PRODUCT COMPARISON

My brother you will be pleased to hear, is fine. - insert commas

Grammar Checkers: Keep your writing in line

InfoWorld examines six grammar checkers for DOS and Windows to keep your writing up to par.

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Wouldn't it be wonderful if we could run our memos, reports, letters, and documents through a computer program and receive grammatically correct, easily readable prose. English offers so much variety and opportunity to a writer that most of us can't always figure out what is right, what is wrong, and what is better. Our teachers struggled diligently to teach us the parts of speech, correct spelling, and good writing technique, but most of us didn't study enough, didn't practice enough, and didn't learn enough to be our own editors. Now that sophisticated word processing programs manipulate our words into professional formats and check our spelling, we need tools that will also be sure we've put the commas in the right places, used correct verb and noun construction, and avoided excessively long sentences.

Grammar checkers have been with us for a while, but the quality of their work has been disappointing. This is partly an intellectual problem of design and partly a hardware problem of sufficient capacity to handle the complexities of textual analysis and rule matching. With increased power to the hardware and some useful advances in linguistic analysis, we now have programs with power and utility. They all work approximately the same way. The programs analyze sentences, similar to the way you might have done in elementary school when you diagrammed a sentence for its parts of speech. After analysis, carried out with a parser program that recognizes patterns and breaks the sentence down into its component parts, the program applies a series of rules that should reflect good English style and grammar.
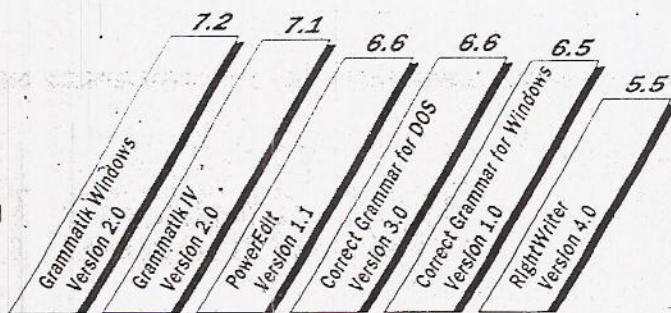
The value of grammar checkers lies not so much in their capability to catch every grammatical, punctuation, or usage error but in their capacity to enforce writing standards on multiple authors. In large corporations or on writing projects with many authors, uniformity of tone, level, style, and usage may be critical. The quality programs in this group can all assist in this task. By establishing a style with these programs, you can be sure that your authors will use some words as you want them and avoid others. You can guarantee that all text from your authors will meet certain readability standards or compare well with a standard document, and you can catch inconsistencies. This function makes the construction of elaborate special styles worth the trouble, for you can tailor your custom style to exactly the tone and audience required.

INSIDE PRODUCT COMPARISON

THE SCORES

Product	Score
Grammatik Windows Version 2.0	7.2
Grammatik IV Version 2.0	7.1
PowerEdit Version 1.1	6.6
Correct Grammar for DOS Version 3.0	6.6
Correct Grammar for Windows Version 1.0	6.5
RightWriter Version 4.0	5.5

EXECUTIVE SUMMARY

All of the grammar checkers in this bunch, save one, are quite similar in their capabilities, although we did find performance differences.

DOS PRODUCTS. Reference Software International's Grammatik IV walked away with the title for the DOS grammar checkers. Grammatik IV's accuracy and basic editing capabilities in our error recognition tests contributed to its all-around strong performance. In addition, Grammatik IV is compatible with an impressive list of word processors. Grammatik IV shares the lowest list price, and we found the product to be a fine value.

Two products tied for the second spot among the DOS products: The Writing Tools Group's Correct Grammar for DOS, and Artificial Linguistic's PowerEdit. Correct Grammar did well in our error recognition tests, and we didn't run into any problems with the product. It supports a wide range of word processors, and it works in both an interactive and a mark-up mode. The Writing Tools Group also has outstanding support policies to stand behind its products.

PowerEdit is something of a different breed in the grammar checker world. While it excelled in our error recognition tests, the product's capabilities go above and beyond those of the others. PowerEdit will check the writing style and consistency, for example, and the analytical capabilities are quite extensive. These features do not come cheap, however, as PowerEdit is the most expensive product, by far, in the group. In addition, the product is somewhat limiting: unless you are a WordPerfect or a Word user, you can only use PowerEdit by converting your files to ASCII for analysis.

