NETPHOTOGRAPHICS User Guide

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Introduction

NETPHOTOGRAPHICS is a standalone multimedia focused Content Management System. Its focus is on ease of use but without sacrifice of features when you need them.

NETPHOTOGRAPHICS provides support for images, video and audio formats, fully integrated news section (blog), and custom pages to run entire websites. This makes NETPHOTOGRAPHICS the ideal software for the personal websites of illustrators, artists, designers, photographers, film makers and musicians.

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This work is accurate as of the time of its creation. But software is a “living” thing, so changes may occur that conflict with statements in the document. The document may not be clear to someone new to NETPHOTOGRAPHICS as it was written after considerable experience with the software and its predecessor. It is my desire that the document be accurate and useful to all users. To that end I encourage corrections and suggestions to be submitted on the NETPHOTOGRAPHICS ticket system.

For the purposes of this document we will assume related features are enabled when describing areas. Understand that if a feature is not enabled some of the content described will not be present.

Installation

netPhotoGraphics is tested with an *Apache* server. It has been known to run on *nginx* and other similar servers, however, it is not tested in those environments and we cannot provide technical support for them. Many servers are configured so that Scripts will not run if file/folder permissions are set too loosely. Unfortunately some others are configured in a way that prevents netPhotoGraphics from being able to access files it creates unless file/folder permissions are dangerously lax. If you are having problems installing or running the software you may have to discuss file/folder permissions with your hosting service. netPhotoGraphics will run is a secure environment so long as its user permissions allow it to access the script files and create files and folders.

PHP 5.2+ or later is required. There are known PHP issues with earlier releases. In particular netPhotoGraphics does not run at all with version 4 of PHP. You have the following PHP One of *GD graphics library* or *Imagick graphics library* 6.3.8/*Imagick* 2.1.0 and with *safe mode*, *magic_quotes*, *and register globals* off.

The *gettext* extension is required if you plan to use netPhotoGraphics translation/multilingual capabilities. The *mbstring* extension is recommended if you are using a language with diacritically marked characters.

For the database MySQL 5 or greater is required. You will need to provide netPhotoGraphics with a user name and password to so it can access the database. netPhotoGraphics operates normally with the UTF-8 character set so your database should be configured with UTF8_unicode_ci as its collating sequence.

New installations

Upload the *extract.php.bin* file into the root folder of your Gallery. I.e. If you want your Gallery to be (or if you update a Gallery) at the following address: *http://mydomain.com/mygallery*, then upload the file in the "mygallery" folder (Note: the upload must be done in "binary" mode or the file may be corrupted. The ".bin" suffix should cause your FTP client to use this mode.)

On your website rename extract.php.bin to extract.php.

Using your browser, visit *http://mydomain.com/mygallery/extract.php* (if you install netPhotoGraphics at root level, then visit *http://mydomain.com/extract.php*).

The netPhotoGraphics files will self-extract and the setup process will start automatically.

You may also download the release *zip* or *tar* file, extract it, and upload the individual files.

Cruft free URLs

NETPHOTOGRAPHICS will execute and produce Cruft free URLs so long as the web server executing it supports URL redirection (*mod_rewrite*.) The setup program will test to see if this feature is present and enable the option for these URLs automatically if it is.

Character sets

The software needs to some character set details of the file system and web server so that it can properly deal with characters with diacritical marks. In particular it needs to know if the file system character set and the Universal Resource Identifier (URI) is multi-byte or not. Setup can determine these settings automatically so long as you have placed a specific file no the *data* folder. The contents of this file are not important, but the name is. The name should be “charset_tést”. The diacritical mark is essential. Setup uses it to determine the character set of the file system. From that it can determine the character set of URIs. Setup will warn you if this file is not present. If you know you will never use diacritical marks you may ignore the warning.

System Check

When you run the setup program you will see a screen of system check results. Setup is assessing the suitability of your server configuration. Hopefully all you see is green checkmarks by the configuration items. You may see orange check marks. These are warnings that things are not quite perfect, but that NETPHOTOGRAPHICS will probably run any way. You should pay attention to these warnings and correct them if you can. But if you cannot, go ahead and continue with the setup process.

