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Name Here

2023

目 次

第1章　ページのカスタマイズ

1.1　最初のセクション

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ページ番号をつけたり、ヘッダー部分に章のタイトルを表示させたりすることもできます。

また、目次は注釈、図表はハイパーリンクとなっています。

[1] これは脚注です。

第2章　画像などの挿入

2.1　PNG・JPG 画像の挿入

このようにして PNG 画像を挿入できます。

図 2.1: 挿入された PNG 画像

これはパソコンを使っている人のイラストです。
また、JPG 画像も挿入できます。

図 2.2: 挿入された JPG 画像

これは子猫です。

2.2 SVG 画像の挿入

ことなるパッケージを使うと SVG 画像も挿入できます。

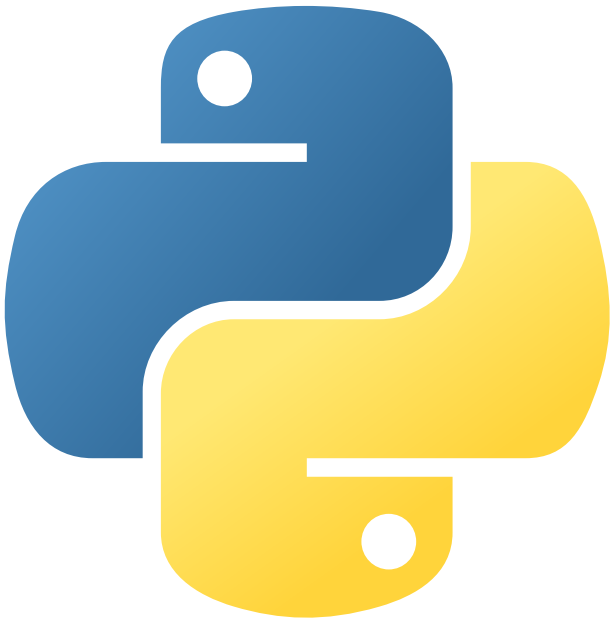
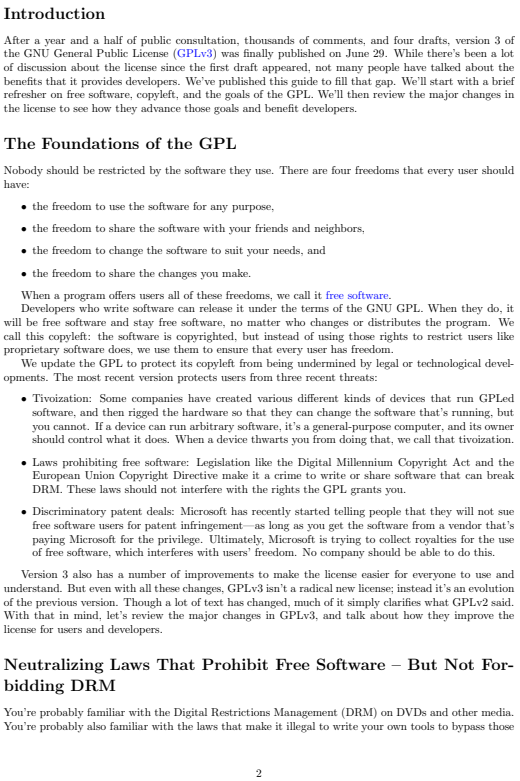


図 2.3: 挿入された SVG 画像

これは Python のロゴです。

2.3 PDF 画像の挿入

PDF 画像変換せずとも挿入できます。



Introduction

After a year and a half of public consultation, thousands of comments, and four drafts, version 3 of the GNU General Public License (GPLv3) was finally published on June 29. While there's been a lot of discussion about the license since the first draft appeared, not many people have talked about the benefits that it provides developers. We've published this guide to fill that gap. We'll start with a brief refresher on free software, copyleft, and the goals of the GPL. We'll then review the major changes in the license to see how they advance those goals and benefit developers.

The Foundations of the GPL

Nobody should be restricted by the software they use. There are four freedoms that every user should have:

- the freedom to use the software for any purpose,
- the freedom to share the software with your friends and neighbors,
- the freedom to change the software to suit your needs, and
- the freedom to share the changes you make.

When a program offers users all of these freedoms, we call it free software.

Developers who write software can release it under the terms of the GNU GPL. When they do, it will be free software and stay free software, no matter who changes or distributes the program. We call this copyleft: the software is copyrighted, but instead of using those rights to restrict users like proprietary software does, we use them to ensure that every user has freedom.