Que Software's RightWriter was the least spectacular performer in our roundup. The program is limited to running in mark-up mode, so you must mark your files and then edit them later in your word processor. The product does, however, support an extensive list of word processors. We found RightWriter to be the least accurate of the grammar checkers, but it still performed well and caught serious grammatical errors such as passive voice, long sentences, and undesirable words.

WINDOWS PRODUCTS. Reference Software's Grammatik for Windows was the overall top performer in our comparison. Grammatik for Windows was quite accurate in our error recognition tests, although like the rest of the products, it was not perfect. Grammatik for Windows had the most impressive list of compatible word processors and formats, including Microsoft's Rich Text Format. Grammatik for Windows is also a fine value; it is priced the same as the DOS grammar checkers, and it is cheaper than its Windows competitor. Grammatik Windows is backed by the same impressive support policies as those provided in the DOS version.

The Writing Tools Group's Windows product — Correct Grammar for Windows — finished slightly behind Grammatik Windows. Correct Grammar for Windows did well in our performance tests, and the file support is quite extensive, including all Windows applications. In addition, Correct Grammar for Windows is available with some Windows word processors (Lotus' Ami Pro, for example). Correct Grammar for Windows is priced slightly higher than Grammatik for Windows, and the performance is not quite as strong.

GRAMMAR / from page 64

Keep writing in line

In this roundup, we look at six commonly available products and their grammatical capabilities: Lifetree's Correct Grammar, Version 3.0 and Correct Grammar for Windows, Version 1.0; Reference Software's Grammatik IV, Version 2.0 and Grammatik Windows, Version 2.0; Artificial Linguistics' PowerEdit, Version 1.1; and Que Software's RightWriter, Version 4.0.

PARSERS AND RULES. The key to the success of these programs lies in the interaction between parser and rule application. If the parser isn't sophisticated, it will misdiagram the sentence and won't know the difference between verb and subject. In that case, the rule application will also be wrong because it will apply its rules to a misdiagrammed sentence. If the program's rules are not sophisticated, the parser might get the sentence right, but a faulty rule system would apply the wrong rule or fail to apply any rule at all and miss an error.

English is such a complex and flexible language that no rule system can encompass our usage without many exceptions and special circumstances. These programs handle, somewhat successfully, this variability of English by letting the user choose which of the rules to apply to any given document. The programs generally supply standard collections of rules that appear to fit the characteristics of particular reading publics. For example, almost all have business, journalism,

academic, fiction, and technical styles. Business rules look for simple, short sentences. Errors related to overuse of the passive voice are flagged, and the rules identify overused words and phrases. The academic style will permit much longer and more complex sentences, will accept a higher level of passive voice, and may have a higher tolerance for jargon. Most programs will let you construct your own style or modify an existing style. You can turn rules on or off, and you can sometimes set the length of the sentence that will trigger a diagnostic.

Although all of these programs catch very simple errors of punctuation, trap most errors of agreement between verb and subject, usually flag passive voice, easily identify clichés or other objectionable words and phrases, and highlight other errors of punctuation, not one of them is perfect. Complicated sentences with many clauses, varied punctuation, and many words between the verb and subject will confuse these programs. Sometimes the confusion comes with an error not caught; on other occasions it will give an error message that has nothing to do with the sentence structure, and sometimes it flags the right error but with the wrong diagnostic.

DISAGREEMENT ON STYLE. All this would be trouble enough without the experts disagreeing on what constitutes good or bad English style. Text from any source will produce many error messages. You can use an excerpt from a classic of good usage such as Strunk and White's *Elements of Style* and get a multitude of error messages. You can take examples from

the *Chicago Manual of Style* and produce error messages. You can test a selection from *The New Yorker*, *Newsweek*, *Scientific American*, or any other well-edited periodical, and the grammar checker will find errors.

