

# Codex

Codex tools: Log in

i Interested in functions, hooks, classes, or methods? Check out the new WordPress Code Reference!

# fr:Plugin API

# Introduction

Cette page documente l'API (Interface de programmation d'application) de personnalisation accessible aux développeurs de plugin WordPress et montre comment s'en servir.

A ce stade il est souhaitable d'avoir lu <u>Writing a Plugin</u> qui donne une vue d'ensemble (et une série de détails) sur comment développer un plugin. Cet article est spécifique à la personnalisation par l'API et via "Filtres" (Filters) et "Actions" que WordPress utilise pour intégrer vos plugins. Ces outils peuvent aussi êtres utilisés pour les thèmes comme montré ici.

**Note:** Ces informations s'appliquent uniquement pour la version de WordPress 1.2 et supérieures. Avant la version 1.2, les modifications étaient appelées des "hacks" et imposaient une modifications du code source de WordPress lui même.

# Hooks, Actions et Filtres

Les Hooks sont fournis par WordPress pour permettre à votre plugin de se connecter avec le coeur de WordPress, en appelant des fonctions depuis votre plugin à des moments précis, ils aident ainsi a definir le comportement de votre plugin.

Il y a deux sorte de 'hooks':

### Contents

- 1 Introduction
- 2 Hooks, Actions et Filtres
- 3 Function Reference
- 4 Actions
  - 4.1 Create an Action Function
    - 4.1.1 Avoiding Function Name Collisions
  - 4.2 Hook to WordPress
  - 4.3 Install and Activate
  - 4.4 Current Hooks For Actions
- 5 Filters
  - 5.1 Create a Filter Function
  - 5.2 Hook in your Filter
  - 5.3 Install and Activate
  - 5.4 Current Hooks for Filters
  - 5.5 Example
- 6 Removing Actions and Filters
- 7 Pluggable Functions
- 8 Activation/Deactivation
- 9 See Also
- 1. Actions: Les Actions sont les crochets (hooks) que WordPress lance à un moment précis de l'exécution ou quand un évènement particulier a lieu. Votre plugin peut spécifier que une ou plusieurs de ses fonctions PHP soient exécutées via l'API Action.
- 2. Filters: Les Filtres (filters) sont les crochets que WordPress lance pour modifier toute sorte de texte avant de l'enregistrer dans la base de données ou de l'envoyer au navigateur. Votre plugin peut spécifier qu'une ou plusieurs fonction PHP soient exécutées pour modifier un type de texte bien particulier à ce moment précis en utilisant l'API Filtre.

Parfois vous pouvez arriver au même résultat final en utilisant soit l'Action soit le Filtre. Par exemple, si vous voulez que votre plugin change le texte d'un billet, vous pouvez ajouter une fonction Action à publish\_post (ainsi le texte est modifié et enregistré dans la base de données), ou bien vous pouvez ajouter une fonction Filtre à the\_content (ainsi le texte est modifié au moment de l'affichage dans le navigateur). Dans les deux cas le rendu final pour l'utilisateur est le même, seul la façon d'y arriver est différente.

Pour obtenir la liste de tous les crochets Filtres et Actions dans WordPress visiter le WordPress Hooks Database de Adam Brown's.

# **Function Reference**

#### **Fonctions Filtre**

has\_filter()
add\_filter()
apply\_filters()
current\_filter()
merge\_filters()
remove\_filter()

remove all filters()

#### **Fonctions Actions**

has\_action()
add\_action()
do\_action()
do\_action\_ref\_array()
did\_action()
remove\_action()

remove all actions()

### Fonctions d' Activation/Désactivation

```
register activation hook()
```

register deactivation hook()

# Actions

**Actions** are triggered by specific events that take place in WordPress, such as publishing a post, changing themes, or displaying a page of the admin panel. Your plugin can respond to the event by executing a PHP function, which might do one or more of the following:

- Modify database data
- Send an email message
- Modify what is displayed in the browser screen (admin or end-user)

The basic steps to making this happen (described in more detail below) are:

- 1. Create the PHP function that should execute when the event occurs, in your plugin file.
- 2. Hook to the action in WordPress, by calling add\_action()
- 3. Put your PHP function in a plugin file, and activate it.

### Create an Action Function

The first step in creating an action in your plugin is to create a PHP function with the action functionality of your plugin, and put it in your plugin file (your plugin file must go into the *wp-content/plugins* directory). For example, if you want your friends to get an email message whenever you create a new post, you might define the following function:

```
function email_friends($post_ID) {
    $friends = 'bob@example.org, susie@example.org';
    mail($friends, "sally's blog updated",
        'I just put something on my blog: http://blog.example.com');
    return $post_ID;
}
```

For most actions, your function should accept a single parameter (usually the post or comment ID, depending on the action). Some actions take more than one parameter -- check the documentation for the action (if available) or the WordPress source code for more

information. Besides the one parameter, you can also access the <u>global variables of WordPress</u>, and call other WordPress functions (or functions in your plugin file).

