

# SBVRWIKI A WEB-BASED TOOL FOR AUTHORING OF BUSINESS RULES

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## **ABSTRACT**

In the paper, a new tool called SBVRwiki is proposed. It is an online collaborative solution that allows for distributed and incremental SBVR rule authoring for business analytics and users. It uses the Dokuwiki back-end for storage and unlimited version control, as well as user authentication. It supports creation of vocabularies, terms and rules in a transparent, user friendly fashion. Furthermore, it provides visualization and evaluation mechanisms for created rules. It is integrated with the Loki knowledge engineering platform that allows for on-the-fly conversion of the SBVR rule base and vocabularies to Prolog.

## MOTIVATION

## To provide tool that:

- is lightweight,
- allows easy creation of the SBVR bases even for inexperienced users,
- supports during the identification of the vocabulary and the rule creation process,
- provides syntax highlighting,
- is a web-based solution that would **allow to collaborate** using a familiar browser-based interface.

# RELATED WORK

## **Current SBVR-supporting tools:**

- text-based creation of dictionaries and rules providing syntax highlighting and suggestions, e.g. RuleXpress (http://www.rulearts.com/RuleXpress),
- models generation based on SBVR compliant documents, e.g. SBeaVeR (http://sbeaver.sourceforge.net),
- transform various models into SBVR, e.g. SBVR Lab 2.0 (http://www.sbvr.co).

#### IN USE: EDITOR MODE **6** 8 8 8 8 company informs worker [category] zasoby\_ludzkie - It is necessary that each evaluation inter - It is necessary that each evaluation intervevaluation interview concerns topic of - It is necessary that each evaluation interview evaluation interview concerns topic of - It is necessary that each evaluation intervevaluation interview ends with creation of - It is necessary that an administrative ass evaluation interview is conducted every candidate has a medical certificate - It is necessary that the company gives per interview went negative medical examination to the worker - It is necessary that the company gives a re interview went positive - It is necessary that an administrative assistant requests ror certificate or the copies of diplomas or a copy of ID card or a statement about not being unemployed or a statement about account number for payment or a document about completing safety training or a signed legislation on equal treatment for men and women or a PIT-2 or a personal data form or a

photograph or a statement about reading the labor regulations

# In use: Rendered output Zasoby\_ludzkie 1. It is necessary that each evaluation interview is conducted every exactly 6 months 2. It is necessary that each evaluation interview concerns topic of the worker evaluation 3. It is necessary that each evaluation interview concerns topic of the company evaluation 4. It is necessary that each evaluation interview ends with creation of a report 5. It is necessary that an administrative assistant checks if the candidate has a medical certificate 6. It is necessary that the company gives periodically a referral for medical examination to the worker 7. It is necessary that an administrative assistant requests for completing the documentation if the candidate did not submit a medical certificate or the copies of diplomas or a copy of ID card or a statement about not being unemployed or a statement about account number for payment or a document about completing safety training or a signed legislation on equal treatment for men and women or a PIT-2 or a personal data form or a photograph or a statement about reading the labor regulations

## DOKUWIKI AND LOKI AS A BASE

http://www.dokuwiki.org/

- Plain text documents,
- Simple wiki markup,
- Access Control Lists,
- Version Control,
- Web interface.

http://loki.ia.agh.edu.pl/

- Semantic wiki based on Prolog,
- Dynamic queries,
- Modular architecture,
- BPwiki plugin for Business Processes modeling.

