

A Tag for the [spend](#) action.

```
```bash
```

```
```
```

A Tag for the [transfer](#) action.

```
```bash
```

```
```
```

A Tag for the [to\\_coin](#) action.

```
```bash
```

```
```
```

A Tag for the [from\\_coin](#) action.

```
```bash
```

```
```
```

Create a new [TokenPolicy](#) and a matching [TokenPolicyCap](#) . The [TokenPolicy](#) must then be shared using the [share\\_policy](#) method.

TreasuryCap guarantees full ownership over the currency, and is unique, hence it is safe to use it for authorization.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

```
```bash
```

```
```
```

```
```bash
```

...

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```bash

...

```bash

...

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```bash

...

```bash

...

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```bash

...

```bash

...

Join two [Token](#) s into one, always available.

```bash

...

```bash

...

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```bash

...

```bash

...

Create a zero [Token](#) .

```bash

...

```bash

...

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Transfer the [Token](#) to the transaction sender.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
'''bash
```

```
'''
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence

can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the rules required for a specific action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
'''bash
```

'''

'''bash

'''

Returns the [balance](#) of the [Token](#) .

'''bash

'''

'''bash

'''

Name of the Transfer action.

'''bash

'''

'''bash

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
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```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
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```

```
```bash
```

```
```
```

## Constants

The action is not allowed (defined) in the policy.

```
```bash
```



```
'''
```

The rule was not approved.

```
'''bash
```

```
'''
```

Trying to perform an admin action with a wrong cap.

```
'''bash
```

```
'''
```

The balance is too low to perform the action.

```
'''bash
```

```
'''
```

The balance is not zero.

```
'''bash
```

```
'''
```

The balance is not zero when trying to confirm with TransferPolicyCap.

```
'''bash
```

```
'''
```

Rule is trying to access a missing config (with type).

```
'''bash
```

```
'''
```

Using [confirm\\_request\\_mut](#) without [spent\\_balance](#) . Immutable version of the function must be used instead.

```
'''bash
```

```
'''
```

A Tag for the [spend](#) action.

```
'''bash
```

```
'''
```

A Tag for the [transfer](#) action.

```
'''bash
```

```
'''
```

A Tag for the [to\\_coin](#) action.

```
'''bash
```

```
'''
```

A Tag for the [from\\_coin](#) action.

```
'''bash
```

```
'''
```

Create a new [TokenPolicy](#) and a matching [TokenPolicyCap](#) . The [TokenPolicy](#) must then be shared using the [share\\_policy](#) method.

TreasuryCap guarantees full ownership over the currency, and is unique, hence it is safe to use it for authorization.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Join two [Token](#) s into one, always available.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a zero [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer the [Token](#) to the transaction sender.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
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```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```



'''

Burned balance of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

'''bash

'''

'''bash

'''

## Function

Create a new [TokenPolicy](#) and a matching [TokenPolicyCap](#) . The [TokenPolicy](#) must then be shared using the [share\\_policy](#) method.

TreasuryCap guarantees full ownership over the currency, and is unique, hence it is safe to use it for authorization.

'''bash

'''

'''bash

'''

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

'''bash

'''

'''bash

'''

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

'''bash

'''

'''bash

'''

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Join two [Token](#) s into one, always available.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a zero [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer the [Token](#) to the transaction sender.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

'''

'''bash

'''

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

'''bash

'''

'''bash

'''

Burn a [Token](#) using the TreasuryCap.

'''bash

'''

'''bash

'''

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

'''bash

'''

'''bash

'''

Check whether an action is present in the rules VecMap.

'''bash

'''

'''bash

'''

Returns the rules required for a specific action.

'''bash

'''

'''bash

'''

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Share the [TokenPolicy](#) . Due to [key](#) -only restriction, it must be shared after initialization.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field



to be used in verification.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Join two [Token](#) s into one, always available.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a zero [Token](#) .

```
```bash
```

'''

'''bash

'''

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

'''bash

'''

'''bash

'''

Transfer the [Token](#) to the transaction sender.

'''bash

'''

'''bash

'''

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

'''bash

'''

'''bash

'''

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

'''bash

'''

'''bash

'''

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

'''bash

'''

'''bash

'''

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated

actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

'''

'''bash

'''

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Returns the [balance](#) of the [Token](#) .

'''bash

'''

'''bash

'''

Name of the Transfer action.

