



## Project Profile

# ModelWriter

Semantic processing for a boost in knowledge and product quality

The ITEA 2 project ModelWriter aims to bring a quantum leap in the productivity of technical authors engaged in authoring technical documents by improving the quality of these documents, resulting in better quality of companies' products and ultimately enabling companies to better exploit, recycle and valorise their own internal knowledge.

### ADDRESSING THE CHALLENGE

With no tooling currently offered to technical authors to (semi-)automatically transform 'words' into exploitable and ambiguity-free 'pieces of knowledge', ModelWriter will include a Semantic Word Processor' aimed at understanding the various textual parts of a document expressed in natural language.

### PROPOSED SOLUTIONS

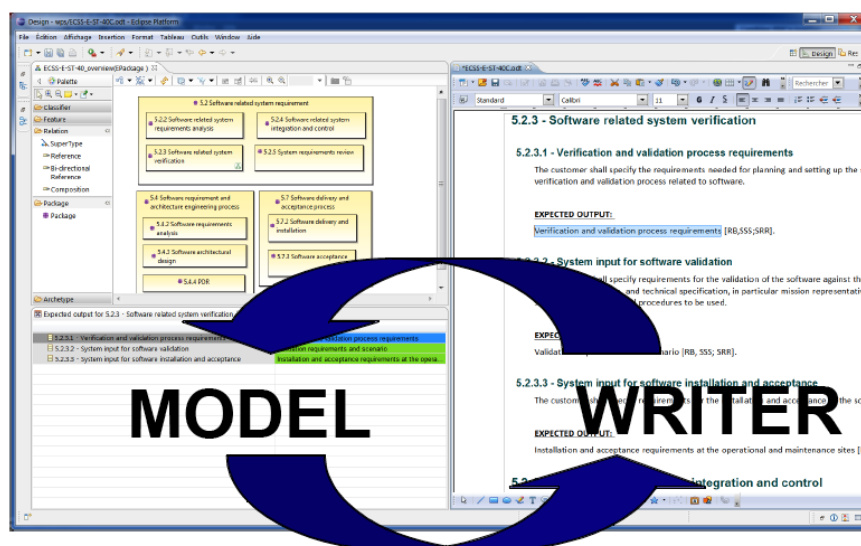
The project envisions an integrated authoring environment – ModelWriter – which will be locally used by each author/contributor, and will combine two parts: a Semantic Word Processor (the 'Writer') capable of understanding text and transparently creating models of contents out of them and a Knowledge Capture Tool (the 'Model'), similar to a spreadsheet table or other familiar information modelling tools, that could reduce authoring effort by 20%. The synchronisation of text-model synchronisation will generate huge gains in documentation maintainability and dramatically reduce product defect costs caused by inconsistent or even obsolete knowledge.

### PROJECTED RESULTS AND IMPACT

The concrete results will include a reversible semantic processor which maps text to formal knowledge representations and vice versa, an extensible model-to-model transformation framework, a federated knowledge base and open source-based

bi-directional synchronisation between texts and models as well as a set of knowledge valorisation plug-ins, such as model checkers, and a synchronisation mechanism for a cascade of ModelWriters. Furthermore,

investment and limited risk. After this project, the various commercial companies will not compete with each other, but will continue sharing this common platform, in collaboration with associated research



Graphical mock-up of the 'ModelWriter' bi-directional Knowledge Capture tool

ModelWriter will extend the state of the art in semantic parsing and natural language generation. As a requirements engineering tool ModelWriter, with its intelligent features, has no equivalent on the market, so has the potential to eclipse the current tools. Opportunities exist in the Software as a Service market by making specific high added-value services available via a paid website: immediate opportunity, minimum

institutes, and elaborate market-specific extensions and assemble their own specific products. Since the platform is proposed as concrete means of fostering transfer of research results into immediately usable plug-ins this approach for exploitation has therefore the potential to help accelerate research as well as make immediate transfer and adoption of this research to/by industry.


**Project start**

October 2014

**Project leader**

Ferhat Erata, UNIT Information Technologies R&amp;D

**Project website**
[www.modelwriter.eu](http://www.modelwriter.eu)
**Project end**

September 2017

**Project email**
[project@modelwriter.eu](mailto:project@modelwriter.eu)
**Project repository**
<https://github.com/modelwriter>

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