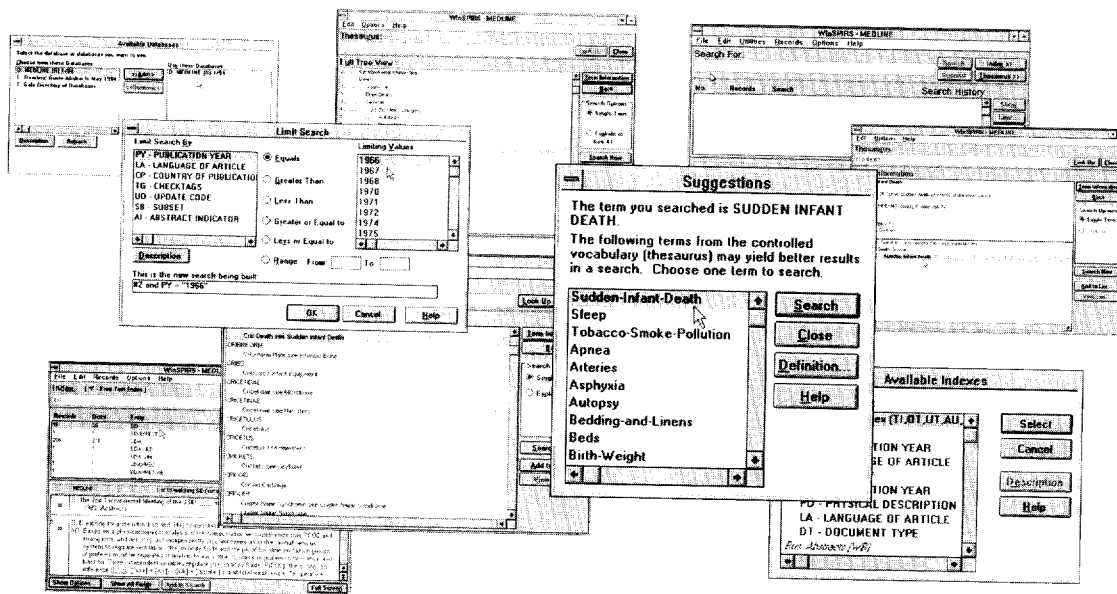


WinSPIRS

Windows Software for SilverPlatter CD-ROMs



by Péter Jacsó

Editor's Note: Just after this article was written and edited, SilverPlatter announced direct Internet access to its databases. Using a client/server architecture, online access is via a choice of client software including PC SPIRS, WinSPIRS and MacSPIRS. ONLINE will cover this development separately in a future issue, but readers may want to read this article carefully knowing they can now use this interface and SilverPlatter databases online, not just on disc. —NG)

SilverPlatter deserves much credit for making about 200 abstracting/indexing, directory and full-text databases available on CD-ROM since 1986. Its DOS software (SPIRS) has been very popular, but I have found the user interface and help system clunky. Despite regular improvements, the search software has lacked many features found in its top competitors such as DIALOG OnDisc, CD Plus OVID or Online Computer

System's Plus software. Missing from SilverPlatter software functionality were the browsing of field-specific indexes, posting information in the thesaurus, truncating with field specification and using multiple field qualifiers.

The new Windows software from SilverPlatter (WinSPIRS) is not just a mere transplant to a graphical interface. WinSPIRS looks like a software designed from the ground up, religiously following the design principles of Windows applications. While some important browsing and search features are still not available, the user interface is a design masterpiece that is inviting to even the most computer-phobic users.

This article reviews the major features of the WinSPIRS interface, its term selection and search features, and its output capabilities. The interface has been tailored only for a few databases to date (such as MEDLINE), but SilverPlatter plans

to implement features in its other databases to take advantage of WinSPIRS capabilities.

THE USER INTERFACE

The most visible changes in the software strike users as soon as they begin the program. WinSPIRS intelligently recognizes which database is loaded in the drive, displays its name and asks for a confirmation to use it. If you have a jukebox or a tower with two or more drives, WinSPIRS displays all the SilverPlatter products mounted and allows the user to choose one or several of them (Figure 1).

It does not require that the disks be placed in the same drive (or tray in the case of a jukebox) every time as most software does, and this makes life easy for anyone who has more than one drive. Nor does it matter from which drive the database is installed. (The installation process is not only beautiful, informative and cooperative, but

also very flexible and has a superb help file.)

