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ENDNOTE: USING TECHNOLOGY TO KEEP TRACK OF REFERENCES

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TUTORIAL

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ABSTRACT

EndNote is a program for managing bibliographic references that allows the user:

- to create a database of references (and extended abstracts) that can be queried in many ways
- to copy references directly into their favorite word processing program and to create a bibliography at the end of the paper
- to format a paper that includes in-text citations and a bibliography to meet the standards of a particular journal or publication
- to change the format (style) of the citations and bibliography of a given paper at any time and as often as needed.

Commonly used styles are included with EndNote. The user can also download additional styles or design their own styles. References can be entered into the database manually one at a time, or copied automatically from already existing files or even from online sources. Copying is aided by the use of filters and connection specifications, many of which are included in the package. The user is also allowed to design new ones. While the program works best when used in conjunction with MS-Word or Corel-WordPerfect, it also works with several other file formats like Rich Text Format, FrameMaker MIF, ClarisWorks, and AMI Pro.

Finally, EndNote can be used as a common interface to many online libraries and electronic databases.

This paper presents a tutorial on EndNote for IS researchers and students. It assumes that the reader is familiar with the fundamental operations of the package and is interested in using the package at more than a rudimentary level. Notes for the beginner are included.

Keywords: EndNote, bibliographies, reference manager, tutorial

I. INTRODUCTION

A good research paper requires that the author first reviews past literature and then discusses how the new findings relates to what is known. Each statement that the author makes must be supported either by data, logical discussion, and/or previous literature. Referring to previous literature is a tedious task that requires good bookkeeping and a lot of formatting. Reference management software is a family of programs that alleviate this tedious task.

Reference management software evolved from simple databases to complex software that:

- formats references and bibliographies in documents written in major word processing packages (such as MS-Word and Corel-Wordperfect) and
- connects to existing libraries of references and online sources.

The interface evolved from character-based to beautiful graphical user-friendly interfaces. Prices are reasonably low, making the software affordable for the primary users, who are in Academia

Although the market is currently consolidating, several competitive packages are available:

- Reference Manager (<http://www.isiresearchsoft.com/>),
- EndNote (<http://www.isiresearchsoft.com/>), and

- ProCite (<http://www.isiresearchsoft.com/>), all from the same company: ISIResearchsoft.
- Biblioscape (<http://www.biblioscape.com/>),
- Papyrus (<http://www.rsd.com/index.html>),
- Library Master (<http://www.balboa-software.com/>)
- BiblioXM (<http://www.oasis-open.org/cover/biblioML.html>) (which is freeware).

Users currently have a fair selection as long as they stick to the DOS, Windows, or Mac (Apple) operating systems.

ENDNOTE CAPABILITIES

This tutorial is based on EndNote. In 2001, EndNote is in version 5. It started as a DOS program. It currently runs on both the Windows and the Mac environment. In general, EndNote is backward compatible. Its file structure has not changed for quite a while. Continuity is an advantage for those users who share libraries but do not update their software. On the other hand, backward compatibility implies that the manufacturer is not able to improve certain parts of their system such as increase the number of records per file or the number of reference types. Libraries can be exchanged between Mac and Windows users. Styles, filters, and connections files (all of which we will talk about later) are not as easily interchangeable between computing platforms (PC, Mac).

EndNote uses a number of common words with specialized meanings. These words are listed and defined in Table 1.

Libraries. EndNote allows manual entry of references into libraries. Each library can grow to a maximum of 32,000 references or 32 MB whichever arrives first. Each reference in a library can contain up to 64,000 characters, and any field can contain up to 32,000 characters. There is no limit on the number of libraries one can have but there is little incentive to separate the references into different libraries since there is no search function that can look through several libraries at the same time. As expected, a smaller library can be scanned faster

Table 1. Specialized Terms Used in EndNote

Library	A single physical file that holds multiple references. A user may create multiple libraries.
Document	This is the paper, manuscript, essay, or article that you are writing and in which you want to include the references.
Term list	A list of words or phrases that appear in your references. They help to keep your descriptions more homogenous.
Style	Files used to define the appearance (format) of citations and bibliographies in a document.
Filter	File containing the necessary record structure information to extract references from a text file properly
Connection file	File that contains all the information necessary to connect to, search, and import references from an online bibliographic database.

and is easier to share but merging all of the references into a single library is the preferred option.

Reference Types. EndNote provides twenty-six different reference types (Table 2), of which 22 are predefined, three are unused, and one is a generic or all-encompassing one. All but the generic reference type can be customized. Each reference type can have up to a maximum of 38 fields.

Table 2. Reference Types in EndNote

Generic	Thesis	Patent
Journal Article	Report	Hearing
Book	Personal communication	Bill
Book Section	Computer program	Statute
Manuscript	Electronic source	Case
Edited Book	Audiovisual material	Unused
Magazine article	Film or Broadcast	Unused
Newspaper article	Artwork	Unused
Conference proceedings	Map	

The predefined set allows the user to start working immediately; but as the user becomes proficient, s/he may find that some additional types are needed and that some of the existing ones are useless for their application. Modifying reference types, adding, and deleting fields from them is easy and quite straightforward. The modifications are stored as user settings and are not part of the libraries themselves. One caveat: when libraries are shared, the receiving

user does not know how they may have been customized. Therefore, whenever possible, stick to the predefined types.

Importing. EndNote is capable of importing references from many different files formats or from online sources. The former is accomplished by using “import filters” (Sec. VIII) and the latter by using “connection files” (Sec. IX).

Online connections are accomplished using the Z39.50 standard (for more information see National Information Standards Organization (2001) (<http://www.niso.org/z3950.html>)). Thanks to the online connection capability, EndNote can also be used as a common interface to many online sources. A large number of import filters and connection files are included with the program. Additional ones can be downloaded from the manufacturer’s website (<http://www.isiresearchsoft.com/en/help/ENsupport.htm>).

Formatting References. EndNote can format references (both the in-text citations as well as the bibliography towards the end of the document) in many common styles. The formatting of references can take place while you write, at any point in time that is required, or after you write the paper. Formatting while writing is an option that is only available with the MS-Word and the Corel-WordPerfect add-ins of EndNote. The add-ins are very useful because they incorporate EndNote into the word processor. You can format the references in your document without ever leaving your word processor. You could also leave the formatting for the end and then just open the document from within EndNote and ask the program to format the references in the document accordingly.

Formatting is a very easy and straight forward process as long as the style required is already defined. The software includes over 300 different styles. Professional associations include their pertinent styles in their website. MIS professionals, for example, can find many of the styles required in our field that are not included in the standard package by going to ISWorld at: (<http://www.business.auckland.ac.nz/departments/msis/personal/F.Tan/ISWorld/EndNote.htm>).

The manufacturer also provides additional, more up-to-date styles at their website (<http://www.isiresearchsoft.com/en/help/ENStyles.htm>). Users can also define new styles.

ENDNOTE PRODUCTIVITY

EndNote is easy to use. The only problem is its productivity curve. EndNote does not increase your productivity noticeably until you have used it a few times. Its advantages are only observed later, after you have built a good library and have gathered your most commonly used styles. At that point you do not need to enter many new references nor worry about the style used to format the document. It is that initial workload (of entering the critical mass of references and including the styles) that discourages many users from incorporating EndNote into their personal toolbox.

OBJECTIVE AND ORGANIZATION OF THIS TUTORIAL

In the following sections we discuss in detail how to accomplish each of the tasks described in this introduction. We start with the creation of a library (Sec. II). We then show how to enter and edit references, both manually (Sec. III) and automatically (Sec. IV). To help in this task we introduce term lists (Sec. V). Section VI describes how to include citations in a paper and how to format and reformat the bibliography. Finally, we discuss how to define custom styles (Sec. VII), filters (Sec VIII), and connection files (Sec. IX).

