

# D4.2.1 Interface Control Document (ICD)

## ModelWriter

Text & Model-Synchronized Document Engineering Platform

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Project number: ITEA 2 13028

Work Package: WP4 Knowledge Base Design and Implementation

Task: T4.2 - API of the Knowledge Base

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## Document History

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## 1. Introduction

### |Role of the deliverable

This document provides the Interface Control Document (ICD), which specifies the API for accessing & manipulating the Knowledge Base.

### |The List of Technical Work Packages

UC Code	Requirements derived from
WP2	Semantic Parsing and Generation of Documents and Documents Components
WP3	Model to/from Knowledge Base (synchronization mechanism)
WP4	Knowledge Base Design and Implementation
WP6	Architecture, Integration and Evaluation

### |Structure of the document

This document is organized as follows:

- Chapter 1 introduces the document.
- Chapter 2 the interface.
- Chapter 3 concludes the document.

### |Terms, abbreviations and definitions

Abbreviation	Definition
RDF	Resource Description Framework
WP	Work Package
UC	Use Case
ICD	Interface Control Document

## 2. Interface Control Document (ICD)

```
package synalp.commons.input.knowledgeBase;

import java.io.IOException;
import java.util.Set;

import com.hp.hpl.jena.ontology.DatatypeProperty;
import com.hp.hpl.jena.ontology.Individual;
import com.hp.hpl.jena.ontology.ObjectProperty;
import com.hp.hpl.jena.ontology.OntClass;
import com.hp.hpl.jena.rdf.model.Resource;
import com.hp.hpl.jena.util.iterator.ExtendedIterator;

public interface IOntologyAnalysis {

    // Method that provides the list of the ontology's classes
    public abstract Set<OntClass> getClasses();

    //Method that creates a text from the label skos definition
    public abstract void CreateTextFromDefinition(String fileTextFromKB)
        throws IOException;

    // Method that provides the list of the ontology's datatypesPoperties
    public abstract ExtendedIterator<DatatypeProperty> getDatatypeProperties();

    // Method that provides the list of the ontology's objectPoperties
    public abstract ExtendedIterator<ObjectProperty> getObjectProperties();

    // Method that provides the list of the ontology's individuals
    public abstract Set<Individual> getIndividuals();

    // Method that provides the list of all ontology's concepts
    public abstract Set<Resource> getOntoConcepts();

    // Method that provides the resources corresponding to a word
    public abstract OntClass getResource(String word);

    // Method that checks if two classes are disjoint or not
    public abstract boolean isDisjoint(OntClass c1, OntClass c2);

}
```

### 3. Conclusion and way forward

This document provides the Interface Control Document (ICD), which specifies the API for accessing & manipulating the Knowledge Base.

In the second year of the implementation of these interfaces will be realized and integrated in the project.

## References

N/A