Style I: Objectives

The Fundamentals of Tech Writing | BUT 2024

The Red Hat Customer Content Services team

→ Style I ←

- What is style?
- Goals of tech writing
  - Accessibility
  - Readability
  - Findability

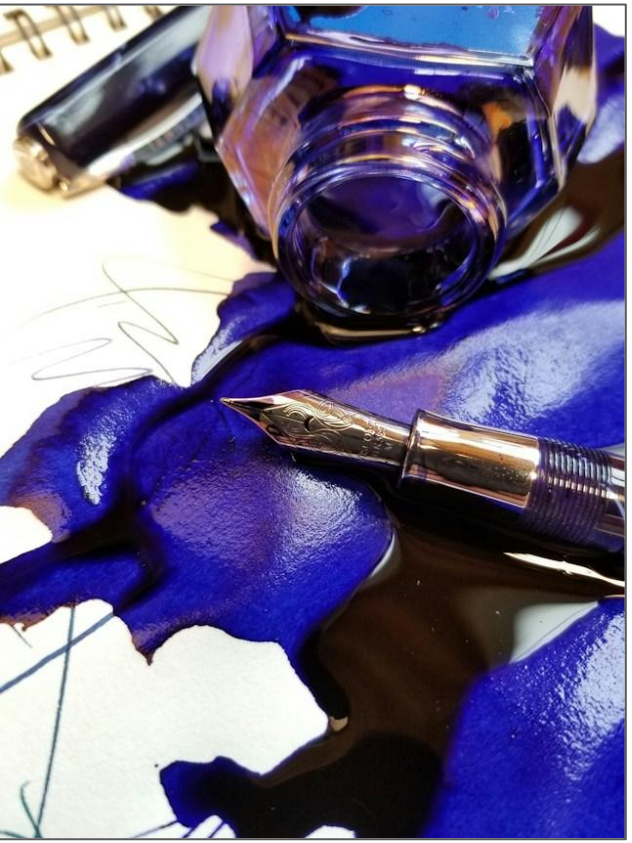
Style II

- Minimalism
- Exercises
- Topic-based authoring

Style III: Style guides

Discord

https://discord.gg/S35m7AX6gy



What **is** style in technical writing?

Source:
Image attribution:https://unsplash.com/@dtpennington

Literary style vs. Technical writing

Linux® is an open source operating system (OS).

An operating system is the software that directly manages a system's hardware and resources, like CPU, memory, and storage. The OS sits between applications and hardware and makes the connections between all of your software and the physical resources that do the work.

Source:
Spielberg, Steven. 1993. Jurassic Park. United States: Universal Pictures.
https://www.redhat.com/en/topics/linux/what-is-linux#why-choose-red-hat

Literary style

- Can be about technology
- Focus on characters and plot
- Convey emotions
- Be open to interpretation

vs.

Technical style

- Is about technology
- Focus on user and task
- Convey information
- No room for interpretation
- Task-oriented

Marketing style vs. Technical writing

Linux is the foundation for the modern IT stack, and Red Hat is one of the leading contributors to the Linux kernel and associated technologies in open source communities. Red Hat engineers help improve features, reliability, and security to make sure your infrastructure performs and remains stable—no matter your use case and workload.

1. To update the kernel, enter the following command:

   ```
   # yum update kernel
   ```

   This command updates the kernel along with all dependencies to the latest available version.

2. Reboot your system for the changes to take effect.

Source:
https://www.redhat.com/en/topics/linux/what-is-linux#why-choose-red-hat
https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/8/html-single/managing_monitoring_and_updating_the_kernel/index

Marketing style

- Convey information
- Make product look good
- Convince, sell, call to action

vs.

Technical style

- Convey information
- Accurately present information
- Admit what doesn’t work
- No claims or promises

Journalistic style vs. Technical writing

Every security researcher just knew some god-awful vulnerability was going to get lobbed into the mix just as people wind down for the holiday and it looked for a moment like it might have landed: A critical (CVSS 10) vulnerability in the Linux kernel that lets remote and unauthenticated hackers execute arbitrary code? Yikes. Before Linux users worldwide get panties in a panicked bunch, there's more positive news [...]