FOR THE NOVICE JUST GETTING STARTED

If you are a novice in using EndNote, you will find the following to be a good way to get started.

As always the web is a great place to find information and even beginning tutorials on how to use software. Two useful tutorials are freely available through the web. University of Notre Dame offers one at

<http://www.nd.edu/~ndlibs/eresources/EndNote/>.

University of Auckland offers another at

<http://www2.auckland.ac.nz/lbr//instruct/endnotut4.htm>.

Both tutorials are quite comprehensive. For many, the tutorial should be enough. Others will still have to use the manual. As a further aid, Appendix I presents step-by-step instructions for simple operations you will often do.

Still, the most difficult step is not learning how to use the tool, but creating the routine of entering all of your references into EndNote.

II. WORKING WITH LIBRARIES

When you launch EndNote it either asks for the name of a library or it opens up your default library. By using the preference menu (Edit, Preferences)¹ you can define which libraries you want to open automatically every time you launch EndNote. You can open many libraries at the same time but you can only search through one at a time. A document whose references are being formatted can use references from several libraries but I do not recommend that practice.

I recommend that you create one library that contains all the references that you use. That library should only contain the references that you cite in your documents. Do not add references to this library that are not included in your documents. To make sure you label and store this library appropriately, call this library “document library”.

You should also create another library in which you include all of the references that you have keyed or imported. You may call this your “master library”. When you search for a reference you do it in the master library. Once you decide that you want to insert a citation, check if it exists in the document library (since you may have already used that same citation in a prior document). If it does not exist, then copy that reference into the document library and cite it from there.

Why this complication? Well, EndNote keeps track of references (each of which is a record) by using a “record number” and the record number of a reference is different in every library. Furthermore, record numbers are not

¹ The sequence of operations in EndNote or MS-Word are shown in parentheses in the order in which they are needed.

editable and they are “lost” once used. So, just as a “trick of the trade” keep a separate library from which you do your citing. Another common practice is to have a separate library for each paper.

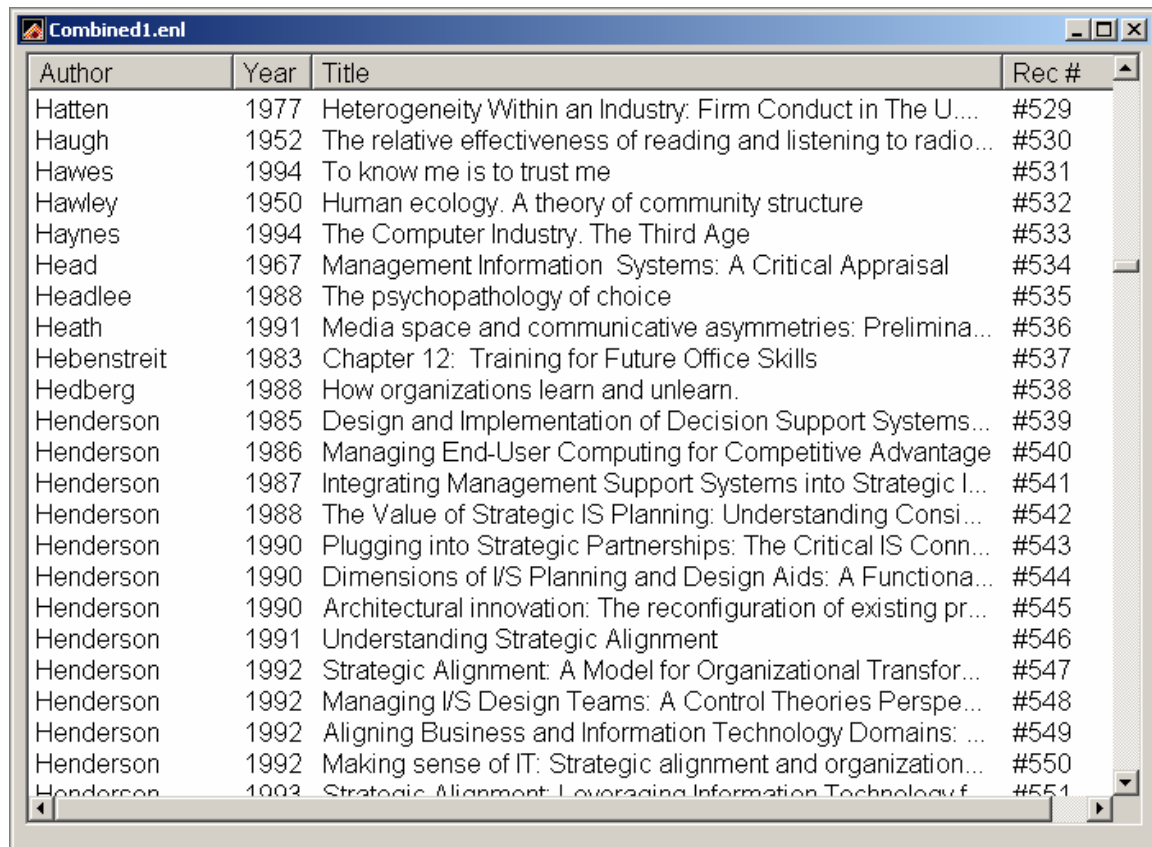
You could also create libraries that include references only for a specific topic or specific journal. If all of your references fit in a single library then keep them in a single one. If you are forced to use several libraries (because of size and number of references) then make a plan of how you are going to separate them. A little planning goes a long way.

EndNote libraries are stored in a proprietary format and you need EndNote to read them. You can use any version of EndNote but you need the software. There is no free EndNote reader. Libraries are platform independent.

Each library is browsed through a separate window. The columns included in the library window are customizable and you can have up to five different columns. What you want contained in each column is defined in the preferences option (Edit, Preferences, Display fields). You can also customize the order of appearance of the records in the library and the display font. The format for all the library windows will be the same. The format definition is per installation not per library. Figure 1 shows a portion of a sample library.

III. REFERENCES

Once inside a library, you can enter, modify, or delete a reference by using the “References” option on the main menu. To include a new reference either use the menu (References, New) or press Control-N (for a new record). That opens a new (and empty) reference window. Then you have the simple task of filling-out the fields. Figure 2 on page 11 shows the form used to enter a reference to a journal article.



Author	Year	Title	Rec #
Hatten	1977	Heterogeneity Within an Industry: Firm Conduct in The U....	#529
Haugh	1952	The relative effectiveness of reading and listening to radio...	#530
Hawes	1994	To know me is to trust me	#531
Hawley	1950	Human ecology. A theory of community structure	#532
Haynes	1994	The Computer Industry. The Third Age	#533
Head	1967	Management Information Systems: A Critical Appraisal	#534
Headlee	1988	The psychopathology of choice	#535
Heath	1991	Media space and communicative asymmetries: Prelimina...	#536
Hebenstreit	1983	Chapter 12: Training for Future Office Skills	#537
Hedberg	1988	How organizations learn and unlearn.	#538
Henderson	1985	Design and Implementation of Decision Support Systems...	#539
Henderson	1986	Managing End-User Computing for Competitive Advantage	#540
Henderson	1987	Integrating Management Support Systems into Strategic I...	#541
Henderson	1988	The Value of Strategic IS Planning: Understanding Consi...	#542
Henderson	1990	Plugging into Strategic Partnerships: The Critical IS Conn...	#543
Henderson	1990	Dimensions of I/S Planning and Design Aids: A Functiona...	#544
Henderson	1990	Architectural innovation: The reconfiguration of existing pr...	#545
Henderson	1991	Understanding Strategic Alignment	#546
Henderson	1992	Strategic Alignment: A Model for Organizational Transfor...	#547
Henderson	1992	Managing I/S Design Teams: A Control Theories Perspe...	#548
Henderson	1992	Aligning Business and Information Technology Domains: ...	#549
Henderson	1992	Making sense of IT: Strategic alignment and organization...	#550
Henderson	1993	Strategic Alignment: Leveraging Information Technology f...	#551

Figure 1. Portion of a sample Library

The following observations will help you in working with references.

