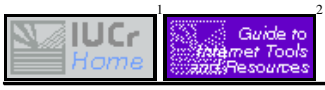

WWW Authoring

As crystallographers, we are in a good position to take advantage of the WWW in a number of ways, from pure static information resources like Crystallography World Wide[3], to the periodic distribution of information in the form of electronic journals in chemistry[4], like the ACS Journal of Physical Chemistry[5], to the organization of crystallographic conferences, like the IUCr XVII[6] Congress in Seattle.

All this development, however, has required that the chemists involved develop what are essentially *publishing* skills. The production of any literary work requires a range of skills. Most scientists are accustomed to writing up their results in publishable format, and so the transition to publishing on the WWW is most often relatively painless. To further ease this process for everyone, a number of tools have been developed to facilitate the publication of information on the WWW. In many cases these tools are simply repackaged collections of common text utilities available on many Unix servers, but a number of dedicated WWW authoring tools have also been developed to aid in information publication.

Authoring Tools

HTML editors can be grouped into three categories, based on the user interface to the underlying HTML:

1. **Pure text editors**: Here the author knows HTML well and is comfortable writing his/her HTML in a generic text editor and using a common WWW Browser[7] to view and proof–read the results. All text editors fall into this category, and the choice of editor is usually based on other uses to be made of the editor. Programmers are likely to use programming editors, like *emacs* and *jed* under UNIX, while publication authors are likely to use word processing editors like *MS–Word for Windows*.
2. **HTML–aware text editors**: Here the editor is aware of the syntax of the relevant HTML commands, and will do automatic checking of the HTML as it is written, including *push–button* additions of the required HTML tags. This is similar to working in a windows–based word processor in that, for example, one would make text bold by selecting the text with the mouse and then assigning the bold attribute to it with a menu or button selection. However the editor may not be WYSIWYG and will display the true HTML, possibly colour highlighted, in the editing window. AsWedit[8] is a good example of such an HTML editor.
3. **WYSIWYG HTML editors**: These editors are exactly like common word processors in that the user need not see the HTML codes at all, but only the results of these codes. Since browsers[9] are able to properly format HTML, it is no surprise that the *Netscape Navigator* has an editing version called *Netscape Gold*, which allows WYSIWYG editing of HTML files, as well as normal WWW browsing. Word processors like *Coral WordPerfect7* and *Microsoft Word* have recently added HTML WYSIWYG facilities to their previous extensive word processing repertoire, with the result that they are also able to act as WWW browsers, although not nearly as efficiently as dedicated browsers like *Netscape* and *Internet Explorer*. There are, of course, dedicated, efficient WYSIWYG HTML editors like the popular HotDog[10] HTML editor often bundled with other products, for example the

[1] http://www.iucr.ac.uk/iucr–top/welcome.html
[2] int.index.html
[3] crystal.index.html
[4] http://www.lib.uwaterloo.ca/discipline/chem/journals.html
[5] http://pubs.acs.org/journals/jpc.html
[6] http://www.bmsc.washington.edu/iucr
[7] int.browsers.html
[8] http://www.advasoft.com
[9] int.browsers.html
[10] http://www.sausage.com/dogindex.htm

95/NT web server *O'Reilly WebSite* comes with both a version of *Mosaic* and with the *HotDog* HTML editor. Silicon Graphics provide a dedicated HTML authoring tool called *WebMagic*.

At the end of the day, however, which authoring tool is actually used is not nearly as important as the quality of the content and the presentation.

Other Utilities

Pure text has its value, but no one can dispute the importance of additional features like graphics and interactivity. The hypertext features built into HTML provide some interactivity, but CGI[11] /Server–based programs and Java[12] and other client–based programs can provide considerably more functionality. Graphics generally requires the use of additional programs to either create the graphics from scratch or convert it from another format. Most crystallographic programs will produce graphical output in some format, and most presentation packages can be used to create both additional graphics and diagrams in the required formats for the WWW, either GIF (from Compuserve) or JPEG.

The list of possible utilities is essentially endless, and completely dependent on the user's primary computing environment and currently–available software, so again you are urged to depend primarily on your own creativity.

[Index][13] [AsWedit][14] [HotDog][15] – 11th August 1996 – © B. Craig Taverner[16] **– Not to be copied or reproduced without permission**

[11] int.cgi.html
[12] int.java.html
[13] int.index.html
[14] http://www.advasoft.com
[15] http://www.sausage.com/dogindex.htm
[16] http://www.gh.wits.ac.za/craig/