# SBVRWIKI PROTOTYPE

#### Two plugins in PHP for DokuWiki/Loki:

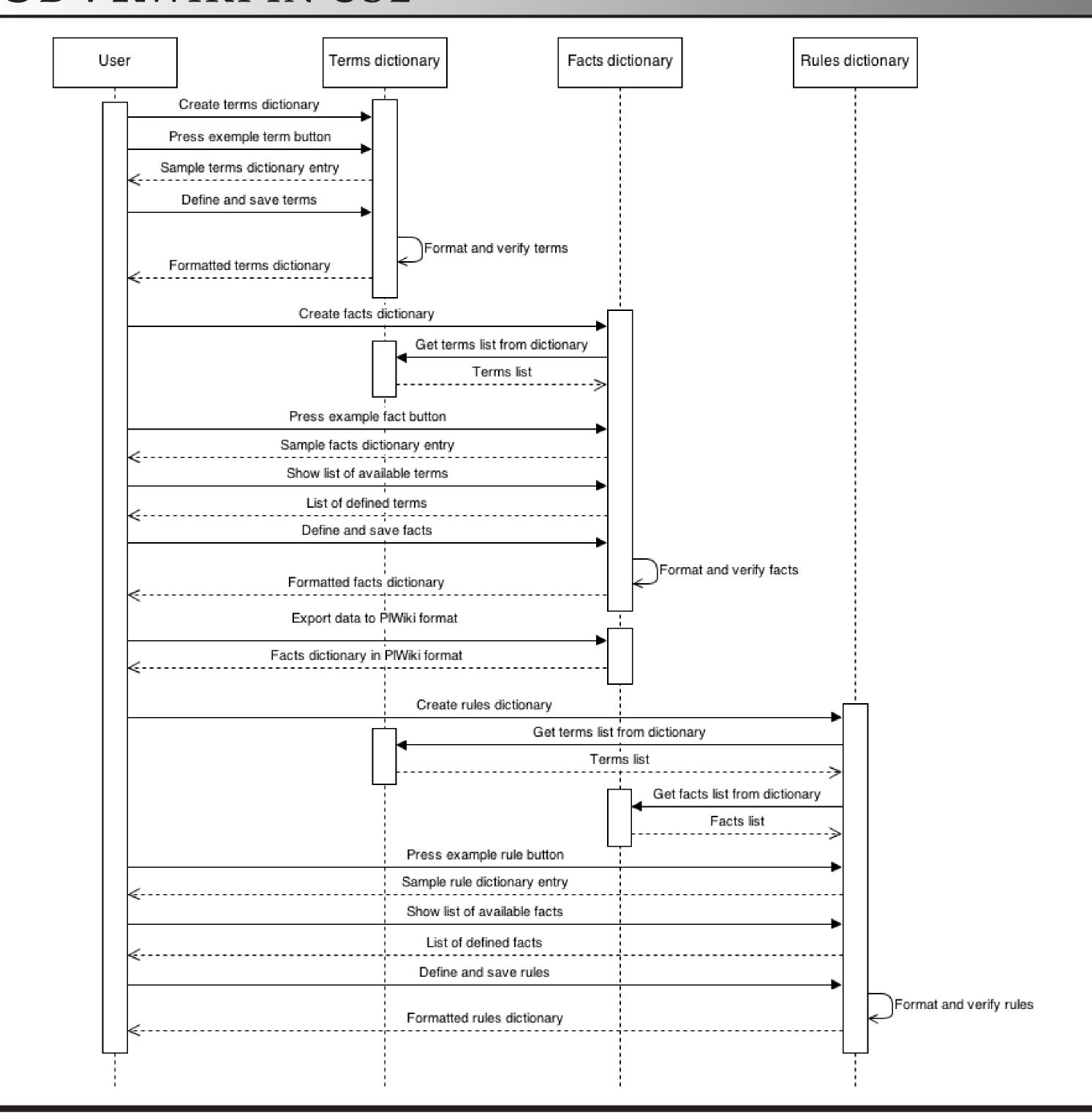
SBVRwiki Action Plugin:

- Extended editor with hooks for common SBVR constructs,
- User Interface events,
- XMI (XML) format export.

# SBVRwiki Syntax Plugin:

- Special wiki markup <sbvr>
- Syntax highlighting,
- Translation to UML and visualisation with PlantUML.

# SBVRWIKI IN USE



# USE CASES

#### **EU-Rent Use Case:**

- fictional international car rental business,
- benchmark use case,
- part of SBVR specification.

#### Prosecco project:

- SMEs management support,
- rules discovered during interviews with employees,
- rules in SBVR for analysis,
- 5 companies, 213 rules divided into 30 categories.

# SUMMARY AND FUTURE WORK

#### SBVRwiki...

- web-based collaborative tool,
- rule-based knowledge authoring in SBVR,
- evaluated using an EU Rent use case,
- practically applied in the Prosecco project,
- superior to existing alternatives!

#### **Future Work**

- Integration with BPwiki plugin for complex systems specification including both business processes and rules,
- Full support of the SBVR standard,
- Usability improvements.

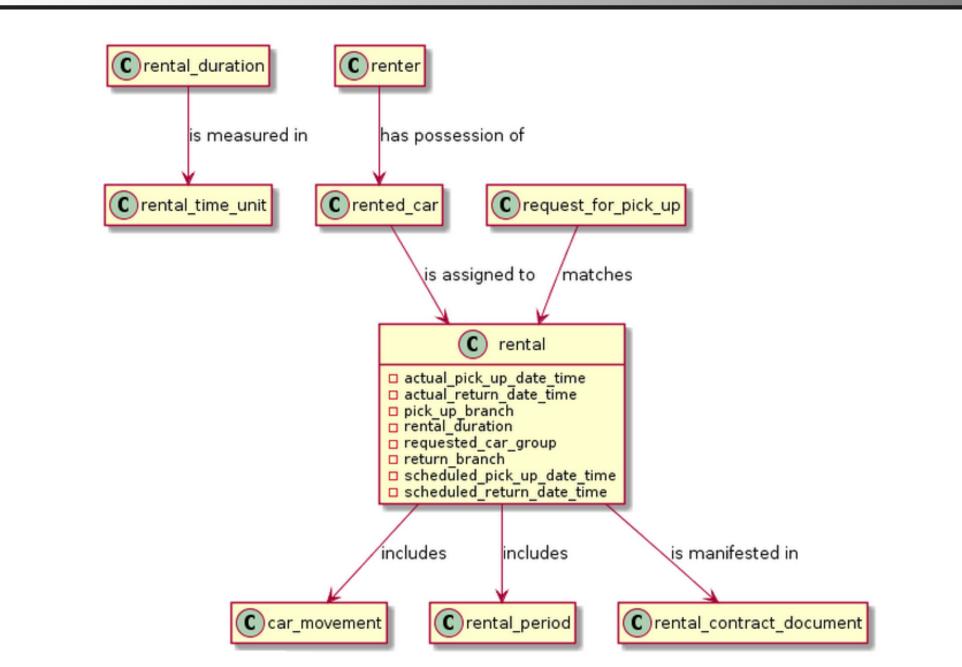
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# IN USE: FACTS VISUALISATION © rental\_duration © rental\_duration



# ACKNOWLEDGMENT

The paper is supported from the *Prosecco* project funded by NCBR.

Poster prepared by Krzysztof Kutt.