Reference Type. The reference type is entered at the start of the reference but it can be changed as many times as required. As you select a reference type, the list of available field changes to reflect those that are pertinent to the reference type selected. The change in reference type may affect the information already entered and it is a good idea to review the whole record after a change of reference type. The list (and names) of fields included for each reference type is defined in the Preference menu (Edit, Preferences, Reference types). As mentioned earlier, the types, the fields included in each type, and the name for those fields are installation dependent and they are not part of the library itself. All your libraries will be shown as having the same types and fields. When the libraries are moved from one system to another (from one PC to another or to a Mac for example) they may seem to be incomplete or damaged since the

The image shows a 'New Reference' dialog box from the EndNote software. At the top, there is a title bar with the text 'New Reference' and standard window controls. Below the title bar, there are two icons (a book and a magnifying glass) and a 'Reference Type' dropdown menu currently set to 'Journal Article'. The main area of the dialog is a large text field divided into several sections by underlined labels: Author, Year, Title, Journal, Volume, Issue, Pages, Date, Short Title, Alternate Journal, and Original Publication. A vertical scrollbar is visible on the right side of the text field.

Figure 2. Entering a reference

information included in the customized fields may appear in the wrong places.

Authors. Authors can be entered in many different formats. Names can be written as “First.name Last.Name”, or as “Last.Name, First.Name” EndNotes assumes that if there is no comma then the last name is the last word of the line. If there is a comma in the name then EndNote assumes that everything before the comma is the last name. It is easier for the user if the names are entered last name first, since EndNote includes a facility to reduce typing. If the author last name was entered previously, EndNote will offer to finish typing it for you as soon as it recognizes whose name you are typing

All the authors names appear in the same field but each one is on a separate line. Inside a single reference, each author can be formatted differently. The way they appear in the document will be based on the style used (Section VII) and not on the way that you enter them into the database. However, the

order in which the names appear will be the one that you entered into the database. The more information you enter into the database the better. So if you enter the full first and middle name of the author, you can employ a style that uses them, but if you only enter the initials, even a full style will not be able to make the full name appear.

Keywords. Keywords are useful for later retrieval. More keywords are better than less. Make sure that you do not misspell them since a misspelled keyword will not match your future searches. The auto-entry option helps in spelling them properly and also in maintaining some uniformity. If you enter a keyword that is not recognized by the auto-entry facility, then check it again. That means that it is a new keyword and that there are no other references that use it. You may be using a synonym of an already entered keyword. Watch out for them!

Record Numbers. Record numbers are assigned automatically by EndNote. You cannot modify them. There are only 32,000 of them. If you delete a reference, the record number is lost (for that library!). If you start a reference and then decide not to record it, you lose the record number. If you are planning on entering all of your references manually, this problem is of no consequence. You will never key that many. But if you import references, you will soon populate your whole library.

Special Characters. EndNote allows you to enter special characters. Well, many of them are only considered “special” by our English-speaking colleagues. Accented letters and diacritical marks are not special in many other languages. The only consideration that you have to make when deciding if you want to enter them, is that when you do a search you must also enter them or otherwise they will not match. So, as always, simply decide and stick by your decision: either always include them or never include them. Personally, the accent on the letter “a” of my last name has given me more problems than satisfactions; therefore, I have decided to drop it. As a matter of fact, I should have done the same thing with my second last name but I decided to hyphenate them. EndNote handles

one or two last names perfectly. It is our human colleagues that do not do the job as well.

Journal Name. Like for author name, an auto-entry facility is also provided for journal names. It is quite useful since you will tend to cite some journals quite a lot. Again, if the auto facility does not find the journal name you are including, you should hesitate and check if it is misspelled or if you previously used a different name for the same journal.

Deleting a Reference. A curiosity: to delete a record use Control-D (or Edit, Clear or Edit, Cut). I always press the delete key and that does not work. I am happy that it does not work because if it did I would have lost several references already. It is too easy to press the delete key.

IV. IMPORTING REFERENCES

I type (or, to give credit to whom it belongs, my research assistant types) some of my references manually, but most of them are entered automatically from other sources. The two main sources of references are (1) files and (2) online sources. I can access many electronic indexes that allow me to save a file with the requested references. Those files include the basic reference, but in many cases they also include the abstract and many keywords. Importing that information is more accurate and certainly more comprehensive than typing the basic reference manually.

Each electronic index advertises that they output in a standard format. While it may be true for some, most of them simply use their own format and hope that it will someday become the standard. Fortunately most of those formats are consistent, but in some cases they are not even consistent within a single file². EndNote includes a considerable number of filters (Sec. VIII) but I found them to be quite limited. On the other hand, they are very helpful in

² The reason is that the original information was entered over several years. The file's creator themselves changed their format and standards throughout those years but they did not update the older records. Publishers gain from adding new records, not from purging or reformatting their existing database.

developing new and more complex ones. You can develop new filters as the need arises. You can also adapt and improve the existing ones. The syntax used for designing them is not that complicated and with a little practice even the most complex files can be imported automatically.

To import references from a file (File, Import) you have to select the file which is the source of the references, indicate what to do with the duplicate references (import, discard, or import to a separate library), and select the filter that you are going to use to parse the file. I strongly recommend that you import into a temporary library and review the imported references for anomalies before including them into your real library. The reason for this careful approach is that, in many cases, the imported records may be parsed incorrectly and you are forced to tweak the filter and re-import them.

Two important places to look for anomalies are the year and the notes fields. In general, the notes field includes information that the parser found but was not able to match. If you find any anomalies, alter the filter and try the import again. This precaution is useful even with filters that you used in the past. Publishers do change their format as time passes. Transfer the new records to your final library only when you have reviewed them and know that they are properly formatted (i.e. include all the information and the information is located in the right fields). In this way you will not only not “lose” record numbers, but the reviewing process is much easier.

A second option for entering references automatically is to use the Z39.50 compliant online interface provided with EndNote. Many electronic indexes currently allow access through this Internet standard. If the electronic source allows connecting through Z39.50, use this standard because it is the optimal way of entering references.

The mechanics of generating connection files are discussed in Section IX. EndNote comes with a large set of connection files to allow you to connect to common sources such as Bell and Howell, OCLC, Ovid, and SilverPlatter. The EndNote website (<http://www.endnote.com/support/enconnections.asp>) is continually updated with new connection files. But even if they are not included

there, you can create new ones or edit old ones. If you browse through some of the included connection files and then ask customer service of your information provider for certain key information (like server address, database name, port ID, record syntax) you should be able to design your own connection files in less than an hour. I would recommend that you rename the connection files that you customized. Using a common prefix is a good option. That way they will be grouped together and you can always copy them separately with ease. If you do not rename them, you run into the possibility of overwriting them during an update of the software.

Another tricky part (for our colleagues in the Academy) is obtaining a login and password. Most people at universities are well versed in how to use online databases by using auto IP recognition. In this case, the database is directly available to a web browser as long as the machine used is inside the university's network. Faculty are generally not given an individual login and password to access them since they are password-free as long as they use a web-browser inside the network. Finding who is the keeper of the logins and password and convincing that person that they should assign you one may be quite difficult in my experience. Still, it is a very rewarding task.

