LOG

Contributors

Name	Organization
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Taxonomy Formula: tN{~t,~d,b,s,r,l}

Token Specification Summary

Token Classification

Template Type:	SingleToken	This token has no sub or child tokens.
Token Type:	NonFungible	This token is not interchangeable with other tokens of the same type as they have different values.
Token Unit:	Whole	There can be many instances of this token, but they cannot be subdivided.
Value Type:	Intrinsic	This token is purely a digital token represents value directly, it represents no external physical form and cannot be a receipt or title for a material item or property.
Representation Type:	Common	This token is simply represented as a balance or quantity attributed to an owner address where all the balances are recorded on the same balance sheet, like a bank account. All instances can easily share common properties and locating them is simple.

Log, is a non-fungible token that serves as a trusted log that is used to record event data for some shared process, application or other type of context specific log data that is of interest to multiple parties. This token is owned by some shared source that can submit new log entries as the owner and viewable by parties that are members of a LogViewer role.

Example

This token is useful when the owner of the token must record periodic data that multiple parties may want to monitor or audit.

Analogies

Name	Description
Log table	A Table containing multiple rows, where each row is a log entry.

Log is:

- Singleton
- Non-Subdividable
- Non-transferable
- Burnable
- Roles
- Logable
- Logable
- Logable

Log Details

Whole Non-Fungible Token

Type:	Base
Name:	Whole Non-Fungible Token
Id:	3c05a856-c901-4c30-917e-df9feed1c8de
Visual:	&tau_N{~d}
Tooling:	tN{~d}
Version:	1.0

Definition

Every non-fungible token is unique. A non-fungible token is not interchangeable with other tokens of the same class but have some shared properties while also

having unique property values between instances. These tokens are whole tokens and can have quantities greater than 1 and also could support variable supply.

Example

CryptoKitties, Art, Reserved Seat for an event.

Analogies

Name	Description
Property Title	The physical property title, land for example, have the identical look and feel from the paper, colors and seal. The difference between them are the values like property address, plot numbers, etc. These values make the title unique. There are some properties on a class of titles that are the same, like the county or jurisdiction the property is in. For titles that have some shared values and unique values, it may make more sense to define them in the same class.
Art	The valuable painting or other unique piece of art may not share any property values with other paintings, unless the artist is extremely prolific in generating tens of thousands of pieces of art, it would make sense to define each piece of art as its own class. Meaning there would be only a single piece of art represented by the token class. If the art cannot be sub-divided, meaning there can be no fractional owners, this token class can be a singleton if the quantity in the class is set to 1. A singleton has only one instance in the class, essentially meaning the class is the instance, and not be sub-dividable and no new tokens can be minted in the class.

Comments

Non-fungible tokens require additional thought about how these tokens may or may not be grouped together in the same class.

Dependencies

Artifact Type	Symbol	Description
Base	t	Base Token Definition

Incompatible With

Artifact Type	Symbol	Id

Behavior	d	6e3501dc-5800-4c71-b59e-ad11418a998c

Influenced By

Description	Symbol	Applies To

Artifact Files

Content Type	File Name	File Content

Code Map

Map Type	Name	Platform	Location

Implementation Map

Map Type	Name	Platform	Location

Resource Map

Map Type	Name	Location	Description

Base Details

Token Name:	
Token Type:	NonFungible
Representation Type:	Common
Value Type:	Intrinsic
Token Unit:	Whole
Symbol:	
Owner:	

Quantity:	1
Decimals:	0
Constructor Name:	Constructor

Behaviors

Singleton

Type:	**Behavior**
Name:	Singleton
Id:	c1189d7a-e142-4504-bf26-44c35b76c9d6
Visual:	s
Tooling:	s
Version:	1.0

Definition

A restriction on the token in that there can only be 1 whole token in the class and is not subdividable. This behavior is only available to non-fungible base types. By definition, a Singleton cannot be mintable.

