

# **ASHRAE TC Website Manual**

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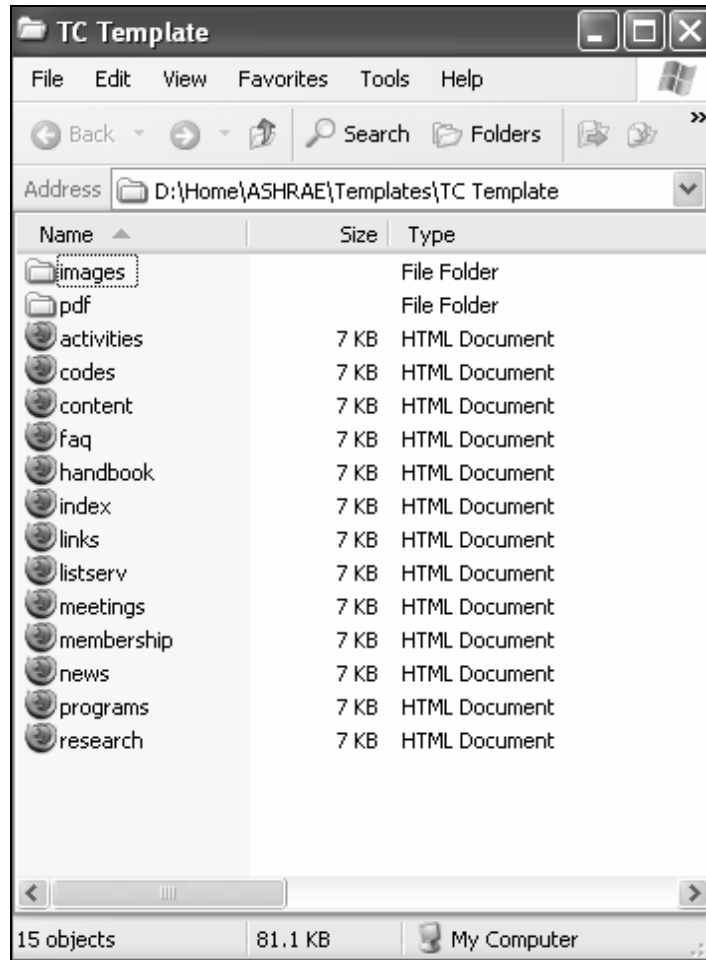
# 1 Getting Started

This manual has been composed to assist with the creation of an ASHRAE TC Website. To simplify the process, ASHRAE has developed a template that eliminates the need for the TC webmaster to have any previous knowledge of website programming. The template also creates a standard look across all TC websites. This can prove helpful to someone not familiar with each Technical Committee site.

This manual assumes that the appointed webmaster for a given TC has no experience with programming in the language used by web pages. From start to finish, you will be guided through each step, and examples will be given to illustrate each point. Chapter 4 walks you through the page content of a sample TC website.

## 1.1 The Compressed Template

To obtain the template file, contact Mike Vaughn if you have not done so already. The template is initially a compressed zip file, which must be extracted before starting. You can use an unzip program to do this, or Windows<sup>®</sup> XP can do it automatically. Once you have extracted the file, open the folder and you will find two file folders and thirteen HTML documents, shown in Figure 1. These files are the template. The file folder `images/` is used to store all images placed on your template web pages, and if opened you will find two files in this folder. The `pdf/` file folder contains all documents that will be placed on your site for download by visitors, and is currently empty. Each one of the thirteen HTML documents is a web page. It is advisable to always keep a local copy of these files on your computer. This will make maintenance easier, and if you want to make changes to a particular file, you can do it to your local copy, uploading afterwards. Highlight all the items (there should be 15), and cut and paste them to a folder designated for the local copy. After you have done this, you can delete the compressed template file that was sent to you.

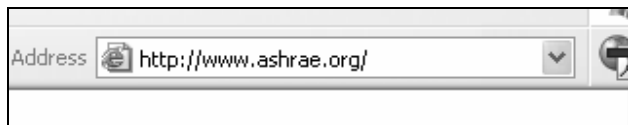


**Figure 1: The Template Files**

## 1.2 File Transfer Protocol

Now that you have a local copy of your new Technical Committee web site template, you can begin editing the template, customizing it to your TC. During this process, and after it is completed, you will want to view your site to see how it looks. One easy way to do this is to navigate to the folder where your local copy is located, and double click on one of the HTML documents. This will open that file up in your default web browser. If this does not happen, you can also open your favorite web browser and click “File”, then “Open”. Here you can select one of the thirteen HTML documents in your local copy, and click “Open” again.

While this allows you to see your TC site, allowing others to visit it over the Internet involves a little more work. ASHRAE has provided some server space where your web site can reside, making it accessible to visitors. To do this, you will need to use the file transfer protocol, or FTP. Much like the protocol HTTP used with web addresses (see Figure 2), FTP provides a means to transfer files over the internet.



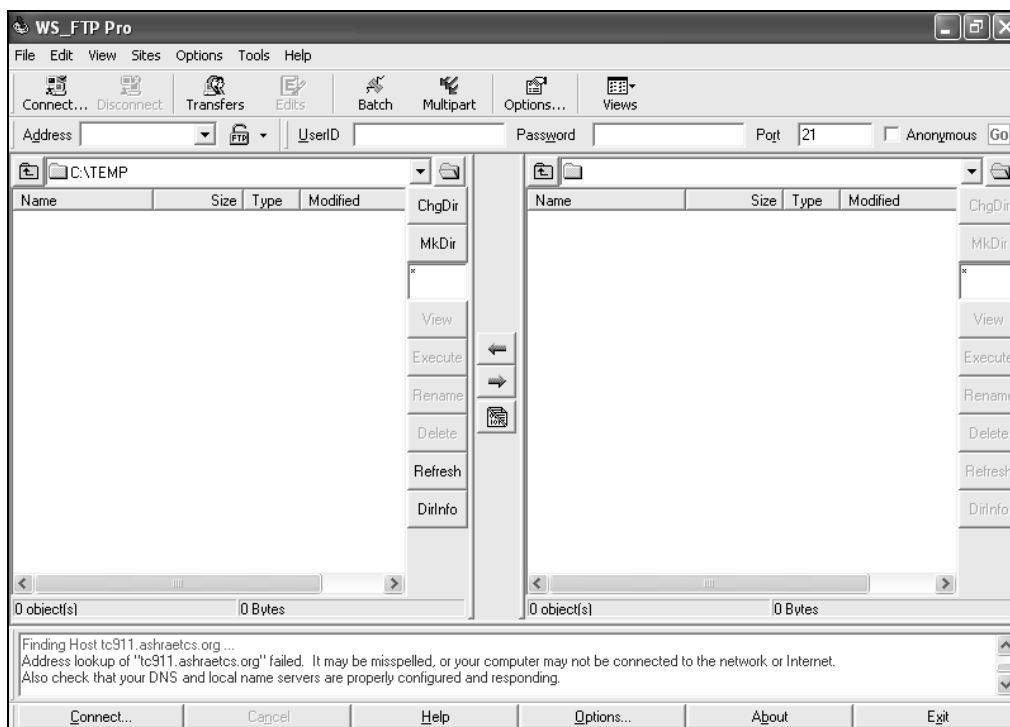
**Figure 2: Web Address Input Box**  
(Notice the `http://` indicating which protocol to use)

To put your files onto the ASHRAE web server, you will need a program that can utilize the commands of the file transfer protocol. The example used in the subsequent section is from the company IPswitch®, called WS\_FTP. If you have a different FTP program, you can still most likely follow the instructions.

### 1.3 Installing an FTP Program

As mentioned in the previous section, you will need an FTP program to upload your site onto the ASHRAE server. If you do not have a copy of WS\_FTP available to you, you can visit [http://www.ipswitch.com/Products/WS\\_FTP](http://www.ipswitch.com/Products/WS_FTP) to download an evaluation copy. For instructions using different FTP software, consult your IT Administrator.

Once you have the FTP program installed, open it up. With WS\_FTP, you will see the following screen. The main portion of the screen is taken up by two large directory browsers, which are empty in this example. The one on the left displays a folder on your computer, while the right browser will eventually display the contents of the web server.



**Figure 3: WS\_FTP at Startup**

As shown in Figure 3, there are two toolbars directly above the two main directory browsers. The top toolbar begins with “Connect”, and the second begins with “Address”. It is in the second toolbar that you will enter the necessary information to set up a connection to the server. If you have not done so, you will need to contact Mike Vaughn to get the address, user ID and password for your TC website. The following is an example of this information.

```
Address: tc911.ashraetcs.org
UserID: tc911admin
Password: something
```

Enter this information, shown in Figure 4. Right after the input box labeled “Address” there is an image of a lock. Make sure that this lock has “FTP” written on it, and the image looks unlocked. Also, after you have entered the user ID and password, there is an input box labeled “Port”. In this box should be the number 21. When you have done this, you may click “Go” at the end of this toolbar to connect to the ASHRAE server.



**Figure 4: The Address Bar Filled Out**

Once you have clicked “Go”, the FTP program will attempt to connect to the server. If it is successful, the right side directory browser will display some files and folders. These are files currently occupying your server space, and can be deleted. To delete them, use your cursor to select all the files in the right directory browser, right click and select “Delete”. When prompted, click “Yes” to confirm your deletion. Now your server space provided by ASHRAE is clean, and you can begin uploading your files.