Once you selected and adapted (if required) the connection files you should mark them so that they appear in your connection menu. You can always connect using any file but if the commonly used ones are marked as selected, the process is much faster. Use the connection manager (File, Connection files..., Open Connection Manager) to select them. When you successfully connect to an online source (File, Connect, ConnectionFileName) you obtain a new library window and immediately on top of it, the search window. The search window is exactly the same no matter if you are searching an online source or your own libraries. The text in the title bar of the window (generally blue) indicates where you are doing your search. Once you complete your first search the online library window stays open until you either close the window or the entire EndNote session. You can transfer references from the online source to

your own library by doing a copy & paste operation or a drag & drop from one window to the other.

Copy and paste or drag & drop always copy the references. Those options do not check to see if the copied references were already present in your library. If you tend to copy large number of references using these procedures you can end up with lots of duplicates. An alternate option is to copy references to an intermediate temporary library and then import them from that library to your real repository indicating to EndNote to discard the duplicate references. This procedure involves more work but it is well worthwhile.

- Bulk Online Import**
- 1.- Create a TEMP library (File, New)
 - 2.- Copy & Paste the references from your Online search into the TEMP library.
 - 3.- Close your TEMP library.
 - 4.- Import your new references from the TEMP library into your Master Library (Figure 5 shows a screenshot of the importing window).
 - 5.- Delete your TEMP library.

Figure 3 shows the import window.

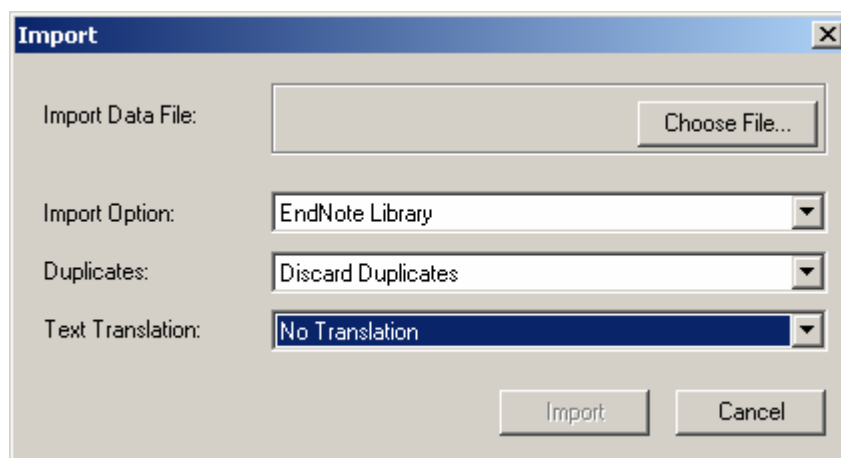


Figure 3. Import Window

Remember that the results from your online searches are virtual tables. You need to transfer those records to your own library if you want to keep them. Otherwise they will be lost as soon as you close the online library window (but of course you can do your online search again to recover them).

Finally, some online sources link directly to EndNote through web pages. They do not use the Z39.50 interface but they download their references directly

into EndNote using EndNote format. In this situation, you have very little control and it is up to the web site to offer the service.

V. TERM LISTS

The idea of using computers, and particularly reference software, is to reduce your workload and become more efficient. A nice feature of EndNote is the creation of term lists to reduce workload. The most common term lists are those of authors, journals, and keywords. The auto-entry facilities, mentioned in Section III, work with term lists. You also have the option of manually opening the term list (Control-1) and selecting the term from it. Term lists allow for faster and more precise manual data entry since they reduce the number of keystrokes and assure that the terms (authors, journal, and keywords) are always spelled the same way. For example, if MISQ is in your term list, when you type M, EndNote will prompt you by showing MISQ.

Term lists are populated automatically. You have the option of entering your own list, but it is easier to let EndNote populate the list as you enter the references.

To add an item manually to any of the lists, open the list (Terms, Open list, ListName) and then include the item (Control-N or Terms, New term). You can also instruct EndNote to update, import, or export your term list. You can create additional term lists (Terms, Define lists...) and link them to other reference fields (Terms, Link lists...).

Term lists are particularly useful for keywords. You can always copy the keywords listed in the article, but they are not always the ones relevant for you. An article could be on a specific topic but you could be interested only in a technique or discussion included in it. Such a technique or discussion may not be the primary focus of the article and therefore it would not be listed in the keywords. You can also define your own personal keywords. That allows for a more precise description of the reference. Term lists also help in limiting the number of synonyms.

VI. FORMATTING REFERENCES IN DOCUMENTS

Formatting the citations and bibliography in a document is not difficult but it is certainly a time-consuming task if done by hand. Furthermore, if you decide to send the article to a different journal, you may need to change the format for the bibliography and citations. EndNote takes care of that. With a “raw” document where you pasted all of your citations, EndNote formats the citations and generates a bibliography accordingly. It can generate many “finished” documents with the same references, where each document uses a different format for its references.

EndNote can work by itself and read a file that is in text, Rich Text, ClarisWorks, FrameMaker, MS-Word, Word Perfect, or AMI Pro format. It can also work as an add-in module to either MS-Word or Corel-Word Perfect. The add-in module is included in the basic EndNote package. The add-in mode makes the formatting and management of documents quite easy and is the recommended way to work with EndNote. Figure 4 shows the menu that is added to MS-Word when the add-in EndNote module is installed.

It is advisable to install your word processing package before you install EndNote. That way the installation of Endnote takes care of the add-in installation too.

To enter citations in a paper, simply cut & paste them into the document. The procedure is as follows:

1. Have the two programs running; the word processor and EndNote.
2. Every time you want to add a citation, switch from the word processor to EndNote,
3. Search for the reference,
4. Copy the reference,
5. Switch back to the word processor, and
6. Paste it.

