# ChemWebDev-L: a new listserv discussion list

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ChemWebDev-L, Chemistry-Related Web Developers Discussion List
http://listserv.wvu.edu/archives/chemwebdev-l.html

In collaboration with CCCE, we are pleased to announce the inauguration of a new listserv discussion list specifically focusing on issues relating to chemistry-related web application development. Of course, our affiliation with CCCE is not by chance. Both John and Bob have extensive expertise in the area of chemical education involving the web. Bob's specialty is in pushing client-side JavaScript to the limit; John understands more about the server side of operations.

The ChemWebDev-L project is an outgrowth of discussions at the CCCE meeting at BCCE18, in Ames, Iowa, this past summer. At that meeting, it was pointed out that there is a lot of expertise out there in the area of web applications related to chemistry. And, judging from the number of presentations made at the conference that presented web-based applications, the development of web-based applications in chemistry education is growing rapidly. Our hope is that whether your interest lies in server-based applications such as course management systems or remote data acquisition, or client-based applications such as quizzes and animations, if you are doing anything web related and it has to do with chemistry, you will benefit from subscribing. We're hoping to attract a variety of skill levels, from those highly familiar with the quirks of web-based applications to those with little experience in these matters but looking for advice from the "experts."

We're hoping this network of individuals will facilitate discussion of many of the practical (frustration-inducing) issues related to chemistry education and the use of the web. We've found that it really does take the help of a community to develop new web-based applications. This is partly due to rapidly changing browser specs and capabilities and quirky "features" that make smooth implementation of web-based applications on PCs, Macs, and other platforms especially challenging, if not a nightmare. Point us to your problem pages, send us your code that doesn't work, bounce ideas off this group, pick our brain.

## About the moderators

**John Penn.** John is a professor in the chemistry department at West Virginia University in Morgantown, WV, and president of Horizon Solutions, LLC. As many of you probably know, John has developed the "Web-based Enhanced

Learning Evaluation and Resource Network" ([WE_LEARN](#)) system, which is a web-based homework distribution, testing, and grading system for chemistry courses. Suffice it to say that John encountered many technological problems and learned many tricks during the construction of this client/server application. As an example of the challenges, the on-line evaluation of student-drawn organic structures was seen as an important aspect for organic chemistry. The solution was to have the application evaluate chemical structures by converting student-drawn structures to an ASCII smiles string using an existing JME applet provided by Peter Ertl of Novartis integrated into the QuestionMark webserver platform. This involved understanding code generated by Questionmark to fit their xml package, learning to use form elements, and writing sufficient JavaScript to tie it all together. John has had applications in other situations where he just wanted to get some help and some example code from someone else who had tackled the problem (e.g., interactivity with a MySequel database, coldFusion, or random number generation). The basic issue for John is, "Why reinvent the wheel?" If you can get sample code from someone else, it can take less time to alter a system to do what you need it to do. Thus, it was a no-brainer to have a listserv that would help colleagues solve problems relating to web design. Having the opportunity to help others develop their code is both good for the soul and good for the budget (because others are there to help you as well).

**Bob Hanson.** Bob is a professor of chemistry in the chemistry department at St. Olaf College in Northfield, Minnesota, and sole proprietor of a publishing/consulting business, Integrated Graphics. After many years as a Visual Basic programmer "on the side" Bob finally took the plunge in 1997 and got into web-based applications involving JavaScript. (Ah, those were the days of Netscape 3.1 and NO Internet Explorer. Alas!) This language is unique in that millions of coding examples are freely available on the web, and feedback is immediate. So for someone like Bob, who learns by seeing how someone else does it and then trying it himself, this was clearly an advantage. Since those first baby steps, he's written quite a [pile of applications](#) using JavaScript--everything from games for learning nomenclature and web-based graphing and equation-solving calculators to a kinetics simulations package, an integrated grading sytem, the organic chemistry "ChemIST" website (for Prentice Hall), and an interface for a fully automated web-based NMR spectrometer. Bob likes to think programming web applications is a lot like creating a book or work of art: imagine, sketch, adapt, refine, augment, revise, revise, revise. More than anything, Bob has learned that you just can't do this stuff in isolation. You need lots of feedback, lots of input, lots of suggestions in order to pull off a really good user interface. So there are many advantages Bob sees in a list such as ChemWebDev-L: Brainstorming at the concept stage; technical assistance at the implementation stage; feedback at the interface design stage.

## Subscribing

ChemWebDev-L is being hosted at W. Virginia University and is fully archived and searchable. The service went public during the last week of August, 2004. As of 9/21/04 there were 70 subscribers. To subscribe to the ChemWebDev-L listserv simply send a message to

[LISTSERV@LISTSERV.WVU.EDU](#)

consisting of a single line containing

    SUBSCRIBE ChemWebDev-L YOUR-NAME-HERE

For example,

    SUBSCRIBE ChemWebDev-L Bob Hanson

Join us!

**Other opportunities to get help with web applications**

In the style of amazon.com, we suggest....

*Others who have signed up on this list have also signed up on these related lists:*

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Jmol-users -- Users of Jmol
http://lists.sourceforge.net/lists/listinfo/jmol-users

"Jmol is a free, open source molecule viewer. The JmolApplet is a web browser applet that can be integrated into web pages. The Jmol application is a standalone Java application that runs on the desktop. The JmolViewer can also be integrated into other Java applications. The Jmol-users discussion list is "where you can share ideas and experiences, ask for help, and give us feedback."

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Jmol-developers -- Developers of Jmol
http://lists.sourceforge.net/lists/listinfo/jmol-developers

"Those who are seriously interested in participating should join the jmol-developers mailing list where you can request new features or changes, discuss implementation, submit patches, or contribute code. You can also browse the jmol-developers archives."

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chemweb -- Chemistry Webmasters Discussion list
http://mailman.ic.ac.uk/mailman/listinfo/chemweb

A list moderated by Henry Rzepa, this list has been going for about 10 years. Their site description reads: Following the First UK Chemistry Webmasters meeting on 29 November, 1995, there appeared general agreement that we should set up an e-mail list to serve the following functions: 1. To continue discussion of themes that emerged during the meeting 2. To enable us to plan further events 3. To act as a distribution point for information about chemical applications of the web in general.

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ChemistrySoftware -- Software in Chemistry
http://groups.yahoo.com/group/ChemistrySoftware

A very new list organized by Michael Engel, who states: "This group should serve to inform about new and old software for chemistry purposes (and related information: journal articles, books, etc), to get and to give advice on problems with software, and to get information on ways how to solve a problem, e.g., how can I monitor a special chemical property in real-time or can I calculate such and such property. Any OS (Unix, Linux, Windows, Macintosh, etc.) is welcome!"

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