How to preview an OpenLearn unit (before uploading it to us)

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July 2007

The following is a guide to using 'preview pages' to check your own changes or editing (or re-versioning) of an OpenLearn unit.

Re-versioning the XML file is described in "Hints and tips for using OpenLearn XML". Preview pages allows you to preview the unit (within a web browser) so you can check all the elements of the unit are being shown correctly before sending it to us.

The set of steps described below sounds complicated, but is a worthwhile procedure to go through to ensure "your" unit gets the best chance of being displayed correctly through OpenLearn.

Preview pages will transform your XML file into HTML, but requires the free Saxon B style sheet transform processor, which in turn is built on Java (also free), hence the set of steps.

Step 1
Download the latest version of Saxon B from sourceforge. At the time of writing, 8.9 is the current version.

http://saxon.sourceforge.net/

Download site:
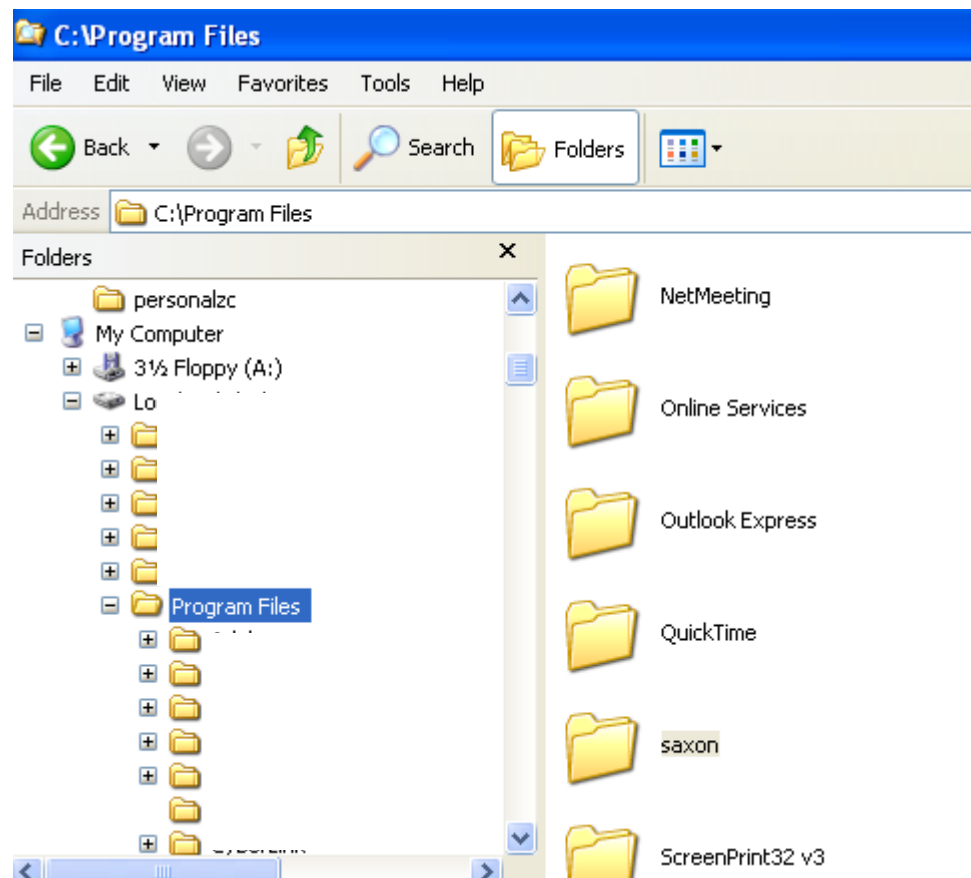http://prdownloads.sourceforge.net/saxon/saxon-resources8-9.zip

