Simplification of Telephony and SATCOM Documentation

CONTROLLED ENGLISH

What is Controlled English?

In 2003, Nortel Networks (now Ericsson) contracted Smart Communications, Inc., to develop Nortel Standard English (NSE) to simplify DMS switch documentation.

Nortel Standard English is a 1,200-word controlled vocabulary and a set of grammar, syntax and style rules for documentation. Because Nortel sold the DMS switches globally, they needed a common language to train hundreds of telephony technicians in more than 100 countries.

Nortel Standard English (NSE)

The NSE "core" vocabulary is based on Simplified Technical English from the aerospace industry. The base was expanded with telephony terms approved by the International Telecommunication Union (ITU) in Switzerland. Other Nortel terms were discovered by the Smart team through a text mining phase with existing Nortel documentation.

Refer to *www/smartny.com/controlledEnglish.html* for a sample page from the DMS switch manual. This example shows that the simplified version is easier to read. Nortel also needed French and Spanish versions for North America.

The **standard terminology** was a great benefit to Nortel customers, who include China Telecom, Verizon and AT&T.

Simplification with the MAXit Checker

After the NSE vocabulary was created, Nortel used the **MAXit Checker** to help writers simplify complex software documentation. The documentation was created in Adobe FrameMaker and PTC Arbortext.

The MAXit Checker uses 19,000 embedded AI rules to guide the writers. A key advantage was **ONE WORD - ONE MEANING** standardization for writers in several countries.

The MAXit Checker is a plug-in to Arbortext Editor, Adobe FrameMaker and Microsoft Word. A companion tool, called the **SMART Lexicon Manager**, manages the dictionaries.

The Results

Simplification is a low-cost solution to decrease possible high-cost human errors during network software maintenance.

Other Industries

The Controlled English techniques can be applied to other industries, who are driven by complex software.

Highlights MAXit and Controlled English

- CE Controls the style, content, quality and clarity.
- Creates an ideal source text for AI prompts.
- Automatic simplification through approximately 19,000 AI rules for grammar, syntax and style.
- Identification and correction of gerunds (-*ing words*).
- Passive voice is marked to change to active voice.
- Identification of noun clusters that cause problems.
- Curated dictionaries show suggestions in context.
- Automatic global replace of preselected corrections.
- Insertion of missing register or trademark symbols.
- Control of engineering acronyms and abbreviations.
- Removal of gender pronouns, jargon and idioms.
- MAXit can navigate complex .xml and .dita formats.
- Controlled English texts are simplified, but technical.
- CE is easy-to-read on mobile devices and tablets in low-light areas. Small screens need small text.
- CE is ideal for English as a second language (ESL).
- Removal of *nice to know*, keep ***need to know***.
- Navigation of hotspots for Augmented Reality (AR).
- Simplified content is ideal for AI prompt generation.
- Quality Reports for Six Sigma and Traffic Light.
- Text is simplified to US 8th Grade reading level.
- Style suggested for button names (OFF position).
- Simplified texts are approximately 25% smaller**.**
- Simplification makes Digital Transformation easier.
- CE is easy to expand for new technologies.

> Controlled English is ideal for software-driven industries, including robotics, SATCOM and automotive.

How to order a MAXit Starter Kit

Smart Communications, Inc. offers a Starter Kit that includes one MAXit License, Writer's Guide, CE and basic dictionaries. Ideal for company Proof-of-Concept.

- Request a **MAXit Starter Kit**: maxit@smartny.com
- SMART provides 60 days of email support.
- SMART offers Text Mining services to expand the dictionaries.
- SMART offers flexible-schedule writer training to write CE.
- Discounts on additional licenses after purchase of the Starter Kit.
- Questions, demo requests and cost quotations welcomed.

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Controlled English
Simplifies Complexity