## 1.4 Uploading Your Site with FTP

If you open WS\_FTP and connect (see section 1.3 for instructions), you can begin transferring files. First, in the left directory browser, navigate to the location of the local copy of your TC web site. In the left window, there should be the same two file folders and thirteen HTML documents as before. The right browser should currently contain the contents of your web server. If this is your first time, this browser should be empty (you deleted everything in the last section). You can use your cursor to select all fifteen items in your local copy and click the green Upload arrow between the two directory browsers that is pointing towards the right, shown in Figure 5.

Slowly, the contents in the right browser should resemble the left browser as the files upload. If you look at the bottom portion of the window, below the directory browsers, you should see some commands and text continually displaying in the log window.



**Figure 5: The Upload / Download Buttons**

Once the transfers have finished, you can view your new page online by opening a web browser, and in the Address input box, type in the address of your TC (an example is <http://tc911.ashraetcs.org>) and an empty template should appear. If it does not, make sure all pages successfully transferred via your FTP program.

After you have edited the pages in your local copy, you will need to upload them again onto the server. This time, you will need to overwrite what is currently on the server with your modified local copy. To do this, highlight what you modified in the left directory browser and click the Upload button pointing towards the right. Some programs will prompt you to overwrite, and if this occurs, press "OK".

If for some reason your local copy was deleted, you can easily grab what is currently on the server. Select all of the documents and folders in the right directory browser, and this time click the Download button (arrow pointing to the left). Once you have done this, you can continue to edit what is currently on your computer, save your changes, and place the new page onto the server using the upload function.

## 2 Setting up the Template

In the previous chapter, you have set up a location on your computer where you will store your new TC website, and have installed and set up an FTP program with which to upload your site to the ASHRAE server. You will now be shown how to quickly personalize the template for your site. There are several references to your TC, so you will need to know the following information: the number of your Technical Committee, the Committee's name, and an email address that viewers of the site can use to ask questions. Keep this information at hand for the next few sections. The following is an example of this information.

TC Number: 9.11  
Committee Name: Clean Spaces  
Contact Email Address: somebody@ashrae.org

### 2.1 Page Title

The easiest way to personalize all pages of the template is to do it all at once. To make changes to the code in each of the thirteen HTML documents of the template, you will need a program to be able to read it. Double clicking on the file will most likely open it in your browser, not allowing you to edit the content of the page. If you are using a Windows® computer, Notepad is a simple application that you can use to edit each page. Try to avoid programs like Microsoft® Word, or a web authoring program such as FrontPage® or Dreamweaver®. A simple, text-only reader works best. An example of Notepad is shown in Figure 6.

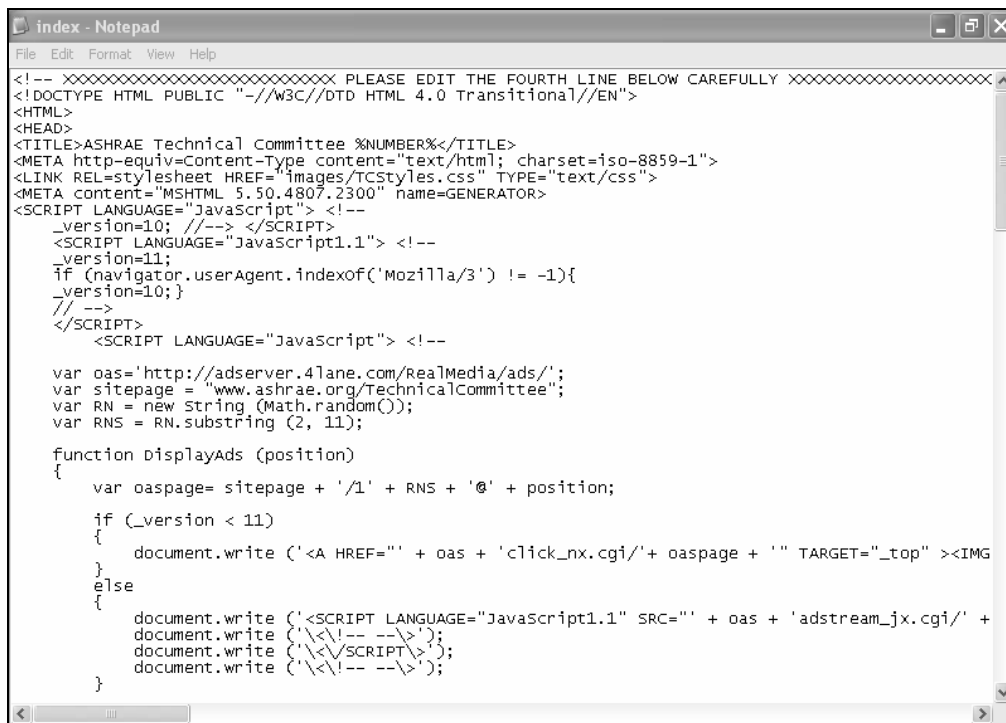
The image shows a Notepad window titled 'index - Notepad'. The window contains HTML code for an index page. The code includes a DOCTYPE declaration, HTML and HEAD tags, a title tag with a placeholder for the TC number, meta tags for content type and charset, a link to a stylesheet, and a generator meta tag. It also contains several JavaScript code blocks. The first block sets a version variable and checks for Mozilla. The second block defines variables for an ad server, site page, and random string. The third block is a function named 'DisplayAds' that writes an advertisement to the page based on the version and position.

Figure 6: Notepad with index.html Open



## 2.3 Main Body

In the same file, `index.html`, scroll halfway up the page and you will find a line that contains `%PAGE CONTENT%`. This is where you will eventually replace `%PAGE CONTENT%` with the actual content for each page of the template. This location in the template will be referenced later as the content section of this page. Five lines above this, however, two changes need to be made to the following text.

```
<div class="title" align="center">ASHRAE Technical Committee  
%NUMBER% - %NAME%</div>
```

Change `%NUMBER% - %NAME%` to your TC number and name, respectively. After this is done, the line should look like the subsequent text.

```
<div class="title" align="center">ASHRAE Technical Committee 9.11 -  
Clean Spaces</div>
```

Two lines below this, you will need to make the last change to the template. The line is as follows.

```
<div class="title2" align="center">%PAGE TITLE%</div>
```

Here, you need to replace `%PAGE TITLE%` with the title for each page of the template. Since each page has a different title, you will need to change each HTML document separately. With `index.html` still open, replace `%PAGE TITLE%` with `HOME`. Then, save your changes by going to “File”, then “Save As”. When the application asks what you want to save the file as, enter `index.html` and click “Save”.

## 2.4 Saving Changes

At this time, you will need to do this same Save As action for the other twelve HTML documents in the template. A table has been provided below to help you do this. Note that the first file, `index.html`, has already been done from the section 2.3 .

File To Save As	Title to replace %PAGE TITLE% with
<code>index.html</code>	HOME
<code>membership.html</code>	MEMBERSHIP
<code>news.html</code>	NEWS
<code>meetings.html</code>	MEETINGS
<code>activities.html</code>	ACTIVITIES
<code>programs.html</code>	PROGRAMS
<code>research.html</code>	RESEARCH
<code>handbook.html</code>	HANDBOOK
<code>codes.html</code>	STANDARDS AND CODES
<code>content.html</code>	PUBLISHED CONTENT

File To Save As	Title to replace %PAGE TITLE% with
links.html	LINKS
faq.html	FAQ
listserv.html	LISTSERV

Once you have saved all of the changes mentioned above to each file listed in the table, you can view what the template would currently look like by opening a web browser, like Internet Explorer® or Netscape®, and going to “File”, then “Open”. Navigate to the HTML document that you wish to view, select it and click “Open”. In the web browser should appear the page you selected. Look over the other text, and make sure there are no mistakes in the references made to your TC.

## 2.5 Personalized Template Example

Appendix A shows the exact text that would be found in `index.html` of a template that has been modified according to the above sections. If you have reviewed the previous sections, and are still unsure how to accomplish them, take a look at Appendix A and open `index.html` in your template (still unchanged), and reread the above steps. At each step, try to note where each step has been changed in Appendix A. Without any changes made to the content, `index.html` should look like Figure 7 if viewed in a web browser.