You should refer to this site for more information on how Saxon works, for recent updates and downloads and for information on how to use Saxon with the .net platform:
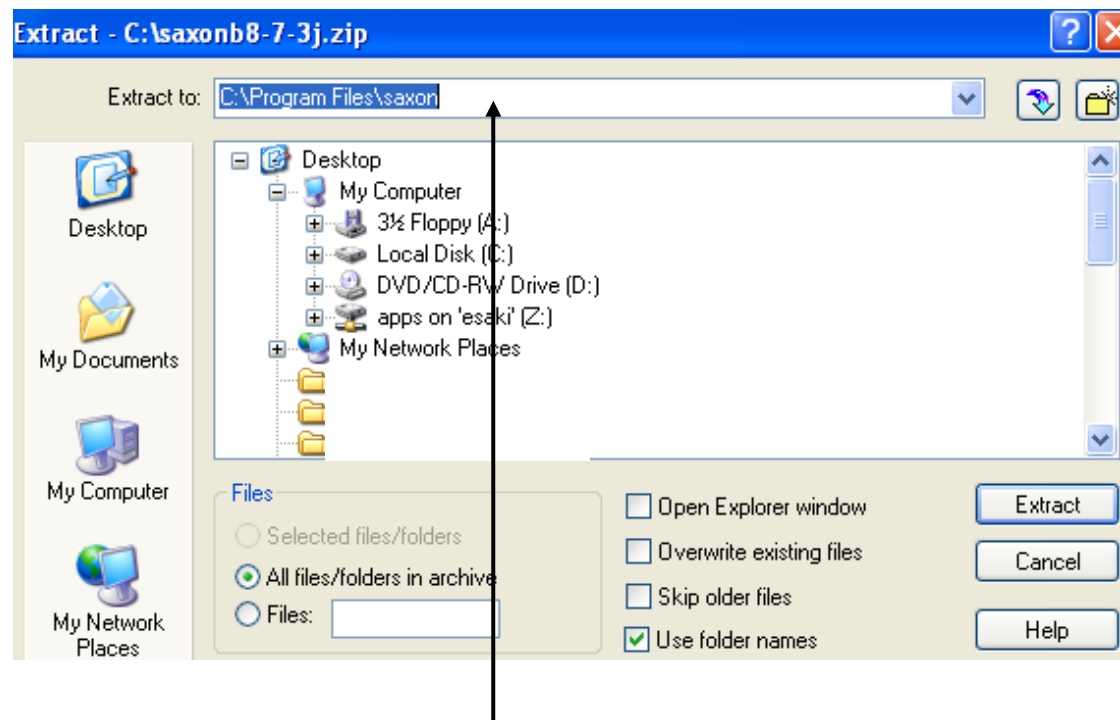
http://www.saxonica.com/documentation/index/intro.html

We suggest you create a folder on your local C drive > Program Files, called Saxon.
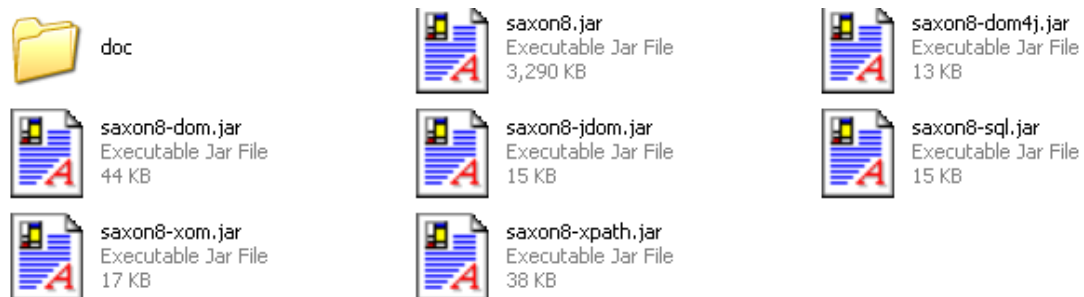

Installation of Saxon simply involves unzipping the supplied download file into a suitable directory (Saxon folder).

Step 3

Extract the zip file to the Saxon folder that you created.

A set of files like these should now be extracted:

If you run into problems installing Saxon, you may find it helpful to visit Saxonica or the sourceforge site for installation help, troubleshooting and documentation:

http://saxon.sourceforge.net/#F8.8SA
http://www.saxonica.com/documentation/index/intro.html

<u>Step 4</u>

Now download the Java 2 platform – JDK 1.5 (Java 2 Platform, Standard Edition, v1.4) from the Sun website.

Please note we are not recommending download of the *latest* version, but version as described below which we know to work with Saxon.

Download site: http://java.sun.com/products/archive/j2se/5.0_07/index.html

Select download for the following:

Download the following program to your C drive:

jdk-1_5_0_07-windows-i586-p-iftw.exe

Once you have downloaded the program, install it.
If you encounter problems, please visit the Saxonica site about Saxon for more information:

http://www.saxonica.com/documentation/index/intro.html

<u>Step 5</u>

You now need to update your path and class path environment variable to include the Saxon and Java.

In Windows XP, you would click the control panel from 'start' menu and then select 'Help and Support'
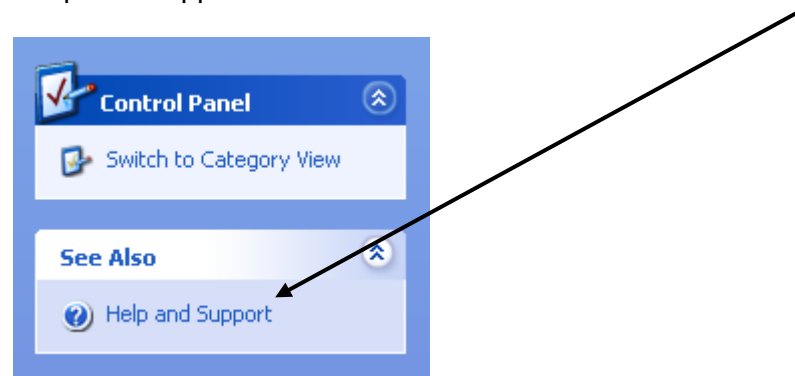
Step 6

Because of how computers are set up on some networks, to change environment variables you will need to go through the following step:

Type 'environment variables' in the Search box.
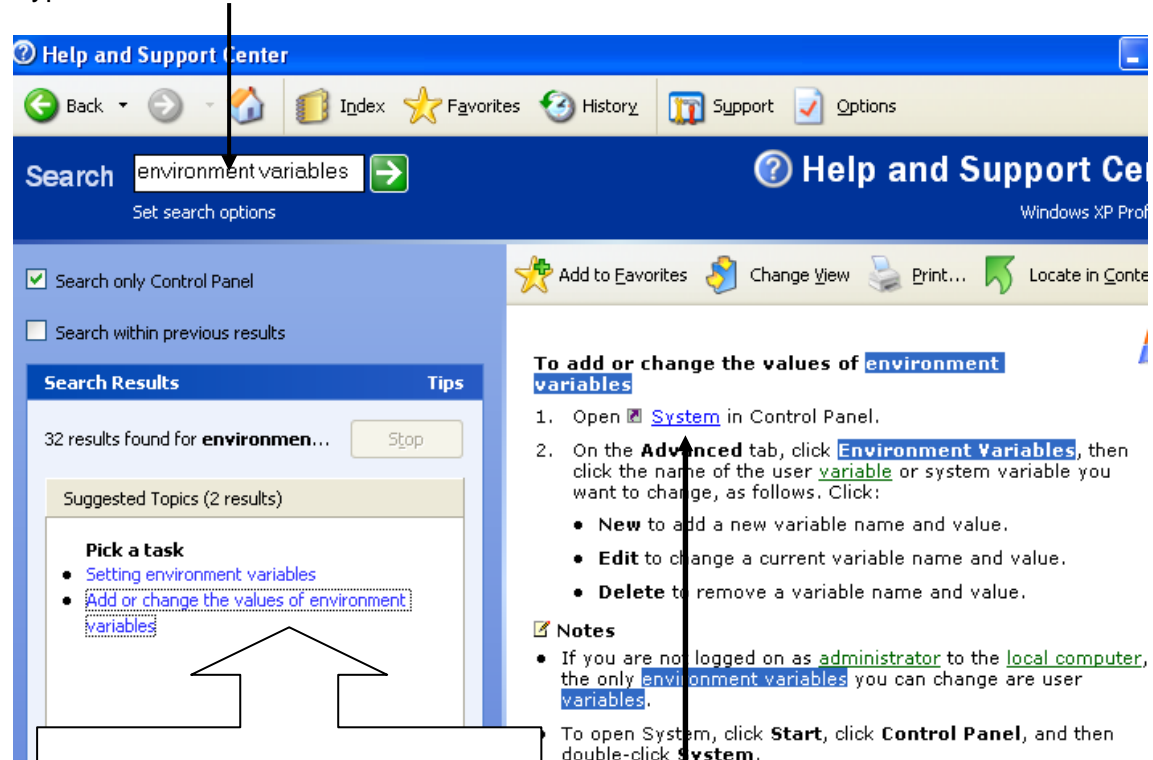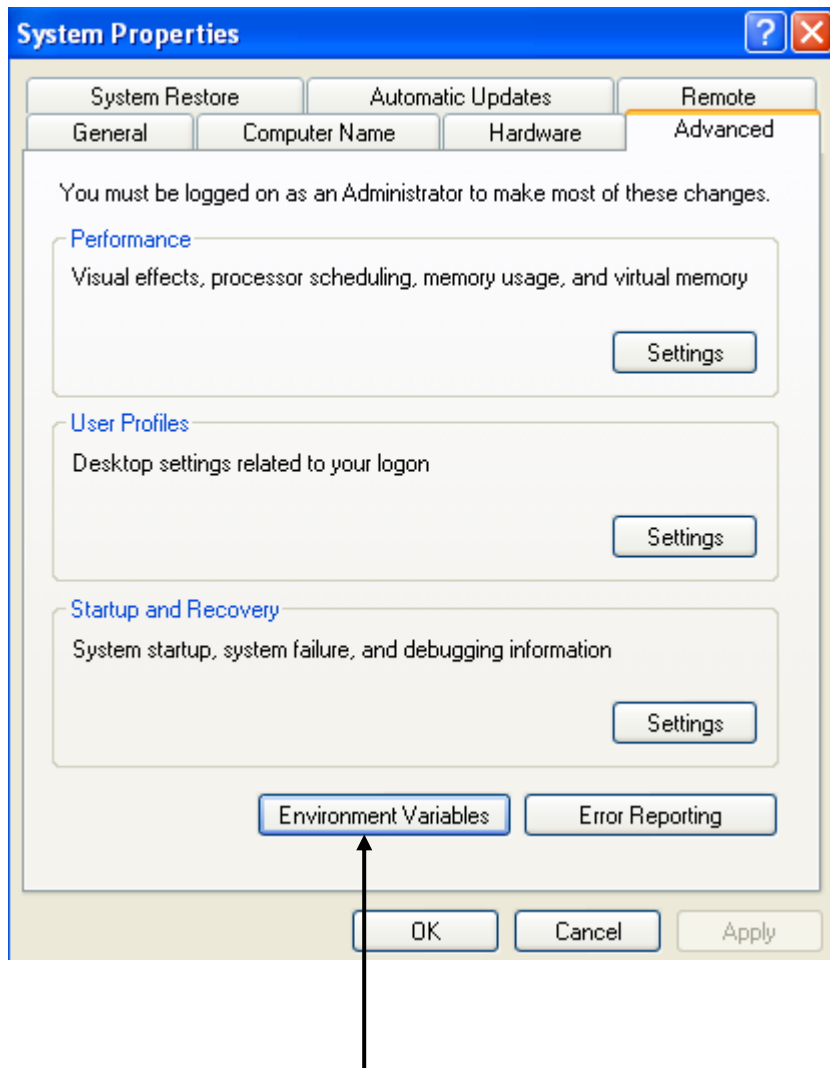