'''bash

'''

'''bash

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
'''bash
```

```
'''
```

## Function

Transfer a [Token](#) to a [recipient](#) . Creates an [ActionRequest](#) for the "transfer" action. The [ActionRequest](#) contains the [recipient](#) field to be used in verification.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Join two [Token](#) s into one, always available.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
'''bash
```

```
'''
```



```
'''bash
```

```
'''
```

Create a zero [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Transfer the [Token](#) to the transaction sender.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
'''bash
```

```
'''
```

```
'''bash
```

'''

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

'''bash

'''

'''bash

'''

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

'''bash

'''

'''bash

'''

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

'''bash

'''

'''bash

'''

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

'''bash

'''

'''bash

'''

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
'''bash
```

'''

Returns the rules required for a specific action.

'''bash

'''

'''bash

'''

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Returns the [balance](#) of the [Token](#) .

'''bash

'''

'''bash

'''

Name of the Transfer action.

'''bash

'''

'''bash

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The is\_protected field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Spend a [Token](#) by unwrapping it and storing the Balance in the [ActionRequest](#) for the "spend" action. The [ActionRequest](#) contains the [spent\\_balance](#) field to be used in verification.

Spend action requires [confirm\\_request\\_mut](#) to be called to confirm the request and join the spent balance with the [TokenPolicy](#) . [spent\\_balance](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Join two [Token](#) s into one, always available.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a zero [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer the [Token](#) to the transaction sender.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```



'''

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

'''bash

'''

'''bash

'''

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

'''bash

'''

'''bash

'''

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

'''bash

'''

'''bash

'''

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

'''bash

'''

'''bash

'''

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

'''bash

'''

'''bash

'''

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

## Function

Convert [Token](#) into an open Coin. Creates an [ActionRequest](#) for the "to\_coin" action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Join two [Token](#) s into one, always available.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Create a zero [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Transfer the [Token](#) to the transaction sender.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```



```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the rules required for a specific action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Convert an open Coin into a [Token](#) . Creates an [ActionRequest](#) for the "from\_coin" action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Join two [Token](#) s into one, always available.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a zero [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer the [Token](#) to the transaction sender.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#).

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#)).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#).

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#)).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add a Config for a Rule in the [TokenPolicy](#). Rule configuration is independent from the [TokenPolicy](#). [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
'''bash
```

```
'''
```

```
'''bash
```

'''

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

'''bash

'''

'''bash

'''

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

'''bash

'''

'''bash

'''

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

'''bash

'''

'''bash

'''

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

'''bash

'''

'''bash

'''

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

'''bash

'''

'''bash

'''

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```



```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the rules required for a specific action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [balance](#) of the [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the Transfer action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the Spend action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Join two [Token](#) s into one, always available.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a zero [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer the [Token](#) to the transaction sender.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

'''

'''bash

'''

Name of the Transfer action.

'''bash

'''

'''bash

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .



```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Split a [Token](#) with [amount](#) . Aborts if the [Token](#) . [balance](#) is lower than [amount](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a zero [Token](#) .

```
```bash
```

'''

'''bash

'''

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

'''bash

'''

'''bash

'''

Transfer the [Token](#) to the transaction sender.

'''bash

'''

'''bash

'''

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

'''bash

'''

'''bash

'''

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

'''bash

'''

'''bash

'''

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

'''bash

'''

'''bash

'''

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated

actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

'''

'''bash

'''

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Returns the [balance](#) of the [Token](#) .

'''bash

'''

'''bash

'''

Name of the Transfer action.

'''bash

'''

'''bash

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Create a zero [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer the [Token](#) to the transaction sender.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.



See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#).

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#)).

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#).

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#).

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#)).

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Add a Config for a Rule in the [TokenPolicy](#). Rule configuration is independent from the [TokenPolicy](#). [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Get a Config for a Rule in the [TokenPolicy](#). Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

'''

'''bash

'''

Returns the rules required for a specific action.

'''bash

'''

'''bash

'''

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Returns the [balance](#) of the [Token](#) .

'''bash

'''

'''bash

'''

Name of the Transfer action.

'''bash

'''

'''bash

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Destroy an empty [Token](#) , fails if the balance is non-zero. Aborts if the [Token](#) . [balance](#) is not zero.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Transfer the [Token](#) to the transaction sender.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .



```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Recipient of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Approvals of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Burned balance of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Create a new [RuleKey](#) for a Rule. The is\_protected field is kept for potential future use, if Rules were to have a freely modifiable

storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

## Function

Transfer the [Token](#) to the transaction sender.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a [TreasuryCap](#) is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TreasuryCap](#) owner. This function allows [TreasuryCap](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
'''bash
```

```
'''
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [balance](#) of the [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the Transfer action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the Spend action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the ToCoin action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the FromCoin action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

The Action in the [ActionRequest](#) .

```
'''bash
```



'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Recipient of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Approvals of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Burned balance of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

'''bash

'''

'''bash

...

