Efficiently creating high-quality technical publications in a global environment

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About me

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- Born 1964
- B. Sc., Eng, in mechanical engineering in 1989
- 25 years in technical information
  - Manufacturing
  - Information management
  - B2B technical information service business
- Family: wife and one son
- Hobbies: cycling, gym, music
- Currently living in Best, the Netherlands

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Etteplan in brief

- Finland’s largest company specializing in machinery and equipment engineering design, one of the largest in Sweden
- Established in 1983
- One of Europe’s largest companies specializing in technical product information solutions, some 400 technical product information specialists
- The biggest Scandinavian company offering design services in China
- Revenue in 2013: EUR 128.6 million
- Offices: 22 in Finland, 13 in Sweden, 1 in the Netherlands, 2 in China and 1 in the USA, representation in Russia
- Personnel: close to 1,800
- Etteplan’s shares are listed on NASDAQ OMX Helsinki Ltd under the ETT1V ticker

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Globalization

What does it mean for you?

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Effects of globalization on technical communications

Topic	Impact
Global corporations not tied to any national base or boundary	Geographically separated resources, increased risk of errors
Growing complexity of products	Massive volumes of content, information is becoming more complex. Support MRO activities in a cost, time effective and safe way. Pressure of regulatory complicance.
Writing content for global audience	Broad spectrum of users, risk of misunderstandings, liability for faulty or incomplete information, higher translation costs.
Rise of the IT systems, internet and mobile technologies	Increased delivery channels, linking design information with technical information, …
Emphasis on ”doing more with less”	Shorter production cycles, time-to-market pressure, shrinking documentation budgets

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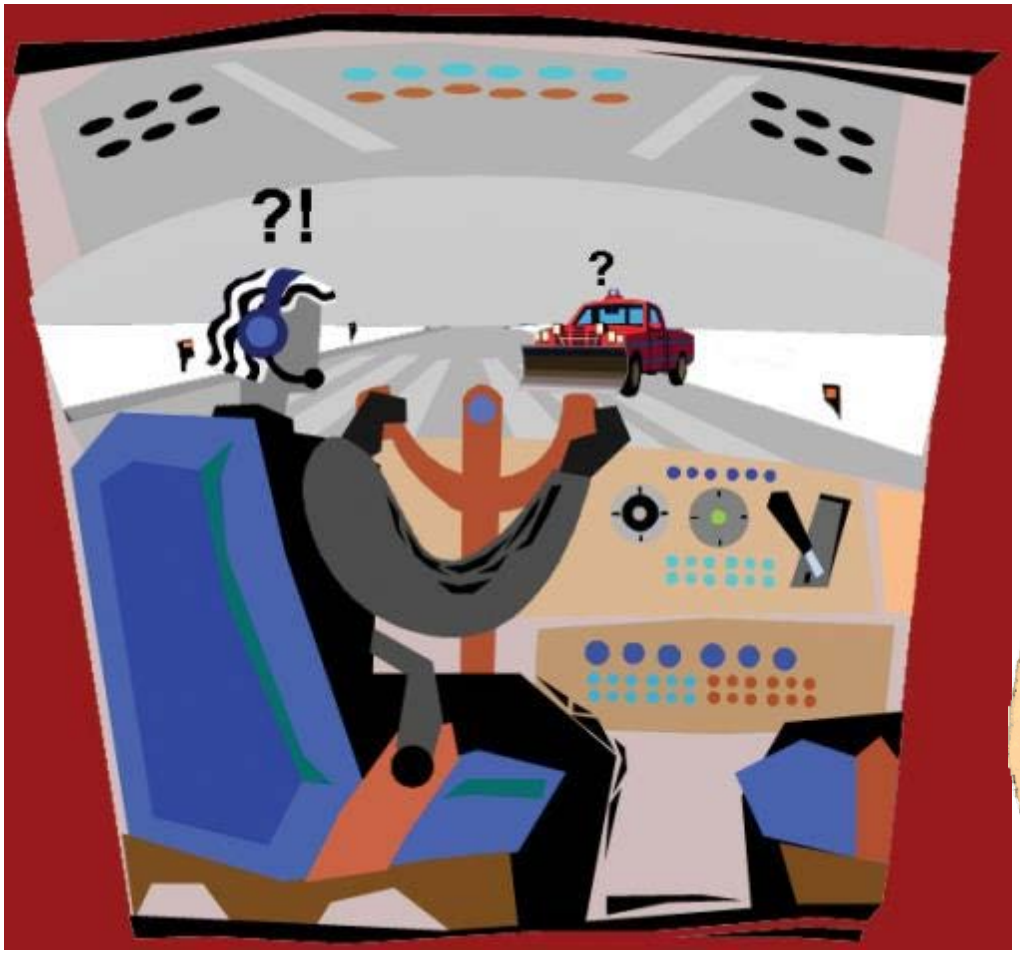
Example of misunderstanding



On a nearby airport, an airplane made a disastrous attempt to abort the landing after the pilots realised there was a vehicle on the runway.