Example

Analogies

Name	Description
Analogy 1	singleton analogy 1 description

Dependencies

Artifact Type	Symbol	Description
Base	tN	Singleton must be have a non-fungible base.
Behavior	~d	Singleton requires non-sub-dividable.

Incompatible With

Artifact Type	Symbol	Id
Behavior	d	6e3501dc-5800-4c71-b59e-ad11418a998c
Behavior	m	f9224e90-3cab-45bf-b5dc-0175121e2ead

Influenced By

Description	Symbol	Applies To

Artifact Files

Content Type	File Name	File Content
Control	singleton.proto	
Uml	singleton.md	

Code Map

Map Type	Name	Platform	Location
SourceCode	Code 1	Daml	

Implementation Map

Map Type	Name	Platform	Location
Implementation	Implementation 1	ChaincodeGo	

Resource Map

Map Type	Name	Location	Description
Resource	Regulation Reference 1		

Specification Behavior

Singleton

Taxonomy Symbol: s

A restriction on the token in that there can only be 1 whole token in the class and is not subdividable. This behavior is only available to non-fungible base types. By definition, a Singleton cannot be mintable.

Example

Analogies

Name	Description
Analogy 1	singleton analogy 1 description

Is External:	True
Constructor:	

Singleton responds to these Invocations

Properties

Non-Subdividable

Type:	Behavior
Name:	Non-Subdividable
Id:	d5807a8e-879b-4885-95fa-f09ba2a22172
Visual:	~d
Tooling:	~d
Version:	1.0

Definition

An ability or restriction on the token where it cannot be subdivided from a single whole token into fractions. Sets the base token Decimals property to 0 which will make the token non-sub-dividable and a whole token is the smallest ownable unit of the token.

Example

Non-subdividable is common for items where subdivision does not make sense, like a property title, inventory item or invoice.

Analogies

Name	Description
Non-Fractional	It is not possible to own a fraction of this token.
Barrel of Oil	Barrels of Oil don't make sense to subdivide.

Dependencies

Artifact Type	Symbol	Description

Incompatible With

Artifact Type	Symbol	Id
Behavior	d	6e3501dc-5800-4c71-b59e-ad11418a998c

Influenced By

Description	Symbol	Applies To

Artifact Files

Content Type	File Name	File Content
Control	non-subdividable.proto	

Uml	non-subdividable.md	

Code Map

Map Type	Name	Platform	Location
SourceCode	Code 1	Daml	

Implementation Map

Map Type	Name	Platform	Location
Implementation	Implementation 1	ChaincodeGo	

Resource Map

Map Type	Name	Location	Description
Resource	Regulation Reference 1		

Specification Behavior

Non-Subdividable

Taxonomy Symbol: ~d

An ability or restriction on the token where it cannot be subdivided from a single whole token into fractions. Sets the base token Decimals property to 0 which will make the token non-sub-dividable and a whole token is the smallest ownable unit of the token.

Example

Non-subdividable is common for items where subdivision does not make sense, like a property title, inventory item or invoice.

Analogies

Name	Description
Non-Fractional	It is not possible to own a fraction of this token.
Barrel of Oil	Barrels of Oil don't make sense to subdivide.

Is External:	True
Constructor:	

Non-Subdividable responds to these Invocations

Properties

Name: Decimals

Value Description: Set to Zero, not allowing any subdivision

Template Value: 0

Invocations

GetDecimals

Id: 2ca7fbb2-ce98-4dda-a6ae-e4ac2527bb33

Description: Should return 0

Request

Control Message: GetDecimalsRequest

Description:

Parameters

Name	Value

Response

Control Message: GetDecimalsResponse

Description: Return 0

Parameters

Name	Value
Decimals	0

GetDecimals

Id: 2ca7fbb2-ce98-4dda-a6ae-e4ac2527bb33

Description: Should return 0

Request

Control Message: GetDecimalsRequest

Description:

Parameters

Name	Value

Response

Control Message: GetDecimalsResponse

Description: Return 0

Parameters

Name	Value
Decimals	0

Properties

Non-transferable

Type:	Behavior
Name:	Non-transferable
Id:	a4fa4ca8-6afd-452b-91f5-7103b6fee5e5
Visual:	~t
Tooling:	~t

Version:	1.0

Definition

Every token instance has an owner. The Non-transferable behavior prevents the owner of a token from changing.