Source:
https://access.redhat.com/solutions/6991749
https://thestack.technology/is-this-cvss-10-linux-kernel-vulnerability-ksmbd/

Trend Micro Zero Day Initiative (ZDI) made public several vulnerabilities affecting the `ksmbd` module in the Linux kernel. Trend Micro's Zero Day Initiative (ZDI) reported four vulnerabilities affecting the kernel's `ksmbd` module, and one issue affecting the CIFS driver. (...) The `ksmbd` is a kernel-side file server compatible with the SMB protocol included in the Linux kernel in 2021. It is designed to be a lightweight file server [...]

Journalistic style

- Simple language
- Flexible styles
- May have unique writer's voice
- Currentness

vs.

Technical style

- Simple language
- Rigid style
- Unified voice of multiple writers
- Maintainability

Academic style vs. Technical writing

As we remember, the fourth field of a security context is an optional component [:level]. Security level or simply level consists of sensitivities and categories. Sensitivities can be also understood as classifications(e.g. Confidential, Secret, Top Secret, etc.) and categories as compartments(e.g. Finance, Marketing, Personnel, etc). Currently, the Reference SELinux policy defines 16 sensitivities(s0, ...,215) and 1024 categories [...]

Source:
Multi-Level Security (MLS) in access.redhat.com/documentation/en-us/red_hat_enterprise_linux/8/html-single/using_selinux/index
Multilevel Classification in SELinux, Bogdan Iakym, FI MUNI, Brno 2012

The Multi-Level Security (MLS) technology classifies data in a hierarchical classification using information security levels, for example:

- [lowest] Unclassified
- [low] Confidential
- [high] Secret
- [highest] Top secret

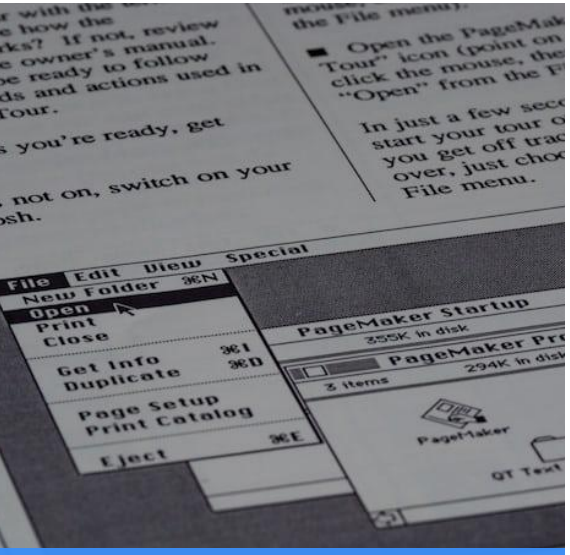
By default, the MLS SELinux policy uses 16 sensitivity levels:

- s0 is the least sensitive.
- s15 is the most sensitive.

Academic style vs. Technical style

- Convey information (it's the reader's responsibility to understand)
- Graduate-level English
- Professional jargon
- Descriptive, "theoretical"
- Not constrained by length

- Convey information (it's the writer's responsibility to write well)
- Simple English
- Avoid jargon
- Clear, task-oriented
- Short yet comprehensive



Technical writers do not guess. If you're not sure how to write something, look it up.

Technical writing style

- Purpose: Convey information, task-oriented
- Style: Highly regulated and standardized, brief, unambiguous
- Language: Simple English, no jargon
- Objectives: Accessibility, readability, findability