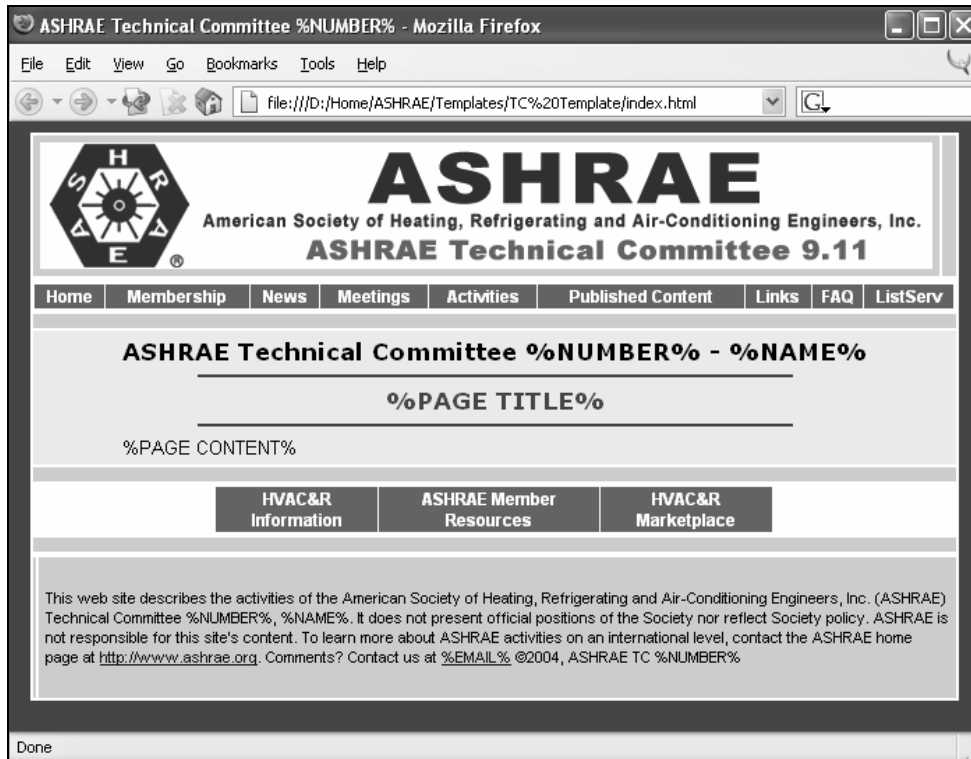


Figure 7: Web Browser View of `index.html`

## **2.6 Members Only Section**

While it is possible to create a folder that is accessible to committee members only, you will need to go through some extra steps to set one up. A Members Only section on your web site would consist of a folder, like `images/` or `pdf/`, in which you could store other HTML pages or documents that would only be accessible to a site visitor if they provide a special username and password. This would allow members of the same Technical Committee to share information securely on their website while preventing others from accessing it.

To get a member only section set up, contact Mike Vaughn. You will need to create a new folder on your site that will only contain documents and web pages that need restrict

## 3 Content Setup

Now that all thirteen pages of the template have been modified to reflect your Technical Committee, you can begin placing content on each page. From the previous chapter, you were shown how to open an HTML file to edit its code. Line 100 of each HTML file contains a line that states `%PAGE CONTENT%`. You will want to replace this line with the actual content for each page. However, there are some points you should know before placing content on a page. Each point is examined in the following sections.

### 3.1 Paragraphs

Most information in any document is displayed in paragraphs. There is an easy way to put groups of sentences into paragraphs when placing content on your web pages. A paragraph tag is a short piece of text that you put before the beginning of each paragraph in your page content. To illustrate how a paragraph tag works, consider the following piece of content.

```
ListServs are a convenient way to find out the latest information
about a topic. If there are new developments, announcements or
publications, listserv subscribers will be the first to know,
because the information comes directly to their email address. It's
a good way for a committee to disseminate important news and
information and to quickly reach their target audience.
```

```
At this time, ASHRAE has several ListServs, which you can access
through the link below. Subscribe to one or more of the ListServs
to be informed automatically when news, activities and information
related to the applicable subject are available.
```

To get these two paragraphs to display in this way when the page is viewed in a browser, you need to put the subsequent text into the content part of a particular page.

```
<p>ListServs are a convenient way to find out the latest
information about a topic. If there are new developments,
announcements or publications, listserv subscribers will be the
first to know, because the information comes directly to their
email address. It's a good way for a committee to disseminate
important news and information and to quickly reach their target
audience.
```

```
<p>At this time, ASHRAE has several ListServs, which you can access
through the link below. Subscribe to one or more of the ListServs
to be informed automatically when news, activities and information
related to the applicable subject are available.
```

Simply leaving blank space between the two paragraphs will not work. You need to place `<p>` before each paragraph.

Using paragraph tags on your pages is by far the simplest way to display information on each page. In fact, you could construct every page in the template using only paragraph tags to organize data. However, if you need some additional ways to style your text on a given web page, continue through the rest of the chapter.

## 3.2 Line Breaks & White Space

As mentioned above, web pages ignore returns and blank spaces between words. Consider the following piece of text.

```
Do you want          to get
involved
in
your TC's issues at the
Society level?
```

If you were to put this text exactly like above into the content part of one of your web pages, when you displayed the page with a web browser, it would look like this sentence.

```
Do you want to get involved in your TC's issues at the Society
level?
```

Notice how all of the white space and new lines were ignored. This is always the case when creating web sites. Tags are little phrases of text, which are not displayed, but help format the text. The paragraph tag, `<p>`, is an example of how tags are used to format your page content. Other tags that help format the amount of blank space between words are the line break tag and the white space tag.

The line break tag acts like a return placed between words. For example, you could put the following line into the content of your page.

```
Welcome to the homepage of the <br>ASHRAE Technical Committee 9.11
```

When you viewed this page in a browser, you would see the following phrase.

```
Welcome to the homepage of the
ASHRAE Technical Committee 9.11
```

The symbol `<br>` represents a line break tag. Wherever you place the text `<br>` in your web page, it will act like a return. Another tag is the white space tag, which allows you to have more than one space between words. If you look above to the first example in this section, you'll notice that the large gap between the words `want` and `to` was ignored when the HTML file was viewed in a browser. If you truly wanted that much space to occur between the words `want` and `to`, you would have to fill the space with white space tags, shown in the following content.

```
Do you want &nbsp; &nbsp; &nbsp; &nbsp; to
```

If you viewed this piece of text in a browser, it would appear similar to the following phrase.

```
Do you want          to
```

Another interesting feature of the white space tag, denoted by `&nbsp;`, is that when placed between two words, with no gap, the words will not become separated by the automatic wrap of text in a web browser. An example of this is the phrase `Technical&nbsp;Committee`, which would be displayed in a browser as `Technical Committee`. The two words would never become separated by a text wrap due to the insertion of the white space tag.

### 3.3 Text Alignment

While there are many ways to align text, the easiest way involves using a tag you already know. In Microsoft® Word, when you change the alignment of some text, it changes the entire paragraph. So, if you have your content in a given web page organized into paragraphs by the paragraph tag, a simple adjustment to a paragraph tag can be done to center that paragraph. Look at the following text.

```
<p align=center>Programs for the Nashville Meeting <br>(June, 2004)

<p>Symposium NA-04-07: Integration in Cleanroom Design and
Construction
```

If you were to enter this text into the content section of a page on your website, and view it through a web browser, it would look like the following content.

```
Programs for the Nashville Meeting
(June, 2004)

Symposium NA-04-07: Integration in Cleanroom Design and
Construction
```

Notice that the first paragraph tag has an attribute. The attribute says `align=center`. The `align` attribute can be added to any paragraph tag, as long as it follows the format `<p align=direction>`, where `direction` is `left`, `center`, or `right`. It is important to note that after the `<br>` tag in the above example, although the text `(June, 2004)` is on a new line, the text is still centered. It is still considered part of the centered paragraph. Later, when you learn about tables, you will find that the tag `<td>` also can have the `align` attribute added to it.

### 3.4 Headings

There are cases where you may wish to use a pre-defined format for your text. This comes in particularly handy for headings, where you want the text to stand out from the rest of the page. Here is an example of where to use heading tags.

Suppose that in your `programs.html` page, you want to list the programs for the past three ASHRAE meetings. After you are finished listing the latest meeting, you may wish to start listing a previous meeting. However, you feel that just some centered text between the lists is not enough to distinguish them apart from another. So, you may want to put a heading in between the two lists.

To make some text a heading, you must surround the text by heading tags. To do this, consider the following content.

```
<h2>Programs for the Anaheim Meeting</h2>
```

Notice that the text has not only a start tag, but also an end tag denoted by `</h2>`. The end tag is very important. Also notice the number 2. You can use numbers one through six in place of the two, and in each case they will display your heading using a different pre-defined format. To see how each format differs, experiment by placing the above example into one of the content

sections of your web pages. The previous example would look like the following if viewed in a web browser.

## Programs for the Anaheim Meeting

It should be noted that the align attribute can also be used with heading tags. The page content `<h2 align=right>Research Projects</h2>` would appear as follows in a web browser.

## Research Projects

### 3.5 Bold / Italics / Underlining

Like a word processor, you can make any group of words bold faced, underlined, or italicized by applying tags. The following table shows how to use these tags.

Type of Tag	Example	Result
Bold	<code>&lt;b&gt;Technical Committee&lt;/b&gt;</code>	<b>Technical Committee</b>
Underline	<code>&lt;u&gt;Technical Committee&lt;/u&gt;</code>	<u>Technical Committee</u>
Italic	<code>&lt;i&gt;Technical Committee&lt;/i&gt;</code>	<i>Technical Committee</i>

You can even use more than one on the same piece of text. Once you have put bold tags on a word, you can put underline tags, and so on. Like headings, the end tag is very important. The following example would display the phrase `Technical Committee` in bold, italicized, and underlined.

```
<i><u><b>Technical Committee</b></u></i>
```

### 3.6 Font Style Changes

To customize your page content further, you can apply a font tag. Like bold and heading tags, you need to provide an end tag. However, the font tag alone does not do anything. There are three main attributes that you can use to change the font size, color, and face of your text. You don't have to use all attributes at once, so here are a couple of examples.

```
<font size=2 color=red face=arial>Programs</font>
```

```
<font size=5>Research</font>
```

```
<font color=green face="comic sans ms">Handbook</font>
```

There are entire lists of the different values of the three attributes. Here are a few: `size` ranges from 1 to 12. The number does not correlate with a point or pixel height, so you will need to experiment to determine which sizes work best. The `color` attribute takes most normal colors, like green, blue, yellow, red, and more. To get more colors, there are codes that you can use as well. To find more information about color codes, look on the Internet. The `face` attribute refers to a font face, and will only look correct if the user viewing the page has that font installed. For

this reason, it is important to stick to the basic core fonts, such as Arial, Times, Verdana, Helvetica, Georgia, etc. Again, refer to the Internet for a more complete listing. Appendix B lists several online references regarding the use of HTML tags, including different font tag attributes.

