GNU Essentials

GNU Linux Manual of Style

for

Technical Content Creators 2020

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Foreword

As the need for more GNU Linux focused documentation increases, there were many challenges educating Windows or Mac users about GNU Linux commands and standards. The documentation quality suffered and the ability to enable developers decreased as documentation was sometimes better than what was available online but not “good enough” to work or run. GNU Linux writers often fought an uphill battle trying to explain POSIX and functionality with proprietary communications teams.

In some cases, command prompts were included in copy code snippets, instructions to use sudo when root were present, and non POSIX characters converted by proprietary systems or software configurations were included in copy code snippets. These non-functional characters slow down the process of getting a demo to run or even creating a prototype. When instructions include these types of non functioning characters, we often forgive such simple errors. However, when these types of errors happen, this is a frustration for the developer or developer team.

One example I can give is when a script needs permissions to execute and there is no instruction to do so. As “veterans”, we know this must be done. However, new users, new developers and teams new to GNU Linux may not even know what to do. A simple chmod, of course, will take care of this situation.

Other issues include extended installation instructions or pages of reference for a simple man page. While some newer developers may not use or read man pages, these are the informative references we use to quickly execute commands in the correct syntax or format. GNU Linux documentation is essential in developing software and prototypes. Without quality documentation, developers are left to hack at it.

Documentation driven development is also a benefit to any project. When the documentation content creator understands the software, platform and system, this can drive development. Advancing your project with a documentation content creator is also essential in maintaining a relationship with the audience. There are no substitutions for a great GNU Linux or FOSS content creator. The content in this book is guidance for improving GNU Linux documentation quality.

While some have argued in the past, there was not a need for a style guide or standards, this book offers guidance to improve documentation quality and the developer experience rather than dictate or establish any standards whatsoever.

The opportunity to choose how we use our resources and share our experiences as well as share our tools - is what makes this community great!

About the Author

Marcia Wilbur is a GNU X veteran, author and developer of over 20 years.
She holds degrees in computer science, technical communications and information technology. Prior to obtaining a degree in computer science, she worked as a typesetter in printing/publishing for Bowne*, Kinkos* and various print shops. As faculty, she taught freshman courses for Business Writing for the IT Professional. She also taught several freshman courses in the Humanities department. Her previous work includes clerical duties at the Scottsdale Community College library and the Three Rivers Community Technical College library.

After serving as an intern and advisory committee member for the Free Software Foundation in 2002-2003, she was employed to “validate” documentation for Linux Essentials in cooperation with CompTia* and Aries* technology. This content was computer based training for university students worldwide to prepare to pass GNU Linux certification. After finding multiple errors, she was enlisted to write the documentation as the sole technical writer. She wrote this documentation as the content for the courseware as the sole technical writer. In her own words, “I tried to convince them to call it GNU Linux Essentials... One section about history came straight from an exchange with RMS.”

In 2003, she volunteered at the Electronic Frontier Foundation (EFF), writing the Digital Millennium Copyright Act (DMCA) FAQ for the DMCA blog. Her writing includes articles and contributions published in Linux Magazine, LWN*, STC* Rough Draft and more.

Her consulting work includes documentation driven development, migrations, integrations, implementations, system administration, learning development, developer experience testing, coding, upgrading as well as sunsetting systems in the fields of semiconductor, embedded, AIoT, healthcare, education and transportation.

More recently, her focus is with Edge computing, Artificial Intelligence and Internet of Things. She recently completed a project as a technical editor for a BeagleBone* book for Wiley* Publishing.

Marcia is also a privacy advocate, speaking about surveillance and ethics. In 2019, she spoke at Yale Law school about privacy. Her volunteer work includes serving underserved areas with educational resources using GNU X. She also has volunteered with Apache* OpenOffice, LibreOffice* as well as SolarSpell and Kids on Computers.

She is the lead Debian* developer for the Debian release of respin, a backup utility and distro customization tool. Marcia serves the community as the Chief Guru of Copper GNU Linux User Group holding GNU Linux/Pi meetings and supporting projects.

Overview

This style guide is used specifically for R00T magazine but can be used to assist other authors in the pursuit of quality documentation.

Please provide feedback or contributions through our gitlab: gitlab.com/remastersys
Or through email: admin at gnulinux.io

Dedication

For Community!

Revision History

Date	Revision	Description
06-06-2020	0.1	Initial Draft
06-09-2020	0.2	Added Change Management Section – Chapter 1
06-28-2020	0.3	Add Revision History
07-20-2020	0.4	Add index
08-01-2020	0.5	Add revised index entries
09-06-2020	1.0-0	Proof

CHAPTER 1. The Documentation Development Life Cycle

1.0 Basics of Technical Authoring

Tell them!

1. Intro: Tell them what you are **going to do**
2. Body: Tell them **how to do it**
3. Summary: Tell them **what you did**
4. Next Steps: Tell them **what they can do next**

An outline can be as simple as a list prepared in your mind's. Organizing the outline in your mind prior to ever putting the content down on a page is one way to outline.

1.1 Documentation Development Life Cycle

The following are components of the documentation development life cycle.

- Requirement Analysis
- Audience Analysis
- Document Outline
- Prototype
- Develop
- Review
- Publish
- Maintain/Support

Requirement Analysis

Similar to a needs analysis but deeper into the requirements of the documentation after the need is established. What documentation is required? Just a user guide? Additional Administration guide? Application note?

A sample template is provided.

Requirement/Needs Analysis Template

Question	Response
Do we need documentation?	[ ] Yes [ ] No
Why do we need documentation	List reasons why below • man page vague • some users do not read man pages • options not self explanatory • support community
Proposed time frame	
Proposed team members and contribution percentage or hours	**Technical Writer/Editor** 20 hours a week **Developer** 5 hours a week **Project Manager** 1 hour a week (basic task management - could be managed by technical writer or developer alternately) **Testing** - Validation and review - depends on project size and scope
Proposed documentation required	[ ] Installation Guide [ ] Get Started Guide [ ] User Guide [ ] Release Notes [ ] System Administrator Guide [ ] Tutorials [ ] Video demos [ ] Reference Guide [ ] Quick Start Guide [ ] Reference Card [ ] Application Notes [ ] Product Brief [ ] Product Specification [ ] Whitepaper [ ] Facilitation Guide [ ] Student Guide
Style Guide exists?	[ ] Yes [ ] No If Yes, Where?
Other considerations	• accessibility, privacy, security • What about Version Control?
Proposed Video/audio	[ ] podcast [ ] streaming live video webinar [ ] live demo [ ] recorded demo [ ] twitch stream [ ] audiobook
Content Management	Where do existing videos reside? Where will future content reside?

Audience Analysis

Analysis of primary and secondary audiences – template example is included. This is a starter template. Insert additional information in the response field.

Audience Analysis Template

Project: Living on the Edge - AI at Home

Primary Audience Profile

- Maker
- Entrepreneurs
- IOT Developers
- Enterprise Developers

Question	Response
What is the job function and role of the primary audience?	Best Guess
How will this audience use this document?	For reference with hands-on samples/demos
What is the educational level of this audience?	[ ] new [ ] can hack it [ ] some knowledge [ ] expert
How experienced are the members of this audience with IoT?	[ ] new [ ] can hack it [ ] some experience [ ] expert
How experienced are the members of this audience with AI or machine Learning?	[ ] Beginner [ ] Intermediate [ ] Advanced
What is their work environment like?	[ ] Lab [ ] Desk/Office [ ] Remote
What is their interest level?	[ ] Low [ ] Medium [ ] High
What biases, preferences, or expectations, might they have?	[ ] Low [ ] Medium [ ] High
Which operating systems are they familiar?	List here:
How much theory or “nice-to-know” information will they want?	Insert info here:
What other training will they receive in addition to the documentation?	[ ] samples [ ] tutorials [ ] training [ ] webinars [ ] other:

Secondary Audience Profile

Question	Response
What is the job function and role of the secondary audience?	Best Guess
How will this audience use this document?	For reference with hands-on samples/demos
What is the educational level of this audience?	[ ] new [ ] can hack it [ ] some knowledge [ ] expert
How experienced are the members of this audience with IoT?	[ ] new [ ] can hack it [ ] some experience [ ] expert Users experience vary. Level varies from beginner to expert. These are school instructors.
How experienced are the members of this audience with AI or machine Learning?	[ ] Beginner [ ] Intermediate [ ] Advanced
What is their work environment like?	[ ] Lab [ ] Desk/Office [ ] Remote Educational office environment for administrative staff or teaching environment for instructors, where they must have a basic computer for scheduling their courses with resources and standards.
What is their interest level?	[ ] Low [ ] Medium [ ] High
What biases, preferences, or expectations, might they have?	[ ] Low [ ] Medium [ ] High
Which operating systems are they familiar?	List here:
How much theory or “nice-to-know” information will they want?	Insert info here:
What other training will they receive in addition to the documentation?	[ ] samples [ ] tutorials [ ] training [ ] webinars [ ] other:

Prototypical User example:

The prototypical user will be a teacher who is preparing the coursework for the class. This may need approval or align with the teaching requirements.

Document outline

Draft the initial outline based on the requirements and need. If one is not already created in the needs analysis stage, create documentation objectives. These objectives are similar to learning objectives and include:

- Purpose
- What will be covered or included
- Goals

Example Objectives
Purpose: To document the new module for the web application, iGNULearn
What will be included: Each option, configuration, system administration and user navigation
Goals: To document the new module completely for users and system administrators

The outline may differ depending on type of documentation needed. An article for developers for example, may use a standard content strategy familiar to other developers. Drupal or Wordpress modules have a standard content strategy for the most part. The description and version are included as well as other information.

For repeated content needs, a strategy can be followed, not for the sake of consistency alone, but for the sake of including those important key elements necessary to reach your audience.

To create an outline, consider the organization and flow of the document. In the case of software documentation, this can be done by section. Each section can be outlined per the requirements and features. A troubleshooting section is often found at the end of the guide.

Brainstorm topics

There are many brainstorm techniques. Use the method best for you and project needs.

- notes
- lists
- outside perspectives

Organize topics. The type of organization or order will vary. Select an order during kick off or as soon as possible prior to writing the draft.

- chronological
- functional
- by component
- alphabetic
- features
- other

Starter Outline

Chapter 1. Overview
Chapter 2. Introduction to Machine Learning
Chapter 3. Pre-trained models
Chapter 4. Optimization
Chapter 5. Application 1 – Object detection
Chapter 6. Application 2 – Emotion recognition
Chapter 7. Other use cases
Chapter 8. Conclusion
Chapter 9. Future work and resources

Prototype

This is a content management or strategy step to prepare in advance for content creation. Will include:

Style guide creation or updates
Template creation or updates
Content Strategy standard creation or updates
Workflow documentation or process improvements
Change Management procedures

Note: When working with older or proprietary systems, remember to write GNU Linux documentation on the same system as is being documented. An example would be to write documentation requiring Debian Stretch with kernel 4.15 on Debian Stretch with kernel 4.15. If a dedicated system is not a possibility, consider using a virtual machine.

Convert proprietary processes to non-proprietary where the conversion improves efficiency.

Style Guide

Style guides assist the authors to create consistent looking documentation readers will come to understand and expect. Visual cues for readers enable your audience to quickly get to the information they are looking for. One example is a caption. An example of a caption style is:

Figure 1. This picture is about this topic

Captions must be notable and descriptive.
This way, someone searching for a particular image or topic, there is more information about what the configuration would look like, if the caption is descriptive. Consider the time of the reader is as valuable as your own. If you keep in mind the audience and respect the audience, documentation quality is fairly automatic.

Templates

Create templates to save time and reduce error. Templates are a good way to organize documentation. Templates can be easily customized documentation tools to ensure consistency with the style guide and branding of the project or organization. There is no reason to reinvent the wheel. With styles applied to the document, the compliance with the style guidelines become simple to apply. This is how several documentation projects update and create content for their user guides.

Often a project will use markdown rather than a document editor. Many different tools are available for creating documentation. This will come in a later chapter about tools in the content creator toolbox.

Templates can include the yaml files needed to generate html or the file hierarchy for generating SCORM compliant learning and documentation PDFs using single sourcing, XML, XSL and DITA. You can even have a template for rolling out simple debs based on a script.

The project needs will vary. However, if the templates are shared and accessible, a library of templates can be a valuable resource for any project!

Content strategy: Web based article or guide

One winning formula for content strategy is found in Drupal and Wordpress modules. For Drupal, the modules include information about what the module is and version control. Important also is how it works. Often, digging deeper, instructions or demos were available. This information is a quick path to installing a module or plugin and could work for your quick start or get started guides as an overview.

Add a tutorial after the demo to enable developers to configure or custom the original demo to their needs.

Of course, your project can use different phrases to fit your brand.

- Description
- Features
- Screenshots
- What's new video

Example Strategy

Overview or Introduction

Short overview - "tell them what you'll tell them"

What it is

Details about what it is

How it works

Details about how it works

Architectural diagram where useful

Main Content "tell them"

Prerequisites to perform demo

Hardware

Software

Estimate of time to perform demo

Just a short estimate can really assist a developer or reader to understand how much time to schedule or dedicate to this demo. This really does make a significant difference to some busy devs. Try to be as accurate as you can because otherwise, what's the point?

Installation

An example may be an installation section in a get started guide. Installation may be as simple as apt install <tool>. Therefore, there really is not a lot of need for installation guidance, depending on your project. Keep installation sections simple.

Demo - Instructions for hello world

People enjoy the blinking led or simple action

This reinforces the intent and can inspires or motivate

Success is essential

Demo with a twist

Lead the reader based on previous demo to execute instructions similar to enable developers to run more future applications

Conclusion
"Tell them what you told them"
References - resources - learn more
Include links or references to a few more relevant resources.
Always remember, when linking to third party or outside resources, you run the risk of 404!

Outline: Web based article or guide

Overview
- What it is
- How it works

Main Content
- Prerequisites to perform demo
- Hardware
- Software
- Estimate of time to perform demo
- Demo - Instructions for hello world
- Demo with a twist

Conclusion
References - resources - learn more

Workflow

Understanding workflow improves quality and time. When the workflow is documented, locating the correct logs and information to troubleshoot is clear.

Project Workflow

Documenting workflow can make a huge difference in completion of a project. Once the workflow is determined, the project components are more clear. An example is a GNU Linux server not connecting to another server. A file is not transferred and the process is incomplete. This happened on a project once. The QA department did not even realize the origin of the file being transferred was from a legacy GNU Linux server.

Documentation Workflow

- How will the author or technical communicator create documentation?
- What tools will the author/publisher use?
- Does a prior standard or workflow exist?
- Can this be converted to a non-proprietary process?

- What is the collaboration process?
- What are other projects doing with success?
- Can the workflow be improved or updated?

Converting workflows to non-proprietary

Some of the most fulfilling tasks can be to automate work to complete a job more efficiently. Writing scripts and using non-proprietary software workflows can enable the content creator to save time and resources while maintaining error free content.

Example 1. Non-Functional non POSIX characters

Use a script or grep/sed commands to find and replace odd non POSIX characters in content. At times, you may find non POSIX characters in copy code snippets or commands.

Correct character for commands: -
Incorrect character for commands: –

While the difference may not be obvious to the common observer, the technical writer or developer will note this character will NOT work at the command line. This will cause the command to fail. This slows down your reader. When this happens multiple times, this can be frustrating and call into question the reliability of the documentation.

These characters are inserted in the documentation in several ways:

- Windows users and MS Word
- Windows users and MS Outlook
- GNU Linux users and LibreOffice settings

There are ways to configure the settings for these applications to avoid the conversion from a dash to a non POSIX character. Using an IDE or GNU Linux application can prevent this type of error. If you receive documentation with the error, a simple script can be run against the documentation to replace the incorrect character with the correct character.

Note: If you are using the non-functional characters for some reason other than in code or commands, note this when implementing your replace method. All of this being said, when GNU Linux writers create content using GNU Linux, these types of errors are typically not a problem.

Ugmug

```
#!/bin/bash

# Author:  marcia wilbur GPLv3
# Purpose: validate and repair functionality for Linux if
#          using MS writers
# Usage:   grep character path/to/*.md

# ms dash: not functional

echo "replacing MS weirdness"
result=$(grep – filename.md)
echo $result
sed -i 's/–/-/g' ./*.md
echo "below are the instances of non functional dash (–)"
cat filename.md | grep '–'
```

Code sample 1. Non-functional dash

Often in documentation the wrong non-functional quotes will be present. Replace quotes using a script or command such as the script below.

```
# literal quotes

echo "replacing literal quotes"
$quotes=$(grep "` filename.md")
echo $quotes
sed -r 's/\\\`/\\'/g' ./*.md
echo "below are the instances of the literal quote"
cat filename.md | grep `
```

Change Management

One great benefit to keeping a good changelog is when someone receives updated documentation, the changelog can be used to minimize the research for what was changed. In documentation, often a revision history is placed in the front matter. An example is provided.

Date	Revision	Description
06-06-2020	0.1	Initial Draft
06-09-2020	0.2	Added Change Management
06-28-2020	0.3	Add Revision History

Develop Draft

Create documentation

Document process and workflow for pass off

Different projects will have different ways of organizing, collaborating and collecting data. Here is where you can turn the data into information and present the content to the audience in the way set out by your style, outline and brand.

Use the templates to create your documentation. With the outline, style guidance, templates and workflow, you have all the tools needed to create documentation.

How you gather good content and develop the draft is dependent on your project.

Often a project will have 0 documentation. Where can you start developing the draft?

- Collect data
- Gather and verify content and organize
- Interview developers
- Read Code Requirements
- Read Code
- Alpha/Beta test the software – sandbox available?

Fill the GAP

Do not assume the reader knows information!

When writing documentation, remember, the reader may not have the same background, experience and knowledge as you. Often technical communicators are employed to fill the gap. What may seem obvious to an engineer or developer may not be obvious to a new developer or new grad.

Example: Explanatory instructions with value

I**ncorrect:** Use -r with uuidgen
Correct: The -r flag is used to generate UUIDs version 4 - random numbers.

Quality Assurance Testing v. Usability Testing

The difference between Quality Assurance Testing and Usability Testing is one is based on success of the features and the other is based on success of human computer interaction. Historically, technical writers are the experts in usability. In fact, Arizona State University recently added a concentration in Usability for their technical communications degree.

- Validate software (QA)
- Conduct usability tests (DX/UX)

Participant testing either prior to publishing or after publishing can offer excellent insight about how your readers use the documentation and product. However, a participant pool of 4 people doesn't really tell a great story or give great data.

The quality and quantity do matter in testing. While considering participants for the testing, criteria must be set forth. When the participant testing criteria is set forth by the developers, useful testing may move forward. Without correct participant pool, testing and criteria, testing is of little to no value.

Review

There are several types of reviews performed for documentation. The tasks are different for each type of review.

As a technical editor, tasks include running code snippets to ensure or validate the code.
As a technical proofreader, tasks were different and included grammar and technical language proofreading.

There are several main reviews to perform for documentation prior to publishing. Depending on your project needs, you may perform none of these or more than one of these. However, keep in mind, review only works when valid feedback is presented and improvements are made based on feedback.

1. Valid Feedback
2. Responsive to feedback
3. Implement quality improvements based on feedback

Types of review prior to publication:

Functional	Review (usability, useful)
Editorial	Review (grammar, copy edit)
Legal	Review (copyright, trademark)
Peer	Review (unit/project standards)
Technical	Review (usability and correct)

Do you have a review policy, process or software?

Careful when reviewing documentation to select reviewers qualified to review the documentation without any conflict of interest.
Example: Do not give a report the task of reviewing a manager or supervisor's documentation.
Whether your format conversion uses a tool or is done in a manual process, consider time, efficiency and quality.

Using proprietary tools like Robohelp is unnecessary. Markdown can easily be converted to html output or if you choose to use PDF output, this can be done with markdown also.

A review of documentation can be either a simple peer review or a more complex by content experts. To ensure documentation is useful, usable, accurate and current, reviews must be performed alongside validation. Reviews will vary based on content, size and format.

Documentation in proprietary formats are not encouraged. However, many projects may use "docs" or "docx". These documents are easily converted to non proprietary formats using GNU Linux. Collaboration in review could include a review system or web app. This could be as simple as making comments in the text.

In some cases, your reviewers may make edits to the documentation. Using a git server will capture the "diff" or changes. Also, maintainers can merge the edits, once approved.

Review Considerations

Usability

- useful
- easy to follow
- correct
- technically accurate

Tone

- culturally acceptable
- uses correct jargon (directory over folder)
- credible

Content Strategy

- Organization
- complexity
- detail

Compliance areas

- Follows documentation guidelines
- Accessibility
- Legal Compliance - trademark/brand and copyright/licensing

Review Milestones

- Initiate Review
- Review Meeting
- Review Meeting Follow Up
- Edits per feedback
- Final Review

For any projects using Agile:

Scrum master plans sprints for documentation with tasks. Include documentation update information in user story.

Functional review

This review is also considered validation. Use internal resources to conduct validation/testing
Some examples include: interns, other developers, people not familiar with the product but with the developer background, anyone able to perform the validation. When a technical writer understands the content or has the ability to perform the functional review, this is ideal. However, since the writer did create the content or worked on the content, another editor would validate against the documentation and provide feedback.
You could create templates for validation. However, casual validation with the participant/tester providing feedback notes is often enough data.

Editorial review

This is the review done by another technical writer. The focus of this review is grammar, tone and language.

Legal review

This is the review done by another technical writer. This can include the legal department. Often, legal will review documentation on their own time without meetings with the technical writer. The focus of this review is legal matters such as trademark, copyright, partnerships, potential liability, licenses, and such. You may not require or have legal representation for the project, but a trademark, license and copyright review is important for some documentation.

Peer review

The peer review is conducted by another technical writer familiar with the project. This review can provide feedback to various ways the documentation can be improved. However, this requires more than one technical writer for the project.

Technical review

During this review, the technical writer will review the technology, code and architecture to ensure these are working and make sense.

Participant testing

This is often conducted after documentation is drafted. Official developer testing at an outside lab gives feedback, not just about documentation, but how to improve the developer experience. There is a chapter about the GNU Linux Developer Experience later in this book.

Publish

After the general agreement or upon the timeline deadline for publishing, publish the documentation. Your project or organization's process may differ from others.

Media Modes (often multimodal)

- Web content in CMS or website
- printed materials
- ebook
- PDF
- markdown in git or on git server

Maintain, Update and Support

There is a significant need to keep documentation updated to maintain usability. In some cases there are security issues and patches or even such as the case with tensorflow* deprecation of types. Stale information must be updated. Stale information or old non-functional docs are not useful or usable.

