

## The story of a silly package

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### Abstract

In this article, Paulo and Phelype recollect the untold story of two friends writing a silly package just for the fun of it. The story, however, takes a turn when the T<sub>E</sub>X community decides to embrace silliness. You are invited to gather around to learn about T<sub>E</sub>X, friendship, community, silly walks, and, of course, the air speed velocity of an unladen swallow.

### 1 A silly introduction

The story begins with two friends, Phelype and Paulo, talking about random things, as usual. At a certain point, the conversation shifted to flipbooks. You probably know what a flipbook is — even if the name does not ring a bell at all, you most certainly have seen one in action.

A *flipbook* is a booklet with a series of images that very gradually change from one page to the next, so that when the pages are viewed in quick succession, the images appear to animate by simulating motion or some other change. These images are typically placed at page corners.

What if they implement such concept in T<sub>E</sub>X? Granted, it is not a novel idea, but it is definitely a new use case of how powerful and expressive T<sub>E</sub>X is. And it could bring a lot of fun too!<sup>1</sup>

Of course, Phelype and Paulo were thrilled with the idea of having a T<sub>E</sub>X implementation of a flipbook. It should be simple enough, as they could exploit the document page numbering to achieve the desired visual effect. But they definitely needed way more than just a good plan: they needed an actual series of images to be animated.

### 2 A silly brainstorming

The two friends had lots of ideas, but they all lacked the sort of expressiveness principle Phelype and Paulo were looking for. If this package was supposed to reach an international audience just counting on a series of images, the visual message should be easily identified and understood regardless of language or any other cultural aspect.

They needed something... completely different. And, unsurprisingly, they found it in an emblematic sketch from Monty Python's Flying Circus.

For those unfamiliar with the name, *Monty Python's Flying Circus* was a British sketch comedy

series created by and starring Graham Chapman, John Cleese, Eric Idle, Terry Jones, Michael Palin and Terry Gilliam. They relied on a form of a humour called *surreal*, which is based on deliberate violations of causal reasoning, thus producing events and behaviours that are obviously illogical.

The sketch that inspired the two friends is named *The Ministry of Silly Walks*, first aired on September 15, 1970. The sketch, as originally depicted in the series, begins with John Cleese playing Mr. Teabag, a civil servant who, after purchasing *The Times* from the newsagent in the previous sketch, walks through the streets of London (at the crossing of Thorpebank Road and Dunraven Road) in a very peculiar manner. He eventually arrives at his place of business: *The Ministry of Silly Walks*, on the northern end of Whitehall. In the hallway, he passes other employees all exhibiting their own silly walks before arriving at his office. Once there, he finds Mr. Putey (portrayed by Michael Palin) waiting for him and apologizes for the delay, explaining that his walk has become particularly silly of late and it takes longer for him to reach his destination.

On January 7, the *International Day of Silly Walks* is celebrated around the world by all loyal fans of Monty Python's Flying Circus. In the Czech city of Brno, a *Silly Walk City March* is held annually since 2012.

### 3 A silly implementation

So far they had a great, if not the greatest, idea for a package, but they were still in need of proper assets. Thankfully, the Wikipedia entry for *The Ministry of Silly Walks* had a chart on silly walk gaits with instructions, done by Jazeen Hollings under a Creative Commons CC BY-SA (attribution / share alike) 3.0 license. At least they had something to get started.

Instead of having 12 independent image files — one for each step in the silly walk gait chart — Phelype and Paulo decided to use a sprite sheet instead. *Sprite sheet* is the name of a big image containing several smaller images or icons. It is a technique employed by designers to reduce the number of requests the browser makes to the server — reducing the number of such requests could make a web page load faster. This technique is also used in animation engines.

They ended up with a silly walk stripe with 12 blocks, each block (a 48-pixel square) containing an image corresponding to a step in the silly walk gait chart. The implementation was straightforward: they simply had to map page numbers to their corresponding blocks, in a circular fashion.

<sup>1</sup> Editor's note: A cousin to the flipbooks idea appeared in William Adams' article "There is no end: Omega and Zapfino", *TUGboat* 24:2, pp.183–199, [tug.org/TUGboat/tb24-2/tb77adams.pdf](http://tug.org/TUGboat/tb24-2/tb77adams.pdf).

The package had to have a name, and the choice was clear. Since the package provided John Cleese's iconic silly walk routine as a page numbering style, they named it `sillypage`, of course.

### 3.1 Version 1.0

Version 1.0 was ready! The package documentation was perhaps far too terse, but that did not stop Phelype and Paulo from sending it to CTAN on January 10, 2022.

This version, however, was not fully compliant with CTAN guidelines. To name a few, they missed a top level folder hierarchy, a proper `README` and an actual example. Thankfully, Petra R. was amazing in helping them shape a new version. Her feedback was fantastic!

Besides working on the issues reported by CTAN, Phelype and Paulo enhanced the documentation a bit, included a new macro to provide the silly walk routine step and added an example. Phelype walked the extra mile and made the package fully compliant with the  $\LaTeX$ 3 build system for build and test purposes. Version 1.1 was ready!

### 3.2 Version 1.1

Phelype and Paulo sent this new version to CTAN on the same day of the previous version, January 10. This time, there were no issues reported from CTAN's side. In one or two days, barring any unforeseen events, this little package would hit  $\TeX$  distributions.

In the meantime, they started working on a new version of our package.

### 3.3 Version 1.2

Version 1.2 had improved documentation to better explain the background and implementation details. On January 11, they were ready to send it to CTAN! For whatever reason, Paulo had to postpone the update to the next day, and it proved to be a wise choice.

On January 12, the two friends got their first issue in the package repository. The culprit was a corrupted image file caused by a blip on the server side. They then took this opportunity to send version 1.2 to CTAN instead of repacking the previous one.