Source:
Image attribution: unsplash.com/@brett_jordan

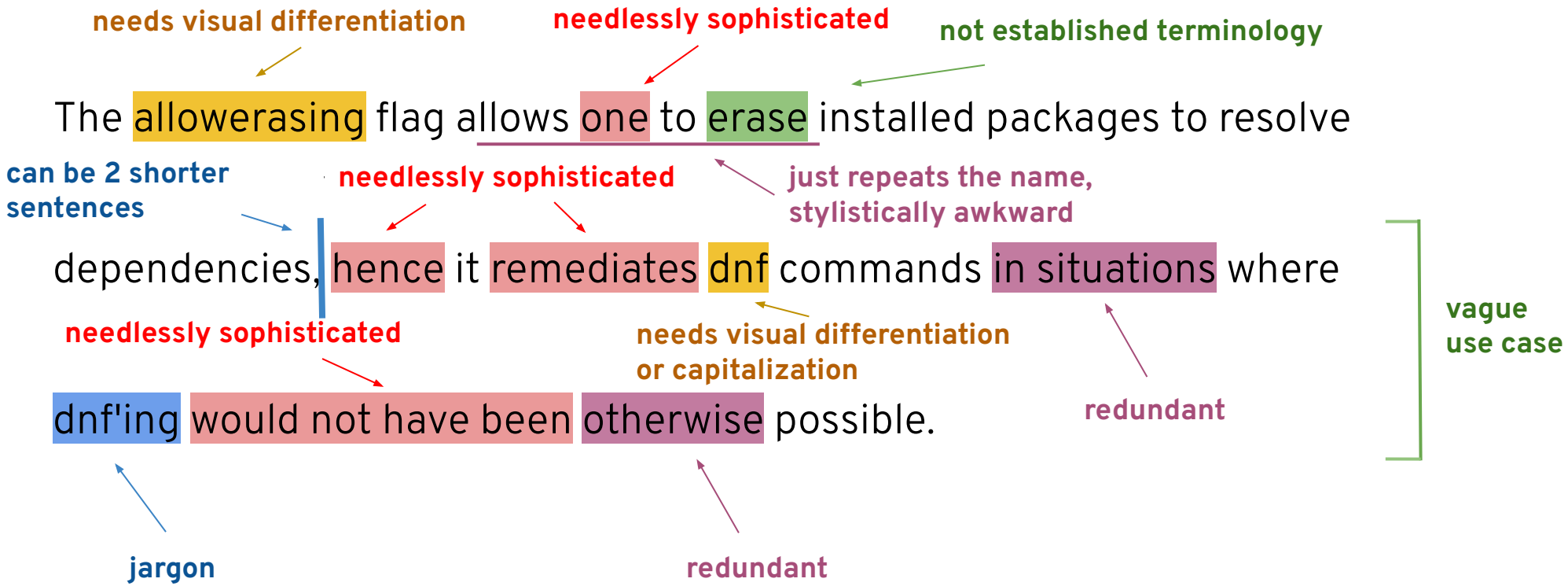
This is who is reading your docs:

Image by macrovector on Freepik

Style makes a difference!

The allowerasing flag allows one to erase installed packages to resolve dependencies, hence it remediates dnf commands in situations where dnf'ing would not have been otherwise possible.

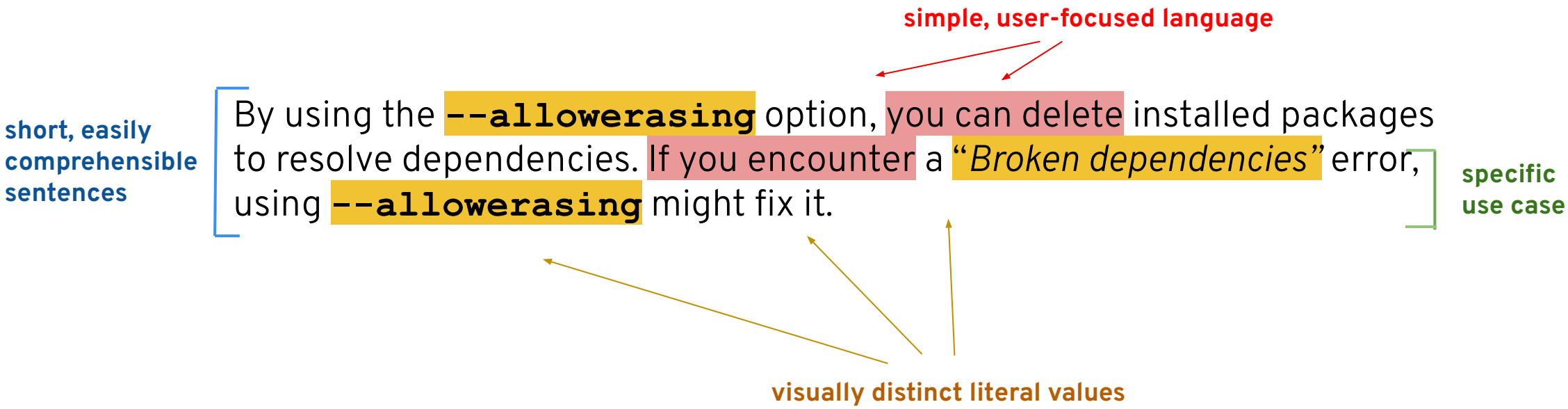
Style makes a difference!



Style makes a difference!