Example

A vote token, for a citizen in a public election would be non-transferable.

Analogies

Name	Description
Diploma	A diploma from an educational institution is not transferable to another party that can claim to have earned the diploma.
Airline Ticket	Due to security restrictions at airports and airlines, tickets can only be used by the person they were issued to.

Dependencies

Artifact Type	Symbol	Description

Incompatible With

Artifact Type	Symbol	Id
Behavior	t	af119e58-6d84-4ca6-9656-75e8d312f038

Influenced By

Description	Symbol	Applies To

Artifact Files

Content Type	File Name	File Content
Control	non-transferable.proto	

Uml	non-transferable.md	

Code Map

Map Type	Name	Platform	Location
SourceCode	Code 1	Daml	

Implementation Map

Map Type	Name	Platform	Location
Implementation	Implementation 1	ChaincodeGo	

Resource Map

Map Type	Name	Location	Description
Resource	Regulation Reference 1		

Specification Behavior

Non-transferable

Taxonomy Symbol: ~t

Every token instance has an owner. The Non-transferable behavior prevents the owner of a token from changing.

Example

A vote token, for a citizen in a public election would be non-transferable.

Analogies

Name	Description
Diploma	A diploma from an educational institution is not transferable to another party

	that can claim to have earned the diploma.
Airline Ticket	Due to security restrictions at airports and airlines, tickets can only be used by the person they were issued to.

Is External:	**True**
Constructor:	

Non-transferable responds to these Invocations

Properties

Burnable

Type:	**Behavior**
Name:	Burnable
Id:	803297a1-c0f9-4898-9d44-29c9d41cca97
Visual:	b
Tooling:	b
Version:	1.0

Definition

A token class that implements this behavior will support the burning or decommissioning of token instances of the class. This does not delete a token, but rather places it in a permanent non-use state. Burning is a one way operation and cannot be reversed. This behavior is Delegable. If the token definition is Delegable, BurnFrom will be available.

Example

When a token is used in a certain way, you may want to remove it from circulation or from being used again. Since the ledger doesn't allow for deletions, burning a token essentially 'deletes' the token from being used, but not from history.

Analogies

Name	**Description**

Oil Barrels	If you mint a new token for each barrel of oil created, you may transfer ownership several times until the barrel is refined. The refining process should burn the barrel of oil to remove it from circulation.
Redeem	A token that is a coupon or single use ticket, should be burned when it is redeemed.

Dependencies

Artifact Type	Symbol	Description

Incompatible With

Artifact Type	Symbol	Id

Influenced By

Description	Symbol	Applies To
Delegable or not, will determine if the BurnFrom Control will be available in the implementation.	g	[ ]
If Compliance is present, a CheckBurnAllowed request has to be made and verified before a Burn request or a BurnFrom request.	c	[ ]

Artifact Files

Content Type	File Name	File Content
Control	burnable.proto	
Uml	burnable.md	

Code Map

Map Type	Name	Platform	Location
SourceCod	Open Zeppeli	EthereumSolidit	https://github.com/OpenZeppelin/openzeppelin-contracts/blob/master/contracts/token/ERC20/ERC20Burnable.s

e	n	y	ol

Implementation Map

Map Type	Name	Platform	Location

Resource Map

Map Type	Name	Location	Description
Resource	Regulation Reference 1		

Specification Behavior

Burnable

Taxonomy Symbol: b

A token class that implements this behavior will support the burning or decommissioning of token instances of the class. This does not delete a token, but rather places it in a permanent non-use state. Burning is a one way operation and cannot be reversed. This behavior is Delegable. If the token definition is Delegable, BurnFrom will be available.