While it is possible to use the font tag as much as you wish, it is not recommended that you change the font style on your web site. Often, such changes only make the page harder to read by visitors.

## 3.7 Images

Now that you have enough information to format the text on each page, you may wish to add images to your pages. Take an image file that you want to put on your site and copy it into the `images/` folder on the local copy of your TC website. All images that your website uses should be stored in this folder. By doing this, your website will be stored and organized efficiently.

Once the image is saved in the `images/` folder, you can display it on a page by referencing the image with an image tag. The image tag consists of `<img>`, has no end tag, and requires a few attributes for it to work correctly. An example of this tag is shown in the following content.

```
<img border=0 src=images/filename.gif alt="This is an image.">
```

The `border` attribute allows you to decide whether or not to put a border around the image. If set to 0, no border will be displayed. However, giving a number greater than zero will display a border of increasing thickness.

The `src` attribute, denoted by `src`, tells the browser where to look for the image. Since you have all of your images stored in the `images/` folder, the reference will always start with `images/`. Following the forward slash, insert the name of your image. There are many supported image file types, to be discussed later. It should be noted that if there are spaces in the filename, you must surround the entire file location by quotes, like the following.

```

```

The alternate text attribute, denoted by `alt`, is used by screen readers for people with visual impairments. For each image, you should write a sentence or two that describes what the image is displaying. As discussed previously, surround the sentences by quotes.

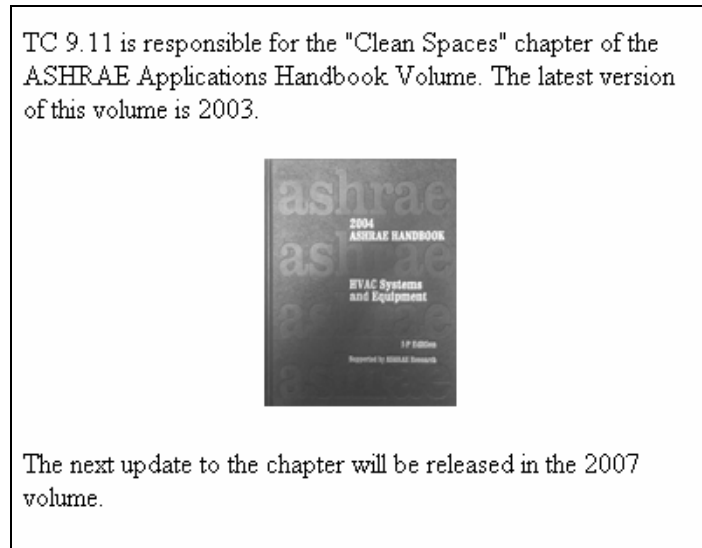
Text wrapping around images is a difficulty faced by many web designers, and there is no easy solution. However, you can eliminate the need for text wrap by giving the image its own paragraph tag, shown in the subsequent content.

```
<p>TC 9.11 is responsible for the "Clean Spaces" chapter of the ASHRAE Applications Handbook Volume. The latest version of this volume is 2003.
```

```
<p align=center><img border=0 src=images/handbook_picture.gif alt="This is an image of the handbook cover.">
```

```
<p>The next update to the chapter will be released in the 2007 volume.
```

The above page content would look like Figure 8 below. Another way to organize text around an image is to use tables. More information on tables is included later in this chapter.



**Figure 8: Images in Web Pages**

### 3.8 Hyperlinks

Hyperlinks allow you to link other pages or files from another web page. If your membership roster is saved as a document, you will need to use a hyperlink to allow people to view it.

There are two different types of hyperlinks. The first type of link will allow you to make documents and other files available for download. To give an example, open up your `membership.html` file in your local TC website copy to edit its contents. In the content part of this file, you wish to write a paragraph about the new committee chair that was elected, and then on a new line you wish to put a hyperlink to the membership roster, stored as a Microsoft® Word file.

The first thing you will need to do is retrieve a copy of the membership roster. Copy it into the `pdf/` folder in your local TC website copy. To keep your site well organized, it is a good idea to put all files that you want to make available for download on your site in this folder. Once the file is in the `pdf/` folder, you can go back to your `membership.html` file, and after the first paragraph, enter the following text.

```
<p><a href=pdf/roster.doc>Link to Membership Roster</a>
```

The `<p>` indicates that you want this link to start on a new line, and the `<a>` tag, with the Reference attribute denoted by `href`, makes up your hyperlink. The `<a>` tag is called an anchor tag, and is primarily used to construct such hyperlinks as the one described in the example. Note that the `href` attribute contains the phrase `pdf/filename.doc`, which points to the file that you copied previously into the `pdf/` folder.

Like many tags, the end anchor tag is very important. Whatever is between the start anchor tag and the end anchor tag will appear on your web site in blue, underlined. For example, if you were to view the line of code from the example in a web browser, all you would see is.

[Link to Membership Roster](#)

If you were to click on this piece of text, you would be asked if you want to open or save the membership roster saved in your pdf/ folder. It should be noted that like image tags, if there is a space in your file name, such as membership roster.doc, you need to add quotes around the href attribute, like in the following line of code.

```
<a href="pdf/membership roster.doc">Link to Membership Roster</a>
```

The second type of hyperlink deals with creating links to other web sites. Let's suppose that you wish to create a link to the ASHRAE homepage. Like the other type of hyperlink, you need an anchor tag with the href attribute.

```
<a href=http://www.ashrae.org>Link to ASHRAE</a>
```

Because the ASHRAE homepage is on a different site than yours, you need to include the entire address of that site. Almost all web sites begin their address with http://, use a web browser to navigate to the page you are trying to create a link to, and use the full address displayed for that page. In fact, you can copy it right out of the address box on your web browser.

### 3.9 Bulleted & Numbered Lists

Lists have very specific uses, and using them on web pages can be very simple. The two most important list types are bulleted and numbered lists. Both require a start tag, to indicate that you are starting a list, and an end tag, to complete the list. For a bulleted list, also called an unordered list, the tags used for this are: <ul></ul>. A numbered list, also called an ordered list, uses these tags: <ol></ol>. These tags alone will not create a list, however. Between the start and end tags of the two list types, you need to add text. Each time you wish to display a new bullet or number in your list, use the list tag. The list tag is denoted by <li>. It needs no end tag.

To bring this all together, consider the following bulleted list of ASHRAE meetings.

```
<ul>
<li>Winter Meeting 2004, Anaheim
<li>Annual Meeting 2003, Kansas City
<li>Winter Meeting 2003, Chicago
</ul>
```

Each time you see `<li>` in the code above, another bullet is displayed on a new line. If you were to replace `<ul>` with `<ol>` and `</ul>` with `</ol>` in the code above, the bullets would be replaced with numbers.

To create nested lists, you can just start a new list in a previously started one. For example, study the following code. To see what it does, place the code into one of the content sections of your TC website and view that page in a web browser.

```
<ul>
<li>Home
<li>Membership
<li>Activities
  <ul>
    <li>Programs
    <li>Research
    <li>Handbook
  </ul>
<li>Links
</ul>
```

Viewed in a web browser, the example would appear similar to the subsequent list. Notice how the three items in the nested list are tabbed to the right, and have a different bullet style.

- Home
- Membership
- Activities
  - Programs
  - Research
  - Handbook
- Links

### 3.10 Tables

Tables are the last topic that will be discussed with respect to adding content to your pages. Once mastered, tables can be used to do just about anything to a web site. However, there are so many tag attributes that only the most important ones will be mentioned here.

The tags used to create a table are as follows. To start a table, you need to enter a start and end table tag. It is recommended that you put the table in a new paragraph as well. As such, the following content would initiate a table in your document.

```
<p><table></table>
```

Right now, there are no rows or columns decided yet. For every row you want to add, you will need to enter start and end row tags. A row tag is identified by `<tr></tr>`. By placing row tags inside your table tags, you can determine how many rows will exist in your table. However, there still aren't any columns in your table. So, for every row, you must enter a given number of start and end column tags, denoted by `<td></td>`. An example of a simple table is shown in the following content.

```
<table>
```

```
|  |  |
| --- | --- |
| Row 1, Column 1 Text | Row 1, Column 2 Text |
| Row 2, Column 1 Text | Row 2, Column 2 Text |

```

Several of the lines above have been indented with tabs to help you keep track of the different rows and columns. It is very important that each row has the same number of columns. If there is an error, older browsers might not be able to display the table at all, and modern browsers will display the table incorrectly. The example table would appear like the following in a web browser.

```

Row 1, Column 1 Text      Row 2, Column 1 Text
Row 1, Column 2 Text      Row 2, Column 2 Text

```

The piece of code in this example is a very simple table. The text that is to go into each cell is placed in between the column tags in the desired row, like the text `Row 1, Column 1 Text`. This text will most likely be aligned left in the table, and no border will surround the different cells of the table.