The main screen (Figure 2) is very well designed with major areas to:

- Enter the query.
- Show the search history and intermediate results.
- Display the results.

The screens for index browsing and thesaurus navigation are similar. In addition to the usual pull-down menu options at the top of the screen, sculpted action buttons surround the three areas that are grayed out when the choice is not available during a phase of the browsing or search process. The buttons appear in bold when they can be activated.

At the beginning of the search, the Index and—depending on the database—Thesaurus buttons are bolded indicating that you may open the index and/or thesaurus file. The >> symbol indicates that an additional screen is displayed when pushing either the Index or the Thesaurus button. The ellipses indicate that an additional window pops up for further information. On the right side of both of the Search History and Retrieved Records panels you can move an elevator box up and down line by line within the panel by pushing the arrow buttons. In the lower panel, the buttons with the double arrowhead let you jump from record to record. This is useful if there are long records that take a long time to scroll through. This beautiful and consistent design prevails in most other phases of the retrieval process and will be discussed further.

TERM SELECTION AND ENTRY

There are many ways to enter or select a term or series of terms for browsing and searching. After entering any word in the Query cell, the Search and Index >> buttons always turn bold, independent of the database being used. The Suggest button is available only if a) the database has a descriptor field, b) a single database is searched, and c) a single word or a phrase without Boolean (OR, AND, NOT) or proximity (NEAR, WITH) operators is entered.

FIGURE 1
Database Selection Screen

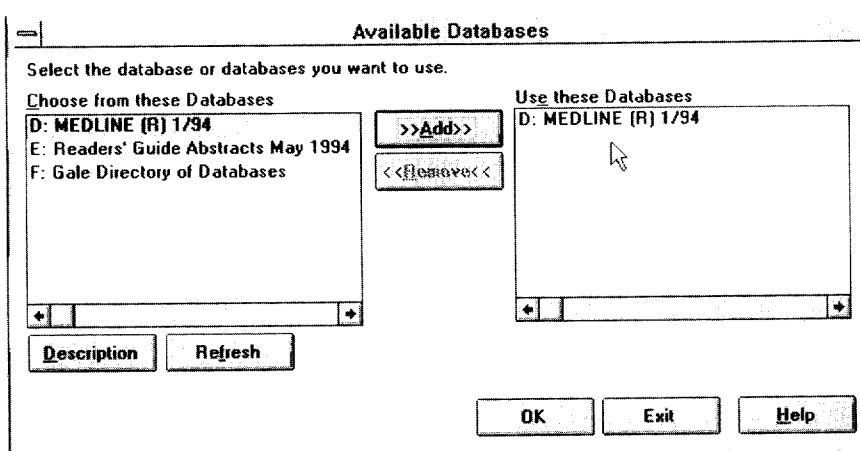
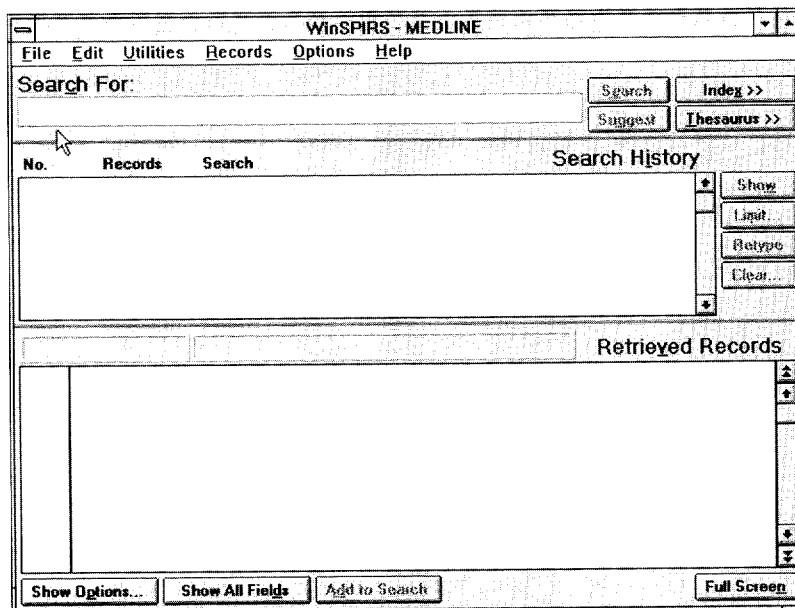


FIGURE 2
WinSPIRS Main Screen



For multivolume databases such as MEDLINE, the Suggest button is available; but if databases of the same family such as Readers' Guide Abstract and Wilson's Business Abstract are searched simultaneously, the Suggest button remains grayed out. The Thesaurus button is bolded only if a) the database has a thesaurus implemented on the CD-ROM, and b) a single database is used. (Many databases use a thesaurus to assign descriptors, but it may not be implemented in the SilverPlatter database version. This is the case with the entire Wilson family of databases.)