If you see a red checkmark there is something wrong with your configuration that NETPHOTOGRAPHICS considers critical to successful operation. You will need to fix these issues before you can continue with the installation.

Setup files

The setup has to be able to run when things are not completely in place. (After all, it is the program that puts things in place!) Because of this, there are some security checks that it cannot perform. Once you have completed the setup process the files are no longer used. We suggest you “protect” them to prevent any possible hacker access. You do this from the overview page of the administrative interface. There will be a warning displayed on the overview directing you as to how to protect the scripts.

Upgrades

Closing the site

Your site may be in an unstable state during the process of replacing the script files from the old release with those of the new one. We strongly recommend that you “close” your site so that visitors will not cause script execution during this unstable state. Unless you have disabled the *site_upgrade* plugin the administrative overview page will have a button in the Admin section of the Utilities functions that will let you cycle through closing the site, opening it for test, and opening it for business. A good workflow is to close the site, install the new software, open the site for testing and be sure everything is working correctly, and then fully open the site.

When a site is closed all visitors to the front-end are redirected to a page letting them know that the site is undergoing an upgrade. When the site is placed in test mode visitors except for the administrator are redirected to that page. The administrator sees the site as it normally operates.

When you want to install a new version of NETPHOTOGRAPHICS first insure that you are logged into your site. Then follow the same steps you did for the initial install. Of course you will have already dealt with any configuration errors and warnings, to that step is bypassed.

Moving the site

NETPHOTOGRAPHICS maintains information about the install location as part of its operations. Additionally the server URI redirection software needs to know these details. Since the setup process detects and stores the location, if you somehow change the location, e.g. physically move to a different folder or change the Host domain you should re-run the Setup program.

Trouble shooting the install

If something has gone wrong with your install you should review any warnings that Setup may have provided. Also check both the NETPHOTOGRAPHICS debug log and your server's error logs. These will provide information that is critical to diagnosing and correcting the problem.

Getting started

Once you have completed the setup process your site is operational. There are two aspects to the site: the “front-end”, which is your site content, and the administrative interface (or back-end) where you manage the aspects of your site.

Site structure

Site administration

The administrative interface is organized by task into tabs. So, for instance, there is the *overview* tab which is the introductory page of the back-end, the *options* tab where you change settings, etc. Take some time to explore the content of each of these tabs.

Themes

NETPHOTOGRAPHICS supplied themes

NETPHOTOGRAPHICS comes with a rich assortment of pre-defined front-end look and feel options. We call these themes. You can select a theme for your front-end by visiting the *themes* tab. There is a small icon with each theme to give you a hint of its look and feel. Try a few themes to see what pleases you.

Third party plugins

The user community for NETPHOTOGRAPHICS and for its predecessor software has also made themes available from time to time. Themes that are made to work with zenphoto version 1.4.6 will usually work with NETPHOTOGRAPHICS. Some that do exotic things may require the *zenphotoCompatibilityPack* plugin that is supplied with this software. (Plugins are described below.)

As time progresses, software changes. We keep all the distributed themes up-to-date but cannot guarantee that third party themes will not need updating. To support those older themes we provide a *deprecatedFunctions* plugin. This plugin maintains backward compatibility, but should be considered a Band-Aid for until the theme is upgraded to the current software release.

If you are adventurous you can create your own custom theme. More on that is covered in the customization topic.

Plugins

Themes provide front-end look and feel. Plugins provide for rich feature content but without burdening users with the feature overhead if they do not choose to use the feature.

NETPHOTOGRAPHICS supplied plugins

The *plugins* tab and its sub-tabs list the feature plugins available for use. Many of the features these provide are dynamically supported by the themes. But some features require theme modification and some themes omit dynamic support for specific features.

Plugins are organized by category and there is a sub-tab for each category. So you would look under the media sub-tab for things like support for video content. Look under the *users* tab for user management plugins, etc.

There is an *information* icon for each plugin which will pop-up the plugin's overview documentation.

Third party plugins

As with themes, users have from time to time provided feature plugins to the community. The same theme compatibility constraints apply to plugins.

Gallery

NETPHOTOGRAPHICS is appropriate for public websites but also provides for private galleries. There is an option to select which form you wish for your site. Public galleries are accessible by anyone with some exceptions. You may *password protect* elements of your site. Those are then only accessible by guest viewers who know the password credentials or by your users to whom you have granted access.