## Function

Create a new [ActionRequest](#) . Publicly available method to allow for custom actions.

```bash

...

```bash

...

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```bash

...

```bash

...

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```bash

...

```bash

...

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```bash

...

```bash

...

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```bash

...

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Returns the rules required for a specific action.

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
...
```

```
```bash
```

'''

Name of the Transfer action.

'''bash

'''

'''bash

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .

'''bash

'''

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Cannot be used for [spend](#) and similar actions that deliver [spent\\_balance](#) to the [TokenPolicy](#) . For those actions use [confirm\\_request\\_mut](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.



```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Recipient of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Approvals of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Burned balance of the [ActionRequest](#) .

'''bash

'''

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Confirm the request against the [TokenPolicy](#) and return the parameters of the request: (Name, Amount, Sender, Recipient).

Unlike [confirm\\_request](#) this function requires mutable access to the [TokenPolicy](#) and must be used on [spend](#) action. After dealing with the spent balance it calls [confirm\\_request](#) internally.

See [confirm\\_request](#) for the list of abort conditions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#).

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a TreasuryCap is required (see [confirm\\_with\\_treasury\\_cap](#)).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#).

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#)).

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

'''

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

'''bash

'''

'''bash

'''

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

'''bash

'''

'''bash

'''

Burn a [Token](#) using the TreasuryCap.

'''bash

'''

'''bash

'''

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

'''bash

'''

'''bash

'''

Check whether an action is present in the rules VecMap.

'''bash

'''

'''bash

'''

Returns the rules required for a specific action.

'''bash

'''

'''bash

'''

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

'''bash

'''

'''bash

'''

Returns the [balance](#) of the [Token](#) .

'''bash

'''

'''bash

'''

Name of the Transfer action.

'''bash

'''



```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Approvals of the [ActionRequest](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burned balance of the [ActionRequest](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

## Function

Confirm an [ActionRequest](#) as the [TokenPolicyCap](#) owner. This function allows [TokenPolicy](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Aborts if request contains [spent\\_balance](#) due to inability of the [TokenPolicyCap](#) to decrease supply. For scenarios like this a [TreasuryCap](#) is required (see [confirm\\_with\\_treasury\\_cap](#) ).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Confirm an [ActionRequest](#) as the [TreasuryCap](#) owner. This function allows [TreasuryCap](#) owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

'''

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

'''bash

'''

'''bash

'''

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

'''bash

'''

'''bash

'''

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

'''bash

'''

'''bash

'''

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

'''bash

'''

'''bash

'''

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

'''bash

'''

'''bash

'''

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
'''
```

Recipient of the [ActionRequest](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Approvals of the [ActionRequest](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burned balance of the [ActionRequest](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

## Function

Confirm an [ActionRequest](#) as the TreasuryCap owner. This function allows TreasuryCap owner to perform Capability-gated actions ignoring the ruleset specified in the [TokenPolicy](#) .

Unlike [confirm\\_with\\_policy\\_cap](#) this function allows [spent\\_balance](#) to be consumed, decreasing the total\_supply of the [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```



Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Recipient of the [ActionRequest](#) .

'''bash

'''

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Add an "approval" to the [ActionRequest](#) by providing a Witness. Intended to be used by Rules to add their own approvals, however, can be used to add arbitrary approvals to the request (not only the ones required by the [TokenPolicy](#) ).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Add a Config for a Rule in the [TokenPolicy](#) . Rule configuration is independent from the [TokenPolicy](#) . [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Transfer action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the Spend action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the ToCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```



```
'''
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

## Function

Add a Config for a Rule in the [TokenPolicy](#). Rule configuration is independent from the [TokenPolicy](#). [rules](#) and needs to be managed by the Rule itself. Configuration is stored per Rule and not per Rule per Action to allow reuse in different actions.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get a Config for a Rule in the [TokenPolicy](#). Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#). Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Remove a Config for a Rule in the [TokenPolicy](#). Unlike the [add\\_rule\\_config](#), this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#).

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the rules required for a specific action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [balance](#) of the [Token](#) .

```
'''bash
```

'''

'''bash

'''

Name of the Transfer action.

'''bash

'''

'''bash

'''

Name of the Spend action.

'''bash

'''

'''bash

'''

Name of the ToCoin action.

'''bash

'''

'''bash

'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Get a Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself. This requirement guarantees safety of the stored Config and allows for simpler dynamic field management inside the Rule Config (custom type keys are not needed for access gating).

Aborts if the Config is not present.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#) .

```
```bash
```

```
```
```

```
```bash
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```
```
```

Name of the Transfer action.

