Logable

|  |  |
| --- | --- |
| Type: | Behavior |
| Name: | Logable |
| Id: | 9c8c2373-cf3c-4743-932a-03fee6a192fe |
| Visual: | <i>l</i> |
| 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 |  |  |

# Behavior Details

|  |  |
| --- | --- |
| Is External: | False |
| Constructor: |  |

### Invocations

#### CreateEntrySeries

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

Description: A request create a series of log entries.

##### Request

Control Message: CreateEntrySeriesRequest

Description: When invoked, a seriesId should be generated.

###### Parameters

|  |  |
| --- | --- |
| Name | Value |

##### Response

Control Message: CreateEntrySeriesResponse

Description: Return the generated seriesId

###### 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

Control Message: RecordEntryRequest

Description: The 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

Control Message: RecordEntryResponse

Description: The response

###### Parameters

|  |  |
| --- | --- |
| Name | Value |
| Confirmation | A confirmation of recording the entry including |

#### GetEntry

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

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

##### Request

Control Message: GetEntryRequest

Description: Fetch a log entry by its entryId only.

###### Parameters

|  |  |
| --- | --- |
| Name | Value |
| Identifier | Id of the Log Entry to retrieve. |

##### Response

Control Message: GetEntryResponse

Description: The matching entry response

###### Parameters

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

#### GetLastEntry

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

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

##### Request

Control Message: GetLastEntryRequest

Description: The request

###### Parameters

|  |  |
| --- | --- |
| Name | Value |

##### Response

Control Message: GetLastEntryResponse

Description: The response

###### Parameters

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

#### GetEntrySeries

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

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

##### Request

Control Message: GetEntrySeriesRequest

Description: The request

###### Parameters

|  |  |
| --- | --- |
| Name | Value |
| SeriesId | Id for the series to retrieve. |

##### Response

Control Message: GetEntrySeriesResponse

Description: The response

###### Parameters

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

### Properties