Example

When a token is used in a certain way, you may want to remove it from circulation or from being used again. Since the ledger doesn't allow for deletions, burning a token essentially 'deletes' the token from being used, but not from history.

Analogies

Name	Description
Oil Barrels	If you mint a new token for each barrel of oil created, you may transfer ownership several times until the barrel is refined. The refining process should burn the barrel of oil to remove it from circulation.
Redeem	A token that is a coupon or single use ticket, should be burned when it is

	redeemed.

Is External:	True
Constructor:	

Burnable responds to these Invocations

Burn

Id: f063dcaa-49f9-4c49-bf0f-2766301e1033

Description: A request to burn a token instance(s) in the class by the owner of the token instance(s). Optional Quantity field in the request.

Request Message:

BurnRequest

Description: The request to Burn or Retire tokens.

Request Parameters

Name	Value
Quantity	The number of tokens to burn, might not apply to the implementation.

Response Message

BurnResponse

Description: The response from the request to burn.

Response Parameters

Name	Value
Confirmation	A confirmation receipt or error may be returned to the invoker based on the outcome of the burn request

BurnFrom

Id: 49b53152-3360-426f-9e0a-24a0b4e7c881

Description: Requires Delegable. A request to burn token instance(s) in the class by a party or account that has allowance to do so. Requires a From and Quantity fields in the request.

Request Message:

BurnFromRequest

Description: The request to Burn or Retire tokens.

Request Parameters

Name	Value
From	AccountId from which tokens are burnt
Quantity	The number of tokens to burn, might not apply to the implementation.

Response Message

BurnFromResponse

Description: The response from the request to burn.

Response Parameters

Name	Value
Confirmation	A confirmation receipt or error may be returned to the invoker based on the outcome of the burn from request

Properties

Roles

Type:	Behavior
Name:	Roles
Id:	c32726da-9787-4dd8-8de3-d07d1733d0f6
Visual:	r
Tooling:	r
Version:	1.0

Definition

A token can have behaviors that the class will restrict invocations to a select set of parties or accounts that are members of a role or group. This is a generic behavior that can apply to a token many times to represent many role definitions within the template. This behavior will allow you to define what role(s) to create and what behavior(s) to apply the role to in the TemplateDefinition.

Example

Analogies

Name	Description
Minters	A role called 'Minters' for a token can have accounts in the role. The MintTo behavior invocation will be bound to the role check to ensure only account in the 'Minters' role are allowed to mint new instances in the class.

Comments

Roles has a constructor control that creates roles and applies them to certain behaviors of the token at creation of the class from the template.

Dependencies

Artifact Type	Symbol	Description

Incompatible With

Artifact Type	Symbol	Id

Influenced By

Description	Symbol	Applies To

Artifact Files

Content	File Name	File Content

Type		
Control	roles.proto	
Uml	roles.md	

Code Map

Map Type	Name	Platform	Location
SourceCode	Code 1	Daml	

Implementation Map

Map Type	Name	Platform	Location
Implementation	Implementation 1	ChaincodeGo	

Resource Map

Map Type	Name	Location	Description
Resource	Regulation Reference 1		

Specification Behavior

Roles

Taxonomy Symbol: r

A token can have behaviors that the class will restrict invocations to a select set of parties or accounts that are members of a role or group. This is a generic behavior that can apply to a token many times to represent many role definitions within the template. This behavior will allow you to define what role(s) to create and what behavior(s) to apply the role to in the TemplateDefinition.

Example

Analogies

Name	Description
Minters	A role called 'Minters' for a token can have accounts in the role. The MintTo behavior invocation will be bound to the role check to ensure only account in the 'Minters' role are allowed to mint new instances in the class.

Comments

Roles has a constructor control that creates roles and applies them to certain behaviors of the token at creation of the class from the template.

Is External:	True
Constructor:	

Roles responds to these Invocations

RoleCheck

Id: 00a665e3-1dda-441e-8262-5750435c153c

Description: Internal invocation when the applied behavior is called to check if the requestor is a member of the role.

