

# Embedding “GIFs” in Beamer Slides

## Memes for Fun, Profit, and Embarrassing Your Colleagues

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## Motivation

Why even bother with GIFs? GIFs are:

- ▶ Super Old-school
- ▶ Space-inefficient (you want 400MB presentations? This is how you get 400MB presentations.)
- ▶ Not particularly attractive
- ▶ Actually kind of a pain in the butt to do in L<sup>A</sup>T<sub>E</sub>X
- ▶ Guaranteed to be mentioned in your tenure file... I assume.

This seems like a bad idea. Are you sure?



I lied to you. That wasn't a GIF. (If you didn't notice already.)

Unfortunately, you can't really put a GIF directly into a PDF anymore. One used to be able to cram it into a PDF, open it in Acrobat Reader, then let an outboard player (like Flash Player) do the work. This is no longer an option. This is also, given the concerns on the previous slide, a "good thing".

### I Made a Huge Mistake

Since I haven't tried to put a GIF in a slideshow in years, I never realized things had changed before I promised this instructional document. I lied. I'm sorry. Or, blame the PDF standard-setters. Your call.

The good news is that you can still "embed" a "GIF", but there's a bit more legwork to it.

# But I want to make bad career choices!!!!

Ok. Suit yourself.

Grim Tigger @zumas · 10h  
@love1982 @jon\_m\_rob @RobertMaguire\_ @BrendanNyhan according to @abhworthington it can be done in beamer too.

John Lovett @love1982 · 10h  
@zumas @jon\_m\_rob @RobertMaguire\_ @BrendanNyhan @abhworthington

Alton BH Worthington @abhworthington · 9h  
@love1982 @zumas @jon\_m\_rob @RobertMaguire\_ @BrendanNyhan Does this mean I have to tweetstorm a tutorial? (Wigts, of course.)

Brendan Nyhan @BrendanNyhan · 25m  
@abhworthington @love1982 @zumas @jon\_m\_rob @RobertMaguire\_ I wanted to do it in beamer but didn't have time to figure out how! Send help!

Alton BH Worthington @abhworthington  
@BrendanNyhan @jlove1982 @zumas  
@jon\_m\_rob @RobertMaguire\_ Was going to make it condition on pronunciation of "gif", but...okay. Standby.

We all make mistakes.

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Grim Tigger (@zumas) 10h  
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Alton BH Worthington (@abhworthington) 9h  
@jlove1982 @zumas @jon\_m\_rob @RobertMaguire\_ @BrendanNyhan Does this mean I have to tweetstorm a tutorial? (With GIFs, of course.)

Brendan Nyhan (@BrendanNyhan) 25m  
@abhworthington @jlove1982 @zumas @jon\_m\_rob @RobertMaguire\_ I wanted to do it in beamer but didn't have time to figure out how to send help

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@BrendanNyhan @jlove1982 @zumas @jon\_m\_rob @RobertMaguire\_ Was going to make it conditional on pronunciation of "gif", but...okay. Standby.

We all make mistakes. I mean, I took the time to make a meta-beamer stack. If you're sure about this, proceed.

## Ingredients

Congratulations! You've decided to make memetics a pedagogical strategy. Here's what you need:

- ▶ A gif. Or gifs.
- ▶ [ImageMagick](#) (it's available for all OSes)
- ▶ Beamer
- ▶ A bit of time and a folder to hold everything - your GIF is going to become a series of frames
- ▶ Optional, but recommended: [coffee](#)

This is a beginner's guide, the "hello world" version of this process. I'll direct you to more documentation at the end of this stack.

## Step 1a: Acquire the Memes of Production

This should be self explanatory. Find a gif you like or which is relevant to your interests. Good candidates include:

- ▶ Cats
- ▶ Movies
- ▶ Famous people
- ▶ Relatable cartoons
- ▶ Internet esoterica

Shorter GIFs work better for this, but it's not a huge deal.

## Step 1b: Premium GIFs

If you can get multiple at once, you're in with a shot at a conference award. (Please share the award money.)

## Step 1c: Saving and Organizing

Once you've found your premium GIF material:

1. Create a folder somewhere convenient. (read: somewhere with a short filepath)
2. Save the GIF to that convenient location.
3. Prepare to break your GIF up.

## Step 2a: Breaking Up

GIFs are great, but they won't work as-is in beamer or in  $\text{\LaTeX}$ . You could convert it to a movie, but an easier route is to create images and animate it. You've got a few options:

- ▶ Various web services (that's between you and Google)
- ▶ GIMP or other image editing software
- ▶ or, my recommendation: [ImageMagick](#)

ImageMagick has a bit of a learning curve, but let's face it: You're using  $\text{\LaTeX}$ . You've got this.

## Step 2b: Download and Install ImageMagick

I use [ImageMagick](#) to convert a GIF into individual images. It does *a whole lot more*, but for today, we are just going to use it to convert the GIF into a stack of PNG images, which pdflatex finds easy to digest. First you have to download and install it! Once you've installed it, you operate it from a command line. The instructions give you a first walkthrough, but as a reminder:

- ▶ In Windows, go to the start menu and run “cmd.exe”
- ▶ In OSX, go to Applications → Utilities (or Spotlight) and launch terminal.
- ▶ If you are using any Linux/Unix, I trust you know what to do.

The next step is the only bit of command line messiness you need to deal with. Sorry. It's worth it, I promise.

## Step 2c: From GIF to PNG

## Step 3a: Animating in Beamer - Roll-your-own GIFs

If all has gone well, you'll look at your presentations like:

Your presentations are gonna be so great, your audience will:

Or, better yet:

Or, better yet:

(Those are the same files, btw. Just reversed the frame order. It's fun.)

## References/Additional Info

Thanks to:

