

UTF8gsn



## My Project

Generated by Doxygen 1.8.13



# Contents



# Chapter 1

## Namespace Index

### 1.1 Namespace List

Here is a list of all namespaces with brief descriptions:

<a href="#">translationVisualization</a>	.....	??
--	-------	----





## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

translationVisualization.DataReader . . . . .	??
translationVisualization.Item . . . . .	??
translationVisualization.LemmaProcess . . . . .	??
translationVisualization.MainMethod . . . . .	??
translationVisualization.TFIDFCalculator . . . . .	??
translationVisualization.TranslationVisualization . . . . .	??
translationVisualization.Version . . . . .	??
JPanel	
translationVisualization.Rectangle . . . . .	??



## Chapter 3

# Class Index

### 3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

<a href="#">translationVisualization.DataReader</a>	??
<a href="#">translationVisualization.Item</a>	??
<a href="#">translationVisualization.LemmaProcess</a>	??
<a href="#">translationVisualization.MainMethod</a>	??
<a href="#">translationVisualization.Rectangle</a>	??
<a href="#">translationVisualization.TFIDFCalculator</a>	??
<a href="#">translationVisualization.TranslationVisualization</a>	??
<a href="#">translationVisualization.Version</a>	??



## Chapter 4

# File Index

### 4.1 File List

Here is a list of all files with brief descriptions:

<a href="#">DataReader.java</a>	??
<a href="#">Item.java</a>	??
<a href="#">LemmaProcess.java</a>	??
<a href="#">MainMethod.java</a>	??
<a href="#">Rectangle.java</a>	??
<a href="#">TFIDFCalculator.java</a>	??
<a href="#">TranslationVisualization.java</a>	??
<a href="#">Version.java</a>	??



## Chapter 5

# Namespace Documentation

### 5.1 Package translationVisualization

#### Classes

- class [DataReader](#)
- class [Item](#)
- class [LemmaProcess](#)
- class [MainMethod](#)
- class [Rectangle](#)
- class [TFIDFCalculator](#)
- class [TranslationVisualization](#)
- class [Version](#)





## Chapter 6

# Class Documentation

### 6.1 translationVisualization.DataReader Class Reference

#### Public Member Functions

- List< Hashtable< String, Integer > > [getM\\_tokenLists](#) ()
- void [setM\\_OneTokenList](#) (List< String > m\_OneTokenList)
- List< String > [getM\\_OneTokenList](#) ()
- List< Map.Entry< String, Integer > > [getM\\_FrequencyIndex](#) ()
- void [setM\\_FrequencyIndex](#) (List< Map.Entry< String, Integer >> m\_FrequencyIndex)
- List< String > [getM\\_VersionNameList](#) ()
- String [filePathProcess](#) (String[] filePath, int versionNumber, int position)
- [Version](#) [getVersion](#) ()
- void [setVersion](#) ([Version](#) version)
- Hashtable< Integer, Color > [getM\\_frequencyColorIndex](#) ()
- Hashtable< String, Integer > [getM\\_UnsortedFrequency](#) ()
- void [setM\\_UnsortedFrequency](#) (Hashtable< String, Integer > m\_UnsortedFrequency)
- String [] [getM\\_FilePath](#) ()
- void [setInitialFilePath](#) ()
- void [setGermanLemmaFilePath](#) ()
- boolean [readOneFile](#) (String filePath) throws Exception
- boolean [addWordFrequency](#) (String eachWord)
- boolean [sortFrequencyIndex](#) (Hashtable< String, Integer > frequencyUnsorted)
- List< Map.Entry< Integer, Color > > [sortColorIndex](#) (Hashtable< Integer, Color > frequencyColorIndex)
- boolean [addVersionInfo](#) (int versionNumber) throws Exception
- boolean [isFrequentValue](#) ()
- void [setFrequentValue](#) (boolean frequentValue)
- List< [Version](#) > [initiateDataReader](#) () throws Exception
- void [readAllFile](#) () throws Exception
- void [addTfidf](#) (List< Hashtable< String, Integer >> lists) throws Exception
- void [initiateTfidf](#) () throws Exception
- Point [calculatePoint](#) (int versionNumber, int lineNumber, int scaleValue)
- Color [calculateColor](#) (int frequency, float a)
- void [addStringIndex](#) (Map.Entry< String, Integer > mapping)
- void [addfrequencyColorIndex](#) (Map.Entry< String, Integer > mapping, Color color)
- boolean [JsonReader](#) (String token, [Item](#) item) throws Exception
- List< [Version](#) > [getM\\_VersionList](#) ()
- void [setM\\_VersionList](#) (List< [Version](#) > m\_VersionList)

## Public Attributes

- `Hashtable< String, Integer > m_StringIndex = new Hashtable<String, Integer>()`
- `List< Version > m_VersionList = new ArrayList<Version>()`
- `List< String > m_VersionNameList = new ArrayList<String>()`

### 6.1.1 Detailed Description

#### Author

Rosa This is a logic class to read the data from .txt file and compute the token frequency and other information

### 6.1.2 Member Function Documentation

#### 6.1.2.1 addfrequencyColorIndex()

```
void translationVisualization.DataReader.addfrequencyColorIndex (
    Map.Entry< String, Integer > mapping,
    Color color ) [inline]
```

Compute the color index

#### Parameters

<i>mapping</i>	
<i>color</i>	

#### 6.1.2.2 addStringIndex()

```
void translationVisualization.DataReader.addStringIndex (
    Map.Entry< String, Integer > mapping ) [inline]
```

Compute how many strings occurred in all versions used to compute the color for each token

#### Parameters

<i>mapping</i>	
----------------	--

#### 6.1.2.3 addTfidf()

```
void translationVisualization.DataReader.addTfidf (
    List< Hashtable< String, Integer >> lists ) throws Exception [inline]
```

#### 6.1.2.4 addVersionInfo()

```
boolean translationVisualization.DataReader.addVersionInfo (
    int versionNumber ) throws Exception [inline]
```

Process the data and set the data into the version

##### Parameters

<i>versionNumber</i>	
----------------------	--

##### Returns

##### Exceptions

<i>Exception</i>	
------------------	--

#### 6.1.2.5 addWordFrequency()

```
boolean translationVisualization.DataReader.addWordFrequency (
    String eachWord ) [inline]
```

Compute the frequency for each word.