Private sites can be thought of as sites where everything is *password protected* but there is no guest passwords, only site users are allowed access.

User management

NETPHOTOGRAPHICS has the concept of a *master user*. This user will always have total administrative privileges (see user management) despite what his assigned rights may be. The *master user* is normally the user setup during the initial installation. However, should this user be deleted down the line, a different existing user will be "promoted" to this position. The rules for promotion prioritize the rights of the user—that is the user with the most rights will be promoted to master user. In the case of a tie, the "oldest" user will be the one promoted.

User Rights

There are five categories of user rights associated with content areas provided by the software.

General rights

- **Overview**: Allows the user to view the admin overview page.
- **User:** Users must have this right to change their credentials.
- **Debug:**
- **Codeblock:** Users with this right may edit codeblocks.
- **Options:** Allows the user to make changes on the options tabs.
- **Admin:** This is kind of a **master privilege**. A user with these rights can do anything. (No matter what the other rights might say!)

Gallery rights

- **View gallery:** Users with this right may view otherwise protected generic gallery pages *(front end)*
- **View search:** View search pages even if password protected *(front end)*
- **Post comments:** When the comment_form plugin is used for comments and its *Only members* can comment option is set, only users with this right may post comments. *(front end)*
- **Comments:** Allows the user to make comments tab changes to the objects checked in his managed lists.
- **Files**: Allows the user access to filemanager located on the upload: files sub-tab.
- **Themes**: Allows the admin to view/make themes related changes.
- **Tags**: Allows the user to make additions and changes to the set of tags.

Albums rights

- **View fullimage:** View all full size (raw) images*(front end)*
- **Access all**: Access all albums without a password. Without this right, a user can access only public ones and those checked in his managed object lists.*(front and back end)*
- **View unpublished:** Users with this right will see unpublished items *(front end)*
- **Upload**: Upload to the albums for which a user has management rights.

- **Manage all**: Users who do not have Admin rights normally are restricted to manage only (top level) albums to which they have been assigned. This right allows them to manage any album object and its images and/or sub-albums in the gallery.
- **Managed albums:** Users without the superior right can only manage the top level albums and their sub-albums they are assigned to
    - **Edit:** Edit the album assigned to
    - **Upload:** Upload to the album
    - **View:** View unpublished *(front and back end)*

Articles rights

- **Access all:** Allows the user to access all news articles without a password. Without this right, the user can access only public ones and those categories checked in his managed object lists. *(front and back end*
- **View unpublished:** Users with this right will see unpublished items *(front end)*
- **Manage all:** Users who do not have Admin rights normally are restricted to manage only news articles of news categories to which they have been assigned. This right allows them to manage any news article in the gallery.
- **Managed news categories:** A user without the parent right can only manage news categories and its articles he is assigned to.
- **Edit:** Edit the album assigned to
- **View:** View unpublished *(front and back end)*

Pages rights

- **Access all:** Allows the user to access all pages without a password. Without this right, the user can access only public ones and those checked in his managed object lists. *(front and back end)*
- **View unpublished:** Users with this right will see unpublished items *(front end)*
- **Manage all: Users** who do not have Admin rights normally are restricted to manage only objects to which they have been assigned. This right allows them to manage any page object in the gallery.
- **Managed pages:** A users without the superior right can only manage pages he is assigned to
- **Edit:** Edit the album assigned to
- **View:** View unpublished *(front and back end)*

Notes:

Users without full *Admin rights* may be assigned objects (albums, pages, news categories) to "manage". The rights the user has with respect to these objects will depend on the above rights list. These rights can be "reduced" for individual managed albums. Unchecking the "edit" or "upload" boxes will prevent the user from accessing those capabilities.

A user with appropriate rights is **NOT** required to login with a guest username/password to view guest protected items.
Users can only be assigned to top level albums. Rights to any sub-albums are derived from the top level album.

Where it makes sense, the rights applied to a managed object also apply to that object's offspring.

User groups

User management may be enhanced by use of the *user_groups* and other plugins. User groups allow you to assign identical rights to multiple users. This can be done either by placing the user in a group or via a *template*. In the former instance the user will have the rights assigned to the group even if you change those group rights. In the latter case the rights assignment is one time only. The rights of the template are copied to the user. After that the user is independently managed.