Select Add or change the values of environment variables from 'Pick a task'

Then click 'System' in Control Panel, to open up the System Properties window.

Click the Environment Variables tab

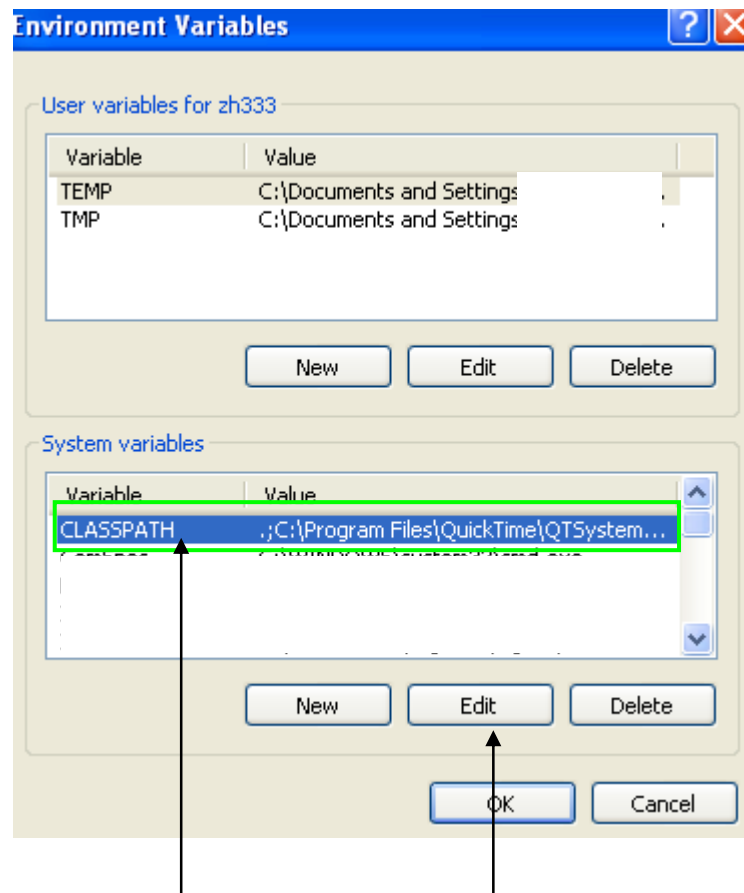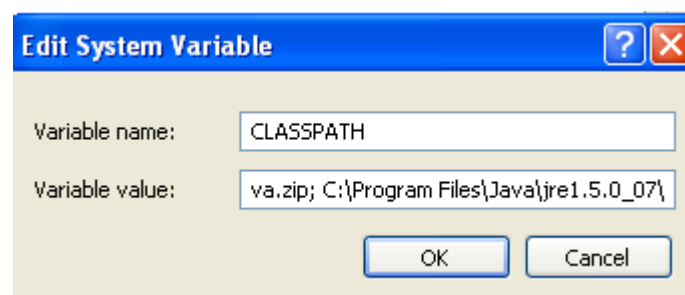Another way to view or change environment variables (Steps 6 and 7) is to:

1. Right-click My Computer, and then click Properties.

2. Click the Advanced tab.

3. Click Environment variables.

<u>Step 8</u>

Highlight 'CLASSPATH' and click the Edit button below it.

<u>Step 9</u>

Check within the Variable value box whether you have the following paths:

C:\Program Files\Java\jre1.5.0_07\lib;

Also

C:\Program Files\saxon (or wherever you installed saxon)

If they do not appear then type them in without removing any other text within the field. Each path is followed by a semi-colon ;
Click 'OK' once you have typed them in.

Step 10

Now check that the Path has been updated.
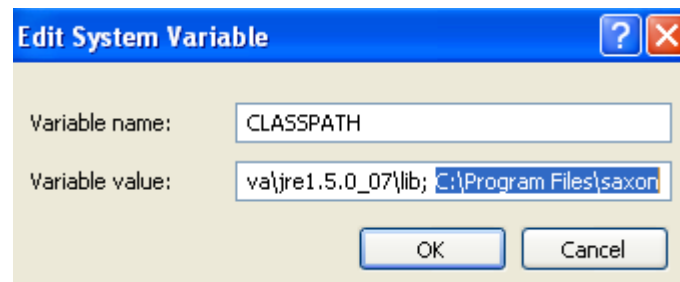

Scroll down to 'Path' and highlight it.
Then click 'Edit' button below it.