To change the style of your table, some attributes can be added. As mentioned before, there are a vast number of attributes that can be added to the table, row, and column tags. The first attribute you should know is the border attribute. This attribute applies to the table tag. A value of zero indicates no border, and increasing integers will display borders of increasing size. For examples, review the following uses of the border attribute. Each example shown below will display a different sized border around each cell.

```





```

Another set of important attributes are cell padding and cell spacing. Like the border attribute, they also apply to the border tag, and take positive integers as values. The cell padding attribute, denoted as `cellpadding`, changes the amount of white space between the border and the contents of each cell. The cell spacing attribute, denoted by `cellspacing`, changes the amount of space between cells, and appears to increase the size of the border when used. An example of both being used is shown below, but to get a true understanding of how each affects a table, you will need to experiment with different values.

```





```

Other important attributes are cell alignment, cell vertical alignment, and width. The cell alignment, denoted by `align`, should be used with column tags. The values for `align` are: `left`, `center`, and `right`. An example that will be given later will show how to use the cell alignment attribute. The cell vertical alignment attribute is denoted by `valign`, applies to the column tag, and accepts the following values: `top`, `middle`, and `bottom`. The last important attribute to be mentioned is width. It is simply denoted by `width`, and accepts two different

types of values. One type allows you to set the pixel width of the table or column, and another type allows you to set the percent width. Since the width attribute applies to both the table and column tag, complications can arise.

To apply a width to an entire table, simply insert the width attribute into the start table tag. If you give it a value of 500, the entire table will be 500 pixels wide, with the columns automatically sizing themselves in those 500 pixels. If you were to set the value of the table width attribute to 100%, the table would span as far as it could across the window of the web browser. If you resized the browser window, the table would also resize with a percentage width value.

To set the width of each column individually, you can insert the width attribute into each column tag. Because each row in the table has the same number of columns, if one row has columns with a width attribute, all rows will act similarly. In fact, if you set the width of each column in a certain row, all cells in the table will follow that row with respect to column width. The subsequent example illustrates all the above attributes.

```
<table border=1 width=100%>
<tr>
  <td align=left valign=bottom width=50%>Text</td>
  <td width=50%>Text</td>
</tr>
<tr>
  <td>Text</td>
  </td>Text</td>
</tr>
</table>
```

Notice how only the first row has columns with the width attribute set. The second row will behave like the first. Also notice that all the width values are percentages. While it is not required, it is recommended that you either make all widths in your table as set values or all as percentages.

The final attribute to be covered is the column span attribute. Denoted by `colspan`, it is used to “merge” two cells in a row into one. The column span attribute accepts positive integers as its value. The most important thing to keep in mind when using the column span attribute is that all rows in a table must still have the same number of columns. If the first row in a table has one column tag with a `colspan` value of 2, the other rows must each have two column tags to account for the first row. The following is an example of this.

```
<table border=1>
<tr>
  <td colspan=3 align=center>Text</td>
</tr>
<tr>
  <td align=center>Text</td>
  <td align=center>Text</td>
  <td align=center>Text</td>
</tr>
<tr>
  <td align=center>Text</td>
  <td align=center>Text</td>
  <td align=center>Text</td>
</tr>
```

```
<tr>
  <td colspan=3 align=center>Text</td>
</tr>
</table>
```

Notice above how the first row has one column that spans three, while the second row has three columns (that effectively span one column each). Viewed in a browser, the previous example would look like the following table.

Text		
Text	Text	Text
Text	Text	Text
Text		

## 4 Example Website

By now you should have all the necessary tools to put content in your template. In this chapter, you will be given recommendations for what content should be on each web page of the template, with examples shown. If you are still not sure what content to put on your pages, please contact Mike Vaughn for assistance.

Another way to determine what content to place on your pages is through review of existing pages. Other Technical Committees have already implemented this template for use with their pages, and it is recommended that you view some other Technical Committee web sites as well as review the examples mentioned below.

Each section in this chapter refers to a given html file in the extracted template. If you want to follow along, open up the respective html file for each reference and place the example text in your opened html file. Save the file, and view it in a browser to see how the example text is displayed.

### 4.1 Index

The page named `index.html` is the first page that most visitors will see on your site. Here you should place the most important headlines, and some description of your Technical Committee. You may also want to include what visitors will find on other pages on your site.

Some example text is shown below.

```
<p>Welcome to the homepage of the ASHRAE Technical Committee 9.11.
This technical committee is concerned with air conditioning systems
for cleanrooms and spaces, including process, product and facility
air conditioning and related process ventilation for Research and
Development, manufacturing, assembly, test and clean medical areas.
This includes electronic, microelectronic, pharmaceutical and
aerospace facilities and operating rooms.
```

```
<p>Do you want to get involved in your TC's issues at the Society
level? If so, read through the pages of this site, attend a
meeting, or contact our Committee Chair.
```

```
<p><b>Committee Chair:</b> Ivan Thomas, <a
href="mailto:tc0911@ashrae.net">tc0911@ashrae.net</a>
```

```
<p><b>Upcoming Meeting:</b> 2004 Annual Meeting, Nashville, TN,
June 26-30, 2004
```

After mention of the Upcoming ASHRAE meeting at the end, you are encouraged to enter more information about the upcoming ASHRAE meeting. Other things you could add include are:

- Time / Location of your Technical Committee's Meetings
- Time / Location of other meetings
- Meetings / Events that the TC is sponsoring

## 4.2 Membership

For the membership.html page, you are encouraged to either place a hyperlink to your Technical Committee's membership roster or an html tabular form of your roster (using table tags). For member information, you may wish to include the term and position of each member, along with any contact information they provide.

An example of a membership roster portion displayed as a table is shown in the following content. Notice how the different tags and attributes have been used to format the table.

```
<table border=1 cellspacing=1 cellpadding=5 width=600>
<tr>
  <td><b>Name</b></td>
  <td align=center><b>Term</b></td>
  <td><b>Position</b></td>
  <td><b>Business</b></td>
</tr>
<tr>
  <td colspan=4><i>Voting Member</i></td>
</tr>
<tr>
  <td>Ivan Thomas</td>
  <td align=center>03-05</td>
  <td>Chair / Ali Coordinator / Member</td>
  <td>P2S Engineering Inc</td>
</tr>
<tr>
  <td>John O Varley</td>
  <td align=center>03-05</td>
  <td>Vice Chair / Secretary / Member</td>
  <td>The Austin Company</td>
</tr>
<tr>
  <td>Philip J Winters</td>
  <td align=center>03-07</td>
  <td>Research Subcommittee Chair / Member</td>
  <td>Filtration Group</td>
</tr>
</table>
```

## 4.3 News

News.html has been included in the template to provide a page for you to list any news relevant to your Technical Committee. This news could be either about your TC or about other industries relevant to your TC. If there is no news to report, it is best to place a sentence in the page content stating this.

If you have news, there are many ways to display it. You can use paragraph tags, bulleted / numbered lists, a table, or any combination of these. Because this page is so open and relevant to the news of each technical committee, no example has been included.

## 4.4 Meetings

The `meetings.html` page of the TC template is a place for each Technical Committee to place hyperlinks to meeting minutes and other meeting related documents. In addition, existing TC sites place the TC secretary's name on this page, so you are encouraged to do so as well. The following example shows how to display a bulleted list of past meeting minutes. The example assumes that the files referenced in the hyperlinks have already been placed in the `pdf/` folder.

```
<p><b>Secretary:</b> John O Varley
<p>Download the minutes of previous meetings below.</p>
<ul>
  <li><a href="pdf/911-anaheim-2004.pdf">Winter Meeting 2004,
  Anaheim</a>
  <li><a href="pdf/911-kansascity-2003.pdf">Annual Meeting 2003,
  Kansas City</a>
  <li><a href="pdf/911-chicago-2003.pdf">Winter Meeting 2003,
  Chicago</a>
</ul>
```

Note that the quotes used in the hyperlinks are not necessary, because there are no spaces in the file names. However, it is often good practice to include them anyway. This will standardize how you write all hyperlinks, making it easier for you in the future.

## 4.5 Activities

The file `activities.html` is slightly different than the other pages. The template has been set up so that all of the content and information for TC related activities are separated into four sub categories: Programs, Research, Handbook, and Standards & Codes. Each of these four sub categories have their own page, so what information should be placed in `activities.html`?

