



Richard C. Waters, editor

MIT AI Laboratory
545 Technology Sq.
Cambridge MA 02139
Dick@AI.MIT.EDU

With this column, I take over from Pavel Curtis as editor of the (algorithms) department. Following in his footsteps, my goal is to present Lisp systems that are interesting, teach something about Lisp, and have significant practical value. In particular, the perfect article for this column will have the following characteristics.

- While being no more than 10 pages long, the article will present an entire Lisp system, showing all the code. The article will explain what the system does and how it works.
- The system will be something that readers can make significant use of in their own work. (To facilitate this, the code will be available over the INTERNET.)
- The system will be a good example of how Lisp programs should be written and illustrate interesting things about the capabilities of Lisp.
- Above all, the system being described will be the kind of program that makes you say "I wish I had written that."

Whether the above goals for the (algorithms) department can be met has much more to do with you than with me. I have several pieces of code that I would like to present personally. However, most of the articles have to come from you. Consider writing an article about that one little program that makes the biggest difference in your day-to-day work.

In the following article, I present an automated regression tester called RT, which I have found to be extremely useful in my work. Everyone knows that it is important to test a system thoroughly whenever it is changed. However, it is far from easy to come up with good tests and irritatingly laborious to keep track of a lot of tests and run them time and again.

Using RT, the programmer still has to come up with tests. However, RT maintains a database of these tests and automatically runs them when requested. This can take a lot of computer time, but does not take any of the programmer's time. As a result, any bugs found by running the tests—and this is a lot more bugs than you might think—are essentially found for free.

Richard C. Waters