

A controlled Language to **SIMPLIFY** Maintenance and Technical Documentation

CONTROLLED ENGLISH

What is Controlled English?

Controlled English (CE) is a controlled English technical vocabulary with a set of grammar, syntax and style rules.

The vocabulary was adapted from the *Simplified Technical English* (STE) specification created by the *AeroSpace and Defence Industries Association of Europe* (ASD). This specification is mandated by FAA, EASA and all aerospace and defence companies for air safety and efficiency.

The SMART team expanded the STE “core” dictionary to 1,200 terms with more verbs. The program uses the same principle of **ONE WORD - ONE MEANING**.

Procedural instructions for service, maintenance and operation benefit from the use of a *Controlled English*. The consistency of terminology improves usability, readability, translatability and Customer Experience.

How to develop a Controlled English program



The SMART team uses the **SMART Text Miner** tool to customize a Controlled English dictionary for a product or service. For example, a manufacturer of precision semiconductor machinery mandates Controlled English instructions. The standardized terminology is monitored in the **MAXit Checker** to **SIMPLIFY** information for service technicians, maintainers and trainers.

The MAXit Checker

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.

Nortel Networks used **Nortel Standard English** (NSE) to write software documentation for global telephony companies. After the NSE dictionaries were created, the writers used the **MAXit Checker** to validate the text. The program has more than 19,000 AI rules that can analyze text and show dialog boxes with contextual corrections and suggestions.

Example of NSE

The next page compares original text to text rewritten into NSE with the MAXit Checker.

Features of Controlled English

- Controls the style, content, quality of information.
- Creates an ideal English source text for AI prompts.
- Creates a simplified text through approximately 19,000 AI rules.
- Removes grammar items, like gerunds (*-ing word*).
- Forces a change from passive voice to active voice.
- Prevents awkward English syntax and grammar.
- Creates an English text that is easy to translate.
- Uses the terms needed for the product or service.
- Contains tags for register or trademark symbols.
- Controls engineering acronyms and abbreviations.
- Prevents use of gender pronouns, jargon and idioms.
- Make technical writing faster and easy.
- Forces simplification through good word choices.
- Makes texts easy-to-read on mobile devices, tablets and small screens that have limited displays.
- Creates texts for Limited English Proficiency (LEP).
- Removes *ambiguous* terminology and phrases.
- Simplifies captions for Augmented Reality (AR).
- Allows accurate Six Sigma Quality metrics.
- Creates a global language to train large groups.
- Lets users set text to US 8th Grade reading level.
- Identifies button names (OFF position).
- Creates texts that are approximately 25% smaller.
- Promotes Digital Transformation and simplification.

How to order a MAXit Starter Kit



Smart Communications, Inc., offers a Starter Kit that includes one MAXit License, Writer's Guide, CE and starter Controlled English dictionary. Ideal for a 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.

Example of NSE CONTROLLED ENGLISH applied to a complex telephony instructions

Subject:

Optivity Network Management System Subnet Discovery process takes excessive time to complete on a network comprising multiple PP8600s with several VLANs.

Description:

The discovery of a network comprising multiple PP8600s (v3.2.2, v3.2.2.2, v3.2.3 and v3.3), several Vlan and a Forwarding Data Base containing several thousand entries causes Optivity Network Management System (ONMS) Subnet Discovery Process (Topst) to use 100% of the CPU and take an excessive time to complete.

Enhancements to the PP86xx agent beginning with 3.2.2.2 for VLAN management caused ONMS Discovery to exhibit this behavior. Current scope of problem is limited to PP86xx v3.3.3 and subsequent versions.

Discussion:

Prior to PP86xx agent queries would return with just the MAC addresses learnt on each specific VLAN within the community string of the SNMP query. Current ONMS Subnet Discovery and topology mapping is based upon this implementation.

Enhancements were done in the PP86xx 3.2.2.2 agent allowing forwarding (FDB) table to show the forwarding information for all VLANs without the need of hard-coding the VLAN ID. Absence of VLAN tag impacts ONMS Subnet discovery and hence the resulting behavior. Note: v3.2.2.0 of the PP86xx agent loops on a request for a specific mib variable (dot1dTpFdbAddress) which can cause the (ONMS) discovery process to take an excessive time to complete. The behavior was rectified in v3.2.2.2 and above.

Resolution:

Optivity NMS addressed this problem via a Software fix that was made available in early Q 1 2003. This fix is included in ONMS 10.1. Please note that this fix requires PP86xx agent version 3.2.2.2 and later.

Subject: Optivity Network Management System

Slower response time for tasks in the Optivity Network Management System (ONMS) and Subnet Discovery Process (Topst). This problem occurs on networks with many PP8600 processors and VLANs.

Description:

Many PP8600 processors and VLANs can cause a slow response time during Topst tasks.

Refer to versions V3.2.2, V3.2.2.2, V3.2.3 and v3.3. A network with a Forwarding Data Base and more than 2,000 entries has a slow response time.

The ONMS and Topst tasks can use 100% of the CPU cycles to complete a task.

This problem occurs in PP86xx agents that have versions V3.2.2.2, V2.2.2 and higher.

Discussion:

Before the update, SNMP queries to PP86xx agent returned only the MAC addresses for each VLAN group. The ONMS topology maps use this method.

Changes to PP86xx agent, version V3.2.2.2, now show the forwarding table (FDB) for all VLANs.

If there is no VLAN tag, the ONMS Subnet Discovery task has the problem.

NOTE: The PP86xx agent, version V3.2.2.0, can enter a continuous loop condition to get one MIB variable, example (dot1dTpFdbAddress). This condition increases the response time.

Resolution:

The ONMS 10.1 update corrected problems for PP86xx agent, version V3.2.2.2 and higher.

Reference CR: Qxxxxx96

Sample courtesy Nortel Networks

NORTEL
Standard English (NSE)

MAXit
A SMART Grammar Checker

MAXit Checker Notes:

This page was checked by MAXit for FrameMaker in less than 1 second. A left-click on a color highlight shows a dialog box with curated corrections or suggestions. The colors represent different types of errors, generated by approximately 19,000 AI rules.