First summarize what type of information can be found in the Activities section, including this page and the other four. Then, go through each sub category, adding a hyperlink to that file and summarizing what can be found on each of those sub category pages. An example of this is shown in the following content.

```
<p>TC 9.11 is involved in many different types of activities. For
this reason, information about each activity can be found in the
following categories.
<ul>
<li><a href="programs.html">Programs</a> - This page contains
information concerning the different symposiums, forums, and
programs sponsored by TC 9.11. Most of these programs have been
held at past ASHRAE Annual and Winter Meetings. Information on
upcoming programs for the ASHRAE Annual Meeting in Nashville is
also available.
<li><a href="research.html">Research</a> - This page contains
information concerning current research projects, subcommittee
documents, completed projects, and our research plan.
<li><a href="handbook.html">Handbook</a> - This page contains
information concerning what parts of the ASHRAE Applications
Handbook TC 9.11 is responsible for. You can also find information
on upcoming additions to these chapters.
```

```
<li><a href="codes.html">Standards and Codes</a> - This page
contains information on any Standards and Codes that are under
review by TC 9.11.
</ul>
```

Notice again how the hyperlink references were quoted, even though it was unnecessary. Also, hyperlinks to other web sites on your TC site do not have to have the same format as other hyperlinks. In the example, the reference `codes.html` could also have been `http://tc911.ashraetcs.org/codes.html`. Either method is acceptable.

## 4.6 Programs

The file `programs.html` is the first of four html files that are sub categories of the Activities web page. While the page `activities.html` gives an overview of what can be found in Programs, here is your opportunity to list and describe all programs, forums, and symposiums that your Technical Committee sponsors or takes part in. Since most of these meetings are held during ASHRAE annual and winter meetings, you may wish to note which ones are held during a given meeting.

For each program, try to include the name and date of the program, along with its sponsor and a summary. The more information you can include, the better. Some ways to display this information are to put all information directly on the page `programs.html`, or to put all the above information into a document, and place a hyperlink on the Programs page to that document. If you are going to put the information directly on the page, you can do so through lists, paragraphs or tables. The following is an example using paragraphs.

```
<p><b>Program Subcommittee Chair:</b> TBD

<p align=center><b>Programs for the Nashville Meeting (June,
2004)</b>

<p><b>Symposium NA-04-07: Integration in Cleanroom Design and
Construction</b>
<br>Tuesday, June 29 8 a.m. to 10 a.m.
<br>Sponsor: TC 07.01 Integrated Building Design; TC 09.11 Clean
Space
<br>Chair: Charlie C. Shieh, Ph.D., P.E., Member, CYS Consulting,
LLC, Bellaire, TX
<br>This symposium addresses the design and construction
integration for cleanroom facilities to achieve better quality,
faster delivery, lower cost, optimization of operation and
maintenance, lower energy consumption, cleaner environment, safer,
more reliable and more productive conditions, and longer service
life.
```

This example only shows one program, but you can repeat the same format for each program if you desire. It should be noted that it is useful to place the name of the subcommittee chair, if possible.

After you have listed the programs for each of the past few meetings, it is recommended that you leave a section for programs recommended for future meetings. A way to do this is to place the following content at the end.

```
<p align=center><b>Programs Recommended for Future Meetings:
TBD</b>
```

## 4.7 Research

The file `research.html`, like `Programs`, is a sub category of `Activities`. On this page it is recommended that you list the Research Subcommittee Chair, your research strategy, plan, current projects, and completed projects. You may also wish to list Subcommittee Documents, like RTARS, WS, or those in development.

Although you may not have anything to place under these listings, it may still be useful to state to a visitor that you have nothing. The following is an example that incorporates all of the recommendations listed.

```
<p><b>Research Subcommittee Chair:</b> Philip J. Winters
<p><b>Research Strategy:</b> TBD
<p><b>Research Plan:</b> TBD
<p><b>Current Projects:</b> None
<p><b>Subcommittee Documents (RTARS, WS, in development):</b>
<ul>
<li>RTAR# 2005-39 - Cleanroom Pressurization Strategy Update
<br>Quantification and Validation of Minimum Pressure Differentials
for Basic Configuration and Application.<br>Status: Approved, on
Society 2004-2005 Research Plan.
</li>
</ul>
<p><b>Completed Projects:</b> None
```

One interesting point to note in the previous example is the `<br>` tag following the `<li>` tag in the unordered list.

```
<li>RTAR# 2005-39 - Cleanroom Pressurization Strategy Update
<br>Quantification and Validation of Minimum
```

If you were to view this in a browser, the description of the mentioned RTAR, starting with the word `Quantification`, is displayed on a new line, shown here.

- RTAR# 2005-39 - Cleanroom Pressurization Strategy Update  
Quantification and Validation of Minimum

But, the new line is indented like the rest of the text after the `<li>` tag. This is because inside a list (which is denoted here by `<ul></ul>`), the `<li>` tag determines what text to place in each bullet. Remember how the text `<li>` displays either a bullet or number, depending on what type of list it is in. So, any text following a `<li>` tag is assumed to be part of that bullet, no matter what tags are included. In fact, you could include paragraphs or tables inside a bulleted list, like the following.

```
<ul>
<li><table border=1 width=300>
<tr>
<td align=center>This text is located in a list and a table
simultaneously.</td>
```

```
</tr>
</table>
<li>This text is also in the list, but in a different bullet.
</ul>
```

In a web browser, the table and bulleted list would look like the following.

- |  |
|--|
| This text is located in a list and a table simultaneously. |
|--|
- This text is also in the list, but in a different bullet.

## 4.8 Handbook

The file `handbook.html` is the third sub category of Activities. Like the previous two, it is recommended that you include the Handbook Subcommittee Chair in the content of this page. Along with a description of your part of the ASHRAE handbook, try to include the date of the latest version and when the next update will occur. An example of this is shown in the subsequent content.

```
<p><b>Handbook Subcommittee Chair:</b> Susan D. Morrison
```

```
<p>TC 9.11 is responsible for the "Clean Spaces" chapter of the
ASHRAE Applications Handbook Volume.
```

```
<p>The latest version of this volume is 2003.
```

```
<p>The next update to the chapter will be released in the 2007
volume.
```

Notice how only paragraph tags were used to display the above information. This is often the easiest way to put content on your web pages, and should be your first choice if you are new to web programming.

## 4.9 Standards and Codes

The file `codes.html` is the last of four sub categories of Activities. Here, like before, try to include the subcommittee chair if there is one and any information regarding ASHRAE standards and codes that your Technical Committee supervises. With each standard or code, if the ASHRAE website <http://www.ashrae.org> contains a page describing the standard or code in detail, it is recommended that you place a hyperlink on your TC web page to the ASHRAE page that contains the information. By doing this, you will eliminate the possibility of incorrect reproduction or maintenance of standard / code information.

Also, there may be other standards and codes that are related, but not regulated by your Technical Committee. If you feel that visitors may come to your TC site looking for this information, you are encouraged to place a link on this page to the ASHRAE website page that covers such standard or code.

## 4.10 Published Content

The file `content.html`, referring to Published Content, is the section of the site found after Activities. While the Handbook sub category of Activities concerns only the ASHRAE Handbook sections that your Technical Committee was responsible for, this page allows for a place to list information on all other publications, documents, or handbooks that your Technical Committee is involved in.

Although you are not required to do so, other Technical Committee sites list each published item starting with the following line.

```
<p><b>(Item 1:)</b>
```

Following this piece of code, you would place another paragraph tag and start listing the different information that you wanted to include. The next item would start at (Item 2:), and so on. A full example item is shown in the following content.

```
<p><b>(Item 1:)</b>
```

```
<p>2003 Applications Chapter as PDF: purchase A16 Clean Spaces
```

```
<p>Terminology 16.1
```

```
<br>Clean Spaces and Cleanroom Applications 16.2
```

```
<br>Airborne Particles and Particle Control 16.3
```

```
<br>Air Pattern Control 16.3
```

```
<br>Testing Clean Air and Clean Spaces 16.5
```

```
<br>Pharmaceutical and Biomanufacturing Clean Spaces 16.5
```

```
<p>Start-up and Qualification of Pharmaceutical Cleanrooms 16.8
```

```
<br>Semiconductor Cleanrooms 16.9
```

```
<br>High-Bay Cleanrooms 16.11
```

```
<p>Environmental Systems 16.12
```

```
<p>Energy Conservation in Clean rooms 16.14
```

```
<p>Noise and Vibration Control 16.15
```

```
<br>Room Construction and Operation 16.15
```

```
<p>Design of Clean spaces or cleanrooms covers much more than traditional temperature and humidity control. Other factors may include control of particle, microbial, electrostatic discharge (ESD), molecular, and gaseous contamination; airflow pattern control; pressurization, sound and vibration control; industrial engineering aspects; and manufacturing equipment layout. The objective of good cleanroom design is to control these variables while maintaining reasonable installation and operating costs.
```

```
<p><b>(Item 2:)</b>
```

Here, the mixed use of paragraph and new line tags have been used to group the lines displayed in the previous example. The spacing between lines in the previous example show how the lines would actually be displayed in a web browser.

## 4.11 Links

For `links.html`, you have the opportunity to list any links to other pages that either your web site visitors or other TC members might find useful. The easiest ways to list hyperlinks are through paragraph or unordered list tags, as discussed in chapters 3.1 and 3.9. Take caution not to use this page as a means of advertising, though. Do not place a hyperlink from this page to your company's page, for example. Try to restrict links to relevant sites only.