Depending on your project, support for the product or documentation support will consist of maintaining the documentation and updating information. Other lines of communication to support users visiting your documentation can include:

- Slack
- Forum
- IRC
- Email
- Ticket system
- Chat
- Phone

1.2 Example: Get Started Guide

To get started, the main sections of a get started guide might include:

1. Documentation or Contents - Level 1
2. Run an application - Hello World
3. Modifications/configurations
4. Projects and Tutorials
5. Next Steps

A template for guides is found below.

Introduction (required)

Introduce the project/product/topic of interest. List what will be discussed.

What is it?

Description

Objectives (optional)

- Never enumerate
- Use bullets
- Use action verbs

Example: Objectives

Upon successful completion of these instructions, you should be able to:

- Understand how time/date stamps work
- Configure the script to include a time/date stamps in python
- Run inference with time/date stamp output

How It Works (optional)

This section describes:

- Design summary
- Architectural Diagram
- Components
- Services

Get Started (required)

Describe the basic steps for the guide.

Before you begin (required)

- Describe the prerequisites
- List requirements outside of the device hardware

Hardware requirements (required)

Add information for device hardware.

- Processor Information
- RAM
- Storage minimum
- Internet connection

Software requirements (required)

Add information for software.
Operating System
Dependencies
Other packages

Skills (optional)

Familiar with GNU Linux commands

Note: Do not list default software included in the particular OS, spin or distro. Do not guide users to install 3rd party software when applications exist in the distro already.

Example 1: Required software

No need to list bash for Debian
Do not lead users to install 3rd party software unless necessary

Example 2: Default software

Do not lead users to install Etcher on Ubuntu when startup disk creator will do the job just fine and installed by default.

Install (optional)

Steps (required)

Include the steps needed to complete the task.

- Install prerequisites (required)
- Run (required)
- Stop (optional)
- Clean (optional)

It Works! [hello world]

Describe the sample or introductory exercise
Include an architectural diagram

Modify Steps (optional)

Include the steps needed to try, configure or customize.

- Install prerequisites (required)
- Run (required)
- Stop (optional)
- Clean (optional)

Tutorial(s) (optional)

Describe the tutorial(s).

Tutorial 1: Title of Tutorial

- Describe the purpose of the tutorial.
- Add an Architectural Diagram.
- Include Objectives (upon successful completion)

Steps (required)

Include the steps needed to complete the tutorial.

Step 1: Name of Step

- Describe the step.
- Include step instructions

Step 2: Name of Step

- Describe the step.
- Include step instructions

Step 3: Name of Step (optional)

- Describe the step.
- Include step instructions

Additional tutorials (optional)

Summary (required)

Discuss tutorial(s)

Next Steps (required)

Describe where to go or what to do next
Example: Relevant demos, similar projects

References (optional)

URLs to other documentation.

Code Samples (optional)

URLs to code samples or repos.

Additional Information (optional)

URLs for additional information.

- Links to other resources
- Links to additional resources.

Troubleshooting (optional)

Include any troubleshooting tips.

Legal (optional)

Include Legal information.

Chapter 2. GNU Linux Style Guidelines

The following guidance Includes FAQLinux GNU Linux copy style guidance for content and contributions to FAQ Linux website and magazine, R00T.

These guidelines are in no way considered a standard outside FAQLinux. However, many considerations in this chapter may be useful for your GNU Linux content.

This guide is available and free to use in a non-commercial way.
If you have any questions, please contact the author, Marcia K Wilbur at

aicra@faqlinux.com

FAQ Linux will never ask you to collaborate with proprietary tools or platforms/services such as Google Docs, Notion, Dropbox or anything similar.

We do have a GitLab available at:

https://gitlab.com/remastersys/FaqLinux

Preferred content file types – FAQ Linux

md - markdown
html
xml

Example: Font Style

FreeSans or san serif font

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890

2.0 Headings

Headings are an important part of content strategy. With headings, the reader can locate information efficiently and quickly. With technical documentation, this is essential Users do not always read the entire guide, but will skip sections. An example may be an installation section in a get started guide. Installation may be as simple as apt install <tool>. Therefore, there really is not a lot of need for installation guidance, depending on your project. Keep installation sections simple.

Heading 1

The following Heading 1 style is found below.
Font Type: FreeSans
Font Style: bold
Font Size: 18 pt
Spacing above and below are set to .06 in this example.

Heading 2

The following Heading 2 style is found below.
Font Type: FreeSans
Font Style: bold
Font Size: 16 pt
Spacing above and below are set to .06 in this example.

Heading 3

The following Heading 3 style is found below.
Font Type: FreeSans
Font Style: bold
Font Size: 14 pt
Spacing above and below are set to .06 in this example.

Heading 4

The following Heading 4 style is found below.
Font Type: FreeSans
Font Style: bold
Font Size: 16 pt
Font Color: 729fcf
Spacing above and below are set to .04 in this example.

2.1 Images

The images included with each heading style indicate the style of each heading. The image settings are found below. Using a gray rather than black is recommended.

Image Captions

Use **Figure,** if possible and generate a list of figures. Original images are best. When using external images, use proper references, get permission and/or use correct licensing and attribution.

Use a standard size for images. We recommend 5.5 for instructions.
Your project may require a different size. Keep image size similar or consistent.
If size cannot be consistent, a bounding box of consistent size can be placed around images .

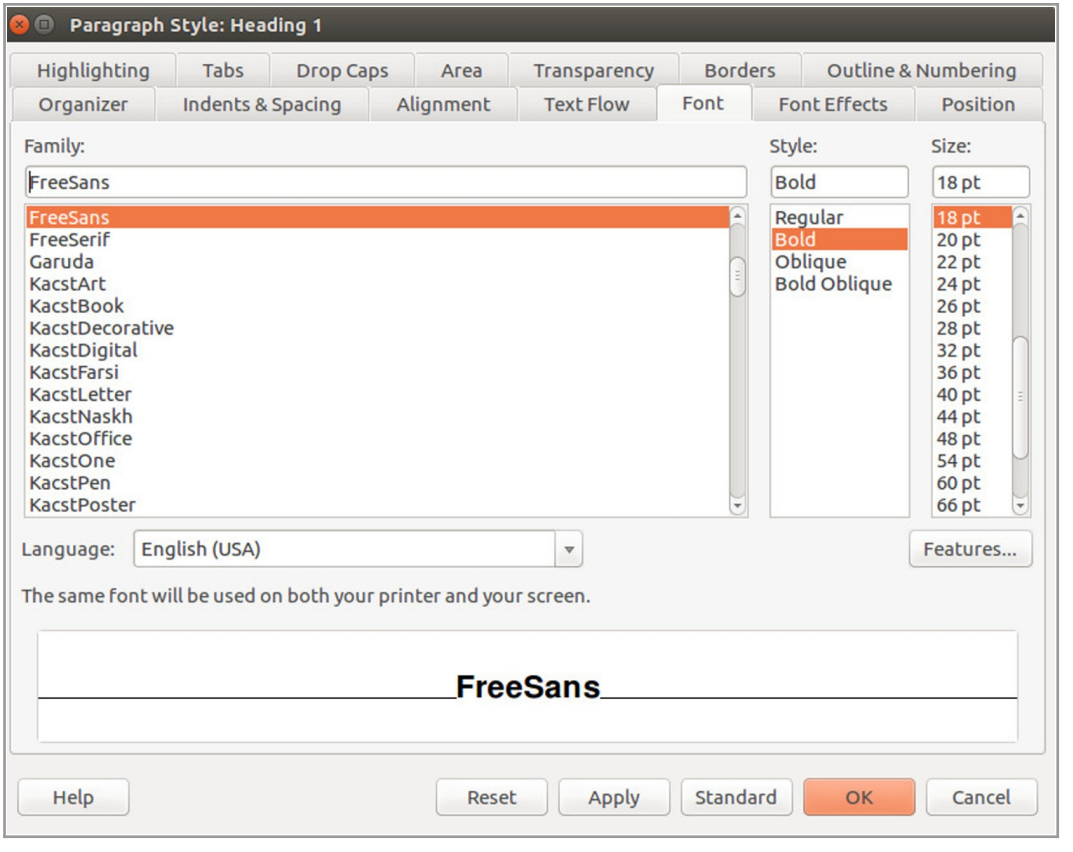

Figure 1. Example Image 5.5 with image properties border

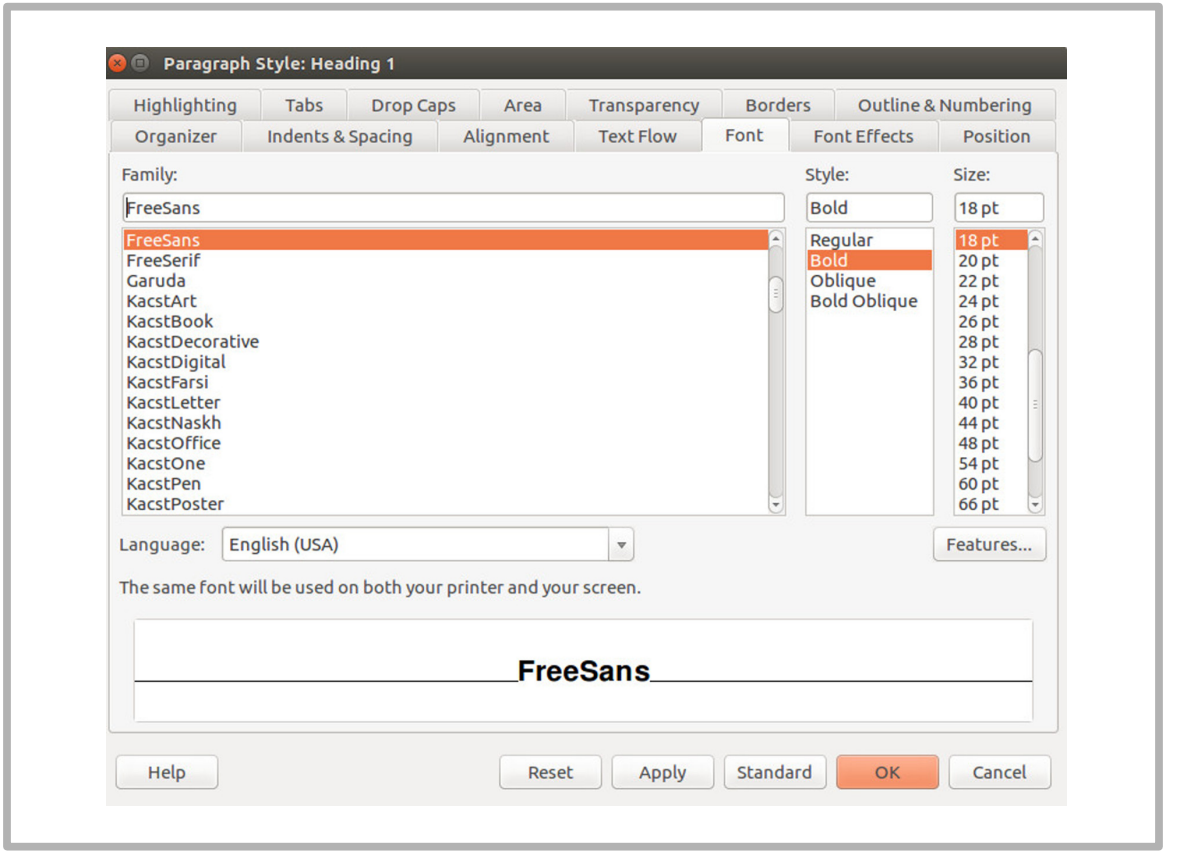

Figure 2. Bounding Box Method

Image Settings

Width: 5.5
Border color: Light Gray 2 (in LibreOffice)
Border Line weight: .05 pt
Border Alignment: Left

Caption Settings

Font Type: FreeSans
Font Style: Emphasis or Italics on the word Figure X.
Font Style: No emphasis for the description.
Font Size: 10 pt
Font Alignment: Left

Figure X. This description or **Figure X**. This description

Callouts

Use the colors and brand for your project.
Use good contrast – avoid red except in case of emergencies!

Magnification

Magnification is a great way to identify content within an image as a callout. Since many projects may not have technical graphic assistance, an application or tool to create this type of callout would be extremely useful.

Alternately, use a template and GIMP or an image editor to create magnified callouts. This is different from zooming in on images in Drupal or on the web.

Icons

Adding icons offers visual cues to readers. These cues offer great navigation guidance. Remember to use clear and useful icons.

2.2 Copy Code

Often in documentation, copy code snippets can be useful for the end user. One thing to consider is how many copy code snippets are presented in a tutorial or demo instructions.

What may be more useful is a script or attached script containing the tedious commands.
See **Best Practices** for more information.
For the purposes of this section, decide how copy code snippets are formatted.

Font:	Courier or Mono
Size:	11
Wieght:	None
Font Color:	White
Background Color:	Black

2.3 General Content

The following guidance sets the tone for the documentation or content. There are some considerations here you can apply to your own style guide or brand also. For example, some documentation includes a boundary or bounding box around the images. This can be used to center the image without distraction of varied sizes.

Files

Naming convention

Keep file names short.
Never use spaces.
Use CamelCase, _ underscore, or – dashes instead.

Correct: thisfile.md
Incorrect: this file.md

Character width – text and terminal

Some studies indicate 50 characters a line makes content more readable. Then, there are other studies stating 50 characters a line is too short, and 100 characters is the ideal line width. Then, of course, the default length of a terminal is 80 characters.

Decide how wide the terminal will display. If a screen capture is needed and the width must be adjusted, do so when the documentation is improved by these adjustments. 80 characters may not be wide enough to clearly display the command.

In addition to the guidance presented here, remember to use styles.

Active Voice

Use the present tense in third person (user) without pronouns with an active voice. Use strong verbs to indicate action.

Personification

Do not use personification in technical documentation. Inanimate objects are never “they” or “them”.

Correct: List **the tools** in hardware section.
Correct: List **these** in hardware section.
Incorrect: List **them** in the hardware section.

Localization

Use simple English with simple words for quality translation.
Example: Choose use over utilize.

- Avoid cliches, idioms, and jargon in documentation for multiple languages.
- Avoid nouns used as verbs.

Examples of words used as nouns and verbs are: list or author

Some example action verbs are listed.

act	deliver
add	demonstrate
analyze	describe
apply	develop
arrange	edit
assign	function
assist	generate
automate	run
build	update
change	upgrade
collaborate	use
communicate	validat
define	verify

Be consistent with terms . Decide which term or word to use throughout documentation.
Example: “terminal” “shell” “xterm”

Be consistent with capitalization.
Example: localhost is preferred over Localhost or LocalHost
Often, projects have several different guidance regarding capitalization of a brand. To stay in compliance with trademark, set guidance to writers for consistence.

Simplify Complicated Topics

One of the main duties of a technical writer can be to simplify content for readers.
Create easy to read content
Write short sentences
Avoid ambiguity

Styles

Applying styles is one way to save time when creating documentation. In the early 2000s, this started to be a standard or expectation for technical writers.

Of course, using styles is not indicative of talent or skill at all! LibreOffice does use styles for their documentation. Why doe this make sense? If the branding changes, editing a style takes only a

minute or so. Manually editing or formatting all the text would take additional time - A **lot** of additional time!

What are styles?

Most people are used to writing documents according to physical attributes. For example, users may specify the font family, font size, and weight (for example: Helvetica 12pt, bold). In contrast, styles are logical attributes. For example, define a set of font characteristics and name this, “Title” or “Heading 1”. In other words, styles shift the emphasis from what the text looks like to what the text is.

Why use styles?

Styles help improve consistency in a document. Styles also ease formatting modifications.

For example, the indentation of all paragraphs or font of all titles must be updated. For a longer document, this simple task could be prohibitive. Styles ease this task and saves time.

Style categories

LibreOffice Writer has six style categories:

- **Paragraph** styles affect entire paragraphs and are also used for purposes such as compiling a table of contents.
- **Character** styles affect a block of text inside a paragraph; they provide exceptions to paragraph styles.
- **Page** styles affect page formatting (page size, margin, and the like).
- **Frame** styles affect frames and graphics.
- **List** styles affect outlines, numbered lists, and bulleted lists.
- **Table** styles affect the appearance of tables of data.

Caution: Manual formatting (also called direct formatting) overrides styles. You cannot get rid of manual formatting by applying a style to it. To remove manual formatting, select the text and choose Format > Clear Direct Formatting from the Menu bar, or select the text and press Ctrl+M.

Working with character styles

Character styles provide exceptions to the formatting in a paragraph style. They are applied to groups of characters, rather than whole paragraphs. They are mainly used when you want to change the appearance or attributes of parts of a paragraph without affecting other parts. Examples of effects that can be obtained by means of character styles are bold or italic typeface or font colored text words.

Notes, Warnings, Important, Caution

Notes are a necessary component in technical documentation. Remember to provide notes, warnings, cautions and important information in the correct location. For example, a warning belongs prior to an action. If the warning comes after a directive to action, the user is not properly informed prior to execution of the action and the warning is not as useful.

San serif font 12 Bold

Note: Bold the word Note. Do not bold the colon. Tab, not space before text. Wrap. Some projects may want a color background.

In some cases, your colors will reflect your brand.

Note: Some projects may want a color background.

Color

Undefined – per your branding

Page

Letter 8.5 x 11

Margin

Top: 0.5
Bottom: 0.5
Left: 0.5
Right: 0.5

Header

Decide whether to include a header, what information to include in the header, alternating content, a header with logo with section variables to indicate which section/chapter based or no header at all.

Footer

Select footer content based on project preferences.
The footer can consist of a document number, section or page numbers. Also, the footer can have alternating odd and even content in the footer.

Document Name, Number or Revision (rev xx) Lower Left corner
Page Number Page 1 of x Lower Right corner

Some projects may want to alternate between left and right locations for the page numbering.

Tables

Remember to use table numbers, if possible and even generate a list of tables based on styles and table generation.

General Table Guidance

Table Rows: Depends on contents
Table Columns: Depends on content
Table Color: Alternate gray and white every other row or another set of colors.

Table Text Font
Font Type: FreeSans
Font Size: 10 pt
Font Color: Black
Row Color: Alternating Light Gray 4 background with White
Font Weight: None

Table Heading Row
Font Type: FreeSans
Font Size: 10 pt
Font Color: Black
Row Color: Light Gray 2
Font Weight: Bold

Table Heading Row	Value
Font Type	FreeSans
Font Size	10 pt
Font Color	Black
Row Color	Gray
Font Weight	Bold

Table 1. Table Values

Larger fonts can be used. Modify the table format to your project requirements.
Often, lists can be converted to tables.

2.4 Capitalization

Sentence case

Sentence is used for most headings. Heading 1 can be uppercase.
Table headings and captions are sentence case.

Case

The options are:

- Sentence case
- Upper Lower Case
- UPPERCASE
- lowercase

There are several choices. Remember to select the type of case for headings and text for use in content, to keep the documentation consistent.

2.5 Spelling

FAQ Linux and R00T magazine are US based and uses US English in documentation. The documentation spellings may be edited based on the location for release.

2.6 Dates

Date format is set per project. In most cases, the date format is:

```
%Y-%m-%d-%H:%M:%S
2020-07-09-09:14:22
```

Do not abbreviate days or months when written.

Correct: January
Incorrect: Jan.

Take global date formats and time zones into consideration when reaching global audiences.

2.7 Lists

When creating content for the web, remember to use enumerated lists over entering numbers directly for accessible friendly content.

Numbered or Ordered

Use numbered lists to indicate order. There is never a list of 1.

Correct:
1. Open the document.
2. Edit the content.
3. Save

Incorrect:
1. Open the document.

Bulleted or Unordered

Use bulleted lists to indicate a list without a specific order. There is not a list of 1. Watch for “stray bullets” or areas of content formatted with the bullet formatting but has no text.

Correct:

- bread
- peanut butter
- fluff

Incorrect:

- bread

2.8 Numbers in text

For matters of style, choose between whether the numbers in text will be written out or in numeral format. Whichever makes sense for the project is the best fit. Remember, creating a style guide and setting style guidance prior to creating content will potentially save time during the content creation process.

Avoid starting sentences with a numeral.
Use textual content over numerals for numbers under 10.
Use common sense when using numbers.

Five of six developers prefer bash.
Over **3,000** Debian developers were surveyed about the use of twm over gnome.

2.9 Front Matter

Title page

A title page is the introduction to a guide or book. A title page typically includes:

- Title
- Author
- Publisher/brand

Copyright Notice

This will typically include a notice of copyright, the copyright owner and ISBN, if published.
The copyright notice will usually include the country the book is manufactured with specific terms or Limitations of Liability.

GNU Linux Manual of Style

ISBN: Number here

Manufactured in the United States of America

Dedication

The dedication font style will vary based on the project or organization.

About the Author

Information about the author is provided here. Bold the first instance of the author's name.

About the Editor

Information about the editor is provided here. Bold the name of the editor's name.

Acknowledgements

If there are any acknowledgments, provide these here.

Table of contents

Your preference. Usually generated using Styles.

Preface or Abstract

Your preference

Other

Other front matter items include dedication, notices, disclaimers, etc.

2.10 Back Matter

Back matter includes items found in the back of the book such as Appendix, Index, Glossary, and Bibliography. Decide for the project style which format of Appendix to use. For FAQ Linux, use capital letters such as:

Appendix A. man pages
Appendix B. logs
Appendix C. Common Words
Appendix D. Common Trademarks

2.11 Cross References

Use cross-references to link to other material within the documentation. Create a support and maintenance plan or workflow to maintain cross-references.

2.10 Table of Contents and Index

A table of contents assists the reader with navigation. An index is also useful for finding information in documentation. If the index is easily generated and maintained, this is a useful addition to any guide.

2.11 Measurements

Set standards for measurements with consistency. Examples are found in the Measurement Abbreviations table.

Table 2-1. Measurements Abbreviations

Measurement	Abbreviation
Kilobyte	KB
Kilohertz	kHz
Gigabit	Gb
Gigabyte	GB
gigahertz	GHz
megabits per second	Mbps
Megabyte	MB
megabytes per second	MB/s
megahertz	MHz
Petabyte	PB
terabyte	TB

2.12 Versions

Select version control and version numbering. Kernel and code version standards are set by the projects. An example is the Debian project version guidelines. Prior to release, the version is 0.x. After release, the version is 1.x and above. Documentation version control using similar numbering is recommended.