Even though there is logic to it, the action triggered by the Suggest button may seem enigmatic depending on the term entered. Table 1 illustrates this in some examples.

INDEX BROWSING

You may click on the Index button to display a new screen for entering a term, or you may enter the term on the first screen and then click on the Index button. The result is the same. In the Index Term panel the entries in the index are displayed *beginning* with your term followed by the alphabetically nearest term (Figure 3, page 78). Display of a few terms preceding the one entered would better alert you

→

This preview feature...is a powerful and unique aspect of index browsing.

to any variant spelling or misspelling. For example, if you correctly enter Portuguese, you would not see the misspelled, but still relevant term, Portugese.

To the left of the terms, the posting information is shown for the total number of term occurrences and the number of records that include the term. In the Retrieved Records panel WinSPIRS offers a novel method of showing a preview of the records retrieved (Figure 3). It is very handy to spot false hits resulting from homonyms before combining the term with others and initiating a search. We entered SID as a widely used acronym for Sudden Infant Death and from the preview of records we found that SID is also used for skin infections and diseases, strong ion difference, surface ionization detection, surface-induced dissociation or as part of the name Sid Richardson Institute. This preview feature, combined with the HIT display format that shows the field where the term occurs, is a powerful and unique aspect of index browsing.

Despite the preview feature, index browsing is still WinSPIRS' weakest point, though it has some improvements over the DOS version. The browsing occurs in the Free Text index, unless you choose one of the few other indexes using the Change button. The Free Text index includes words and phrases from most fields that make up a record. Depending on the database, it includes terms from

the title, original title, comments, author, affiliation, journal name, abstract, descriptor and numerous other fields. This is like serving the salad, soup, main course, dessert and coffee in one bowl.

While it is reasonable to have a subject index of terms from the title, abstract and descriptor fields, there should be field-specific indexes for the journal name, author name and author affiliation. Based on phone conversations with SilverPlatter representatives, my understanding is that such indexes are likely to be implemented in the future. The sooner the better, I hope, since this lump indexing is the weakest point in the software.

FIELD INDEXING

(While the field-specific index feature is fully implemented from a software point-of-view, databases have not yet been remastered to include field-specific indexes for display with this capability. The fields that currently show up with the field-specific index feature have always been indexed because they are limit fields, and the new software capability is now showing users what has always been there.

We have developed tools that can design and build field-specific indexes during the database conversation and production process. This development is currently being tested in-house. Next, we intend to conduct usability testing to ensure we are providing what users need. Databases will be remastered to include field-specific indexes and the selection of field-specific indexes will be tailored for each database, and will include appropriate limit fields. —SilverPlatter)

It is some consolation that in WinSPIRS at least some field-specific indexes (Figure 4) can be browsed such as the index of terms generated from the publication year, language, country of publication and a few other fields that cannot be browsed in the DOS version. However, these are the same fields that can be used to limit a search in a later phase of the process.

Often the choice of these limit fields is questionable, and their sequencing in the Available Indexes window is odd. For example, in the excellent Matter of Facts database, the first field-specific index listed is the ISSN. I have spent years with serials automation, but I do not believe that anyone (except a librarian doing serials check-in) would want to browse an ISSN index without seeing the name of the associated journals.

INDEXES AND MULTIPLE DATABASES

SilverPlatter also needs to improve the presentation of indexes when multiple databases are mounted. Currently, it splits the list of field-specific indexes into four or more parts. The first is the Free Text index, followed by the Universal section, then by as many database-specific sections as are databases mounted (Figure 5).