##### Parameters

<i>eachWord</i>	
-----------------	--

##### Returns

TRUE on success.

#### 6.1.2.6 calculateColor()

```
Color translationVisualization.DataReader.calculateColor (
    int frequency,
    float a ) [inline]
```

Calculate the color according to the variable numbers

**Parameters**

<i>stringNumber</i>	
---------------------	--

**Returns**

color variable

**6.1.2.7 calculatePoint()**

```
Point translationVisualization.DataReader.calculatePoint (
    int versionNumber,
    int lineNumber,
    int scaleValue ) [inline]
```

Calculate the point location

**Parameters**

<i>versionNumber</i>	
<i>lineNumber</i>	

**Returns**

the point calculated

**6.1.2.8 filePathProcess()**

```
String translationVisualization.DataReader.filePathProcess (
    String [] filePath,
    int versionNumber,
    int position ) [inline]
```

**Parameters**

<i>filePath-a</i>	string array of file paths
<i>versionNumber</i>	- an integer of version's number
<i>position</i>	- an integer telling the method which string in the array you want

**Returns**

name - the name of the version

#### 6.1.2.9 getM\_FilePath()

```
String [] translationVisualization.DataReader.getM_FilePath ( ) [inline]
```

##### Returns

file path string array

#### 6.1.2.10 getM\_frequencyColorIndex()

```
Hashtable<Integer, Color> translationVisualization.DataReader.getM_frequencyColorIndex ( )  
[inline]
```

#### 6.1.2.11 getM\_FrequencyIndex()

```
List<Map.Entry<String, Integer> > translationVisualization.DataReader.getM_FrequencyIndex ( )  
[inline]
```

#### 6.1.2.12 getM\_OneTokenList()

```
List<String> translationVisualization.DataReader.getM_OneTokenList ( ) [inline]
```

an accessor method used to add and get one list of token

##### Returns

#### 6.1.2.13 getM\_tokenLists()

```
List<Hashtable<String, Integer> > translationVisualization.DataReader.getM_tokenLists ( )  
[inline]
```

an accessor method used to get m\_tokenlists

##### Returns

m\_tokenlists

#### 6.1.2.14 getM\_UnsortedFrequency()

```
Hashtable<String, Integer> translationVisualization.DataReader.getM_UnsortedFrequency ( )  
[inline]
```

##### Returns

m\_UnsortedFrequency

#### 6.1.2.15 getM\_VersionList()

```
List<Version> translationVisualization.DataReader.getM_VersionList ( ) [inline]
```

#### 6.1.2.16 getM\_VersionNameList()

```
List<String> translationVisualization.DataReader.getM_VersionNameList ( ) [inline]
```

##### Returns

m\_VersionNameList

#### 6.1.2.17 getVersion()

```
Version translationVisualization.DataReader.getVersion ( ) [inline]
```

#### 6.1.2.18 initiateDataReader()

```
List<Version> translationVisualization.DataReader.initiateDataReader ( ) throws Exception  
[inline]
```

#### 6.1.2.19 initiateTfIdf()

```
void translationVisualization.DataReader.initiateTfIdf ( ) throws Exception [inline]
```

#### 6.1.2.20 isFrequentValue()

```
boolean translationVisualization.DataReader.isFrequentValue ( ) [inline]
```

#### 6.1.2.21 jSonReader()

```
boolean translationVisualization.DataReader.jSonReader (
    String token,
    Item item ) throws Exception [inline]
```

#### 6.1.2.22 readAllFile()

```
void translationVisualization.DataReader.readAllFile ( ) throws Exception [inline]
```

Read all files and process the data

Returns

Exceptions

Exception	
-----------	--

#### 6.1.2.23 readOneFile()

```
boolean translationVisualization.DataReader.readOneFile (
    String filePath ) throws Exception [inline]
```

pass the file path and read one file

Parameters

filePath	
----------	--

Returns

TRUE on success

Exceptions

Exception	
-----------	--

#### 6.1.2.24 setFrequentValue()

```
void translationVisualization.DataReader.setFrequentValue (
    boolean frequentValue ) [inline]
```

#### 6.1.2.25 setGermanLemmaFilePath()

```
void translationVisualization.DataReader.setGermanLemmaFilePath ( ) [inline]
```

#### 6.1.2.26 setInitialFilePath()

```
void translationVisualization.DataReader.setInitialFilePath ( ) [inline]
```

#### 6.1.2.27 setM\_FrequencyIndex()

```
void translationVisualization.DataReader.setM_FrequencyIndex (
    List< Map.Entry< String, Integer >> m_FrequencyIndex ) [inline]
```

#### 6.1.2.28 setM\_OneTokenList()

```
void translationVisualization.DataReader.setM_OneTokenList (
    List< String > m_OneTokenList ) [inline]
```

an accessor method used to access

##### Parameters

<i>m_OneTokenList</i>	
-----------------------	--

#### 6.1.2.29 setM\_UnsortedFrequency()

```
void translationVisualization.DataReader.setM_UnsortedFrequency (
    Hashtable< String, Integer > m_UnsortedFrequency ) [inline]
```

an accessor method to set the unsorted frequency hashtable



## Parameters

<i>m_UnsortedFrequency</i>	
----------------------------	--

## 6.1.2.30 setM\_VersionList()

```
void translationVisualization.DataReader.setM_VersionList (
    List< Version > m_VersionList ) [inline]
```

## 6.1.2.31 setVersion()

```
void translationVisualization.DataReader.setVersion (
    Version version ) [inline]
```

## 6.1.2.32 sortColorIndex()

```
List<Map.Entry<Integer, Color> > translationVisualization.DataReader.sortColorIndex (
    Hashtable< Integer, Color > frequencyColorIndex ) [inline]
```

Sort the Color index as descending order

## Parameters

<i>frequencyColorIndex</i>	
----------------------------	--

## Returns

## 6.1.2.33 sortFrequencyIndex()

```
boolean translationVisualization.DataReader.sortFrequencyIndex (
    Hashtable< String, Integer > frequencyUnsorted ) [inline]
```

Sort the frequency in m\_frequencyIndex as descending order.