Chapter 3. Best Practices

3.0 Paths and Permissions

The common issues in documentation or when working with GNU Linux falls into 3 categories:

- Paths
- Permissions
- Dependencies

Permissions

Group, user

In documentation, the user may need to run commands or execute files as root. The documentation must be clear and easily follow which permissions are needed.

Use chmod

In order to run scripts, users need to chmod the script setup.sh first.
Veteran GNU Linux users already know this. However, this may not be obvious to new users. Create a reusable blurb guiding users to chmod. This content can be reused each time.

Before running the script make the script executable by running:

```
chmod a+x nameofscript.sh
```

3.1 Dependencies

In Scripts

When working with developers or scripts, indicate the manner for installing dependencies in the style guide – code section. Some projects call a list of dependencies rather than explicitly declare the dependencies within the script. This way, when dependencies change, the script remains the same but the dependencies file called by the script will change.

3.2 Links

Guidance to other information does require some maintenance and support.

Include information about the URL

Always include information about the URL as the link to a 3rd party may change.

Correct: Display the title of the content and link

For more information about Free Culture works, see the blog post, FOSS Content Creator Series: Is your content considered "Free Cultural Works"?, at:
https://software.intel.com/content/www/us/en/develop/blogs/approved-for-free-culture-works.html

Correct: Display the title of the content linking

For more information about Free Culture works, visit FOSS Content Creator Series: Is your content considered "Free Cultural Works" in the developer zone.

Incorrect: No information about the link with period directly after the URL

For more information about Free Culture works, visit here.

Avoid ending a sentence or placing a period directly after the URL

In the incorrect example, the link will work as the period is not included in the URL. Careless formatting during the publication process may make the URL or link unreachable.

Correct: Content after link

For more information about Free Culture works, visit FOSS Content Creator Series: Is your content considered "Free Cultural Works" in the developer zone.

Incorrect: Period directly after URL

For more information about Free Culture works, visit FOSS Content Creator Series: Is your content considered "Free Cultural Works".

Use correct language. Avoid “on” when “about” can be used

Correct: Use **about**

For more information **about** Free Culture works, visit FOSS Content Creator Series: Is your content considered "Free Cultural Works" in the developer zone.

Incorrect: Using **on**

For more information **on** Free Culture works, visit FOSS Content Creator Series: Is your content considered "Free Cultural Works" in the developer zone.

3.3 Code

Formatting of the code itself is usually developer choice. Some C developers format using K&R. Some use other formatting. Python programmers may use the python style guide.
Spaces or tabs? Kernel developers may use the kernel guide.
This section offers guidance for placing code in documentation, not formatting code.

Often tedious commands are inserted in documentation one command at a time. This could be improved by providing a script. Windows writers or developers may not be as familiar with running commands or working in the shell. Limited experience with bash will slow down the process, requiring the developer to do more work. This could end up costing the project or company more money. Where efficiency is imperative, use an experienced GNU Linux Technical Communicator/Content Creator.

When presenting commands like this, remember to format the commands properly with functional dashes. Remember to include only the command in the copy code snippet (no results). Do not include command prompts in copy code snippets.

Remember, offer information about the commands where this makes sense. In other words, offer some information.

Incorrect: Run **make to make** the application.
Correct: Run **make to build** the application.

General guidelines

Code snippets or examples are a necessary component for tutorials, application notes, and demos. Often code is presented in Courier font.

Presenting functional code snippets with copy code functionality is an important task to undertake. The way code snippets are presented will be used for some of the following:

- assist reader work through a demo
- assist reader understand the code involved
- establish credibility
- establish reliability
- build relationships with other developers

The content creator may not be familiar with GNU Linux development or the community. However, what the author presents in code and how code is included is an essential part of building a community and moving your project forward.

Other considerations when writing for developers includes whether to use proprietary products, or respect freedoms and privacy. Community culture is important when writing for GNU Linux.

Guidance - Per GPL 1.3:

“If your document contains nontrivial examples of program code, we recommend releasing these examples in parallel under your choice of free software license, such as the GNU General Public License, to permit their use in free software.”

Commands

Many applications, tools and utilities are run as commands at the shell. There are many available GUI tools. However, using the shell is a lot faster and you can monitor progress in the shell.

Text with Code

Insertion of text with code or insertion of code within text is distracting and can be frustrating.

Correct:
You are ready to install! Run the command to install midnight commander.

```
sudo apt install mc
```

Incorrect:
You’re ready to install! Type

```
sudo apt install mc
```

and press Enter. This will install midnight commander.

The incorrect example above is not correct for the following reasons:

- uses contraction
- breaks up instructions with command
- instructs users to **“type”** and **“enter”** instead of actual action of running a command

Applications, Tools, Utilities

These applications, tools and utilities are not called, titled or referenceed as “ <appname> Command Line application”.

Example:

If we run ffmpeg at the command line, this is not considered a cli app. In the text we do not add “command line” to the name of the application. When working with novice GNU Linux developers, the technical writer must relay information important to documentation and be aware of jargon and culture.

Incorrect: ffmpeg command line application
Correct: ffmpeg

In fact, there may be an application created for GNU Linux that opens a shell and runs. However, this is not typical. That type of application may be called or title “unique command line application”.

Flags, Options or Args

Listing flags available or common to the application may be useful for the reader. Not everyone understands how to use a man page. Your project may have a man page, a reference doc or possibly use a help option to list commands. Either way, listing flags in documentation is best done by using a table.

Example: Commands one at a time or as a script

Often, instructions will include many commands throughout a document. While the instructions are meant to lead the reader to tediously run one command at a time, a script included with the documentation, especially for web content is recommended.

Example: One command at a time.

First update and upgrade.

```
apt install -y update && apt install -y upgrade
```

Use these explicitly declared packages in this command to install depends.

```
apt install all these packages -y
```

See best practices for more information about using a file including all the depends with a script and why, explicitly declaring these one by one is not efficient.

Code snippets

When creating documentation with code snippets, execution of the commands is vital. Include a file to download all commands or a script where possible. Make commands functional when pasted.

- command prompts in code snippets
- wrong non Posix dash in code snippets
- results in code snippets
- command prompt in copy code as root while requiring sudo
- wrong quotation mark
- too many comments in copy code snippets

Example: Command prompts in copy code snippets

When command prompts are copied in copy code snippets, the command will fail. This is a waste of the developer time, often considered an inconvenience or inconsiderate. When an individual does this, the community or developer may be more “forgiving” than when a company does this.

Correct: `apt install mc`
Incorrect: `# apt install mc`
`$ apt install mc`

Example: Wrong or not POSIX, not functional dash in code snippets

When the content creator uses Windows or LibreOffice, the not functional dash can easily be inserted into GNU Linux commands. This dash will not work in the shell or at the command line.

Correct: `apt install mc -y`
Incorrect: `apt install mc –y`

Example: Command prompt in copy code as root while requiring sudo

Consider the situation - would you use sudo as root? In what case? In this case?

Correct: `sudo apt install mc`
Incorrect: `# sudo apt install mc`

Results

Do not include results in copy code snippets.

When displaying results with the command, if this is in a copy situation, this is not recommended. Depending on the project, use a table or separate commands from results. Clearly present results from a command.

command	result

`lscpu`	`Architecture: x86_64`
	`CPU op-mode(s): 32-bit, 64-bit`
	`Byte Order: Little Endian`
	`CPU(s): 4`
	`On-line CPU(s) list: 0-3`
	`Thread(s) per core: 1`
	`Core(s) per socket: 4`
	`.`
	`.`
	`.`

The following are results when running the dpkg command. If the system has midnight commander installed, this will display in results as installed.

Correct: Separate command from results
Command to check if midnight commander is installed.

```
dpkg --get-selections | grep mc
```

Results

```
libmcrypt4                      install
mc                              install
mc-data                         install
```

Incorrect: including results in copy code snippet
Command to check if midnight commander is installed.

```
dpkg --get-selections | grep mc
libmcrypt4                      install
mc                              install
mc-data                         install
```

Example: Wrong quotation mark

When the content creator uses a text editor, often quotation marks will convert. One method for applying quotation marks in code to a text editor is:

Copy the code from an IDE and paste the code directly into a text editor without making edits to the code.

Incorrect: `` `throw` or ‘throw’ ``
Correct: `'throw'`

Bulleted code snippets

There are rare situations where code snippets may be a bulleted list.
Include in the “lists” section for unenumerated lists, the guidance for bulleted lists.
For the purposes of creating content for R00T or FAQ Linux, do not place code in lists unless there is a really good reason.

Error in result

Errors in results need troubleshooting information. Do not include an error in a result within a copy code snippet.

Example: Including errors in copy code snippets.

Incorrect: Error included within copy code snippet

```
apt install mc
E: Could not open lock file /var/lib/dpkg/lock-frontend - open (13: Permission
denied)
E: Unable to acquire the dpkg frontend lock (/var/lib/dpkg/lock-frontend), are
you root?
```

Correct: No error in copy code snippets

```
apt install mc
```

No gutter numbers for commands

Distracting gutter number for commands do not belong in copy code snippets or in examples in GNU Linux content.

In some cases, such as Drupal Syntax Highlighter, the gutter number is not copied with the code in the snippet when the user copies the command. However, the number to the left of a single command is distracting and not recommended.

In fact, do not place gutter numbers to the left of single commands run or executed at the terminal, command line, or shell.

Incorrect: Gutter numbers to the left of commands in copy code snippets

```
1    apt install mc
```

Correct:

```
apt install mc
```

Configuration files

Guidance to edit config files are common. This guide recommends creating a backup of the original config file and running commands to edit config files.

Inform users to make an orig or backup of the config file

To make a simple backup of the original config file, instruct users to run a copy command. Create a reusable blurb for your project such as the blurb found below.

Create a backup of the original file prior to editing the config file by running:

```
sudo cp filetoedit.config filetoedit.config.orig
```

Inform user to edit file

The information for editing a file may differ. Running a command using bash is highly recommended for developer experience. An example is replacing content in a config file or appending content to a config file. To append at the end of a file, offer a command to the user instead of instructing users to manually edit the config file, where possible.

```
echo "this line" >> filename.cfg
```

Example: Command Prompts, Comments, Variables

Usage	Description
`#!/bin/bash`	Shebang

`# Author:  marcia 'aicra' wilbur`
`# Usage:  grep character path/to/*.md`
`# Example: grep – filename.md`
	Comment

`result=$(grep – filename.md)` `echo $result`	Variable
`aicra@faqlinux:~$`	Command Prompt - user
`root@faqlinux:~#`	Command Prompt - root

3.4 Audience and Tone

Tone is very important in documentation. Never write an article or tutorial like an advertisement.

Technical marketing may have good input and manage company branding with a marketing communications workflow. However, writing articles like an ad, shilling articles, paying for articles or content without transparency is never recommended. Be transparent. Create good content. Keep ethics in engineering principles in writing as well.

- Keep content informal, not casual.
- Clear
- Concise

In summer 2017, Arizona State University held a Marketing Communications day or communications camp at the Polytechnic campus. During this event, the keynote speaker stated, data showed our “students like it when we seem sincere.” This part of the presentation was centered around the need to “seem sincere”. What about, “being sincere”! When you write, do not write for an ad or to market for the sake of marketing.

- Be sincere.
- Be transparent.

Define a primary and secondary audience to set the voice and tone. See chapter 1 for the template for audience analysis. Define the tone based on the audience.

Tone Guidance – Google Dev Style

While we do not entirely agree with Google Style, the guidance for tone is sound advice. For some reason “aim” is used a few of times and while we do not recommend using “aim” or starting sentences with “But” - the overall tone guidance is nice. At FAQ Linux, we want the authors to “be human”!

Aim, in your documents, for a voice and tone that's conversational, friendly, and respectful without being overly colloquial or frivolous; a voice that's casual and natural and approachable, not pedantic or pushy. Try to sound like a knowledgeable friend who understands what the developer wants to do.

Don't try to write exactly the way you speak; you probably speak more colloquially and verbosely than you should write, at least for developer documentation. But aim for a conversational tone rather than a formal one.

Don't try to be super-entertaining, but also don't aim for super-dry. Be human, let your personality show, be memorable; you can even be a little funny now and then. But remember that the primary purpose of the document is to provide information to someone who's looking for it.

Remember that many readers are not native English speakers, many of them come from cultures different from yours, and your document may be translated into other languages.

Aside from using guidance for tone from Google, you can base your style guide on other style guides and build from there – in the same way you would build a custom distro!

There were items listed in the Google style we do not agree with. In fact, we didn’t even agree with the title use of “where”. Those items are listed in the table, **Google: Some things to avoid where possible.**

Google Guidance	FAQ Linux Guidance
Buzzwords or Technical Jargon	**Disagree** - culture sensitivity and “street cred” usage
Being too cutesy	**Agree**, but does Google practice this?
Ableist language or figures or speech	Depends.
Placeholder phrases like “please note” and “at this time”	**Disagree** - upcoming information and notes are important in development. Be honest overall. No smoke and mirrors. No vapor.
Choppy or long-winded sentences.	**Agree** - remember the tech writing Cs Clear, Concise, Credible
Starting all sentences with the same phrase (such as You can or To do).	**Agree** - but practice what you preach, Google!
Current pop-culture references	**Disagree** - content maintained correctly can use “current“ cultural terms and references. In free and open source, community and culture this is huge.
Jokes at the expense of customers, competitors, or anyone else.	**Moderately Disagree** - as long as it is in good taste and appreciated by a friendly competitor. **Example**: I don’t do Windows! We also welcome the use of M$.
Exclamation marks, except in rare really exciting moments.	**Disagree**!!!!!
Wackiness, zaniness, and goofiness.	**Disagree** - depends on content
Mixing metaphors or taking a metaphor too far.	**Agree** - being honest is good, clear metaphors is how some of us communicate!
Funny lines that aren't closely related to the topic, or that require a lot of off-topic verbiage, or that obscure information.	Funny lines? Like ~~~~~~~~? **Disagree** – fun is good!
Internet slang, or other internet abbreviations such as tl;dr or ymmv.	**Disagree**. Use acronyms and abbreviations. If there is a concern the audience does not know the term, add a terminology table in the introduction or overview section.
Google Guidance	**FAQ Linux Guidance**

Phrasing that denigrates or insults any group of people.	**Agree** - to a point. “Any” goes a bit far. Too general. One would hope as a writer denigration would be left out. Makes you wonder: WHY this is in Google’s style guide! WHAT happened? Insulting proprietary heathens, code of conduct enforcers, “cancellors” and fashionable open source or **fauxpen** source is encouraged for R00T magazine journalistic articles. Insults and content denigrating groups of people or users in user guides or training is not recommended! Let's do something positive in the culture war.
Using phrases like simply, It's that simple, It's easy, or quickly in a procedure.	**Agree**. Avoid “simply” and “easy” or “easily”. Also avoid “roughly”, “complex” where you can. Use “quickly” when the process is quick. Simple is relative. Time is measurable based on ability also, but can be generalized in approximate measures.

3.5 Grammar

Any, All, Everything, Nothing

Do not use generalizations.

Contractions

Avoid contractions.

In the Google Style, notice the use of contractions. Contractions are not recommended for technical documentation. While some style guides recommend contractions, this is not recommended in this style guide. We do not recommend.

Correct: Do not use contractions!
Incorrect: Don’t follow Google’s direction

3.6 Punctuation

Aside from specifying punctuation rules of thumb for a project, watch for “random” or “stray” punctuation, especially in code snippets. Use a content creator who can catch any random punctuation. In one recent case, a random hyphen was found after .sh in a command. Another issue is “stray periods” after commands or code.

Incorrect: `sudo ./runthis.sh -`
Correct: `sudo ./runthis.sh`

Incorrect:
To view the built-in dev-server, point the browser to `http://localhost:8000`.

Correct:
Open a browser. To view the built-in dev-server, visit:

`http://localhost:8000`

Commas

Commas are project specific. A project may use the serial or Oxford comma. Other projects may choose not to use the Oxford comma.

Serial or Oxford Comma

The serial comma uses commas for this, that, and the other.

General Comma Usage

Use a comma before “and”, “or” and “but” when the following is a sentence.

Correct: Insert the microSD card into the slot, and start the Raspberry Pi.

Single Commas

Use single commas with city and state.
Correct: Visit Mystic, Connecticut this summer for delicious clam bellies.

Period

Avoid using periods at the end of commands or directory paths.
Decide whether to use periods at the end of bulleted or enumerated lists.

Hyphens and Dashes

hyphen The POSIX hyphen is used in commands	-	apt install mc -y
en dash used with time periods or range used as a minus sign	–	15–20 minutes –12
em dash used to emphasize a section of a sentence that may otherwise be in parens or parenthesis.	—	There are several options — hyphen, en dash, em dash — available when writing documentation.

Exclamation Point

Use these where needed. Our content and publications audience appreciate a casual tone. Other guides advise against exclamation points.

Seriously!

Pipe

What is it?

Pipe |

Used in content as a verb or noun.

How it works

The pipe character is used in commands to send data from a program.

Example

Pipe into grep to see which OpenCV tools are installed.

```
dpkg --get-selections | grep opencv
```

Colon

When using a colon with a note, do not bold the colon.
Note: This is an example.

Quotation Marks

Use correct quote marks within code.
This is very important when working with bash and python.
There could be conversions from straight quotes to other non functional quote marks. Watch for this.
A thorough check could be part of the editing workflow.

Apostrophes

Avoid using apostrophes in a way to personify inanimate objects.

Correct: The code was found on Joe’s computer.
Incorrect: The computer’s hard drive included the code.

Chevrons

Use correct chevrons and do not edit in chevrons in code unless the code chevrons are not correct.

Correct: `dpkg --get-selections >> installed`

Parens

Select how parens are used within the project. The first use of acronyms often use parens with the full phrase with the use of the acronym after.

Slash

Use the correct slash in paths and commands. For other operating systems, the slash used with paths and commands are different from paths in GNU Linux.

Correct:

```
cd /etc/apt
```

Incorrect:

```
cd \etc\apt
```

Slashes are also used in bash and the correct slash must be indicated for scripts and commands.

3.7 User (Normal User, Root User, End User)

User

User is a good description for users.

Normal user

Never use “normal user”.

Developer

Developer is a good description for developer users.

End User

Personal preference. Some projects use the term “end user”, while some do not.

Root User

Do not use “root user”. Instead instruct the user or reader to become root or run as root.

3.8 Naming (example: Pop OS! Greek translation)

When naming your project or product, remember to research the name. Some past examples are “Nova” and “Pop OS!”

In Greek, Pop OS! Translates to “ass”.

Note: Distros like Pop OS! are “trademarked”. Therefore, if you like the look and feel of the OS, change the plymouth theme, add your branding and create your custom iso or image. Anyone can customize a distro – especially Debian based distros.

3.9 Communications and Contents

Please

Do not use the word “please” in documentation. Using imperative or direct language is important.

- Connect the servo.
- Program the Arduino Nano.
- Upload the code to the chip.

Working with Engineers

In a factory setting, there was a cart with a printed page on the flat top.

Example: Please do not place anything on this cart!

This was not readable because there were too many items, including acetone bottles, on the cart. When the technical writer informed the mechanical engineer about this issue, the technical writer recommended removing the word “please” from the notice.

The mechanical engineer replaced the cart with a slanted cart, eliminating the need for any notice.

Technical writers can communicate root cause, observations and work with engineers and developers to build solutions.

Solutions = right people, right skills, right tools

Chapter 4. Common issues

In documentation, sometimes bad characters are inserted into the process. The characters are non-functional. See information about converting processes.

Additionally, with the need for more documentation in corporate and other projects, command prompts were riddled with errors by authors and writers not validating against documentation.

While validation does require time and resources, one pass is recommended.

4.0 Acronyms

First time use of an acronym is spelled out and where applicable is included in a table. An example is provided.

Example: First use of Acronym

Correct: Many organizations are considering privacy matters for Artificial Intelligence (AI) and recognition as a service.
Incorrect: Many organizations are considering privacy matters for AI and recognition as a service.

Example Table: Acronyms and Abbreviations

Acronyms and Abbreviations	Description
AI	Artificial Intelligence
API	Application Programming Interface
CLI	Command line interface
DMCA	Digital Millennium Copyright Act
GNU	GNU's not Unix
IoT	Internet of Things
ML	Machine Learning
OS	Operating System

4.1 Internet of Things or IoT

sda or sdX

When authoring instructions, never explicitly declare a drive, especially with a command like dd. This is a courtesy to users who may simply copy and paste commands in instructions.

Correct:
Copy the SD to your local machine. Using dd and the status=progress flag, you can view the copying status while copying.

Use sudo or switch to superuser to run these commands.

As root:

```
dd if=/dev/sdX of=imagename.img status=progress
```

After the image is copied locally, force a sync of any I/O.
As a precaution, use sync.

```
sync
```

Incorrect:

```
dd if=/dev/sdc of=imagename.img status=progress
```

Never explicitly declare the drive.

Edge Computing

When writing about a topic like Edge computing, a brief overview of Edge can establish credibility. Multiple articles exist about Edge computing and cloud, but never describes the difference.

Edge Third Party

Avoid using any Linux Foundation projects, tools or platforms. In fact, avoid 3rd party websites and platforms where possible. When the third party website breaks, so will your docs and perhaps reliability in your project may suffer. In documentation, ensure proper use of Trademark and branding for organizations like Linux Foundation using trademarks.

4.2 Cultural issues

Cultural knowledge or cultural sensitivity is important in documentation.

Proprietary v. Not Proprietary

Do not bundle a GNU Linux Operating System with a Proprietary System

Two or more Distros

Documentation including 2 or more systems can be confusing, and a developer experience challenge.
Make sure to separate the two systems clearly.

Order of Operating Systems

Listing operating systems in alphabetic order is recommended. Keep documentation consistent with listing operating systems.

- GNU Linux
- Windows

Adding the full Operating System name

There are some cultural sensitivity when leaving GNU out of GNU Linux. List GNU where GNU is used.

Electron apps

Avoid recommendations or instructions using 3rd party or non-free applications/tools and utilities.

Avoid recommending software

Do not write advertisements or base articles on advertisers. Avoid bias.
Give the user choices and options where applicable, while maintaining clarity. However, when a tool, utility or product performs best for the job at hand, list this tool.

Default installed in the distro v. Install a 3rd party app

When a distro has a tool or utility to perform a task, there must be a very good reason to install an alternate tool. For example, guidance to install etcher is an extra step to simply using an image burning tool already installed by default in a distro.