Request Message:

IsInRole

Description: The request

Request Parameters

Name	Value
AccountId	AccountId of the requestor.

Response Message

True/False

Description: The response

Response Parameters

Name	Value
IsInRole	True/False

Properties

Name: Role

Value Description: A group or list an account can be a member or be in.

Template Value: LogViewer

Invocations

GetRoleMembers

Id:

Description: Request the the list of member accounts in the role.

Request

Control Message: GetRoleMembersRequest

Description: The request

Parameters

Name	Value

Response

Control Message: GetRoleMembersResponse

Description: The response

Parameters

Name	Value
Members	Returning the list of accounts in the role.

AddRoleMember

Id: 600357f8-0499-47f8-87a5-eedf4ad034af

Description: Add a member to the group or role property.

Request

Control Message: AddRoleMemberRequest

Description: The request

Parameters

Name	Value
RoleName	Name of the role you are adding a member to. Optional parameter if there is only one role.
AccountAddress	Address, name or identifier of the account to be added to the role.

Response

Control Message: AddRoleMemberResponse

Description: The response

Parameters

Name	Value
Added	True or False.

RemoveRoleMember

Id: 97e160bb-6c60-4f1d-923b-813b07b89638

Description: Remove a member to the group or role property.

Request

Control Message: RemoveRoleMemberRequest

Description: The request

Parameters

Name	Value

RoleName	Name of the role you are adding a member to. Optional parameter if there is only one role.
AccountAddress	Address, name or identifier of the account to be removed from the role.

Response

Control Message: RemoveRoleMemberResponse

Description: The response

Parameters

Name	Value
Added	True or False.

IsInRole

Id: e42b1b16-074a-4d7d-b9f9-f69a2397a21b

Description: Check to see if an account is in the role.

Request

Control Message: IsInRoleRequest

Description: The request may be internal only and not exposed externally.

Parameters

Name	Value
RoleName	Name of the role you are checking membership of. Optional parameter if there is only one role.
AccountAddress	Address, name or identifier of the account to be checked.

Response

Control Message: IsInRoleRequestResponse

Description: The response

Parameters

Name	Value
InRole	True or False.

GetRoleMembers

Id:

Description: Request the the list of member accounts in the role.

Request

Control Message: GetRoleMembersRequest

Description: The request

Parameters

Name	Value

Response

Control Message: GetRoleMembersResponse

Description: The response

Parameters

Name	Value
Members	Returning the list of accounts in the role.

AddRoleMember

Id:

Description: Add a member to the group or role property.

Request

Control Message: AddRoleMemberRequest

Description: The request

Parameters

Name	Value
RoleName	Name of the role you are adding a member to. Optional parameter if there is only one role.
AccountAddress	Address, name or identifier of the account to be added to the role.

Response

Control Message: AddRoleMemberResponse

Description: The response

Parameters

Name	Value
Added	True or False.

RemoveRoleMember

Id:

Description: Remove a member to the group or role property.

Request

Control Message: RemoveRoleMemberRequest

Description: The request

Parameters

Name	Value
RoleName	Name of the role you are adding a member to. Optional parameter if there is only one role.
AccountAddress	Address, name or identifier of the account to be removed from the role.

Response

Control Message: RemoveRoleMemberResponse

Description: The response

Parameters

Name	Value
Added	True or False.

IsInRole

Id:

Description: Check to see if an account is in the role.

Request

Control Message: IsInRoleRequest

Description: The request may be internal only and not exposed externally.

Parameters

Name	Value
RoleName	Name of the role you are checking membership of. Optional parameter if there is only one role.
AccountAddress	Address, name or identifier of the account to be checked.

Response

Control Message: IsInRoleRequestResponse

Description: The response

Parameters

Name	Value
InRole	True or False.