## Parameters

<i>frequencyUnsorted</i>	
--------------------------	--

### Returns

TRUE on success.

## 6.1.3 Member Data Documentation

### 6.1.3.1 m\_StringIndex

```
Hashtable<String, Integer> translationVisualization.DataReader.m_StringIndex = new Hashtable<String, Integer>()
```

### 6.1.3.2 m\_VersionList

```
List<Version> translationVisualization.DataReader.m_VersionList = new ArrayList<Version>()
```

### 6.1.3.3 m\_VersionNameList

```
List<String> translationVisualization.DataReader.m_VersionNameList = new ArrayList<String>()
```

a list of String stored all version names

The documentation for this class was generated from the following file:

- [DataReader.java](#)

## 6.2 translationVisualization.Item Class Reference

### Public Member Functions

- List< [Rectangle](#) > [getM\\_Rectangles](#) ()
- void [setM\\_Rectangles](#) (List< [Rectangle](#) > m\_Rectangles)
- boolean [isM\\_rectLine](#) ()
- void [setM\\_rectLine](#) (boolean m\_rectLine)
- int [getM\\_TfIdf](#) ()
- void [setM\\_TfIdf](#) (int m\_TfIdf)
- void [setM\\_RectHeight](#) (int scaleValue)
- Font [getM\\_Token\\_Font](#) ()
- void [setM\\_Token\\_Font](#) (int scaleValue)
- Point [getM\\_RangeEndPoint](#) ()
- void [setM\\_RangeEndPoint](#) (Point rectPoint, int rectHeight, int rectWidth)
- List< String > [getM\\_Tokens](#) ()
- void [setM\\_Tokens](#) (List< String > m\_Tokens)

- List< Integer > [getM\\_Frequencies](#) ()
- void [setM\\_Frequencies](#) (List< Integer > m\_Frequencies)
- List< String > [getM\\_TokenTranslations](#) ()
- void [setM\\_TokenTranslations](#) (List< String > m\_TokenTranslations)
- String [getM\\_TokenTranslation](#) ()
- void [setM\\_TokenTranslation](#) (String m\_TokenTranslation)
- String [getM\\_TokenLemma](#) ()
- void [setM\\_TokenLemma](#) (String m\_TokenLemma)
- Color [getM\\_RectColor](#) ()
- void [setM\\_RectColor](#) (Color m\_RectColor)
- String [getM\\_Token](#) ()
- void [setM\\_Token](#) (String m\_Token)
- Font [getM\\_WORD\\_FONT](#) ()
- int [getM\\_RectHeight](#) ()
- int [getM\\_Frequency](#) ()
- void [setM\\_Frequency](#) (int m\_Frequency)
- Point [getM\\_StringPoint](#) ()
- void [setM\\_StringPoint](#) (Point point)
- Color [getM\\_TokenColor](#) ()
- void [setM\\_TokenColor](#) (Color color)
- Point [getM\\_RectPoint](#) ()
- void [setM\\_RectPoint](#) (Point stringPoint)
- double [getM\\_RectWidth](#) ()
- void [setM\\_RectWidth](#) (int wordFrequency, double scaleValue)

### 6.2.1 Detailed Description

Author

Rosa

### 6.2.2 Member Function Documentation

#### 6.2.2.1 [getM\\_Frequencies\(\)](#)

```
List<Integer> translationVisualization.Item.getM_Frequencies ( ) [inline]
```

#### 6.2.2.2 [getM\\_Frequency\(\)](#)

```
int translationVisualization.Item.getM_Frequency ( ) [inline]
```

Returns

the frequency of each token

#### 6.2.2.3 getM\_RangeEndPoint()

```
Point translationVisualization.Item.getM_RangeEndPoint ( ) [inline]
```

#### 6.2.2.4 getM\_Rectangles()

```
List<Rectangle> translationVisualization.Item.getM_Rectangles ( ) [inline]
```

#### 6.2.2.5 getM\_RectColor()

```
Color translationVisualization.Item.getM_RectColor ( ) [inline]
```

#### 6.2.2.6 getM\_RectHeight()

```
int translationVisualization.Item.getM_RectHeight ( ) [inline]
```

##### Returns

the height of rectangle

#### 6.2.2.7 getM\_RectPoint()

```
Point translationVisualization.Item.getM_RectPoint ( ) [inline]
```

##### Returns

the location of the rectangle

#### 6.2.2.8 getM\_RectWidth()

```
double translationVisualization.Item.getM_RectWidth ( ) [inline]
```

##### Returns

the width of the rectangle

#### 6.2.2.9 getM\_StringPoint()

```
Point translationVisualization.Item.getM_StringPoint ( ) [inline]
```

##### Returns

the location point of each token

#### 6.2.2.10 getM\_TfIdf()

```
int translationVisualization.Item.getM_TfIdf ( ) [inline]
```

#### 6.2.2.11 getM\_Token()

```
String translationVisualization.Item.getM_Token ( ) [inline]
```

##### Returns

tokens

#### 6.2.2.12 getM\_Token\_Font()

```
Font translationVisualization.Item.getM_Token_Font ( ) [inline]
```

#### 6.2.2.13 getM\_TokenColor()

```
Color translationVisualization.Item.getM_TokenColor ( ) [inline]
```

##### Returns

the color of each token

#### 6.2.2.14 getM\_TokenLemma()

```
String translationVisualization.Item.getM_TokenLemma ( ) [inline]
```

#### 6.2.2.15 getM\_Tokens()

```
List<String> translationVisualization.Item.getM_Tokens ( ) [inline]
```

#### 6.2.2.16 getM\_TokenTranslation()

```
String translationVisualization.Item.getM_TokenTranslation ( ) [inline]
```

#### 6.2.2.17 getM\_TokenTranslations()

```
List<String> translationVisualization.Item.getM_TokenTranslations ( ) [inline]
```

#### 6.2.2.18 getM\_WORD\_FONT()

```
Font translationVisualization.Item.getM_WORD_FONT ( ) [inline]
```

#### Returns

the fond

#### 6.2.2.19 isM\_rectLine()

```
boolean translationVisualization.Item.isM_rectLine ( ) [inline]
```

#### 6.2.2.20 setM\_Frequencies()

```
void translationVisualization.Item.setM_Frequencies (
    List< Integer > m_Frequencies ) [inline]
```