By using the **`--allowerasing`** option, you can delete installed packages to resolve dependencies. If you encounter a "*Broken dependencies*" error, using **`--allowerasing`** might fix it.

Style makes a difference!

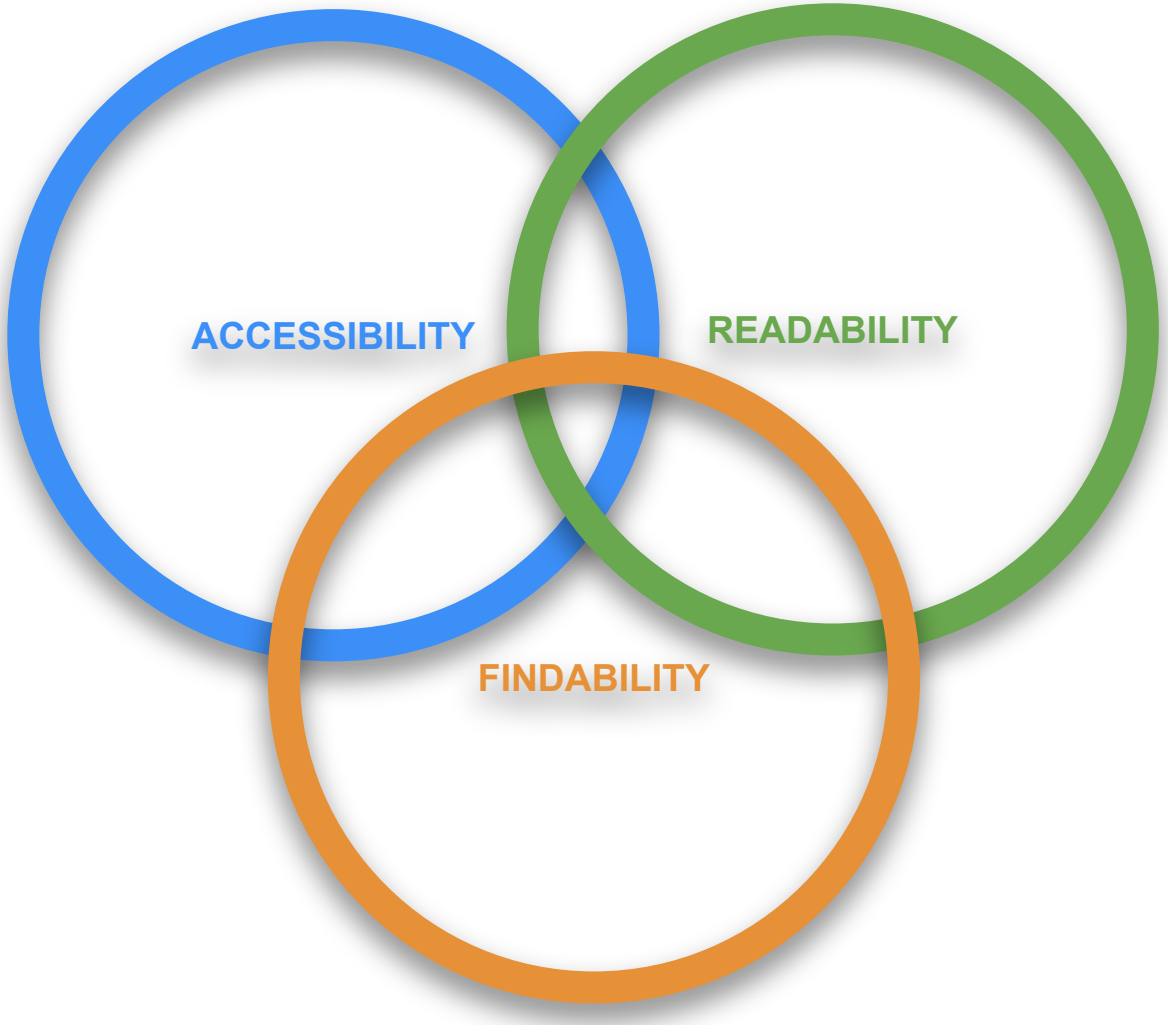


Unleash the power of reliability with Red Hat Enterprise Linux (RHEL)! If RHEL is robust and secure enough for Lufthansa, UPS, or Salesforce, it's going to work for you.

RHEL delivers unparalleled stability and performance for mission-critical applications. Trust in RHEL to seamlessly integrate cutting-edge technologies and stay ahead of the competition with a platform that evolves with your business needs.

