

Readers Respond:

A Mailbag Of 'Tool & Tip' Reactions.

With five installments of "Tools And Tips" under the belt thus far, it seems like a good time to sample some reader reaction since this monthly analog column started in January. Due to inevitable delays between writing and appearance, the comments below pertain to the first three columns (i.e., through March).

Getting Net Connected: (Jan. 6). This topic stirred up a variety of responses, fortunately mostly positive. One general one was an "OK, good info, but why didn't you discuss (say) Netcom or MSN as ISPs?" Well maybe it wasn't obvious to everyone, but that original ISP listing was basically limited to firsthand experiences. Of course, there are thousands of others which might be just fine for you. The general concepts (and caveats) still hold.

Another comment was that working people can use their company's Internet services, as dialup services are too slow. The answer to this is that sure, obviously a high-speed connection (when and if you have it) is preferable to any dialup service. But, it can't be assumed that all companies will allow free web-surfing. That leaves a lot of folks that still must suffer with a dialup's low throughput. It is just those situations where the "Getting Net Connected" details can be most useful.

Managing an ISP's vagaries could be another ongoing chapter in the Net connecting saga, as since the first column was cast, I've now been through two more! Sure, I know it sounds crazy, but service records for many ISPs these days are scandalous. E-mail (POP, SMTP, or both) goes out intermittently; you sometimes can't connect (busy or simply no answer); you can't connect at full modem speed; the list goes on. You pay for unlimited service, but many times it's anything but. And by now, we've all read reports about access problems America Online has had shortly after they went to their unlimited rate plan (also echoed by some readers). If anything, maybe

the ISP service picture painted in that first column was a bit rosy.

So, let's suppose you need reliable e-mail service from your ISP, as many of us do. If so, my advice to you is that you'd better have more than one ISP lined up, and be prepared to switch your e-mail routing. Huh, you say? As it turns out, there are ways to do this, and rather simply at that.

A solution can be found with what is known as an e-mail **reflector service**. They are very popular due to the fact that some of them are nominally free to the user via advertising (see the comments below). Two extremely good examples are USA.NET at <http://www.usa.net/>, and Bigfoot at <http://www.bigfoot.com>, which, in addition, offers search capabilities.

An e-mail reflector is simply used to redirect incoming e-mail to another specified address. In using a reflector, you give out the reflector service e-mail address to correspondents, then your incoming mail to that address bounces to another ISP address, say jdoo@shakyisp.com (which you don't give out). That way, when good old shakyisp.com goes down the tubes, you simply re-reflect your mail to a new ISP. **TIP:** The advantage of the reflector is that not only does your mail service continue uninterrupted, your correspondents needn't know a thing about all the subterfuge.

Like I said, it sounds crazy. But, when you depend upon e-mail for bread-and-butter communications, you really wish you could depend entirely on just one ISP and a sole e-mail address. The reality is, you can't.

E-mail Starter Kit: (Feb. 3). This one drew a variety of lively responses. The folks at ConnectSoft wrote saying the E-mail Connection program is no longer available in a freeware version. The current version (v3.1) is available for \$49.95 (800) 889-3499).

A couple of e-mail messages were

received from users of the Juno "free" e-mail system. One reader was rather adamant in the opinion that my column missed a real opportunity to tell readers about truly free e-mail service—namely, his provider. While I'd heard of the company before, I hadn't tried it then, and probably won't (since I'm happy with my present e-mail setup).

If you're interested, check it out by calling (800) 654-JUNO (5866) or <http://www.juno.com>. You'll need a Windows computer and modem, but no direct Internet access is required. Juno mail can go both to/from the Internet. Access to the Juno system is via their U.S. dial-in numbers (about 400).

An alternative "free" e-mail system is offered by HotMail:

<http://www.hotmail.com>. This service provides e-mail via conventional Internet access, using a Web browser.

With these and other advertising-supported systems, the hidden price paid for the "free" services is (guess what?) piggy-back advertising, sometimes appended to your e-mail, or just on-screen (details here will vary). You also may be asked for your personal profile for database records, so be wary of any potential privacy intrusions.