```
```bash
```

```
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```
```bash
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```
```
```

Name of the Spend action.

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```bash
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```bash
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```
```

Name of the ToCoin action.

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```bash
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```
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```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
```

```
```bash
```



'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Recipient of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Approvals of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Burned balance of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Get mutable access to the Config for a Rule in the [TokenPolicy](#) . Requires Rule witness, hence can only be read by the Rule itself, as well as [TokenPolicyCap](#) to guarantee that the [TokenPolicy](#) owner is the one who initiated the Config modification.

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Remove a Config for a Rule in the [TokenPolicy](#) . Unlike the [add\\_rule\\_config](#) , this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#) .

Aborts if:

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the rules required for a specific action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [balance](#) of the [Token](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Name of the Transfer action.

```
'''bash
```

```
'''
```

```
'''bash
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```
'''
```

Name of the Spend action.

```
'''bash
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```
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```
'''bash
```

```
'''
```

Name of the ToCoin action.

```
'''bash
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```
'''
```

```
```bash
```

```
```
```

Name of the FromCoin action.

```
```bash
```

```
```
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```
```bash
```

```
```
```

The Action in the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Recipient of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

## Function

Remove a Config for a Rule in the [TokenPolicy](#). Unlike the [add\\_rule\\_config](#), this function does not require a Rule witness, hence can be performed by the [TokenPolicy](#) owner on their own.

Rules need to make sure that the Config is present when performing verification of the [ActionRequest](#).

Aborts if:

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#).

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Burn a [Token](#) using the TreasuryCap.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#).

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the [balance](#) of the [Token](#).

```
```bash
```

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```bash
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```
```
```

Name of the Transfer action.

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```bash
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```bash
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```
```

Name of the Spend action.

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```bash
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```bash
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```
```

Name of the ToCoin action.

```
```bash
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```
```
```

```
```bash
```



'''

Name of the FromCoin action.

'''bash

'''

'''bash

'''

The Action in the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Amount of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Sender of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Recipient of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Approvals of the [ActionRequest](#) .

'''bash

'''

'''bash

'''

Burned balance of the [ActionRequest](#) .

'''bash

'''

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Check if a config for a Rule is set in the [TokenPolicy](#) without checking the type of the Config.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burn a [Token](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Check whether an action is present in the rules VecMap.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Returns the rules required for a specific action.

```
```bash
```

```
```
```

```
```bash
```

```
'''
```

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Returns the [balance](#) of the [Token](#) .

```
'''bash
```

```
'''
```

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'''bash
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```
'''
```

Name of the Transfer action.

```
'''bash
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'''bash
```

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'''
```

Name of the Spend action.

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'''bash
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'''bash
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'''
```

Name of the ToCoin action.

```
'''bash
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```
'''
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```
'''bash
```

```
'''
```

Name of the FromCoin action.

```
'''bash
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'''bash
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```
'''
```

The Action in the [ActionRequest](#) .

```
'''bash
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```
'''
```

```
```bash
```

```
```
```

Amount of the [ActionRequest](#) .

```
```bash
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```
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```

```
```bash
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```
```

Sender of the [ActionRequest](#) .

```
```bash
```

```
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```
```bash
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```
```

Recipient of the [ActionRequest](#) .

```
```bash
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```
```bash
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```
```
```

Approvals of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Burned balance of the [ActionRequest](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

## Function

Check if a Config for a Rule is set in the [TokenPolicy](#) and that it matches the type provided.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

```
```bash
```

```
```
```

```
```bash
```

'''

Burn a [Token](#) using the TreasuryCap.

'''bash

'''

'''bash

'''

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

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'''bash

'''

Check whether an action is present in the rules VecMap.

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'''

Returns the rules required for a specific action.

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'''

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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Name of the Transfer action.

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Name of the Spend action.

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Name of the ToCoin action.

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Name of the FromCoin action.

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The Action in the [ActionRequest](#) .

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Amount of the [ActionRequest](#) .

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Sender of the [ActionRequest](#) .

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Recipient of the [ActionRequest](#) .

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Approvals of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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'''bash

'''

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

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'''bash

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## Function

Allows an [action](#) to be performed on the [Token](#) freely by adding an empty set of Rules for the [action](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

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'''bash

'''

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

'''bash

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'''bash

'''

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

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```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

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Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

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```

Burn a [Token](#) using the TreasuryCap.

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```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

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Check whether an action is present in the rules VecMap.

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Returns the rules required for a specific action.

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Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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The Action in the [ActionRequest](#) .

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Amount of the [ActionRequest](#) .

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Sender of the [ActionRequest](#) .

