2 - Hooks

What is a hook?

As previously mentioned, when MyBB loads plugin files the code is evaluated and therefore any code on the global scope will be executed. Let's suppose we have the following line on our global scope of the testplugin:

```
(1) $plugins->add_hook("index_start", "testplugin_index");
```

What it does is basically add 'testplugin_index' to an array, like this:

```
Array (
      'index_start' => 'testplugin_index'
      'otherhook' => 'someotherplugin_myfunc'
)
```

If we have more plugins doing the same, e.g.:

```
(2) $plugins->add_hook("index_start", "anotherplugin_function");
```

MyBB's internal hooks array will be like this:

```
Array (
      'index_start' => 'testplugin_index,anotherplugin_function'
      'otherhook' => 'someotherplugin_myfunc'
)
```

(actually the array is not exactly structured like this but this way it is easier for you to understand and the end result is the same)

If you take a look at the index.php you will find the following line:

```
(3) $plugins->run_hooks("index_start");
```

This will simply execute every function found in Array['index_start'] so to make it even more intuitive for you, let's say the line gets "replaced" by:

```
testplugin_index();
anotherplugin_function();
```

So that's the same thing as having our function being executed where line (3) is found (on index.php) – that is not what happens but it's more intuitive to think of it like that!

Why are hooks useful?

Imagine that you want to add a new page to MyBB, for example a page where a donate button is displayed along with the goal progress.

How would you do it? You could create a new PHP file or you could perhaps make www.yourforum.com/misc.php?action=donate display that page.

But how would to tell MyBB that the 'donate' action in file misc.php will display our desired page?

Well, you would start by adding a hook to 'misc_start' (found in misc.php) and then use a function of yours to output the desired page:

```
(4) $plugins->add_hook("misc_start", "testplugin_donate");
```

An example of what our testplugin_donate() function could look like can be below.

Remember that even though you can think of hooks as a way to run your code within MyBB's code, the code that is executed, is executed inside a function and therefore it must be treated like that (hence why in our example we globalize certain variables: $mybb, $theme, etc).

testplugin_donate() example

```
function testplugin_donate()
{
       global $mybb, $theme;

       // If our 'action' is not 'donate' we do not want to be here
       if($mybb->input['action'] != 'donate')
              return;

       // $header, $headerinclude, $footer are declared in global.php
       global $header, $headerinclude, $footer;

       $page = "
<html>
<head>
<title>Donate</title>
{$headerinclude}
</head>
<body>
{$header}
<table class=\"tborder\" border=\"0\" cellspacing=\"{$theme['borderwidth']}\"
cellpadding=\"{$theme['tablespace']}\">
       <tr>
              <td align=\"center\" class=\"thead\">Donate</td>
       </tr>
       <tr>
              <td class=\"trow1\">
                     Our Donate button and progress would go here.
              </td>
       </tr>
</table>
{$footer}
</body>
</html>";

       output_page($page);
       exit;
}
```