
The Icon Newsletter

No. 57 – December 1, 1998



Contents

Version 2 of Jcon	1
More Icon Books Coming	1
Database Connectivity	2
Whither Idol?	2
Chinese Book on Icon	2
Icon Club at Yahoo	2
On-Line Icon Book	2
Icon CD-ROM Sale	3

Version 2 of Jcon

A new version of Jcon, the Java-based implementation of Icon for UNIX, is now available from the Icon web site. The Jcon translator generates Java class files that execute in conjunction with a run-time system written in Java.

Version 2 is now an essentially complete version of Icon. It includes large integers, which were missing from Version 1, and the graphics implementation is now much more complete. A few things that cannot be done in Java, such as `chdir()` and mutable colors, are omitted.

Version 2 of Jcon is also considerably faster than Version 1. The most significant improvement came from choosing a different — and simpler — way to implement suspension. The traditional Version 9 Icon system is still faster, though.

Jcon contains a translator written in Icon and a run-time system written in Java, tied together by

a Korn-shell user interface. Since the translator can convert itself into Java, all that's needed for a non-UNIX port is a user interface. Anyone interested in implementing such a port is invited to contact the Jcon project at

`jcon@cs.arizona.edu`

More information, along with the Jcon source code distribution, is available through the web page at

<http://www.cs.arizona.edu/icon/jcon/>

More Icon Books Coming

Editors' note: This article was provided by Clint Jeffery.

The manuscript has been delivered, and work is in progress, on the publication of Springer Verlag's forthcoming title, *Program Monitoring and Visualization: An Exploratory Approach*, by Clinton Jeffery. This book describes a set of execution monitoring facilities added to Icon. Numerous visualization tools for monitoring Icon programs are presented, all written in Icon. Binary distributions of the monitoring software will be made available on the Internet for Sparc Solaris, Intel Linux, and MS Windows platforms.

Slightly further in the future, you can expect to see the ultimate Icon companion book, tentatively titled *Programming with Icon*, to be published by IDG Books. This book will include a description of the core language facilities, the object-oriented programming extensions and the portable POSIX-inspired system interface, as well as a section that

Downloading Icon Material

Most implementations of Icon are available for downloading via anonymous FTP:

`ftp.cs.arizona.edu (cd /icon)`

describes “the best of the Icon program library”, a valuable underutilized resource for Icon programmers. The book authors are Clinton Jeffery, Shamim Mohamed, and Ray Pereda. You can help: we are soliciting nominations for which modules in the Icon program library are the most useful in your programming. Which programs from the library do you use? Send your votes and comments to

jeffery@cs.utsa.edu

Database Connectivity

Editors' note: This article was provided by Clint Jeffery.

Work is beginning at UT San Antonio, with generous support from the National Library of Medicine, on a high-level database interface to Icon. The initial implementation will emphasize Windows Icon and focus on Open DataBase Connectivity (ODBC) access to both local databases and remote database servers such as SQL databases. This work will also support the development of a portable subset of the Unicon POSIX system interface that will run on MS Windows and UNIX ... and we hope can be ported to other platforms.

The challenge, as always, is to provide an interface that doesn't clutter up the language with new features and does fit the rest of the language. One possibility is a persistent table data type, but design obstacles or implementation considerations may persuade us to adopt another approach.

Whither Idol?

Editors' note: This article was provided by Clint Jeffery.

Icon's object-oriented facility, called Idol, has been on an apparent back burner for some time while work progressed on the graphics facilities.

Idol has a new home page,

<http://www.cs.utsa.edu/research/idol/>

Icon on the Web

Icon is on the World Wide Web at

<http://www.cs.arizona.edu/icon/>

and a new mailing list

idol@sefault.cs.utsa.edu.

The most recent additions are an MS Windows port and support for hypertextual source code.

Idol has been refined gradually over the years. It is still a preprocessor that generates .icn files and calls an Icon translator to build the finished program. Its author always expected to “finish” it and build it into icon someday, but the implementation of Icon suggests another possibility: to replace icon entirely by a translator written in Icon or Idol. Idol's current implementation, however, has the advantage that it can be used with other Icon implementations, such as iconc or jcon. For the near term, we may simply add a full parser to Idol and leave it as is.

Chinese Book on Icon

We have heard from Zhang Weigo that his book *The Course of the Icon Programming Language* has been published. When we get a copy, we will have more to say.

If you wish to contact the author directly, his e-mail address is

wgzhang@ht.rol.cd.net

Icon Club at Yahoo

Gustavo Cavazos has set up a club on Yahoo for persons interested in Icon. You can leave posts, chat with persons interested in Icon, and post links.

The address is:

<http://clubs.yahoo.com/clubs/iconprogramminglanguage>

On-Line Icon Book

Thomas Christopher has made his *Icon Programming Language Handbook* available on-line in PDF format. You can get a copy from his company's Web site at:

<http://www.toc-press.com/freesoftware.htm>



Icon CD-ROM Sale

We have some extra copies of the CD-ROM that accompanies the Icon graphics programming book.

This CD-ROM not only contains program material and images from the book, but also the entire Icon Web site, including its FTP area. If you don't already have this CD-ROM as a result of purchasing the graphics programming book, here's your chance to get hundreds of megabytes of source code, executable binaries, documents, and images. With it, you can browse the world of Icon and access material quickly without long on-line sessions and tedious downloads.

The CD-ROM is browser based. All you need in addition to a CD-ROM drive is a Web browser. The CD-ROM is ISO-9960 standard and works on Windows, UNIX, Macintosh, and DOS platforms.

We are offering this CD-ROM for a nominal price to make it affordable to anyone. If you buy the CD-ROM alone, it is only \$10, including shipping and handling. With a purchase \$25 or more



of other Icon material, such as books and subscriptions, it is only \$5 extra. Finally, it is free with orders of \$50 or more. You must specify the CD-ROM when ordering.

Note: We will not enclose a second copy of the CD-ROM with orders that include the graphics programming book.

Important: The supply of the Icon CD-ROM is limited. If you want a copy, you should act promptly.

The Icon Newsletter

Ralph E. Griswold, Madge T. Griswold,
and Gregg M. Townsend
Editors

The Icon Newsletter is published three times a year and is available on the World Wide Web. To receive printed copies, contact:

Icon Project
Department of Computer Science
The University of Arizona
P.O. Box 210077
Tucson, Arizona 85721-0077
U.S.A.

voice: (520) 621-6613

fax: (520) 621-4246

e-mail: icon-project@cs.arizona.edu

THE UNIVERSITY OF
ARIZONA[®]
TUCSON ARIZONA



and
Bright Forest Publishers
Tucson Arizona

© 1998 by Ralph E. Griswold, Madge T. Griswold,
and Gregg M. Townsend

All rights reserved.