We update the GPL to protect its copyleft from being undermined by legal or technological developments. The most recent version protects users from three recent threats:

- Tivoization: Some companies have created various different kinds of devices that run GPLed software, and then rigged the hardware so that they can change the software that's running, but you cannot. If a device can run arbitrary software, it's a general-purpose computer, and its owner should control what it does. When a device thwarts you from doing that, we call that tivoization.
- Laws prohibiting free software: Legislation like the Digital Millennium Copyright Act and the European Union Copyright Directive make it a crime to write or share software that can break DRM. These laws should not interfere with the rights the GPL grants you.
- Discriminatory patent deals: Microsoft has recently started telling people that they will not sue free software users for patent infringement—as long as you get the software from a vendor that's paying Microsoft for the privilege. Ultimately, Microsoft is trying to collect royalties for the use of free software, which interferes with users' freedom. No company should be able to do this.

Version 3 also has a number of improvements to make the license easier for everyone to use and understand. But even with all these changes, GPLv3 isn't a radical new license; instead it's an evolution of the previous version. Though a lot of text has changed, much of it simply clarifies what GPLv2 said. With that in mind, let's review the major changes in GPLv3, and talk about how they improve the license for users and developers.

Neutralizing Laws That Prohibit Free Software – But Not Forbidding DRM

You're probably familiar with the Digital Restrictions Management (DRM) on DVDs and other media. You're probably also familiar with the laws that make it illegal to write your own tools to bypass those

2

図 2.4: 挿入された PDF 画像

2.4 表の挿入

表も挿入できます。

名前	1 回目	2 回目	3 回目	4 回目	平均
田中	100	90	80	70	85
鈴木	80	70	60	50	65
佐藤	60	50	40	30	45

表 2.1: Latex で表を作る

表 2.1 は Latex で作成した表です。

第3章　数式

LaTeX では数式を簡単に挿入できます。

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi} \tag{3.1}$$

また、複数の数式を並べて書くこともできます。

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi} \tag{3.2}$$

$$\int_{-\infty}^{\infty} x^2 e^{-x^2} dx = \frac{\sqrt{\pi}}{2} \tag{3.3}$$

$$\int_{-\infty}^{\infty} x^4 e^{-x^2} dx = \frac{3\sqrt{\pi}}{4} \tag{3.4}$$

*をつけると番号をつけないこともできます。

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi}$$

$$\int_{-\infty}^{\infty} x^2 e^{-x^2} dx = \frac{\sqrt{\pi}}{2}$$

$$\int_{-\infty}^{\infty} x^4 e^{-x^2} dx = \frac{3\sqrt{\pi}}{4}$$

たくさん並べて一つだけに番号をつけることもできます。

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi}$$

$$\int_{-\infty}^{\infty} x^2 e^{-x^2} dx = \frac{\sqrt{\pi}}{2}$$

$$\int_{-\infty}^{\infty} x^4 e^{-x^2} dx = \frac{3\sqrt{\pi}}{4} \tag{3.5}$$

特殊な記号を使うことも可能です。

$$\mathbb{N} \subset \mathbb{Z} \subset \mathbb{Q} \subset \mathbb{R} \subset \mathbb{C} \tag{3.6}$$

物理関連の記号も使えます。

$$\mathcal{L} = T - V, \quad \mathcal{H} = T + V, \quad \hbar = \frac{h}{2\pi} \tag{3.7}$$

単位については、si コマンドを使うと簡単に書けます。

$$1\,\mathrm{kg\,m/s^2} = 1\,\mathrm{N} \tag{3.8}$$

$$\frac{\partial f}{\partial x} \tag{3.9}$$

$$\hat{\mathbf{x}} \tag{3.10}$$

$$\langle a|\,,|b\rangle\,,\langle a|b\rangle \tag{3.11}$$

cancel を使うと、数式の中の項を打ち消すことができます。

$$\begin{aligned}\Sigma_{k=0}^{n}\left(\frac{1}{k}-\frac{1}{k+1}\right) &= 1-\cancel{\frac{1}{2}}+\cancel{\frac{1}{2}}-\cancel{\frac{1}{3}}+\cancel{\frac{1}{3}}-\cancel{\frac{1}{4}}+\cdots \\ &= 1-\frac{1}{n+1}=\frac{n}{n+1}\end{aligned}$$

tcolorbox を使うと、数式をハイライトして強調することができます。

$$\int_{-\infty}^{\infty} e^{-x^2}dx = \sqrt{\pi} \tag{3.12}$$

第4章　テキスト

ローマ字での箇条書きは以下のように書けます。

i これは1番目の項目です。

ii これは2番目の項目です。

第5章　環境

tcolorbox を用いて環境を作成することができます。

定理 5.0.1: ガウス積分

みんな大好きガウス積分

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi} \tag{5.1}$$

∵　証明を書くところ

命題 5.0.1: とある命題

これは命題です。

系 5.0.1: とある系

これは系です。

∵　とある系の証明

補題 5.0.1: とある補題

これは補題です。

∵　とある補題の証明

定義 5.0.1: とある定義

これは定義です。

とある定義の説明であったり例であったり、いろいろ書くところ

例 5.0.1: とある例

これは例題です。

解法:
例題の解法を書くところ

これは警告です。最大限の注意を払ってください。

疑問点。わからんこと