February 1995

Doc Aquis

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**Recommended Citation**  
McLaren, Mary and Hale, Barbara (1995) "Doc Aquis," *Against the Grain*: Vol. 7: Iss. 1, Article 32.  
DOI: [https://doi.org/10.7771/2380-176X.1703](https://doi.org/10.7771/2380-176X.1703)

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A major leap forward for Interlibrary Loan and other methods of resource-sharing has been accomplished by the Research Libraries Group in their development of the Ariel Document Transmission System. RLG's latest version of the system is Ariel for Windows. Commercially available hardware and software, an Ethernet connection to the Internet, and the Ariel software comprise the Ariel workstation. This setup allows the users to scan documents such as articles or chapters of books (including photographs) and transmit the images over the Internet to another Ariel workstation. The quality, reliability, and speed of transmissions is much greater and more cost effective than transmissions via such methods as telefacsimile. In many instances Ariel transmissions are replacing the first class mailing of interlibrary loan photocopies.

The equipment and software necessary to run the Ariel for Windows Document Transmission System include:

PC: 486/25 MHz or better
  8 MB RAM
  80 MB hard disk drive or better
  5-1/4" or 3-1/2" floppy disk drive
  2 expansion slots

Scanner: HP ScanJet IIp with scanner interface (or)
  HP ScanJet IIc or IIcx with scanner interface (or)
  Jujitsu Scanners M3093, M3906, or M3097 with scanner interface
  (Fujitsu are the fastest/most expensive) (or)
  Scanners with TWAIN- or ISIS-compatible drivers

Document Feeder: HP and Fujitsu scanners can be supplemented with automatic document feeders

Printer: Ariel recommends HP LaserJet 4, LaserJet 4 Si or 4 Plus for fastest/most acceptable performance

Network Software: WinSock-compliant 1.1 DLL
  RLG has tested Trumpet; Chameleon; Pathways (Wollongong)
  Standard Ethernet transceiver cable*
  Ethernet transceiver (MAR)*
  *required only for Standard Ethernet (10BASE5), not for Thin Ethernet (10Base2, 10BaseT)

Other Software: Ariel for Windows, DOS 5.0 or later, Windows 3.1 or later

Many libraries have been successfully using the DOS version of Ariel for the past few years. Unfortunately the new Ariel for Windows is not compatible with early Ariel DOS versions, but RLG has made inexpensive and easily available DOS upgrades (2.0 and later) that will work with the Windows version. To stay with DOS and upgrade to the latest version, RLG has made the upgrade free via FTP or at minimal charge by ordering the diskette from the Research Libraries Group. Users may also choose to upgrade from DOS to Windows if they have the equipment necessary to run the Windows version.

Ariel for Windows offers Interlibrary Loan and other users the ability to use other Windows applications on the workstation as well as working with other TCP/IP programs such as Mosaic and WinGopher because they comply with WinSock 1.1 as Ariel does. This is especially nice for libraries who want to use the workstation for a multitude of tasks.

Ariel for Windows offers additional helpful tools such as an address book for generating address lists. The software includes a "store and forward" capability that allows for sending documents when an institution is not running the Ariel software. The system attempts to send 28 times and if not successful places the document in a Send Queue. The "forward" site can then retrieve the stored document when it runs its Ariel system. It may also be possible to import foreign TIFF files created by other software programs if they meet certain Ariel criteria. Another service the Windows version provides is the ability to redirect documents to another Ariel workstation (for example, a library's interlibrary loan service could forward an article to an academic department if that department also has an Ariel workstation).

Many tools also exist to help the Ariel for Windows user. The software is accompanied by a full printed manual, but many other additional aids may be acquired electronically. One helpful tool that RLG will forward via email is Jim Coleman's "Ariel for Windows — Frequently asked Questions." This tool covers quite nicely the purpose of the software, previous versions, documents that can be transmitted, necessary PC, scanner and printer equipment, software to run the system, network software, availability of technical support, and information on how one can purchase the software. Other tools such as a current list of Ariel sites, general information regarding equipment setup, and information about WinSock software being tested to work with the Ariel system can be acquired through anonymous FTP.