It is recommended that you make the actual hyperlink reference visible to the visitor when listing different hyperlinks. This allows the visitor to immediately see where the hyperlink directs them to. Also, displaying the reference helps fulfill the Web Accessibility Standards, to be discussed later. An example of this is shown in the subsequent content.

```
<ul>
<li><a href="http://resourcecenter.ashrae.org/store/ashrae">HVAC&R
Information
<br>http://resourcecenter.ashrae.org/store/ashrae

<li><a href="http://www.ashrae.org/template/MemberLanding">ASHRAE
Member Resources</a>
<br>http://www.ashrae.org/template/MemberLanding

<li><a href="http://www.ashrae.org/template/Marketplace">HVAC&R
Marketplace</a>
<br>http://www.ashrae.org/template/Marketplace
</ul>
```

Notice how each hyperlink reference, starting with `http://`, is written twice. The first one is inside the hyperlink `<a>` tag. This code, as mentioned before, is not visible to the user, since they only see what is between the start and ending hyperlink tags, like HVAC&R Information. The second time the references are displayed is after the new line tags. When viewed in a browser, the page content in the previous example will look like a normal unordered list.

- HVAC&R Information  
<http://resourcecenter.ashrae.org/store/ashrae>
- ASHRAE Member Resources  
<http://www.ashrae.org/template/MemberLanding>
- HVAC&R Marketplace  
<http://www.ashrae.org/template/Marketplace>

The three underlined pieces of text will appear as blue underlined hyperlinks, because of the hyperlink `<a></a>` tags surrounding them. The blue color and underlined style of hyperlinks help a site visitor see that the hyperlinks are clickable, and will direct them to a new page.

## 4.12 FAQ

One goal of the file `faq.html` is to create a working FAQ database for your Technical Committee. By listing questions from others in the industry that members of your TC have answered, you will be able to share that information with others who have similar questions. Keep in mind that all of the pages and documents that are not part of the Members Only section

will be searched and indexed by Google<sup>®</sup> and other search engines. By placing questions and their respective answers on this page, you are making them available for search through the search engines.

Before listing any questions, however, it is highly recommended that you summarize the intent of the Frequently Asked Questions page, and provide a brief disclaimer:

```
<p>Staff, Technical Committee (TC) Chairs, or other members respond to technical inquiries and compile FAQs. Answers to FAQs are provided as a service to ASHRAE members, users of ASHRAE publications, and the general public. While every effort has been made to ensure their accuracy and reliability, they are advisory and provided for informational purposes only, and in many cases represent only one person's view. They are not intended and should not be relied on as an official statement of ASHRAE.
```

After this paragraph, you can place each question and answer in whatever format you desire.

### 4.13 ListServ

The last page that has been included in the template is `listserv.html`. A listserv is an efficient way for frequent site visitors to sign up and receive up to date information about your Technical Committee. Most often a listserv involves a list of email addresses. As members of your Technical Committee compile information, they can send it out to all who have signed up.

While a listserv has not yet been set up for your individual TC, there are a few listserv groups that ASHRAE maintains. There is a link in the subsequent recommended text for this page that will direct site visitors to these ASHRAE listserv groups.

```
<p>ListSerrs are a convenient way to find out the latest information about a topic. If there are new developments, announcements or publications, listserv subscribers will be the first to know, because the information comes directly to their email address. It's a good way for a committee to disseminate important news and information and to quickly reach their target audience.
```

```
<p>At this time, ASHRAE has several ListSerrs, which you can access through the link below. Subscribe to one or more of the ListSerrs to be informed automatically when news, activities and information related to the applicable subject are available.
```

```
<p>In the future, this Technical Committee plans to institute a listserv specifically for the committee. Check back frequently for updates on this important means of communication!
```

```
<p><a href="http://resourcecenter.ashrae.org/store/ashrae/lists.html">Click here to view current ListSerrs</a>
```

If you want more information on how your TC could benefit from a listserv, contact Mike Vaughn at ASHRAE for more details. Until then, however, the previous recommended text is all that should be included on this page.

## 5 Advanced Topics

The last chapter of this manual covers some additional topics that you may find useful. If you feel confident in your HTML coding abilities, the following sections will not only help make your site readable by more users, but also easier to maintain. Keep this information handy as a reference when you plan to update your site. Also, if another member becomes webmaster for your Technical Committee's web site, give them a copy of this manual, especially this chapter. It will help them gain more insight into why you chose the layout and content that you did for the site.

The greatest benefit of the web programming language HTML is that there are multiple ways of coding the same piece of page content. Unfortunately, this is also the language's greatest flaw, causing vast inconsistency across the Internet. Due to these inconsistencies, different web browser products often have trouble displaying all of the information. A given site may look completely different from one browser to the next, and some browsers may not even be able to display it at all. Different versions of each browser product cause additional problems.

Due to the many problems that have arisen, many organizations are calling for a standard way to use all of the tags and attributes in HTML. One in particular, the World Wide Web Consortium (W3C), has developed documentation to standardize all existing and future web pages so that all users can use them in a similar way. ASHRAE has compiled similar documents to assist and standardize all their pages.

### 5.1 ASHRAE Site Requirements

While this manual covers how to use the template to build your TC site, other documents by ASHRAE discuss what your site can contain. These other documents are continually kept up to date, and should be frequently reviewed by the TC webmaster. Below you will find a brief introduction and description of the location of each of these documents.

The first document you should be familiar with is the *ASHRAE Policy and Procedure for Format, Activity, and Content of Web Sites for ASHRAE Groups*. Like the title implies, this document concerns page content, commercialism, disclaimers and web site designations. It should be reviewed during setup and maintenance of your Technical Committee site. This document can be found at [http://www.ashraetcs.org/web\\_policy.pdf](http://www.ashraetcs.org/web_policy.pdf).

Another document you should review is the *Manual of Procedures for Technical Committees, Task Groups, and Technical Resource Groups*. This manual covers several procedures that should be followed when creating and maintaining your Technical Committee site. The manual of procedures can be found at <http://www.ashraetcs.org/mop.pdf>.

Also, a complete list of optional reading is provided in Appendix B for reference.

### 5.2 Site Maintenance

As mentioned above, a standard has been developed to improve the consistency of all Internet sites. While this will greatly assist Internet users, you as a webmaster can benefit from it as well. The most important way you can do this is to stick with one method of writing the content for

your Technical Committee pages. If you prefer paragraph tags to line break tags for separating information, try to stick with that preference. You have found in previous chapters that quotes can be put around the values of attributes. If you use quotes for some, try to do so for all attributes.

By doing these things you will make it easier for yourself and others when changes need to be made to your site. If you always center text with the same tags and attributes, if you look at the content of a page that needs to be updated, you will immediately be able to discern what tags went where and why. Often web designers will put useless tags in their content that do not affect how the page is displayed. This will make their page content confusing, either when they return to add to it or another user needs to change it.

Also, try to organize the tags and text in your page content efficiently. Remember from preceding chapters that excess white space, either line breaks, repeated spaces, or tabs, are ignored when the browser displays the page. Thus, try to use these white spaces to organize the layout of tables, lists, etc. It is possible to display an entire page in one line of text, but without organization you will lose valuable time when you go back and try to find out what every tag means.

Modification dates are another way to keep your site running smoothly. When a site visitor goes to a page or downloads a document, it is important to know if the information is current or expired. For this reason, try to place the date that each page was modified somewhere on that page, so it is readable through a web browser. Do the same for documents that you have hyperlinked to your pages. For documents, you can either include the date last modified on the document or on the web page that links to it – either method is acceptable.

Dating your pages and documents will also make it easier for you to decide when maintenance needs to be done. Try to occasionally visit your site, looking for expired content.

### **5.3 Web Accessibility Standards**

An ever growing concern for webmasters like you is the availability of the Internet content for people with disabilities. For example, the blind are using the Internet more and more. You will need to allow screen readers to correctly relay the contents of your site to the blind. There are several guidelines that you can follow to help make your site more accessible.

The government has compiled a set of guidelines that all pages should follow to make their page more accessible to others. These guidelines are under Section 508, and can be found at [www.section508.gov](http://www.section508.gov). Some examples of Section 508 and WCAG guidelines are below.

- A text equivalent should be provided for every non-text element (by use of an alt attribute for images)
- Information conveyed with color must also be available without color
- Ensure that foreground and background colors provide sufficient color contrast
- Separate hyperlinks by at least one non white space character
- Create a style of presentation that is consistent across pages

For a full listing of Section 508 guidelines, refer to the website mentioned. Even if your TC web site can conform to the preceding guidelines only, your page will be far more accessible for those with disabilities.

## 5.4 Document Type Preferences

The previous section covered ways to make your page more accessible to people with disabilities, but there are other ways that you can make your page easier to read by all visitors. There are some important facts to keep in mind when you are adding images, documents, and other media to your pages. Web pages that are too big will require a long time to load, especially for visitors viewing your Technical Committee's page over a dial up connection. The easiest solution to this problem is to alter how you store the images and documents.

If you are placing images on your pages, it is important that you recognize what size each image is. Try to keep each image below 50 Kilobytes. An image of that size takes an average of 10 seconds to download over a standard 56K modem. Also, try to keep the number of images that are used to a minimum. A web browser has to make one request for each image it needs to download in order to view a page.

So what image file types should you use? For most applications, the .gif file format is most efficient. These images are highly compatible with all computer systems. If you have a larger sized image, however, a .png or .jpg file type may be a better choice. These two types can be more efficient. File types that you should avoid are .bmp, .pict, or .tiff. All three of these file formats are notorious for storing large, incompatible images.