The vehicle was a snowplough, whose operator had been told to "clear the runway" for the arrival of the aircraft.

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Small quiz..

"Turn off the engines not required"

means…

- Turn off the engines that are not required, or
- Turning off the engines is not required

What seems to be the problem?

- Altough IT developments enable us to retrieve information quickly, how understandable and easily retrievable is your technical information?
- Research found the average time for a field service engineer to retrieve information for troubleshooting and maintenance to be between 25%-50%
- Unclear, faulty or incomplete information is becoming a crucial factor, therefore we need to apply standardization on content
- A good content strategy enhances the technical information process, but when you combine it with IT developments you will truly see improvement in your operations

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Content strategy

Four pillars of good content strategy.

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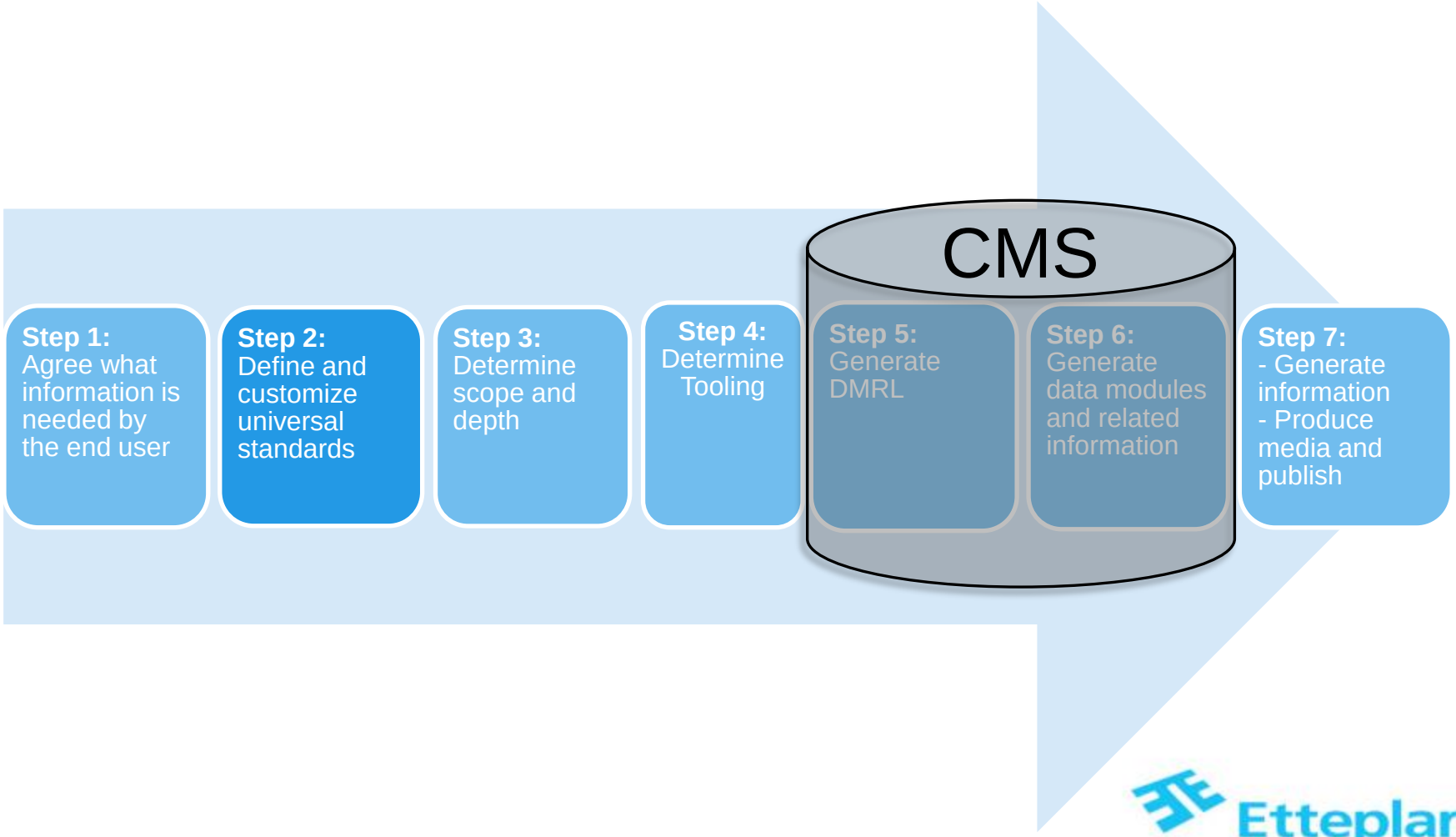
Content strategy