User templates

User management plugins provide additional features with respect to site users.

- **user_login-out** will allow one to place a logout link (or if no one is logged in a login form) on a theme page. This is the same form that is displayed when the album/gallery/search page is password protected with a guest password. Guest users may login only from this form. Admin users may login from this login form as well as from the http:\\mydomain.com\folder\zp-core\admin.php page.
- **user_groups** provides the addition of user groups and rights templates.
- **userAddressFields** adds some fields for address information to the admin user.
- **register_user** provides a vehicle for site visitors to request and be granted user credentials.
- **quota_manager** provides means for throttling uploads by users.
- **user_expiry** provides a means for limiting the duration that user credentials are valid.
- **federated_logon** provides a mechanism for using OpenID provider services for user credentials.

Guest users

User names and passwords for guest users are assigned by an administrator. The user name is optional. If it is empty users logging in will need only the password. The categories of guest user are described below. In each case, if there is a password assigned, a login is required to view the object. Password protection is inherited. If the gallery is protected, that protects all albums in the gallery as well as the search page. If an album is protected all of its sub-albums are protected as well.

If a password is applied to an album (sub-album) this password takes precedence over any parent password. This means is that you must know the password to access the album but you would not need to know a higher level password he links directly to the album.

A similar hierarchy exists for News Article Categories and for Pages.

Gallery guest user: This username/password is set on the Options-Gallery Configuration tab. When set, the entire gallery is protected and viewers must login to access anything.
Search page guest user: This username/password is set on the Options-Gallery Configuration tab. When set, search results are protected and viewers must login to access them.
Album guest user: This username/password is set in the edit tab for the album in question. Viewers must login to access this album or its sub-albums.
Protected image guest user: This username/password is set in the Options-Image display tab. When these are set and image protection is set to protected, viewers will be required to login to view the full sized image.
Page guest user: This username/password is set in the *Publish* box of the edit tab for a Page. Viewers must logon to access the page or its offspring pages.
News guest user: This username/password is set in the Publish box of the edit tab for a Category. Viewers must logon to access News articles contained in this category. **NOTE**: if a News article belongs both to a protected and a not-protected Category the article is **NOT** protected!

User sign-on

NETPHOTOGRAPHICS provides user credential verification based on the username and password assigned to the user. For some sites an external authentication capability is useful. The software provides for two distinct mechanisms for this. There are several plugin that allow different ways to log onto NETPHOTOGRAPHICS. The *http_auth* plugin uses the Apache HTTP. The *federated_logon* plugin and its architecture allow you to use, for instance, a Google logon. The *LDAP_auth* plugin will use an LDAP server to handle user login.

Multi-language support

If your PHP provides *gettext()* support and your server supports multiple locales then you site can easily cater to viewers in different languages. The standard text strings of both the front-end and back-end have been translated into multiple languages. It is also possible for you to provide alternate language text for such things as your album descriptions. When these are available the user will get a site tailored to his language.

Translation completeness

NETPHOTOGRAPHICS language translations are provided by volunteers. Translation is an arduous task, so sometimes the translations are not up-to-date. Even outdated translations are useful, though, so we continue to provide them. You can get a feel for the "age" of a translation on the *general* options tab. If a language is not current the list will show its last release.

Language selection

Your site may choose to present a static language selection—you can choose the site language from the list. Or you may choose to let users dynamically choose languages. The simplest for this is to select *HTTP_accept_language* from the list. Then the language will be chosen based on the language preferences presented by the user's browser.

You may also include language selection in the URLs of the site. Many sites will automatically direct sub-domains to the main domain. If your site does this you can have links like *fr.mysite.com* cause your site to present in French. Otherwise you can prepend the language to the link:
mysite.com/fr/album/image.png

Content

Content visibility

In a public gallery there are four possible states of an object as described below. Logged on NETPHOTOGRAPHICS users may have rights that override local password protection and published state. See above.