#### 6.2.2.21 setM\_Frequency()

```
void translationVisualization.Item.setM_Frequency (
    int m_Frequency ) [inline]
```

An accessor method to pass number to [Item](#) object and set frequency

## Parameters

<i>m_Frequency</i>	
--------------------	--

**6.2.2.22 setM\_RangeEndPoint()**

```
void translationVisualization.Item.setM_RangeEndPoint (
    Point rectPoint,
    int rectHeight,
    int rectWidth ) [inline]
```

**6.2.2.23 setM\_Rectangles()**

```
void translationVisualization.Item.setM_Rectangles (
    List< Rectangle > m_Rectangles ) [inline]
```

**6.2.2.24 setM\_RectColor()**

```
void translationVisualization.Item.setM_RectColor (
    Color m_RectColor ) [inline]
```

**6.2.2.25 setM\_RectHeight()**

```
void translationVisualization.Item.setM_RectHeight (
    int scaleValue ) [inline]
```

**6.2.2.26 setM\_rectLine()**

```
void translationVisualization.Item.setM_rectLine (
    boolean m_rectLine ) [inline]
```

if the value turns to true, this boolean value will be passed to graphic class and set this token's rectangle highLighted

## Parameters

<i>m_rectLine</i>	
-------------------	--

#### 6.2.2.27 setM\_RectPoint()

```
void translationVisualization.Item.setM_RectPoint (
    Point stringPoint ) [inline]
```

Pass the point of string to [Item](#) object and calculate location

##### Parameters

<i>stringPoint</i>	
--------------------	--

#### 6.2.2.28 setM\_RectWidth()

```
void translationVisualization.Item.setM_RectWidth (
    int wordFrequency,
    double scaleValue ) [inline]
```

Pass the frequency number to compute the width of rectangle

##### Parameters

<i>wordFrequency</i>	
----------------------	--

#### 6.2.2.29 setM\_StringPoint()

```
void translationVisualization.Item.setM_StringPoint (
    Point point ) [inline]
```

An accessor method to pass point to [Item](#) object and set location of the string

##### Parameters

<i>point</i>	
--------------	--

#### 6.2.2.30 setM\_Tfidf()

```
void translationVisualization.Item.setM_Tfidf (
    int m_Tfidf ) [inline]
```



### 6.2.2.31 setM\_Token()

```
void translationVisualization.Item.setM_Token (
    String m_Token ) [inline]
```

An accessor method to pass string to [Item](#) object and set token

#### Parameters

<i>m_Token</i>	
----------------	--

### 6.2.2.32 setM\_Token\_Font()

```
void translationVisualization.Item.setM_Token_Font (
    int scalValue ) [inline]
```

### 6.2.2.33 setM\_TokenColor()

```
void translationVisualization.Item.setM_TokenColor (
    Color color ) [inline]
```

An accessor method to pass the color to [Item](#) object and set color

#### Parameters

<i>color</i>	
--------------	--

### 6.2.2.34 setM\_TokenLemma()

```
void translationVisualization.Item.setM_TokenLemma (
    String m_TokenLemma ) [inline]
```

### 6.2.2.35 setM\_Tokens()

```
void translationVisualization.Item.setM_Tokens (
    List< String > m_Tokens ) [inline]
```

#### 6.2.2.36 setM-TokenTranslation()

```
void translationVisualization.Item.setM-TokenTranslation (
    String m-TokenTranslation ) [inline]
```

#### 6.2.2.37 setM-TokenTranslations()

```
void translationVisualization.Item.setM-TokenTranslations (
    List< String > m-TokenTranslations ) [inline]
```

The documentation for this class was generated from the following file:

- [Item.java](#)

## 6.3 translationVisualization.LemmaProcess Class Reference

### Public Member Functions

- boolean [readOneFile](#) (String filePath) throws Exception
- boolean [jSonReader](#) (String token) throws Exception
- boolean [readCorpus](#) (String filePath) throws Exception
- JsonObject [getObject](#) ()
- void [setObject](#) (JsonObject object)

### Static Public Member Functions

- static void [main](#) (String[] args) throws Exception

### 6.3.1 Member Function Documentation

#### 6.3.1.1 getObject()

```
JsonObject translationVisualization.LemmaProcess.getObject ( ) [inline]
```

#### 6.3.1.2 jSonReader()

```
boolean translationVisualization.LemmaProcess.jSonReader (
    String token ) throws Exception [inline]
```

### 6.3.1.3 main()

```
static void translationVisualization.LemmaProcess.main (
    String [] args ) throws Exception [inline], [static]
```

### 6.3.1.4 readCorpus()

```
boolean translationVisualization.LemmaProcess.readCorpus (
    String filePath ) throws Exception [inline]
```

### 6.3.1.5 readOneFile()

```
boolean translationVisualization.LemmaProcess.readOneFile (
    String filePath ) throws Exception [inline]
```

pass the file path and read one file

#### Parameters

<i>filePath</i>	
-----------------	--

#### Returns

TRUE on success

#### Exceptions

<i>Exception</i>	
------------------	--

### 6.3.1.6 setObject()

```
void translationVisualization.LemmaProcess.setObject (
    JsonObject object ) [inline]
```

The documentation for this class was generated from the following file:

- [LemmaProcess.java](#)

## 6.4 translationVisualization.MainMethod Class Reference

### Static Public Member Functions

- static void [main](#) (String[] args) throws Exception

### 6.4.1 Member Function Documentation

#### 6.4.1.1 main()

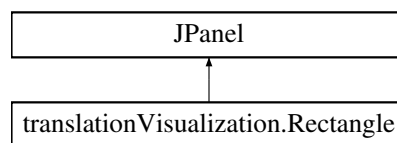
```
static void translationVisualization.MainMethod.main (
    String [] args ) throws Exception [inline], [static]
```

The documentation for this class was generated from the following file:

- [MainMethod.java](#)

## 6.5 translationVisualization.Rectangle Class Reference

Inheritance diagram for translationVisualization.Rectangle:



### Public Member Functions

- List< Point > [getM\\_RegionPoints](#) ()
- void [setM\\_RegionPoints](#) (List< Point > m\_RegionPoints)
- Point [getM\\_RectPoint](#) ()
- void [setM\\_RectPoint](#) (Point stringPoint)
- int [getM\\_RectWidth](#) ()
- void [setM\\_RectWidth](#) (int wordFrequency)
- Color [getM\\_RectColor](#) ()
- void [setM\\_RectColor](#) (Color m\_RectColor)
- int [getM\\_RectHeight](#) ()
- Point [getM\\_RangeEndPoint](#) ()
- void [setM\\_RangeEndPoint](#) (Point rectPoint, int rectHeight, int rectWidth)

### 6.5.1 Member Function Documentation

#### 6.5.1.1 getM\_RangeEndPoint()

```
Point translationVisualization.Rectangle.getM_RangeEndPoint ( ) [inline]
```

#### 6.5.1.2 getM\_RectColor()

```
Color translationVisualization.Rectangle.getM_RectColor ( ) [inline]
```

#### 6.5.1.3 getM\_RectHeight()

```
int translationVisualization.Rectangle.getM_RectHeight ( ) [inline]
```

#### 6.5.1.4 getM\_RectPoint()

```
Point translationVisualization.Rectangle.getM_RectPoint ( ) [inline]
```

#### 6.5.1.5 getM\_RectWidth()

```
int translationVisualization.Rectangle.getM_RectWidth ( ) [inline]
```

#### 6.5.1.6 getM\_RegionPoints()

```
List<Point> translationVisualization.Rectangle.getM_RegionPoints ( ) [inline]
```

#### 6.5.1.7 setM\_RangeEndPoint()

```
void translationVisualization.Rectangle.setM_RangeEndPoint (
    Point rectPoint,
    int rectHeight,
    int rectWidth ) [inline]
```

#### 6.5.1.8 setM\_RectColor()

```
void translationVisualization.Rectangle.setM_RectColor (
    Color m_RectColor ) [inline]
```

#### 6.5.1.9 setM\_RectPoint()

```
void translationVisualization.Rectangle.setM_RectPoint (
    Point stringPoint ) [inline]
```

Pass the point of string to [Item](#) object and calculate location

## Parameters

<i>stringPoint</i>	
--------------------	--

## 6.5.1.10 setM\_RectWidth()

```
void translationVisualization.Rectangle.setM_RectWidth (
    int wordFrequency ) [inline]
```

Pass the frequency number to compute the width of rectangle

## Parameters

<i>wordFrequency</i>	
----------------------	--

## 6.5.1.11 setM\_RegionPoints()

```
void translationVisualization.Rectangle.setM_RegionPoints (
    List< Point > m_RegionPoints ) [inline]
```

The documentation for this class was generated from the following file:

- [Rectangle.java](#)

## 6.6 translationVisualization.TFIDFCalculator Class Reference

### Public Member Functions

- List< Hashtable< String, Integer > > [getLists](#) ()
- [Item](#) [getConcordance](#) ()
- void [setConcordance](#) ([Item](#) item)
- Hashtable< String, Integer > [getTfidfList](#) ()
- void [setTfidfList](#) (Hashtable< String, Integer > tfidfList)
- List< Map.Entry< String, Integer > > [getOneDoc](#) ()
- void [setOneDoc](#) (List< Map.Entry< String, Integer > > oneDoc)
- List< Hashtable< String, Integer > > [initiate](#) (List< Hashtable< String, Integer > > documents)
- double [idf](#) (List< Hashtable< String, Integer > > documents, String term)

### 6.6.1 Detailed Description

## Author

Mohamed Guendouz

## 6.6.2 Member Function Documentation

### 6.6.2.1 getConcordance()

```
Item translationVisualization.TFIDFCalculator.getConcordance ( ) [inline]
```

### 6.6.2.2 getLists()

```
List<Hashtable<String, Integer> > translationVisualization.TFIDFCalculator.getLists ( ) [inline]
```

### 6.6.2.3 getOneDoc()

```
List<Map.Entry<String, Integer> > translationVisualization.TFIDFCalculator.getOneDoc ( )  
[inline]
```

### 6.6.2.4 getTfidfList()

```
Hashtable<String, Integer> translationVisualization.TFIDFCalculator.getTfidfList ( ) [inline]
```

### 6.6.2.5 idf()

```
double translationVisualization.TFIDFCalculator.idf (  
    List< Hashtable< String, Integer >> documents,  
    String term ) [inline]
```

#### Parameters

<i>docs</i>	list of list of strings represents the dataset
<i>term</i>	String represents a term

#### Returns

the inverse term frequency of term in documents

#### 6.6.2.6 initiate()

```
List<Hashtable<String, Integer> > translationVisualization.TFIDFCalculator.initiate (
    List< Hashtable< String, Integer >> documents ) [inline]
```

#### 6.6.2.7 setConcordance()

```
void translationVisualization.TFIDFCalculator.setConcordance (
    Item item ) [inline]
```

#### 6.6.2.8 setOneDoc()

```
void translationVisualization.TFIDFCalculator.setOneDoc (
    List< Map.Entry< String, Integer >> oneDoc ) [inline]
```

#### 6.6.2.9 setTfidfList()

```
void translationVisualization.TFIDFCalculator.setTfidfList (
    Hashtable< String, Integer > tfidfList ) [inline]
```

The documentation for this class was generated from the following file:

- [TFIDFCalculator.java](#)

## 6.7 translationVisualization.TranslationVisualization Class Reference

### Public Member Functions

- String [getFrameTitle](#) ()
- void [setFrameTitle](#) (String frameTitle)
- JButton [getM\\_lemmaButton](#) ()
- void [setM\\_lemmaButton](#) (JButton m\_lemmaButton)
- JButton [getM\\_TfidfButton](#) ()
- void [setM\\_TfidfButton](#) (JButton m\_TfidfButton)
- JToggleButton [getM\\_TextOnOffButton](#) ()
- void [setM\\_TextOnOffButton](#) (JToggleButton m\_TextOnOffButton)
- JLabel [getM\\_SliderLabel](#) ()
- void [setM\\_SliderLabel](#) (JLabel m\_SliderLabel, String string)
- [DataReader](#) [getDataReader](#) ()
- void [setDataReader](#) ([DataReader](#) dataReader) throws Exception
- List< [Version](#) > [getVersionList](#) ()
- void [setM\\_VersionList](#) (List< [Version](#) > m\_VersionList)



