

# Publishing Class Web Pages

Faith A. Morrison  
Associate Professor  
Department of Chemical Engineering  
Michigan Technological University

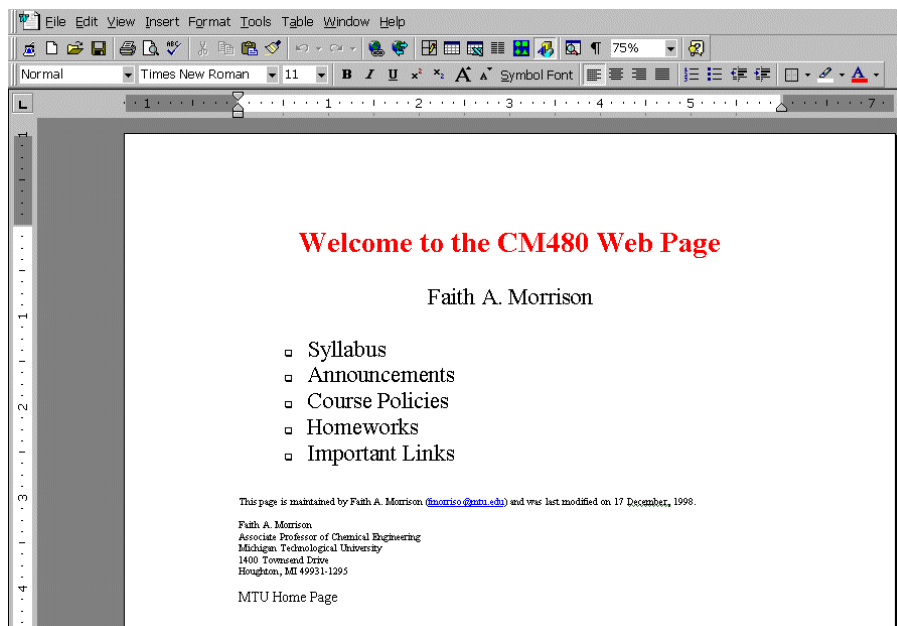
December 17, 1998  
Updated February 6, 1999 and March 17, 2000  
Copyright Faith A. Morrison 1999, 2000

## Introduction

With modern web tools, creating a class web page is not as difficult as you might think. In these instructions, we will be using two pieces of software, Microsoft Word, and Netscape Page Composer. I originally received instruction on this topic from CM graduate student Alan Nelson, and I would like to acknowledge his contribution to my learning of this subject. I subsequently taught Associate Professor Tom Co how to put up a web page, and he in turn taught me many new techniques to make pages better, and I would like to acknowledge his initiative and instruction.

## First Steps

The main page for an elementary course web page can be a very simple document, and we begin in Word. First we type the outline of a web page in Word. The only University requirement is that the first page of your class web page must contain your name, address, affiliation, the date that the page was last revised, your email address, and a link to the MTU home page. A first page could look something like this in Word:



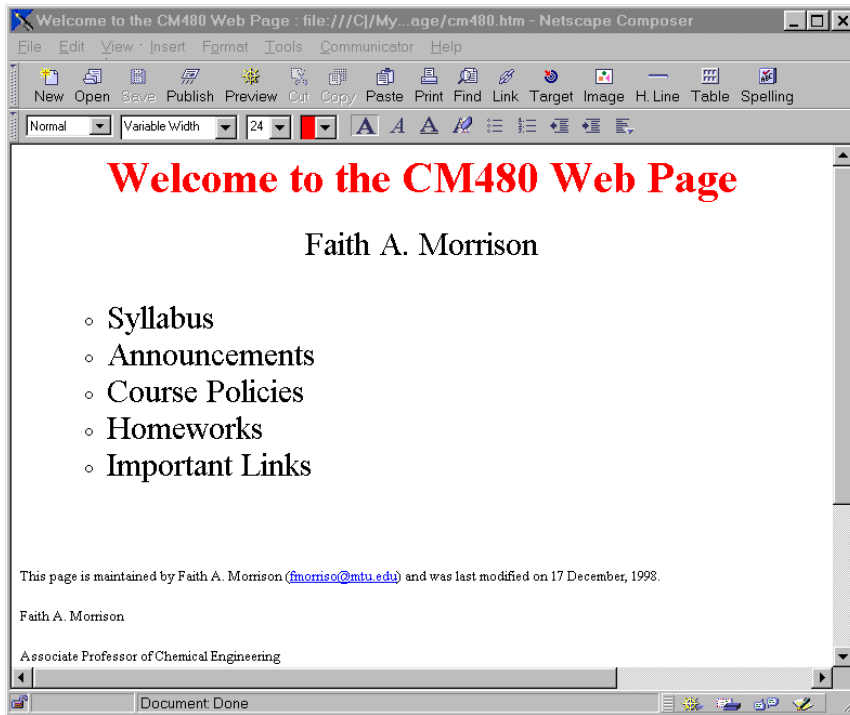
Notice that I have placed the words *MTU Home Page* at the bottom; we will link this to the MTU home page later. The second step is to save this document as an HTML file. This is done under *File*, then *Save as HTML*. I recommend that you create a directory to store all your web page files as you create them. Having all the files in one directory will make the whole process much easier. Also, do not use capital letters or spaces in your file names. Since we will be publishing these pages to the web on a Unix server, capitals (or more precisely mixed capitals and small letters) and spaces will cause some difficulties.

When you save the document above as HTML you will notice that the formatting does change a bit. The strength of HTML is its portability; portability, however, requires that the language be flexible. This means that how it displays varies from computer to computer depending on the software and hardware used. Usually the changes are not significant, however, and we can adjust some of these changes later in Netscape Composer.

Now we need to produce a document that will be a link to this page. Faculty usually produce documents containing course policies and the syllabus, and I believe that Word and Excel are often used for this purpose. If this is the case, all that is needed to publish these on the web is to save the file containing the course policies or the syllabus as an HTML file. We will create two small files for this demonstration, one called *syllabus.htm* and one called *policies.htm*. Once these files exist, we are ready to link.

The software I use to link up the web pages is Netscape Page Composer. Open Netscape Navigator on your computer. Under the heading *Communicator*, there is an option *Page Composer*. Click on that.

Netscape Composer is a program that allows you to publish web pages, and in many ways it works like a typical word processor. We begin by reading in the file created above which I have saved as *cm480.htm* (remember, do not use capital letters). To open the file, click on the *Open* button and choose the file from the list on your hard drive. The file will display in the window.