Check within the Variable value box whether you have the following path:
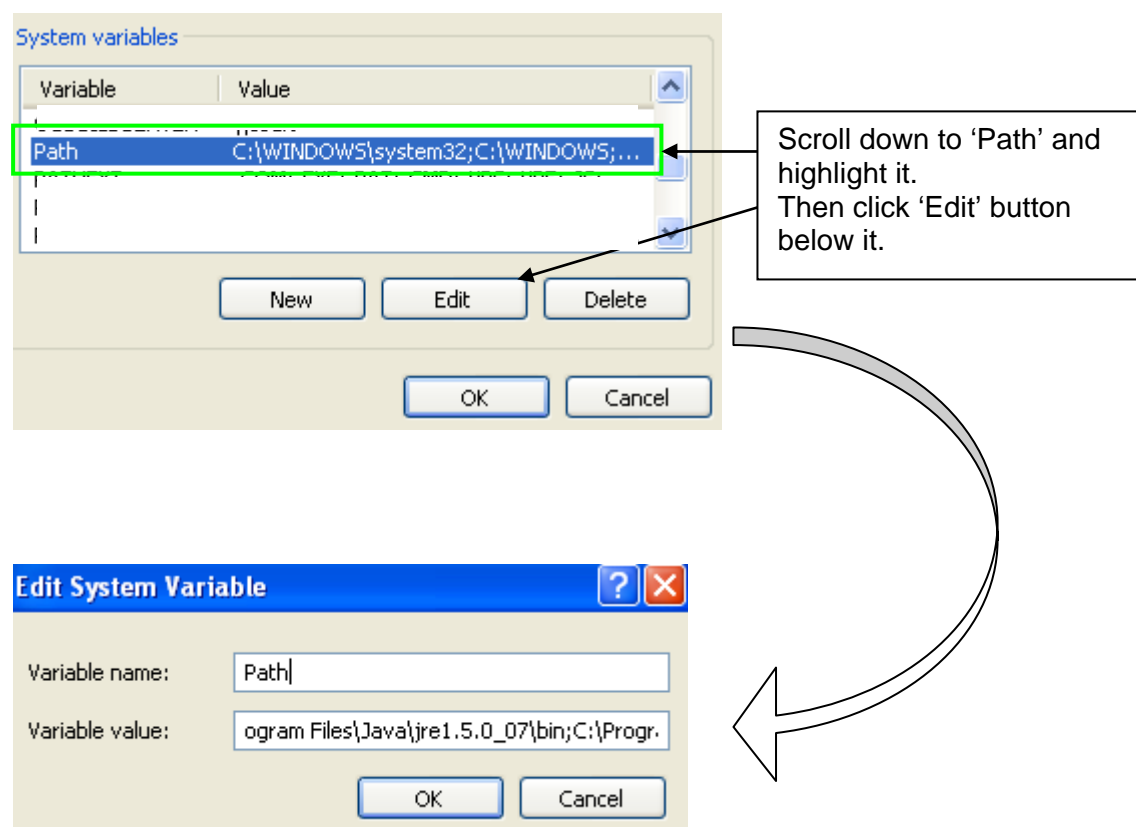
C:\Program Files\Java\jre1.5.0_07\bin;

If not then type it in as above, then click the 'OK' button.

To use the Saxon processor to generate html preview outputs, it is recommended that you create a specific folder for this purpose.

For example; C:\OCI\HTMLgenerator.

The saxon8.jar file (from your saxon folder)should be copied and added to this folder as well as the following files from the download package.

- preview_pages.xsl
- xmlFileList.xml
- OUGenericFull.xsd
- styles.css
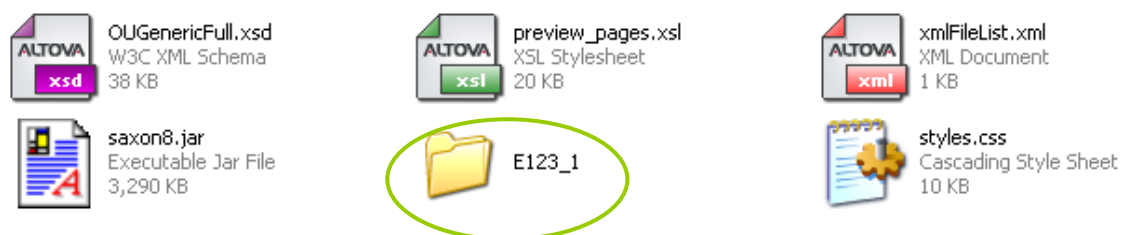
You can now add a folder for each unit you have remixed. Each of these folders should carry the same name as the unit you have remixed and must contain the content and metadata XML files and other assets for the unit you have worked on. In the example above, the E123_1 folder would contain these elements (basically the same types of files as you originally downloaded in the zip). It is important that the folder name is exactly the same as the content XML file name, less the '.xml'.

Step 12

Open the xmlFileList.xml file in the HTMLgenerator folder so that you can add/update the names of the new xml files for which you wish to generate html output. In the following example an XML file has been added for T173_2.

