The Icon Newsletter

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Newsletter

With the ready availability of timely information via the Web, the Newsletter is now published only twice a year, in June and December.

We plan eventually to phase out the Newsletter in favor of on-line information as it becomes available.

Early Icon Analysts On-Line

The first three years of the Icon Analyst (August 1990 June 1993) are now available on-line in PDF format. You'll find links to them at http://www.cs.arizona.edu/icon/analyst/iaback.htm.

News from Clint Jeffery

Editors' Note: Clint Jeffery sends the following information.

The book *Program Monitoring and Visualization: An Exploratory Approach*, described in the last Newsletter, is at the printer and should be available in June. Here's the publication information: Springer-Verlag, ISBN 0387986448, ~220 pages, $59.95.

The manuscript for *Programming with Icon* has been delivered to the publisher and is currently being edited. This book, described in the last Icon newsletter, includes chapters on CGI scripting, genetic algorithms, games, and parsing tools. It adds many tools, and some surprises, to the Icon programmer's arsenal. The authors are Clinton Jeffery, Shamim Mohamed, Ray Pereda, and Robert Parlett. We expect availability in the fall.

Thanks to students Li Lin, Shijie Yao, and Federico Balbi, both the MS Windows port of Shamim Mohamed's Unicon and the ODBC database interface are near completion and we expect to beta test this summer. Our subset of Unicon provides portable access to file system information such as directory contents and file modification times, and easy TCP/IP networking. We will work to enable most platforms that run Icon to support these facilities in the future.

I am moving to the University of Nevada, Las Vegas. Information about availability of these books and accompanying software releases will be made available on the Web at http://icon.cs.unlv.edu.

Version 9.3.2 of Icon

Version 9.3.2 of Icon is near completion. The main thrust of this release is greatly improved portability. One new feature has been added: A directory can now be opened as a file. Reading from this "file" produces the names of the files in the directory. For UNIX, the directories "." and ".." are included.

Source code and binaries for popular UNIX platforms will made available on the Icon FTP and Web sites. The Icon program library will be updated at the same time.

Watch our Web site for an announcement of the availability of Version 9.3.2.

Icon for BeOS

The Be operating system will be supported by Version 9.3.2 of Icon.

The implementation lacks graphics. Also missing are dynamic loading and keyboard functions, both of which depend on non-POSIX features.

Graphics Programming Course

This spring semester we again offered an undergraduate course in graphics programming at The University of Arizona.

This is the first time there was an official text: *Graphics Programming in Icon*. All other course material was placed on the Web.

Lectures were prepared as Web pages and projected in class using a projection system. The use of a projection system also allowed the demonstration of running programs, animations, and so forth.

Twenty-two students enrolled. No one dropped, although one student, who was doing A work at the time and had a good start on an interesting project, withdrew from the University.

Student work consisted of homework assignments and a final project in lieu of a final examination. Homework was turned in as files and graded homework was returned by e-mail. The only paper used in the course was for the two midterms. Students chose their project topics and carried them out individually. Games predominated: 15 in all, including checkers, Tetris, Risk, Concentration (two versions), BlackBox, Alien Attack, Tactic War, Frogger, Rubik's Cube, Snake, Battle Bhudda, BlastIt, Invaders, and a generic space war game. Other projects were an L-System laboratory, a comic book maker, a Native Plant Preservation Plan manager, a visualization of an operating-system simulator, a visualization of RealMedia log files, and an application for the interactive design of programmer-defined palettes for Icon.
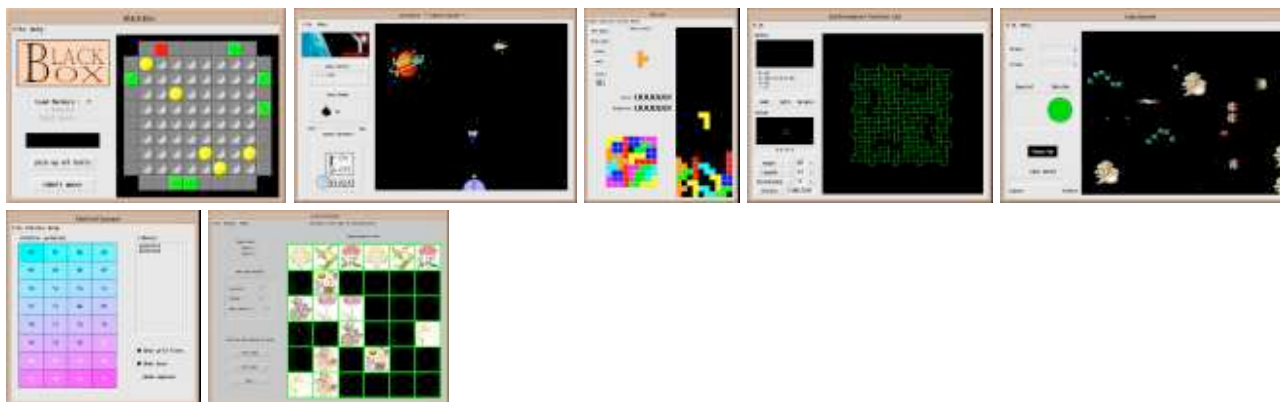
Students were required to submit project documentation as Web pages. The quality of these varied widely,

in good part because some students were proficient in HTML, while others had no experience with it prior to the course.

On the whole, the projects came out very well. On average, they were noticeably better designed, more ambitious, and more robust than projects produced by previous such classes.

Two students placed their projects in the public domain: Tetris and the programmer-defined palette application. These will be added to the Icon program library.

The images that follow are from some of the more visually interesting projects.

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