Properties

Logable

Type:	Behavior
Name:	Logable

Id:	9c8c2373-cf3c-4743-932a-03fee6a192fe
Visual:	I
Tooling:	I
Version:	1.0

Definition

A token class that implements this behavior will record log entries from its owner with a generic payload. These entries can be recorded stand alone and be given a unique identifier, EntryId, upon recording or these entries can be recorded in a series or group that will create a SeriesId and a EntryId, where all the entries will have a unique EntryId but have the same SeriesId. Log entries can be queried by their EntryId or you can request an entire series with the SeriesId. The last recorded entry can also be requested without an Id and you can also request entries from a starting point to a finish point. For example, you could request entries 100 through 125, which will return the entries starting at position 100 through 125 or the last entry recorded up to 125. To add entry query by any other property of the token, that property must be specifically defined and cannot be a property in the base token property list.

Example

You may want to record certain actions like validations or external uses of a token or asset into a token log.

Analogies

Name	Description
Media Use	You may create a token for a video or song and want to log each time it is played or viewed.
Audit Log	You may want to create a token for auditing external events, like a access control log that record what user access some resource. Access to the resource can be blocked if the log token is unable to record the access.

Dependencies

Artifact Type	Symbol	Description

PropertySet	phLog	Logable requires the log property-set for its data structure. The invocations in this behavior control the property set.

Incompatible With

Artifact Type	Symbol	Id

Influenced By

Description	Symbol	Applies To

Artifact Files

Content Type	File Name	File Content
Control	logable.proto	
Uml	logable.md	

Code Map

Map Type	Name	Platform	Location
SourceCode	Code 1	Daml	

Implementation Map

Map Type	Name	Platform	Location
Implementation	Implementation 1	ChaincodeGo	

Resource Map

Map Type	Name	Location	Description
Resource	Regulation		

	Reference 1		

Specification Behavior

Logable

Taxonomy Symbol: l

A token class that implements this behavior will record log entries from its owner with a generic payload. These entries can be recorded stand alone and be given a unique identifier, EntryId, upon recording or these entries can be recorded in a series or group that will create a SeriesId and a EntryId, where all the entries will have a unique EntryId but have the same SeriesId. Log entries can be queried by their EntryId or you can request an entire series with the SeriesId. The last recorded entry can also be requested without an Id and you can also request entries from a starting point to a finish point. For example, you could request entries 100 through 125, which will return the entries starting at position 100 through 125 or the last entry recorded up to 125. To add entry query by any other property of the token, that property must be specifically defined and cannot be a property in the base token property list.

Example

You may want to record certain actions like validations or external uses of a token or asset into a token log.

Analogies

Name	Description
Media Use	You may create a token for a video or song and want to log each time it is played or viewed.
Audit Log	You may want to create a token for auditing external events, like a access control log that record what user access some resource. Access to the resource can be blocked if the log token is unable to record the access.

Is External:	True
Constructor:	

Logable responds to these Invocations

Binding Is Influenced by Roles's Invocation RoleCheckRoles's Invocation RoleCheck Intercepts this behavior's invocation.'

RoleCheck

Id: 00a665e3-1dda-441e-8262-5750435c153c

Description: Internal invocation when the applied behavior is called to check if the requestor is a member of the role.

Request Message:

IsInRole

Description: Check that the account is in the 'LogViewer' role.

Request Parameters

Name	Value
AccountId	AccountId of the requestor.

Response Message

True/False

Description: The response

Response Parameters

Name	Value
IsInRole	True/False

GetEntry

Id: 00e91598-b162-47d7-8636-baac251e98e7

Description: A request to retrieve a specific Entry by its unique identifier.

Request Message:

GetEntryRequest

Description: Fetch a log entry by its entryId only.

Request Parameters

Name	Value
Identifier	Id of the Log Entry to retrieve.

Response Message

GetEntryResponse

Description: The matching entry response

Response Parameters

Name	Value
Entry	A response containing the specific log entry if found.

Binding Is Influenced by Roles's Invocation RoleCheckRoles's Invocation RoleCheck Intercepts this behavior's invocation.'