For documents, you should try to store files in .pdf format. Some office programs and Adobe® Distiller can store files in this format. Currently, the .pdf file format is the web standard. You will see more files of this type than any other. If you do not have access to a program with .pdf capabilities, however, there are alternatives. A popular file format is .xml, which stands for Extensible Markup Language. Other cross-platform formats include .rtf or .html (a web page).

Document file formats you should try to avoid are those specific to a word processor. Microsoft® Word files, for example, are not easily readable by those without Microsoft® Office. Also, newer versions of these word processors might not be viewable by site visitors who have a previous version installed.

While it is difficult to see how your site would appear to visitors with other system configurations, there is one option that may help. Since the two most popular web browsers today are Internet Explorer® and Netscape® compatible, it is relatively simple to install a version of each on your computer. Use both browsers to view the same pages of your web site, and see if each is accessible. If you want to take this a step further, you could even download and install multiple versions these browsers.

Like web accessibility, these are some very simple things you can do to make your web site more compatible, more accessible, and visited more often by others.

## Appendix A. Index.html

```
<!-- XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX PLEASE EDIT THE FOURTH LINE BELOW
CAREFULLY XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX -->
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<HEAD>
<TITLE>ASHRAE Technical Committee 9.11</TITLE>
<META http-equiv=Content-Type content="text/html; charset=iso-8859-
1">
<LINK REL=stylesheet HREF="images/TCStyles.css" TYPE="text/css">
<META content="MSHTML 5.50.4807.2300" name=GENERATOR>
<SCRIPT LANGUAGE="JavaScript"> <!--
    _version=10; //--> </SCRIPT>
    <SCRIPT LANGUAGE="JavaScript1.1"> <!--
    _version=11;
    if (navigator.userAgent.indexOf('Mozilla/3') != -1){
    _version=10;}
    // -->
    </SCRIPT>
<SCRIPT LANGUAGE="JavaScript"> <!--

var oas='http://adserver.4lane.com/RealMedia/ads/';
var sitepage = "www.ashrae.org/TechnicalCommittee";
var RN = new String (Math.random());
var RNS = RN.substring (2, 11);

function DisplayAds (position)
{
    var oaspage= sitepage + '/1' + RNS + '@' + position;

    if (_version < 11)
    {
        document.write ('<A HREF="" + oas + 'click_nx.cgi/'+
oaspage + '" TARGET="_top" ><IMG SRC="" + oas + 'adstream_nx.cgi/'
+ oaspage + '" BORDER="0"></a>');
    }
    else
    {
        document.write ('<SCRIPT LANGUAGE="JavaScript1.1"
SRC="" + oas + 'adstream_jx.cgi/' + oaspage + '">');
        document.write ('\<!-- --\>');
        document.write ('\</SCRIPT\>');
        document.write ('\<!-- --\>');
    }
}
// -->
</SCRIPT>
</HEAD>
<BODY>
<TABLE cellSpacing="0" cellPadding="0" width="90%"
align="center" border="0">
    <TBODY>
        <TR>
            <TD bgColor="white">
```

```

<!-- Begin Header -->
  <TABLE cellPadding="5" width="100%" border="0">
    <TBODY>
      <TR>
        <TD class="tableBg" align="center"></TD>
        <TD width="120" height="90" class="tableBg"
align="Center">
          <SCRIPT language=JavaScript> DisplayAds( 'Top1' );
</SCRIPT>
        </TD>
      </TR>
    </TBODY>
  </TABLE>
<!-- End Header -->
  <TABLE width="100%" cellSpacing="2" border="0">
<!-- Begin Nav 1 -->
    <TR>
      <TD>
        <TABLE class="nav" cellSpacing="0" width="100%">
          <TBODY>
            <TR>
              <TD bgColor="#3366CC"><DIV align=center><A class=main_nav
href="index.html">Home</A></DIV></TD>
              <TD bgColor="#636363"><DIV align=center><A class=main_nav
href="membership.html">Membership</A></DIV></TD>
              <TD bgColor="#636363"><DIV align=center><A class=main_nav
href="news.html">News</A></DIV></TD>
              <TD bgColor="#636363"><DIV align=center><A class=main_nav
href="meetings.html">Meetings</A></DIV></TD>
              <TD bgColor="#636363"><DIV align=center><A class=main_nav
href="activities.html">Activities</A></DIV></TD>
              <TD bgColor="#636363"><DIV align=center><A class=main_nav
href="content.html">Published Content</A></DIV></TD>
              <TD bgColor="#636363"><DIV align=center><A class=main_nav
href="links.html">Links</A></DIV></TD>
              <TD bgColor="#636363"><DIV align=center><A class=main_nav
href="faq.html">FAQ</A></DIV></TD>
              <TD bgColor="#636363"><DIV align=center><A class=main_nav
href="listserv.html">ListServ</A></DIV></TD>
            </TR>
          </TBODY>
        </TABLE>
      </TD>
    </TR>
<!-- End Nav 1 -->
<!-- Begin Spacer -->
    <TR>
      <TD class=spacer></TD>
    </TR>
<!-- End Spacer -->
<!-- XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX PLEASE EDIT THE ABOVE LINES
CAREFULLY XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX --><!--
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX EDIT CONTENT SECTION BELOW
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX -->
<tr>

```



```

<!-- End Pictures -->
<!-- Begin Spacer -->
    <TR>
        <TD class=spacer></TD>
    </TR>
</TABLE>
<!-- End Spacer -->
<!-- Footer -->
    <TABLE>
        <TR>
            <TD width="120" height="100" class="tableBg"
align="center">
                <SCRIPT language=JavaScript> DisplayAds( 'Bottom1' );
</SCRIPT>
                </TD>
            <TD width="100%" class="tableBg" align="left">
                <DIV class="footer">This web site describes the activities of the
                American Society of Heating, Refrigerating and Air-Conditioning
                Engineers, Inc. (ASHRAE) Technical Committee 9.11, Clean Spaces. It
                does not present official positions of the Society nor reflect
                Society policy. ASHRAE is not responsible for this site's content.
                To learn more about ASHRAE activities on an international level,
                contact the ASHRAE home page at <a
                href="http://www.ashrae.org">http://www.ashrae.org</a>. Comments?
                Contact us at <a
                href="mailto:somebody@ashrae.org">somebody@ashrae.org</a>
                &copy;2004, ASHRAE TC 9.11 </DIV>
            </TD>
        </TR>
    </TABLE>
</TBODY>
</TABLE>
</BODY>
</HTML>
<!-- XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX EDIT THE EIGHTH LINE ABOVE
CAREFULLY XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX -->

```

## Appendix B. External Resources

The following resources have been added at the end of this manual for your convenience. Each resource will help you design and maintain a better Technical Committee website, in each of the following categories: Accessibility, Applications, and Programming. Please take note that the description below each resource has been taken from that web site.

### B.1 Accessibility Resources

*<http://section508.gov>*

Section 508 requires that Federal agencies' electronic and information technology is accessible to people with disabilities. The Center for Information Technology Accommodation (CITA), in the U.S. General Services Administration's Office of Government-wide Policy, has been charged with the task of educating Federal employees and building the infrastructure necessary to support Section 508 implementation. Using this web site, Federal employees and the public can access resources for understanding and implementing the requirements of Section 508.

*<http://www.cynthiasays.com>*

Cynthia is a web content accessibility validation solution. It is designed to identify errors in design related to Section 508 standards and the WCAG guidelines. The main purpose of this portal is to educate web site developers in the development Web Based content that is accessible to all. This online test only validates one page at a time.

*<http://validator.w3.org>*

The W3C Markup Validation Service is a free service that checks Web documents in formats like HTML and XHTML for conformance to W3C Recommendations and other standards.

*<http://jigsaw.w3.org>*

The W3C CSS Validation Service is a free service that checks Cascading Style Sheets (CSS) in HTML documents or standalone for conformance to W3C recommendations.

*<http://www.vischeck.com>*

Vischeck<sup>®</sup> is a way of showing you what things look like to someone who is color blind. Many pictures, documents and web pages are hard for color blind people to read because the people who designed them didn't think about the problem. Vischeck<sup>®</sup> lets them check their work for color blind visibility.

## **B.2 Application Resources**

*<http://www.ipswitch.com>*

Ipswitch WS\_FTP® Professional provides a way to transfer files. They make sharing files secure, reliable, efficient, and easy. The Ipswitch WS\_FTP solution is affordable, easy to use and provides the standard features you need in a file transfer solution.

*<http://www.adobe.com>*

Adobe® Reader® is free software that allows everyone from business professionals to home users to easily and reliably view, print, and search PDF files using a variety of platforms and devices.

*<https://createpdf.adobe.com>*

Create Adobe® PDF Online is a Web-hosted service that lets you convert a variety of documents into Adobe PDF files that anyone can view using the free Adobe® Reader®. Supported formats include Microsoft® Office files, graphics formats, Web pages, and other file types. Use Paper Capture to create searchable PDF files from scanned paper documents.

## **B.3 Programming Resources**

*<http://www.w3.org/TR/html401/>*

This specification defines the HyperText Markup Language (HTML), the publishing language of the World Wide Web.

*<http://w3c.org/Style/CSS/>*

Cascading Style Sheets (CSS) is a simple mechanism for adding style (e.g. fonts, colors, spacing) to Web documents. For background information on style sheets, see the Web style sheets page.