

1 What is WikiModel?

- WikiModel is a Data Model defining the structure of wiki documents
 - Defines wiki document elements and rules of their possible imbrications (like DTD/Schema for XML documents)
- WikiModel is an API providing access to the structure of wiki documents
 - This API gives access to and control over the internal structure of individual wiki documents
 - Usage of this API guaranties that the accessed wiki documents respect the structure defined by the model

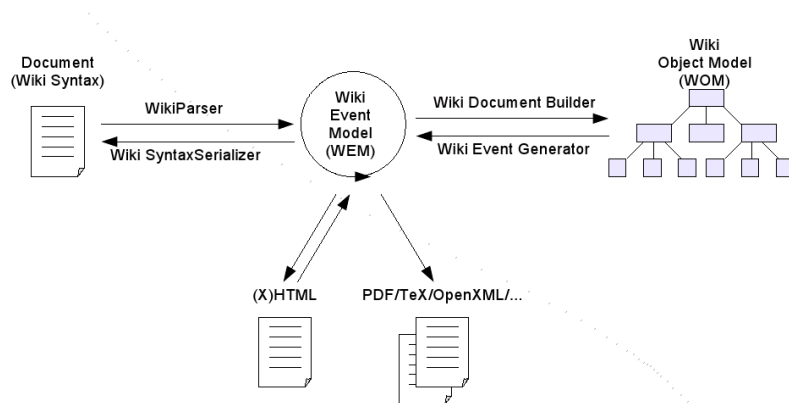
2 What WikiModel isn't?

- It is not a Wiki Engine
- It does not work with a data storage, versioning, access rights,...
- It does not check or validate references between documents

3 How can WikiModel be used?

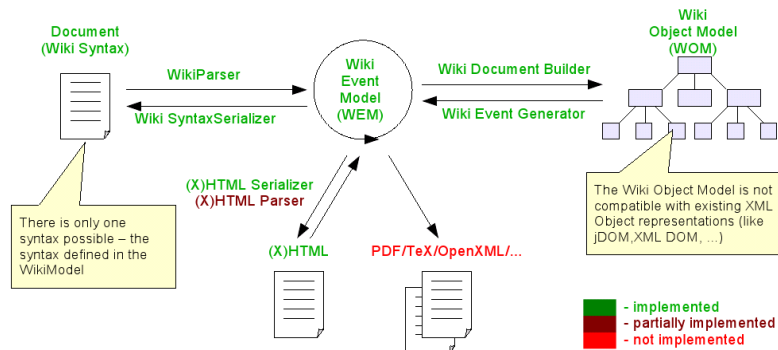
- As a rendering engine to transform various wiki syntaxes to formatted content (HTML, PDF, TeX, ...)
- As a parser for semantic annotations

4 How WikiModel Works?

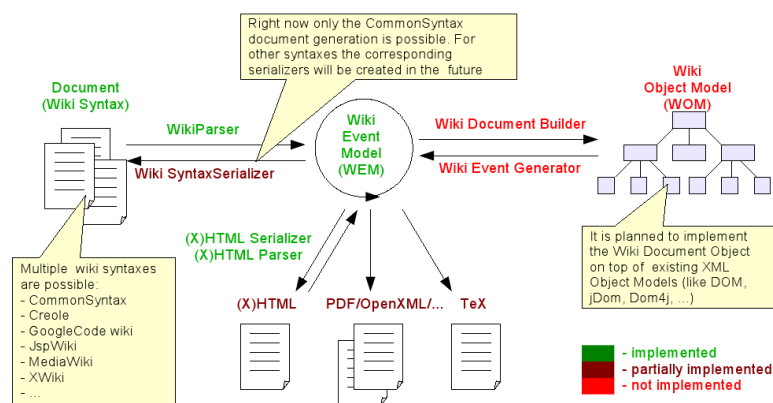


- Wiki Event Model (WEM) is like Simple API for XML (SAX)
- Wiki Object Model (WOM) is like Document Object Model for XML (DOM)

5 WikiModel v1



6 WikiModel v2



7 WikiModel v1 and v2: Comparison

7.1 WikiModel v1

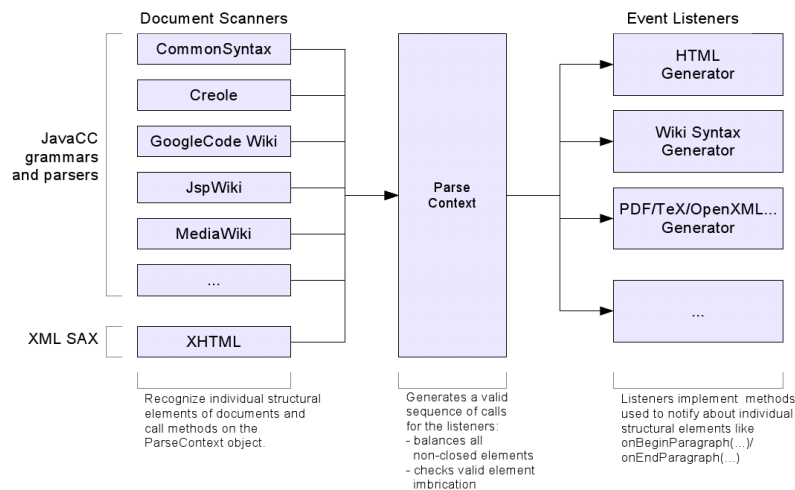
- Exists only one WikiModel-specific syntax
- Real grammar based parser (JavaCC)
- Possibility to work with embedded documents
- Semantic statements about documents