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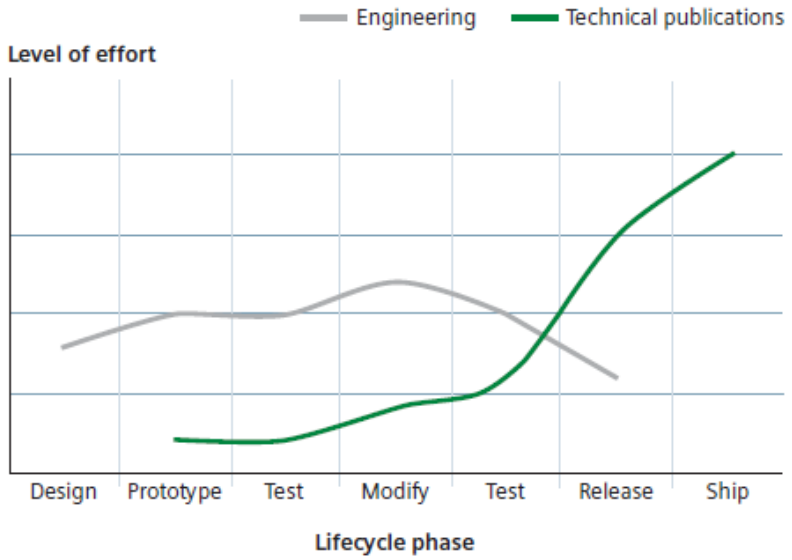
Step 2:
Define and customize universal standards

General requirements for producing high quality technical information

i. Trained and experienced authors and illustrators
ii. Simplified content
iii. Single sourcing
iv. Topic-based authoring



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So what does simplified content mean?

- Produce content that is systematically simplified
- Most efficient way to produce unambiguous information in a relatively short time at low cost
- Use of short, simple sentences conveying accurate information
- Include illustrations only if they simplify and/or clarify instructions and descriptions given in the text
- Provides better task performance for both native and non-native English speakers

ASD-STE100

Simplified Technical English.

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Step 2:
Define and customize universal standards

Simplified Technical English (STE)

- STE benefits:
  - Improved quality and safety
  - Reduced time-to-market
  - Standardized way of writing
  - Cost savings on translations, localization and printing (up to 30-40%)
- STE approach:
  - Writing rules:
    Keep it simple, be specific, be consistent
  - Core dictionary:
    ± 3000 words
  - Add company specific terms to core dictionary:
    One word = one meaning
- STE can help reduce 80,000 words to 8,000 terms

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Simplified Technical English (STE)

Before and after example

BEFORE

WARNING:

To reduce the risk of fire, electric shock or product damage,

- Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Use only the recommended accessories.
- Do not remove the cover (or back); there are no user serviceable parts inside. Refer servicing to qualified service personnel.

CAUTION!

- Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated. To prevent risk of electric shock or fire hazard due to overheating, ensure that curtains and any other materials do not obstruct the ventilation vents.
- Do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.
- Do not place sources of naked flames, such as lighted candles, on the unit.
- Dispose of batteries in an environmentally friendly manner.

CAUTION!

This product utilizes a laser. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Do not open covers and do not repair yourself. Refer servicing to qualified personnel.

AFTER

Warning

- Obey the instructions.
- Do not let this unit get in touch with any type of liquid.
- Use recommended accessories.
- Do not remove the front or back cover. Refer to approved personnel to do servicing.

This decreases the risk of fire, electrical shock, dangerous radiation or damage.

Caution

- Do not install or put this unit in a confined space, such as a bookcase or cabinet. Make sure that there is no blockage of the air vents. Make sure that the unit has a good airflow. This decreases the risk of fire, electrical shock or damage.
- Do not put items on the unit that cause heat, such as burning candles.
- Obey the environmental guidelines to discard the batteries.