While you can stipulate whether you want to resolve any package dependencies on a Content View by Content View basis, you might want to change the default Satellite settings to enable or disable package resolution for all Content Views.

Goals of technical writing



"The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect."

- Tim Berners-Lee, W3C Director and inventor of the World Wide Web

Source:
w3.org/standards/webdesign/accessibility
Image attribution: Silvio Tanaka derivative work: AnOddName, CC BY 2.0, via Wikimedia Commons

Accessibility

- Info should be accessible to anyone regardless of:
  - Levels of English
  - Disabilities (screen readers)
  - Stress
- Easily localized and machine translated
- It's the law (ADA, EAA)

Think about Adam!

Source:
w3.org/standards/webdesign/accessibility
ec.europa.eu/social/main.jsp?catId=1202
ada.gov/resources/web-guidance/

Make docs accessible

- 3 Cs: clear, concise, consistent language
- Simple, consistent formatting/layout
- Alternative formats (A/V, links)

Source:
whoisaccessible.com/guidelines/inspection-of-a-few-ada-compliant-websites-and-some-that-are-not/#inaccessible-websites
w3.org/TR/WCAG21/
chrome.google.com/webstore/detail/web-disability-simulator/olioanlbgbpmdlgjnnampnnlohigkjla

"Case studies show that accessible websites have better search results, reduced maintenance costs, and increased audience reach, among other benefits."
- w3.org

Source:
w3.org/standards/webdesign/accessibility


12:34 5

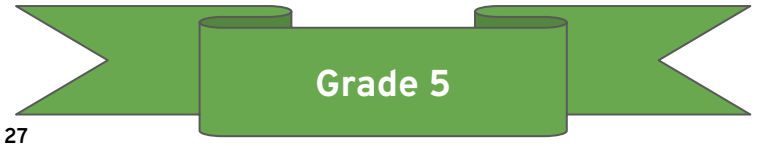

12:34 5

Readability

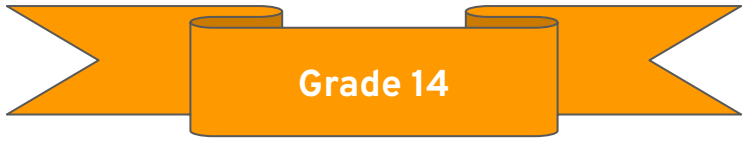
- Easy to read = easy to follow
- Readable ≈ accessible ≈ findable
- Minimalism → readability

Source:
"Readable." Merriam-Webster.com Dictionary, Merriam-Webster, https://www.merriam-webster.com/dictionary/readable. Accessed 10 Jan. 2023.
Image attribution: unsplash.com/@sickhews

When he was dressed he went down the hall into the kitchen. The table was almost hidden beneath all Dudley's birthday presents. It looked as though Dudley had gotten the new computer he wanted, not to mention the second television and the racing bike. Exactly why Dudley wanted a racing bike was a mystery to Harry, as Dudley was very fat and hated exercise - unless of course it involved punching somebody. Dudley's favorite punching bag was Harry, […]



This idea was elaborated by Ptolemy in the second century A.D. into a complete cosmological model. The earth stood at the center, surrounded by eight spheres that carried the moon, the sun, the stars, and the five planets known at the time, Mercury, Venus, Mars, Jupiter, and Saturn (Fig 1.1). The planets themselves moved on smaller circles attached to their respective spheres in order to account for their rather complicated observed paths in the sky. […]



GNNs are a powerful tool for modeling complex data structures. Problems including detecting fake users (Sun et al., 2020), fake news (Michail et al., 2022), and performing recommendations (Ying et al., 2018; Tan et al., 2020) on social media to mimicking classic combinatorial optimization (Cappart et al., 2021; Veličković et al., 2019) and detecting faults in software (Zhou et al., 2019; Allamanis et al., 2018; Nguyen et al., 2022b) can be straightforwardly […]

Harry Potter & The Philosopher's Stone by J.K. (Joanne) Rowling

A Brief History of Time by Stephen Hawking

Inferring Properties of Graph Neural Network by Thanh-Dat Nguyen et al.

Make docs readable

- Focus on reader
- Clear, simple structure
- 3 Cs: clear, concise, consistent language
- Remove unnecessary words
- Short sentences
- Avoid self-referential language

The Flesch–Kincaid Grade Level Formula measures readability as a U.S. grade level:

0.39 x (words/sentences) +
11.8 x (syllables/words) – 15.59

Think about Adam!