No Shills

Do not accept gifts, money, conference bribes, or any quid pro quo situation for writing “fashionable” or “favorable” articles. When advertising a product for a company or project, be transparent.

Inclusion

As a free and open community, we are already all inclusive. Use non-bias language in documentation.
Do not use pronouns or second person. For R00T stories, use first person. Avoid third person pronouns regarding gender. Gender-neutral.

Suggestion	Replaces
Built-in	native
Chairperson, chair	chairman
Deny/Allow (describe the list) Denylist/Allowlist (not preferred) Refused/Permitted	blacklist/whitelist
People, humans	mankind
primary/secondary main/secondary host/device	master/slave

4.3 Text Editors

Remember, the use of IDEs and text editors are user’s choice. Do not include instructions in vi when the user base may include emacs users. There are multiple editors available and many different “camps”. The following editors may be used by a variety of users.

- emacs
- vi
- nano
- jupyter notebook
- atom
- gedit

Be aware of the color configurations when taking screen captures.

Example: Do not use red callouts with a purple text displaying in gedit.

Use the color wheel to find complimentary colors.

- Yellow and purple
- Blue and orange
- Red and green

4.4 Spacing

Do not waste real estate. Too much leading or spacing above or below a heading can be distracting. Linear websites with a lot of space require scrolling and navigation. Make spacing even and sensible.

4.5 Clear Communication

Avoid the following words in content.

- better
- it
- needs to be
- ought to
- should
- that

1. Do not use "it"
2. Avoid "which" and “that”
3. Clean up language - "the tutorial" "on"
4. Use variables like $HOME or $INSTALLDIR where it makes sense over a path
5. Break down long commands for users. A table works well.

This command writes the image to the target device.

```
sudo dd if=imagename.img of=/dev/sdX status=progress
```

Command	Usage	Description
`sudo`	`sudo`	Require root
`dd`	`dd`	dd command – convert and copy a file.
`if`	`if=imagename.img`	Defines the origin. In this case, the image file to be written.
`of`	`of=/dev/sdX`	Defines the target, in this case, the drive. An X replaces a drive letter. Use df -h or fdisk -l to determine your drive.
`status`	`status=progress`	Displays the progress until finished.

4.6 Multiple Operating Systems

When writing about different operating systems, give equal time to both. If you do not have equal documentation for both operating system types, this is a gap. Separating instructions is recommended.

Instructions for the following systems:

- Debian
- Windows
- MacOS

One exception to separation may be if the documentation compares the operating system instructions. Simple instructions may also be clear.

However, lengthy documentation for each section is not recommended. In this case, separate the sections. If the user navigates to the wrong section, this can waste time. Linear pages can be frustrating when attempting to install, configure or run instructions.

When including information about installation, tutorials and where to find the developer guide, match the content for all operating systems when you can. Use some ordering as from a user experience perspective, offering instructions for several operating systems can be a challenge. In some cases, different distros can be a challenge. However, documentation for different distros can be very clear by labeling the instruction set by distro. Give each distro a heading or some emphasis.

MorphOS

Instructions
    Amiga
    Pegasos

RedHat

Instructions
    x64
    ARM

Lengthy instructions for separate operating systems can be unclear. Clear instructions are important for the audience to quickly go to the section or instructions.

4.7 Website Images

Size

Add images of a consistent size. This can be configured in Drupal or WordPress if you are using either of these systems.

Zoom

Zoom features are recommended. A zoom function/magnifying glass would be nice but not sure how your system or CMS manages this.

An option may be to link to the full version of the image. For example, if the user clicks on the image, this trigger will open a page with a larger version of the image.

Clear

No blurry images.

Crop

When cropping images, maintain a consistent crop area. Example, include the scroll bar in all or crop the scroll bar from all.

Favicon

Check your faviocon on different browsers and take precautions with security issues

4.8 Infographics

Creating infographics for projects can be as simple as using a common template in GIMP. Alternate methods include using a third party platform with design templates.

Infographics are a great way to offer visual content to users. Audiences include visual learners and infographics may offer a clean way to display content.

Print

150-300 ppi is recommended, depending on the size of the printed infographic.

Web

Remember web content requires 72 ppi.

4.9 Key Commands

Ctrl+Shift+Alt+G
Ctrl+fn+F4

Note: In writing fn key is great. When you speak this out loud – the “fn key” can be misunderstood by the person receiving audio communication.

4.10 FAQs or Troubleshooting Tips

Where there may be a need for a Frequently Asked Questions or Troubleshooting tips, include this in the documentation. Often this will be an appendix or at the end of a guide. There may be tips throughout instructional documentation. For web content, an accordion or drop down list may be available.

Reading and Understanding logs and errors

Understanding logs and errors is a great way to create a troubleshooting section, resolve errors and improve documentation. Qualified free and open source software content creators will assist in documenting Frequently Asked Questions, bug reports and errors. There is a difference between a configuration and a bug. Be transparent.

Chapter 5. Documentation Considerations

5.0 Management of Information

One of the main considerations for content creators is management of information. In the past, organizations had document management offices, librarians or other departments specifically for management of information. Some projects may not have an information management plan.

5.1 Management of Information Plan

For companies, lack of information management comes with a high price in both time and money. Implement a private server using samba, Plex, or NextCloud to store files and content.
For free and open source software projects, this can be as simple as setting up a git server and keeping project documentation, videos and collateral in a repo or NextCloud.
The content creator must know where to place files for future reference and pass off. A backup plan is also a consideration.

5.2 Management of Information Plan Sample

Table 5-1. Content Management Plan

Project Files	Filename	Location	Settings	Owner
Raw Video	vid-raw.kdenlive	Media server + location	fps	mkw
Published Video	vid-pub.mp4	Media server + location	fps	mkw
Raw Audio	audio.aup	Media server + location	Hz, Stereo	mkw
Published Audio	Audio.mp3	Media server + location	Hz, Stereo	mkw
Raw CAD file	untitled-cad.blend	Nextcloud server + location	PLA	mkw
Published CAD file	untitled-cad.stl	Nextcloud server + location	PLA	mkw
Raw Image	myraw.xcf	Samba server + location	ppi	mkw
Published Image	myraw.png	Samba server + location	ppi	mkw
Guides	mkdocsfiles.md	Devtools gitlab + location	mkdocs	mkw
Published Guides	getstarted.pdf	Devtools gitlab + location	size	mkw

5.3 Content Creator Toolbox

Using existing GNU Linux tools for creating content.

Table 5-2. Content Creator Tools

x2go	X2Go	Remote deskop application
GIMP	GNU image manipulation program	Graphics Editing
mediawiki	Media Wiki	Wiki for collaboration
git	git	Collaboration and version control
vi	vi	editor
blender	Blender	Editing Video, CAD design
vlc	Video Streaming Server	Video editing
scrot	SCReenshOT	screen capture in the background
irc	Internet relay chat	chat
xvidcap	Xvidcap	Video capture tool
simplescreenrecorder	Simple Screen Recorder	video capture tool
obs	Open Broadcasting Studio	Video capture tool
wordpress	WordPress	Content Management System
drupal	Drupal	Content Management System
Moodle	Moodle	Learning Management System
nano	Nano's ANOther editor	quick editing - free Pico clone
kdenlive	KDE Non-Linear Video Editor	quick video editing tool
emacs	Emacs	editor
vnc	Virtual Network Computing	remote management
bash	Bourne Again SHell	shell and command language
LibreOffice	LibreOffice	Office applications: editor, spreadsheet, presentation
openssh	SSH	Secure shell
nextcloud	NextCloud	Private cloud server

slack	Slack	Collaboration like irc

Bash History

.bash_history		History used for documentation

5.4 Documentation Types

Depending on the project, choose which documentation type to create the docs. In many cases markdown is used as this is easily converted to HTML and PDF, as well as used in a collaborative environment. Sphinx users may use rst. This is not recommended at this time due to the ease of using markdown for several types of output.
With plain text, no document type is required.
The following are types used in documentation:

- html or htm
- md
- rst
- pdf
- docx
- xml

5.5 Website Content

When managing a website, the content can require a lot of storage and archiving. Remember to manage the website content with a fully controlled server or content management system. Using a third party platform, system or server could be costly. However, also remember to manage backups regularly and store content offsite.

5.6 Accessibility

Accessibility considerations reach beyond complying with legislation and standards set by recent legal precedence. With regard to websites, consideration of standards is essential to serving the audience or improving the experience.

Basic guidance

Some basic guidance for accessibility:

- Include Alternative text – images
- CSS included in content
- Form Input Fields with description or labels
- Captions for Videos or transcripts
- Semantic markup (works with assistive devices)

Font

Font is important when taking accessibility into consideration. Color can impact contrast. Emphasis may not be clear to the visually impaired audience members.

Font Color

Font color and contrast is a consideration. When the colors are too light, the content may not be readable or viewable by certain individuals.

Font typeface

Italics
In text, italics is not recommended for several reasons. The content is difficult to read when italicized. An exception is consistent captions. Use bold or another emphasis instead of italics.
Contrast
Contrast makes viewing content difficult. Use contrast testing tools and the color correction recommendations. Participant testing will not always determine possible contrast improvements. Also, some websites offer contrast options for users.

5.7 Privacy and Informed Consent – Participant Testing

For the purposes of content creation, keep personal information private where ethical. In other words, do not publish personally identifiable information such as personal address or personal phone number without permission. In fact, when conducting participant testing, refrain from using personal information about the participant unless permission is granted. The privacy template is found below and you can create a simple script for the users to fill out.
The following markdown form example was using in GNU Linux participant testing for a chat client.

Informed Consent Participant Testing Template

At GNU Essentials, we respect your privacy and this agreement sets terms you are comfortable with.

Content License for recording:

[ ] GFDL
[ ] Public Domain
[ ] CC
If you have no privacy selections, skip this section.

Privacy and use:

We like to share results with the project - In this case, You select the terms you are comfortable when it comes to sharing the Participant Capture/recording(s).

Video Capture recording

[ ] Only internal to testing - does not include external projects
[ ] Share recording with the project (Pidgin)
[ ] Public
[ ] Other terms:

Audio capture recording

[ ] Only internal to testing - does not include external projects
[ ] Share recording with the project (Pidgin)
[ ] Public
[ ] Other terms:

Webcam capture recording

[ ] N/A
[ ] Only internal to testing - does not include external projects
[ ] Share recording with the project (Pidgin)
[ ] Public
[ ] Other terms:

Extracted Images from recording

[ ] Only internal to testing - does not include external projects
[ ] Share recording with the project (Pidgin)
[ ] Public
[ ] Other terms:

Personal information

[ ] Do not share my name or personal information
[ ] Use my alias _____
[ ] Call me anything
[ ] Other terms:

Log Files - Bash history

[ ] N/A
[ ] Only internal to testing - does not include external projects
[ ] Share recording with the project (Pidgin)
[ ] Public
[ ] Other terms:

Acceptance of this Policy

I agree the following terms were not coercive and are the terms under which I would prefer for the content.

signature

name
date

5.8 Security

There will be projects using **old versions** of distros, tools, kernels, and utilities. Some are not recommended by the project itself due to “old age”. One example is scp from the openssh project. Read release notes for more information: https://www.openssh.com/txt/release-8.0

The scp protocol is outdated, inflexible and not readily fixed. We recommend the use of more modern protocols like sftp and rsync for file transfer instead.

Another concern is **vulnerabilities**. This is why updating and upgrading the distro release is very important. Using the correct libraries is important. Maintaining dependencies can be impacted by updates or upgrades.

To maintain security, stay on top of current events. The vulnerabilities and bugs are often reported in the distro notifications or mailing lists. One example is mosquitto. Using an old version could be a serious security issue.

Also, create backups regularly and have a backup plan. Whether you use rsync, respin or simply tar up the directories, remember the following:

- **Backup** regularly
- Keep more than the most recent backup, especially if you use rsync or respin
- Keep backups securely **offsite**

Be transparent about security issues and do not hide behind a “bug bounty” or “bug reported issue”.
An issue is an issue. A security issue, is an issue. Visit the Debian project list below.
https://www.cvedetails.com/product/36/Debian-Debian-Linux.html?vendor_id=23

Chapter 6. Legal and Licenses

6.0 General Trademark and Copyright information

Remember to respect copyright and trademark/branding with regard to content. Some projects have trademarks and there are legal limitations when using a logo or icon. Remember to stay in line with these guidelines.

Each project is different. Some projects use multiple licenses. One example is GStreamer.
Open communication with projects in a respectful manner. Use of casual communication like IRC or slack may provide good results and permission. Always document copyright and trademark communications and use.

A simple asterisk can be used to indicate a trademark.

Example: Microsoft* was a platinum sponsor for CopyleftConf, a Software Freedom Conservancy* event.

Non-Disclosure Agreements

While we do not use Non-Disclosure Agreements (NDAs), we realize some projects may require one. No sample is provided for this type of agreement, however. Often non-disclosures are entered into to keep information from being free.

6.1 Embargoed Content

Embargoed content is similar to content with entitlements. A project may embargo content until launch or release.

6.2 Free Content

Free content would be anything in the public domain or free culture content.

6.3 Non-Compete Agreements

When you sign a non-compete, make sure you are current with the laws in your geo. For example, a non-compete may state 5 years before entering in a relevant area. However, the laws for non-compete may only be 3 years.

6.4 Documentation Licensing

The GNU Free Documentation License or GFDL

The GNU Free Documentation License or GFDL is a free content license used by Wikipedia and others. The license is found in the appendix and online at:

https://www.gnu.org/licenses/fdl-1.3.en.html

Creative Commons

The Creative Commons is an effort to establish and explicit license with content to allow others to use or distribute content. One option to keep the licensing information with the content is to embed the licensing using steghide. Another option is to include the licensing information in the metadata or properties of the content. This way, the content license is always kept with the content. Containers is another idea proposed for keeping licensing with the content. With webpages, listing the license is recommended. https://creativecommons.org/

Public Domain

Releasing content in the public domain is very useful. Remember to inform users the content is in the public domain.

Code Licenses for Code Snippets and Scripts

Use the code license(s) affiliated with your project or code snippets within the documentation.

Example

You may distribute the GNU Linux Manual of Style and/or modify the GNU Linux Manual of Style under the following terms:

Code
GNU General Public License (http://www.gnu.org/licenses/gpl.html), version 3 or later

Content
Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), version 4.0 or later

6.5 Debian Documentation Licensing (FREE)

An example of Debian licensing is found in this section. The Debian Reference card content is great, but the layout could use some improvement. However, the Debian content is GPLv3.

This document may be used under the terms of the GNU General Public License version 3 or higher. The license text can be found at

https://www.gnu.org/copyleft/ gpl.html and /usr/share/common-licenses/GPL-3.

Copyright © 2004, 2010 W. Martin Borgert Copyright © 2016, 2019 Holger Wansing Made by: https://www.debian.org/doc/user-manuals#refcard

6.6 RedHat Documentation Licensing (FREE)

April 2, 2019, there was an agreement regarding licensing according to the commit. Red Hat Community Collaboration Guide Project for Documentation shows CC by 4.0 international or Free Culture Trust.

Attribution-ShareAlike 4.0 International

https://github.com/redhat-documentation/community-collaboration-guide/commit/4cdec7286c52c3ec2770c377e2cbfde6530adb16

6.7 Ubuntu Documentation Licensing (Copyright notice)

While comparing to the Ubuntu style guide might be useful, Canonical does not show any free content license. The copyright license for the guide does not indicate any freedom.

© 2018 Canonical Ltd. Ubuntu and Canonical are registered trademarks of Canonical Ltd.

Therefore, the guidance from Ubuntu does not seem to be free.

6.8 Code License Management

While some projects may look for license management or to organizations to manage the open source definition or represent the project, there are several reasons why this is not recommended. Some reasons include organizations not having the bandwidth to represent, not having the “teeth” to represent, politics and proprietary sponsors. When considering affiliation with certain three letter organizations, proceed with caution.

APPENDIX A. man pages

man pages

A man page includes several sections and uses format as presented in the example below.

Section	Required or Optional	Format
NAME	Required	.SH NAME respin \- script to a make bootable, install live cd or dvd
SYNOPSIS	Optional	.SH SYNOPSIS respin backup|clean|dist [cdfs|iso] [filename.iso]
DESCRIPTION	Optional	.SH DESCRIPTION Respin is a script used to make a bootable live cd or dvd from an installed Ubuntu system or derivative.
OPTIONS	Optional	.SS OPTIONS .TP .I backup Makes a complete system backup including the user folders. .TP .I clean Cleans the temporary build directory.
BUGS	Optional	.SH BUG REPORT Report bugs to aicra@linuxrespin.org
AUTHOR	Optional	.SH AUTHOR Marcia Wilbur (c) 2014 - 2020
SEE ALSO	Optional	.SH SEE ALSO

Section	Required or Optional	Format
		http://www.linuxrespin.org

Example man page

This example is the respin man page.

```
.TH RESPIN 1 "June 24 2020"
.SH NAME
respin \- script to make a bootable, install live cd or dvd
.SH SYNOPSIS
respin backup|clean|dist [cdfs|iso] [filename.iso]
.br
respin backup
.br
respin clean
.br
respin dist
.br
.br
.SH DESCRIPTION
Respin is a script used to make a bootable live cd or dvd from an
installed Ubuntu system or derivative.
.PP
This manual page documents
.BR respin .
.B respin
Makes a live cd or dvd iso file from and installed system
.SS OPTIONS
.TP
.I backup
Makes a complete system backup including the user folders.
.TP
.I clean
Cleans the temporary build directory.
.SH AUTHOR
Marcia Wilbur (c) 2014 - 2020
.SH BUG REPORT
Report bugs to aicra@linuxrespin.org
.SH URL
```

http://www.linuxrespin.org

APPENDIX B. GNU X Entries

The following word list includes content and is a derivative of the
Bishop Fox™ CYBERSECURITY STYLE GUIDE 2018/06/27 cc by SA 4.0

GNU Linux or **GNU/Linux** is the correct usage, not “GNU or Linux distribution”.

Note about Acronyms:
Acronyms in the word list with full text of the term + acronym in parens requires first use full text with acronym use after.

Example:
A Digital Millennium Copyright act (DMCA) counter-notification template is available.

Send the DMCA counter-notification!

Author’s note:
Word list includes some definitions and examples

Contributions are welcome!

!	The exclamation point or bang.	**1Password**	Password management software.
@	The “at” sign. Related: email, handle, usernames	**2FA or TFA**	Two-factor authentication. Related: MFA, OTP
#	The pound sign or hashtag	**3DES**	Triple DES. A symmetric key block cipher. DES is pronounced as letters or “dezz.”
[ ]	Brackets	**3D printing (n.)**	
<>	Chevrons	**3G, 4G (adj. or n.)**	Third- and fourth-generation communications technology. Cell
/	Slash. Avoid using the slash to compare outside of set phrases like 24/7, and/or, client/server, TCP/IP	**4chan**	Image based bulletin board
****	Backslash.	**3Scale**	An API management platform.
'	The tic character. Not an apostrophe	**7-Zip**	An open source file archiver.8-bit (adj.)
1080i, 1080p	Abbreviations for HD video modes that describe the frame resolution and scan type (interlaced or progressive scan, respectively). Pronounced “ten-eighty.” Do not spell out.	**2600**	A hacker magazine founded in 1984. Emmanuel Goldstein. Yearly conference, HOPE (Hackers on Planet Earth) in NYC. Also a community or series of local clubs
0-day (n. or adj.) A “zero-day” or “oh-day” finding. In formal writing, to use zero-day, previously undisclosed vulnerability, or publicly undisclosed vulnerability.			

A

a, an
Use “an” when the next word begins with a vowel sound when spoken, regardless of spelling. A Xerox machine
An underlying cause

a11y (n.)
Accessibility

abort (v.)

abuse (n.)
This noun is acceptable in common industry phrases like “application abuse”
Avoid using this when possible

abuse (v.)
This verb is OK in set phrases but do not use it on its own. Try alter, automate, compromise, deface, exhaust, exploit, force, impersonate, intentionally misuse,manipulate, reuse indefinitely, take advantage of, or a context-specific verb.
Example: Several people abused the volunteer conference positions to select their cronies.

-accessible (adj.)

Access control list (ACL)

access point (AP) (n.)

Active directory (AD) (n.)

Acceptable Use Policy (AUP)

Access Point (AP) (n.)

Adafruit
Electronics supply – DIY for Makers

adb
1. Android Debug Bridge.
2. command
When using as a command or writing about the command, use a code font.

ad block (n.), ad-blocking (adj.)

add on (v.), add-on (n.)

address bar (n.)

ad hoc (adj.)
This describes immature security infrastructure. In networks (especially wireless ones), ad hoc means decentralized.

admin or admin (n.)
Short for administrator

adversary (n.)
Do not use this term in formal writing; use attacker or malicious user instead in cybersecurity reports or news.
Example: I do not consider Smurfette a worthy adversary!
In cryptography, “adversary” has a mathematical meaning, as in GPA: Global passive adversary.

Advogato
Online community and social networking site dedicated to free software development launched in 1999. Ranking system with blogs, created by Raph Levine and archived in 2016 in the Internet Archive.

AES
Advanced Encryption Standard. Do not spell out; briefly define on first use.

Agile process (n.)

agnostic (adj.)
Describes an entity that does not have a preference for any particular product, as in platform agnostic. Corporate jargon; use

AI (n.)
Artificial intelligence, often used as jargon to refer to a computer program. AI can also refer to Amnesty International. Always use the full first instance with the acronym. Later reference can use the acronym only, once the term is established.
Example Using Artificial Intelligence (AI) models for face re-identification is not recommended.

Airbnb
1. Suite of tools to test Wi-Fi network security
2. Lodging reservations

Aircrack-ng

air-gapped (adj.)
Air-gapped systems are disconnected from insecure networks and the internet.

Akana
API management provider.

alert box (n.)

Alexa
Amazon AI

algorithm (n.)

Alibaba
Online retailer based in China

alphanumeric (adj.)
Describes strings that contain letters and numbers

a.m.
ante meridiem
Use spaces unless in a date timestamp. Do not edit timestamp information.
Fun fact: 12 Ante meridian (a.m.) and Post meridian (p.m.) can represent either noon or midnight, technically. However, often 12 a.m. is considered midnight and 12 p.m. is considered noon. Adding the time zone is also helpful.
Example: “4 a.m. GMT.” Include the time zone if referring to a testing window or specific event.