Results:

- Clearer instructions
- Consistent use of words, reuse increase by 15%
- Less words (from 196 to 125, reduction of 40%)
- Cheaper, better and faster translations

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Case Study – Elekta

- Total translation budget for FY2011 = $824K; with GIM we achieved savings of 40%
- 66% COGs reduction in print cost per manual
- 30% page count reduction
- 20% word count reduction in a user manual
- Improved customer experience and cost savings resulting from poor communication, which can lead to:
  - Confusion
  - Lost production time
  - Service calls
- Easier to manage, access, integrate, and reuse content

ELEKTA

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Techical illustrations

From CAD to illustrations.

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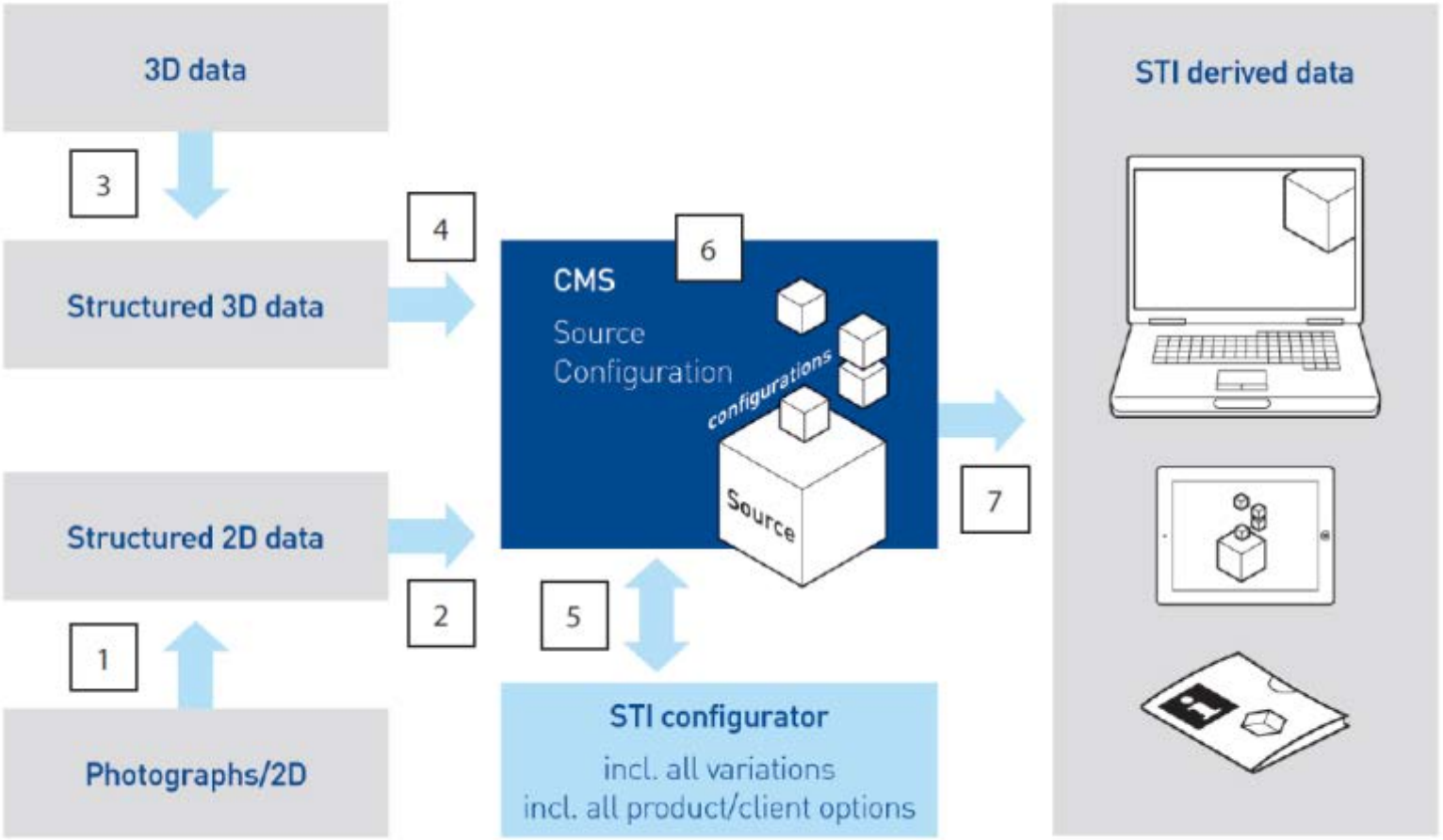
Step 2:
Define and customize universal standards