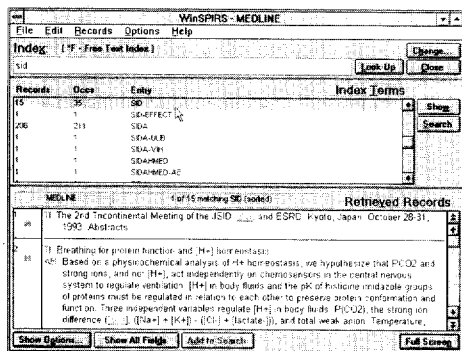
This is understandable. What is confusing is that fields listed in the database-specific section were already listed in the Universal section. Moreover, why are the PY and LA fields considered universal, but not the PD and DT fields? It is annoying that all the fields are both word- and phrase-indexed. The document type, "do it yourself works,"

TABLE 1
Suggest Box Responses Triggered by Search Terms

Search Term	Suggest Box Response
Near Death	Not valid
Near-Death	Makes suggestions
At Risk	Makes suggestion for "risk"
At-Risk	Makes suggestion for "at risk"
Drug and Narcotic Control	Not valid
Drug-and-Narcotic-Control	Makes suggestion



FIGURE 3
Index Browsing



generates an entry for the components do, it, yourself and works, which is not only unsightly and nonsense, but also scatters the entries that must be looked up by repeated scrolling operations.

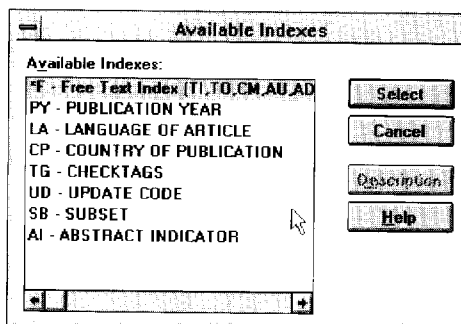
(Universal fields were chosen based on the number of databases in which they occur. We currently look at options on how to handle the variations in field names. Double-posting of limit fields will be suppressed once discs are remastered for field-specific indexes. —SilverPlatter)

USING THE THESAURUS

A much better way to look up a subject term is to consult the thesaurus of the database if it is accessible. Though all the Wilson databases use a thesaurus, Wilson has not licensed its controlled vocabulary to SilverPlatter for use with its databases. Thesauri are, however, implemented for PsycLIT, ERIC, sociofile and a couple of other databases. Pressing the Thesaurus button allows you to enter a term to be looked up in the thesaurus and shows the alphabetically nearest term in the Permuted Index panel.

If the term occurs in the thesaurus but as a nonpreferred (see from) term, the preferred term is indicated and you may jump to it by double-clicking on the entry or pressing <Enter>. This brings up the scope note and list of related terms. For example, if you enter Crib Death as the term to be looked up and press <Enter>, the entry Crib Death see Sudden Infant Death is highlighted (Figure 6).

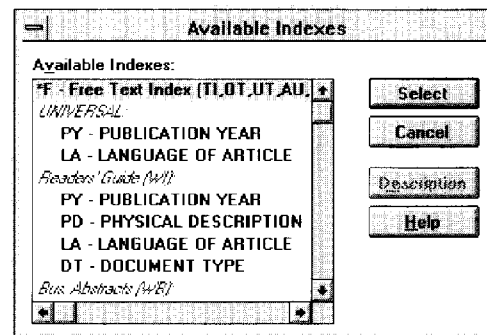
FIGURE 4
Field Indexing



Clicking on that line displays the Term Information panel with the scope note, indexing history and related concepts of the term, as well as one or more of the *MeSH* tree context(s) and a number of action buttons (Figure 7). Posting information is sorely missing from this screen.

You may add the term to the list of terms to be searched, initiate the search immediately (together with its subordinated terms by choosing

FIGURE 5
Indexes for Multiple Databases



the action buttons. It is difficult to understand why such a beautiful interface does not include a View Full Tree button on the right-hand side of a screen that cries out for such a button, and where it could be easily accommodated.

Unfortunately, the full tree is the same as in the DOS version (Figure 8) and is the only aesthetically and functionally weak point of the WinSPIRS interface, particularly in comparison with the awesome *MeSH*-tree handling of CD Plus Technologies' OVID software (Figure 9).

SUBJECT LOOKUPS

A brand new feature in WinSPIRS is the automatic subject lookup facility to help find the most appropriate search term. After entering a word or compound term and clicking on the Suggest button, WinSPIRS offers some subject headings that may be relevant for the search. This feature is available in most but not all of the databases.

