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Text2SpeechEditor

Final Release Report

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ADID Inc.

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**Text to Speech**

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# VERSIONS HISTORY

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Date	Version	Description	Author
24/05/2020	Final	Final release of Text2SpeechEditor	Athanasios Dimosiaris Ioannis Dimitriou

## 1 Introduction

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This document provides information concerning the final release of our Text2Speech Editor project.

### 1.1 Purpose

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The Text2Speech Editor is a useful tool that allows the computer to convert a given text into speech. Our objective is to create a simple editor that allows preparing text documents and transforming them to audio. The application can have many uses, such as helping people with speaking problems. It consists of a graphical user interface, a back-end that enables the text editing and transforming to speech process, with the later being based on external libraries.

### 1.2 Document Structure

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The rest of this document is structured as follows. Section 2 describes our Scrum team and specifies the this Sprint's backlog. Section 3 specifies the main design concepts for this release of the project.

## 2 Scrum team and Sprint Backlog

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### 2.1 Scrum team

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<b>Product Owner</b>	Apostolos Zarras
<b>Scrum Master</b>	Athanasios Dimosiaris
<b>Development Team</b>	Ioannis Dimitriou

## 2.2 Sprint Backlog

<b>Test ID</b>	Rot13Test
<b>User Story</b>	The user can encode the text using the Rot13 cipher.
<b>Test Class</b>	Rot13Encoding.java

<b>Test ID</b>	AtBashTest
<b>User Story</b>	The user can encode the text using the AtBash cipher
<b>Test class</b>	AtBashEncoding.java

<b>Test ID</b>	DocumentTest
<b>User Story</b>	The user can create a document by giving a specific path
<b>Test Class</b>	Document.java

<b>Test ID</b>	DocumentTest
<b>User Story</b>	The user can edit and save a document
<b>Test Class</b>	Document.java

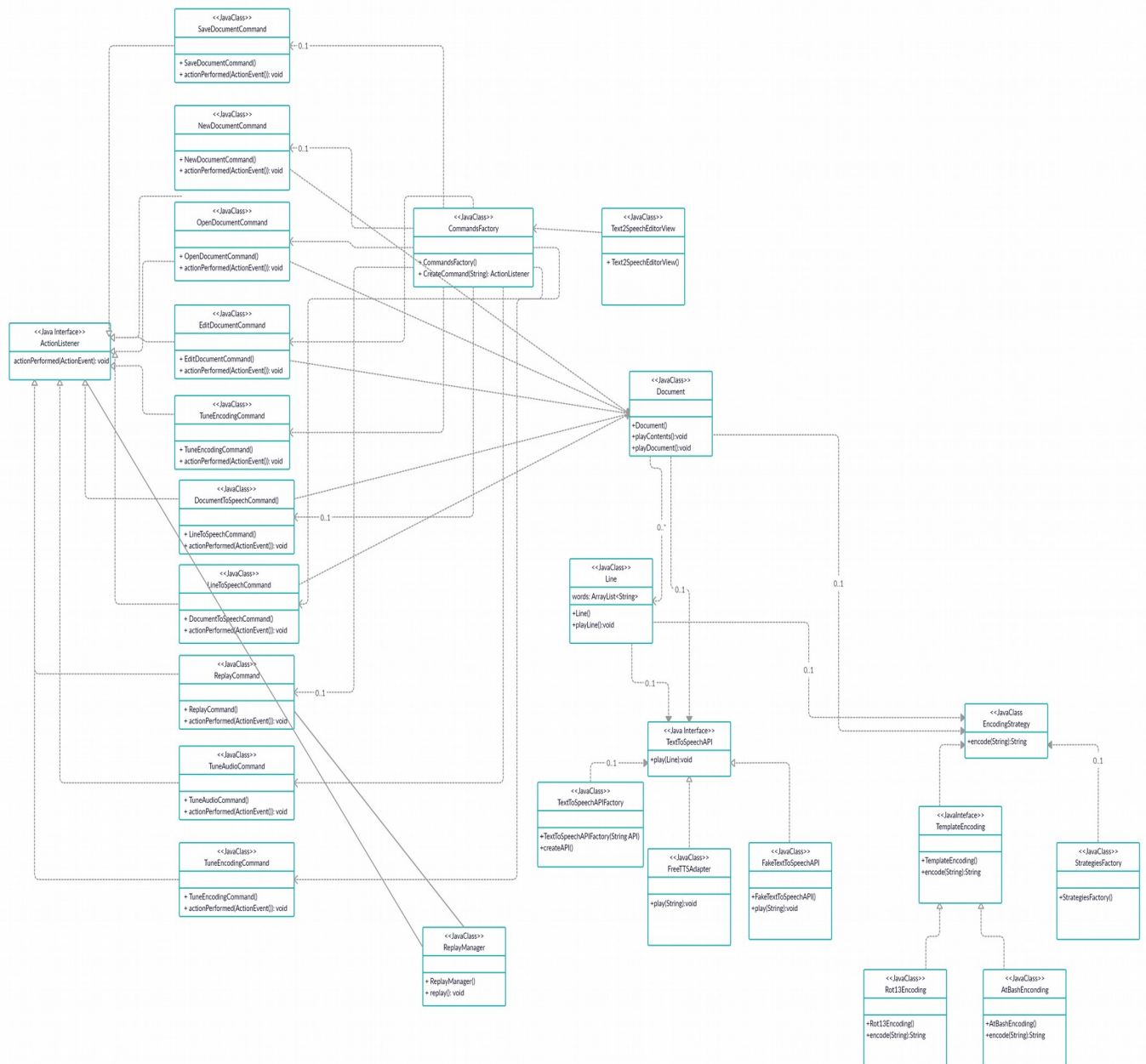
<b>Test ID</b>	DocumentTest
<b>User Story</b>	The user can open an existing document
<b>Test Class</b>	Document.java