Content strategy for illustrations



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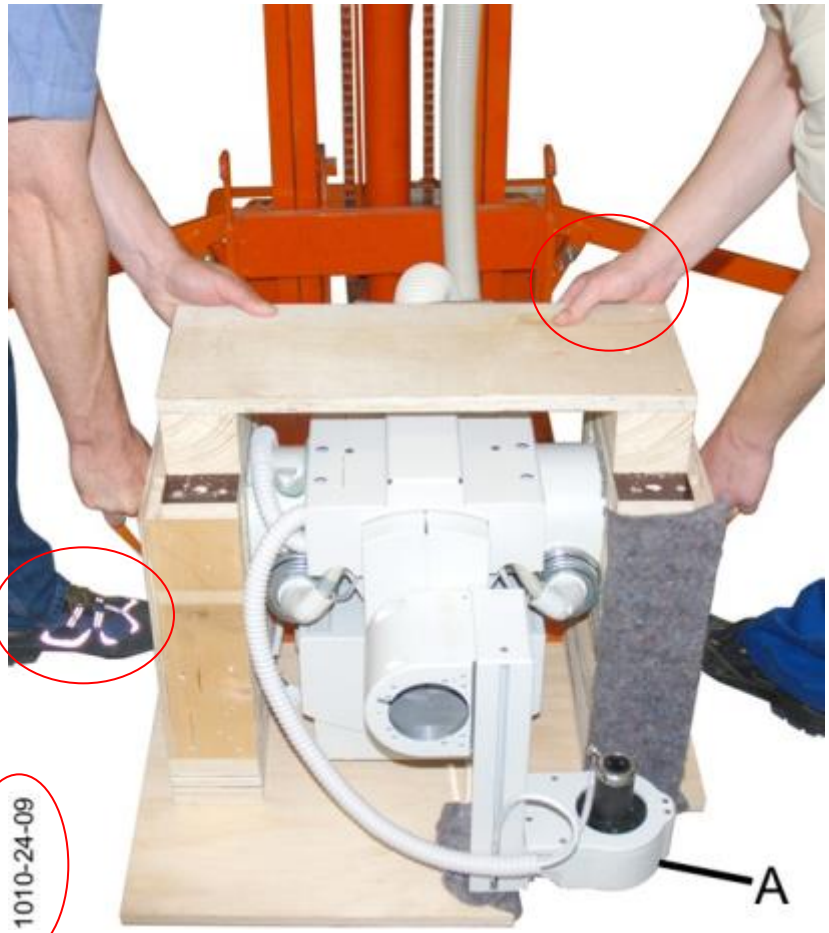
Why not use photos



1. Contains redundant information
2. Users are not wearing safety gloves and working boots
3. Contains an unclear code on the left corner that is not used in any related procedures

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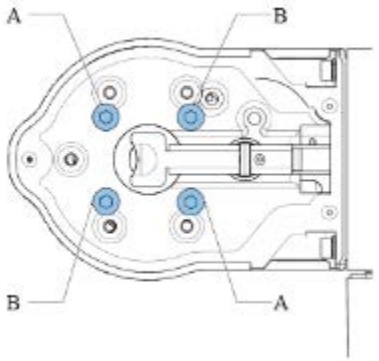
Photo vs illustrations

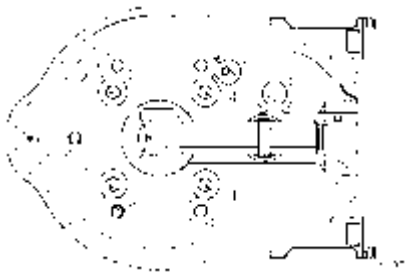
Before 1

After 1



Before 2

After 2



- After 1: shows the four colored parts that are referred to within the procedure.
- After 1: matches the end-user's view during the procedure of the task. This increases the recognition of the part within the system and therefore reduces the chance of mistakes.
- One should not have references inside a photo or illustration.
- Before 2 and After 2 demonstrate the possible effects when a PDF manual will be printed.