Any text output by the function (e.g. with print) will appear in the page source at the location where the action was invoked.

**NOTE**: Keep in mind that other plugins or the WordPress core may already be using the function name you have thought of. See the next section, Avoiding Function Name Collisions for more information.

## **Avoiding Function Name Collisions**

It is possible that someone has created a plugin with a function named the same as one in your plugin!

This is a problem because PHP does not allow multiple functions with the same name. If two plugins provide function with the same name, or a plugin provides a function with a name the same as a WordPress function, the blog could cease to function. There are two ways to avoid this problem.

The first solution is to prefix every function in your plugin with a unique set of characters. If your name is John Q. Public, you might declare your functions as function jqp\_output() {...}. The likelihood that someone with the same initials does the same thing with their plugin is possible, but low.

The second - and possibly easier - solution is to enclose your plugin functions in a class and call the class methods statically. This sounds more complicated than it is.

Consider this class, which expands on the examples provided above:

```
class emailer {
  function send($post_ID) {
    $friends = 'bob@example.org, susie@example.org';
    mail($friends, "sally's blog updated", 'I just put something on my blog: http://blog.example.com');
    return $post_ID;
  }
}
add_action('publish_post', array('emailer', 'send'));
```

This class, called emailer has a method send that implements the plugin functionality.

The add\_action() function outside of the class adds the action to WordPress that tells it to call the *send* method when a post is published. The array used in the second parameter tells the plugin system to call the static method of the class 'emailer' named 'send'.

The function *send* is protected from the global namespace by the class declaration. It is not possible to call send() directly, and so any other function named *send* will not collide with this one. If you did want to call send(), you would need to use a scope resolution operator, like this: emailer::send()

The above example is for static methods. If you have an instance of a class then that won't work. To call a method of an instance you need to pass the instance as a variable. Consider the above example modified to take this into account:

```
class emailer {
  function send($post_ID) {
    $friends = 'bob@example.org, susie@example.org';
    mail($friends, "sally's blog updated", 'I just put something on my blog: http://blog.example.com');
    return $post_ID;
  }
}
```

```
$myEmailClass = new emailer();
add_action('publish_post', array($myEmailClass, 'send'));
```

Classes are a complicated subject. Read more about them in the PHP documentation on classes.

### Hook to WordPress

After your function is defined, the next step is to "hook" or register it with WordPress. To do this, call <a href="mailto:add\_action()">add\_action()</a> in the global execution space of your plugin file:

```
add_action ( 'hook_name', 'your_function_name', [priority], [accepted_args] );
```

where:

#### hook\_name

The name of an action hook provided by WordPress, that tells what event your function should be associated with.

### your\_function\_name

The name of the function that you want to be executed following the event specified by hook\_name. This can be a standard php function, a function present in the WordPress core, or a function defined by you in the plugin file (such as 'email\_friends' defined above).

#### priority

An optional integer argument that can be used to specify the order in which the functions associated with a particular action are executed (default: 10). Lower numbers correspond with earlier execution, and functions with the same priority are executed in the order in which they were added to the action.

### accepted args

An optional integer argument defining how many arguments your function can accept (default 1), useful because some hooks can pass more than one argument to your function. This parameter is new in release 1.5.1.

In the example above, we would put the following line in the plugin file:

```
add_action ( 'publish_post', 'email_friends' );
```

Likewise, you can also Remove Actions from action hooks. See that section for details.

## Install and Activate

The last step in getting your action hook to work is to install the file and activate the plugin. The PHP function you wrote and the add\_action call must go into a PHP file together, and the PHP file must be installed in the *wp-content/plugins* directory. Once it is installed, you will need to visit the admin section of WordPress and activate your plugin; see Managing Plugins for more details.

### Current Hooks For Actions

See Plugin API/Action Reference for a current list of action hooks in WordPress, and links to previous versions of WordPress.

# **Filters**

Filters are functions that WordPress passes data through, at certain points in execution, just before taking some action with the data (such as adding it to the database or sending it to the browser screen). Filters sit between the database and the browser (when WordPress is generating pages), and between the browser and the database (when WordPress is adding new posts and comments to

the database); most input and output in WordPress passes through at least one filter. WordPress does some filtering by default, and your plugin can add its own filtering.

The basic steps to adding your own filters to WordPress (described in more detail below) are:

- 1. Create the PHP function that filters the data.
- 2. Hook to the filter in WordPress, by calling add\_filter()
- 3. Put your PHP function in a plugin file, and activate it.

