

To make text as clear as possible, use Simplified Technical English

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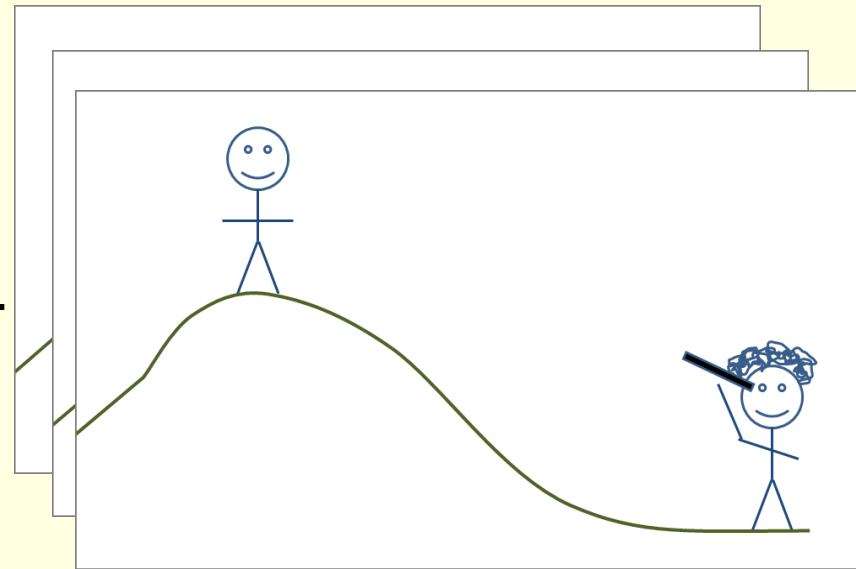
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Simple text?

“Find the person on the hill with a telescope.”

- A person has a telescope.
The person is on a hill. Find the person.
- There are 2 hills. On one hill, there is a telescope and a person. Find the person.
- A person is on a hill. Use a telescope to find the person.



Topics

Unclear instructions cause accidents

Examples of problems

- with bad/clunky/semi-literate English
- with good English

Simplified Technical English (STE) makes text easy to read

ASD-STE100 rules and examples

Implementing STE

STE checkers

Structured writing and STE

What do you want me to do?

“Typical examples of immediate causes and contributing factors for human failures are... missing or unclear instructions.”

(www.hse.gov.uk/humanfactors/topics/core2.pdf)

Text from a shipping company:

“Due to the nature of the cargo carried and possibility of automatic disconnection of arms, a risk of exposure of personnel to liquid natural gas exists in vicinity of cargo arms. To minimize such a probability, all Company operated LNG vessels are to control the presence of their personnel at the manifold during transfer.”

What do you mean (technical terms)?

Some technical terms from the shipping project:

- arm
- cargo arm
- Chicksan
- chicksan arm
- Chiksan
- loading arm
- marine loading arm
- mechanical loading arm
- MLA

What do you mean (standard English)?

What is the difference?

- Bad (adjective): abominable; abysmal; adverse; alarming; appalling; atrocious; awful; bleak; calamitous; cataclysmic; deplorable; dire; disastrous; dismal; dreadful
- Change (verb): adapt; adjust; alter; amend; modify; revise; rework; update
- Usually (adverb): as a rule; by and large; chiefly; generally; habitually; most of the time; in general; mostly; normally; often; largely; principally; predominantly; on the whole; overall

Multi-word verbs:

- Carry out / do
- Put up with / tolerate
- Work out / calculate

Parts of a phrasal verb can be separated:

- Carry the project out
- Carry out the project

STE is a controlled (natural) language

CNLs are “a subset of natural languages whose grammars and dictionaries have been restricted in order to reduce or eliminate both ambiguity and complexity” (ISO/TS 24620-1, 2015)

100 versions of controlled English

(<http://attempto.ifi.uzh.ch/site/pubs/papers/kuhn2013cl.pdf>)

STE:

- Restricts the words and the grammar that you can use
- Emphasises the need to be consistent

“The basic principle of STE is to make texts easy to read and understand” (ASD-STE100, 2017, page 1-4-1)

STE makes texts easy to read

STE has rules for things such as:

- Approved words (uses the simplest words for the basic dictionary)
- Unapproved words and approved alternatives
- One word, one meaning
- Parts of speech (one word, one meaning)
- Permitted tenses (simplifies the grammar that you can use)
- Sentence length
- Phrasal verbs (multi-word verbs)
- Technical terms

Usually, a word is approved for only 1 part of speech

In standard English, a word can have more than one part of speech (noun, verb, adjective, preposition, ...)

In STE, *oil* is approved as a noun:

- ✗ Oil the valve.
- ✓ Put oil on the valve.
- ✓ Lubricate the valve.

Level is approved as a noun and an adjective:

- ✗ Level the aircraft.
- ✓ Make the aircraft level.
- ✓ If the level of the fuel is ...

Use only the approved verb tenses

Do not use helping verbs to make complex verb structures:

- ✘ This type of device **has been being used** at Boeing since 2005.
- ✓ Boeing **started to use** this type of device in 2005.

In instructions, use only the active voice:

- ✘ The test **is continued** by the operator.
- ✓ **Continue** the test.