- **Published/not password protected**: Any one can see these items.
- **Not published/not password protected**: People have to "know about" these items to view them. (That is they need to know the URL, they will not show in menus if the visitor does not have the appropriate credentials.)
- **Published/password protected**: People will know of these items (they will show in menus) but not be able to access them without the password.
- **Not published/password protected**: These are truely restricted to "logged in users". They require the appropriate credentials to access or see in menus.

Private galleries are equivalent to having all objects password protected. In a *private* gallery objects can be granted any of the four possible states listed above through use of the appropriate user rights.
The use of the groups plugin alongside setting a gallery private can allow the admin to set different permissions for different albums based on group membership. For a *private* gallery hosting different groups and album permissions to be properly configured, all albums exusive to a group must be set as unpublished. Thus, only users/groups with permission to access a given album would be allowed to view/edit it. If, in this context, the status of an album were set to published, any user/group would be able to access it. (**Note**: for the users to see the images in the album they must be set to published by the above rules.)

For ultimate protection, objects should be assigned the state **unpublished** and **password-protected.** These are truly restricted to "logged in users". They require the appropriate credentials to access or to be seen in menus.

Note: images accessed directly from the albums or cache folders are not covered outside of the control of the NETPHOTOGRAPHICS software. To protect them you will need to use server *.htaccess* server protection.

Albums

Creating

NETPHOTOGRAPHICS uses the server file system to organize albums and images. There is a global folder typically named *albums* (it is possible to change the name) that hosts your content albums as sub-folders. These album sub-folders host the image files. So the tree structure of your sites media content is derived from the structure of its album folder on the server filesystem.

You create an album by creating a folder within the *albums* folder (or within a folder, or album, within that folder.) You can do this from the back-end *albums* tab or you can use FTP or other services to upload the folder.

Dynamic albums

There are two "pseudo" album types available as well. These albums are not folders in the file system but rather surrogates for collections of albums and images, for instance from a search. *Dynamic* albums are direct representations of a search. You can create one from the *Admin Toolbox* links on a search results page. Creating the album captures the search criteria. When the album is viewed the search is re-executed and the results are shown just as if they came from a physical album folder.

Favorites albums

The second type of "pseudo" album is created from a user's *favorites* selections. These are available if the *favoritesAlbums* plugin is enabled and operate in a similar manner to Dynamic albums in that they have no fixed content. What is shown is the current content of the user's *favorites* selection. Note: While favorites albums rely on a user's *favorites* selections, they are independent from the *favoritesHandler* plugin. *Favorites albums* will remain even if the *favoritesHandler* plugin is disabled. Their content will reflect the last selections of the user.

Favorites

Site users may be given the ability to flag albums and images as "favorites" if the *favoritesHandler* plugin is enabled. A user may define multiple *favorites* sets if the *multiple sets* option is enabled. Buttons will appear next to albums and images for the user to pick them as a favorite. A link is also displayed to the user's *favorites* page where he can review and manage his favorites. (These are theme dependent so may not be present in all themes.)

Images

Uploading

Images objects are files within the album folders. These can be "pictures" or other media content depending on the enabled handler plugins. For discussion we will refer to these as *images* even when they are not pictures. These files may be placed into their album folders by FTP transfer or by uploading them through the back-end *upload* tab.

Image sizes

The size of a picture you upload need not be the same as the size you wish it displayed. NETPHOTOGRAPHICS will resize (and even watermark) images for display. **BUT**, resizing takes server resources so and a large picture may exceed the capacity of your server. When this happens the resized version will not display. If you are having problems with "broken" images try resizing them smaller before uploading. Resizing happens "on demand" and the result is cached for future use so the overhead happens only once.

Image metadata

The image processing software will examine **metadata** stored within the image and import it into fields in the image object. So, for instance, picture *caption* will be placed in the image object *description* field, the *headline* will become the image *title*, etc. These fields are processed according to EXIF and IPTC standards so there may be some surprises. See Metadata Mapping for details Also, some cameras do strange things. If you do not want a particular metadata field imported you can disable it on the *options image* sub-tab.

Image protection

The very nature of viewing images means that the viewer's browser has captured a copy of what is shown. No way around this. If you want to protect your content you can watermark it or select a low resolution image quality for resizing. But there is no way to prevent a user from "downloading" a copy since it is already in his browser cache.

