

McCartney's Journeys in Genealogy

# Server Side Includes

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How and Why to Use Them

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# Preface

This document is a brief look at Server Side Includes (SSI), why you would want to use them and how to use them. It covers the basic information that most web-masters and web-mistresses would need. SSI can do more than is discussed in this document.

There are many tutorials on the web which will provide more detailed discussions. One of the better tutorials is [TDavid's Server Side Includes \(SSI\) Tutorial](#). It is somewhat technical, but I highly recommend it.

## Legal Comments

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# The Beauty of Server-Side Includes

## Using Server-Side Includes

Most websites will contain segments of code that are identical on a good number of pages on the site, if not on every page. On some sites there are multiple segments on every page. On my site formatting, navigation and bottom of page segments appear identically on every page. With over 100 pages on the site, changing any of these segments - navigation, for example - becomes a minor nightmare. The code for each page must be changed individually and identically. It would be nice if I could make the change in one place and have it automatically appear on every page. Well, that is just what server-side includes (SSI) will do. Each code segment is a separate file that can be included in the code for every page. It can be included more than once on a page, if you need to do so.

## Can You Use Server-Side Includes?

There is one question that must be answered before going any further. Can you use SSI? Oh, sure, you can learn how to code them, but will your website host allow developers to use SSI? The answer is most probably YES. I have checked on a good number of hosting services and have yet to find any that did not allow SSI. After all, it is used by many, if not most, professional developers and the hosting services want their business. Even so, if you have already chosen a host, you should test it to be sure.

Let's try a simple test. This test program uses one SSI file. We will get into the details of how, what, where and why later. For now just copy the following HTML code into a text file, then save it as test.shtml. Notice the extension. It is not html, but shtml. We'll have more about this later.

```
<html>
<body>
  <p>This is a test program for SSI accessibility.
  </p>
  <br /><br />
  <!--#include file="test_include.ssi" -->
  <br /><br />
  <p>If you see the celebratory greeting above this
line,
      SSI is available on your host.
  </p>
</body>
</html>
```

Now copy this code and save it in a text file named test\_include.ssi

```
<h2 style="color: red;">HOORAY! We did it.</h2>
```

Upload these two files to your host server. Access the test.shtml file in your browser by specific address. You should see a white screen with three lines of text. The center line should look like this:

**HOORAY! We did it.**

If you see this line then server-side includes are available on your host service. If you do not see this line then the server has not been configured for SSI.

If SSI is not available, you have several choices: 1) you can choose not to use SSI; 2) you can ask your host service to configure SSI; or 3) you can change your host service. There is very little chance that you will have to use any of these options. As I said before, most hosting services have configured SSI and it is available to all of their subscribers.

## **Working with Server-Side Includes**

There are three major distinctions in working with SSI: the code to be included on the page, the page on which the code is to be used and the means to put them together. We will start with the code to be included.

### **The SSI File**

This is really very simple. All you need is a text editor, such as Notepad or Wordpad. Actually, any editor that will allow you to specify the extension when saving the file will do fine.

The block of code can contain a few simple words, a complex table of elements, several paragraphs of information, images or a JavaScript; just about anything you want. It can even contain a standard set of META tags that you want on every page. For this example we will use only a line or two.

```
<!-- sample ssi file -->
<br /><br />
<h3>THIS IS SAMPLE CODE</h3>
<br /><br />
```

This will produce three lines: a blank line, a line that says "THIS IS SAMPLE CODE" and another blank line.

Notice that this file, although it contains HTML commands, is not a full HTML document. There are no <html>, <head> or <body> tags, nor are there any close tags for them. These tags are not needed in .ssi files.

Put this code in a text editor and save it to a file that will be called into any page where it is needed. The file will have a special extension: .ssi. This will tell browsers that the code, once expanded, will be parsed as html code. For this example we will named the file include1.ssi.

Save the file into any folder you want. I prefer to keep all of my .ssi files in one folder with the very original name "ssi\_files". That isn't necessary for this test.

Once the file is saved, this stage is complete. So let's call this file into an HTML file.

## Calling the SSI File

Now that we have a .ssi file, what do we do with it?

The HTML file that where we want to put the lines of code from the .ssi file now needs to be edited. The following code represents the main web page. OK, it is rather small and meaningless but it will demonstrate the function of SSI. It also looks very similar to the test file we used earlier. It is the same code with slight changes. Let's call this file test.shtml. Also, note that the line numbers are only for this discussion. They are not part of the file.

```
1. <html>
2. <body>
3.     <p>This is a test program for SSI accessibility.
4.     </p>
5.     <br /><br />
6.     <h3>THIS IS SAMPLE CODE</h3>
7.     <br /><br />
8.     <p>Another paragraph.
9.     </p>
10. </body>
11. </html>
```

Delete lines 5, 6 and 7. They will be replaced by one line, a #include command, which looks like this:

```
<!--#include file="include1.ssi" -->
```

Note that there are only two spaces in the command: after "include" and before "-->".

The include command looks very much like a HTML comment. In some respects it is. It tells the browser that this line should not be displayed on the page, but should be parsed to expand the code by using the referenced include file.

The code now contains only 9 lines and should now look like this:

```
1. <html>
2. <body>
3.     <p>This is a test program for SSI accessibility.
4.     </p>
5.     <!--#include file="include1.ssi" -->
6.     <p>Another paragraph.
7.     </p>
8. </body>
9. </html>
```

The final step for this page is to save it with a new extension. Instead of HTM or HTML, the file will be given .shtml. Let's name it page.shtml. Note the s in the extension.

When the browser loads the page, the "s" tells it that something special must be done to the page. In this case, it must expand the include command while loading the page. When the page is loaded the code will look like this:

```
1. <html>
2. <body>
3.     <p>This is a test program for SSI accessibility.
4.     </p>
5.     <!-- sample ssi file -->
6.     <br /><br />
7.     <h3>THIS IS SAMPLE CODE</h3>
8.     <br /><br />
9.     <p>Another paragraph.
10.    </p>
11. </body>
12. </html>
```

The include file contained a comment which was also included in the expansion, so we now have 12 lines of code.

## **Conclusion**

That is basically all there is to server-side includes. It may not seem like much in this example, but, trust me; it can save you a lot of time and aggravation. If you have 100 pages on your site and the navigation is hard-coded into every page, what happens when you add a new page? You have to edit all 100 pages, add the new line to the navigation and hope you didn't make any mistakes. Then you have to test every page. That's a lot of work. Put the navigation into an SSI file and include it in each page. Now, when a new page is added, change the .ssi file and the job is done. The new page will be in the navigation on every page in the site. That's a lot less work for you.

Don't let the length of this article scare you. It takes much more to explain SSI than it takes to use it.

There is one caveat, however. SSI will work on your host server, but it will not work locally in your browser. You can configure your operating system to function as a server if you have Windows Vista Home Premium. Unfortunately, Windows 7 Home Premium has removed that feature, but it is available on Windows 7 Professional.