Technical terms

You **can** use a word if it is not in the STE dictionary

Technical names: 19 categories. Examples: part names, vehicles, equipment, infrastructure, navigation terms, ...

Technical verbs: 4 categories: Examples: manufacturing processes, operational language

Translations: increase quality and decrease cost

STE is for readers who have a basic knowledge of English

Use STE to decrease content by up to 20% (Braster , 2008)

If translation is necessary, costs decrease by 40% (Braster, 2008)

Braster (2008). *Controlled language spreads its wings*. Communicator, 2008 (Winter), pp. 33-34

Train the technical writers to use STE

ASD-STE100 is free (www.asd-ste100.org/request.html)

STEMG authorized training providers (www.asd-ste100.org/training.html)

Writers must be good at English

Terminology management

Do the terminology analysis (data mining, term extraction) before you start to write

As a minimum, record this information:

- Approved nouns, approved adjectives, and approved verbs (technical names and technical verbs)
- Unapproved synonyms of the approved terms
- Examples of correct text and incorrect text

A good resource: <http://termologic.com>

Involve the SMEs in terminology management

Intrinsically = basically; by nature; essentially; fundamentally; inherently; innately

Technical adjective: intrinsically safe

Change control

Guide the reviewers

Resistance from technical writers

TCUK 2010 (<http://technicalcommunicationuk.com>):

- 31 technical writers
- Only 1 used a controlled language

Some technical writers will resist your efforts to implement STE. Some reasons:

- They do not like STE
- They like creativity, not standardization
- STE is not a literary style
- STE is repetitive
- STE is blunt

Text does not comply with ASD-STE100

Writers and editors do not have sufficient time

“This publication... is written in Simplified Technical English (STE)”

Unapproved terms: allowed, any, appropriate, at least, being, depending, ...

The adjective ‘clear’ has the meaning ‘without blockage or interference’:

- ✘ Extend the jack slowly until the wheels **are clear** of the ground.
- ✓ Extend the jack slowly until the wheels **do not touch** the ground.

The verb ‘follow’ has the meaning ‘to come after’:

- ✘ Make sure that these steps **are followed**:
- ✓ **Obey** these steps:
- ✓ Make sure that personnel **obey** these steps:

ASD-STE100 checkers

A checker is not necessary, but it can help

You must customize the checker

- hazard (unapproved), hazard warning light (possible TN)
- Root directory = home directory = root
- SI units (litres, metres) or non-SI units (gallons, feet)
- Adjectives: 5-part or five-part

The technical writers must think

Evaluation of ASD-STE100 checkers

Specify your requirements

- Checklist of questions (www.asd-ste100.org/software.html)
- Software Evaluation Guide (www.software.ac.uk/resources/guides-everything/software-evaluation-guide)

Ideally, one person has a good knowledge of STE

Make sure that the checker is for STE

Words with 2 meanings

About = pertaining to:

- ✘ Use **about** 3 litres of water.
- ✓ Tell the personnel **about** these new regulations.

Regulation = a name of a document:

- ✘ The **regulation** of the temperature is automatic.
- ✓ The **adjustment** of the temperature is automatic.
- ? This **regulation** is necessary.

Structured writing and STE

Structured writing usually uses XML

If we know the structure, we can analyse the text

In an instruction, use the imperative form of a verb:

- ✓ 3) **Open** the door.
- ? 3) You **must open** the door.

oxygen XML editor with an ASD-STE100 checker

```
7 ▾ ···<body>↵
8 ····<p>The examples that follow are from the 'Not approved' column in the
8 ASD-STE100 specification:</p>↵
9 ▾ ····<ol>↵
10 ·····<li>Actuate the motor.</li>↵
11 ·····<li>Do not overoil the valve.</li>↵
12 ·····<li>Rotate the shaft about its axis.</li>↵
13 ·····<li>Potlife of mix is approximately 4 hours.</li>↵
14 ·····<li>We advise ·····</li>↵
15 ·····<li>A maximum ·····</li>↵
16 ·····<li>Oil the ·····</li>↵
17 ····</ol>↵
18 ···</body>↵
19 </html>↵
20 ◆
```

STE Dictionary. The keyword 'advise' is not approved. Alternatives: TELL (v), RECOMMEND (v). Possible replacements: "tell", "recommend".

tell

recommend

Most 'structured writing' is only partly-structured writing

XML editors validate the high-level structures such as headings and paragraphs

XML editors usually do not validate text at the sentence level:

- Give the accident report to your manager.
- Give your manager the accident report.

"...XML editors and languages like DocBook and DITA only provide an outline, a global structure, to technical writing. Individual authors fill pages with their own words...."

(https://f.hypotheses.org/wp-content/blogs.dir/1236/files/2015/11/2014-Bischoff_Picart_Rames.pdf)

Remember this

Unclear instructions are a cause of accidents

STE helps to make text clear

Implementing STE is not easy

You need time, money, or both

Some technical writers will resist the use of STE

Support from management is necessary

An STE checker cannot find all nonconformities in text

The technical writers must think

Get more information

Questions now?

'The case for ASD-STE100 Simplified Technical English', Unwalla and Dodd, in
Current Practices and Trends in Technical Communication

(www.istc.org.uk/publications-and-resources/istc-books/current-practices-and-trends-in-technical-and-professional-communication/)

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