

EndNote Plus and EndLink 2.0: Database Manager, Bibliography Maker, and Importer of Search Results, New Versions

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INTRODUCTION

Formatting bibliographic references for scientific publications, adhering to the divergent rules of each journal publisher, can be quite time consuming. EndNote Plus¹ "organizes your references and builds bibliographies in your word processor". EndNote Plus is a program with a double purpose, it is a database manager and a bibliography maker. EndLink "imports references downloaded from online services or CD-ROM's into EndNote Plus". EndLink is designed to be used with its companion as an add-on; it cannot be used separately.

SYSTEM REQUIREMENTS AND INSTALLATION

The software comes on four floppy disks, of which only two are needed when Windows 95 or Windows NT is already installed. The software requires minimally a 386DX/25 with 4 MB RAM and Windows installed. It will not (yet) operate under OS/2. There is also an Apple Macintosh version. For installation or upgrading from version 1.0 of EndNote Plus, two clear thin guides are supplied. It took me 15 min to install it from scratch, and the program occupied 3.3 Mb on the hard disk. This new version of EndNote Plus 2.0 is a 32 bit application and needs a Win32s emulation if Windows 95 is not loaded; this takes another 2.3 Mb. I installed EndNote under Windows 3.11 without problems. The program as supplied is network compatible, and a site license is available. The EndNote Plus 2 manual is almost 300 pages; the EndLink 2 manual is 80 pages.

Upgrade from version 1 is possible, but some attention is needed for correct transfer of files and settings. The principle of EndNote has not changed, but instead of being a TSR background program, it is now a concurrent running program that is called up by Windows' Alt-Tab or Ctrl-Esc keys. The last 15 pages of the manual are a Windows reference guide for those unfamiliar with graphic interfaces and mouse clicks.

Registering as a user can be done by mail, fax, or e-mail. This entitles the user to free technical support and a newsletter. Support is available by e-mail, from the EndNote Plus forum on America Online and by anonymous ftp.¹

ENDNOTE PLUS AS A REFERENCE MANAGER

Using EndNote Plus is best learned by following the guided tour in the manual using the "examples" directory with sample texts and references. This tour uses a sample text in a text processing document in which references adhering to a selected publication style are to be pasted in. The sample references are supplied in a formatted EndNote file. In a first step the references from the list are pasted into the document as numbered short notes. These notes

are then scanned and interpreted as references. The formatting step serves to edit the reference notes and place the numbered references at the end of the paper in the style of the publication that was selected.

The text itself can be in a number of text processing formats, such as Word 6.0, Word Perfect (5.0–6.1), RTF, Ami Pro 3.0, and ANSI text. Reference styles are available for some 240 different journals or sets of journals, ordered by subject area. Under Chemistry are 16 titles such as *Anal. Chem.*, *Angew. Chem.*, *Int. Ed. Engl.*, and *J. Am. Chem. Soc.* plus some titles in other related areas, e.g., *Agric. Biol. Chem.*, *Anal. Biochem.*, *Nucleic Acids Res.*, *Geochim. Cosmochim. Acta*, *Org. Geochem.*, *Biochem. Pharmacol.*, and *Science*.

The styles supplied can be edited to accommodate the user's own wishes, and new styles can be created; the amount of study and work involved should, however, not be underestimated. A feature not supplied is the automatic editing of journal names and abbreviations. There is a special table that has room for three different abbreviations for each journal title, but the table has to be filled by the user him/herself. Endnote can distinguish 15 preformatted reference types besides journal articles, such as books, reports, and patents.

ENDNOTE PLUS AS A DATABASE MANAGER

EndNote Plus is a database manager package as there are several dozens on the market now. Its special capabilities lie in its output formatting for specific journal styles and its easy user search interface. It is not a particularly strong package as a data base manager or a retrieval engine, though its limitations have been carefully dimensioned. It can be classified as a typical "end user" program.

Databases are called Libraries in EndNote nomenclature. Input of references in these EndNote libraries can be typed in manually or imported as a batch. There are several predefined reference formats with appropriate fields available in which records can be entered; these formats can also be adapted to one's own needs. During input previously created standard lists of journal names and keywords can be consulted and used for pasting in. Batch input from existing files is possible, either using EndLink formatting or another record format from a list of four: PBS (Pro-Cite), Unix Refer or BibIX, RIS, or Tab delimited. This last format is available from several other database or spreadsheet programs. The predefined formats have to be followed exactly in order to get satisfactory results. The maximum number of records in an EndNote Library is 32 000.

Searching an EndNote Plus library is performed by filling in a form, that unexpectedly has to be pulled down from the "References" bar. Its capabilities are limited but will be sufficient in most cases for scientists managing a reasonably

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sized database of personal records. Remarkably, the total number of pages of the EndNote Plus 300 page manual devoted to the actual searching process is only 15. Searching can be with Boolean "and", "or", and "not" expressions that are selected from a bar. Range operators are available to search for a particular data range in the publication year field. Fields such as authors, titles, or keywords can be selected from a menu to be searched specifically. Search terms are truncated on both sides or not at all and can be required to match upper or lower case. It is not possible to save sets for subsequent usage. By default searches are performed on the whole library, though sets created can be searched again with new criteria. In that manner references found in a second search can be added or omitted by selecting a new negating term. Searching is fairly fast, especially for author names and year of publication, for which fields EndNote Plus maintains an inverted QuickFind index. Searches can be speeded up by creating additional indexes for keywords or for all fields. Once installed, these indexes are maintained automatically at input. The process of extracting the terms for the index takes considerable time which is also felt during subsequent manual record entry. Of course they also demand an additional amount of hard disk space.