- VersionChosenPanel [getVersionChoosingPanel](#) ()
- void [setVersionChoosingPanel](#) (VersionChosenPanel versionChoosingPanel, ConcordancePanel concordancePanel, List< String > versionNames)
- JSlider [getM\\_ConcordanceSlider](#) ()
- void [setM\\_ConcordanceSlider](#) ()
- JCheckBox [getVersionMenu](#) ()
- JFrame [getConcordanceFrame](#) ()
- void [setConcordanceFrame](#) (JFrame concordanceFrame)
- JSlider [getM\\_ScrollPaneSlider](#) ()
- void [setM\\_ScrollPaneSlider](#) ()
- JPanel [getM\\_ScrollPanel](#) ()
- void [setM\\_ScrollPanel](#) (JPanel m\_ScrollPanel)
- JScrollPane [getScrollPane](#) ()
- void [setScrollPane](#) (JScrollPane scrollPanel)
- JButton [getConcordanceButton](#) ()
- void [setConcordanceButton](#) (JButton concordanceButton)
- JPanel [getM\\_visuallizationPanel](#) ()
- void [setM\\_visuallizationPanel](#) (JPanel m\_visuallizationPanel)
- JPanel [getM\\_UserOptionPanel](#) ()
- void [setM\\_UserOptionPanel](#) (JPanel buttonPanel)
- ColorLegendPanel [getM\\_ColorLegendPanel](#) ()
- void [setM\\_ColorLegendPanel](#) (ColorLegendPanel colorLegendPanel, [DataReader](#) dataReader)
- ConcordancePanel [getConcordancePanel](#) ()
- void [setConcordancePanel](#) (ConcordancePanel concordancePanel)
- void [setComponents](#) () throws Exception
- GridBagConstraints [getM\\_Constraint](#) ()
- void [setM\\_Constraint](#) (int gridx, int gridy, int weightx, int weighty)
- GridBagConstraints [getM\\_PanelLayout](#) ()
- void [setM\\_PanelLayout](#) (GridBagLayout m\_PanelLayout)
- void [initiateVisPanel](#) ()
- void [initiateTransVis](#) () throws Exception
- void [initiateUserOptPanel](#) ()
- void [initiateFrame](#) ()

## 6.7.1 Member Function Documentation

### 6.7.1.1 [getConcordanceButton](#)()

`JButton translationVisualization.TranslationVisualization.getConcordanceButton ( ) [inline]`

Use this method to access m\_ConcordanceButton

#### Returns

m\_ConcordanceButton

#### 6.7.1.2 getConcordanceFrame()

```
JFrame translationVisualization.TranslationVisualization.getConcordanceFrame ( ) [inline]
```

Use this method to access m\_ConcordanceFrame

##### Returns

m\_ConcordanceFrame

#### 6.7.1.3 getConcordancePanel()

```
ConcordancePanel translationVisualization.TranslationVisualization.getConcordancePanel ( )  
[inline]
```

Use this method to access m\_ConcordancePanel

##### Returns

m\_ConcordancePanel

#### 6.7.1.4 getDataReader()

```
DataReader translationVisualization.TranslationVisualization.getDataReader ( ) [inline]
```

#### 6.7.1.5 getFrameTitle()

```
String translationVisualization.TranslationVisualization.getFrameTitle ( ) [inline]
```

#### 6.7.1.6 getM\_ColorLegendPanel()

```
ColorLegendPanel translationVisualization.TranslationVisualization.getM_ColorLegendPanel ( )  
[inline]
```

Use this method to access m\_ColorLegendPanel

##### Returns

m\_ColorLegendPanel

#### 6.7.1.7 getM\_ConcordanceSlider()

`JSlider translationVisualization.TranslationVisualization.getM_ConcordanceSlider ( ) [inline]`

Use this method to access `m_ConcordanceSlider`

##### Returns

`m_ConcordanceSlider`

#### 6.7.1.8 getM\_Constraint()

`GridBagConstraints translationVisualization.TranslationVisualization.getM_Constraint ( ) [inline]`

#### 6.7.1.9 getM\_lemmaButton()

`JButton translationVisualization.TranslationVisualization.getM_lemmaButton ( ) [inline]`

#### 6.7.1.10 getM\_PanelLayout()

`GridBagLayout translationVisualization.TranslationVisualization.getM_PanelLayout ( ) [inline]`

#### 6.7.1.11 getM\_ScrollPanel()

`JPanel translationVisualization.TranslationVisualization.getM_ScrollPanel ( ) [inline]`

#### 6.7.1.12 getM\_ScrollPaneSlider()

`JSlider translationVisualization.TranslationVisualization.getM_ScrollPaneSlider ( ) [inline]`

#### 6.7.1.13 getM\_SliderLabel()

`JLabel translationVisualization.TranslationVisualization.getM_SliderLabel ( ) [inline]`

#### 6.7.1.14 getM\_TextOnOffButton()

`JToggleButton translationVisualization.TranslationVisualization.getM_TextOnOffButton ( ) [inline]`

#### 6.7.1.15 getM\_TfIdfButton()

`JButton translationVisualization.TranslationVisualization.getM_TfIdfButton ( ) [inline]`

#### 6.7.1.16 getM\_UserOptionPanel()

`JPanel translationVisualization.TranslationVisualization.getM_UserOptionPanel ( ) [inline]`

Use this method to access `m_buttonPanel`

##### Returns

`m_buttonPanel`

#### 6.7.1.17 getM\_visuallizationPanel()

`JPanel translationVisualization.TranslationVisualization.getM_visuallizationPanel ( ) [inline]`

Use this method to access `m_visuallizationPanel`

##### Returns

`m_visuallizationPanel`

#### 6.7.1.18 getScrollPane()

`JScrollPane translationVisualization.TranslationVisualization.getScrollPane ( ) [inline]`