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Recipient of the [ActionRequest](#) .

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Approvals of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

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```

## Function

Completely disallows an [action](#) on the [Token](#) by removing the record from the [TokenPolicy](#) . [rules](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

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```

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

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```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

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```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

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Burn a [Token](#) using the TreasuryCap.

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```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

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Check whether an action is present in the rules VecMap.

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Returns the rules required for a specific action.

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Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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Name of the Transfer action.

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Name of the FromCoin action.

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The Action in the [ActionRequest](#) .

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Amount of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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## Function

Adds a Rule for an action with name in the [TokenPolicy](#) .

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

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```

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

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```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

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Burn a [Token](#) using the TreasuryCap.

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```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.



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Check whether an action is present in the rules VecMap.

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Returns the rules required for a specific action.

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Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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Name of the Transfer action.

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Name of the FromCoin action.

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The Action in the [ActionRequest](#) .

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Amount of the [ActionRequest](#) .

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Approvals of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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```

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```

## Function

Removes a rule for an action with name in the [TokenPolicy](#) . Returns the config object to be handled by the sender (or a Rule itself).

Aborts if the [TokenPolicyCap](#) is not matching the [TokenPolicy](#) .

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```

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

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```

Burn a [Token](#) using the TreasuryCap.

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```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

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Check whether an action is present in the rules VecMap.

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Returns the rules required for a specific action.

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Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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Name of the Transfer action.

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Name of the FromCoin action.

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The Action in the [ActionRequest](#) .

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Amount of the [ActionRequest](#) .

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Sender of the [ActionRequest](#) .

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Recipient of the [ActionRequest](#) .

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Approvals of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

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## Function

Mint a [Token](#) with a given [amount](#) using the TreasuryCap.

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Burn a [Token](#) using the TreasuryCap.

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```

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

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Check whether an action is present in the rules VecMap.

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Returns the rules required for a specific action.

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Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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Name of the Transfer action.

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The Action in the [ActionRequest](#) .

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Approvals of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

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## Function

Burn a [Token](#) using the TreasuryCap.

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'''

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

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Check whether an action is present in the rules VecMap.

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Returns the rules required for a specific action.

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Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Name of the Transfer action.

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The Action in the [ActionRequest](#) .

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## Function

Flush the [TokenPolicy](#) . [spent\\_balance](#) into the TreasuryCap. This action is only available to the TreasuryCap owner.

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Check whether an action is present in the rules VecMap.

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Returns the rules required for a specific action.

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Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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Name of the Transfer action.

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The Action in the [ActionRequest](#) .

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## Function

Check whether an action is present in the rules VecMap.

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Returns the rules required for a specific action.

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Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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The Action in the [ActionRequest](#) .

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Approvals of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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```

Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of `is_protected` is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

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## Function

Returns the rules required for a specific action.

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Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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Name of the Transfer action.

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Name of the Spend action.



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Name of the ToCoin action.

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Name of the FromCoin action.

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The Action in the [ActionRequest](#) .

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Amount of the [ActionRequest](#) .

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Sender of the [ActionRequest](#) .

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Recipient of the [ActionRequest](#) .

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Approvals of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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## Function

Returns the [spent\\_balance](#) of the [TokenPolicy](#) .

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Returns the [balance](#) of the [Token](#) .

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Name of the Transfer action.

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The Action in the [ActionRequest](#) .

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## Function

Returns the [balance](#) of the [Token](#) .

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Name of the Transfer action.

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The Action in the [ActionRequest](#) .

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## Function

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The Action in the [ActionRequest](#) .

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## Function

Name of the Spend action.

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The Action in the [ActionRequest](#) .

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## Function

Name of the ToCoin action.

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The Action in the [ActionRequest](#) .

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## Function

Name of the FromCoin action.

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The Action in the [ActionRequest](#) .

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## Function

The Action in the [ActionRequest](#) .

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## Function

Amount of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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Create a new [RuleKey](#) for a Rule. The is\_protected field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

The goal of is\_protected is to potentially allow Rules store a mutable version of their configuration and mutate state on user action.

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## Function

Sender of the [ActionRequest](#) .

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Recipient of the [ActionRequest](#) .

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Approvals of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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Create a new [RuleKey](#) for a Rule. The `is_protected` field is kept for potential future use, if Rules were to have a freely modifiable storage as addition / replacement for the Config system.

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## Function

Recipient of the [ActionRequest](#) .

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Approvals of the [ActionRequest](#) .

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## Function

Approvals of the [ActionRequest](#) .

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Burned balance of the [ActionRequest](#) .

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## Function

Burned balance of the [ActionRequest](#) .

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