NETPHOTOGRAPHICS does not get involved if a visitor enters a link directly to something in your *albums* folder on in the *image cache* folders. You can prevent direct access to the albums folder on some servers by using .htaccess files. You should note, however, that some JavaScript may require direct access to the original image. Those will fail if the albums folder is protected in this way.

Browsers must have direct access to the *image cache* folders in order to fetch and display the resized images. So it would be possible for someone to construct a link directly to the resized image if he knows the album and the image name. If you want to prevent this you can enable the *Protect image cache* (image options) or the *Obscure cache filenames* options (security options.) The former option is most secure, but also comes with more server overhead. For most installations concerned with this direct linking obscuring the name is adequate since the link will not be guessable.

Content management

Articles

Content management is provided by the *zenpage* plugin. With this plugin enabled and appropriate theme support your site can have a "news blog" Articles can be organized into categories and specific ones can be "pinned" to the front of the lists.

Static pages

Static content is provided by *pages*. These can be hierarchically organized. You do not need to layout each page as you can enter your content into pre-defined regions for automatic display by your theme.

Comments

The software provides complete *comment* handling if desired. Comments may be posted on images, albums, articles, and content pages. They may be monitored and there are spam filters available. Captcha "human" detection is also possible.

Trouble shooting

Sometimes things will go wrong. If you are having problems please ask questions on the discussion group. You also should review log information from your site. NETPHOTOGRAPHICS maintains a *debug log* you can view from the logs tab. The software will attempt to trap errors and report them in this log. But PHP scripts are limited in what errors they can trap. In this case the only source of error reporting will by your server's script error logs. If you do not know how to access these, please contact your hosting provider.

The content of these error messages is critical in diagnosing problems. Without them we are in the dark. We also typically need to know things like the release version of NETPHOTOGRAPHICS you are using and what theme you have activated.

It may also make sense for you to try to isolate the issue. For instance if you are trying out a new plugin, does the error still happen with it disabled? To other themes exhibit the issue?

The discussion group is a good place to get information, but a poor place to track if your problem has a correction. We use the GitHub ticket system for rigorous issue management. You may post issue tickets to be sure that your problem is seen and analyzed.

Customization

No code required

Everyone has different needs. In support of this the software is modular and configurable. There are a large number of themes and plugins distributed with the package. Others are available from users of NETPHOTOGRAPHICS and its predecessor—zenphoto. (Zenphoto themes and plugins may require the *zenphotoComaptibilityPack* plugin.) Most of these themes and plugins also have options for fine tuning their features. Take a look at the descriptions and options for these items to get a feel for what they might do for you. Themes are on the *themes* tab, plugins on the *plugins* tabs. You can link directly to their options form these tabs.

Your own special site

If you want your own special site you can create it but you will need some programming skills. NETPHOTOGRAPHICS is implemented in PHP and JavaScript. The software makes extensive use of objects, so familiarity with object oriented programming may also be useful.

The easiest way to start your own special site is by copying and modifying an exesting theme that is close to where you want to go. There are many useful plugins that will help you get the site you want. Some will work "automatically" but others require that you add code to your plugin scripts. The plugin documentation will give you hints as to how to implement their features.

For example the jCarousel_thumb_nav plugin's usage info tells you to "*Place printThumbNav () on your theme's image.php where you want it to appear."* To do this successfully you need to know that scripts are a mixture of PHP and HTML code. *printThumbNav ()* is PHP code. To integrate it into the HTML

source code using you must first inter into PHP code via the <?php tag. Of course you will need to return to HTML after the function call with the ?> tag. So what you will actually insert *is <?php printThumbNav (); ?>.* (Also note the semicolon following the function call. The semicolon may not be called out in the documentation, but is required to terminate a PHP statement.)

Objects

The major objects used by the software are as follows. (Note that many of these are built up from more basic classes. Normally you will not need to deal with those.)

- Gallery: The gallery itself
- Album: represents an static file system based album
- Image: represents an image within an album. The base Imageobject has been extended to handle other "image" types:
- Video (optional video class plugin): represents an extended image that is multimedia content like mp3,mp4,flv
- TextObject (optional text object class plugin): its object represents an image object that is a .txt file. This object is intended as an example on how to extend Zenphoto for other filetypes
- Category: represents a news category
- Article: represents a news article
- Pages: represents a content page
- Zenphoto_Authority: functions used in password hashing for zenphoto
- SearchEngine: represents a search
- Feed: base class for feeds

Global object variables

These global objects are automatically set up depending on the context.

