Implementation Details for V-SET

This document records the implementation details such as data structures and maps which are used to retrieve story data.

# Outline:

Language and Hardware

Naming Convention of Source Codes

Data Structures

Maps for Data Structures and Functions

# Language and Hardware

* Platform: Windows 8
* Language: Java
  + Graphical Interface Library: Swing
  + Development Tool: Java Development Tool Kit Version 1.7.0\_79

# Naming Convention of Source Codes

* Global variables: Pascal casing.
* Local variables: Camel casing.
* Function input: Pascal casing.
* Function output: Pascal casing.
* Function name: Camel casing.
* Class name: Pascal casing.

# Data structures

## Events.StoryEvent:

This is the data structure for recording story events.

|  |  |  |
| --- | --- | --- |
| Class StoryEvent | | |
| Type | **Variable name** | **Descriptions** |
| Integer | index | The event ID |
| String | eventName | The event name, which corresponds to the text of event button. |
| String | place | The place of the event |
| List<StoryDialogue> | dialogueQueue | The dialogue in this event |

## Events.StoryDialogue:

The data structure records dialogues in an event.

|  |  |  |
| --- | --- | --- |
| Class StoryDialogue | | |
| Type | **Variable name** | **Descriptions** |
| Integer | index | The dialogue ID |
| String | charaName | The character who say this dialogue |
| Integer | charaIndex | The index of the character |
| String | content | Dialogue content |

## CharaMake.CustomCharacter:

The data structure records each character.

|  |  |  |
| --- | --- | --- |
| Class CustomCharacter | | |
| Type | **Variable name** | **Descriptions** |
| Integer | Index | The character ID |
| String | name | The character’s name |
| List<Integer> | imageIndex | The index images for each body part of character |
| String | type | The visual material type, such as man’s materials, woman’s materials |

## CharaMake.ImageGroup:

The data structure records the path and filename of visual materials.

|  |  |  |
| --- | --- | --- |
| Interface ImageGroup | | |
| Type | **Variable name** | **Descriptions** |
| List<PathNameNumber> | tempList | This class will return a list of visual material path, file name, and the total number of a sequence of images |

## CharaMake.CharaModelList:

The data structure is a group of lists which records the image sequence of body parts’ materials.

|  |  |  |
| --- | --- | --- |
| Class CharaModelList | | |
| Type | **Variable name** | **Descriptions** |
| List<BodyPartQueue> | bodyImage | This class will form a group of lists about body parts of a type of characters. |
| List<Integer> | initCharaImageSet | The initial number of each body part’s material sequence |

## ImageMaterial.ImageQueue:

The data structure is a lists of images which records a type of materials such as place.

|  |  |  |
| --- | --- | --- |
| Class ImageQueue | | |
| Type | **Variable name** | **Descriptions** |
| Map<Integer, ImageIcon> | materialImage | The list of material images |

# Maps for Data Structures and Functions

## For story events

### LookUp.EventMap:

This class records the event ID and corresponding event objects .

|  |  |  |
| --- | --- | --- |
| Map<String, StoryEvent> EventMap | | |
| Type | **Variable name** | **Descriptions** |
| Integer | Event ID | The ID of story events |
| StoryEvent | StoryEvent | The event objects |

### LookUp.EventNameMap:

This map is used to retrieve event index through event name.

|  |  |  |
| --- | --- | --- |
| Map<String, Integer > EventNameMap | | |
| Type | **Variable name** | **Descriptions** |
| String | Event name | The name of the events |
| Integer | Event ID | The ID of story events |

### LookUp.EventPositionMap:

This class records the event ID and corresponding event objects .

|  |  |  |
| --- | --- | --- |
| Map<String, Index> EventPositionMap | | |
| Type | **Variable name** | **Descriptions** |
| String | Event name | The name of the events |
| Integer | Time index | Since we use the event positions to decide time order, the time index equals to y position. |

### LookUp.EventTimeMap:

This map helps to find events in specific time. It is the reverse for EventPositionMap.

|  |  |  |
| --- | --- | --- |
| Map<Integer, String> EventTimeMap | | |
| Type | **Variable name** | **Descriptions** |
| Integer | Time index | Since we use the event positions to decide time order, the time index equals to y position. |
| String | Event name | The name of the events |

## For character:

### LookUp.FeatureName:

This class records the name of body parts, such as face, hair and so on.

|  |  |  |
| --- | --- | --- |
| Map<String, FunctionButton> FeatureName | | |
| Type | **Variable name** | **Descriptions** |
| Integer | Body feature index | To record what index represent which body part |
| String | Body feature name | The name of character body part, such as Hair, Face, And so on. |

### LookUp.FeatureIndex:

The reverse map for body features.

|  |  |  |
| --- | --- | --- |
| Map<String, FunctionButton> FeatureIndex | | |
| Type | **Variable name** | **Descriptions** |
| String | Body feature name | The name of character body part, such as Hair, Face, And so on. |
| Integer | Body feature index | To record what index represent which body part |

### LookUp.CharaMap:

This map record the character index and the character objects itself.

|  |  |  |
| --- | --- | --- |
| Map<String, FunctionButton> FeatureIndex | | |
| Type | **Variable name** | **Descriptions** |
| Integer | character ID | The unique IDs for characters |
| CustomCharacter | Character data | The added characters’ data |