Technical support for the Ariel System is made available to users through a 1-800 phone line or electronic mail to the
Research Libraries Group. For hardware support, users would need to contact the appropriate vendor. Ariel users may also gain support and helpful tips from colleagues using the Ariel System by subscribing to the Ariel-L listserv (ARIEL-L@IDBSU.BITNET). To obtain more information about the Ariel for Windows System and its current pricing structure, interested individuals may contact RLG at 1-800-537-RLIN.

**ONE LIBRARY’S RESPONSE: Ariel Used at UT/Knoxville**
by Biddanda P. Ponnappa (Head, Agriculture-Veterinary Medicine Library, University of Tennessee, Knoxville)

Ariel has been in operation in the Interlibrary Services Department of the University of Tennessee, Knoxville Libraries since November, 1992. We loaded the Ariel software to a workstation that included an IBM PS/2 80-386 PC, HP ScanJet IIP optical scanner and an HP LaserJet III printer. The station has an Internal Ethernet card supported by a Clarkson packet driver. This enables the station to support TCP/IP protocol by having an IP address.

We planned this service as a cooperative project between our library and the University of Kentucky’s M.I. King library. It was our objective that the two libraries could help their users by improving the turnaround time for ILL copy requests. Also, being two of the few libraries using this service at that time, each of us wanted a partner to try out and gain experience with this new technology. The University of Kentucky’s Ariel workstation includes an IBM PS/280-386, HP ScanJet Plus optical scanner and HP LaserJet IV printer.

In the beginning, we had some problems. We often got different kinds of error messages, while both sending and/or receiving documents. Fortunately, the technical people at the Research Libraries Group (RLG) were able to walk us through these problems over the telephone. Because it was a new technology and we were one of the first libraries to use this, such problems were natural. Eventually, most of these problems were corrected and the system settled down.

As the number of libraries using Ariel grew in numbers, we found that the time it took to receive and send documents was unacceptably slow. To overcome this, we added a document feeder to the scanner. This meant that we had to make copies of original documents using a regular photocopier and then feed those copies through the Ariel scanner. In a sense, this was defeating the whole purpose of improving the quality of copies by directly scanning the original through the Ariel station! We had to make this compromise to utilize limited staff resources efficiently, but whenever we thought a particular page containing graphs, tables, etc., would be better if scanned directly, we did so.

The advantages of using this system to send copies were many. We saved labor by not having to stuff the copies into envelopes, write address labels and then send them to our shipping department. We also saved on the turn-around time and on the mailing/telephone cost. Of course, the quality of copies delivered and received were of much higher quality than copies transmitted by fax technology.

There were also some problems. As stated earlier, we had some initial problems while setting up the system. For a successful operation of this system, both the sending and the receiving stations have to be in good operational condition. As this was not always the case, we had to call or email each other to correct the problem. Many times, when we had directly scanned the pages and it was not possible to preview the scanned pages, we used to get many 're-send' requests for reasons such as pages being crookedly scanned and edges being cut off.

At a time when the Ariel technology became popular in many libraries, Dan Lester from Boise State University Library started a listserv called Ariel-L as a forum for people interested in raising and discussing issues related to this new technology. This has become a very good platform for people to share their experiences and act as a support group. Now we are in the process of upgrading our DOS version of Ariel to the Windows version. It is to be hoped that this will offer new features that will help solve some of the above problems. Generally, this is an exciting technology and we are glad that we are able to make use of it. Above all, our users are happy and many of those copies are much improved.

**Have You Heard?**


Also of interest to the report contained in the May-June, 1994, issue of Library Technology Reports, "The Procurement of an Automated Library System with a Model RFP," by Richard W. Boss includes an introduction covering concerns to be addressed during planning and a model request for proposal. This may have a broad appeal to ATG readers.