7.2 WikiModel v2

- Keeps all the features of v1 +

- All parsers much faster than v1
- CommonSyntax manipulates with greater number of structural elements than in v1
- Possibilities to work with documents written with multiple syntaxes
- All parsers are based on real JavaCC grammars
- Possibility to work with embedded documents
- Semantic statements about parts of the text

8 How WikiParser (v2) works

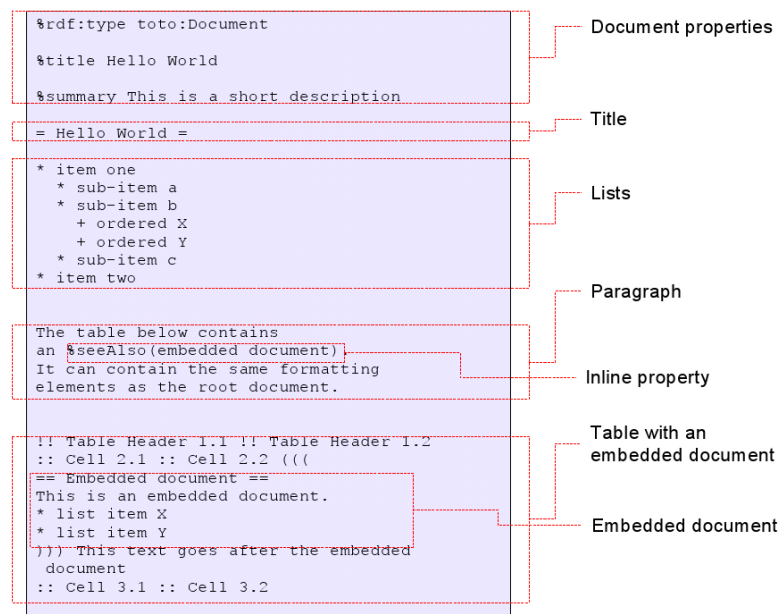


9 Features of WikiModel v2

- WikiModel itself does not depend on any particular wiki syntax
 - WikiModel manipulates with a fixed number of structural element types and defines their possible assembly/imbrication
 - Simplified structure (relative to XHTML) greatly simplifies the validation and manipulation of documents
 - The document schema is sufficiently flexible to simulate almost any HTML formatting (like tables with embedded lists, headers and paragraphs)
 - This is a super-set of structural elements existing in others wikies, so the information from any wiki can be imported without losing the information or structure

- Contains notions of semantic statements about the documents and parts of a document
- CommonSyntax manipulates with all possible structural elements defined by the WikiModel v2
- Parsers for multiple wiki syntaxes are available (JspWiki, XWiki, MediaWiki, Creole, GoogleCode wiki, ...).
 - All parsers give access to the valid structure of documents. If a document contains non-valid elements (non-closed markup or overlapping elements) then it will be fixed automatically

10 CommonSyntax: Example



11 CommonSyntax: How it can be used

```
package test;

import java.io.StringReader;

import org.wikimodel.wem.IWemListener;
import org.wikimodel.wem.IWikiParser;
import org.wikimodel.wem.IWikiPrinter;
import org.wikimodel.wem.PrintListener;
import org.wikimodel.wem.WikiParserException;
import org.wikimodel.wem.common.CommonWikiParser;

public class ParserTest {
    public static void main(String[] args) throws WikiParserException {
        IWikiParser parser = new CommonWikiParser();
        String text = "Hello [World]! This is a *text* to parse!";
        StringReader reader = new StringReader(text);
        IWikiPrinter printer = new IWikiPrinter() {
            public void print(String str) {
                System.out.print(str);
            }
            public void println(String str) {
                System.out.println(str);
            }
        };
        IWemListener listener = new PrintListener(printer);
        parser.parse(reader, listener);
    }
}
```

Available parsers:

- org.wikimodel.wem.common.CommonWikiParser
- org.wikimodel.wem.creole.CreoleWikiParser
- org.wikimodel.wem.gwiki.GWikiParser (GoogleCode wiki)
- org.wikimodel.wem.jspwiki.JspWikiParser
- org.wikimodel.wem.mediawiki.MediaWikiParser
- org.wikimodel.wem.xwiki.XWikiParser