In spite of these problems, the best of these grammar checkers offer considerable help. They will catch obvious errors; when they misflag something, you often find that you can improve the sentence. They will capture some common errors of comma placement and end-of-sentence punctuation with reasonable accuracy (if the sentence isn't too complicated). They also make us much more conscious of our use of the elements of style. The best of these programs offer tutorials on the finer points of the grammar faults identified. Most let you create or add to a list of overused words and phrases so that you can understand the errors in your writing.

Even with all their sophistication, the programs cannot identify the kind of problem posed by the following sentence. "Being in a dilapidated condition, I was able to buy the house very cheap." The programs don't notice that the sentence permits you to think that I was in a dilapidated condition, which is why I could get the house cheap. Take a similar sentence, "Young and inexperienced, the task seemed easy to me." The grammar checkers don't flag this so you could rewrite it as "Young and inexperienced, I thought the task easy."

None of the programs caught sentences with parallel ideas expressed in nonparallel form. Here's an example: "She met the French, the Italians, Span-

ish, and Portuguese." You should write this as, "She met the French, the Italians, the Spanish, and the Portuguese," but none of the checkers, set on business style, caught this error. Commas cause all of us endless difficulty, and our editors often disagree about comma usage. Still, none of the products caught the missing comma in the following sentence, "O.D. who had apparently just heard the report, came over to our table in great agitation."

All products had difficulty with complex sentences with semicolons, colons, parentheses, and any sentence with embedded punctuation. For example, the sentence "Your dedicated whittler requires: a knife, a piece of wood, and a back porch" escaped comment even with the misused colon. (The correct sentence with a colon would read, "Your dedicated whittler requires three props: a knife, a piece of wood, and a back porch.") In our ratings, we paid more attention to errors missed than to correct grammar misflagged. Although correct elements flagged as errors cause some irritation, the serious problems come from errors that escape detection.

Grammar checkers work in two principal modes, with variations. Most, but not all, will work interactively with the text. In these, the grammar checker works through the text, analyzing words, sentences, and paragraphs; showing you the errors; offering suggestions; making the tutorial information available; and asking whether you want to skip or edit. This method takes time for large documents, but it makes most effective use of the program. All the programs also offer a

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REPORT CARD

INFO WORLD

Grammar checkers

	(InfoWorld weighting)	(Your weighting)	Correct Grammar for DOS Version 3.0	Grammatik IV Version 2.0	PowerEdit Version 1.1	RightWriter Version 4.0	Correct Grammar for Windows Version 1.0	Grammatik Windows Version 2.0
			DOS				**WINDOWS**	
Price			$99	$99	$295	$99	$119	$99
Performance								
Error recognition	(200)	( )	Very Good	Very Good	Excellent	Satisfactory	Very Good	Very Good
Editing	(150)	( )	Good	Very Good	Very Good	Satisfactory	Good	Very Good
Document utilities	(75)	( )	Satisfactory	Satisfactory	Good	Satisfactory	Satisfactory	Good
File compatibility	(100)	( )	Good	Very Good	Poor	Very Good	Very Good	Excellent
Documentation	(75)	( )	Very Good	Very Good	Very Good	Very Good	Satisfactory	Very Good
Ease of use	(175)	( )	Good	Very Good	Good	Satisfactory	Good	Good
Support								
Support policies	(50)	( )	Excellent	Good	Satisfactory	Very Good	Excellent	Good
Technical support	(50)	( )	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Value	(125)	( )	Good	Very Good	Satisfactory	Satisfactory	Good	Very Good
Final scores			**6.6**	**7.1**	**6.6**	**5.5**	**6.5**	**7.2**

GUIDE TO REPORT CARD SCORES

InfoWorld reviews only finished, production versions of products, never beta test versions.

Products receive ratings ranging from unacceptable to excellent in various categories. Scores are derived by multiplying the weighting (in parentheses) of each criterion by its rating, where:

Excellent = 1.0 — Outstanding in all areas.
Very Good = 0.75 — Meets all essential criteria and offers significant advantages.
Good = 0.625 — Meets essential criteria and includes some special features.
Satisfactory = 0.5 — Meets essential criteria.
Poor = 0.25 — Falls short in essential areas.
Unacceptable or N/A = 0.0 — Fails to meet minimum standards or lacks this feature.