The contentFile 'T173_2.xml' has been added. You can add as many as you like, it is best practice to keep this maximum to 20 files at a time and clear xml file names that are not required any longer. Once you have generated the output, you can clear xml names by deleting them or by commenting the sentence out as shown above with <!-- …… - >
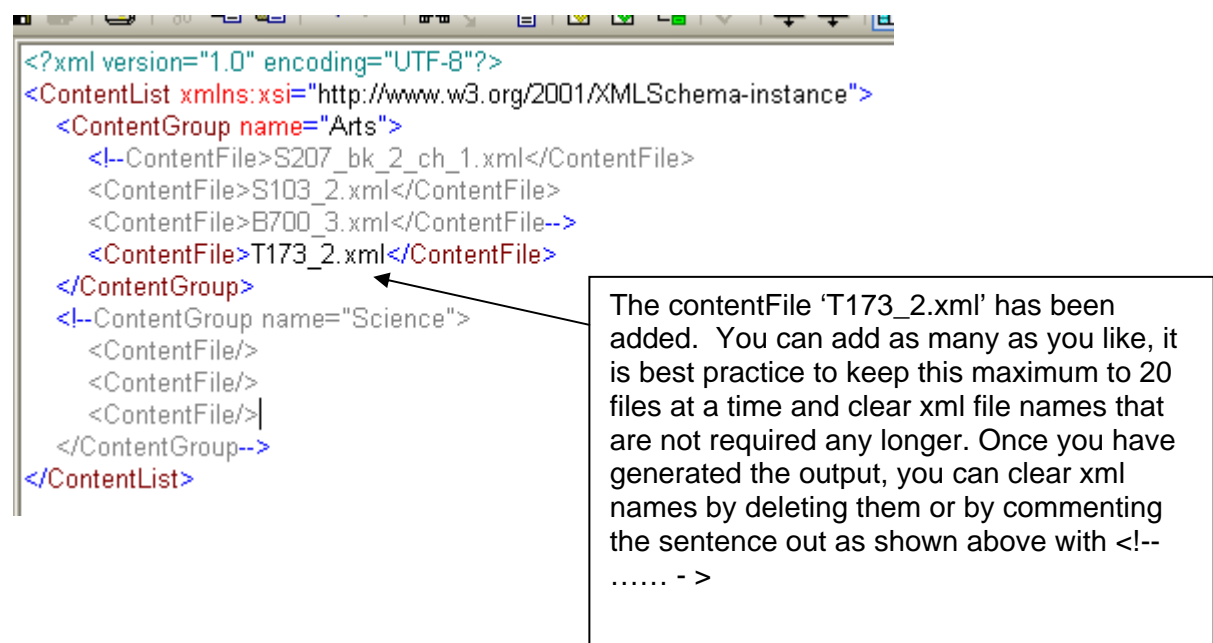
In this example, the content group name is Arts; in yours it may be something different.

Step 13

Now open the DOS prompt (start > run > and type 'cmd' and press <Enter> key).
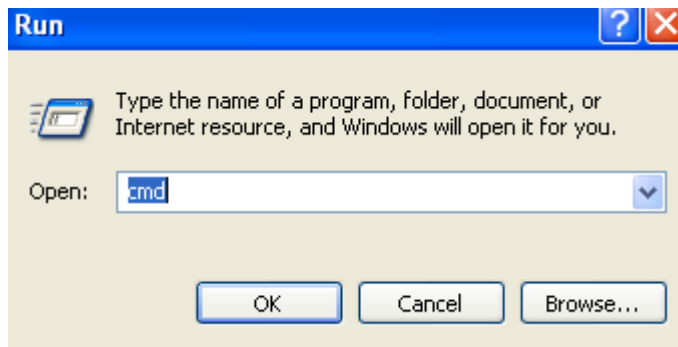
Step 14

Make sure the prompt points to your working directory ie: c:\oci\HTMLgenerator

Type cd\oci\htmlgenerator and press <Enter> key.

Step 15

You now need to type;

java –jar saxon8.jar –t xmlFileList.xml preview_pages.xsl

and press <Enter> key.

Step 16

If you get an error after pressing <Enter> key, then you have most likely not saved the changes in xmlFileList.xml, when you entered the content file name. Go back and save the changes, and then use the upward arrow key on your keypad to bring up the previously typed command. Keep pressing the upward arrow until the entire line shows, then press enter.

