

Re: Difference between storing files on folder and in mysql db

Source: <http://coding.derkeiler.com/Archive/PHP/comp.lang.php/2008-01/msg00724.html>

- *From:* NC <nc@xxxxxxxxx>
 - *Date:* Wed, 9 Jan 2008 10:43:29 -0800 (PST)
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On Jan 8, 8:05 pm, Jerry Stuckle <jstuck...@xxxxxxxxxxxxxxxxx> wrote:

NC wrote:

The only significant difference is the DB server load. Since `` tags are not (yet?) commonly supported by browsers, you need a separate instance of an image display script (and a separate connection to the DB server) to display each image. So if your Web page has 100 images on it, it will require 101 nearly simultaneous connections to display itself and the images, as opposed to one connection if images were stored in the file system. Granted, image retrieval connections would be very short, but at high loads, this architecture would be patently inferior to disk-based alternative.

Not true. `` tags are handled identically by the client, whether the image comes from the database or the file system. The client doesn't know or care if the image is from a database or not.

The client doesn't indeed, but the DB server does. Let's say we have a script `img.php` (error handling omitted for brevity):

```
$id = (int) $_GET['id'];
mysql_connect('server', 'user', 'password');
mysql_select_db('images');
$result = mysql_query("SELECT imageData FROM images WHERE id = $id");
$record = mysql_fetch_row($result);
header('Content-type: image/jpeg');
echo record[0];
```

Let's further say that there is a script `index.php` that includes this fragment:

```
for ($i = 1; $i <= 100; $i++) {
echo "<img src='img.php?id=$i'>";
}
```

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So when index.php runs, it outputs 100 tags, so 100 instances of img.php are also run and each makes a connection to the DB server.

Please feel free to point out any errors in the above argument.

Also, if you use MyISAM tables, storing large images in them will bring you to the limit of table file size much more quickly. If your average image is 1 MB and your file system's maximum file size is 2 GB (there are still some older Linux servers whose file systems have this constraint), you will only be able to store about 2,000 images until your table exceeds the maximum allowed file size.

Few Linux implementations have a 2GB limit any more. Most are at least 4GB, and some implementations are much larger.

Yes, but it's an issue the OP needs to check on before commencing development.

Also, the typical image size is *much smaller* than 1MB.

Depends on where you are and what you do. The OP mentioned an "image competition", which could be an event where average image size is much LARGER than 1 MB. A digital photo shot by a professional (or even top-of-the line amateur) camera can easily be 10 MB, so can a piece of digital artwork or a magazine page layout.

Our company is starting an image-competition soon, and I am not sure if I should write the php script to insert the binary code into a mySQL database or if I should just store the files in a dedicated folder and the data about them in the mySQL database.

Large image sharing sites invariably stick to the second approach. Moreover, images may be stored on separate servers, optimized for serving static content.

An over-generalization. Many have images stored in the database itself.

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Please name one. I, meanwhile, will follow my own advice and do the same. In his book, "Building Scalable Web Sites", Cal Henderson, chief software architect of Flickr, describes Flickr's image storage facility (p.152): disk-based and redundant, with synchronous writes to primary storage and asynchronous writes to multiple backup storage locations.

Cheers,
NC

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