AMA
Ask me anything

Amazon Prime
Amazon Web Services (AWS)
After first use, refer to the services as AWS
Example: Set up an EC2 with a database using Debian in Amazon Web Services (AWS).

analog hole or analog loophole (n.)

and/or
Depending on your organization usage varies. For R00T magazine, try to avoid using and/or

Android
Google mobile operating system

android (n.)

angle brackets (n.)
Chevron or [<] and [>] characters

AngularJS
JavaScript framework

Animoji
Animated emoji created by Apple

anonymization (n.)

anonymous (adj.)
The term origins, according to the dictionary at reference.com, date back somewhere around 1595-1605. As an adjective, anonymous is:
Without name acknowledged – such as an author or contributor
Lacking individuality, unique character, or distinction

Anonymous (n.)
Anonymous is really a collection of people on the internet who started out as old school irc, USENET, etc. who perform certain tasks, anonymously. Some played pranks on websites,
some posted information anonymously. Members of Anonymous participate in Chanology.

anonymous coward
Forum (slashdot) posts without login

ansible (n.)

Ansible
Stateful configuration management suite for GNU Linux systems

anti-malware (adj. or n.)

antivirus (AV) (adj. or n.)

Apache Server
Web server

Aperture Science
Fictional research company from the Portal series of video games

API, APIs
Application programming interface. How software interacts with other software. Do not spell out.

app

Apple
Lightning cables, Mac OS X, macOS, PowerBook, Siri, WWDC

application

application security (n.)

Approved scanning vendors (ASV)

AR (n. or adj.)
Augmented reality

arbitrary (adj.)
Of the attacker’s choosing, as in “the user would be redirected to an arbitrary URL”

Arbitrary code execution (ACE)

Arduino (n.)
Open-source electronic prototyping platform enabling users to create interactive electronic objects such as dancing robots
Pronounced “ar-dweeno”

ARM
This refers to either the Architecture Reference Manual or to RISC architecture used in microprocessors

ARPANET
Advanced Research Projects Agency Network
Original internet - Do not spell out

artificial intelligence (AI) (n.)

ASCII
American Standard Code for Information Interchange
Character encoding standard
Pronounced “ask-ee”

asset (n.)
Assets are systems, software, applications, libraries, personnel, equipment, or anything else that clients value and want to protect

ATM
1. Asynchronous Transfer Mode
2. Automated Teller Machine
3. At the Moment

at-rest (adj.), at rest
At-rest encryption
Data at rest

attack chain (n.)

attacker-controlled (adj.)

attacker-owned (adj.)

attack surface (n.)

attributes (n.)
Specification of a value

ASLR
Address space layout randomization

ASN.1
Abstract Syntax Notation One

Audacity (n.)
Free, open source, cross-platform audio software

audio conferencing (n. or adj.)

audit trails (n.)

***.aup**
Audacity Project file format

Augmented reality
Fictional instantaneous hyperspace
Easy programming, can be used to hide messages

authentication (n.)

autocomplete (n. or v.)

autocorrect (n. or v.)

autofill (v.)

authorization bypass (n.)

auth (n.)
1. Authentication (AuthN)
2. Authorization (AuthZ)
Spell out first use

automation (n.)
Working independently

autopilot (n.)

auto-renew (v.)

avatar (n.)

AWS
Amazon Web Services

B

backdoor (n. or v.)

back end (n.), back-end (adj.)

backported (adj.), backporting (n. or v.)

**backslash or **

backtrace (n. or v.)

back up (v.), backup (n. or adj.)
Very Important! Implement a backup plan

backward(s) compatiblity (n.)

backward(s) compatible (adj.)
Interoperability with legacy or older system

badput (n.)

***.bak**
File extension for the backup of a file

Balloon
Password-hashing algorithm

bandwidth (n.)
Speed or capacity of a data network measured in volume over units of time, as in 50 Mbps

bank drops (n.)

barcode (n.)

bar mitzvah attack (n.)
SSL vulnerability named because its security implications were realized 13 years after it first appeared in the codebase

Base64-encoded (adj.)

Base64 encoding (n.)
Remember, base64 encoding is NOT encryption

-based (adj.)
Hyphenate
In the case of a distro being "TrademarkedXdistro based", avoid the hyphen to maintain trademark compliance. Ubuntu based.

baseline (n.)

bash
1. GNU Project shell
   Bourne Again Shell, command interpreter
2. programming language
3. Hit hard, bang

Example: I released the utility in bash, python and C.

BASIC
Programming language

bastion host (n.)
Host often used as a gateway to pivot into other hosts
Must be specially hardened

BBS
Bulletin board system

BCC, BCC'd, BCCing
Blind carbon copy

bcrypt
Password hashing function
Pronounced "bee-crypt."

BeEF, BeEF hooking
Browser Exploitation Framework

BER
1. Bit error rate
2. Basic Encoding Rules

Berkeley Software Distribution (BSD)
Unix-derived operating system

best practices (n.)
Practices that align with compliance guidelines or industry standards

beta (n. or adj.)

Big Brother
The symbol of totalitarian surveillance from the novel 1984

big data (n.)

billion laughs attack (n.)
1. DoS attack against XML parser
2. 1,000,000,000 laughs :)

binary (n. or adj.)
1. Base-2 number system (0 1)
2. binary executable files

0000 0000 0101 is "5" in base 10.
0**0**0**0** 0**0**0**0** 0**1**0**1**

2048**1024**512**256** 128**64**32**16** 8**4**2**1**
4+1=5

BIND
DNS server

birds of a feather (BoF) (n.)
Informal discussion group

bit (n.), -bit (adj.)
As in "a key length of at least 2048 bits" or "a 2048-bit RSA key"
When abbreviated, use lowercase b for bits, uppercase B for bytes

Bitbucket
Atlassian product for git and mercurial

bitcoin or Bitcoin (n.)
Digital cryptocurrency

bit-flipped (adj.), bit-flipping (adj.)

bitmap (n.)

bitrate (n.)

bitsquatting (n.)
Flip your bit! Registering a domain one bit off from a popular domain and waiting for a random bit error to redirect the "victim" to the domain.

bitstream (n.)

BitTorrent

BlackBerry

black box (n.), black-box testing (n.)

black hat (n.)
Attacker or malicious event or user

Black Hat
Series of annual security conferences in the USA, Europe and Asia
https://www.blackhat.com/

blacklist, blacklisting (v. or n.)
Legacy terms
Replace with denylist, blocklist or something similar

black market (n.)
Legacy term for unindexed illegal online activity
Use underground instead

bleeding edge (n. or adj.)

blind (adj.)
During a blind attack, the attacker is unable to view the outcome of an action.

bloatware (n.)

BLOB or blob (n.)
Binary Large Object

blockchain, block chaining (n. or v.)

blocklist, blocklisting (n. or v.)

blog, blogroll (n.)

Bloodhound
Tool used during security assessments

Blowfish
Encryption algorithm

blue screen (v.)

Blue Screen of Death (BSOD) (n.)
Windows failure

blue team, blue teaming (v.)
Blue teams run scenarios to defend a target or environment from potential attackers

Bluetooth
Unifying wireless system named after Harald Bluetooth, a Norwegian king

Blu-ray

BMP file, .bmp file
Bitmap image format

Boolean operators
AND, OR, NOT

boot chain (n.)

boot time (n.)

Border Gateway Protocol (BGP)

Boston Dynamics

bot (n.)
Automated program like a chatbot

botnet (n.)
Network of bots sometimes used in ransomware attacks

branch (v. or n.)

breadcrumbs, breadcrumb trail (n.)

breakpoint (n. or v.)

brick (n. or v.)
Old heavy cell phone or a dead device
A bricked device is unrecoverable

brick-and-mortar (adj.)
Describes IRL places of business

bring up

browsable (adj.)

browser fingerprinting (n.)

browser hijacking (n.)

brute-force (v. or n.), brute-forcing (n.)

BSides
Global series of security events
http://www.securitybsides.com/

buckets (n.)

buffer overflow (BOF) (n.)

bug bounty (n.)

Bugcrowd
Crowdsourced bug bounty security company

built-in (adj.)

bulleted (adj.)

bullet point (n.)

bullet time (n.)

Burn All Gifs
A project of the League for Programming Freedom

Burp Suite, Burp Collaborator
Web application proxy

business impact analysis (BIA) (n.)

BuzzFeed

BYOD
Bring your own device. Describes companies enabling employees to use their personal computers and phones for work. BYOD is pronounced as letters spoken.

bypass (v. or n.)

byproduct (n.)

bytecode (n.)

bytes (n.)

C

carriage return character or \r
Invisible character that returns text to the beginning of the line. This is a skeuomorph referring to the way typewriters need to "return" a carriage to the original position.

Certificate or certification authority (CA)

cache (n. or v.)

cache busting (n.)

case-by-case (adj.)

cache poisoning (n.)

CactusCon
Annual security conference in Arizona.

callback (adj. or n.)
As in "a crafted callback parameter."

callback hell (n.)
Programming mistake that ends in an infinite callback loop.

Cancel culture
Mob mentality to vendictively silence and suppress activism
http://techrights.org/2020/03/14/cancel-culture-and-freesw/

case-sensitive (adj.), case sensitivity (n.)

cash-out guide (n.)

casper
Run a "live" preinstalled system from read-only media

catch (v.)

The Cathedral and the Bazaar (CatB)
Musings on Linux and Open Source by Eric S. Raymond (esr)
www.catb.org

canary account (n.)

Canonical
Ubuntu publisher

canonicalization (n.), canonicalize (v.)

CAPTCHA, CAPTCHAs
The **Completely Automated Public Turing** test to try to differentiate between Computers and Humans

CCTV
Closed circuit television
Do not spell out

Capture the flag (CTF)

CBC
Cipher block chaining
Do not spell out

CC, CC'd, CCing
Carbon copy
Do not spell out

CCC or C3
Chaos Communication Congress

Annual security conference in Germany

CD, CD-R, CD-ROM, CD-RW (n.)

CDMA
Code division multiple access

CDN
Content delivery network

CEH
Certified Ethical Hacker

cell phone (n.)

CentOS
Red Hat GNU Linux distribution. Pronounced “sent-O-S” or “sent-oss.” Often referred to in speech as “cent”.

CERT
1. Computer Emergency Readiness Team
2. Cyber Emergency Response Team

certificate or cert (n.)

CFAA
The Computer Fraud and Abuse Act

CFO
Chief financial officer

CGI
1. Computer-generated images
2. Common Gateway Interface

changelog (n.)
Keep current with change management
Standards exist depending on distro or distro base
Can be converted easily to release notes

chatroom (n.)

chattr
Short for change attribute. Pronounced as “chatter”

checkbox (n.)

checkmark (n.)

check out (v.), checkout (adj. or n.)

checksum, checksums (n.)

child abuse material (n.)

chmod
Change mode
Pronounced as “change mod”, “C-H-mod,” or “chuh-mod”

Chrome
Google web browser.

Chromebook

Chromecast (n. or v.)

chroot
Short for change root.
Unix operation simulating a directory in a filesystem as if this were the root of the filesystem
Pronounced as “C-H-root” or “chuh-root.”

chroot jail (n.)
Isolation of processes from the system
False root

CIA

1. Central Intelligence Agency
2. Triad of information security concerns: confidentiality, integrity, availability

CIO
Chief information officer

cipher (n.)
Do not use “cypher”

cipher suite (n.)

ciphertext (n.)

CIS 20
Center for Internet Security has a list of 20 guidelines for securing organizations
https://www.cisecurity.org/controls/

Cisco

CIS CSC
CIS Critical Security Controls

CISO
Chief information security officer
Pronounced “seeso”
Example: The university CISO did not even know what SELinux was!

CISSP
Certified Information Systems Security Professional - Security certification
class, classes (n.)

Clean desk policy (CDP)

cleartext vs. plaintext
Use interchangeably
Cleartext is unencrypted content
Plaintext is a more technical term describing the input to a cryptographic system (which itself may already be encrypted or hashed)

clear web or Clear Web (n.)
This is used in contrast to the “dark web” or “dark net” parts of the internet. It refers vaguely to publicly accessible sites that were indexed by search engines.

clickbait (n.)

clickjacking (n.)
In formal writing, refer to this as “user interface (UI) redress”
Also called “cross-frame scripting”

click through (v.), clickthrough (adj. or n.)

client-side (adj.)

clip art (n.)

closed caption (n.), closed-caption (adj.)

cloud (n.)
Corporate jargon; “the cloud” is just servers

cloud computing (n.)

CloudFront
AWS content delivery network (CDN)

CloudTrail
AWS logging and monitoring service

cluster (n.)
As in “provision a cluster on each account”

cmake, CMake
Cross platform build generator

CMOS
Complementary metal-oxide-semiconductor
Example: Use the CMOS battery to reset the BIOS

co-creator (n.)

code (n. or v.)

codec
Short for code/decode

Code of CONduct (CoC)
In general, additional guidelines or rules applied to projects and conferences. Seen as unnecessary in many cases. Options for friendly reminders available.

> **Contributor Covenant, Censorship Covenant:** Forged from the fires of a flame like war, the Contributor Covenant, a seemingly vindictive code of conduct was accepted by certain projects. Many projects reject this CoC for no code of conduct, a friendly contributor agreement, a citizen agreement or something like the FFmpeg code of conduct.
>
> FFmpeg, a successful project for decades does not apply the Contributor or censorship covenant, but offers guidance in the FFmpeg code of conduct:
>
> *Finally, keep in mind the immortal words of Bill and Ted, "Be excellent to each other."*
>
> The author of the censorship (contributor) covenant edited and added a “malicious change”. This “was spotted by the maintainers” of the Opal project. Opal rejected Ehmke’s code of conduct. https://itsfoss.com/linux-code-of-conduct/
>
> In 2020, Ehmke, author of the Contributor Covenant ran for the OSI board and lost. The Censorship Covenant controversy continues to exist and is referred to as part of our Culture War.

code path (n.)

code shrinking (n.)

coins vs. tokens

cold-call (v.), cold call (n.)
Social engineering strategy

cold storage (n.)

cold wallet (n.)
Offline bitcoin storage

Computer-aided manufacturing (CAM)

command and control (C2) machine (n.)

command line (n.), command-line (adj.)

command-line-interface (CLI)

CLI is an acronym for command-line interface or command language interpreter

commercial-free (adj.)

commodity hardware (n.)
Over-the-counter hacking tools that anyone can get and use

Common Vulnerabilities and Exposures (CVE)
Catalogs publicly known vulnerabilities and exposures

Common Vulnerability Scoring System (CVSS)

Common Weakness Enumeration (CWE)

company-wide (adj.)

compensating controls (n.)

compile (v.)

compliance framework (n.)

computational linguistics (n.)

computer vision (n.)

config (n. or v.)
Short for a configuration or to configure

configuration drift (n.)

connect-back shell (n.)

constants (n.)
Pre-defined, immutable variables referenced later in code

containerization (n.)

Content Security Policy (CSP)

content injection (n.)

content spoofing (n.)

content type, Content-Type header (n.)

content management database (CMDB)

content management system (CMS)

-controlled (adj.)

cookie (n.)

cookie poisoning, cookie security (n.)

cooperate (v.)

coordinate (v.)

copycat (adj. or v.)

corporate espionage (n.)

corrupted (adj.)

Cortana
Proprietary Microsoft AI

countermeasure (n.)

counternotify
shell script used to generate a DMCA counter-notification

counter-notification

Document to respond to a DMCA notification to restore content removed from a DMCA notification.

coworking space (n.)

CPU
Central processing unit
Do not spell out

crack (v.)

crawl (v.)

Creative Commons
Licensing of free culture and sharable works –

credentials (n.)

credential reuse (n.)

critical (adj.)
1. non-negotiable business function
2. easily exploitable vulnerability with catastrophic consequences

criticality (n.)

CRM
Customer relations management

CRO
Chief revenue officer

cron
Use cron to schedule jobs to run as specified in crontab

cron job (n.)

crontab

Cross-origin resource sharing (CORS)

Cross-site request forgery (CSRF)
Common vulnerability. Pronounced as letters or “C-surf”

cross-platform (adj.)

cross-site scripting (XSS) (n.)
Three types of XSS:
reflected, stored, and DOM-based

crowbar
Password-cracking tool

crowdfund (v.)

crowdsource (v.), crowdsourcing (n.)

CRUD
Create, read, update, destroy

cryptanalysis (n.), cryptanalytic (adj.)

crypto (n. or adj.)
1. cryptography
2. cryptocurrency
Spell out first use to clarify

cryptocurrency (n.)
Virtual currency

cryptographically (adv.)

crypto mining (n.)

CryptoParty
Global series of events that educate

communities about security and technology. https://www.cryptoparty.in/

CSS
HTML cascading style sheets
Do not spell out

CSV file, .csv file
Comma-separated value(s)

cutting edge (n.), cutting-edge (adj.)
Related: bleeding edge

CSWSH
Cross-site WebSocket hijacking vulnerabilities

CTO
Chief technology officer

CTR
1. Short for clickthrough rate
2. Counter Mode
Spell out with first use

Cupertino effect (n.)

CSPRNG
Cryptographically Secure Pseudo-Random Number Generator
Secure way of generating random numbers

cURL
Pronounced “curl”

currency (n.)

C-suite (adj. or n.)
Informal term for high-level executives
CEO, CIO
Also called “C-levels

cursor (n.)

CW
Content warning

Cycript
Reverse engineering tool for iOS devices

Cydia
App found on jailbroken iOS devices

Cylons (n.)
Fictional cyborgs in Battlestar Galactica

CYA
Cover your ass!

D

daemon (n.)
Background system process on a computer
Pronounced as “demon” or “day-mun”

daisy chain (n.), daisy-chain (v.)
Electrical engineering wiring scheme
Informal

DAO
1. Decentralized autonomous organization
2. Data Access Object
Spell out with first use

dark net or Dark Net (n.)
This nebulous term, along with “dark web”

darknet
Open Source Neural Network Framework in C and CUDA

Dark Reading
Security industry publication

DARPA
Defense Advanced Research Projects Agency

dba
1. “doing business as”
2. “database administrator”
Spell out on first use in public-facing documents

data (n.)
data is singular

Database (DB)
spell out with first use unless DB is part of the term such as MongoDB or MariaDB

DDoS
Distributed denial of service. Pronounced “D-doss” or as letters. Spell out with first use

database (n.)

data center (n.)

data files (n.)

data handling (adj. and n.)

data-only (adj.)

data set (n.)

data structures

data type (n.)

date (n.)
command to display the date

dates (n.)
Take global audiences into consideration when standardizing the date format for the project

datetime (n.)

day-to-day (adj.)
As in “day-to-day activities.”

dead code (n.)

dead drops (n.)

Debian
GNU Linux distribution
Base for many other respins
Pronounced “debb-ean”
Ian Murdock, founder of the Debian Project.

Controversial.

- Accusations of censoring and bribery
- Mollamby controversy.
- Non-uploading developer controversy.
- Community controversy – low to no representation by women and minorities

debuggable (adj.)

decap (v.), decapped (adj.)

declare (v.)
Tell a program the function exists before the function is defined

decommed (adj. or v.)
Short for “decommissioned.” Informal.

decompile (v.), decompilation (n.)

Deep Blue
Famous IBM chess-playing AI

deep dive (n.), deep-dive (v.)

deepfake, deepfakes (n. or adj.)
AI-fabricated video, originally used in pornography

deep learning (n.)

deface (v.)

DEF CON
Annual security conference in Las Vegas

Defective by Design
Formerly the digital speech project, started at the Free Software Foundation. DRM free living guide. http://digitalspeech.org redirects to DbyD.

DES
Data Encryption Standard
Symmetric-key encryption cipher
DES is pronounced as letters or “dezz”
Do not spell out

DEFCON system
Military alert scale that is set at DEFCON 5 during peacetime and elevates to DEFCON 4 and above during threatening situations.

defense in depth (n.),

defense-in-depth (adj.)

denial of service (n.),

denial-of-service (adj.) (DoS)

dependency hell (n.)
When many dependencies are not met and more packages are needed for the unmet dependencies and even more packages are needed for the packages of the unmet dependencies and so on and so forth, This, is dependency hell!

Unmet 1-5: 1, 2, 3, 4, 5
Needed packages for 1: a, b, c
Needed packages for 1a: this, that, other
Needed packages for 1a-other: some package replaced by something else – find and build me!
Needed packages for 2: a, b
Needed packages for 2a: too many too list!
…

deprecate (v.), deprecated (adj.)
Hardware or software considered retired, but left in for backwards compatibility
Included but unofficial and unsupported

deserialization (n.)

deus ex machina
Latin for “god from the machine.”

DELETE request (n.)
HTTP request

dev (n. or adj.)
1. Application or system in development, as opposed to a production (prod) system
2. Developer, informal

developer experience
How developers use your tools, utilities and applications offering insight through participant testing to improve the human computer interaction in the future.

DevOps
Corporate jargon for development operations

DevSecOps

DHS
Department of Homeland Security

DHTML
Dynamic HTML
Do not spell out

dialog box (n.)
Use displays, never “appears”

Example: The properties dialog box displays.

Diffie-Hellman (DH) key exchange (n.)
Secure method for exchanging secret information

dial up (v.), dial-up (n. or adj.)

dictionary-based attack (n.)
Automated password-guessing attack
Also called a “dictionary attack”

diff (n. or v.)
compare files line by line

digital certificate (n.)

dingbat (n.)

directives (n.)

directory
Use directory, never folder unless the project explicitly requires this
While Ubuntu uses folder in the system, maintain directory unless the project calls for “folder”
Recommended: “in a directory” “within a file”

directories (n.)

directory traversal (n.)

Dirty COW
Dirty copy-on-write; CVE-2016-5195

disclosed, disclosure (n.)

discrepancy (n.)

disrupt (v.)

disseminate (v.)

Distinguished Name (DN)

Distinguished Name in the LDAP API

distro
Short for distribution. Common usage. Can be used to replace distribution.

DKIM
DomainKeys Identified Mail allows messages that originate from a protected domain to be cryptographically signed.
Pronounced “D-Kim”

DLL file, .dll file
Dynamic-link library
Windows “thing”

DLP
Data loss prevention

DM (n. or v.)
Direct message

DMA
Direct memory access
Exploitable hardware feature

DMARC
Domain-based Message Authentication
Pronounced “D-mark”

DMZ
Demilitarized zone
Also known as perimeter network
Refers to the less secure part of a network between the external firewalls and the WAN.