Use this method to access `m_ScrollPanel`

##### Returns

`m_ScrollPanel`

#### 6.7.1.19 getVersionChoosingPanel()

```
VersionChosenPanel translationVisualization.TranslationVisualization.getVersionChoosingPanel (
) [inline]
```

#### 6.7.1.20 getVersionList()

```
List<Version> translationVisualization.TranslationVisualization.getVersionList ( ) [inline]
```

Use this method to access m\_VersionList

##### Returns

m\_VersionList

##### Exceptions

Exception	
-----------	--

#### 6.7.1.21 getVersionMenu()

```
JCheckBox translationVisualization.TranslationVisualization.getVersionMenu ( ) [inline]
```

#### 6.7.1.22 initiateFrame()

```
void translationVisualization.TranslationVisualization.initiateFrame ( ) [inline]
```

#### 6.7.1.23 initiateTransVis()

```
void translationVisualization.TranslationVisualization.initiateTransVis ( ) throws Exception
[inline]
```

#### 6.7.1.24 initiateUserOptPanel()

```
void translationVisualization.TranslationVisualization.initiateUserOptPanel ( ) [inline]
```

#### 6.7.1.25 initiateVisPanel()

```
void translationVisualization.TranslationVisualization.initiateVisPanel ( ) [inline]
```

#### 6.7.1.26 setComponents()

```
void translationVisualization.TranslationVisualization.setComponents ( ) throws Exception  
[inline]
```

#### 6.7.1.27 setConcordanceButton()

```
void translationVisualization.TranslationVisualization.setConcordanceButton (   
    JButton concordanceButton ) [inline]
```

Use this method to create and set m\_ConcordanceButton

##### Parameters

<i>concordanceButton</i>	
--------------------------	--

#### 6.7.1.28 setConcordanceFrame()

```
void translationVisualization.TranslationVisualization.setConcordanceFrame (   
    JFrame concordanceFrame ) [inline]
```

Use this method to create and set m\_ConcordanceFrame

##### Parameters

<i>concordanceFrame</i>	
-------------------------	--

#### 6.7.1.29 setConcordancePanel()

```
void translationVisualization.TranslationVisualization.setConcordancePanel (   
    ConcordancePanel concordancePanel ) [inline]
```

Use this method to create and set m\_ConcordancePanel

## Parameters

<i>concordancePanel</i>	
-------------------------	--

## 6.7.1.30 setDataReader()

```
void translationVisualization.TranslationVisualization.setDataReader (
    DataReader dataReader ) throws Exception [inline]
```

## 6.7.1.31 setFrameTitle()

```
void translationVisualization.TranslationVisualization.setFrameTitle (
    String frameTitle ) [inline]
```

## 6.7.1.32 setM\_ColorLegendPanel()

```
void translationVisualization.TranslationVisualization.setM_ColorLegendPanel (
    ColorLegendPanel colorLegendPanel,
    DataReader dataReader ) [inline]
```

Use this method to create and set m\_ColorLegendPanel

## Parameters

<i>colorLegendPanel</i>	
<i>dataReader</i>	

## 6.7.1.33 setM\_ConcordanceSlider()

```
void translationVisualization.TranslationVisualization.setM_ConcordanceSlider ( ) [inline]
```

Use this method to create and set m\_ConcordanceSlider

## Parameters

<i>m_Slider</i>	
-----------------	--

**6.7.1.34 setM\_Constraint()**

```
void translationVisualization.TranslationVisualization.setM_Constraint (
    int gridx,
    int gridy,
    int weightx,
    int weighty ) [inline]
```

**6.7.1.35 setM\_lemmaButton()**

```
void translationVisualization.TranslationVisualization.setM_lemmaButton (
    JButton m_lemmaButton ) [inline]
```

**6.7.1.36 setM\_PanelLayout()**

```
void translationVisualization.TranslationVisualization.setM_PanelLayout (
    GridBagLayout m_PanelLayout ) [inline]
```

**6.7.1.37 setM\_ScrollPanel()**

```
void translationVisualization.TranslationVisualization.setM_ScrollPanel (
    JPanel m_ScrollPanel ) [inline]
```

**6.7.1.38 setM\_ScrollPaneSlider()**

```
void translationVisualization.TranslationVisualization.setM_ScrollPaneSlider ( ) [inline]
```

**6.7.1.39 setM\_SliderLabel()**

```
void translationVisualization.TranslationVisualization.setM_SliderLabel (
    JLabel m_SliderLabel,
    String string ) [inline]
```

**Parameters**

<i>m_SliderLabel</i>	
<i>string</i>	



#### 6.7.1.40 setM\_TextOnOffButton()

```
void translationVisualization.TranslationVisualization.setM_TextOnOffButton (
    JToggleButton m_TextOnOffButton ) [inline]
```

#### 6.7.1.41 setM\_TfIdfButton()

```
void translationVisualization.TranslationVisualization.setM_TfIdfButton (
    JButton m_TfIdfButton ) [inline]
```

#### 6.7.1.42 setM\_UserOptionPanel()

```
void translationVisualization.TranslationVisualization.setM_UserOptionPanel (
    JPanel buttonPanel ) [inline]
```

Use this method to create and set `m_buttonPanel`

##### Parameters

<i>buttonPanel</i>	
--------------------	--

#### 6.7.1.43 setM\_VersionList()

```
void translationVisualization.TranslationVisualization.setM_VersionList (
    List< Version > m_VersionList ) [inline]
```

#### 6.7.1.44 setM\_visuallizationPanel()

```
void translationVisualization.TranslationVisualization.setM_visuallizationPanel (
    JPanel m_visuallizationPanel ) [inline]
```

Use this method to create and set `m_visuallizationPanel`

##### Parameters

<i>m_visuallizationPanel</i>	
------------------------------	--

#### 6.7.1.45 setScrollPane()

```
void translationVisualization.TranslationVisualization.setScrollPane (
    JScrollPane scrollPanel ) [inline]
```

Use this method to create and set m\_ScrollPanel

##### Parameters

<i>scrollPanel</i>	
--------------------	--

#### 6.7.1.46 setVersionChoosingPanel()

```
void translationVisualization.TranslationVisualization.setVersionChoosingPanel (
    VersionChosenPanel versionChoosingPanel,
    ConcordancePanel concordancePanel,
    List< String > versionNames ) [inline]
```