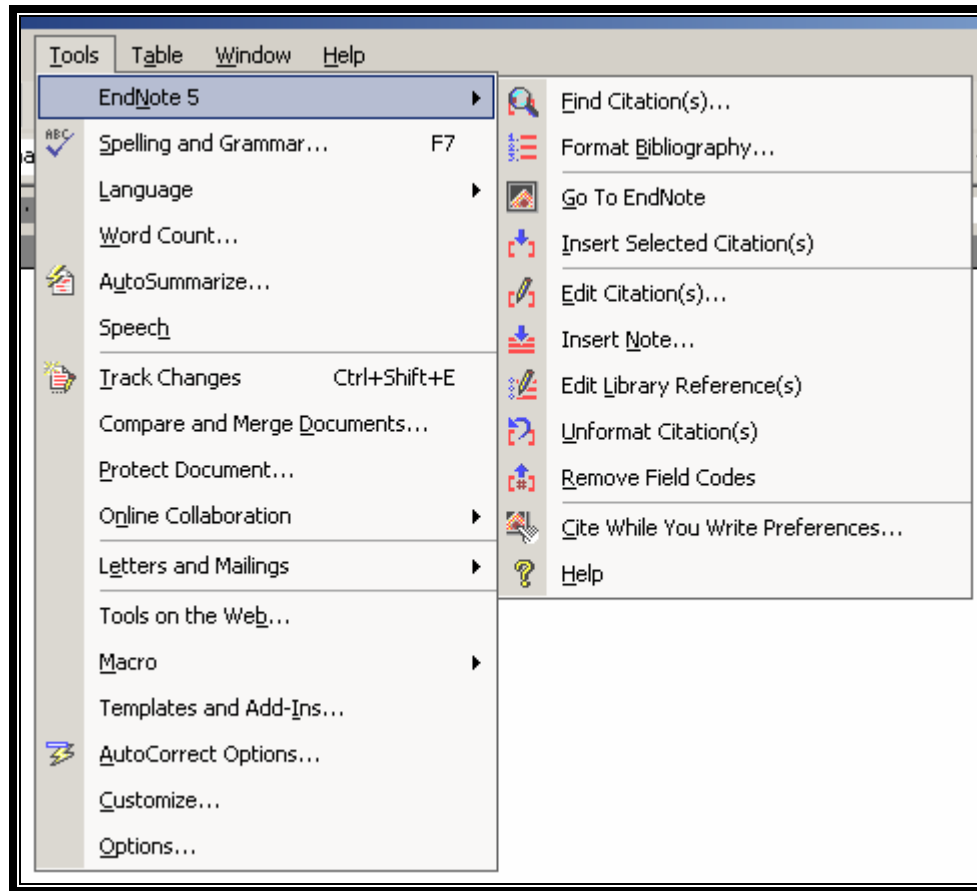


Figure 4. The Add-in Menu

In general, what we paste is a marker for the citation. If the add-in is installed and set to format as you write, then the in-text citation would appear just as it will appear in the final paper. An unformatted marker will look like {Henderson, 1988 #542} or {for an example see Venkatraman, 1997 #1253} while a formatted one will appear as (Henderson and Sifonis, 1988) or (for an example see Venkatraman, 1997).

Version 5 of EndNote in conjunction with MS-Word can do immediate (on the fly) formatting of the references in your paper. Thus, as soon as you paste the citation, MS-Word formats the citation and updates the bibliography at the end of the document. Prior versions require that you execute a command (in MS-Word: Tools, Format Bibliography...) and at that moment all the citation you have already entered are formatted and the bibliography generated. The automatic

option uses the last style selected in EndNote. The manual option presents a menu where the user can select a style or leave the prior selection unchanged.

A citation can include more than one reference. To include several references in one single citation, select all the references required (to select multiple references in EndNote you should use the Windows standard of right clicking on each reference while keeping the shift-key pressed) and then execute the paste operation. There is no limit to the number of references inside a single citation.

Not all citations within a single document should look the same. Table 3 shows several citations that may appear within the same style. EndNote is powerful enough to allow you to customize each in-text citation to fit your needs.

Table 3. Different Types of Citation Inside the Same Style

...importance of social cues (Sroull and Kiesler, 1986)...
...as described by Watts-Sussman (1999)...
...highly overlooked (with the exception of Sroull and Faraj, 1995).
...highly publicized (Venkatraman, 1994a; Venkatraman, 1994b)...

To change a specific citation, write the “code” yourself or, in recent versions, you can use the “Edit citation” command (Tools, Edit Citation) from within the word processor. The options available are: (1) exclude the author, (2) exclude the year, (3) add a prefix, and (4) add a suffix. You can apply several changes to the same reference. The changes are specific to each reference inside each citation. Figure 5 shows the window to customize citations with the add-in.

VII. STYLES

The “instructions” on how EndNote formats citations and bibliographies are contained in files called *styles*. EndNote includes a large number of styles but I find that the styles for most of the journals in which I am interested are not listed. You also have the option to define your own styles. Defining styles, like

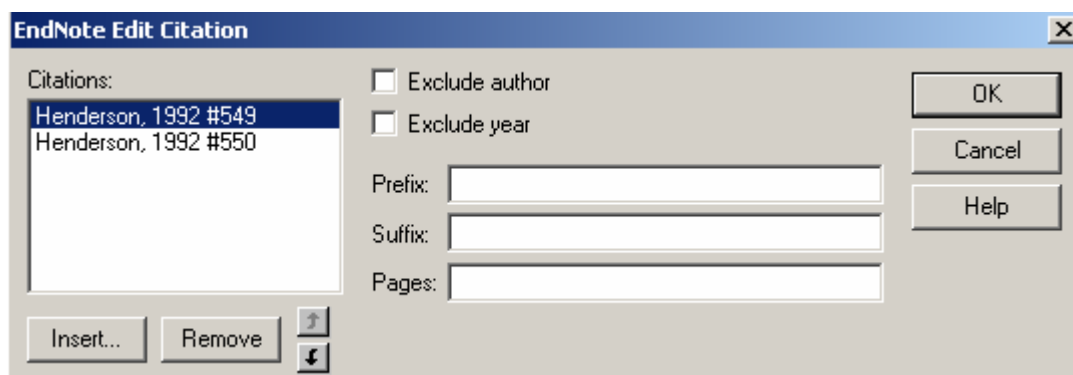


Figure 5. Edit a Citation Format

formatting references, is not difficult but it is time consuming. Furthermore, if you do not send many articles to the same journal, the process of defining the style for a particular journal is not a very productive task. On the other hand, for members of a discipline to define styles for the major journals and share them is indeed a great idea. You can find the styles for our main journals at the ISWorld site maintained by Felix Tan:

(<http://www.business.auckland.ac.nz/departments/msis/personal/F.Tan/ISWorld/EndNote.htm#styles>).

Another option is for journals to freely provide potential authors with the EndNote style file for their journal. That assures that the defined format complies exactly with the requirements. Who better than the journal editor's staff to fulfill this chore? And it is a task that is done once and it helps many authors on (hopefully) several occasions.

Styles are managed with the style manager (File, Output styles, Open style manager). The output styles menu allows you to select the default style, to create a new one, and to edit the default one. To select a default style, select it from the list. To include a new style in the list you have to use the style manager. Review your list of styles and leave only those you may normally use, and make sure that you include all of your commonly used styles.

As a general rule, do not create a style from scratch. It is far easier to select an already programmed style which is similar to the intended one, copy it, and then modify it. To do that, start editing the initial style but save it under a

different name. I recommend that you save it as soon as you make the first change or even earlier to avoid overwriting the original style.

The first step in defining a style is to obtain all the information regarding the style itself. Find out how citations are formatted and how the bibliography is conformed. Some journals provide a detailed description of how they want references. Others give a few examples. Yet others simply reference another journal and ask you to use the same format. Thus, to define a style in EndNote, first fully understand the style in itself and then look for one that may be similar and start modifying it.

The process of defining a style in EndNote is quite clear. It is largely menu driven. Just make sure that you review all of the options listed. Remember that each reference type includes different fields and therefore you have to describe how each one of them is formatted. Examples of the common types are easy to find, but that is not the case for the more unusual ones (e.g., reports, URLs, personal communications).

VIII. FILTERS

The EndNote manual describes the filter definition process and includes all of the character and keyword tables required. Still, it is useful to look at and try to understand the inner workings of some existing filters before designing your own. Again, it is helpful to start from a working definition and modify it instead of starting from scratch.