Source:
webfx.com/tools/read-able/flesch-kincaid/
grammarly.com/blog/readability/
hemingwayapp.com/
Image attribution: unsplash.com/@joshapplegate

Grade 15 (difficult)

When a user connects to the FTP service, FTP shows a greeting banner, which by default includes version information that could be used by attackers to identify weaknesses in a system. To prevent the attackers from accessing this information by changing the default banner, please follow the procedure:

Grade 9 (plain English)

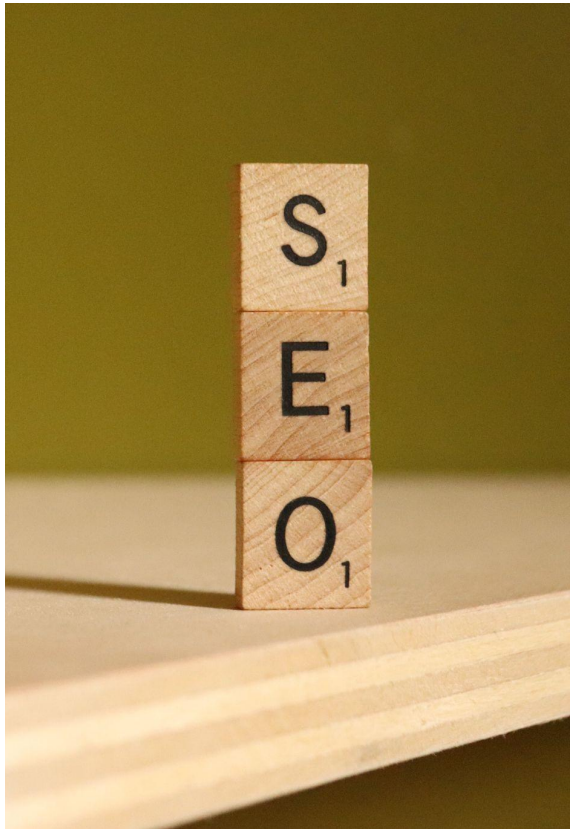
When you run the FTP service, the service shows a greeting banner. By default, the banner includes version information. Attackers could use this information to identify weaknesses in your system. You can hide this information by changing the default banner.

Source:
https://hemingwayapp.com/

Findability

- What is it?
  - Searchability (~external findability)
  - Scannability (~internal findability)
- Why is it important?

Image attribution: https://unsplash.com/@laughayette



External findability (searchability)

-> Search engine optimization (SEO)

Google algorithm key factors:

- Relevance and quality (intent vs. keywords)
- EAT factors: Expertise, Authority, Trust
- Structure and organization (headings and subheadings)
- Alt text for images
- UX (loading speed and mobile-friendliness)

Foto:
Nisinco Prand, Unsplash

Scannability in daily life

Images:
*Vivarium, Vertigo films
* OC Atrium Flora,

Making docs scannable

- Table of contents
- Clear, descriptive titles + abstracts
- Consistent formatting
- Structured text: lists, admonitions

Image attribution:Wanderer Above Sea Fog by Caspar David Friedrich, 1817, via Kunsthalle Hamburg

Making docs scannable: Visual structure

Since the beginning of time, since the first little girl ever existed, there have been dolls. But the dolls were always and forever baby dolls. The girls who played with them could only ever play at being mothers. Which can be fun, at least for a while, anyway. Ask your mother.

Since the beginning of time, since the first little girl ever existed, there have been **dolls**.

But the dolls were always and forever **baby dolls**.

The girls who played with them could only ever play at being **mothers**. Which can be fun, at least for a while, anyway.

Ask your mother.

Making docs scannable: Lists

- Bulleted list vs. Numbered list

Bulleted list:

- Apples
- Pears
- Watermelons
- Strawberries

Numbered list:

1. Open a book.
2. See page 37.
3. Read the content.
4. Close the book.

- Parallel structure

The company is looking for a candidate who is:

- Friendly
- Organized
- Punctual

Think about Adam!