The larger part of the manual is devoted to explaining procedures for maintaining references (records). These maintenance procedures are entering and editing of references, creating, and using lists of previously used terms and lists of journal titles, showing and hiding of references, sorting and changing text of references, and finding and deleting of duplicate references. Procedures for entering standard format citations into journal papers and for creating separate bibliographies are more complicated but well explained. Though the supplied standard citation styles will generally suffice, they can be changed or created from scratch. This part of the software is particularly versatile and strong and can perform many transformations that may be required in specific cases.

USING ENDLINK FOR IMPORTING OF REFERENCES IN ENDNOTE

The companion software EndLink is specifically designed to import references into EndNote plus from searches of on-line bibliographic data bases or CD-ROMs. If the specific data filter is installed properly, references will be formatted during input for an EndNote plus library, with all the data falling into the designed fields. Some 170 filters are delivered on the disks for over 80 files on 10 hosts, 3 CD-ROM formats, and 5 University library catalogs. Databases/hosts covered for records input are B-I-T-S Biosis, CDP Online (11 files), Dialog (51 files), DIMDI (16 files), Folio at Stanford (6 files), Hollis catalog, Knowledge Finder (4 files), Compuserve/Dialog Knowledge Index (22 files), Marc Books, MELVYL at UC (6 files), NLM/Grateful Med (5 files), OCLC (6 files), Paperchase (4 files), and STN (5 files). Filters for CD-ROM files are ISI Citation Indexes, OVID/CD-PLUS (8 files), and Silver Platter (26 files). Not all lists supplied on a separate sheet and in the installation guide are the same, and there are some additional changes: Health has disappeared from CDP and Inspec from Melvyl, while NTIS has been added at Silver Platter. Chemical databases are well represented: Chemical Abstracts at Dialog and STN, CAPreviews at STN, Analytical Abs. at Dialog and Chem.

Eng. Biotech. Abs. at Dialog and KI. Chemistry related files examples are AGRICOLA (5 sources), BIOSIS (7 sources), CAB Abs. (4 sources), several Citation Indexes (ISI-CD and DIMDI), Enviroline (DIMDI), Excerpta Medica/EmBase at Dialog, DIMDI and KI, FSTA (DIMDI and KI, not on Dialog), Georef (5 sources), Int. Pharm. Abs. (3 sources), Life Sciences Collection (2 sources) POLTOX (Silver Platter), and Toxline (3 sources). No list of hosts is given in the EndLink manual, so one has to be careful to keep the documentation sheets supplied together with the manual. Duplicate references can be filtered out during import.

The quality of the conversion process is not perfect but acceptable if one is willing to perform some editing of the reference filters. During this evaluation, I entered search results from an STN-CA-Search search and found that the source field for patents skipped the patent information and instead only contained the number of pages. Another error was that the line starting with "STN International logoff..." was interpreted as the start of a ST-field of keywords, thus creating a nonexistent reference with contents: "n international logoff...". Other problems were the leaving out of address and language fields and the misinterpretation of the format for technical reports. In a recent publication^{3,4} Susanne Bjoerner describes her efforts to move search results from business files into EndNote Plus. She also discovered some inconsistencies but was able to remedy most of them after concentrated studying of the software manuals.

NEW FEATURES OF ENDNOTE PLUS/ENDLINK 2.0 AS COMPARED WITH VERSION 1.0

Some of the weak points indicated in a previous review in this journal² have been remedied, an example being the fact that translation tables in EndLink 2.0 can be edited and customized, though, as indicated, this is not an easy task. These tables do now accommodate several reference types, though the patent-type specifically mentioned in the manual does not operate satisfactorily. In addition searching features have been improved with filtering down sets and range searching. Manual reference editing has several new possibilities, and term lists can reduce the typing effort. Another improvement is the duplicate removal option that seemed to work well, both during import and during reference editing.

CONCLUSION

EndNote Plus and EndLink are well designed end user database management packages for scientists and students. Study of the documentation is necessary, but it is quite clear to understand. The primary user group will be students and scientists writing research papers. The software is less suitable as a professional database manager due to restricted possibilities and lack of flexibility. Examples are the lack of password protection, the storage of previous search formulations and of the possibility to select from term lists during the search process. Searching can be sequential or inverted and is reasonably fast. Input from online and CD-ROM searches is performed with some hiccups that require manual editing. Inclusion of preformatted citations in journal papers is performed well. Creation of separate bibliographies is also easy. The strong position of EndNote Plus as a reference editor for reprint file management and bibliography generation is certainly kept up with this new release.

The software can be used on a network server, on Windows, and Apple platforms, and data can be exchanged

between these systems. Online technical assistance is available by electronic mail.

REFERENCES AND NOTES

- (1) EndNote and EndLink 2.0 are available from Niles & Associates, Inc., 800 Jones St., Berkeley, CA 94710, U.S.A. The price of EndNote is \$299, EndLink costs \$99. Niles & Associates can be reached by phone at 510-559-8592, fax: 510-559-8683, AOL NilesAssoc, Compu-

Serve: 71172,653, Internet: info@niles.com, pc-support@niles.com and ftp.niles.com, AppleLink: Niles.Soc.

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