Scores are summed, divided by 100, and rounded down to one decimal place to yield the final score out of a maximum possible score of 10 (plus bonus). Products rated within 0.2 points of one another differ little. Weightings represent average relative importance to *InfoWorld* readers involved in purchasing and using that product category. You can customize the report card to your company's needs by using your own weightings to calculate the final score.

Products receive InfoWorld Buyer's Assurance seals if they meet the following conditions: The vendors offer 60-day money-back guarantees on the products, and the products also receive no scores lower than satisfactory in our Report Card. Vendors who qualify have signed contracts with InfoWorld that detail these support policies. (*InfoWorld* does not charge for the Buyers Assurance Seal.) InfoWorld awards the Recommended seal to products that, in addition to the above criteria, receive a Report Card score of 8.0 or higher.

TEST: GRAMMAR CHECKERS

Testing grammar checkers offers more than the usual challenges. In our experience, experts differ greatly on the question of good style, placement of commas, word usage, sentence structure, and other issues of good writing. Each of these products rests on considerable academic expertise in the area of linguistic analysis. Nonetheless, all the experts agree that the process of reading and understanding English text requires a human mind. Whatever the computer does right now can be but an estimate, an approximation of meaning. The result of that approximation is a set of rules for analyzing the words that make up sentences and paragraphs in our writing. These rules require the computer to parse the sentences to understand their structure and then analyze the words to determine their correct or incorrect usage and the proper punctuation to go with the usage.

For those fortunate enough to have had a tough English teacher in school, the discipline of diagramming sentences will be a useful model to remember. Diagramming simple sentences challenged all of us, but most of us ran into serious trouble with complex sentences with many clauses and perhaps an inverted word order. If we were confused, imagine the computer program's difficulties. Further difficulty comes from the varying standards that we expect from our written word. Sometimes we want things to be formal and precise, other times, graceful and casual. Often we want rigor in our writing, precision in our terms. Other times we seek the inspiration of the literary spirit with things left to the imagination and words unspoken. The distance between the short story in dialect and the legalese of a contract illustrates the range our grammar checkers must bridge.

Given this variety, the miracle is that these programs prove useful at all. They all do well at the basic tasks. To find out how well they work, we formulated a document made up of right and wrong sentences selected from two major sources: the classic on good usage, Strunk and White's *Elements of Style* and *The Chicago Manual of Style*. These two works have abundant examples of good and bad style, including punctuation errors, usage errors, sentence structure errors, and the like. We also took passages from the prefaces of Strunk and White and Chicago and from *Newsweek*, *The New Yorker*, *Scientific American*, *The Smithsonian*, and several examples of advertising copy.

PERFORMANCE:

Error recognition: We ran this text through each of the products set on standard business style without any other modifications. We noted what they identified as errors. And we compared where they found errors in correct text and where they missed errors in incorrect text. Although it's impossible to make absolute numerical comparisons, it became clear that some of these products found more errors and that some flagged mistakes where there were none, more than others did. It may be possible to adjust the rules of each of these programs **See HOW WE TEST, page 72**

Correct Grammar for DOS
Version 3.0

Correct Grammar, Version 3.0 for DOS offers a useful procedure for checking grammar for most DOS word processing files. It also will work with a hotkey inside WordPerfect and WordStar.

Correct Grammar has both an interactive and a mark text mode but, as is true with most of these products, its interactive mode is most effective.

Correct Grammar 3.0 offers a wide range of styles for business, fiction, advertising, general, legal, technical, and other writing needs. Its rule classes permit users to tailor the applicable rules for each class, permitting a considerable degree of customization. You can use your word processor's speller or Correct Grammar's speller, and you can have Correct Grammar employ the user dictionary from your word processor. The readability statistics include the word, sentence, and paragraph measures as well as Flesch, Flesch-Kincaid, and Gunning Fog indexes.

Grammatik IV
Version 2.0

A powerful product with great flexibility, Grammatik 4.0 competes against Correct Grammar and PowerEdit among the DOS checkers. It operates much like its Windows counterpart, Grammatik for Windows 2.0. It has an endless series of customization options, and it works interactively and in mark and edit mode.

Grammatik's interactive-checking mode offers constant help and tutorials about points of grammar. It can deal with a wide variety of preset styles for business, technical, fiction, informal, and other writing. It has many rules and rule classes that can be turned on and off as needed, and it has a complex and powerful rule-making language to tailor the product to any specialized need. Grammatik also permits user-developed help screens.