To define an import filter (Figure 6) you need to understand the format of the file that you exported from the other system. Some providers explain their format, but the large majority does not. In that case you need to examine a comprehensive sample file and extract the structure of the records. Once you know the structure, you can start writing the filter in EndNote. However, in my experience, only seldom it is as easy as that. Extracting the structure is a difficult process since the examples included may not be complete and some of the examples for infrequently used source types may not be included. Furthermore, a given source type may contain several co-existing structures. I have found files

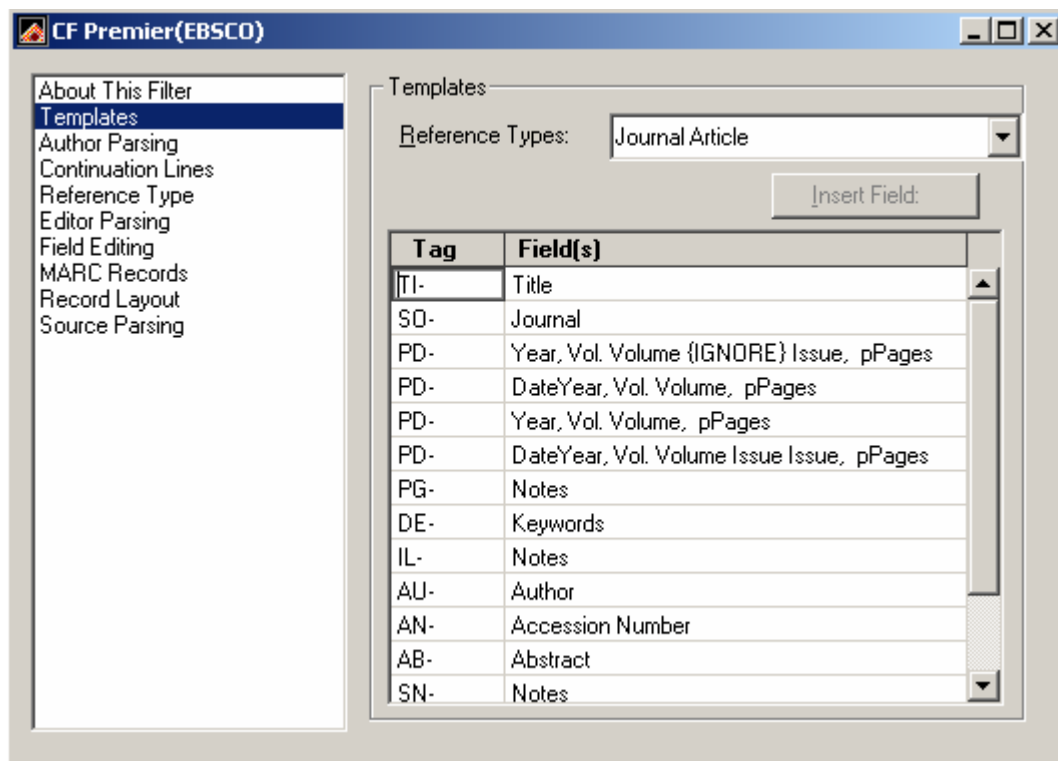


Figure 6. Filter Template Window

that contain over 20 different formats for a journal article (it is bad practice but it is also a reality). EndNote does allow that and it simply tests each one to see which structure conforms better to the current record. Here the order is important. Some record structures should not be tried before others.

Filters files may also need periodic maintenance. Information providers tend to “improve” their formats and their systems. Each improvement means that you must update your filters to the new formats.

IX. CONNECTION FILES

Defining connection files that connect you through the Web is the easiest of the three definition tasks in EndNote (defining styles, defining filters, and defining connection files). Very little programming is involved but a lot of prior information searching is required. The Z39.50 standard makes the whole process run quite smoothly but we need to know the parameters. Parameters are only given by the information provider and they do not like to publish them openly. In

general you will need to make a few calls to their customer support help desk. They have been forced to provide this standard due of market forces but they do not like to give away the control of the interface to their system. Once you start connecting to them through EndNote you can even forget who the information provider is and the information provider cannot send you any additional information (or advertisement) as they can (and do) when you access them through their web pages or customized systems. You will also need to get a set of user login and password for those databases from your institution.

Many institutions have IP-enabled systems and do not use logins and passwords. So, obtaining them may be complicated, but hopefully not impossible. The individual in charge of safekeeping the passwords may have problems understanding why you want your “own” password instead of using the IP-enabled option that everybody else uses. The best tactic that I found is to show them EndNote, how easy it is to use, and why I use it.

Connections are managed with the Connection manager (File, Connection files..., Open connection manager). The connection manager allows you to include connections directly into the connection menu. Review your list of connections and only leave the ones that you may normally use, and make sure that you include all the connections that you normally use.

Again, as a general rule do not create connection files from scratch. It is far easier to select an already defined connection which is similar to the intended one, copy, and modify it. To do that, start editing the connection parameters but then save the file under a different name. I would recommend that, like styles, you save the connection file as soon as you make the first change or even earlier to avoid overwriting the original one.

Inside the connection settings, the login information (login name, password, group ID, and custom) could be hardwired (directly entered into the connection file so that you do not need to type it every time you connect) or it could be entered every time you connect. To accomplish the latter just type “?USERID” or “?Password” in place of the login name or the password in the

respective settings of the connection file. This option is useful when installing the connection file in a public machine or when sharing connection files with peers.

Connection files may need periodic maintenance. Information providers tend to update their systems. Each update means that you also need to update your connection files to the new specifications. Some online sources change the parameters every year. So do not be surprised if by mid-January your connection files stops working. If they stop working, contact the provider's customer service directly and ask them what did they change during the past month. One item that I found to change yearly, for some providers, is the database name.

X. CONCLUSIONS

The time is ripe to start using reference management software. Their current interface, connectivity, and power justify the investment required to use them optimally. They do a good job managing the reference database; but they do a still better job in formatting the references in documents and in importing references automatically. Their usefulness peaks when you want to reformat a document into a different citation and bibliographic style (e.g., when you submit a document to a different journal) and when you have already inserted the majority of your references into your library. Including a reference in a document is no more work than a simple cut & paste from your EndNote library.

EndNote is one of several reference management programs. It does a good job on all the different fronts. It has a nice user interface. The company's upgrade record is quite good. A researcher who writes at least one paper a year will gain from adding EndNote to his or her toolbox.

ACKNOWLEDGEMENT

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APPENDIX I

SIMPLE STEP-BY-STEP ACTIONS IN ENDNOTE FOR THE BEGINNER

This appendix resents step-by-step procedures for simple actions taken by beginners in EndNote. It is intended to be used as a reference for those getting started.

ACCESSING ENDNOTE LIBRARIES

1. Double click on the EndNote icon
2. You will have entered EndNote and at least one LIBRARY is open, or
3. Reach a dialog box that asks you to select a reference LIBRARY
4. If you have an existing library you want to open, click on it. If you do not, press cancel
5. If you want to create a new library:
 - a. In the main menu select: File, New
 - b. Select a directory to store your library
 - c. Give your LIBRARY a name (ending in .enl) and press SAVE

The window used to select a reference library is shown in Figure 7

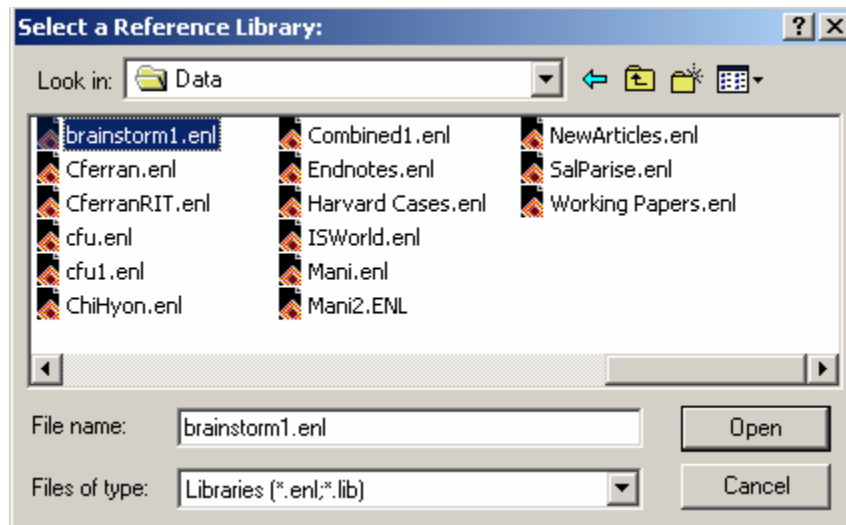


Figure 7. Select a Reference Library Window

DEFINE the DEFAULT ENDNOTE LIBRARIES

1. Open all the LIBRARIES that you want to have EndNote open automatically every time you start the program
2. In the main menu select: Edit, Preferences
3. Select the Libraries option in the left list box
4. Press the Add open libraries button
5. Press the OK button

The EndNote preferences screen is shown in Figure 8.