- $_zp_gallery is always setup on all theme pages as it represents the gallery in total.
- $_zp_current_album is setup in album context as within the next_album() loop or on a theme's album.php.
- $_zp_current_image is setup in image context as within the next_image() loop on a theme's album.php or on the single image display on image.php.

For example to get the title of the current album selected you can use $_zp_current_album->getTitle().

Object instantiation

Functions are provided for creating that you might wish to work with. Each object type has a function to create an instance of that type.

$album = newAlbum(*folder*); will create an *album* object representing the content of *folder* in the *albums* folder.

$image = newImage(*album*, *image*); will create an *image* object for a file named *image* and contained in the object *album*.

newArticle(*titlelink*), newPage(*titlelink*), and newCategory(*titlelink*) are used for the *article*, *page*, and *category* CMS objects.

Once you have created an object you can access its properties and methods in your scripts. You should review the object definitions in the NETPHOTOGRAPHICS source code for details. Other good examples can be found in the template functions (template-functions.php) and themes and plugins distributed with the software.

NETPHOTOGRAPHICS functions

NETPHOTOGRAPHICS functions are categorized in three classes: theme functions, back-end functions, and general functions (used in both places.) The major collection of theme functions is found in the *template-functions.php* script. Many plugins also provide optional use theme functions. The software has attempted to name functions so that their purpose is evident. So, for instance, you should be able to guess that *printAlbumTitle()* will cause the title of an album to be displayed. It is beyond the scope of this document to list all the functions you might find useful. Browsing and searching script function lists with an Interactive Development Environment is the best mechanism to learn to code for NETPHOTOGRAPHICS. (We use the NetBeans IDE.)

Theme structure

Themes will typically have scripts to handle various "display" pages. A fully featured theme will have at least the following scripts:

404.php (handles links to non-existing content), album.php (for the album page), archive.php (the archive view), contact.php (a form for users to contact your about your site), favorites.php (handles the management of favorites), image.php (shows a single image from an album), index.php (the "home" page of your site), news.php (displays news articles), pages.php (displays static page content), password.php (displays the password form for guest users), register.php (a form so that a user can request to register for your site), search.php (displays search results), slideshow.php (shows slideshows) , themeoptions (describes the options of the theme), and theme_description.php (describes the theme for the theme selection tab.)

Learning by example is the best mechanism for developing new themes. Look at the ones provides and go from there. You can even "duplicate" a theme for modification on the *themes* tab. You should never

directly modify an existing theme. Two reasons for this, first if you screw it up it is harder to recover to something that works. Second, when you install the next release of NETPHOTOGRAPHICS it will overwrite the distributed themes. Any changes you have made to them will be lost.

Plugin architecture

Plugin folders

You may have noticed that there are two folders where optional feature plugins are stored: the *zp-core/zp-extensions* folder and the *plugins* folder. The *extensions* folder contains the "standard" plugins. The *plugins* folder is for example plugins, third party plugins, and extensions to the standard plugins.

NETPHOTOGRAPHICS will load files requested by standard plugins by first looking for the file in the appropriate folder in *plugins*. If it is not found there the file will be loaded from the extension's normal folder. This allows you to make "alterations" to a standard plugin without editing its files directly. For instanced you can add federated logon handlers by placing the scripts in the *plugins/federated_logon* folder or you can add extra watermarks in the *plugins/watermarks* folder. If you wanted to replace the code that displays a comment form you could create a folder named *plugins/comment_form* and place your custom *comment_form.php* script in it.

A similar process is used when loading theme oriented files. Fist the theme's folder is examined, then the *plugins* folder and finally the folder associated with the request.

Filters

Plugins may extend functionality by adding functions, but they are not limited to these. The NETPHOTOGRAPHICS software provides a battery of "filters" that allow plugins to modify its behavior. Enable the *filterDoc* plugin and there will be a *Filters* sub-tab to the *Development* tab that describes filters and lists those available.

Macros

Plugins can create macro definitions that can be used in *descriptions* and in *article* and *page* content. See the description link for the *macroList* plugin for details.