You can deactivate the Grammatik speller to use your word processor's spelling program. If you use one of the common word processing programs, such as WordPerfect 5.0, Word 4.0, or XyWrite III, Grammatik is available via a hotkey from within the program. In addition, Grammatik takes most common word processing formats as well as ASCII.

Grammatik includes the standard readability scores for Flesch, Flesch-Kincaid, Gunning Fog, and word-sentence-paragraph length. Grammatik also produces graphs that match your text to three reference documents. The program comes with a sample document, the Gettysburg Address, a Hemingway short story, and an insurance policy, but you can use your own references to be sure your document matches the reference in tone and readability. There is also a concordance list that displays word frequencies for your text. You can design your own help screens, add topics to the rule dictionary, and add tutorials to the help system. You can also create your own counts for specific problems in the text (for example, the use of sentences that begin with "therefore").

PowerEdit
Version 1.1

The most powerful analytical tool in this group, PowerEdit's complexity makes its use difficult for general users. However, for those interested in careful text analysis, especially for people preparing manuals, documentation, or materials for carefully focused audiences, this program helps you tailor your text to exactly the right level and style.

PowerEdit works somewhat different from most grammar checkers. It reads the text, analyzes it, records its analysis in temporary files on disk, and then begins the interactive message-correction process. PowerEdit offers good messages, tutorial information on rules with examples, and lots of options to change identified errors. It has standard levels for business, technical, literary, and academic writing, but the customization routine will combine any set of rules. Its rules are much more sophisticated than those available in other programs.

At the same time, PowerEdit only works with WordPerfect and Word 5.X directly, and it does not work directly with Windows or Windows word processors. Although PowerEdit doesn't include standard calculation capabilities, it does offer an intricate and graphic display of information that profiles your writing relative to various normal standards. While the results are difficult to compare to simple measures such as the Flesch, they are much more detailed and permit considerable analysis of writing style. PowerEdit's profile will identify 22 different characteristics of your writing and display them in relation to the document at large or a particular sentence in the document. The program includes an elaborate lexicon with archaic phrases, barbarisms, catch phrases, cliches, derogatory phrases, legalese, and so forth. Even without a spelling checker or the capability to check partial documents, the analytical power of this program is remarkable.

ERROR RECOGNITION

Correct Grammar catches many errors of punctuation, grammar, and usage. However, it tends to misidentify quite a number of correct elements as errors. For example, "If, Sir, you refuse. I cannot predict what will happen" is flagged as an error in punctuation. While correct items misflagged may be a problem, failure to identify errors is more serious. Correct Grammar misses a number of obvious mistakes. "The early records of the city have disappeared and the story of its first years can no longer be reconstructed" requires a comma that Correct Grammar fails to flag. "Stevenson's romances are entertaining: for they are full of exciting adventures" has a misused semicolon, which is also unflagged. Correct Grammar misses the incorrect use of a colon. "Your dedicated whittler requires: a knife, a piece of wood, and a back porch." Correct Grammar finds a punctuation mistake in this correct sentence. "It was not Edward she cared for, it was San Francisco."

Correct Grammar 3.0 for DOS works slightly better than Grammatik for DOS, but not as well as PowerEdit. It does catch some usage items with ease.
Score: Very Good.

See CORRECT GRAMMAR, page 72

Grammatik IV catches a reasonable number of errors, but it also misses some significant problems. The program doesn't catch the missing comma in "If Sir, you refuse. I cannot predict what will happen" although Correct Grammar did catch it. Grammatik IV misses the missing comma in "My brother you will be pleased to hear, is now in perfect health." Grammatik IV lets the incomplete sentence, "A man who had traveled all over the world and lived in half a dozen countries" get by without a message, and it fails to catch the mispunctuation of "The train departs at 10.48 P.M. on Thursdays." Grammatik IV also misses the pronoun in "Will Jane or him be hired, do you think?" Parenthesis confuse Grammatik IV and prevent it from noting that the end parenthesis comes before the comma in "I went to his house yesterday (my third attempt to see him.) but he had left town."

