

I was interested in expanding Bonzo's speed tests to include MagickWand For PHP. Specifically I wanted to compare Imagick vs. MagickWandForPHP.

(Bonzo's speed tests - <http://www.rubblewebs.co.uk/imagemagick/notes/speed.php>)

I wasn't interested in comparing functionality (which differs between the two extensions) – I only wanted to know which one was faster.

At a superficial level MagickWandForPHP does very little before calling the IM API whereas Imagick has quite a lot of C code before the API is called. However Imagick interfaces with the Zend engine in PHP at a very low level. So one might expect that where one gains the other one loses & vice-versa.

The size/quality/etc of the image isn't important since both Imagick and MWforPHP use the same API. What I am interested in is the "interface" time.

Tests were also run using native "convert" and GD for control purposes.

Results:

Method	Average (s)	Speed compared to slowest
MagickWand - thumbnail using scale	0.197	1.39 x
MagickWand - thumbnail using resize	0.263	1.04 x
Imagick - thumbnail using scale	0.198	1.39 x
Imagick - thumbnail using resize	0.263	1.04 x
Imagick - thumbnail using thumbnailImage	0.268	1.02 x
convert -resize	0.274	1.00 x
convert -thumbnail	0.274	1.00 x
convert -thumbnail with jpg hint	0.078	3.51 x
GD - thumbnail using resize	0.230	1.19 x

Calling the binary program is generally the slowest as we would expect.

Both MagickWand for PHP and Imagick run in the same time.

"ScaleImage" is significantly faster than "ResizeImage" although this may not be true at all image sizes (e.g. larger image may give different results?)

In some cases calling the binary is approx the same time as using an extension. However when the jpg hint is used, exec(convert) is a whopping 3.5 x faster!

GD is generally faster than ImageMagick but then we expect that – we are using ImageMagick for its quality and functionality!

(And yes I ran the "convert -thumbnail with jpg hint" several times just to check the results were genuine!)

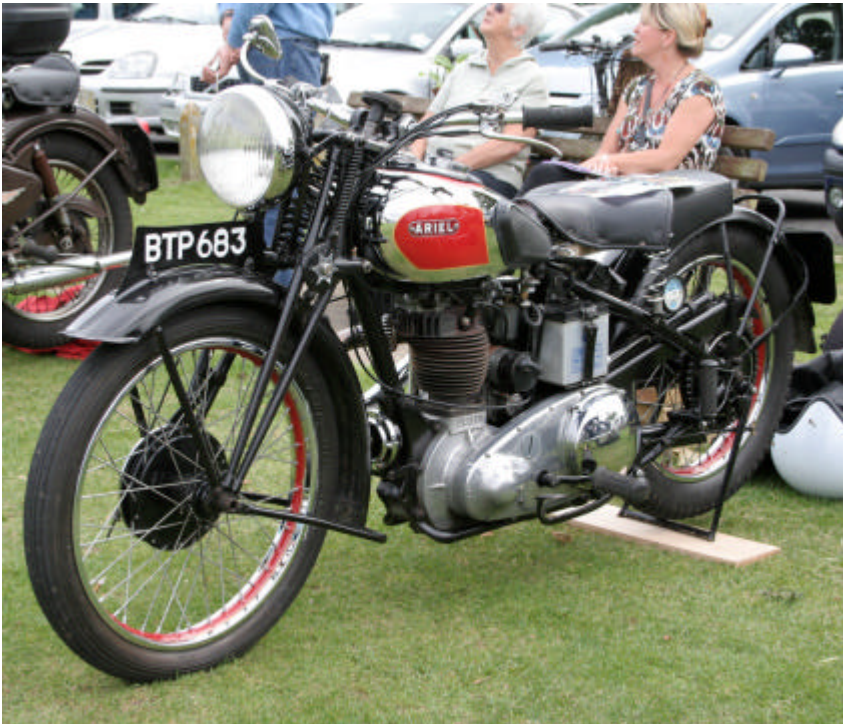
Question 1: what's the difference between ResizeImage and ScaleImage? I don't know – perhaps it uses a “simpler” filter? Further testing might be required to see if there is a difference in quality between the two methods.

Question 2: why is the “jpg hint” option to “convert” sooo much faster, and is there any way to use this option in MagickWand for PHP or Imagick?

Of course this is only one (very) restricted test, and may not be representative of overall performance, but it's the test in which I was interested.

Server config: Centos 5.4; Apache 2.1; PHP 5.2.12; ImageMagick 6.7.5-7; Imagick 3.1.0 RC1; MagickWandForPHP 1.0.8;

Test image: 1000 x 850, 474 KB



Tests were run 30 times consecutively; the slowest time was dropped and the other 29 averaged.

Test code was that used by Bonzo extended with code for MagickWandForPHP.

MagickWandForPHP - thumbnail using resizeimage

```
$resource = NewMagickWand();  
MagickReadImage($resource, $image);  
MagickResizeImage($resource, 200,200, MW_LanczosFilter, 1);  
MagickWriteImage( $resource, $output );  
DestroyMagickWand( $resource );
```

MagickWandForPHP - thumbnail using scaleimage

```
$resource = NewMagickWand();
```

```
MagickReadImage($resource, $image);
MagickScaleImage($resource, 200,200);
MagickWriteImage( $resource, $output );
DestroyMagickWand( $resource );
```

Imagick - thumbnail using resizeimage

```
$thumbnail = new Imagick( $image );
$thumbnail->resizeImage( 200,200, imagick::FILTER_LANCZOS, 1 );
$thumbnail->writeImage( $output );
unset($thumbnail);
```

Imagick - thumbnail using scaleimage

```
$thumbnail = new Imagick( $image );
$thumbnail->scaleImage( 200,200 );
$thumbnail->writeImage( $output );
unset($thumbnail);
```

Imagick - thumbnail using thumbnailImage

```
$thumbnail = new Imagick( $image );
$thumbnail->thumbnailImage( 200,200, 1 );
$thumbnail->writeImage( $output );
unset($thumbnail);
```

exec() Imagemagick –resize

```
exec("/usr/local/bin/convert $image -resize 200x200 $output ");
```

exec() Imagemagick –thumbnail

```
exec("/usr/local/bin/convert $image -thumbnail 200x200 $output ");
```

exec() Imagemagick –thumbnail with jpg hint

```
exec("/usr/local/bin/convert -define jpeg:size=200x200 $image -thumbnail 200x200 $output ");
```

GD - thumbnail using resize

```
$size = getimagesize( $image );
$thumb_width = "150";
$thumb_height = ( int )(( $thumb_width/$size[0] )*$size[1] );
$thumbnail = ImageCreateTrueColor( $thumb_width, $thumb_height );
$src_img = ImageCreateFromJPEG( $image );
ImageCopyResampled( $thumbnail, $src_img, 0, 0, 0, 0, $thumb_width, $thumb_height,
$size[0], $size[1] );
ImageJPEG( $thumbnail, $output );
ImageDestroy( $thumbnail );
```