

Are Style Guides Controlled Languages? The Case of Koenig & Bauer AG

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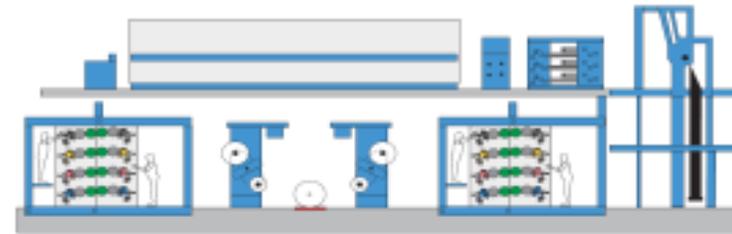
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1. Introduction
2. Background
3. Lexical rules
4. Syntactic/stylistic rules
5. Discussion

Research questions

1. Do the lexical and stylistic/syntactic rules at KBA constitute a controlled language?
2. If so, what type of controlled language is it?

The company



The projects (2008)

1. **CMS:** implementation of a content management system for editing, storing, retrieving and managing modularized content.
2. **Writers' manual:** development of meta documentation of the CMS project. The manual describes allowed XML elements: their content, dependencies, and, where necessary, their linguistic form. It provides general recommendations on orthography and style for the technical documentation.
3. **Terminology management:** standardization of the specialized vocabulary.
4. **Translation:** definition of general conditions for the translation services.
5. **Graphics:** definition of common standards for exporting graphics from CAD systems, further processing and managing in the CMS environment.
6. **Parts catalog:** making the editing and publishing of the parts catalog more simple and transparent.

Sources of ambiguity and synonymy

- Ambiguity:
 - **Wendung**: *the process of perfecting vs. perfecting unit*
- Synonymy:
 - *Wend**ung*** vs. *Wend**en*** (*the process of perfecting*)
 - **Chromwalze** vs. **Feuchtreibwalze** (*chrome roller vs. dampener distributor roller; focus on material vs. focus on function*)
 - **Farbreibwalze** vs. **Farbreiber** (*oscillating ink roller vs. *ink oscillator*)

Lexical rules

- Use conversion to indicate the process: *Wenden*.
- Use the nominalization with *-ung* or *-or/-er* to indicate a (complex) device: *Wendung, Längsschneider (slitter)*.
- Use hypernym for composition of (less complex) parts: *Farbreibwalze, Schneidmesser (cutting knife)*.
- Use the following ranking of features to be included in the term: 1) function 2) object 3) working principle 4) shape 5) material 6) temporal, graduate internal features.
- Do not use more than 4 lexical morphemes in a compound noun, 3 morphemes are preferred.

Syntactic/ stylistic rules (1)

- Avoid Passive Voice.
- Structure information logically, for instance: if – then, or condition – step.
- **Element <step> (as child element of <action>)**

Use the formal imperative verb form (“Sie”).

Syntactic/ stylistic rules (2)

- **Element <symptom>**

Write from user's perspective, do not use questions.

Mastarm fährt nicht richtig hoch. [sentence with a finite verb]

- **Element <cause> (as child element of <safetyadvice>)**

Name the cause of the hazard with one word or in a short and expressive sentence. Use an exclamation point.

Example 1: *Verbrühungsgefahr durch herausspritzendes Öl!*
[ellipsis, no finite verb]

Example 2: *Öldruck in Arbeitshydraulik kann Manometer zerstören!* [sentence with a finite verb]

- **Element <cause> (as child element of <errordescription>)**

Describe the cause of an error in one word or in a short and expressive sentence.

Example 1: *Kein Kraftstoff im Tank.* [ellipsis, no finite verb]

Example 2: *Pumpe hat zu wenig Leistung.* [sentence with a finite verb]

Syntactic/ stylistic rules (3)

Old rules

Element <cause> (as child element of <errordescription>)

Describe the cause of an error in one word or in a short and expressive sentence.