Though the logic behind the process is not explained, it is easy to reverse-engineer the process by trying some different terms to see how WinSPIRS generates the suggestions. It looks for records with the word or phrase in the title, abstract and descriptor fields, then extracts the major descriptors from those records and sorts them by frequency of occurrence, then alphabetically. This explains why the alphabet may start again in the middle of the list of suggested descriptors (Figure 10).

While this automatic subject lookup method (the Suggest option) is

**Unfortunately,
the full tree is
the same as in
the DOS version**

the Explode option), or return to the previous step by pressing the appropriate action button. If you enter a new term, the Look Up button is highlighted and can be activated.

Those familiar with MEDLINE will certainly miss here the essential alternative to see the *MeSH* tree. It is available, but only through the Options pull-down menu. This choice may elude many users who are spoiled by the instant gratification of

FIGURE 10
Suggest Option Window

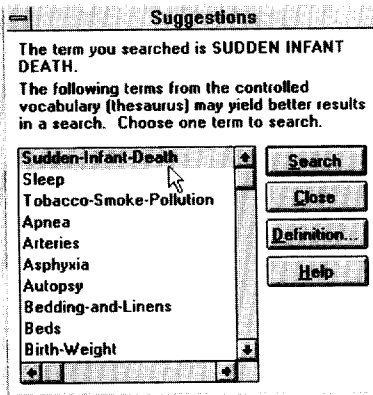


FIGURE 11
Limit Options

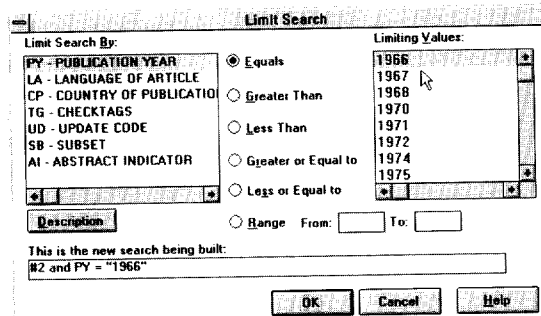
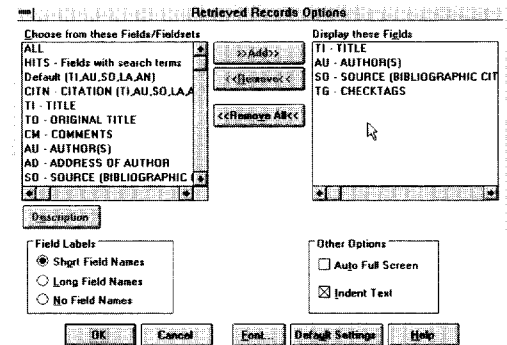


FIGURE 12
Display Options



by seven criteria (publication year, language, etc.). The ability to limit by age group and publication type are sorely missing from the list (Figure 11). Though types of publication (letter, article, retraction, etc.) are indexed, and these terms appear in the lump index (drowned in a sea of entries), publication type should be a limit element.

The tandem window design seen in earlier steps is cleverly used to show the possible values of the limit fields. Entries appear in an ascending order that is logical, except for publication year and update code where descending order would be more appropriate. The description button can be pressed to pop up a description of each limit field. Radio buttons are used to define the operators (equals, greater than, etc.). The query being built by choosing limit values is shown at the bottom of the window. The display of the query is not only informative but also educational, teaching the user that he may be able to enter a search statement directly to accelerate the process next time.

Some improvements would be welcome, however. It would be nice to be able to click on the Range radio button, then click on the starting and ending value of the range in the window on the right side. It would be familiar for Windows users to let them use the <CTRL> key when clicking limit values to choose more than one limit value. WinSPIRS should put them in an OR relationship in parenthesis, e.g., for limiting Set 2 by language it should create the query #2 AND LA=(English OR Spanish).

Also, the limit fields should be only phrase-indexed, not word-indexed, to make it easier to find the appropriate entry. It is irritating that, in all the SilverPlatter databases, country names are also word-indexed. Entries like United (created from United States, United Kingdom, United Arab Emirates) are useless and just pollute the index. The same applies to most of the other limit fields. Word and phrase-indexing is

**Now you
may use
multiple field
qualifiers...**

reasonable with fields (such as journal names or corporate bodies) where the user may need access to any word in the name.

