EndNote Plus: Enhanced Reference Database and Bibliography Maker

Brian Warling

Louise Darling Biomedical Library, UCLA Center for the Health Sciences,
Los Angeles, California 90024-1798

There is probably a no more tedious or unpleasant task as creating bibliographies for scientific papers. This problem is further exacerbated by the fact that different journals require different reference styles. A paper submitted to *Science* requires one style, while one submitted to the *Journal of the American Chemical Society* demands another. Manually formating one lengthy reference list, let alone having to do it all over again for another journal, takes an incredible amount of time. Fortunately, the personal computer revolution came about, and this chore is now almost effortless. There are currently a number of software packages available for both the Apple Macintosh and IBM compatibles, programs such as Pro-Cite, Reference Manager, and Papyrus, that make this task much less tiresome. In addition, the advanced searching features of these programs make them ideal for bringing order to those ever-expanding reprint files. The subject of this review is EndNote Plus for the Macintosh (version 1.2), one of the more powerful reprint file management and bibliography generation programs currently available.

SYSTEM REQUIREMENTS AND INSTALLATION

EndNote Plus[1] requires at least a Macintosh 512KE and System 4.2 or later. It is A/UX version 2 and System 7 compatible, although it currently does not utilize System 7's new features, such as balloon help. Future versions will no doubt take full advantage of System 7. As with most Macintosh programs, installing EndNote Plus is a very simple matter. The program file is simply copied from the program disk to the Macintosh's hard disk. The program can be run from a two-floppy drive system. EndNote Plus also comes with a desk accessory which can be used to access a reference library while a word processor is in use. This desk accessory is not necessary with Multifinder or System 7 since both the EndNote Plus and word-processing applications can be open at the same time, assuming the system has sufficient memory. EndNote Plus can create bibliographies for papers written in Microsoft Word versions 3–4, WordPerfect versions 1–2, MacWrite versions 4.5–5, MacWrite II, and WriteNow. Microsoft Word version 5 users can take advantage of the EndNote Plus Plug-In Module, included with the basic EndNote Plus package. The Plug-In Module allows EndNote Plus to be run within Word version 5, without having to switch back and forth between applications.

REFERENCE LIBRARIES

EndNote Plus stores references—up to 32 000—in a library database. Each reference is essentially a surrogate, containing all the information necessary to accurately describe its parent article: authors, title, year, journal (or book) title, volume, pages, and so forth. EndNote Plus provides 14 predefined reference types, such as journal article, book, edited book, and conference proceedings. One can easily change the information in each reference type, such as adding an abstract

field to the journal article type. As a further demonstration of its flexibility, EndNote Plus permits the creation of user-defined reference types. Data entry is accomplished in one of two ways. First, references can be entered directly by the user. A reference type is selected, and EndNote Plus opens an edit window where authors, title, etc. are entered. The program automatically saves each reference in the library database. It is also a simple matter to copy references from one library to another.

The other method of data entry involves importing references from an online literature search. This is an important option, since more and more personal computer users are running their own searches in a variety of mainframe-based and CD-ROM databases, such as MEDLINE, CAS ONLINE, INSPEC, and PsycLIT. More importantly, importing references from online searches into EndNote Plus library databases takes a fraction of the time as compared to manual entry. A separate application, EndLink,[2] automatically translates references from these databases and places them into EndNote Plus library databases. Online services supported by EndLink include DIALOG, CAS on STN, BRS Colleague, SilverPlatter, and Grateful Med (NLM). References from these services are captured onto a disk file. EndLink then reads this file and places each reference field (authors, title, etc.) into its appropriate location in the EndNote library. The translations are, however, not perfect. EndLink assumes that every reference in the captured file is a journal article. Obviously, many online databases include not only citations to journal articles but also to books, chapters, dissertations, patents, and conference proceedings. A prime example of one such database is CAS ONLINE. EndLink will make numerous errors in importing references from a CAS ONLINE search if it contains non-journal article references, which it most likely will. For example, EndLink expects to find an issue number in the captured reference, and if it is not included, an error will result. These errors often result in missing fields, such as page numbers. The algorithm used to translate this information needs to be more robust. Fortunately, journal articles usually represent the vast majority of references captured from online searches, and any errors in translation can be corrected manually. This is still much easier than manually entering references into an EndNote Plus library database.

