



## Templates

### What are they?

Microcyte uses templates to build and manage the site structure. This means that you can develop a number of site templates which the CMS users can then use as often as they like to create new pages in the website. Templates are essentially just HTML pages with some PHP includes added to make them work with the CMS. There are, however, some guidelines for building them which we'll cover in this chapter. You'll need good knowledge of HTML and some low-level of PHP to successfully build Microcyte templates.

### How do you build them?

#### Includes

Its fairly simple to build Micrcyte templates. Essentially they are HTML pages with PHP includes but they have a .tmp extension instead of a .html extension.

There are two main Microcyte system includes which need to be added to each template. These are as follows:

```
<!-- <![CDATA[ -->  
<?php include("cmsincludes/header_includes.php"); ?>  
<!-- ]]> -->
```

which should be added within the head section of the page

```
<!-- <![CDATA[ -->  
<?php include('cmsincludes/panels.php'); ?>  
<!-- ]]> -->
```

which should be added immediately after the opening body tag on the page.

You should notice the `<!-- <![CDATA[ -->` and `<!-- ]]> -->` elements. These tell the system that it shouldn't attempt to manage content inside them and they should be used around every block of PHP or Javascript in the template.

#### Editable Regions

The way microcyte knows which parts of the page to content manage is by using special id attributes on div, span and img tags in the template. In the following examples you can see how this works:

```
<div id="body_content_editable">Some managed body text</div>
```

```
<h2><span id="main_header_editable">A managed header</span></h2>
```

```

```

## xHTML

The last main requirement for building microcyte templates is that they must be valid xHTML. This means that every tag should be closed and self closing tags should be used for elements like `img` and `link` (this means there is a `/` before the closing `>` of the tag e.g. `/>`). **If the page is not xHTML then it WILL NOT SAVE!** To clarify further, the page should still be valid xHTML even when all PHP includes are removed from the document, e.g. you should not ever have a tag which is opened in the template and closed in an include, or vice-versa. The reason for this is that microcyte relies on the template being a valid XML document before it can parse and manage content within it.

## Where do they live?

Templates have a special home within the microcyte folder structure. They live in the **pagetemplates** directory on the root of the website. The page templates must have an extension of `.tmp`. Because the templates are copied to the root of the website when a new page is created, all file paths within the template should be coded to be relative to the **root** of the website. You should NOT code your file paths to be relative to the **pagetemplates** directory.

## Troubleshooting and common issues

When developing templates for microcyte you may come across one or more of these common issues:

Issue	Solution
I can see the page template in the site management area but microcyte wont create the new page. (sometimes accompanied by a permissions or copy error.)	Its possible that the web user (the user account the web server uses to access files in your hosting) does not have sufficient permissions to create new files in the root directory of your website, you should attempt to correct the permissions to allow write permissions for the web user on this directory.
I'm able to create a new page using the template, but when I add new content and try to save, I get an error message: could not find file for update, has it been moved?	It's possible that some server level process is deleting the file before you can save you changes. Another possibility is that the file permissions are restricting PHP from directly reading and modifying the file. Use the same process as above to modify the file permissions.
I'm able to create a new page using the template, but when I add new content and try to save, I get an error message: A problem occurred and the system was unable to	This error is usually triggered when the microcyte is unable to successfully parse the template as XML. The best way to fix this is to check your template to make sure all your tags are properly closed, all your includes, PHP and javascript blocks have CDATA tags as shown above.

save all your changes.