### Create a Filter Function

A filter function takes as input the unmodified data, and returns modified data (or in some cases, a null value to indicate the data should be deleted or disregarded). If the data is not modified by your filter, then the original data must be returned so that subsequent plugins can continue to modify the value if necessary.

So, the first step in creating a filter in your plugin is to create a PHP function to do the filtering, and put it in your plugin file (your plugin file must go into the *wp-content/plugins* directory). For example, if you want to make sure that your posts and comments contain no profanity, you might define a variable with a list of forbidden words, and then create the following PHP function:

```
function filter_profanity($content) {
    $profanities = array('badword','alsobad','...');
    $content=str_ireplace($profanities,'{censored}',$content);
    return $content;
}
```

Why does this work without a loop? Because \$profanities is an array, and <u>str\_ireplace</u> loops through the array for you. The <u>str\_ireplace</u> function is used instead of <u>str\_replace</u> because <u>str\_ireplace</u> is case insensitive.

**NOTE**: Keep in mind that other plugins or the WordPress core may already be using the function name you have thought of. See the Plugin Development Suggestions for more information.

# Hook in your Filter

After your function is defined, the next step is to "hook" or register it with WordPress. To do this, call <a href="mailto:add\_filter()">add\_filter()</a> in the global execution space of your plugin file:

```
add_filter ( 'hook_name', 'your_filter', [priority], [accepted_args] );
```

where:

### hook\_name

The name of a filter hook provided by WordPress, which defines when your filter should be applied.

#### your filter

The name of the function that you want to use for filtering. This can be a standard PHP function, a function present in the WordPress core, or a function defined by you in the plugin file.

### priority

An optional integer argument that can be used to specify the order in which the functions associated with a particular filter are executed (default: 10). Lower numbers correspond with earlier execution, and functions with the same priority are executed in the order in which they were added to the filter.

### accepted\_args

An optional integer argument defining how many arguments your function can accept (default 1), useful because some hooks can pass more than one argument to your function.

In the example above, we would put the following in the main executing section of the plugin file, to tell WordPress to filter comments for profanity:

```
add_filter('comment_text','filter_profanity');
```

You can also remove filters from filter hooks using the remove filter() function. See Removing Actions and Filters.

## Install and Activate

The last step in getting your filter hook to work is to install the file and activate the plugin. The PHP function you wrote and the <a href="mailto:add\_filter()">add\_filter()</a> call must go into a PHP file together, and the PHP file must be installed in the <a href="mailto:wp-content/plugins">wp-content/plugins</a> directory. Once it is installed, you will need to visit the admin section of WordPress and activate your plugin; see <a href="mailto:Managing Plugins">Managing Plugins</a> for more details.

### **Current Hooks for Filters**

See Plugin API/Filter Reference for a current list of filter hooks in WordPress, and links to previous versions of WordPress.

# Example

This is an example, as described by Ozh on the wp-hackers email list, for a plugin to modify (or overwrite) the default bloginfo() function. This will require modifying a core function behavior.

# Removing Actions and Filters

In some cases, you may find that you want your plugin to disable one of the actions or filters built into WordPress, or added by another plugin. You can do that by calling remove\_filter('filter\_hook','filter\_function') or remove\_action('action\_hook','action\_function').

For example, remove\_action('publish\_post', 'generic\_ping'); would prevent your weblog from sending pings whenever a new post is created.

Note that if a hook was registered using a priority other than the default of 10, then you must also specify the priority in the call to remove\_action(). Also note that in general, you shouldn't remove anything unless you know what it does and why it does it -check the WordPress or other plugin source code to be sure.

# **Pluggable Functions**

Besides the hooks (actions and filters) described above, another way for a plugin to modify WordPress's behavior is to override WordPress functions. In fact, there is a small set of functions WordPress intends for plugins to redefine. These are called <a href="Pluggable-Plugg

# Activation/Deactivation

If your plugin has tasks to complete only at activation or deactivation time, it can use <a href="register\_activation\_hook">register\_activation\_hook</a> and <a href="register\_deactivation\_hook">register\_deactivation\_hook</a>. Many plugins do not need to use these, as the plugins only modify current behavior. However, if your plugin (for example) needs to change a default option on activation, it can use these functions.

<u>Creating Tables with Plugins</u> has an example using the <u>register\_activation\_hook</u> function to make the database compatible with the current version of the plugin.

# See Also

- Pluggable Functions
- Filter Reference
- Action Reference
- Adam Brown's WordPress Hooks Database, a database of all WordPress' hooks, showing which version they come from, and linking to the source code spots that use them. This is the most complete.
- Otto on WordPress: Actions and filters are NOT the same thing...

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