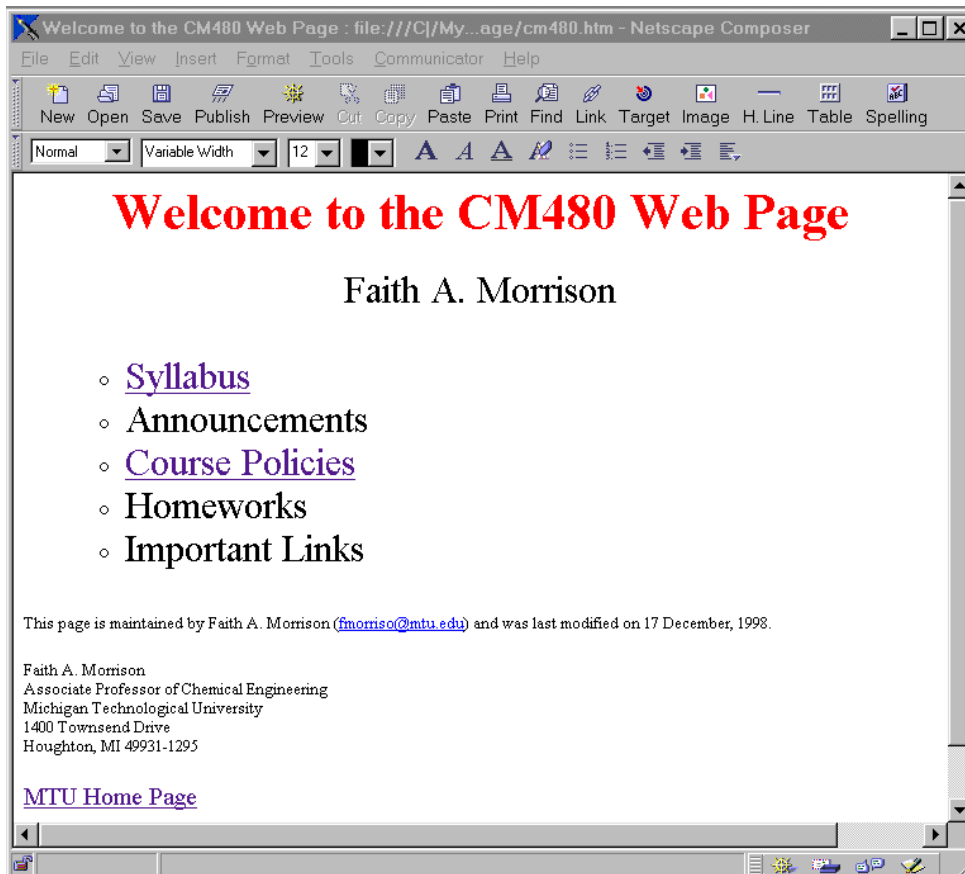


Now we want to link some pages together. We can first insert the link to the MTU homepage. To do this, use the mouse to select the words "MTU Home Page" at the bottom of our practice page and then click on the *Link* icon. A window opens up with a space where you can type in the name of a link. Type in [www.mtu.edu](http://www.mtu.edu) and then choose *OK*. Notice now that the words MTU Home Page are now a different color and underlined, i.e. they have become a link.

The email address that I put in my practice file was turned into a link automatically by Word. Use the mouse to select the email address and click on the icon for *Link*. You see that to link an email address so that it becomes an active link, you must type in the following link address:

<mailto:email@address>

Now we will link up the files we created for [syllabus.htm](#) and [policies.htm](#). The procedure is straightforward. Highlight the word Syllabus and click on *Link*. Now click on *Choose File* and find the file you want to link to this word. When you have found the file, click on it and then click on *Open* and *OK*. The file is now linked. We can now do the same for Course Policies. Finally, I do not like the extra spaces Word has put between the lines of my address at the bottom of the page, so I can now erase them here in Page Composer. My final page looks as follows:



Let's now see how it works. To preview the file, click on *Preview*. Now when you click on the links you created, they go to the files you chose. When you click on the MTU Home Page link, you go to that page, provided you are on a networked computer or connected over a modem. Finally, when you click on the email address, a window opens allowing you to send email to that address (note: if you are not using Netscape mail, you may have to open Eudora or your mail program first before the email link will work).

## **Publishing on the WWW**

Now we need to move to the next part of putting up a web page, and that is getting the pages you produce on to the World Wide Web. In the Chemical Engineering Department, class pages are housed in directories assigned to the faculty on one of the main servers. You can get to these files either from a networked PC or from Unix.

From a networked PC in Chemical Engineering use Windows Explorer to go to the W: drive. The W: drive contains all homepages, and when you are logged onto the system, it is linked directly to your portion of the W: drive.

From Unix you can get to your homepage directory by typing

```
cd /local/homepages/userid
```

(If you are on a networked PC in the Chemical Engineering Department you can get to Unix by running Putty from the desktop icon marked "connect to Unix". Now log in as usual using your Unix password and change directories as instructed above.)

On either a PC or from Unix, first create a directory for your web page (for this example I will create a directory called junk). On Unix the command is

```
mkdir junk
```

(if at a later time you wish to remove this directory, the Unix command is `rmdir junk`.)  
On the PC, use Explorer.