Making docs findable: Titles & headings

- Very important for both scannability and searchability
- Meets and/or sets users expectations
- Good headings should be:
  - Goal-oriented
  - Short and clear
  - Audience focused (as a WHO, I want WHAT, so that WHY)
  - Accurate and correctly represents the content

Foto: Unsplash, Creative Commons

Text structuring for findability

1.3. SUPPORTED USAGE

Each Red Hat Satellite subscription includes one supported instance of Red Hat Enterprise Linux Server. This instance should be reserved solely for the purpose of running Red Hat Satellite. Using the operating system included with Satellite to run other daemons, applications, or services within your environment is not supported.

SELinux must be either in enforcing or permissive mode, installation with disabled SELinux is not supported. Red Hat Satellite includes supported Puppet packages. The installation program allows users to install and configure Puppet servers as a part of Capsule Servers. Pulp usage is only supported via Satellite web UI, CLI, and API. Similarly, make sure to only interact with Candlepin through the Satellite web UI, CLI, and API as direct interactions with Candlepin is not supported.

Text structuring for findability II

1.3. SUPPORTED USAGE OF RED HAT SATELLITE COMPONENTS

Red Hat Enterprise Linux Server: Each Red Hat Satellite subscription includes one supported instance of Red Hat Enterprise Linux Server. Reserve this instance for the purpose of running Red Hat Satellite only.

Not supported: Using the operating system included with Satellite to run other daemons, applications, or services within your environment.

SELinux: Ensure SELinux is in enforcing or permissive mode.
Not supported: Installation with disabled SELinux.

Pulp: Interact with Pulp only by using the Satellite web UI, CLI, and API.
Not supported: Direct modification or interaction with the Pulp local API or database.

Candlepin: Interact with Candlepin only by using the Satellite web UI, CLI, and API.
Not supported: Direct interaction with Candlepin, its local API, or database.

Text structuring for findability III

1.3. Supported usage of Red Hat Satellite components

	Supported usage	Not supported
Red Hat Enterprise Linux	One instance of Red Hat Enterprise Linux Server is supported within each Red Hat Satellite subscription. NOTE: Reserve this instance for the purpose of running Red Hat Satellite only.	Using the Red Hat Enterprise Linux instance included with Satellite to run other daemons, applications, or services within your environment.
SELinux	Enforcing or permissive mode.	Disabled mode.
Pulp	Interacting by using the Satellite web UI, CLI, and API.	Interacting with the Pulp local API or database directly.
Candlepin	Interacting by using the Satellite web UI, CLI, and API.	Interacting with the Candlepin local API or database directly.

1.2. Installing and enabling the web console

To access the RHEL 9 web console, first enable the `cockpit.socket` service.

Red Hat Enterprise Linux 9 includes the RHEL 9 web console installed by default in many installation variants. If this is not the case on your system, install the `cockpit` package before enabling the `cockpit.socket` service.

Procedure

1. If the web console is not installed by default on your installation variant, manually install the `cockpit` package:

```
# dnf install cockpit
```