DNS (n.)
Domain name system
Records stored in the DNS database include IP addresses, nameservers, SMTP mail exchangers, and Start of Authority (SOA)

DOB
Date of birth

DOCTYPE

Docker
A platform that makes and manages containers
Document Foundation
Manages and develops LibreOffice

Document type definition (DTD)

DoD
Department of Defense

DOE
Department of Education

doge (n.)

Shiba inu dog meme. Much pronunciation dispute. Wow.

DOJ
Department of Justice

DOM
Document Object Model
Pronounced “dahm”

domain-joined (adj.)

domain squatting (n.)

DOM-based (adj.)

dongle (n.)
Object that interfaces with a port

Doomsday Clock (n.)

DOS
Disk Operating System

DoS
Denial of service; a common vulnerability.
Spell out with first use!

dot-com bubble (n.)

dot-file (n.)

double-click (v. or n.)

downgrade attack (n.)
POODLE attack is a downgrade attack

downtime (n.)

downvote (v. or n.)

dox, doxed (v.), doxing (v. or n.)
Collection of PII to maliciously target an individual online and IRL

DPAPI
Data protection API

dpi
Dots per inch, as in “300 dpi”

DRAC

drag-and-drop (adj.), drag and drop (v.)

DREAD
Damage, Reproducibility, Exploitability, Affected users and Discoverability
5 categories of security threats
Risk assessment model

drive, drives (n.)

-driven (adj.)

driver
module

DRM
Digital rights management
Spell out with first use

DRM-Free

Dropbox
Third-party file-hosting service
Use Nextcloud for end to end encrypted private cloud

drop down (v.), drop-down (n. or adj.)

DROWN attack
Decrypting RSA with Obsolete and Weakened eNcryption attack. TLS bug

Drupal
Popular Content Management System by Dries

DuckDuckGo
Browser

dump (v. or n.)
1. Output computer memory
2. Drop

dump files (n.)
Files from memory dumps, core dumps, stack dumps, hex dumps, heap dumps, etc.

dust management (n.)

DVD, DVR (n.)

Dvorak
An alternate keyboard setup that is efficient but uncommon. Pronounced “duh-vor-ack”

Dynamic Data Exchange (DDE)

E

E3
Electronic Entertainment Expo

e-commerce (n.)

eavesdrop (v.)

eBay

Amazon Elastic Block Store
(EBS)

echo request (n.)

edge
Computing closer to the source

edge case (n.)

EFF
Electronic Frontier Foundation. A nonprofit digital rights advocacy group. eff.org
Blue ribbon campaign for free speech.

EICAR test file (n.)
An antivirus test file that is intended to be found as a virus (though it's not actually malicious) Pronounced "eye-car"

EIGRP
Enhanced Interior Gateway Routing Protocol

Elasticsearch
Open source search and analytics
electric, electrical (adj.)

electronic (adj.), electronics (n.)

elements (n.)
1. type of element – use default font
2. named element – use code font
Font use soley at the discretion of the project

elevation of privileges (n.)
A common strategy for attackers: start as a low-privilege user and moves up

ELF, ELFs
Executable and linkable format

EMR

email (n.)

email addresses (n.)

email spoofing (n.)

embarrassingly parallel (adj.)
Similar to "pleasingly parallel"

embedded devices (n.)

emoji, emojis (n.)
We prefer to pluralize as "emojis," but "emoji" can be the plural, too.
Related: Animoji, IM, tikzpeople, Unicode Consortium
Ex: □□ 😊😊 🔥🔥

emoticon, emoticons (n.)
Typography-based pictographs - pre-dates emoji Ex: :-) XD :/

EMF
Electromagnetic frequency

-enabled (adj.)

-encoded (adj.)

-encrypted (adj.)

encrypter or encryptor (n.)

encryption (n.)

end-of-life (EOL) (adj.)
Sunset

endpoint (n.)

end-to-end secure boot chains (n.)

end user (n.), end-user (adj.)

End-user license agreement (EULA)
Coercive agreement – not a contract
Pronounced “you-la”

Engadget

enterprise security (ES)

entity encoding (n.)

enumerate (v.), enumeration (n.)

environment (n.)
1. construct
2. scope of an engagement – more than a single application, site or network

EOL
End-of-life
Product lines are no longer

ePHI
Electronic personal health information

ePub
ebook format

error messages (n.)

escape (v.)

ESP8266
Low cost microchip with Wi-Fi

ESR
Eric S. Raymond. A well revered and respected leader and elder in the open source and hacking community, despite being banned by cancellation culture in the OSI, he co-founded. Wrote the jargon file.

-established (adj.)

Ethernet (n. or adj.)
The scope of an engagement that is more than a single application, site, or network
Capitalized because Ethernet is a trademark

evil twin attack (ETA)

evince
GNOME document viewer
Reads postscript and PDF

External penetration testing (EPT)

except, exception (n.)

excerpt (n.)
Small portion of code or text

executable (n. or adj.)
Example: To make the script executable:
```
chmod a+x
```

execute (v.)

exercise (v.)

exfiltrate, exfiltrated, exfiltrating (v.)

explicit (adj.)

exploit (v. or n.)

exploit chain (n.)

exploit video (n.)

exposed (adj.)

eye-tracking (adj.)

EyeWitness
Tool used during security assessments

F

-facing (adj.)

facepalm (n. or v.)

failover (n.

false flag (n.)

false positive (n. or adj.)

FAQ
Frequently asked questions
Pronounced as letters or “fack” or as letters “F.A.Q.”

fat-finger (v.), fat-fingered (adj.)

Faux open

fauxpen source
Segment of population new to “open source” or free software because being open source is in “fashion” or “trendy”. Can be individuals or a company.

Work towards a personal gain only, not serving the community in any positive way.
Also known as simply “FAUX”.

FBI
The Federal Bureau of Investigation

FCC
Federal Communications Commission

FDA
Federal Drug Administration

FERPA
Family Educational Rights and Privacy Act of 1974 protects the privacy of student educational records and personally identifiable information

FFEIC

FFmpeg, ffmpeg
A complete, cross-platform solution to record, convert and stream audio and video

fields (n.)
If writing about a type of field, use the default font

file extensions (n.)

filename (n.)
No spaces
Correct: thisfile.md
Incorrect: this file.md

file paths (n.)

file share (n.)
p2p or other file share

file size (n.)

filesystem (n.)

filesystem hierarchy

file stores (n.)

File Transfer Protocol (FTP)

filesystem (n.)

file type (n.)

fetch (v.)

filter (v. or n.)

fingerprint, fingerprinted (v.)

fingerprints (n.)
Unique public key identifiers

FIPS tests
Federal Information Processing Standard

Fire TV
Amazon media player

firewall (n.)

FireWire

fixed-width (adj.)

flags (n.)
Also known as parameters in some cases. Place caution when adding the dash to the flag in a copy code snippets. Errors by Windows users and with some default settings in LibreOffice convert dashes to non POSIX or non funtional. Make flags clear and functional in content.

flame war (n.)

flash memory (n.)

flat files (n.)

flatscreen (adj. or n.)

flow chart (n.)

flow logs, flow logging (n.)

Flying Spaghetti Monster (FSM)
The supreme deity in the facetious religion of Pastafarianism, which was founded

FOIA
Freedom of Information Act

forge, forging (v.)

follow up (v.), follow-up (n. or adj.)

footprinting (n.)

force-browse (v.)

forceful browsing (n.)

forensic watermark (n.)

fork (v. or n.)

formula, formulas (n.)

FOSS
Free and Open Source Software

four-way handshake (n.)
A network authentication protocol

FPS, fps
1. First-person shooter video game
2. Frames per second
Space between the number and the unit, as in “28 fps.”

frag

frame rate (n.)

framework (n.)

free-form (adj.)

freenode
IRC GNU Linux support channel. Originally, linpeople on EFNet in 1995, moving to other networks until ultimately on its own network as irc.linpeople.org

In 2002, changed the name to freenode from Open Project Network. Prior to the passing of lilo (Rob Levin), the community gathered here in IRC with channels to support community matters. After lilo passed in 2006, the atmosphere and “rules” of the irc changed, with many freenode supporters leaving the platform.

Free Software Foundation (FSF)
A nonprofit organization once revered in the community prior to the cancellation of Richard Stallman

Free Software Foundation Europe (FSFE)
This nonprofit seems to be affiliated with the Free Software Foundation but there is no evidence of such from the FSF that can be found as of this publication.

FSFE does receive support from Google according to various sources. Controversy in 2019, allegations of misappropriations of a six figure donation were met with some censorship, according to a source close to the organization.

FreshMeat
Once a source for new programs, this became obsolete to most in the Free and Open Source community around 2005

front door (n. or adj.)

front end (n.), front-end (adj.)

FTC
The Federal Trade Commission

FTL
“Faster than light” warp drives in the TV

Fully qualified domain name (FQDN)

FUD

Full disk encryption (FDE)
Whole disk encryption

fullz (n.)
A package of PII purchased online

functionality (n.)

function keys (n.)
Use the default font, as in F1 and F8.

future-proof (v. or adj.)

function (n.)

fuzz (n. or v), fuzzer (n.), fuzzing (n. or v.)
A fuzzer generates or mutates input for consumption

fuzz testing harness (n.)
A framework that handles the crashes that result from a fuzzer

fuzzy logic (n.)

FXL
Feature extraction language

G

Game Boy

GameCube

game jam (n.)
Video game hackathon

Game of Life
Programmable simulation

-gapped (adj.)

Garbage collection (GC)

gateway (n.)

gems (n.)
Ruby related

General Data Protection Regulation,

GDPR
https://gdpr-info.eu/

geocache, geocaching (n. or v.)

geolocation (n.)

getID3()
PHP media file parser
ID3 tags refer to media metadata

GET request (n.), GETBULK request (n.)

GIF file, .gif file
Pronounced “giff” or “jiff.” ¯_(ツ)_/¯

GIGO
Garbage in, garbage out

git
Free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency. Developed by Linus Torvalds

GitHub
Code repositories. Very popular prior to purchase by Microsoft. Developers moved to alternate 3rd party repo services like GitLab after the MS acquisition.

GitLab
Code repositories

Glade
User Interface designer

GLBA compliance
Gramm-Leach-Billey Act of 1999 is a standard of security for financial institutions. Do not spell out

glob, globbing (n. or v.)

Globally unique identifier (GUID)
Pronounced “goo-widd”
guid generator for GNU Linux is uuidgen

GNOME Desktop Environment

gnome-session

GNU
Short for “GNU’s Not Unix!” operating system
Pronounced “guh-noo”

GNU Project
The GNU project is a mass collaborative initiative for the development of free software. Richard's house.

Gnu Privacy Guard (GPG)
Also written as GnuPG

Go
Programming language

Golang

golden master (n.)

gold image (n.)

goodput (n.)

Google
Search engine

google (v.)

Google Assistant

Google Drive

Google Home AI.

Google Search

Google Web Toolkit (GWT)

GoPro

GPS
Global positioning system

GPU
Graphics processing unit

Gradle
Open source build tool

grandfather clause (n.)

gray-box testing (n. or v.)
Another term for base image or configuration baseline.

gray hat (n. or adj.)

grayed out (adj.)

grep (n. or v.)
GNU tool of the same name or to mean "search"

greylisting (n.)

grok (v.)
To fully understand, to get

Group Policy Object (GPO)

groupthink (n.)

Grumpy Cat

GUI
Graphical user interface
GUI is pronounced "gooey" or as letters

H

hack (n. or v.)

hackathon (n.)

hacker (n.)

Hacker Dojo
Bay Area tech community hackerspace

HackerOne
Vulnerability coordination and bug bounty platform.

Hackers
1995 movie about hacking the Gibson and the planet

hacktivist (n.)
Mainstream usage for activist in the hacker community

Hadoop
Apache framework

HAL 9000
Fictional AI from 2001: A Space Odyssey

H-1B visa (n.)
U.S. work visa for specialty occupations.

Halt and Catch Fire
AMC TV show about hacking, set in the 1980s

H.264 (n.), H.264-encoded (adj.)

ham radio (n.)

hamburger button (n.)
Icon with three horizontal lines to show hidden menu options when clicked

handheld (adj.)

handle (n.)

hashed (adj.)

hash functions (n.)

hashtag or #

hang (v.)
non-responsive

HAZOP
A hazard and operability study.

H-Browser
A web browser.

haptic feedback (n.)

hardcode (v.), hard-coded (adj.)

hard copy (n.), hard-copy (adj.)

hard drive (n.)

harden (v.)
To configure applications, systems, or services in a more secure manner

-hardening (n. or adj.)

hardware (n.)

hashcat

hash collision attack (n.)

HCL
Hardware compability list. In the early days, GNU Linux was not supported by hardware companies. We shared experiences in IRC about hardware working with our systems. With the HCL, purchasing hardware to work with GNU Linux was much easier.

HDMI

HDTV
High-definition television. Do not spell out.

headers (n.)

headless browser (n.)

HEAD request (n.)
A tool used during security assessments.

healthcare (n.)

heap-based buffer overflow (n.)

Heartbleed
OpenSSL bug

hex (n.), hex-encoded (adj.)

HID
Human interface device
USB Rubber Ducky is a keyboard HID

high-impact (adj.)

high-performance (adj.)

highest-severity (adj.)

high-speed (adj.)

high-value (adj.)

hijack, hijacking (n. or v.)
An umbrella term for attacks to take over controls or assume the role of a user to compromise a system.

HIPAA
The Health Insurance Portability and Accountability Act
Pronounced “hippa”

HMAC
Hash-based message authentication code
Pronounced “H-mack”
Do not spell out

homepage (n.)

HomePod
Apple smart speaker

homescreen (n.)

honey accounts (n.)

honeybot (n.)
Twitterbot troll

honeypot (n.)

honeytokens (n.)

hook (v.), hooked (adj.), hooking (n.)

Hopper

Reverse engineering tool

-hosted (adj.)

host-hardening (adj.)

hostname (n.)

hosts (n.)
Use the tech or code font for the numbers for host addresses

hotfix, hotfixes (n.)

hotspot (n.)

hot-swap (v.)

hot wallet (n.)
Online bitcoin storage.

http://, https://

hotlink, hotlinking (n.)

hotwire (v.)

hover (v.)

how-to (n. or adj.), how to (v.)
Related: mini how-to

Hping

h/t or H/T

HTML, HTML5
Hypertext Markup Language
Do not spell out

HTTP/2

HTTP Live Streaming (HLS)

HTTP Parameter Pollution (HPP)

HTTP methods or HTTP verbs

HttpOnly integrate

HTTPoxy

HTTP response splitting (n.)

HTTP statuses (n.)

HTTP Strict Transport Security (HSTS)

HTTP.sys

Human-computer interaction (HCI)
In 2010, the HCI lab at UC Berkeley conducted a test to compare nonproprietary GIMP with proprietary Photoshop.

humblebrag (n. or v.)
Disingenuous public complaint that slyly boasts about an enviable life

hyperspace (n.)

hypertext (n.)
The “HT” in HTML and HTTP.

hyperthreading (HT)

I

I2P
Invisible Internet Project
Anonymous communication network
Do not spell out

i18n
Internationalization
18 represents the 18 letters removed from the middle of the word “internationalization”

IANAL
“I am not a lawyer”
Informal

ICE
1. Intrusion Countermeasures Electronics
2. Immigration and Customs Enforcement

ICO
Initial coin offering

ID, IDs
Identification

idempotence (n.), idempotent (adj.)
Idempotent operation produces a result that is not affected by repetition.

Identity and Access Management (IAM)

AWS

i.e.
“that is to say” in Latin. Always followed by a comma. e.g. means “for example.” Choose wisely

iframe or iframe tag (n.)
Inline frame

IFTTT
If This Then That
Pronounced as “ift”

IIoT
Industrial Internet of Things.

IIRC
If I recall correctly

iLO
HP Integrated Lights Out.

Imgur
A photo-hosting website

implementable (adj.)

implicit (adj.)

improper MIME type (n.)

improperly scoped cookies (n.)

in-band (adj.)

inbound (adj.)

inbox (n.)

incident response (IR) plan (n.)

index, indexes (n.)

infiltrate (v.)

information security (n.)

Infosec

informed consent
Collecting data with the consent of the user or party

In 2020, Google was sued by Austrialia Competition and Consumer Commission for collecting data without informed consent.

information superhighway (n.)
Avoid using this to describe the internet

Infrastructure as a Service (IaaS)
If spoken, say the whole phrase, not the acronym

in-game (adj.)

in-house (adj.)

init script
Boot script

injection (n.)

inline (adj.)
Code that is in line with other code

input (v. or n.)

in-scope (adj.)

insourcing (n.)

instance count (n.)

Instant message (IM)

Integrated development environment (IDE)

Intelligent platform management interfaces (IPMI)

interface (n. or v.)

Internal penetration testing (IPT)

internet (n.)

The Internet Archive
Nonprofit library and archive of historical web pages https://archive.org/

Internet Control Message Protocol (ICMP)

Internet of Things (IoT)
Pronounced as letters or as the entire phrase
Consumer-grade embedded devices

Internet Protocol Security (IPsec)

Internet service provider (ISP)

Interpol
The international police organization

Intrusion detection system (IDS)

Intrusion prevention system (IPS)

IP
1. Internet Protocol
2. Intellectual Property - Outside of the free software community, people use IP for intellectual property to indicate the three separate items: Copyright, Trademark, Patents.
   Avoid using “IP” and “intellectual property”.

iPad, iPod

IP addresses (n.)
Use the tech font, for IP addresses

IPO
Initial Public Offering

IPP
Internet Printing Protocol

iptables

ISAC
Information Sharing and Analysis Center.
Pronounced “eye-sack.” Spell out on first

ISO/IEC 27001
A common information security framework that determines international standards for many types of technology and equipment.
ISO is pronounced “eye-so”

IRC
Internet Relay Chat
Messaging system

IRL
In real life

IT
Information technology

J

jack (n.)
As in “Ethernet jack.” Better to use “port” informal writing.

jailbreak (v.)
To modify a mobile device (e.g., a smartphone) past limits set by the manufacturer, to gain privileged access

jailbroken (adj.)
User-modified mobile device.

Java EE
Java Enterprise Edition
Do not abbreviate

JavaScript (JS)

Java virtual machine (JVM)

JBoss
Java application server

JCE
Java Cryptography Extension

Jenkins

Jira
Workflow and issue tracking product.
Atlassian product, Not an acronym
Pronounced “jeera”

Java Management Extensions (JMX)

JPEG file, .jpeg file, JPG file, .jpg file
Pronounced “jay-peg”

jQuery

JSON, JSONP
Pronounced as J-sahn or Jason
JavaScript Object Notation.
JSONP is short for “JSON with padding”

juice jacking (n.)
Attack in which a power cord steals data

Julia
Programming language.

jumpbox (n.)
Synonyms “proxy” or “attacker’s server”
Also called jump host or jump server

jump drive (n.)
Informal. Use USB drive, flash drive, or thumb drive instead, depending on the context.
Related: USB drive

junkie
Addict
Command-line junkie

junk mail (n.)

JWT
JSON Web Tokens. Pronounced “jot”
Do not spell out

K

k8s
Kubernetes. 8 represents the eight letters removed from the middle of the word “Kubernetes”

Write this term out in formal content
Pronounced “coober-nettees”

Kali Linux

Karen
privileged woman

Kaspersky Labs
International security firm headquartered in Russia.

KDE
Desktop Environment
kdestart

keepalive, keepalives (KA) (n.)
Keepalive packets.

KeePass
Password management software.

kernel

kernel panic (n.)

keyboard keys (n.)

keychain (n.)

keygen, keygens (n.)
Key generators

keylogger, keylogging (n.)

Key management as a service (KMaaS)

Key management service (KMS)

key pair (n.)

keysigning party or key signing party (n.)
Event to share public keys (.pub)

keyword (n.)

keyspace (n.)

keystore (n.)

keystroke (n.)

Keywhiz
Secret management software

kill chain (KC) (n.)

kill switch (n.)

kluge or kludge (n.)
Bad code

knowledge
Third in Stages of Progression

- data
- information
- knowledge
- wisdom

knowledge base (n.)

Knowledge and Development (KR)

knowledge worker

KRACK
Wi-Fi-based vulnerability

kraken
IRC slashdot user in freenode who designed the “free sklyarov” banner used universally for the campaign

Kubernetes or k8s
Pronounced “coober-nettees”

L

L10n (n.)
Localization. 10 represents the 10 letters removed from the middle of the word "localization"

LAMP
Linux, Apache, MySQL, and PHP

Related: MEAN
MongoDB, ExpressJS, Angular, Node

LAN
Local area network

LanMan hash
Short for LAN Manager hash. LM hash is also acceptable.

LARP, larping (n. or v.)
Live Action role playing

LastPass
Password management software.

LaTeX
Document preparation system
Pronounced "lay teck"

Layer 3 firewall rules (n.)

LCD, LCDs
Liquid crystal display monitors
Do not spell out

LDAP
Lightweight Directory Access Protocol
Pronounced "ell-dap"

LDAP Admin
A tool used during security assessments.

LED
Light-emitting diode

Leet, 1337, Leetspeak, l33tsp34k
A coded form of online writing featuring codified typos and a combination of numbers and punctuation
Examples: H4X0R, CH1x0R, n00b, pr0n

Let's Encrypt
Security certificate service
Public benefit organization – Internet Security Research Group – Josh Aas, Director

-level

leverage (v.), leveraged (adj.)

LGBTQIA
Lesbian, gay, bisexual, transgender, queer, intersex, asexual. For more guidance about inclusive language, please consult http://consciousstyleguide.com/.

lifecycle management (n.)

life hack (n.)

Lightning cables (n.)

"like" (v.)
A verb of approval on social media sites like Facebook and Twitter

Like button (n.)
Social media feature popularized on Facebook, as in “this post has 10 Likes.”

likelihood (n.)

Learning Management System (LMS)
Moodle, Totara

limit (v.)
To control the scope, impact, or types of attacks
Also use filter, narrow, or omit

linefeed characters (n.)

line numbers (n.)

LinkedIn

Linux
A kernel created and maintained by open source developers.
GNU Linux for the OS.

Listicle
Do not use

listserv (n.)
The company is called LISTSERV
The generic term is “listserv” or “email list”

little-endian (adj.)

livestream (v.), livestreaming (n.)

live-tweet (v.)

load-balance (v.), load balancing (n.)

localhost

localStorage

Local Security Authority Subsystem Service (LSASS)
Pronounced “ell-sass”

lockout policy (n.)

lock picking (n.)
The skill of opening locked items with lock picks or paper clips or hairpins… or other extraordinary means

lock screen (n.)

log files (n.)
/var usually
Very important to gain insight on errors or what occurred

logged-in (adj.)
As in “logged-in user”

login screen (n.)
Example: xdm, mdm

log in (v.), login (n.)

log out (v.), logout (n.)

LOIC
Low Orbit Ion Cannon
Old-school way to crowdsource a DoS attack
Pronounced “low-ick”

lolcat
I can has internet language?

Long Term Support (LTS)

lossy compression (n.)

lossless

lowercase (adj.)

lookahead parameter (n.)

LTE
Long Term Evolution
High-speed wireless communication standard
Do not spell out

Lucky Thirteen attack (n.)

M

MAC address
Media access control address.

MacBook

machine learning (ML) (n.)

macOS (n.), macOS-based (adj.)

macro (n.)

Man-in-the-Browser attack (MitB)

mailbomb (n. or v.)
Related: dox, phish, spam

Man in the Middle (n.),

Man-in-the-Middle (adj.) (MitM)

MailChimp

mainframe (n.)

Maker Faire
A global series of DIY community events

Malbolge
Esoteric programming language

malformed (adj.)
Syntactically improper bit of data or code

malicious actor (n.)
This represents a wide range of potential

malicious code (n.)

malware (n.)
Malicious software

mapping (n.)

MariaDB
Community developed and supported fork of MySQL from the original developer.

Markdown (n.)

marketplace (n.)

markup language (n.)

mass assignment (n.)

master/slave
Legacy terminology
Use inclusive language such as primary/secondary

Master service agreement (MSA)

matrix, matrices (n.)

MB
Megabyte. No space between the number and unit, as in “75MB.” Do not pluralize MB.

MD5
Message Digest 5 used for verification, not security
Efficient but highly insecure hashing algorithm

meatspace (n.)
1. Tool used during security assessments
2. Real life

mechanism (n.)
Write the name in the tech font, as in

Meltdown
A flaw that affects Intel, AMD, and ARM chipsets
Publicly disclosed in January 2018

Memcache

meme (n.)
Pronounced “meem”

Message Authentication Code (MAC)

message board (n.)

metacharacters (n.)
Character with a special meaning in a programming language

metadata (n.)
Information relevant to the content such as image, video, or audio

Metasploit
Tool used during security assessments

Meterpreter

MHz
Megahertz, as in “100 MHz”

MiB
In Base 2, 1 mebibyte (MiB) is 1,024

MIDI
Musical instrument digital interface
Do not spell out
Pronounced “midd-ee”

milkshake duck (n.)
Hypothetical wholesome new public figure who is quickly revealed to be vile

MitM
1. Man-in-the-Middle
2. Meet in the Middle

military-grade encryption (n.)

MIME
Multipurpose internet mail extensions
Do not spell out
Pronounced “mime”

Mimikatz
Tool used during security assessments

microblogging (n.)

MINIX
Mini-Unix

microblog

microservice (n.)

mirroring (n.)

Microsoft
- Proprietary company
- Previously stated GNU Linux was against the American Way.

  ‘Microsoft describes the GNU General Public License (GNU GPL) as an “open source” license, and says it is against the American Way’ – RMS

mirror site (n.)

mission-critical (adj.)

mitigate (v.)

mitigation (n.)

millennial (n. or adj.)
People born between 1980 and 2010

mobile devices (n.)
Smartphones and tablets

mod (v. or n.)
1. To modify. Informal.
2. model numbers (n.)

Moore's Law
About every 18 months since 1965, the number of transistors per square inch on integrated circuits has doubled by Intel co-founder Gordon Moore

MOTD
Message of the day

motherboard jumpers (n.)

motion-activated (adj.)

motion capture, mo-cap (n. or adj.)

mouseover (adj. or n.), mouse over (v.)

mousepad (n.)

Mozilla Firefox

MP3, .mp3 file, MP4, .mp4 file
mp4 is a container

Mr. Robot
TV show about a paranoid hacker. Claims accuracy but completely inaccurate with regard to the Postmates hack. AMA.

ms
Milliseconds

MS, M$
Microsoft

multi-factor authentication (MFA) (n.)

Muskovite
Musk dark meme enthusiast/follower

Mustache

MySQL
Database
Pronounced "my sequel"

N

\n
Newline

NAC
Network access control
Pronounced “nack”

nameserver (n.)
An internet server that resolves domain name queries

NAND gate (n.)
Short for negative-AND gate

nanotechnology (n.)

Nasdaq or NASDAQ

nation state (n.)

need to know (v.), need-to-know (adj.)
The user does not need to know this. Intel is given on a need-to-know basis

nepotism
When an unqualified relative gets a position because another relative works at the company or university. A crime in many states. Non relative but hiring an unqualified friend is cronyism.

netblock (n.)
Range of IP addresses

Netcat or nc
Utility that reads from and writes to network connections with TCP or UDP

Netflix

net neutrality (n.)

net risk (n.)
Overall risk

network security (n.)
Alternate term for information security.

network segmentation (n.)

NFS
Network File System

ngrep
Network grep
Pronounced “N-grep”

NfSpy

Nginx
Web server software. Pronounced “engine X”. Controversy over how this source code was opened.

Nintendo Switch, SwitchLite

NIST
National Institute of Standards Technology
Pronounced “nist”

NIST CSF controls (n.)

NLA
Network Level Authentication

NLP
Natural language processing

Nmap, Nmap scan
Short for Network Mapper. Pen testing tool used to scan ports and map networks.

NOC
Network operations center
Pronounced “nock”

node (n.)

Node.js
Open source JavaScript runtime

nonce, nonces (n. or adj.)

Non-disclosure agreement (NDA)

nonprofit (n. or adj.)

nosniff

NotPetya

NSA
U.S. National Security Agency

NSFL
Not safe for life/lunch

NSFW
Not safe for work

NULL

Nothing, empty, NIL, no result

null byte character (n.)

null byte injection (n.)

NULL session (n.)

NVD
National Vulnerability Database

O

OAuth
Authentication protocol
Pronounced “oh-auth”

OData
RESTful means of exposing access to a data store.

obfuscation (n.)

Objective-C

Object-oriented programming (OOP)
open access (n. or adj.)

oclHashcat
GPGPU based multi-hash cracker tool used during security assessments

offboarding (n.)
Outplacement management, exit process

off-by-one error (OBOE) (n.)

off-chain (adj.)
Off-the-block cryptocurrency transactions

offline (adj.)

offscreen (adj.)

off-site (adj.)
As in “off-site redirect”

Off the Hook (OTH)

OGNL
Object-graph navigation language
Open source language
Vulnerable to injection

OK
1. button
2. state abbreviation
3. okay

on-air (adj.)

onboarding (n.)
Orientation and inplacement management, entry process

on-demand (adj.), on demand
On-demand services. Services on demand.

one-liner (n.)
Command on one line

one-time (adj.)

ongoing (adj.)

The Onion
Satirical news site

online (adj. or n.), on line

onscreen (adj.)

on-site (n. or adj.), on site
Physical location
Example: As a consultant, I tend to work on-site during kickoff!

OpenID

Authentication protocol

open source
Software with source code available encouraging collaboration and modification. Free software focuses on user freedom. The four freedoms are to run, to study and change, to redistribute exact copies, to distribute modified versions. Open source people may find proprietary software “no problem” or use proprietary software
Related: The Cathedral and the Bazaar

OpenVPN
Open source VPN software

operating system (OS) (n.)
Never OSes

OpManager Decrypter
Tool used during security assessments

OPSEC
Operations security

opt
1. directory for third party installations
2. option
3. optimization abbreviation

Optical character recognition (OCR)

opt in (v.), opt-in (adj.)
Selection to “opt in” or be included

opt out (v.), opt-out (adj.)
Selection to “opt in” or be excluded or not included

***.orig**
File extension for the original backup of a config file

Original equipment manufacturer (OEM)

OS (n.)
Operating system
To pluralize, spell out operating systems
Never OSes

OSCP
Offensive Security Certified Professional

OSGi
Open Services Gateway Initiative

OSI
Once a revered organization founded by Bruce Perens and ESR, recently considered obsolete due to the cancellation/banning of ESR and the exit of Perens. The main purpose of the OSI was to maintain the open source definition. After his departure, Perens stated:

“OSI has approved a lot of licenses they should not have, and continues to do so. So not sure their approval is very relevant. I will create the ecosystem, but I did not create the goals when starting OSI, Richard Stallman did long before. I just marketed them better.”

OSINT
Open Source Intelligence
Pronounced “O-S-int” or “oh-sint”

OT
Operational technology

OTP
1. One-time password
2. One true pairing
Spell out for first use

OTW
Off the wall

outbound (adj.)

outbox (n.)

outbrief (n.)

outdated (adj.)

outgoing (adj.)

out-of-band (OOB) (adj.)

out-of-date (adj.)

out-of-scope (adj.), out of scope

outsource, outsourcing (n. or v.)

Over-the-air (OTA) programming

OWASP
Every few years, the Open Web Application Security Project curates a list of the top 10 threats in information security
Pronounced “oh-wasp”

OWASP Zed Attack Proxy
Web vulnerability proxy and scanner

own
Avoid as a personal possessive!
This is redundant

Incorrect: My own, their own.

-owned (adj.)

P

PaaS
Platform as a service. If spoken, say the whole phrase or “pass.” Spell out on first

pages (n.)
For a specifically titled web page, capitalize as in “the About Us page”

page-hijacking (n.)

page view (n.)

pain points (n.)
Corporate jargon
Use sparingly

PAN
1. Short for primary account number or
2. personal area network
   IEEE standard – was previously body area network

PAN truncation (n.)

parameterized queries (n.)
Also known as “prepared statements”

parameters (n.)

parse (v.), parser (n.)

Pastebin
Text storage site

pastebin (n. or v.)
1. text storage site
2. publishing something anonymously online

patch (n. or v.)
Update to existing software that adds or enhances features, fixes bugs, or both

patch cycle (n.)

PATCH request (n.)

path traversal (n.)
Also known as directory traversal

passphrase (n.)

pass-the-hash attack (n.)

password-protected (adj.)

passwords (n.)

PASTA
Process for Attack Simulation and Threat Analysis. Risk-based threat methodology

PAX

payload (n.)

PayPal
Mobile payment service

paywall (n. or v.)
“blocked by paywall”

PBKDF2
Password-based key derivation function

PCI
1. Payment Card Industry
2. Peripheral Component Interconnect. Briefly

PCI compliance (n.)

PCIe
Peripheral Component Interconnect Express
Serial expansion bus standard

PCI DSS
Payment Card Industry Data Security Standard(s)

PCRE
Perl-compatible regular expressions

PDF, .pdf file

PEBKAC
Problem exists between keyboard and chair
Pronounced “peb-cack”

peer-to-peer (adj.)

penetration testing, pen testing (n.)
real-world attacks to identify ways to circumvent the security features

percussive maintenance (n.)
Fixing things by hitting

peripherals (n.)
Auxiliary devices, equipment

Perl
Practical Extraction and Report Language
Programming language

permissions (n.)

PERSEC
Personal security

persistence (n.), persistent (adj.)
Persistent access means an attacker continues to access a system or application over a long period of time

Petya
Ransomware attack that hit in June 2017

pfSense
Open source firewall

PGP
Pretty Good Privacy
Encryption program

phase, Phase 1

PHI
Protected health information
Pronounced as letters

phishing (n.)
email phishing

PHP
Short for PHP: Hypertext Preprocessor
Programming language
Do not spell out

PHR
Personal health record

phreaking (n.)
Phone hacker

pickle

Python object serialization protocol

pickled (adj.), pickling (n.)
Python object hierarchy converted into a byte stream (and therefore serialized)

Pidgin
Chat program allowing simultaneous login across multiple chat networks.
Was GAIM.
In the early 2000s, Mark Spenser (kram) entered IRC in the freenode slashdot channel when AOL sent a trademark cease and desist. As freenode had previously been a forum for community (not currently), this discussion in freenode led to the call out to community and response to the AOL C&D.

Silently serving the community – legal minds from Harvard's Berkman center, and Stanford Law worked with a skilled wordsmith to coordinate, edit, and send this response.

PII
Personally identifiable information

PIN
Personal identification number.

ping (v., n., or adj.)
1. To initiate contact and wait for a response.
2. ping utility

pirate (n. or v.), pirated (adj.)

The Pirate Bay (TPB)

pivot point (n.)
Foothold that an attacker can use to gain

pixel (px) (n.)

playlist (n.)

PlayStation

PLD (n.)

PL/SQL
Programming language used by Oracle.

plug in (v.)

plugins (n.)

Piwik
Open source analytics program

plaintext or plain text
1. unencrypted text (like cleartext)
2. the input to a cryptographic system
3. simple, unformatted text (not rich text)

p.m.

PO (n.)
Purchase order

PoC (n.)
1. proof of concept
2. point of contact
Pronounced as letters or "pock"

podcasts (n.)

PoE
Power over Ethernet

POODLE attack (n.)
Padding Oracle on Downgraded Legacy

POP
1. Procedure-oriented programming
2. point of presence
3. Post Office Protocol
Spell out with first use

pop up (v.), pop-up (adj. or n.)

portal (n.)
entranceway
Example: employee login page

port numbers (n.)

ports (n.)
As in “USB port”

port scan (n.)

POSIX
Portable Operating Sstem Interface standard by IEEECS

post (v. or n.)

POST request (n.)

post-apocalyptic (adj.)

post-exploitation (adj. or n.)

Postgres or PostgresSQL
database

PowerBook

power cycle (v.)

power user (n.)

preflight (n.)

preimage (n.)
Algorithm input, as in “cryptographic preimage attacks”

prepared statements (n.)
Same as parameterized queries

preset (n., v., or adj.)

pretexting (n.)

print out (v.), printout (n.)

Printed circuit board (PCB) (n.)

prioritize (v.)
To rank vulnerabilities by severity level in the environment

privacy protection (n.)

privesc or privilege escalation (n.)

principle of least privilege (n.)
Concept allowing users only enough permissions as needed for a role

protocol (n.)

Process identifier (PID)
Pronounced as letters or “pidd”

proof of concept (n.), proof-of-concept (adj.) (PoC)

Proprietary
Closed source
Example: MS Word

ProtonMail

prod (n. or adj.)
System in production, as opposed to a development (dev) system

program (n. or v.)

programming languages (n.)

provision (v.)

ProxMox Virtual Environment (VE)
Enterprise Virtualization

Pseudo-random number generators (PRNGs)
Used often in slot machines

Pre-shared key (PSK)
Shared secret

***.pub**
File extension for public key

public address spaces (n.)

Public key infrastructure (PKI)

playbook (n.)

public-facing (adj.)

public key, public key encryption (n.)
Public key is a type of cryptographic key

publicly known (adj.)

purple team (n. or v.)

PUT request (n.)

PuTTY
Avoid using this tool
Use OpenSSH

pwdump

pwn (v. or n.)
To defeat, to own
Pwn rhymes with own

The Pwnie Awards
Annual awards ceremony for hackers during Black Hat

Python
Programming language. Monty Python references in tool names are encouraged.

Q

QA
Quality Assurance

QC
Quality Control

QLess
Queue management platform

QR code (n.)
Quick response code. Do not spell out.

Quality Security Assessor (QSA)

query string (n.)

queue (n.)

QuickTime

QWERTY
Common keyboard layout originally designed for typewriters

R

R
Programming language

race condition (n.)

rainbow table (n.)

RAM (n.)
Random access memory
Do not spell out

RankBrain
Google AI algorithm used to sort search results

rcp
Remote copy. Allows the transfer of files to and from another system over the network. Be aware of the scp information from openssh release 8, stating using scp is not recommended.

ransomware (n.)
Malware that threatens to publish or delete data unless a ransom is paid

RAR file, .rar file

Raspberry Pi
Single-board computer
Versions include Raspberry Pi 3 model B and Raspberry Pi Zero W
Previous Operating System was Raspbian
In 2020: Operating System name change to Raspberry Pi OS

rate-limit (v.), rate limiting (n.)
As in “read/write privileges.”

ratios (n.)
Write with a colon and no space
32:9

RCPT
Short for receipt

read access (n.)

readme file or README file (n.)

read-only (adj.)

real-time (adj.), in real time (n.)

read/write (adj.)

reCAPTCHA, reCAPTCHAs (n.)
Google’s proprietary CAPTCHA system

RC4 NOMORE
Attack that affects the RC4 cipher
Pronounced as letters or “ark-four”

Reddit, redditor (n.)

[REDACTED]
Indicates a censored section of code, often passwords or PII. Use the tech font if it’s part of a code snippet. Redact your images by drawing black boxes in image editing

Red Hat
GNU Linux operating system.

Redis
Open source in-memory key value store

RedLock
Cloud DevOps vendor

RedSnarf
Tool used during security assessments

red team, red teaming (n.)
Red teaming is a type of offensive engagement. Define briefly on first use to clarify your intended meaning.

reduce (v.)

Referer
Famous spelling of HTTP referrer header

reflect (v.), reflected (adj.)
Attack pattern a payload is

registry hive (n.)

Relational Database Service (RDS)

remediation (n.), remediated (adj.)
The process of improving a system to a known good state where elements of a vulnerability or impact are no more.

remote access (n.)

Remote access trojan (RAT) (n.)
Pronounced “rat”

Remote code execution (RCE) (n.)

remote desktop (v.)

Remote Desktop Protocol (RDP)

Remote method invocation (RMI)

replay attacks (n.)

replicants (n.)
Fictional androids in 1982’s Blade Runner.

reportlet, reportlets (n.)

report names (n.)

repository or repo (n.)

reproducible (adj.)

requests (n.)

request for proposal (RFP)

response-splitting (n.)

REST, RESTful
Representational State Transfer
Web services

restart (v.)

retcon (v. or n.)
To retroactively change the continuity of a story in a “do-over” Informal.

retest (v. or n.)
Example: Retest to validate the results

Return-oriented programming (ROP)

retweet (v. or n.)

reuse (v. or n.)

reverse-engineer (v.)

reverse engineering (n.)

reverse proxy (n.)

reverser (n.)
Reverse engineer

RFB
Remote Frame Buffer protocol

RFID

RFID card (n.)
Radio frequency identification card

rickroll (v.), rickrolling (n.)

ride-share, ride-sharing (n., v., or adj.)

right-click (v.)

ringtone (n.)

RISC
Reduced instruction set computing

risk (n.)
Perceived threat of a security weakness

Risk-based assessment (RBA) (n.)

RNGs
Random number generators.

roadblock (n.)

roadmap (n.)

ROBOT attack (n.)

Return of Bleichenbacher's Oracle Threat

Rockyou, Rockyou.text
Large password-cracking dictionary

rogue access point (n.)

rogue cell tower (n.)
Also called a “cell-site simulator

Role-playing game (RPG)

rollback (adj. or n.), roll back (v.)

root or root (n.)

root (v.)
To gain root-level access, to jailbreak

rootkit (n.)

Root the Box
An annual CTF competition and its supporting software infrastructure.

RPC
Remote procedure call

RSA
1. Encryption Algorithm
2. Tech company
3. Annual San Francisco security convention
Pronounced as letters

rsh
Short for remote shell. Allows the execution of non-interactive programs on another system.

RT, RT’d, RTs
Retweets on Twitter. Informal.

RTF, .rtf file
Rich Text Format. A document file format.

RTFM
Read the fucking manual. Informal.

Rubber Ducky

Rule 34
If it exists, there is porn of it

rulesets (n.)

Ruby
Programming language
Project uses the CoC - Contributor Covenant

“running as” another user (runas)
Command to execute a program by running as another user on Windows.

runtime (n.), run-time (adj.)

rust

S

S3, S3 buckets (n.)
Simple Storage Service
Amazon service

safelist, safelisting (n. or v.)
Proposed alternative term to whitelisting
Not yet widespread
Related: blocklist

salami slicing attack (n.)
Repeatedly stealing money in very small quantities

Salesforce

salt (v. or n.), salted (adj.)
In encryption, salted code has random values sprinkled in to make this more difficult to decode. If two users have the same password, salting ensure the hashes will not be the same.

same-origin policy (SOP) (n.)

SAM file (n.)
Sequence alignment format file

SAML
Security assertion markup language.

sandbox environment (n.)

sandbox escape (n.)
Modifying privileges in a system past the manufacturer intention to gain root access.

sandboxing (n. or v.)

sanitized (adj.)

SANS
The SysAdmin Audit Network Security Institute. Pronounced “sans.”

SASL
Simple Authentication and Security Layer
Pronounced “sassle”

SCADA
Supervisory Control and Data Acquisition

screencap, screenshot (n.), screen capture (n.) (v.)
Capture of a screen using scrot or printscreen
Avoid use in formal instruction writing. Instruct the user to “see Figure 2” instead.

Scala

scannability (n.), scannable (adj.)

science fiction or sci-fi (n.)

scope (n.)
Applications and environments a pen testing team evaluates for vulnerabilities during an engagement.

scope creep (n.)

scp
Secure copy protocol from OpenSSH. Not recommended by the project as of release 8.0 “The scp protocol is outdated, inflexible and not readily fixed. We recommend the use of more modern protocols like sftp and rsync for file transfer instead.”

https://www.openssh.com/txt/release-8.0

screen time (n.)

script, scripting (n.)

script code (n.)

scroll bar (n.)

scrum (n. or v.)

scrypt
A password hashing (not encryption) algorithm
Pronounced “ess-crypt”

SCSI
Small Computer System Interface
Parallel interface
Pronounced “sexy” or “skuzzy”

the Scunthorpe problem
Non-obscene words are sometimes blocked because a banned string of letters, such as “sex” in “Sussex” or “cock” in “Hancock”

scrape (v.), scraping (n.)
A script can retrieve (scrape) all of the data from a web page in lieu of an API retrieving the specifically desired information.

screen-capture (v.)

screensaver (n.)

screenshot

SDK
Software development kit

SDLC
Software development life cycle

sealioning (n.)
A type of trolling that involves persistently asking questions in bad faith

Search engine optimization (SEO)

second-order (adj.)

secure boot (n.)

security breach (n.)

security controls (n.)
Code and other tools (as opposed to policy) to enforce repeatable security.

Security incident response plan (SIR Plan)

Security information and event management (SIEM)
Pronounced “sim”

security key (n.)

Security Monkey

security questions (n.)

Security support provider (SSP)

security through obscurity (n.)