This time, the package was successfully deployed. Little did they know, their lives were about to be changed forever.

As Phelype and Paulo had quite a succession of updates in the span of a few days, version 1.2 was used for the official package announcement on January 13. Of course, they had to go silly on the announcement text as well.

Paulo then announced their package via an innocent tweet and decided to tag John Cleese. Needless to say, the  $\LaTeX$  corner of Twitter made it viral. People and companies joined the fun. Even the official TUG account announced our new package and tagged Cleese as well! DANTE and GUTenberg also spread the news.

Given the engagement and excitement around their package, Paulo was actually hoping for any comment or reply from John Cleese himself, the silly walk ultimate authority, at some point, but unfortunately that did not happen yet. Maybe he is not being annoyed sufficiently — more mentions on Twitter would definitely help!

On that same day, Paulo realised the community comments section of their package page on CTAN got a new entry. More importantly, he realised he could add a comment to our own package! Of course, Paulo wrote a very serious text.

A couple of days later, on January 16, samcarter wrote Paulo about a vector-based silly walk routine she just had created. Vector graphics are not composed of pixels as raster images, so they can be scaled to any size without losing quality. It was definitely a quantum leap from their current approach!

Phelype simplified the code to use a multipage PDF file containing the silly walk steps in vector format instead of the original single raster image. Version 1.3 was then sent to CTAN on January 20.

### 3.4 Version 1.3

Paulo opened an issue on that same day about a future improvement to their package. The silly walk animation was repeated over on a circular fashion, which was not ideal when unique page references had to be used, hence the need of support for a proper silly numeral system.

The next day, on January 21, Ulrike Fischer opened an issue with yet another improvement to their package, this time a code update to make it `hyperref`-friendly. Those two newly created issues were actually a good opportunity to work on a new version as soon as possible!

In the meantime, on January 22, CTAN published the package update announcement for version 1.3, which was released two days earlier. Of course, they had another serious text.

Paulo tweeted about it. The feedback was overwhelmingly positive. Apparently, the idea of having your own life-sized John Cleese-like silhouette cardboard in your living room is appealing to a significant number of  $\TeX$  users!

### 3.5 Version 1.4

Back to the package. Phelype rewrote the entire code using the  $\LaTeX$ 3 programming interface and added the silly numeral system and `hyperref` support. On February 2, version 1.4 was sent to CTAN, their latest and greatest version to date.

Incidentally, since samcarter and Ulrike greatly contributed to the package since the beginning, they were invited to join the team and, of course, the blame list.

Since this is a silly package, Phelype and Paulo added a few Monty Python references next to the author names in the documentation. Phelype's name has an explicit reference to a line that keeps popping up in one episode, Paulo's refers to a sketch about letter dictation woes, samcarter's points to the famous cheese shop sketch, and Ulrike's refers to another sketch where someone wants to learn how to fly an aeroplane.

The next day, on February 3, CTAN published the package update announcement for the latest version. Of course, as was by now a tradition, they had another serious text.

Paulo tweeted about it, making sure to tag John Cleese. Again, the feedback was overwhelmingly positive. People really enjoyed our silly package!

## 4 Silly things

Thanks to Phelype, the package was fully  $\LaTeX$ 3-compliant, so they decided to register the prefix. This registration is of course not compulsory but is encouraged. Paulo promptly contacted the  $\LaTeX$  project team and kindly asked them to add the `silly` prefix to the database under their care. Since this was an unusual and fun prefix, the  $\LaTeX$  team had some fun discussing its potential use in the kernel.

A couple of days later, samcarter wrote Paulo telling that we've made into pop culture. The Wikipedia article on *The Ministry of Silly Walks* has a section named *References in popular culture*. Apparently, someone thought their silly package was worth a mention in this section! Quite the achievement!

Frank Mittelbach is working on the third edition of *The  $\LaTeX$  Companion*, so Paulo decided to write to him. Frank agreed it was a good addition to the book and mentioned their package in one of the appendices!

In issue 45 of *La Lettre GUTenberg*, the editors used the silly page numbering on every verso page! Their description of the package is fantastic: *no one knows what this package is for*. What a jewel this issue is!

On June 24, during the summer DANTE meeting, samcarter presented a lightning talk about the silly package! It was a lot of fun, the attendees really liked it!

## 5 Silly interfaces

Using a silly package like this is quite straightforward. For starters, make sure to include it in your document preamble through `\usepackage{sillypage}`. Then write `\pagenumbering{silly}` somewhere in your document body to use our silly page numbering style.

You can also use the `\silly` macro on a  $\LaTeX$  counter to typeset the corresponding image for the value of that counter. It is worth mentioning that this particular macro is applied to counters and not to integers. The `\sillystep` macro, as the name implies, prints the provided step number from the sequence of steps. This macro works exactly like `\silly`, but on integers instead of counters.

For sillier documents, specially articles, theses and books, you can write

```
\pagenumbering{sillynumeral}
```

somewhere in your document to use a silly numeral system, in which each page will be converted to a unique composition of silly steps. Note that this macro differs from its `sillypage` style, as the former is a proper base 12 numeral system whereas the latter simply walks through a 12-cycle silly routine.

Finally, the `\sillynumeral` macro provides the silly numeral system representation from the provided integer value. Again, this is a proper base 12 numeral system. What a silly yet marvellous interface!

## 6 Silly remarks

To impress your supervisor, the authors highly recommend you to use this package in your thesis, print it and ask them to view those pages in quick succession, so the images appear to animate by simulating motion! It is known to work with thesis committees as well.

That's the story of how a silly package brought a smile to the  $\TeX$  community in these difficult times, warmed their hearts and made people have legitimate fun.

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