CREATING A NEW REFERENCE

1. In the Main menu select: References, New
2. A new window (New Reference) opens and you are ready to enter information
3. Select the reference type from the drop down box (the default is Journal Article)
4. Fill in the author

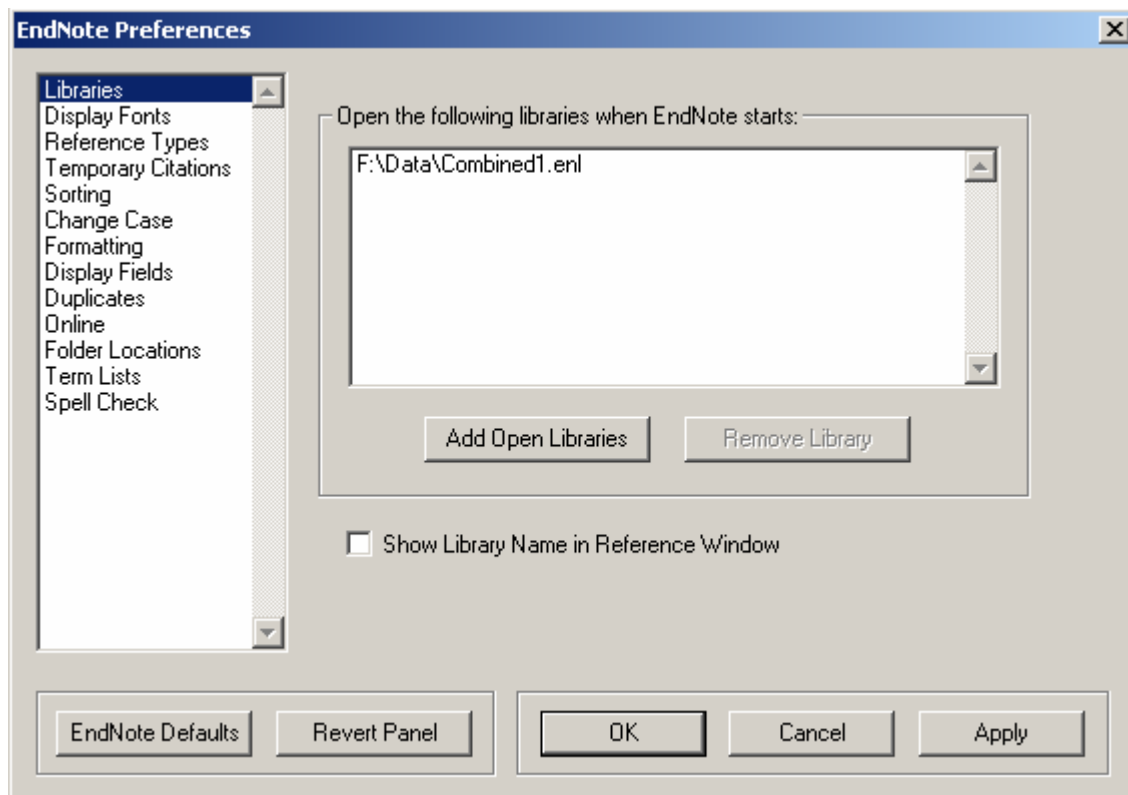


Figure 8. EndNote Preferences

- a. You can use any format you want (Last_Name, First_Name Middle_Initial, or First_Name, Middle_Initial Last_Name). The usage of a comma signals that all prior text was the last name. Authors are separated by a RETURN or ENTER. Use Anonymous if you don't know the author.
 5. Fill in as much of the reference information as you can
 6. You can add comments or an abstract if you choose
 7. When you are done close the window it will be saved automatically
- The new reference window is shown in Figure 9.

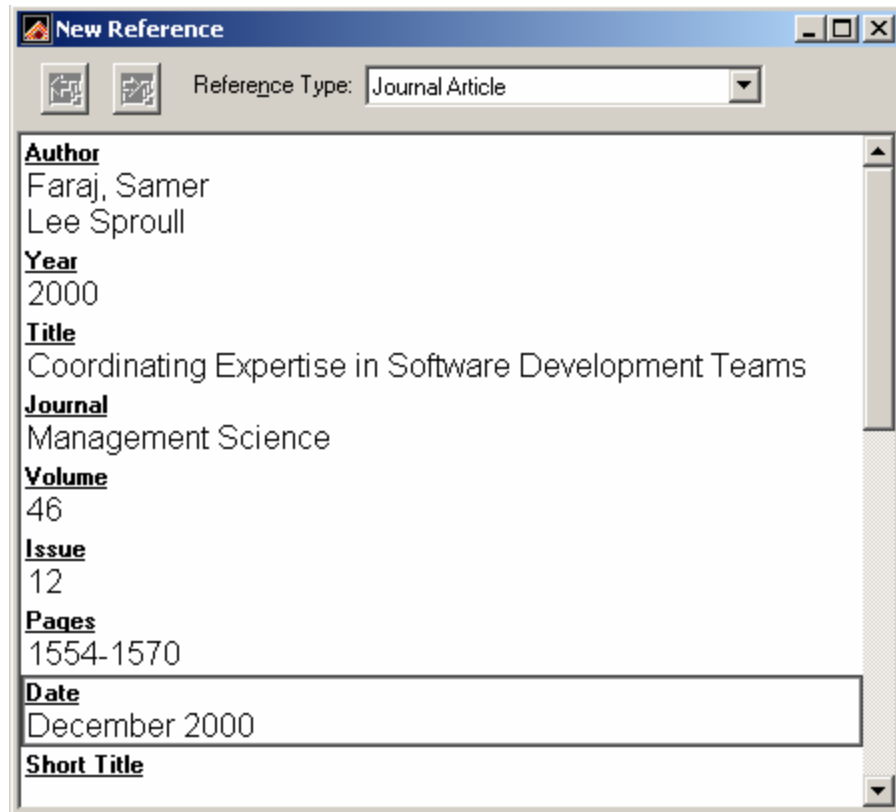


Figure 9. New Reference Window

SEARCH FOR A REFERENCE

1. In the Main menu select: References, Search
2. A new window (Search "LIBRARY") opens and you are ready to enter the search parameters
3. Fill in the appropriate fields
4. Press PERFORM SEARCH
5. Your LIBRARY window will no longer show all the references in the library but only those that comply with your search parameters
6. Double click on the reference that you want
7. A new window will open with the reference information
8. You can close the reference at any time and all changes made will be saved

The search window is shown in Figure 10.