RoleCheck

Id: 00a665e3-1dda-441e-8262-5750435c153c

Description: Internal invocation when the applied behavior is called to check if the requestor is a member of the role.

Request Message:

IsInRole

Description: Check that the account is in the 'LogViewer' role.

Request Parameters

Name	Value
AccountId	AccountId of the requestor.

Response Message

True/False

Description: The response

Response Parameters

Name	Value
IsInRole	True/False

GetLastEntry

Id: 589c478d-8852-4237-b559-6414e54ecbb2

Description: A request to retrieve the last log entry needing no parameters.

Request Message:

GetLastEntryRequest

Description: The request

Request Parameters

Name	Value

Response Message

GetLastEntryResponse

Description: The response

Response Parameters

Name	Value
Entry	Response containing the last log entry if it exists.

Binding Is Influenced by Roles's Invocation RoleCheckRoles's Invocation RoleCheck Intercepts this behavior's invocation.'

RoleCheck

Id: 00a665e3-1dda-441e-8262-5750435c153c

Description: Internal invocation when the applied behavior is called to check if the requestor is a member of the role.

Request Message:

IsInRole

Description: Check that the account is in the 'LogViewer' role.

Request Parameters

Name	Value
AccountId	AccountId of the requestor.

Response Message

True/False

Description: The response

Response Parameters

Name	Value
IsInRole	True/False

GetEntrySeries

Id: 7af943cc-03ec-49c1-bed6-450ac624d8d3

Description: A request retrieve all the log entries for a particular series by SeriesId.

Request Message:

GetEntrySeriesRequest

Description: The request

Request Parameters

Name	Value
SeriesId	Id for the series to retrieve.

Response Message

GetEntrySeriesResponse

Description: The response

Response Parameters

Name	Value
Entries	A response containing a list of all the log entries for the requested SeriesId, if found.

CreateEntrySeries

Id: dc7e0ec1-32f7-4930-9a8d-a9a29dc6c5c6

Description: A request create a series of log entries.

Request Message:

CreateEntrySeriesRequest

Description: When invoked, a seriesId should be generated.

Request Parameters

Name	Value

Response Message

CreateEntrySeriesResponse

Description: Return the generated seriesId

Response Parameters

Name	Value
SeriesId	A response containing a unique SeriesId that should be set for each entry's RecordEntryRequest message in the series.

RecordEntry

Id: 0f0f0983-1b14-479d-bcb6-18be7e19b313

Description: A request to record an log entry.

Request Message:

RecordEntryRequest

Description: The request

Request Parameters

Name	Value
SeriesId	The seriesId for the event. If blank a common series could be used like all zeros or a 1.
Entry	Data to be logged like bytes or a string .

Response Message

RecordEntryResponse

Description: The response

Response Parameters

Name	Value
Confirmation	A confirmation of recording the entry including

Properties

Logable

Type:	Behavior
Name:	Logable
Id:	9c8c2373-cf3c-4743-932a-03fee6a192fe
Visual:	l
Tooling:	l
Version:	1.0

Definition

A token class that implements this behavior will record log entries from its owner with a generic payload. These entries can be recorded stand alone and be given a unique identifier, EntryId, upon recording or these entries can be recorded in a series or group that will create a SeriesId and a EntryId, where all the entries will have a unique EntryId but have the same SeriesId. Log entries can be queried by their EntryId or you can request an entire series with the SeriesId. The last recorded entry can also be requested without an Id and you can also request entries from a starting point to a finish point. For example, you could request entries 100 through 125, which will return the entries starting at position 100 through 125 or the last entry recorded up to 125. To add entry query by any other property of the token, that property must be specifically defined and cannot be a property in the base token property list.

Example

You may want to record certain actions like validations or external uses of a token or asset into a token log.

Analogies

Name	Description
Media Use	You may create a token for a video or song and want to log each time it is played or viewed.
Audit Log	You may want to create a token for auditing external events, like a access control log that record what user access some resource. Access to the resource can be blocked if the log token is unable to record the access.