<b>Test ID</b>	DocumentTest
<b>User Story</b>	The user can tune a document by changing volume, rate and pitch
<b>Test Class</b>	Document.java

<b>Test ID</b>	FakeTextToSpeechAPI
<b>User Story</b>	Just for developer testing
<b>Test Class</b>	Document.java

## 3 Design

### 3.1 Architecture



### 3.2 Design

All Java classes according to CRC cards.

Class Name: AtBashEncoding	
<b>Responsibilities:</b> <ul style="list-style-type: none"><li>▪ Encode text by using the AtBash cipher</li></ul>	<b>Collaborations:</b> <ul style="list-style-type: none"><li>▪ Document Class</li></ul>

Class Name: Encoding Strategy	
<b>Responsibilities:</b> <ul style="list-style-type: none"><li>▪ Implement chosen strategy</li></ul>	<b>Collaborations:</b> <ul style="list-style-type: none"><li>▪ Rot13Encoding Class</li><li>▪ AtBashEncoding class</li></ul>

Class Name: FakeTextToSpeechAPI	
<b>Responsibilities:</b> <ul style="list-style-type: none"><li>▪ Creating a fake API</li></ul>	<b>Collaborations:</b> <ul style="list-style-type: none"><li>▪ Document class</li></ul>

Class Name: FreeTTSAdapter	
<b>Responsibilities:</b> <ul style="list-style-type: none"><li>▪ FreeTTS library adapter</li></ul>	<b>Collaborations:</b> <ul style="list-style-type: none"><li>▪ Document class</li></ul>

Class Name: Rot13Encoding	
<b>Responsibilities:</b> <ul style="list-style-type: none"><li>▪ Encode text by using the Rot13 cipher</li></ul>	<b>Collaborations:</b> <ul style="list-style-type: none"><li>▪ Document class</li></ul>

Class Name: StrategiesFactory
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<b>Responsibilities:</b>	<b>Collaborations:</b>
<ul style="list-style-type: none"> <li>▪ Choosing encoding strategy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Document class</li> </ul>

<b>Class Name: TemplateEncoding</b>	
<b>Responsibilities:</b>	<b>Collaborations:</b>
<ul style="list-style-type: none"> <li>▪ Makes encoding template</li> </ul>	<ul style="list-style-type: none"> <li>▪ Document class</li> </ul>

<b>Class Name: TextToSpeechAPI</b>	
<b>Responsibilities:</b>	<b>Collaborations:</b>
<ul style="list-style-type: none"> <li>▪ Set the API</li> </ul>	<ul style="list-style-type: none"> <li>▪ Document class</li> </ul>

<b>Class Name: TextToSpeechAPIFactory</b>	
<b>Responsibilities:</b>	<b>Collaborations:</b>
<ul style="list-style-type: none"> <li>▪ Chose the FreeTTS or Fake API</li> </ul>	<ul style="list-style-type: none"> <li>▪ Document class</li> <li>▪ TextToSpeechAPI</li> </ul>

<b>Class Name: Document</b>	
<b>Responsibilities:</b>	<b>Collaborations:</b>
<ul style="list-style-type: none"> <li>▪ Processes documents</li> </ul>	<ul style="list-style-type: none"> <li>▪ Line class</li> </ul>

<b>Class Name: Line</b>	
<b>Responsibilities:</b>	<b>Collaborations:</b>
<ul style="list-style-type: none"> <li>▪ Processes lines</li> </ul>	<ul style="list-style-type: none"> <li>▪ Document class</li> </ul>

<b>Class Name: EditDocPanel</b>	
<b>Responsibilities:</b>	<b>Collaborations:</b>
<ul style="list-style-type: none"> <li>▪ Edit document panel for the graphic user interface</li> </ul>	<ul style="list-style-type: none"> <li>▪ Document class</li> </ul>

<b>Class Name: OpenDocPanel</b>	
<b>Responsibilities:</b> <ul style="list-style-type: none"> <li>▪ Open document panel for the graphic user interface</li> </ul>	<b>Collaborations:</b> <ul style="list-style-type: none"> <li>▪ Document class</li> </ul>

<b>Class Name: SettingsPanel</b>	
<b>Responsibilities:</b> <ul style="list-style-type: none"> <li>▪ Settings panel for the graphic user interface</li> </ul>	<b>Collaborations:</b> <ul style="list-style-type: none"> <li>▪ Document class</li> </ul>

<b>Class Name: Speech2TextEditorView</b>	
<b>Responsibilities:</b> <ul style="list-style-type: none"> <li>▪ Graphic user interface</li> </ul>	<b>Collaborations:</b> <ul style="list-style-type: none"> <li>▪ All</li> </ul>