Not as powerful as PowerEdit and slightly less effective than Correct Grammar, Grammatik IV nonetheless performs well with common errors and short sentences. Grammatik IV catches all passive voice and flags long sentences and words listed as cliches or trite expressions.
Score: Very Good.

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PowerEdit catches more errors than the other programs, and it generates fewer false messages than other programs. However, it doesn't catch everything. For example, grammarians would tell us not to join independent clauses by a comma, but PowerEdit fails to flag "Stevenson's romances are entertaining, for they are full of exciting adventures." Strunk and White would have us use a semicolon rather than a comma, or else make two sentences.

Sentences with parentheses confuse PowerEdit. For example, it doesn't catch the error in period placement relative to a parenthesis in "The driver glanced at his rear-view mirror to observe the passenger (the one in the derby hat.)"

Nonetheless, while these failures indicate the imperfection of all grammar checkers, PowerEdit did a better job of catching errors in our text than the other products in this roundup. It also had fewer misidentifications of correct text as errors. **Score: Excellent.**

See POWEREDIT, page 72

RightWriter
Version 4.0

RightWriter 4.0 offers a basic grammar checker for DOS word processors. It is quick and simple, but not as sophisticated as Grammatik, Correct Grammar, or PowerEdit. Que Software is working on a Windows version of RightWriter that is due to ship the first week of November.

Including the normal styles for business, proposal, technical, and others, RightWriter provides basic grammar checking. You can modify styles by turning rules on and off, but you cannot make your own rules. The range of rules is narrower than for Grammatik, for example. RightWriter can only operate in a mark-text mode, inserting a mark when an error is detected. The absence of an interactive mode with full grammar messages limits its usefulness.

The program does not have a speller. It will produce various readability statistics such as word, sentence, and paragraph and Flesch, Flesch-Kincaid, and Gunning Fog indices. There is a phrase dictionary to capture jargon, cliches, and trite expressions, and you can produce your own list of such words and phrases.

Grammatik Windows
Version 2.0

One of the two Windows grammar checkers, Grammatik Windows builds on Grammatik IV, the basic product designed for DOS grammar checking. Using the same basic methodology, the Windows product adds an effective user interface. Much easier to use than DOS products, and especially easier than PowerEdit, Grammatik Windows 2.0 rates about even with Correct Grammar for Windows. Grammatik Windows is available with Lotus Ami Pro, Version 2.0.

Grammatik Windows checks documents both interactively and by preparing a marked file. It is most effective in the interactive mode because of the constant availability of on-line help and tutorial advice. The program has an array of rules arranged into styles to match business, general, technical, fiction, informal, or strict standards. In addition, you can turn individual rules on or off, and you can create complex rules that become part of one of the standard styles or your own style. The rule-making capabilities of Grammatik Windows are extensive and complex. Not for novices, this customization capability permits Grammatik to be tailored to almost any document level imaginable.

A speller included with Grammatik Windows works well, but can be disabled so the program uses Word for Windows or Ami Pro's speller. In addition, Reference Software is working on an update for Word, Version 2.0. Grammatik Windows, while working directly with these Windows word processing programs, will also directly accept files from most DOS word processing programs without special treatment. In addition, it does ASCII and Rich Text Format files.

Grammatik for Windows' customizable features parallel those of the DOS version, including readability scores, sample documents, concordance lists, help screens, and personal modification features.

Correct Grammar for Windows
Version 1.0

Correct Grammar for Windows works within all Windows applications. This product, like Grammatik Windows, builds on its DOS counterpart, using much the same logic and rule system.

Correct Grammar offers a superb user interface through Windows, is easier to use than PowerEdit, and is about as easy as Grammatik Windows.

Correct Grammar for Windows uses both an interactive and mark document method for checking documents. Like most proofing tools, it works best interactively, thanks to the significant amount of on-line advice and tutorial information available to help resolve difficult grammatical questions. The program has its rules and styles that match your writing requirements, whether business, academic, custom, legal, technical, or other. You can select which general rules to apply within each of these styles as well. You can also create your own rules to add to or replace many of the rules in Correct Grammar. The customizing capabilities of this program are apparently quite complex, although the manual only mentions simple modifications. A special technical manual on writing your own rules is available for free but not supplied with the program. We did not evaluate this part of the program's features.