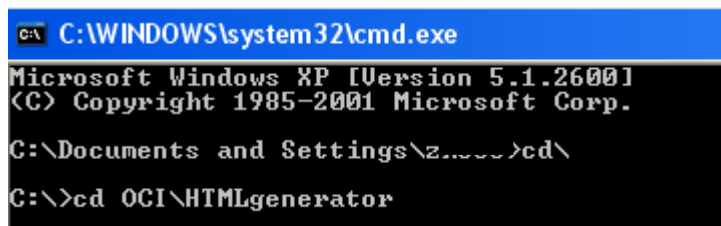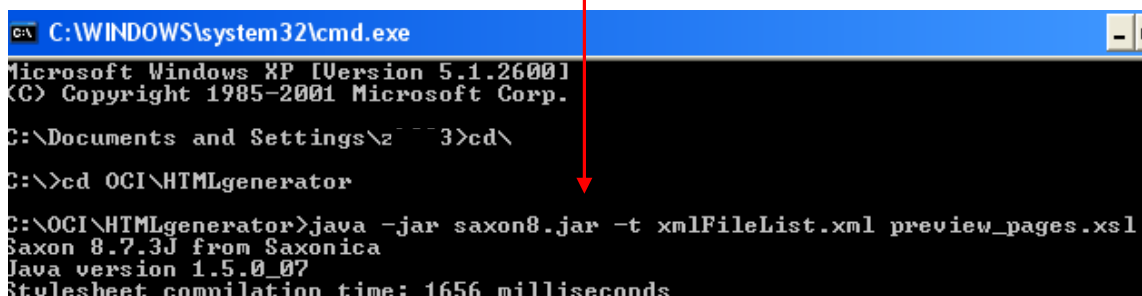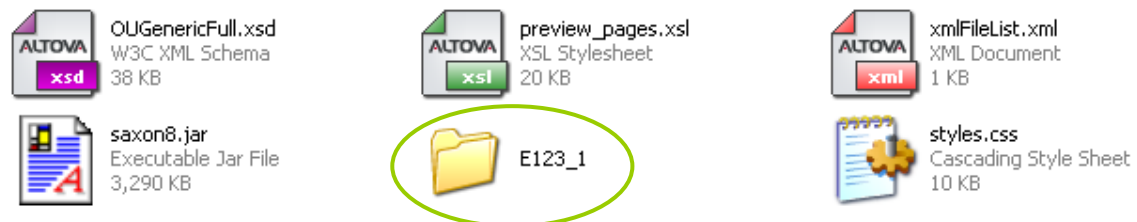```
  cannot find the file specified)
Writing to file:/C:/OCI/HTMLgenerator/B700_3/B700_3_index.html
Recoverable error on line 14 of file:/C:/OCI/HTMLgenerator/preview_pages.xsl:
  FODC0005: java.io.FileNotFoundException: C:\OCI\HTMLgenerator\T175_3.xml (The
system
  cannot find the file specified)
Writing to file:/C:/OCI/HTMLgenerator/T175_3/T175_3_index.html
Execution time: 235 milliseconds
Memory used: 897104
NamePool contents: 133 entries in 120 chains. 7 prefixes, 8 URIs