Looking back to that e-mail column, the original concept was to give the *Electronic*

Design technical readership some working insight into minimum requirements for Internet e-mail and the truly broad array of services implicit to that. But, little consideration was given to other forms of e-mail, since it seemed obvious that the power of full-featured e-mail and the associated Internet services would likely point most readers that way.

As noted, this approach isn't free—you do pay for underlying Internet access. It does get you the most feature-packed e-mail form at no additional cost. I'd venture a guess that most readers of this publication would prefer high-octane e-mail, and full Internet access.

Finally, no readers actually wrote concerning this particular e-mail related problem, but it sure is one for virtually anyone using Internet e-mail services. Here, I'm referring to



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what's commonly known as SPAM, i.e., unsolicited and/or undesired e-mail advertising. Very similar to junk paper mail, junk e-mail seems to be about as prevalent. It is difficult to control, but part of this lies in watching where your e-mail address gets posted. Be careful of posting to the USENET news/discussion groups, as these seem to be magnets for junk e-mail (when you post using your real address). Any solutions toward combating this real problem of junk e-mail will likely be welcomed by everyone using e-mail service.

Analog Book Reviews: (March 3). In this column reviewing two new op amp books, it was mentioned in passing that I do have a lot of them on my shelf. Out of those, the ones I use most often number about 10 or so. As you would expect, one reader questioned just what was this "Top 10" of op amp books. Well, if they are useful to me, they are very likely useful to some of you out there, so here's the Top 10 list with some comments added on each. The listing (in published order) has an initial "available" section (1-5), followed by an out-of-print section (OOP) (6-10).

1 R. Meyer, *Integrated Circuit Operational Amplifiers*, IEEE Press, 1978, ISBN 087942-116-9. This one's a collection of classic IEEE papers on op-amp design; a must-have tome of information from the early IC developmental years.

2 S. Franco, *Designing with Operational Amplifiers and Analog Integrated Circuits*, McGraw-Hill, 1988, ISBN 0-07-021799-8. Good general coverage of op amps and applications such as active filters, as well as other popular analog ICs.

3 P. Horowitz, W. Hill, *The Art of Electronics*, 2d. Ed., Cambridge University Press, 1989, ISBN 0-521-37095-7. Not solely devoted to op amps, this encyclopedic work is nevertheless well worthwhile overall for its good coverage. Nice touch with the "good circuit"—"bad circuit" cameos.

4 D. Sheingold, Analog Devices Staff, *The Best of Analog Dialogue 1967 to 1991*, Analog Devices, 1991, ISBN 0-9-916550-10-9 (free on request from ADI literature center, 1-800-262-5643). This 25 year indexed compilation isn't solely devoted to op

amps, but does offer lots of valuable information on them, plus many other design engineering topics as well.

5 J. Dostal, *Operational Amplifiers* 2d Ed., Butterworth-Heinemann, 1993, ISBN 0-7506-9317-7. One of the best op-amp books currently available, with good technical analyses and discussions on basic and applied circuits.

6) D. Sheingold, Philbrick Staff, *Applications Manual for Operational Amplifiers*, Philbrick/Nexus, 1968. This classic is the original sourcebook of op-amp applications, and in many ways it defined directions of later developments. It has been OOP for some time, but its well worth having when and if you do find it.

7) G. Tobey, J. Graeme, and L. Huelsman, *Operational Amplifiers: Design and Applications*, McGraw-Hill, 1971, ISBN 07-064917-0. One of the first broadly popular major publisher books on op amps, emphasizing both op-amp design and applications, plus some notable coverage on active filters.

8) G. Korn, T. Korn, *Electronic Analog and Hybrid Computers*, 2d Ed., McGraw-Hill, 1972, ISBN 0-07-035363-8. Another classic, probably second only to the Philbrick book in its early design influence. System-oriented, but still valuable for its fundamental coverage.

9) D. Stout, M. Kaufman, *Handbook of Operational Amplifier Circuit Design*, McGraw-Hill, 1976, ISBN 0-07-061797-X. Very good, practically-oriented design handbook with step-by-step approach to standard applications and many example designs.

10) W. Jung, *IC Op Amp Cookbook*, 3d Ed., MacMillan, 1986, ISBN 0-672-22453-4. In terms of a disclaimer, I'm not exactly disinterested vis-à-vis this one—but many others have valued it for the practical coverage of IC op-amp applications.

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