Example 1: *Kein Kraftstoff im Tank.*

Example 2: *Pumpe hat zu wenig Leistung.*

New rules

Use a full sentence with a verb. Do not use ellipsis. Use a period at the end of the sentence.

Positive example: *Kein Kraftstoff ist im Tank.*

Negative example: *Kein Kraftstoff im Tank.*

Syntactic/ stylistic rules (4)

Old rules

Element <cause> (as child element of <safetyadvice>)

Name the cause of the hazard with one word or in a short and expressive sentence. Use an exclamation point.

Example 1: *Verbrühungsgefahr durch herausspritzendes Öl!*

Example 2: *Öldruck in Arbeitshydraulik kann Manometer zerstören!*

New rules

Use ellipsis (construction with no finite verb). Do not use full sentences with verbs. Name the cause of the hazard with one word (*Verbrühungsgefahr*, *Verbrennungsgefahr*). Use an exclamation point.

Positive example:
Maschinenschaden durch liegengebliebenes Werkzeug!

Negative example:
Liegengebliebenes Werkzeug führt zu Maschinenschaden.

Controlled Natural Language – definition

“Definition 1 (long)

A language is called a **controlled natural language** if and only if it has all of the following four properties:

1. It is based on exactly one natural language (its “base language”).
2. The most important difference between it and its base language (but not necessarily the only one) is that it is more restrictive concerning lexicon, syntax, and/or semantics.
3. It preserves most of the natural properties of its base language, so that speakers of the base language can intuitively and correctly understand texts in the controlled natural language, at least to a substantial degree.
4. It is a constructed language, which means that it is explicitly and consciously defined, and *is not* the product of an implicit and natural process (even though it is based on a natural language that *is* the product of an implicit and natural process).”

(Kuhn 2014: 123)

Controlled Natural Languages – types

“In general, controlled natural languages can be roughly subdivided according to the problem they are supposed to solve (...):

1. to improve communication among humans, especially speakers with different native languages (we will use the letter code C for these languages);
2. to improve manual, computer-aided, semi-automatic, or automatic translation (T);
3. and to provide a natural and intuitive representation for formal notations (F).”

(Kuhn 2014: 125; enumeration: KS)

References

- ASD Industries Association of Europe: Simplified Technical English. Specification ASD-STE100. International specification for preparation of maintenance documentation in a controlled language (01 2013), issue 6
- Huijsen, W.O.: Controlled language – an introduction. In: Proceedings of the second international workshop on controlled language applications. CLAW 98. pp. 1–15 (1998)
- Kuhn, T.: A survey and classification of controlled natural languages. Computational Linguistics 40(1), 121–170 (2014), http://www.mitpressjournals.org/doi/abs/10.1162/COLI_a_00168
- Lockwood, R.: Machine translation and controlled authoring at Caterpillar. In: Sprung, R.C. (ed.) Translating into Success. Cutting-edge strategies for going multilingual in a global age, American Translators Association Scholarly Monograph Series, vol. XI, pp. 187–202. John Benjamins Publishing Company, Amsterdam/Philadelphia (2000)
- Messaoudi, N.: Content Engineering zur Einführung eines Redaktionssystems bei der Koenig & Bauer AG – Informationsmodellierung, Modularisierung und automatisierte Publikation. Diplomarbeit, Hochschule Karlsruhe – Technik und Wirtschaft (2009), undisclosed
- Simmler, F.: Morphologie des Deutschen : Flexions- und Wortbildungsmorphologie. Weidler, Berlin (1998)
- Suchowolec, K.: Terminologiearbeit im Unternehmen. Einführung eines Gesamtkonzeptes. Magisterarbeit, Technische Universität Dresden (2009), undisclosed
- Wüster, E.: Einführung in die allgemeine Terminologielehre und terminologische Lexikographie. Romanistischer Verlag, Bonn (1991)