If you have created the directory on Unix, we need to change the permissions on this new directory so that web surfers can read the files in it; this is accomplished by typing the following Unix commands from within your homepage directory (in my case from within `/local/homepages/fmorriso`):

```
chmod o+rx junk  
chmod g+rx junk
```

You can check the permissions by typing the `ls -l` command. If you create the directory on your W: drive, the permissions are set automatically.

I will be publishing my files to the directory junk, and the root file for my web page will be called (in this example) `cm480.htm`. With this name for my directory of web files, the web address of my web page will be

```
http://www.chem.mtu.edu/~fmorriso/junk/cm480.htm
```

If you are not in the Chemical Engineering or Chemistry departments, you will have to contact your system administrator to find out what your web address will be.

Now we wish to publish the pages. In Netscape Composer, click on the *Publish* icon. In the title window, enter a title for your web page. This title will be the words that will appear in the Bookmark list when others bookmark your web page. Perhaps you have had the experience of bookmarking a page that does not have a title and have later found, as I have, that you cannot find the link on your list of bookmarks - that situation illustrates why it is important to choose the title of your web page carefully. I will call mine *CM480 Winter 1998 MTU*.

Under *HTML Filename* the name of your file should already appear. The next box asks for the location to which to publish the file. For my files on the CM server, the correct answer is to ftp (ftp = File Transfer Protocol) the files as follows:

```
ftp://neon.chem.mtu.edu/local/homepages/fmorriso/junk/
```

You will need to adjust this as appropriate with your userid and the name of your directory. In the next box, enter your userid since you will be prompted for a password

before you can publish to this server. Note that each faculty member has permissions in his/her directory, but we cannot publish to one another's directories, of course. Now click *OK*.

At this point you will get a reminder that the links you have created were to files on your hard drive (to *syllabus.htm* and *poicies.htm* in my example). We will publish these files in subsequent steps, so ignore this error; click *OK* and continue. Click *OK* for the security warning, and type your Unix password into the subsequent dialog box. If you complete these steps faithfully, you will be rewarded by the message "Your file was uploaded successfully". Click *OK*.

Now we need to upload the other two files, *syllabus.htm* and *policies.htm*. We can do this by clicking again on the *Publish* icon and noting that at the bottom of the dialog box there is the opportunity to include other files when you publish a file. We could have done this the first time when we published the page *cm480.htm*, but I thought it would be better to keep it simple. In this box choose *All files in pages folder* and then de-select any files that you do not want to publish (Word files, for example, that you may have used to set up the pages initially). Select *OK* and the files will publish to the web.

And now you are done. Go now to Netscape and go to the web page you have created, which in my case is:

<http://www.chem.mtu.edu/~fmorriso/junk/cm480.htm>

The links should all work and will take you to the files indicated.

There is one more thing about Unix file permissions. The upload process creates files that are writeable by anyone who can get to that directory. This is highly undesirable since you do not want others to change your web page without your permission. To change the permissions of all files in your web-page directory, go to that directory on a Unix system and enter the command

```
chmod o-w *.*  
chmod g-w *.*
```

(*o* refers to *others*, and *g* refers to *groups*; *w* refers to *write*). Those commands will eliminate the permissions problem.

Once you have created a class web page, you will probably want to have a link to that page added to your departmental home page. To do this in Chemical Engineering, send an email to Alan Nelson, our departmental webmaster ([anelson@mtu.edu](mailto:anelson@mtu.edu)). Just give him the web address for your page (the URL; see my example above), and he will add the link. For those outside of Chemical Engineering, talk to your systems administrator or local webmaster.

## Slightly More Advanced Topics

### *Graphics*

One thing you will probably want to do in developing your web page is to include graphics of various kinds. This can be done by creating bitmaps in any program and then incorporating them into a web page using Netscape Composer. To add a graphic to a web page, open the page in Composer and click on the icon *Image*. Click on *Choose File* and find the file (\*.bmp, \*.gif, etc) that you have created in some other software. Click *OK*, and the file will be included in your web page. If the image file was not located in the current directory, a copy of it will be copied to the current directory so that all the files needed for a web page are in one place. When the page with the image is published to the web, all included image files will be copied automatically. If the image is the wrong size, you can grab the corner of the image with your mouse (using the standard Windows technique) and change the size.