2. Enable and start the `cockpit.socket` service, which runs a web server:

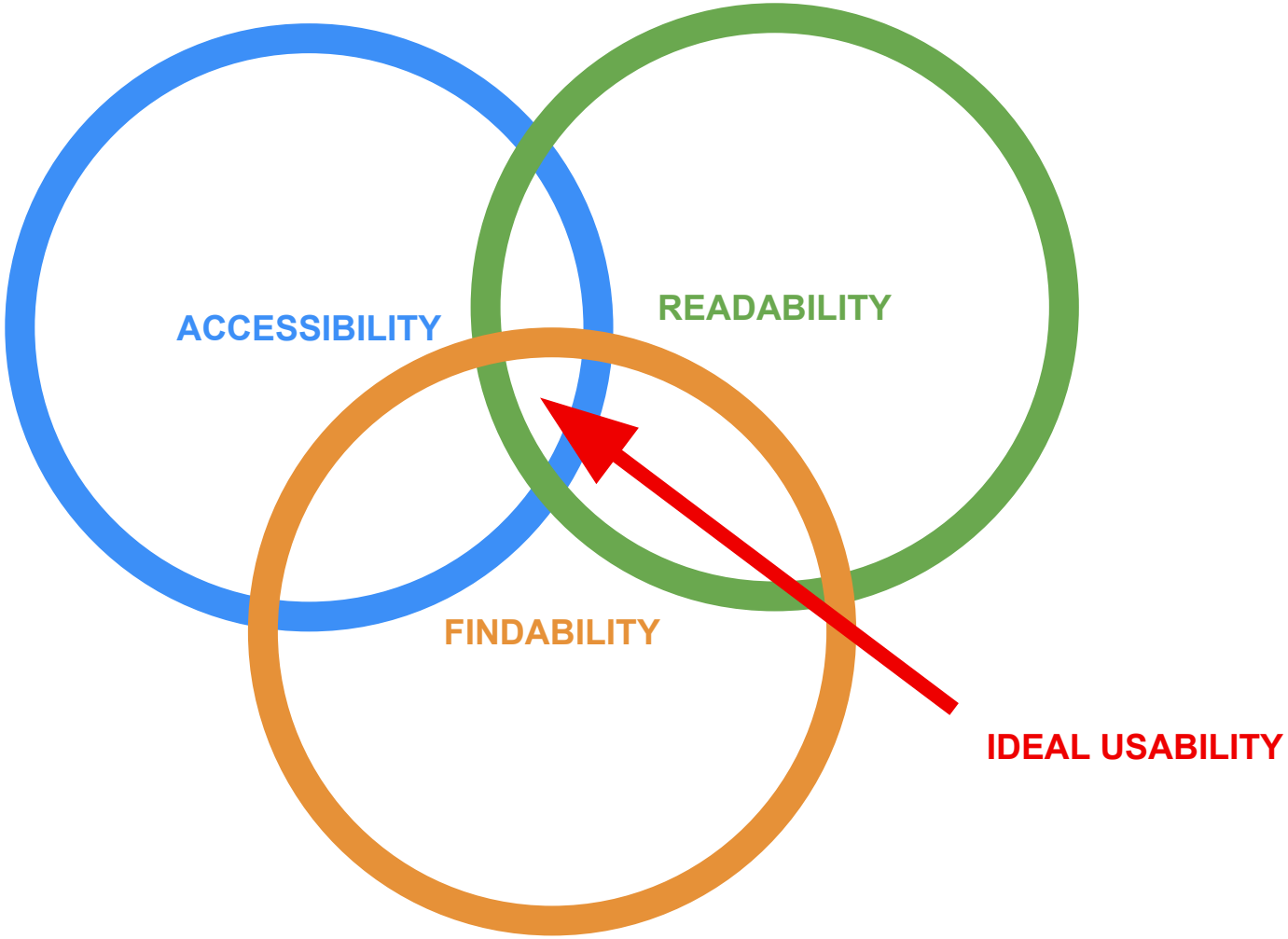
```
# systemctl enable --now cockpit.socket
```

3. If the web console was not installed by default on your installation variant and you are using a custom firewall profile, add the `cockpit` service to `firewalld` to open port 9090 in the firewall:

```
# firewall-cmd --add-service=cockpit --permanent
# firewall-cmd --reload
```

Verification steps

- To verify the previous installation and configuration, open the web console.


ACCESSIBILITY
READABILITY
FINDABILITY
IDEAL USABILITY

EXERCISE: Structure

- Rewrite the following instructions for RHEL 8 CSB post-installation script for better readability:

> **Encryption change tool**
>
> Please fill out all the fields below.
>
> Your encryption password must contain at least: **14** characters and **3** of the **4** character classes (**uppercase** letter, **lowercase** letter, **number**, **special** character)
>
> (We recommend using your Kerberos password also as encryption password.)

POSSIBLE SOLUTION: Structure

Encryption change tool

Please fill out all the fields below.

Your encryption password must contain at least: **14** characters and **3** of the **4** character classes (**uppercase** letter, **lowercase** letter, **number** , **special** character)

(We recommend using your Kerberos password also as encryption password.)

Setting your hard drive encryption password

Set your encryption password to contain at least **14** characters.

Use **three or all** of the following character classes:

- **Uppercase** letters
- **Lowercase** letters
- **Numbers**
- **Non-alphanumeric** characters

NOTE:

You can re-use your Kerberos password as your encryption password.

Summary

- Technical docs style ≠ general writing style
- Focus on readability, findability, accessibility, and the user experience
- Some best practices:
  - Use simple, translation-friendly language.
  - Use visual structure and formatting to make the text easy to read.
  - Focus on helping the reader accomplish a specific goal.
- To be continued in the next class!

Think about Adam!

Source:
unsplash.com/@kellysikkema

HOMEWORK !

[Click here to create a copy of the assignment doc]

Send to jafiala@redhat.com

Thank you