EndNote Plus differs from its earlier incarnation, EndNote,[3] which is still available, in that EndNote Plus includes many powerful searching features not found in EndNote. These searching features—the ability to search multiple fields such as authors, titles, and keywords in different Boolean combinations—are absolutely necessary for any reprint file management package. Large reprint files have always been difficult to manage prior to the advent of programs such as EndNote Plus. Usually, reprints of articles could be filed in only one way—perhaps by author, journal, or date. To facilitate locating reprints at a later date, one might have

created a card file with extensive cross references. This becomes an almost impossible job as reprint files grow, as they inevitably do. EndNote Plus greatly simplifies this job. Reprints can now be filed by first author, for example, and tied to an EndNote Plus library database where each bibliographic record contains all authors, the title, keywords, subject headings, and perhaps even an abstract. Complex searches using all the basic Boolean operators (AND, OR, NOT) can be easily constructed. For example: "Locate all articles with the word 'taxol' in the title published in 1991 not published in the *Journal of the National Cancer Institute*". EndNote Plus will find all of these references, and with the first authors now in hand, the articles can be readily pulled from the reprint file. To greatly increase the speed of these searches, EndNote Plus allows the creation of indexes using its QuickFind feature. These searching features are also vital when one needs to locate particular references for inclusion in a paper. This highlights the other important function of EndNote Plus—creating bibliographies while actually writing papers.

CREATING BIBLIOGRAPHIES

EndNote Plus works with the word processors mentioned earlier to automatically assemble bibliographies during manuscript preparation, and in a number of different styles. When it is necessary to cite a reference while writing, the reference is copied from the EndNote Plus library and then pasted into the appropriate place in the text. EndNote Plus actually places a temporary in-text citation in the manuscript, which looks like this: [Burroughs, 1989 #21]. This process of copying references from the library database and pasting them into the text continues until the paper is finished. At this point, the paper is opened from within EndNote Plus, the appropriate style (e.g., *Science, JACS, Nature*) is selected and the bibliography is formated. Within seconds, EndNote Plus creates a copy of the paper, with the temporary in-text citations replaced by the correct in-text citation demanded by the style selected [e.g., superscript numbers, (Burroughs, 1989), [1], etc.]. At the end of the paper, the fully formated bibliography is inserted. If another bibliography style is required, simply open the paper again in EndNote Plus, select the new style, and format the bibliography—again, this all happens in seconds. EndNote Plus includes the following preformated styles: APA, Author-Date, Chicago, *JACS*, MLA, MLA Note, *Nature*, Numbered, *Science*, and Vancouver (*Index Medicus*). EndNote Plus also fully supports user modification of these styles and the creation of completely new ones. In addition, stand-alone and annotated bibliographies can be created, but EndNote Plus does not support the generation of subject bibliographies.

CONCLUSION

There are many different software packages currently available that essentially do what EndNote Plus does. Deciding which package to acquire depends on a number of factors, such as computer platform, bibliography styles, special features, and, of course, cost. In 1991, the Institute for Academic Technology at the University of North Carolina at Chapel Hill published a technical report titled *Bibliography Formatting Software*.[4] It reviews what one should consider when deciding upon a reprint file management package. It also includes a checklist to help one choose the right program, in addition to evaluating many different packages.

EndNote Plus is a first-rate package—both the program itself and the user documentation. The problems are very minor. EndNote Plus lacks online help, which any package that costs over $200 really should include. The online database importing program, EndLink, should be more robust in its algorithm to permit the accurate translation of other reference types. But these minor complaints should not detract from the overall excellence of EndNote Plus. It makes full use of the Macintosh interface, so experienced users should be up and running within minutes following installation. It is hard to imagine a reprint file management and bibliography generation program that does more than EndNote Plus. Not only does it automatically assemble bibliographies from inserted in-text citations, it also incorporates many powerful searching features to help manage those growing reprint collections.

REFERENCES AND NOTES

(1) EndNote Plus is published by Niles and Associates, Inc., 2000 Hearst Ave., Suite 200, Berkeley, CA. Phone: 510-649-8176; fax: 510-649-8179. The program lists for $249.00 and is available for both the Apple Macintosh (reviewed here) and the IBM PC. The Macintosh version includes the EndNote Plus Plug-In Module for Microsoft Word 5.

(2) *EndLink: EndNote's Link to Online Databases* is published by Niles and Associates, Inc. and lists for $99.00. There are versions for both the Apple Macintosh (reviewed here) and the IBM PC.

(3) EndNote is published by Niles and Associates, Inc. and lists for $149.00. There are versions for the Apple Macintosh and IBM PC (neither reviewed here).

(4) Stigleman, Sue. *Bibliography Formatting Software*; Institute for Academic Technology, University of North Carolina at Chapel Hill: Chapel Hill, NC, 1991. For more information, contact the Institute for Academic Technology, P.O. Box 12017, Research Triangle Park, NC 27709. Phone: 919-560-5013; fax: 919-560-5047; BITNET: IAT@UNC.