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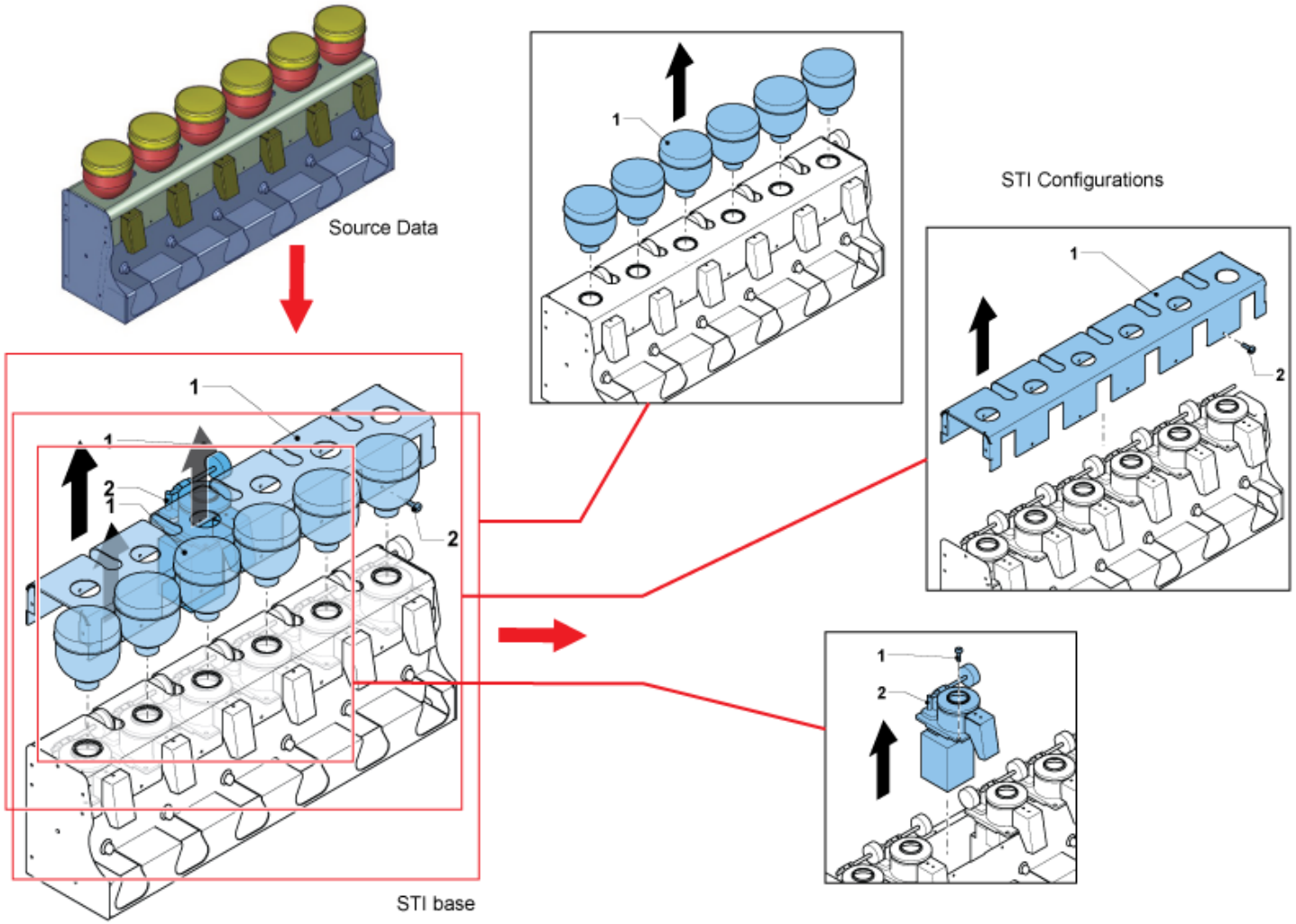
Illustration process in practice



Before

(technician instructions six grinder 120619)

Motor replacement

1. Remove the six hoppers by pulling them out of their bases. If there are beans inside the hopper, to prevent the beans from spilling, lay the Six-grinder on its front and pull the hopper downwards. Make sure that the stainless steel cover is closed. Note that these hoppers have no throttle on their bottom side.

2. Stand the Six-grinder back on its base. Use an electric screwdriver to release the screws attaching the top-cover to the base (three screws on the left and right sides and 5 screws on the front and rear).

3. Remove the top-cover by pulling it upwards.

4. ***Use an electric screwdriver*** to release the three screws that connect the motor to the body. Release only the screws in the marked holes.

5. Pull out the motor. Note that the wires of the motor are still connected to their plugs, so pull the motor carefully. Disconnect the two wires of the motor from their plugs and remove the motor.

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After

(technician instructions six grinder 120619)

Motor replacement

A. Motor removal

1. To remove the 6 hoppers, pull them out of their bottom.

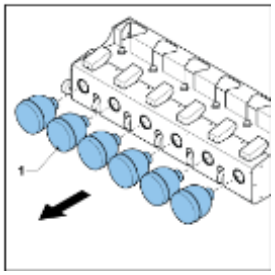
To make sure that the beans stay in the hoppers:

1.1 Close the stainless steel covers.

1.2 Put the Six-grinder on its front.

1.3 Pull the hoppers down.

Note: the hoppers do not have a throttle on their bottom side.



