



Creating Your Own Tutorials in MicroWorlds EX™

Creating your own tutorials in MicroWorlds EX is easy and you do *not* have to be a systems analyst, programmer or graphic designer to do it. The only requirements are that you know how to create simple HTML files using an HTML editor such as Microsoft® FrontPage®, and digital images using an image processing software that supports the most popular file formats (BMP, JPG, GIF)

Here are some important general rules to follow when creating a tutorial:

- Prepare your text beforehand. It's a good idea to keep all steps fairly short. This helps minimize the amount of scrolling required to see the whole step.
- Consider using a screen capture program to create graphics for some strategic steps in your instructions. There are several good freeware versions available on the Web.
- Tutorials are displayed in alphabetical order in the Tutorial Menu on the Welcome Screen. Figure out where your new tutorial should appear and name it accordingly. Remember that, alphabetically, Act3 comes after Act23, Act5 comes after Act456, and so on.
- A tutorial *must* start from a "main" page containing a hyperlinked table of contents that links to the different "steps" of your tutorial. This "main" page *must* have the **.html** extension. Some programs save HTML files with an **.htm** extension and, unfortunately, these files will not be visible in the list of Tutorials on the Welcome screen. If in doubt, follow these instructions:

Windows:

1. Open the Windows Tools menu,
2. Select Folder Options,
3. Choose View, and
4. Unselect *Hide extensions for known file types*.

Macintosh:

1. Choose Preferences in the Finder menu
2. Check the option "Always show file extensions"

- All the other pages of your tutorials (those referred to by the "main" page) must have a hyperlink back to the "main" page.
- Each tutorial should have a bit-mapped (bmp) image that is associated with it. This image is displayed in the tutorial menu on the Welcome Screen. (If there's no image, the name of the file is displayed; for example, Act23.) The image is displayed on the screen in a 150 x 150 pixel area, so you may want to use this size when creating your image. You can use larger images, but any text on them may be difficult to read. When saving the image, it must have the same name as the first page/table of contents menu file mentioned above (although with a different extension – html)
- Keep in mind the dimensions of the tutorial tab, particularly when creating images that will be incorporated into the text.

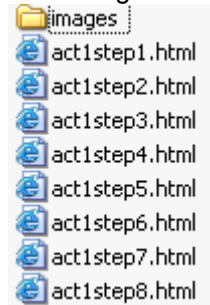
Getting Started

The simplest way to create your own tutorial is by modifying one of the current tutorials and saving each of the new files under a new name.

Make a **copy of one of the existing tutorials** and save it in a different location on your hard disk. The original MicroWorlds tutorials are located in a folder in your MicroWorlds EX folder, most likely located in the Program Files folder on your hard drive. Take these three elements:



The **bmp** file is the image for the Welcome screen. The file **act1.html** is the tutorial's "main" page file (the one with the table of contents pointing to the different "steps"). The **act1 folder** contains the different "step" files and a subfolder containing the images for that tutorial:



Change the name of the bmp file (keep the extension .bmp), use the same name for the "main" page file (keep the extension .html), and use the same name again for the folder that contains the "step" files. Inside that folder, change the beginning of the file name for each file. Do not change the name of the "images" folder.

When choosing a new name, keep in mind the "alphabetical" rules described above. In the example below, act1 has been replaced with **act9** everywhere and the new tutorial will appear at the end of the list on the Welcome screen.

Once you've finished all the renaming, place these elements inside the Tutorials folder, in the MicroWorlds folder.

(Note: If you forget to duplicate one of the MicroWorlds EX tutorial's folder and its files and accidentally over-write them, you can always find the original version on the MicroWorlds CD ROM.)

Adding Your Own Instructions

In following this method, you need to:

- Change the text in the appropriate places;
- Create new images and save these new images;
- Change the hyperlinks in the tutorial's table of contents (the "main" page), adding or removing hyperlinks if you have more or fewer steps;
- Change the hyperlink in all the "steps" files to return to the "main" page file;
- Change the hyperlinks to the images.

The following is just an example:

Create your "main" page containing the interactive table of contents:

Boot your HTML editor. In the file menu, select **Open**. Select the HTML file named **act9**.