C:\OCI\HTMLgenerator>java -jar saxon8.jar -t xmlFileList.xml preview_pages.xsl
Saxon 8.7.3J from Saxonica
Java version 1.5.0_07
Stylesheet compilation time: 1109 milliseconds
Processing file:/C:/OCI/HTMLgenerator/xmlFileList.xml
Building tree for file:/C:/OCI/HTMLgenerator/xmlFileList.xml using class net.sf.
saxon.tinytree.TinyBuilder
Tree built in 16 milliseconds
Tree size: 14 nodes, 10 characters, 1 attributes
Building tree for file:/C:/OCI/HTMLgenerator/E123_1.xml using class net.sf.saxon
.tinytree.TinyBuilder
Tree built in 94 milliseconds
Tree size: 2125 nodes, 61011 characters, 79 attributes
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_index.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section0.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section1.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section2.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section3.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section4.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section5.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section6.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section7.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section8.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section9.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section10.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section11.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section12.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section13.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section14.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section15.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section16.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section17.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section18.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section19.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section20.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section21.html
Writing to file:/C:/OCI/HTMLgenerator/E123_1/E123_1_section22.html
Execution time: 1125 milliseconds
Memory used: 1629296
```
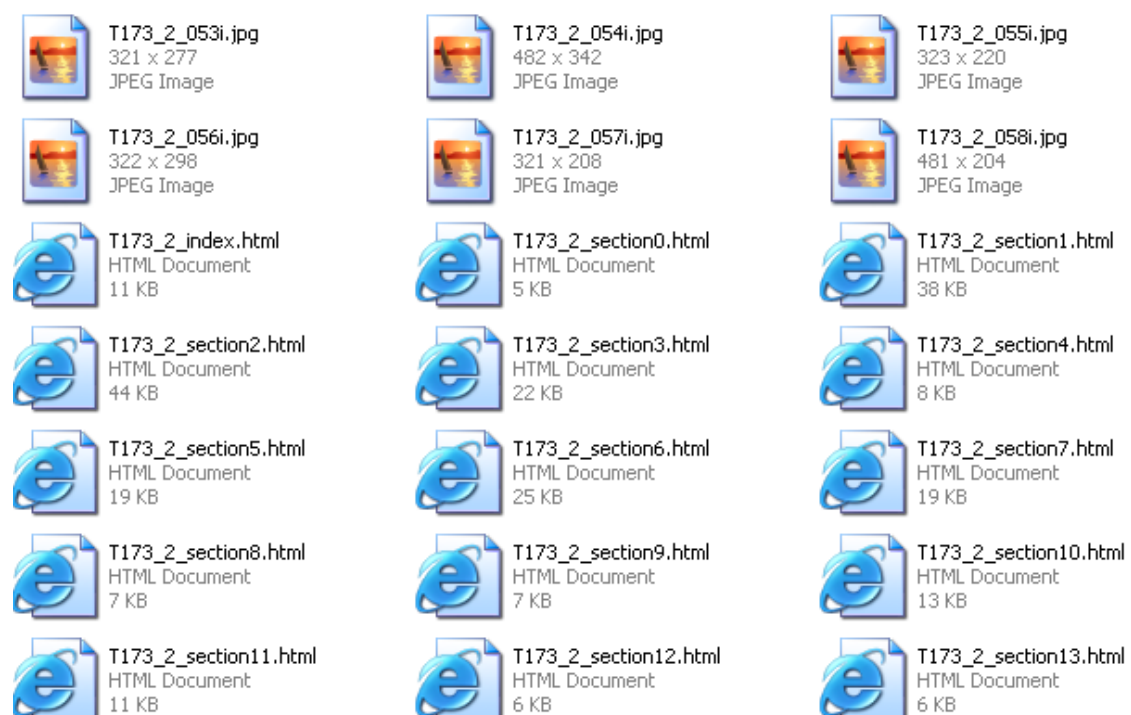
Step 17

You should now see within the unit folder (in this example E123_1) there are several output html files corresponding to the xml source for you to review, compare and update.

| | | |
|---|---|---|
| OUGenericFull.xsd<br>W3C XML Schema<br>38 KB | preview_pages.xsl<br>XSL Stylesheet<br>20 KB | xmlFileList.xml<br>XML Document<br>1 KB |
| saxon8.jar<br>Executable Jar File<br>3,290 KB | E123_1 | styles.css<br>Cascading Style Sheet<br>10 KB |

You can move the output html folder anywhere; however ensure that the style.css is in the same location as the output html folder.  In the following example the files all correspond to a unit called T173_2.

| | | |
|---|---|---|
| T173_2_053i.jpg<br>321 x 277<br>JPEG Image | T173_2_054i.jpg<br>482 x 342<br>JPEG Image | T173_2_055i.jpg<br>323 x 220<br>JPEG Image |
| T173_2_056i.jpg<br>322 x 298<br>JPEG Image | T173_2_057i.jpg<br>321 x 208<br>JPEG Image | T173_2_058i.jpg<br>481 x 204<br>JPEG Image |
| T173_2_index.html<br>HTML Document<br>11 KB | T173_2_section0.html<br>HTML Document<br>5 KB | T173_2_section1.html<br>HTML Document<br>38 KB |
| T173_2_section2.html<br>HTML Document<br>44 KB | T173_2_section3.html<br>HTML Document<br>22 KB | T173_2_section4.html<br>HTML Document<br>8 KB |
| T173_2_section5.html<br>HTML Document<br>19 KB | T173_2_section6.html<br>HTML Document<br>25 KB | T173_2_section7.html<br>HTML Document<br>19 KB |
| T173_2_section8.html<br>HTML Document<br>7 KB | T173_2_section9.html<br>HTML Document<br>7 KB | T173_2_section10.html<br>HTML Document<br>13 KB |
| T173_2_section11.html<br>HTML Document<br>11 KB | T173_2_section12.html<br>HTML Document<br>6 KB | T173_2_section13.html<br>HTML Document<br>6 KB |

Double click the html files to view, starting with the _index.html which represents the unit home page.  Once you have made any changes to the XML itself, you can rerun this preview (following the final few steps). Once you are happy with your unit, you can zip up the entire contents of the output folder and upload the zip file as detailed elsewhere.

Notes on Viewing Media

Because media may be contained within the unit you have downloaded you will need to ensure that your browser is capable of displaying these media types. For instance Quicktime movies (.mov) will require a modern browser, or older browsers that have the Quicktime movie player plugin downloaded from the Quicktime website (free) and installed. The same applies to Flash files.

This is particularly relevant for the Java applets (type java) that can now be included in units. Java applets require the Java Runtime Environment (JRE) to be installed locally (free from http://java.com/en/download/index.jsp ).

The more specialised Jmol applet (displaying chemical formulae) requires both JRE and Jmol (another free download from http://jmol.sourceforge.net/ ) installed locally if you wish to view Jmols served from your own PC. You will also have to manually edit the path shown below (blue) in the page.html file for the page where the applet should be showing. This path needs to reflect your local installation of Jmol, so the archive attribute might need changing to something like "C:\jmol\JmolApplet0.jar" (this does not apply when viewing the unit on the OpenLearn site where this path is correct).

```
<applet
    name="MED002"
    code="JmolApplet"
    archive="../../filter/jmol/JmolApplet0.jar"
    width="250"
    height="250"
    mayscript="true">
    <param name="load" value="caffeine.xyz" />
    <param name="progressbar" value="true" />
    If you cannot see this applet, please install the latest
    version of JRE from the Java website.
</applet>
```