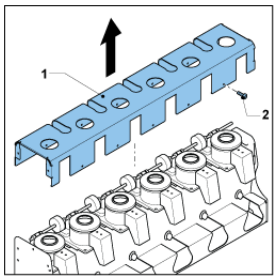
2. To remove the top-cover from the bottom:

2.1 Put the Six-grinder on its bottom.

2.2 Release the 3 screws on the left and right sides.

2.3 Release the 5 screws on the front and rear sides.

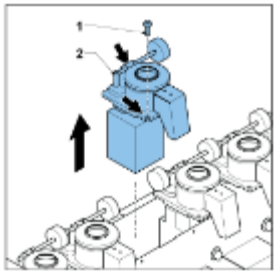
2.4 Pull the top-cover up.



3. Release the 3 screws that connect the motor to the frame.
The illustration shows the screws that you must release.

4. Pull out the motor.

Caution: pull the motor carefully, to prevent damage to the motor wires.



4.1 Disconnect the 2 wires of the motor from their plugs.

4.2 Remove the motor.

Results:

- Clearer & shorter instructions
- Improved readability,
- 10% reduction in words
- Cheaper, better and faster translations

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Structure

Single sourcing and topic based authoring.

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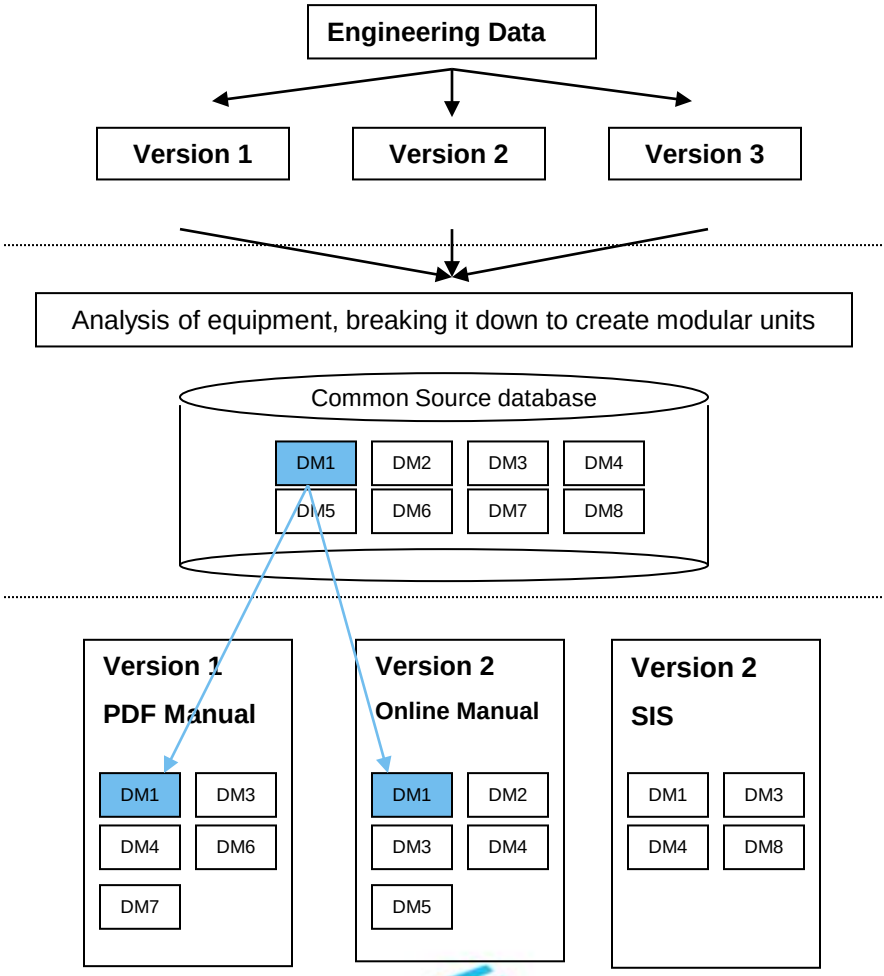
Step 2:
Define and customize universal standards

Single sourcing

- Structure (reuse data)
  - Reuse (single sourcing)
  - Easier to manage
  - Faster to retrieve
  - Multiple publication formats
  - DITA / S1000D