Security Without Borders

seed, seeding (n. or v.)
As in “second-order SQL injection”

segmentation (n.)

segregate (v.), segregation (n.)

segue (n.)

Segway

SegWit
Segregated Witness

self-driving vehicle (n.)

self-generated (adj.)

security questions (n.)

Semantic Versioning
Also written as SemVer and semver

Sender Policy Framework (SPF)

serialization (n.)

servers (n.)

Server Message Block (SMB)

server-side (adj.)

ServerSignature

ServerTokens

Service-level agreement (SLA), SLAs (n.)

service provider (n.)

Service Set Identifier (SSID)
Service Set Identifier
Human-readable name of a Wi-Fi network

servlet, servlets (n.)

servo, servos (n.)

session fixation (n.)

Session Initiation Protocol (SIP)
If spoken, use the entire phrase, not the acronym

set up (v.), setup (n. or adj.)

SHA-1, SHA-256
Secure Hash Algorithm

sharing economy (n.)

shebang
absolute path to the interpreter

```
#!/bin/bash
```

shell (n.)

shell script (n.)

Shellshock

shelve (v.)
To discontinue the use of
Corporate jargon, use sparingly

shill
Publicly help or lend credibility to a person or organization without disclosing a close relationship or payment
Not transparent
Example: My first week in the department, I was given a long list of where the clients regularly shill articles at cost.

short-code
Used with CMS rather than typing full term

short-name (n.)
Shortened filename. Also called an 8.3

short-term (adj.)

shoulder surfing (n.)
Standing behind someone to steal their passwords

sid
Debian unstable – never going to be released, no timely security updates

-side

Signal
Private messaging app - Does log errors

signal-boost (v.)

signal-to-noise ratio (SNR) (n.)

signature (n. or v.)

signed long (n.)
Long, signed integer data type

sign in (v.), sign-in (n.)

sign out (v.), sign-out (n.)

sign up (v.), signup (n.)

Silicon Valley
1. Generic term for the tech industry based in the greater San Francisco Bay Area
2. HBO TV show about developers

Silk Road
Underground market website operational between 2011 and 2014

silo, siloed (v.)

silo, silos (n.)

SIM card (n.)

Simple object access protocol (SOAP)

Single sign-on (SSO)

site map (n.)

sinkholing (n.)

sink-to-source analysis (n.)

Siri
Apple AI

Six Sigma

skeuomorph (n.)
Modern feature that is styled to look like an older, physical version

skill set (n.)

SLAAC attack (n.)
Stateless Address Autoconfiguration

Slack
Chat cllient – electron app

slash or /

slideshow (n.)

SLO (n.)
Service-level objective

slug (n.)

S/MIME
Public encryption key standard for MIME data

smartglasses (n.)

smart lock (n.)
Generic term for an IoT lock

smartphone (n.)
Internet-enabled phone

smart safe (n.)
The not so smart safe, easily. The dry run for DefCon was held at HeatSync labs, a makerspace in Mesa, Arizona.

SMS
Short message service

SMTP server
Simple Mail Transfer Protocol

SMURF attack
DDoS

Smurfette
1. Female smurf character created from evil character, Gargamel
2. Unwanted character in our community pushing code of conduct enforcement

Snapchat

sniff (v.)
To monitor and capture data packets

snippet (n.)
Amount of quoted code
With formal writing, use “a code excerpt”

SNMP
Simple network management protocol

SNMPwalk
Network monitoring tool

Snyk
Open source security tools company
Pronounced “sneak” or “snick”

S/O or s/o
Shout out

SOA
1. Start of Authority (SOA)
2. Service-oriented architecture (SOA)
Full text for first use.
Example: Start of Authority (SOA)

social engineering (n.)

social media (n.)

Social Security number (SSN) (n.)

sockets (n.)

SOCKS
Socket Secure protocol

Sofacy
A hacking group also known as APT28 or Fancy bear

soft skills (n.)
communication skills

soft token (n.)

software (n.)

Software as a service (SaaS)
Pronounced “sass”

Software-Defined Networking (SDN)

Software-Defined Radio (SDR)

Software Freedom Conservancy (SFC)
This nonprofit organization allegedly rejected assisting cURL in 2019, allegedly stating SFC did not have the bandwidth to support cURL. This led to projects turning to the Open Collective and independent assistance instead, among other reasons.

Software Freedom Law Center (SFLC)
Provides legal representation and other law related services to protect and advance Free and Open Source Software. Eben Moglen launched this center in 2005.

software piracy (n.)

solid state disk (SSD)

solid state drive (SSD)

source code (n.)

sources

SOX
Sarbanes Oxley

spacebar (n.)

spacetime (n.)

SpaceX

spam (v. or n.)

spear-phishing (n. or v.)
Tailored phishing attacks that are aimed at a specific target

-specific (adj.)

Spectre
A flaw that affects Intel, AMD, and ARM

speedrun, speedrunning (n.)

SpEL
Spring Expression Language

spellcheck (v.), spell check (n.)
Check spelling
The action of checking the spelling
The tool is not a “spellchecker”

sphere of control (n.)

spider (v.)

splash page (n.)

split tunneling (n.)

Splunk
Security tool, a SIEM

spoof (v. or n.)
To create a fraudulent, attacker-controlled replica of legitimate data

sprint (n.)

spyware (n.)

SQL
Pronounce as “sequel” or as letters “SQL”

SQLi
SQL injection application vulnerability
Pronounce the phrase or “sequel-eye”

sqlmap
Tool that finds and exploits SQL injections

Square Cash
Mobile payment service

Squarespace

Squid
web proxy

SSDLC
Secure software development lifecycle.

SSHD
Solid state hybrid drive. Spell out on first

SSH port (n.)
Secure Shell port
Standard is 22

SSRF
Server-side request forgery.

SSI
Server Side Includes

SSL/TLS
Security protocols. Secure Sockets Layer/Transport Layer Security

SSN
Social Security number. Don’t capitalize “number.” Spell out with first use

stack trace (n.)

stack canaries (n.)

staff augmentation (n.)

stakeholder (n.)

start up (v.), startup (adj. or n.)

stateful (adj.)
FTP is a stateful protocol

stateless (adj.)
HTTP is a stateless protocol

Statement of Work (SOW) (n.)

status, statuses (n.)

STEAM
Science, technology, engineering, arts, and math

Steam
A video game distribution platform

steganography (n.)
A strategy of hiding information in an image or audio

STEM
Science, technology, engineering, and math.

sticky cookie (n.)

Stingray
A surveillance tool that appears as a Wi-Fi network but actually takes information from the devices that connect to it.

STIX
Structured Threat Information Expression.As in “stageless Meterpreter payload”

stockholder (n.)

subreddit (n. or v.)

STP
Spanning Tree Protocol

stream, streaming (n. or v.)

The Streisand Effect
Effect states that requesting the internet to not do something will cause the internet to deliberately do that thing more
string literal (n.)

System center configuration manager (SCCM)

su
change user ID or become superuser

Subject matter experts (SMEs)

subvert (v.)

sudo
Execute a command as another user

sudoers (n.)
File to allocate system rights

sunset (v.)
Corporate jargon for planned phasing out.

superclasses (n.)

subdirectory (n.)

subdomain (n.)

SuperHappyDevHouse (SHDH)
Type of hackathon party

subkey (n.)

subnet (n.)

subreddit (n.)

subsection (n.)

superuser (n.)

surveillance software (n.)

subsystems (n.)

SVN
Subversion command line tool
Subversion is a version control system, which allows you to keep old versions of files (usually source code), keep a log of who, when, and why changes occurred, etc., like CVS, RCS or SCCS. Subversion keeps a single copy of the master sources. Karl Fogel, original developer.

Swagger

Open source software framework and tools to build, design, and document APIs

sweepstakes (n.)

Sweet32 attack (n.)
Birthday attack on block ciphers in TLS and OpenVPN

SWF file, .swf file
Legacy Flash file format. Pronounced “swiff.”

swung dash
~

Symfony
PHP framework

sync (n. or v.), syncing (v. or adj.)

sysadmin user (n.)

syslog server (n.)

System on chip (SoC)

systematically (adv.)

systemic (adj.), systemically (adv.)

T

table-top modeling (n.)

Tactics, techniques, and procedures (TTP, TTPs)
Used during threat modeling exercises

tag stripping (n.)

tailgating (n.)
Entering a secure area by tagging along with someone who has proper credentials

tailor (v.)

tail of the file (n.)
Last 10 lines of a file.

take over (v.), takeover (n.)
Attacker could take over the system

target, target system (n.)

tarpitting (n.)
Deliberate slowdown of a network to contain or deter an attack

TCP/IP
Transmission control protocol/internet protocol
Wired Style calls this “the mother tongue of the internet”

tech-savvy (adj.)
Technical point of contact (T-POC)
Pronounced “tee-pock”

TEE model (n.)
Short for Trusted Execution Environment
Co-processor on ARM (found on Android)

telemetrics
Used to collect data on running operating systems like Clear Linux

telemetry
Automatic transmission of data collection

Telemetry API

telephony pen testing (n.)

teleprompter (n.)

telnet
1. protocol
2. user interface for interaction with another host using telnet
   port 23

terminate (v.)
To end or close, as in a program

test bed (n.)

text box (n.)

text message (n.)

tgrep

thick client (n.)
Computer providing rich functionality independent of the server

thick usb (n.)
Live persistent USB storing configurations and data. GNU Essentials Products.

threats (n.)
Security threat categories include: competitor, hacktivist, insider, dealer, nation state, and third-party integrator.

third party (n.), third-party (adj.)

threat hunting (n.)
Defensive security.

threat modeling (n.)
Exercises running through risk assessment procedures or incident response (IR) plans

The Three Laws of Robotics
Written by Isaac Asimov

they
Use singular they for humans
Do not personify items

throughout

throughput (n.)
Total amount of data transmitted over a link per unit of time

throw
Transfer control from try to catch
When an exception or unwanted event (bad network connection, poor input, missing file) occurs

throws
Exception handling with out try and catch

tilde (n.)
~ Swung dash
126 in ASCII

tilde enumeration (n.)

time-boxed (adj.)

timeframe (n.)

time-lapse (adj.)

TKIP
Temporal Key Integrity Protocol Encryption protocol
Do not spell out

TLAs (n.)
Three-letter agencies
Refers to government

TLD, TLDs (n.)
Top-level domain. Spell out with first use

tl;dr or TL;DR
“Too long; didn’t read”

TLS
Transport Layer Security.
Cryptographic protocol
Replacement for Secure Sockets Layer (SSL)

Time to detection (TTD)
Software issue occurring between condition check and results of the check

timeline (n.)

timeout (n.), time out (v.)

timestamp (n.)

time zone (n.)

TOCTOU bug
Short for “time of check to time of use.”

tokens (n.)

tokenization (n.)

toolbar (n.)

toolchain (n.)

Tor, TOR
The Onion Router projects
Privacy-focused web browser
Controversial. 2016, board replaced and in 2020 during coronavirus 13 core team let go. 22 remain

torrent (n.)

Torx
Hexalobular screwdriver head shape

TOTP
Time-based One-time Password

touchpad (n.)

touchscreen (n. or adj.)

traceback (adj. or n.)

trapdoor (n.)

trend line (n.)

triage (n. or v.)

trick (v.)

trigger (v.)

trim range, trim value (n.)

Trisquel
Free GNU Linux distribution
Ubuntu based

trivial (adj.)

trojan (n.)
Malware that masquerades as something legitimate

troll (n. or v.), trolling (n.)

troubleshoot (v.)

TrueCrypt

trust boundary (n.)

try-catch block (n.)

Tumblr

Turing test
Alan Turing, computer scientist, developed this test to establish whether the actions were from a machine exhibiting artificial intelligence or a human

Turla
Hacking group also known as Snake or Uroburos

TW
1. Trigger warning
2. Technical writer
Spell out with first use

tweet (v. or n.)

Twitter
Microblogging website

Twitterstorm

two-factor authentication (2FA) or (TFA)

typosquatting (n.)
URL hijacking, using typo possibilities

U

UDP
User Datagram Protocol
Faster, More Lossy alternative to TCP

UGT
Universal Greeting Time

UI (n.)
User Interface

uncanny valley (n.)
The disturbing nightmare gap between semi-realistic artificial faces and actual living humans

uncredentialed (adj.)

unicorn (n.)
1. Corporate jargon for a successful startup
2. One of a kind contributor

Uninterruptible power supply (UPS)

Unix or UNIX
Multi-user, portable operating system
Bell Labs development by Ken Thompson, Dennis Richie and others
Pronounced “you-nicks”

UNIX philosophy
- hierarchical filesystem
- plaintext
- devices as files
- use of pipes and cli

unpickling (n.)
In Python, the process of taking something out of serialization

The Unreal Engine

unremediated (adj.)

unsanitized (adj.)
Security checks were not performed
Typically pertains to user-supplied data.
“Sanitized” data is safe for an application to ingest, whereas unsanitized data may not be.

unserialize (v.), unserialized (adj.)

Untwister
Tool that predicts random numbers from insecure algorithms

unvalidated vs. invalidated

upload (v. or n.)
Send information, data or files up to the server

uppercase (adj. or v.)

uptime (n.)
Time the computer has been running
Command “uptime” can be used for running state information

up-to-date (adj.)

upvote (v. or n.)

URI, URIs
Uniform/Universal Resource Identifier
URLs and URNs are subsets of URIs

URL, URLs

Uniform/Universal Resource Locator

URN, URNs
Uniform/Universal Resource Name.
Pronounced as letters

USB drive (n.)
Universal Serial Bus
Storage device that connects via USB

USB Rubber Ducky
Keyboard HID that automates keystrokes

Usenet
Bulletin board system that preceded the modern Internet and still exists

user base (n.)

URL-encoded (adj.), URL encoding (n.)

URL shortener, URL-shortening (n.)

User experience (UX)

usernames (n.)

user-supplied (adj.)

UTF-8
A Unicode character encoding.
Pronounced as letters with the number 8 “UTF8”

V

values (n.)

Vault

vendor (n.)

Vendor security assessment (VSA)

Venmo
Mobile payment service

version numbers (n.)

verbose (adj.)
Verbose logs, banners, and error messages reveal more information about underlying structures to users than is necessary.

verb tunneling (n.)

VGA
Video graphics arrayvictim (n.)

videoconferencing (n. or adj.)

video games (n.)

vim, Vim
Vi Improved Text editor, often preinstalled in a distro, Upwards compatible to Vi
2019 high-severity bug allowing remote attackers to execute arbitrary OS commands using vim

Vimeo
Video-sharing company

viral (adj.)
Rapidly popular, especially online.

Virtual desktop infrastructure (VDI)

virtual reality (VR) (n.)

virus (n.)

VLAN
Virtual local area network
Pronounced “vee-lan”

vlog (n. or v.)
Video blog
Example: The ignorant marketing intern asked the veteran advocate, who fought for our right to blog, if she knew what a vlog was - while requesting use of the camera equipment.

VM
Virtual machine

VMware
Virtualization and other products/services
Controversial.
Sued by Hellwig for GPL violation.
The case was dismissed and did not win appeal in Germany.

VNC, vnc server, vnc client
Virtual Network computing
Often vulnerabilities exist including remote code execution on the client

Many vnc providers charge a fee as well
Some VNC server login in the background as noted when using Raspberry Pi default vnc - which is free but ...at what cost?

voicemail (n.)

VoIP
Voice over Internet Protocol
Pronounced “voyp”

VPC
Virtual private cloud

VPN
Virtual private network

VPS
Virtual private server

VR
Virtual reality

vulnerable (adj.)

vulnerability or vuln (n.)
Any condition, configuration, or state that increases an asset’s logical, informational, or physical exposure to loss of availability, integrity, or confidentiality
Vuln is informal

Vulnerability Lifecycle Management (VLCM)

vulnerability scan (n.)
Assessment of a target using vulnerability-scanning tools to detect security weaknesses

vulnerability scanner (n.)

W

WAF, WAFs
Web application firewall
Pronounced as “waff”

WAN
Wide area network.

WannaCry
May 2017 Ransomware attack

war-dialing (n.)

war-driving (n.)
Attempting to find an open network while either driving or as a passenger in a moving vehicle

-ware (n.)
Always close -ware compounds.
middleware, vaporware, VMware,

warez
Slang for wares

WarioWare

WarGames
1983 movie about a NORAD AI playing thermonuclear war.

war gaming (n.)
Also known as threat modeling or table-top

watch list (n.)

watermark (n. or v.)

Watson
An IBM productized question-answering AI,famous for winning Jeopardy!

Wayland
Display server protocol. Display server using this protocol is called the compositor. See Weston. The goal of this project is to replace X.

Web 2.0

WebDAV
Web Distributed Authoring and Versioning.

web app (n.)

web application (n.)

web-based (adj.)

web directory (n.)

web forum (n.)

webhooks (n.)
User-defined HTTP callbacks

webinar (n.)

Weboob
Web Outside of Browsers
“Weboob is a collection of applications able to interact with websites, without requiring the user to open them in a browser. It also provides well-defined APIs to talk to websites lacking one.”

Controversy over the the rejection of this project by the Debian project because of the name only.

web browser or browser (n.)

the web (n.)

website or site (n.)

webcam (n.)

webcomic (n.)

web console (n.)

web page (n.)

web proxy (n.)

web root (n.)

web server (n.)

webshell (n.)

WebSocket, WebSocket Protocol

webtree or web tree (n.)
Use “directory structure” instead

WebView
Android system component
Easily create web apps linked to a website
WebSphere
IBM product

WeChat
Popular Chinese chat app also known as Weixin (微信)

weeklong (adj.)

Weibo
Chinese microblogging site.
well-formed (adj.)

WEP
Wired Equivalent Privacy. A wireless network encryption protocol

Weston

wget
The non-interactive network downloader
Pronounced “W-get”

WhatsApp
Messaging app

white-box testing (n.)

white hat (n.)

whitelist (v.), white list (n.)

whitepaper (n.)

white space (n.)

whole disk encryption (n.)

whoami
Command to identify the user

whois command, WHOIS database (n.)
Query protocol

-wide (adj.)

widescreen (n. or adj.)

widgets (n.)

Wi-Fi
According to the Wi-Fi Alliance, Wi-Fi does not represent wireless fidelity
Preferred spelling is Wi-Fi

wiki (n.)
Collaborative, editable hypertext site

WikiLeaks
Similar to Cryptome, released documents

Wikipedia
User-curated online encyclopedia
Startedd as Nu-pedia

wildcard(s) (n.)
1. characters - text
Example: *
2. characters - human
Example: The unexpected and underestimated chixor was considered the wildcard.

Wine
Wine Is Not an Emulator
Software emulator for proprietary systems – emulates Windows programs

wiretap (n. or v.)

Wireless intrusion detection system (WIDS)

woot or w00t
We officially own them!
Joyous internet exclamation

WOPR
Fictional NORAD AI featured in the 1983 movie WarGames. Pronounced “wopper.”

WordPress

word processor (n.)

workflow (n.)

word list (n.)
Always can be edited in the future
A list of words

work stream (n.)

world-readable (adj.)
Describes files or directories that any user has read permissions

world-writable (adj.)
Describes files or directories that any user has write permissions

WPA, WPA2
Wi-Fi Protected Access. Wireless network Security protocols. Do not spell out.

write-only (adj.)

write
r-**w**-x
Write permissions are granted based on user or group permissions

wireless signal bleed (n.)

write out (v.)

WSDL file, .wsdl file
Web services description language
Describes enpoints for messages

Used with XML
Pronounced “wazz-dull”

wireshark
Interactively dump and analyze network traffic
GUI network protocol analyzer
Live or saved capture file

WWDC
Worldwide Developers Conference. An annual Apple conference in the Bay Area.

www
The World Wide Web

WYSIWYG
Short for “what you see is what you get.”
Pronounced “wizzy-wig.” Informal.

X

X.509
Certificate for internet protocols

x86

Xbox
Windows gaming

xDedic
RDP tool

XF86Config
XFree86 configuration file used by X server to set config parameters for font paths, keyboard, mouse, monitors, video card, etc. Often needed to be updated after adding new hardware.

X
X Window System
X Version 11
X Window System, Version 11
X11
X.org Foundation requests the above names when referring to the software.

Never X Windows!
A portable, network-transparent window system
Trademark Open Group

XML file, .xml file
extensible markup language

XMLHttpRequest (XHR)
API

XOR cipher (n.)
Additive cipher
Pronounced “exor”

XOR
Exclusive Or

X org

XScreenSaver
Extensible screen saver and screen locking framework

“A collection of free screen savers for X11, macOS, iOS and Android” by jwz and others.

Controversy over updated version not supported by Debian nicely solved by jwz innovative update. Indicative of the evolving culture of the Debian project and attitudes restricting updates to mainly “bug driven” development.

XSL
extensible stylesheet language

XSS
XSS is short for cross-site scripting.
Pronounced as letters or spoken as the whole phrase

Y

YA
Yet Another

YAML
YAML Ain’t Markup Language

“YAML is a full featured data serialization language and thus has its own terminology” - yaml man page

YAWAST
Tool used during security assessments

years (n.)

Yemen Cyber Army
Hacking group that may be Iranian

YML file, .yml file

YouTube, YouTube Red
Google currently owns YouTube

YubiKey
Hardware authentication device
Pronounced “you-bee-key”

YUM
GNU Linux software update mechanism
Yellowdog Updater Modified

Z

zero-day (n. or adj.)
Unknown vulnerability not yet released to the public but exploited by hackers

Corporations have been known to request users quietly report vulnerabilities separate from issues.

Lack of transparency can create cultural issues. In one case, BSD developers patched a vulnerability and released the patch prior to a corp releasing public information the vulnerability even existed.

zero growth model (n.)

zfs
Configures ZFS file systems
Pooled storage, usually across multiple drives
Controversy – licenses
https://ubuntu.com/blog/zfs-licensing-and-linux

ZIP archive (n.)

zip file
File format extracted using unzip or another tool

zip bomb (n.)

ZIP code (n.)

EPILOGUE
Muphry’s Law

Murphy’s Law says that anything that can go wrong will go wrong. Muphry’s Law is an intentional misspelling of Murphy’s Law that applies this buttered-side-down pessimism to writing and editing. Part of the law states that “any book devoted to editing or style will be internally
inconsistent.”

If you find errors in this guide, have ideas to improve the next version, please visit the wiki at:

https://gnulinux.io

“Be consistent, some of the time” - aicra

Version 1.1
August 2020

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