

IMAGICK WITH HEIC (nginx/php)

This write up will cover building ImageMagick with HEIC support and also building pecl's imagick in order to bring that functionality into PHP for use in web applications. A lot of documentation that has been put out on this topic seems to be exclusive to Ubuntu and/or just totally misses the PHP portion. In addition, the RHEL based world just wants to push everyone to OS version 9. I just can't want to right at this moment. So, this write up will cover that hole.

For the sake of brevity, I have already written a document on installing **nginx** and **php**, in addition a document on installing **libheif**. Please work through those write ups before continuing through on this one. You may already have a loaded web server and if so, just make sure that you cover the **libheif** install. That install gets the components in place that we will need in order to make this next procedure go smoothly (*libheif holds the keys to heic*).

Here are links to the previous two documents:

- [NGINX / PHP / MARIADB INSTALL](#)
- [LIBHEIF INSTALL](#)

If all is well... here we go.

PECL: <https://pecl.php.net>

IMAGEMAGICK: <https://imagemagick.org> (**GIT:** <https://github.com/ImageMagick/ImageMagick>)

```
#!/usr/bin/env bash

WRKDIR="/opt"
CODECDIR="/opt/codecs"
IMDIR="/opt/imagick"

# ----- JUMP ON OVER TO OUR HAPPY PLACE -----

cd ${WRKDIR}

# ----- STOP WEB SERVICES -----
```

```
systemctl stop nginx php-fpm
```

```
# ----- MAKE A DIRECTORY AND PULL DOWN THE SOURCE FILES -----
```

```
IMK="3.7.0"
```

```
mkdir imagick && cd imagick
```

```
wget https://www.imagemagick.org/download/ImageMagick.tar.gz
```

```
wget https://pecl.php.net/get/imagick-${IMK}.tgz
```

Ok. I need to interrupt myself for a sec.

If ImageMagick and/or the php-pecl-imagick are installed, they need to **NOT** be anymore. Remove them if they are.

```
# ----- MOVE OUT OF IMAGICK DIRECTORY -----
```

```
cd ~
```

```
# ----- DNF REMOVE IMAGEMAGICK AND IMAGICK -----
```

```
dnf -y remove *ImageMagick* *imagick*
```

OK. If verified that the system is free and clear of those packages, then, back to the not so regularly scheduled program.

```
# ----- UNPACK THE PACKAGES -----
```

```
cd ${IMDIR}
```

```
tar xzf imagick-${IMK}.tgz
```

```
tar xzf ImageMagick.tar.gz
```

```
IM7=$(tar -tzf ImageMagick.tar.gz | head -1 | cut -f1 -d"/");
```

```
# ----- SOURCE THE CODECS AND LOAD LIBRARIES -----
```

```
## NOTE: THE PATHS BELOW ARE TAKEN FROM MY PREVIOUS
```

```
## WRITE UP ON INSTALLING LIBHEIF.
```

```
## THIS PART ALONE IS KEY TO THE ENTIRE INSTALL!!
```

```
source /root/.bashrc
```

```
source /opt/codecs/PKGCONFPATH
```

```
ldconfig
```

```
# ----- INSTALL SOME LIBRARY/DEV PACKAGES (should have most of them from performing the libheif install)-----
```

```
dnf -y install \
```

```
fontconfig-devel \
```

```
freetype-devel \
```

```
graphviz-devel \
```

```
djvulibre-devel \
```

```
fftw-devel \
```

```
jbigkit-devel \
```

```
libgs-devel \
```

```
libjxl-devel \
```

```
liblqr-1 \
```

```
libraqm-devel \
```

```
LibRaw-devel \
```

```
librsvg2-devel \
```

```
libwmf-devel \
```

```
libzip-devel \
```

```
OpenEXR-devel \
```

```
OpenEXR-libs \
```

```
libtool-ltdl-devel
```

```
# ----- CONFIGURE IMAGEMAGICK -----
```

```
cd ${IMDIR}/${IM7}
```

```
./configure \
```

```
--with-bzlib \
```

```
--with-djvu \
```

```
--with-fftw \
```

```
--with-fontconfig \  
--with-freetype \  
--with-gslib \  
--with-gvc \  
--with-heic \  
--with-jbig \  
--with-jpeg \  
--with-jxl \  
--with-lqr \  
--with-lzma \  
--with-openexr \  
--with-openjp2 \  
--with-pango \  
--with-perl \  
--with-png \  
--with-raqm \  
--with-rsvg \  
--with-tiff \  
--with-uhdr \  
--with-webp \  
--with-wmf \  
--with-xml \  
--with-zip \  
--with-zlib \  
--with-zstd \  
--with-modules \  
--with-utilities \  
--enable-hdri \  
--enable-64bit-channel-masks \  
--enable-year2038 \  
--enable-legacy-support \  
--enable-hugepages
```

```
# ----- MAKE SURE THAT HEIC WAS FOUND (AND OTHERS YOU WANT) -----
```

```
make -j$(nproc)
```

```
make install
```

Now that ImageMagick is compiled up real good and installed. We just need to get the pecl imagick built and in its place.

```
# ----- CHANGE TO THE IMAGICK DIRECTORY -----

cd ${IMDIR}/imagick-${IMK}

# ----- WE NEED PHP HEADERS - INSTALL THE DEV PACKAGE -----

dnf -y install php-devel

# ----- PHP'IZE THE CODE -----

phpize

# ----- CONFIGURE, MAKE, AND INSTALL -----

./configure
make -j$(nproc)
make install

# ----- CREATE CONIG TO ENABLE IMAGICK WITHIN php.d AND php-zts.d -----

cat > /etc/php.d/40-imagick.ini << "EOF"
; Enable imagick extension module
extension=imagick.so

; Documentation: http://php.net/imagick

; Don't check builtime and runtime versions of ImageMagick
imagick.skip_version_check=1

; Fixes a drawing bug with locales that use ',' as float separators.
;imagick.locale_fix=0

; Used to enable the image progress monitor.
;imagick.progress_monitor=0
```

```
; multi-thread management
;imagick.set_single_thread => 1 => 1
;imagick.shutdown_sleep_count => 10 => 10

; to allow null images
;imagick.allow_zero_dimension_images => 0 => 0
EOF
```

```
cat > /etc/php-zts.d/40-imagick.ini << "EOF"
```

```
; Enable imagick extension module
extension=imagick.so
```

```
; Documentation: http://php.net/imagick
```

```
; Don't check builtime and runtime versions of ImageMagick
imagick.skip_version_check=1
```

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; Fixes a drawing bug with locales that use ',' as float separators.
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; Used to enable the image progress monitor.
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```
; multi-thread management
;imagick.set_single_thread => 1 => 1
;imagick.shutdown_sleep_count => 10 => 10
```

```
; to allow null images
;imagick.allow_zero_dimension_images => 0 => 0
EOF
```

```
# ----- COPY MODULE TO PHP-ZTS (so they match) -----
```

```
cp -a /usr/lib64/php/modules/imagick.so /usr/lib64/php-zts/modules/
```

```
# ----- LOAD LIBS AND RESTART SERVICES -----
```

```
ldconfig
```

```
systemctl restart nginx php-fpm
```

exit

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