Lots of news from OCLC recently! First is the announcement that the latest release of SiteSearch (1.2) software allows a library user to go directly from an article citation on the workstation screen to the journal on the shelf. The Copy feature provides a link from the article citation to a locally mounted holdings database. Library users can ask for Copy information from within databases mounted locally on campus as well as from within the 44 databases available through the FirstSearch service.

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Another source for document delivery is The UnCover Company, which has announced exciting new developments, too. A new service called UnCover S.O.S. (Single Order Source) allows users to order articles from more than 16,000 periodical titles by the method of choice — fax, phone, electronic mail, or post. S.O.S. requires no pre-order verification and is not limited to any year. Confirmation of the order will be sent within 2 hours and delivery is via fax, within 24 hours of receipt of the order. The second stage of S.O.S., slated for spring of 1995, will enable customers to send UnCover all their requests and have them filled from a variety of sources.

UnCover also tells us that they will accept article orders from Reveal tables of contents by fax. Users need simply to print out the email message which contains the table of contents information, circle the article needed, and fax it to UnCover. Of note is the fact that Reveal has been awarded the 1994 ONLINE Magazine Product of the Year Award. Congratulations, UnCover!

And one final item — Have you heard about Knowledge One? Knowledge One Express Information Service is a joint service of Pacific Knowledge Systems and a California academic library. This service, available as a menu option through UnCover, offers answers to reference questions. Charges for the service are $5.95 and up, depending on the work done; quotations for service are provided free of charge.

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give me barcodes

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A public domain FoxPro program that printed very readable Code 39 barcodes.

It took one afternoon to write the programs for the streamer and debug them. The next step was to field test the program in the real world with the next three approval shipments. As it turned out the program worked without a hitch.

I expected to increase accuracy and save time. I'm from the "More, faster, better, less effort" school. As measured by a stop watch, we would save 3.15 seconds per record by scanning a barcode plus an unknown but significant number of hours caused by keystroke error such as overtyping the wrong record. The bib payoff would be in quality. Work would be less "fussy" and one could concentrate on the important things.

We tried this for three weeks. It worked. At the end of this time, I asked the Receiving Unit for their evaluation and received a surprise. They liked it. It made receiving much easier. The main reason they liked it was the relief they felt from carpal tunnel. They thought this was the main reason for the experiment.

I had not expected this. In hindsight, I should have. Carpal tunnel syndrome is caused by repetitive stress. Anything that reduces the repetitions will reduce the discomfort, like the old vaudeville joke:

Patient: "Doctor, Doctor, it hurts when I do this!"

Doctor: "Then don't do that ... use a barcode."

In the course of our experiment we saved 19.68 minutes in processing time. More importantly, we saved 3,375 keystrokes. I wrote a letter to our systems vendor describing our experience and we're now waiting to get on next year's enhancements list. Meanwhile, I got to thinking about what could be done now to increase productivity and reduce carpal tunnel. I remembered the item record barcodes and our Innopac manual which stated that "an overlay could be performed on any indexed field." I rechecked the manual, and I was correct. I found out after experimenting that the system vendor meant to state "an overlay can be performed on any indexed field in the bib record plus the order record number." Thus I concluded that our present system makes no use of proven automatic data collection technology in technical processing. I suspect this may generally be the case for all systems as technology has proliferated very rapidly. I believe this state of affairs to be an honest oversight just as I had failed to predict the all consequences of the experiment.

I thought about this at length and consulted my colleagues at this year's Charleston Conference. We are now lobbying for the appropriate use of barcode technology from our systems vendor to at least do the following:

1. Print a barcode for the purchase order number on the portion of the purchase order returned to the library. The rest of the bibliographic information on this portion may be truncated.
2. Add the option to produce a selection streamer as described above with the purchase order number and OCLC number barcoded.
3. In selecting fields to print from a Boolean search, have the option to print as a barcode the record number(s) and OCLC number at least.
4. In the "New Heading Report," print the item record barcode number as a barcode. (Either Codabar or Code 39 is acceptable.)
5. Enter into an ongoing discussion of appropriate uses of automatic data collection technology.

I urge everyone to examine their own systems to see where this technology can speed things up, be more accurate, and improve our health.