If you use the drawing tools in Microsoft Word to create a graphic, you will need to manipulate these images a bit before they will save correctly as HTML. After creating your drawing, select all the pieces of the drawing and group them together using the group command. Now cut the grouped image and paste it back into the document using the command *Edit*, then *Paste Special*, and choose to paste it as a *Picture*. Now when you save the file as an HTML file, the picture will be saved as a bitmap (\*.gif) and will appear correctly on the web page.

When using a scanner to create images, it is easy to create files that are enormous. To avoid this, I suggest that you scan your images at 300 dpi resolution but then save the file at 72 dpi as a \*.gif file. This creates an image file with a good amount of screen resolution while keeping the file size reasonable.

### *Linking to Specific Places in a File*

As you have surfed the web, you have probably been on pages where clicking on links at the top of the page moved you to a particular place on the same page. This is different from the linking I introduced above, where the link pointed to a completely different page. The new-page link described above will always take you to the top of the page to which you are linked.

To create links that move your visitors around a single page on your web site, you need to add some HTML (hypertext markup language) tags to your file. For example, perhaps you wish to put a link at the top of a page to point your visitors to a section called "Conclusions". To do this, open your web page in Composer and go to the location in the file where the word "Conclusions" appears that you want to link to. Position the cursor just before the "C" at the beginning of the word and choose *Insert* and *HTML Tag...* from the menu at the top of the window. In the dialog box that appears, type the following tag (including the quotation marks):

```
<A NAME="tagname">
```

Then click *OK*. A yellow tag will appear in your html document. Now position your cursor just after the last "s" of "Conclusions" in your document . Again choose *Insert* and *HTML Tag...* from the menu at the top of the window. In the dialog box that appears, type the following tag:

```
</A>
```

and click *OK*. Now that location is tagged with the name tagname. To link to this new tag, go to the top of the file and insert whatever text you want for your link. For example, we could put the phrase, "Go to Conclusions" at the top of the page. Now using the mouse select the phrase "Go to Conclusions", and click on the *Link* button at the top of Composer. In the box marked *Link to a page location or local file* type the following:

```
#tagname
```

Click *OK*, and you are done. Now the words [Go to Conclusions](#) should be marked as a hyperlink, and when you preview the page, clicking on [Go to Conclusions](#) should bring you to the part of the document with that phrase.

It may be desirable to create a link to a particular spot in a separate document. To do this, tag that spot as above and when creating the link include both the name of the page and the tag name in the dialog box. For example, to link to a tag called "tag32" in a document in the current directory called "index.html", type in the following link:

```
index.html#tag32
```

### *Adding a Web Counter*

Often it is interesting to see how many people have accessed your web pages. You can display the number of visitors to a page by including a web counter on your page. To add a basic web counter, choose *Insert* and *HTML Tag...* from the menu at the top of the window. In the dialog box that appears, type the following tag (including the quotation marks, all on one line):

```
<IMG SRC="http://ntserver2.chem.mtu.edu/cgi-bin/counter.exe?link=name&style=odometer&width=6">
```

The word you supply for "name" above is the name of the page that you register with the CM computer support staff. Please contact Jose Girbes ([jgirbes@mtu.edu](mailto:jgirbes@mtu.edu)) to request that a counter be set up for your web page. Give Jose the name of the page you wish counted (for example </local/homepages/fmorriso/junk/cm480.htm>), and he will tell you the name to use in your counter link.

Note: I have had some trouble with this technique of including a web counter. When I modify a page with the counter on it and republish, somehow the counter distorts and stops functioning. I then have to go back in through *Insert* and *HTML Tag...* and reinsert the web counter. I would welcome feedback from users if you find a better method.