(Double-posting of these limit fields will be suppressed once the databases are remastered for field-specific indexes. —SilverPlatter)

POSITIONAL OPERATORS

If multiple words are entered, they are assumed to be next to each other. Entering information retrieval is equivalent to information near1 retrieval. In addition to the Boolean AND, OR and NOT operators, two proximity operators can be used—WITH to specify that the terms must be in the same field, and

NEAR to specify that the terms must be in the same sentence. The NEAR operator may have a parameter to indicate how far the terms may be, e.g., information near3 retrieval yields records where information and retrieval are not more than three words apart in the same sentence. There is no positional operator that would specify the order of the term, i.e., no distinction can be made between library school and school library. This is an inconvenience in such databases as ERIC or Information Science Abstracts where the title and abstract fields are useful for searching. Using the plural form can alleviate the problem—and miss some relevant records.

Field qualifications, combinations of sets with other sets, sets with terms, and terms with other terms are possible. Now you may use multiple field qualifiers (e.g., headache in ti, ab), or truncate a term when doing field qualification (e.g., port* in ta)—a feast of options not possible in the DOS version. You may start a search operation with any Boolean or positional operators that are convenient. The only problem is with searching for a term such as near death experience where NEAR is considered a positional operator, and the set that includes the term Death Experience will be combined with the previous set. All this can be avoided by hyphenating such terms, e.g., using near-death-experience in MEDLINE, or near-letter-quality-printer in Microcomputer Abstracts. Care is needed with terms that include the word "in" since it is the field qualification operator in SPIRS

and WinSPIRS. Again, searching sit-in or live-in solves this problem.

OTHER SEARCH FEATURES

Cross-volume searching of multi-volume files and cross database searching is possible without saving and re-executing the query. This is a remarkable feature. The databases to be searched can be changed on the fly using the Database option of the File menu. The name of the database where the record was retrieved is indicated in the header area of the Retrieved Records window.

Searching is also possible from within the displayed records. SilverPlatter calls this lateral searching; others call it sideways searching or hotlinking. SilverPlatter's solution is the most flexible I've seen. Any character string anywhere in the record may be highlighted by the cursor, then added to the query entry cell by pressing the Add to Search button. Records that include the character string in any field are retrieved. Other systems usually limit the search to the same field. If you want to limit this lateral search to records that include the term in the same field, you may add the word "in" and the field qualifier after the term.

DISPLAYING, PRINTING, DOWNLOADING RECORDS

The output features are nicely implemented in WinSPIRS, showing a textbook example of consistent and intuitive design. The split screen concept is splendid, allowing the user to see the result of actions in the Retrieved Records window. When needed, the Full Screen action button can enlarge this window in a single click, and another click resets it to a half screen. The steps for changing the default display, download and print formats are the best I have seen, except for DIALOG OnDisc, which also permits saving of user-defined formats.

The same intuitive tandem display is used to select a predefined format (All, Hits, Citation) or to define your own format. The left-hand window displays all the fields with their tags and names. Highlighting any field pops up a short description. Fields can be selected and added to the

right-side window one by one or in groups (holding down <CTRL>). The selected fields are displayed and can be removed one by one, in groups or in their entirety.

If you mess up the format, you may revert to the default by clicking the Default Setting button. Changing the size of the fonts used in the display is a godsend. Radio buttons are used to select mutually exclusive options such as field labels, while check-boxes are used when more than one option may be selected, e.g., printing the search history along with the results and indenting the text. Figure 12 shows how I changed the default list of fields by removing the LA (language), and AN (accession number) fields, and adding the TG (check tags field). Marking elements to be retained in the printout or the downloaded output are identified by a checkmark, and the user has the option of printing/downloading all the records or just those marked.

Records can be sorted by a single criteria, and the number of records cannot exceed 1000. This small record limit should be increased since the user may wish to rearrange the records by journal name or prioritize the records just by sorting. Also, the number of sort keys should be increased, since at least two sort criteria are often needed (e.g., author affiliation and journal name).

CONCLUSION

The WinSPIRS version of SilverPlatter's software has added not only some badly needed, very nice visual touches to the DOS version but also significantly extends its functionality. Adding field-specific indexes for many data elements and posting information for the thesaurus entries could make WinSPIRS a perfect software. The DOS version will not be enhanced in the future, so users should augment the power of their computers to Windows to take advantage of WinSPIRS developments. Any Windows application requires 4MB RAM, a large and fast hard disk and, preferably, local bus video for decent performance. Upgrading to Windows to use WinSPIRS is certainly worth the hardware investment.

Mark your calendar!

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