Dependencies

Artifact Type	Symbol	Description
PropertySet	phLog	Logable requires the log property-set for its data structure. The invocations in this behavior control the property set.

Incompatible With

Artifact Type	Symbol	Id

Influenced By

Description	Symbol	Applies To

Artifact Files

Content Type	File Name	File Content
Control	logable.proto	
Uml	logable.md	

Code Map

Map Type	Name	Platform	Location
SourceCode	Code 1	Daml	

Implementation Map

Map Type	Name	Platform	Location
Implementation	Implementation 1	ChaincodeGo	

Resource Map

Map Type	Name	Location	Description
Resource	Regulation Reference 1		

Specification Behavior

Logable

Taxonomy Symbol: l

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Is External:	True
Constructor:	

Logable responds to these Invocations

Binding Is Influenced by Roles's Invocation RoleCheckRoles's Invocation RoleCheck Intercepts this behavior's invocation.'

RoleCheck

Id: 00a665e3-1dda-441e-8262-5750435c153c

Description: Internal invocation when the applied behavior is called to check if the requestor is a member of the role.

Request Message:

IsInRole

Description: Check that the account is in the 'LogViewer' role.

Request Parameters

Name	Value
AccountId	AccountId of the requestor.

Response Message

True/False

Description: The response

Response Parameters

Name	Value
IsInRole	True/False

GetEntry

Id: 00e91598-b162-47d7-8636-baac251e98e7

Description: A request to retrieve a specific Entry by its unique identifier.

Request Message:

GetEntryRequest

Description: Fetch a log entry by its entryId only.

Request Parameters

Name	Value
Identifier	Id of the Log Entry to retrieve.

Response Message

GetEntryResponse

Description: The matching entry response

Response Parameters

Name	Value
Entry	A response containing the specific log entry if found.

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Description: The response

Response Parameters

Name	Value
IsInRole	True/False

GetLastEntry

Id: 589c478d-8852-4237-b559-6414e54ecbb2

Description: A request to retrieve the last log entry needing no parameters.

Request Message:

GetLastEntryRequest

Description: The request

Request Parameters

Name	Value

Response Message

GetLastEntryResponse

Description: The response

Response Parameters

Name	Value
Entry	Response containing the last log entry if it exists.

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GetEntrySeries

Id: 7af943cc-03ec-49c1-bed6-450ac624d8d3

Description: A request retrieve all the log entries for a particular series by SeriesId.

Request Message:

GetEntrySeriesRequest

Description: The request

Request Parameters

Name	Value
SeriesId	Id for the series to retrieve.

Response Message

GetEntrySeriesResponse

Description: The response

Response Parameters

Name	Value
Entries	A response containing a list of all the log entries for the requested SeriesId, if found.

CreateEntrySeries

Id: dc7e0ec1-32f7-4930-9a8d-a9a29dc6c5c6

Description: A request create a series of log entries.

Request Message:

CreateEntrySeriesRequest

Description: When invoked, a seriesId should be generated.

Request Parameters

Name	Value

Response Message

CreateEntrySeriesResponse

Description: Return the generated seriesId

Response Parameters

Name	Value
SeriesId	A response containing a unique SeriesId that should be set for each entry's RecordEntryRequest message in the series.

RecordEntry

Id: 0f0f0983-1b14-479d-bcb6-18be7e19b313

Description: A request to record an log entry.

Request Message:

RecordEntryRequest

Description: The request

Request Parameters

Name	Value
SeriesId	The seriesId for the event. If blank a common series could be used like all zeros or a 1.
Entry	Data to be logged like bytes or a string .

Response Message

RecordEntryResponse

Description: The response

Response Parameters

Name	Value
Confirmation	A confirmation of recording the entry including

Properties

Logable

Type:	Behavior
Name:	Logable
Id:	9c8c2373-cf3c-4743-932a-03fee6a192fe
Visual:	l
Tooling:	l
Version:	1.0

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