The documentation for this class was generated from the following file:

- [TranslationVisualization.java](#)

## 6.8 translationVisualization.Version Class Reference

### Public Member Functions

- Font [getM\\_WORD\\_FONT](#) ()
- List< String > [getM\\_WordsList](#) ()
- void [setM\\_WordsList](#) (List< String > m\_Words)
- String [getM\\_VersionName](#) ()
- void [setM\\_VersionName](#) (String m\_VersionName)
- String [getM\\_Author](#) ()
- void [setM\\_Author](#) (String versionFileName)
- int [getM\\_VersionNumber](#) ()
- void [setM\\_VersionNumber](#) (int m\_VersionNumber)
- int [getM\\_VersionYear](#) ()
- void [setM\\_VersionYear](#) (String versionFileName)
- Item [getM\\_Concordance](#) ()
- void [setM\\_Concordance](#) (Item m\_Concordance)
- List< Item > [getM\\_ConcordanceList](#) ()
- void [setM\\_ConcordanceList](#) (Item m\_Concordance)
- Point [getM\\_titlePoint](#) ()
- void [setM\\_titlePoint](#) (Point point)

## 6.8.1 Member Function Documentation

### 6.8.1.1 getM\_Author()

```
String translationVisualization.Version.getM_Author ( ) [inline]
```

#### Returns

author name

### 6.8.1.2 getM\_Concordance()

```
Item translationVisualization.Version.getM_Concordance ( ) [inline]
```

#### Returns

one concordance

### 6.8.1.3 getM\_ConcordanceList()

```
List<Item> translationVisualization.Version.getM_ConcordanceList ( ) [inline]
```

#### Returns

a list of concordance in current version

### 6.8.1.4 getM\_titlePoint()

```
Point translationVisualization.Version.getM_titlePoint ( ) [inline]
```

#### Returns

the location point of version title

#### 6.8.1.5 getM\_VersionName()

```
String translationVisualization.Version.getM_VersionName ( ) [inline]
```

##### Returns

version name

#### 6.8.1.6 getM\_VersionNumber()

```
int translationVisualization.Version.getM_VersionNumber ( ) [inline]
```

##### Returns

the number of version

#### 6.8.1.7 getM\_VersionYear()

```
int translationVisualization.Version.getM_VersionYear ( ) [inline]
```

##### Returns

the version year

#### 6.8.1.8 getM\_WORD\_FONT()

```
Font translationVisualization.Version.getM_WORD_FONT ( ) [inline]
```

##### Returns

the fond of the title

#### 6.8.1.9 getM\_WordsList()

```
List<String> translationVisualization.Version.getM_WordsList ( ) [inline]
```

##### Returns

a list of all tokens in one version

#### 6.8.1.10 setM\_Author()

```
void translationVisualization.Version.setM_Author (
    String versionFileName ) [inline]
```

An accessor method to pass the version file name to [Version](#) object and fetch the author name

## Parameters

<i>versionInformation</i>	
---------------------------	--

## 6.8.1.11 setM\_Concordance()

```
void translationVisualization.Version.setM_Concordance (
    Item m_Concordance ) [inline]
```

An accessor method to set one concordance

## Parameters

<i>m_Concordance</i>	
----------------------	--

## 6.8.1.12 setM\_ConcordanceList()

```
void translationVisualization.Version.setM_ConcordanceList (
    Item m_Concordance ) [inline]
```

An accessor method to set the list of concordance

## Parameters

<i>m_Concordance</i>	
----------------------	--

## 6.8.1.13 setM\_titlePoint()

```
void translationVisualization.Version.setM_titlePoint (
    Point point ) [inline]
```

An accessor method to set location point of version title

## Parameters

<i>point</i>	
--------------	--

#### 6.8.1.14 setM\_VersionName()

```
void translationVisualization.Version.setM_VersionName (
    String m_VersionName ) [inline]
```

An accessor method to pass the version name to [Version](#) object and set the version name

##### Parameters

<i>m_VersionName</i>	
----------------------	--

#### 6.8.1.15 setM\_VersionNumber()

```
void translationVisualization.Version.setM_VersionNumber (
    int m_VersionNumber ) [inline]
```

An accessor method to pass the number of version to [Version](#) object and set the number

##### Parameters

<i>m_VersionNumber</i>	
------------------------	--

#### 6.8.1.16 setM\_VersionYear()

```
void translationVisualization.Version.setM_VersionYear (
    String versionFileName ) [inline]
```

An accessor method to pass one version file name to [Version](#) object and fetch the version year

##### Parameters

<i>versionInformation</i>	
---------------------------	--

#### 6.8.1.17 setM\_WordsList()

```
void translationVisualization.Version.setM_WordsList (
    List< String > m_Words ) [inline]
```

An accessor method to pass the list of words to [Version](#) object and set the list

## Parameters

<i>m_Words</i>	
----------------	--

The documentation for this class was generated from the following file:

- [Version.java](#)





## Chapter 7

# File Documentation

### 7.1 DataReader.java File Reference

#### Classes

- class [translationVisualization.DataReader](#)

#### Packages

- package [translationVisualization](#)

### 7.2 Item.java File Reference

#### Classes

- class [translationVisualization.Item](#)

#### Packages

- package [translationVisualization](#)

### 7.3 LemmaProcess.java File Reference

#### Classes

- class [translationVisualization.LemmaProcess](#)

#### Packages

- package [translationVisualization](#)

## 7.4 MainMethod.java File Reference

### Classes

- class [translationVisualization.MainMethod](#)

### Packages

- package [translationVisualization](#)

## 7.5 Rectangle.java File Reference

### Classes

- class [translationVisualization.Rectangle](#)

### Packages

- package [translationVisualization](#)

## 7.6 TFIDFCalculator.java File Reference

### Classes

- class [translationVisualization.TFIDFCalculator](#)

### Packages

- package [translationVisualization](#)

## 7.7 TranslationVisualization.java File Reference

### Classes

- class [translationVisualization.TranslationVisualization](#)

### Packages

- package [translationVisualization](#)

## 7.8 Version.java File Reference

### Classes

- class [translationVisualization.Version](#)

### Packages

- package [translationVisualization](#)