1. First, write the name of your new tutorial. If using FrontPage, you can do this directly in the Normal view or you can change the HTML code directly.

For example, change:

```
<div class="center"><h1>Activity 1: A One Page Presentation</h1></div>
```

To:

```
<div class="center"><h1>Activity 9: Exploring Arcs</h1></div>
```

2. Next, replace the first paragraph with a very brief description of the new activity.
3. Write the names of each of the sections in the list of hyperlinks. You will need to change the actual hyperlink for each. You can do this directly in the code or, if using FrontPage, by right-clicking on the name of the step, selecting Hyperlink Properties in the right-click menu, and then providing the correct hyperlink in the line labeled URL.

For example, if changing the names and links directly in the code, you could change:

```
<li><a href="act1/act1step1.html">Step 1: Write a title</a></li>  
<li><a href="act1/act1step2.html">Step 2: Add more information</a></li>  
<li><a href="act1/act1step3.html">Step 3: Create an illustration</a></li>  
<li><a href="act1/act1step4.html">Step 4: Add some shapes from the  
Library</a></li>
```

...and so on, to:

```
<li><a href="act9/act9step1.html">Step 1: The total turtle trip</a></li>  
<li><a href="act9/act9step2.html">Step 2: Drawing a circle</a></li>  
<li><a href="act9/act9step3.html">Step 3: Drawing half and quarter  
circles</a></li>  
<li><a href="act9/act9step4.html">Step 4: Create petals</a></li>
```

...and so on.

The first act9 (before the backslash) refers to the folder; the second is part of the file name. You may choose whatever folder and file names you want as long as you change the links accordingly.

Create as many or as few steps as you need for your tutorial. Just make sure your hyperlinks are correct.

5. Save your file. Remember: The extension for this file must be .html (**not** .htm)

Create your menu icon image:

1. Open the file named act9.bmp. Use any paint or digital imaging software – even MicroWorlds EX - to edit the menu icon or to create a new one. Remember the image is displayed in a 150 x 150 pixel area. Add any text you may want to use.
2. Save your image. It should have the same name as your "main" page file, but with the .bmp extension.

Create the steps in your tutorial:

1. Open subfolder **act9** and then open file **act9step1.html**. This is the first step of the tutorial you're modifying.
2. Change the activity title. For example, in the HTML coding you would change this:
<div class="center"><h1>Activity 1: A One Page Presentation </h1></div>

To:

```
<div class="center"><h1>Activity 9: Exploring Arcs </h1></div>
```

3. Change the hyperlink to return to the tutorial's "main" page, the one that contains the table of contents of the list of steps. Change:

```
href="../act1.html"><img alt="List of Activities"
to:
href="../act9.html"><img alt="List of Activities"
```

4. Change the title and text for this step.

For example, change:

```
<h2>Step 1: Write a Title </h2>
```

```
<p>
```

```
Create a 1-page presentation about where you live. Start
by putting a title on your page.</p>
```

To:

```
<h2>Step 1: The Total Turtle Trip</h2>
```

```
<p>
```

```
When drawing a circle, the turtle starts and stops its trip at the same
spot. If it is also heading in the same direction as when it started, it
has made a Total Turtle Trip.
```

```
</p>
```

... and so on.

Paragraphs of text should be placed between the symbols `<p>` and `</p>`.

5. Make sure you set the hyperlink back to the “main” page. You should return to the “main” page whenever you click on the following icon:



You can set this hyperlink directly in the HTML code or, if using FrontPage, by right-clicking on the icon, selecting Hyperlink Properties in the right-click menu, and then providing the correct hyperlink in the line labeled URL.

6. Delete all images in the folder named Images that is inside the **act9** subfolder. (Careful! Do **not** delete the folder named **images** that is in the Tutorial folder! This contains all the images used in the general layout of all the tutorials.) Create the images you need for each step. Remember to consider the size of the tab when creating images. Save the images in one of the following formats: jpeg, gif, png. Check the HTML code to make sure the hyperlink to the image is correct. It should look something like this:

```

```

In this example, the image name is **image001.png**, and it is saved in the subfolder named **images**. You can skip the width and height parameters if you prefer.

7. Repeat this process for all of the steps in your tutorial.

That's all there is!