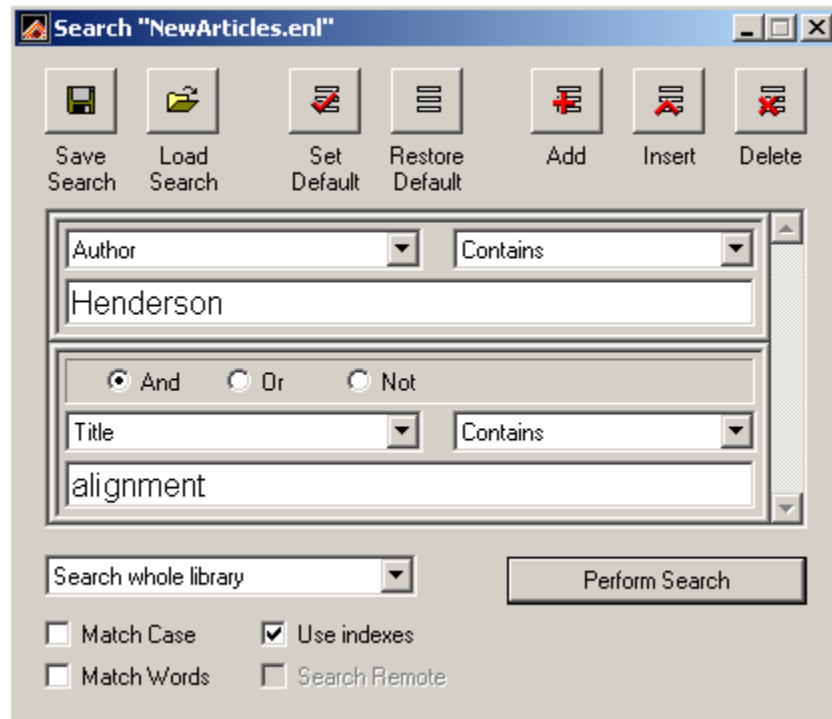


Figure 10. Search Window

INSERTING A CITATION INTO YOUR DOCUMENT

1. Write your document
2. Switch to EndNote
3. Select the reference(s)
 - a. To select a reference click on it
 - b. To select several references click on each one while you keep the shift key pressed
4. Copy the references into the clipboard (Control-C or Edit, Copy from the menu)
5. Switch to your Word Processor
6. Paste the references (Control-V or Edit, Paste from the menu)

CREATING A BIBLIOGRAPHY USING THE ADD-IN

1. Open your document in your word processor
2. Select Tools, EndNote, Format bibliography from the main menu
3. A new window (EndNote Format Bibliography) opens and you can enter the appropriate parameters

4. Select the style from the “With output style” drop down box
5. Fill any other fields in the window if appropriate
6. Click OK

The EndNote format bibliography window is shown in Figure 11.

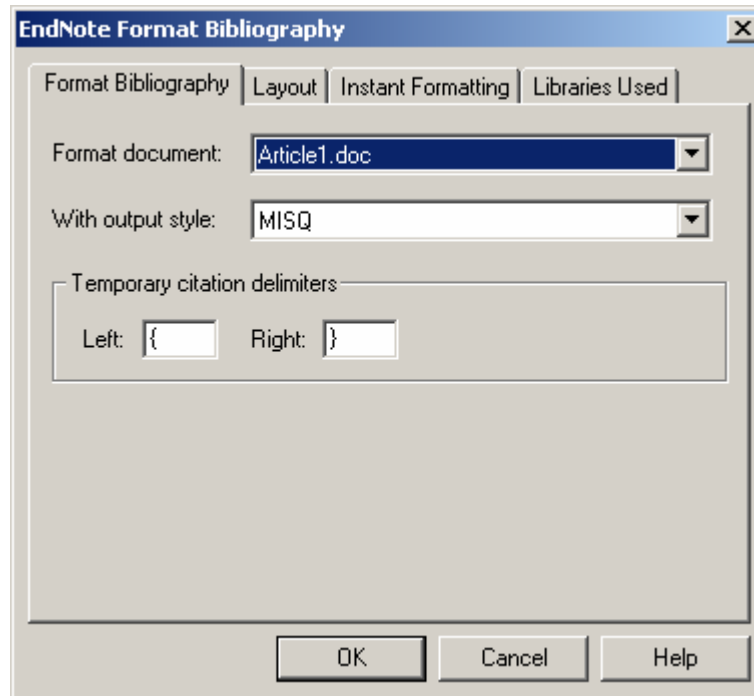


Figure 11. EndNote Format Bibliography Window

CREATING A BIBLIOGRAPHY FROM ENDNOTE

1. Save your document in a format that can be read by EndNote (txt, rft, mif, cwk, doc, wp*, sam)
2. Open EndNote
3. Select Paper, Scan paper, Scan paper from the main menu
4. A new window (Word Processor File) opens and you can select your document
5. Press the OPEN button
6. A new window (DocumentFileName) opens and shows all the references found in your document and the corresponding match to the LIBRARY
7. Select Paper, Format from the main menu
8. A new window (Confirm formatting) opens

9. Select the style in which you wish to format your document and press OK
10. A new window (New formatted file name) opens and you can give the name of the formatted file
11. Press the SAVE button

The list of citations in the “Document” window is shown in Figure 12. Figure 13 shows the confirm formatting window.

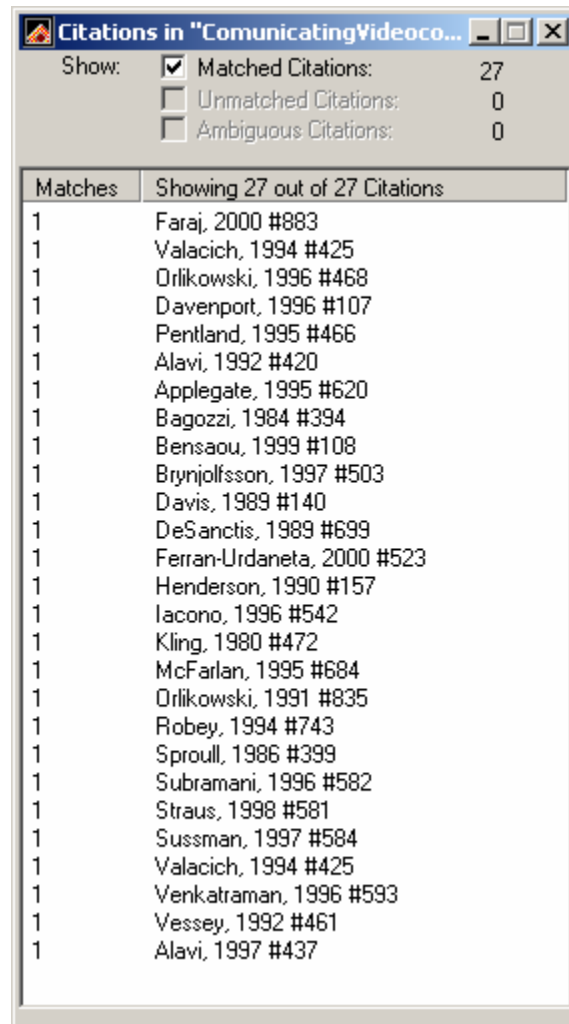


Figure 12. Citations in “Document” Window

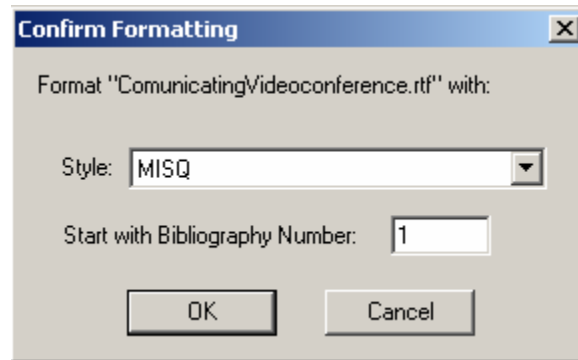
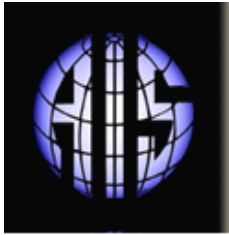


Figure 13. Confirm Formatting Window

ABOUT THE AUTHOR

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