Support

General discussion is hosted on the netPhotoGraphics forum. By all means ask questions on this forum. However if you have a true bug it is better to report it on the software repository ticket system. This way the problem status can be tracked and you will know the resolution.

Contributing

If you wish to contribute to the netPhotoGraphics software please review the guidelines. You may also want to explore the development tools repository which contains tools and examples of themes and plugins. There are also example plugins distributed in the “plugins” folder.

Glossary

Admin: The administration interface of the site (the “back-end”.)

Album: A collection of images (and other multi-media items) that are a folder within the "albums" folder.

Albums folder: The "albums" folder is located in the root of the installation and contains the folders of the actual albums.

Album name / folder name: The folder name of the album on the filesystem. This is independent from the actual album title and used in URLs. For sub-albums the name includes all parents (e.g. album1/subalbum1)

Album title: The title of the album you can enter on the backend. This is independent of the actual album name (file name.)

Album theme: A theme that is attached to a specific album. It is possible to use a different theme with each top level album instead of the same main theme for all. Basically any theme can be used as an album theme.

Album thumb: A thumbnail representing the album. This is either chosen automatically or specifically set. Functions for album thumbs also support showing the lock image in case the album is protected. Besides that the same as a normal "thumbnail".

Back-end: A shortcut term used to refer to the administrative interface.

Custom (theme) page: Custom written theme scripts that are used to display content.

Dynamic album: An album that is dynamically populated from the results of a search.

Front-end: A short cut term used to refer to the content processing portion of your site.

Full (size) image: The original image you have uploaded.

Gallery: The whole installation including all albums and CMS items.

Image filename: The filename of the image with its album on the filesystem.

Image title: The title of the image you can enter on the backend. This is independent from the actual filename.

Index / Gallery home page: The index.php page is that first page you see if you call your gallery.

Locale: The language you are using for the backend and theme translation. Also the identifier of that language (e.g. de_DE, en_US)

Options / Admin Options: Options are used to configure various NETPHOTOGRAPHICS features. They can be set from the *options* sub-tabs on the back-end.

Password protected: Password protected items are accessible only by guests who know the access credentials or by users with rights to access the items. Password protection does not prevent the item from showing in menus. See “unpublished” to accomplish this.

Root: The main site folder

Setup: Installation/update script located in zp-core/setup.php. Usually should run automatically whenever you update.

Sub-albums: Sometimes it is convenient to refer to an album which resides within another album as a *sub-album*. In reality the only distinction is the location the where the album resides, so album and *sub-album* are generally interchangeable.

Sized Image: The "big" image you see if you click on a thumbnail within an album.

Custom sized Image: This can be any image and be cropped or uncropped and be used as thumbs or sized images. The difference is that this does use custom sizes defined on theme page itself and using the "default" value set on the theme options.

Maxspace Image: An uncropped custom sized image that is sized within the width and height values defined.

Thumbnail: The small usually cropped image within an album.

Theme / Template: The design (or frontend) you are using for your gallery. Themes are installed within the themes folder of your zenphoto installation.

Theme files or pages: This refers to index.php, album.php and image.php and sometimes to search.php and archive.php. See the theming tutorial for details.

Titlelink: The *titlelink* is the equivalent to the album name and the image filename for Zenpage news articles, news categories and pages. It is used for the url and independent from the title.

Unpublished/not visible: Unpublished/not visible items are not shown in menus except to users logged in with the right to see them. This is not a protection mechanism. If the viewer directly enters a link to the item (or the site provides such a link) the item will be shown.

Zenpage / Zenpage pages: This refers to the *zenpage* CMS plugin. Don't confuse the plugin with the *zenpage theme*.

Metadata Mapping

NETPHOTOGRAPHICS **field**	**Metadata source (in priority order)**
date	IPTC DateCreated & TimeCreated EXIF DateTime EXIF DateTimeOriginal EXIF DateTimeDigitized
title	IPTC ObjectName IPTC ImageHeadline EXIF Description
description	IPTC ImageCaption
city	IPTC City
state	IPTC State
country	IPTC LocationName
credit	IPTC ByLine IPTC ImageCredit IPTC Source
copyright	IPTC Copyright