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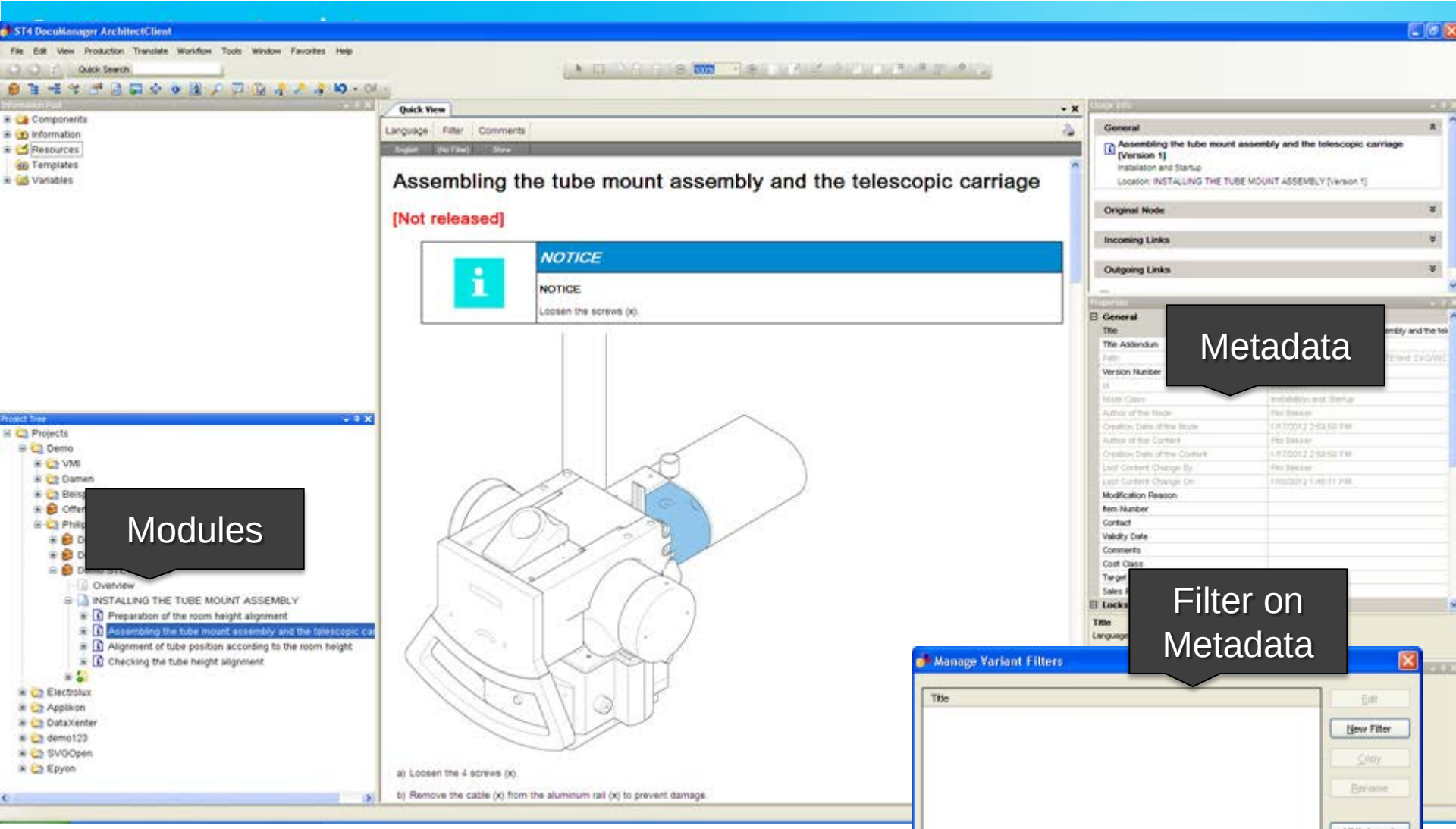

- Create topic-based modules.
- Add metadata to the modules.
- Create filter based on BOM to create customer-specific content.
- Publish to XML for dynamic publications. Metadata & BOM are used to dynamically create customer-specific manuals.

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Benefits to you and your customers!

- Create quality content once and optimize reuse
- Save up to 40% on documentation, translations and time to market
- Save 70% in illustration work

- Improve customer experience
- Reduce time to market
- Reduce liability and product damage
- Reduce time for maintenance
- Improve product lifecycle

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So now what?

- Standardize and simplify your content
- Use an established standard to base your controlled language efforts on
  - Keep it simple, be specific, be consistent
  - Train writers on writing rules
  - Differentiate the “nice to know” from the “need to know”, and keep the latter
  - Standardize corporate terminology
- Create your own controlled language standard!
- Reuse CAD data to develop illustrations to improve efficiency and reduce errors
- Cost savings are realized through simplified content and content reuse

Smart way to smart products

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