The speller works with your word processor's user dictionary to include special vocabulary, and the spelling function can be turned off or used only to flag, but not look up, potentially misspelled words. Correct Grammar supports all Windows applications through the clipboard and handles files from the major DOS word processing groups.

Readability statistics, less elaborate than either Grammatik Windows or PowerEdit, include the standards for word, sentence, and paragraph data and indexes for Flesch, Flesch-Kincaid, and Gunning Fog calculations.

Summary

While we found performance differences among these grammar checkers, we also found many similarities. None of them is infallible — either because they don't catch grammar errors, or because they misdiagnose correct grammar as incorrect. But they all do a fine job of catching common grammar errors, such as passive voice or incorrect word usage.

ERROR RECOGNITION

RightWriter catches many grammar errors in simple sentences, but often misses complex problems. For example, it doesn't catch the missing comma in "Well Susan, this is a fine mess you are in." It misses the semicolon used instead of a comma in "Stevenson's romances are entertaining; for they are full of exciting adventures." It doesn't capture the sentence-fragment error of "Coming home from Liverpool to New York" or the mistake in "Howard and yourself brought the lunch, I thought." RightWriter does fine with passive voice, long sentences, and undesirable words and phrases from one of its lists. While RightWriter's performance catches many grammatical errors, it is not as effective as the others.
Score: Satisfactory.

ERROR RECOGNITION

Grammatik Windows catches a reasonable number of errors, but it also misses some significant problems. The program doesn't catch the missing comma in "Marjorie's husband, Colonel Nelson paid us a visit yesterday," although PowerEdit did catch it. In "The situation is perilous but there is still one chance of escape," Grammatik again fails to catch the missing comma. However, it does better with the agreement of verb and noun, catching the error in "His speech as well as his manner are objectionable." Pronouns prove chancy. Sentences with misused colons fail to trigger a message, for example: "Your dedicated whittler requires: a knife, a piece of wood, and a back porch." Parentheses evidently confuse Grammatik as in "I went to his house yesterday (my third attempt to see him.) but he had left town."

Grammatik's performance, though strong, is not as solid as PowerEdit's and about the same as Correct Grammar's. In common with all these programs, Grammatik Windows catches all passive voice and flags long sentences and words listed as cliches or trite expressions.
Score: Very Good.

ERROR RECOGNITION

Correct Grammar for Windows does a reasonably good job of catching mistakes, but at the cost of a somewhat higher number of flags for correct grammar. For example, it finds an error in "If, Sir, you refuse, I cannot predict what will happen." More important, it misses its share of general errors similar to those mentioned for other programs. "My brother you will be pleased to hear, is now in perfect health" fails to earn a flag for the missing comma. "Our oldest daughter Mary sings" earns a flag from PowerEdit for the missing commas around "Mary," but not from Correct Grammar. It flags as wrong the correctly punctuated "He has had several years' experience and is thoroughly competent," but fails to catch the missing comma in "The situation is perilous but there is still one chance of escape." While it gets a good number of examples of subject-verb agreement, it fails with "She is one of those people who is never ready on time."

Correct Grammar's error system works slightly better than Grammatik Windows', but less effectively than PowerEdit's. It works fine with passive voice, long sentences, and words identified as cliches or trite expressions.
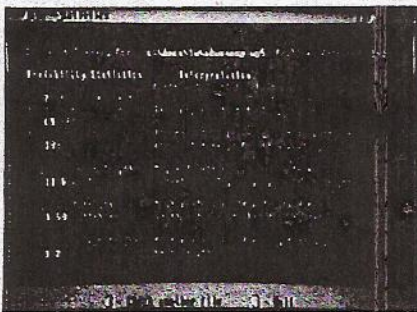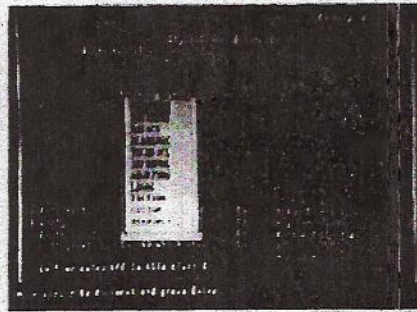**Score: Very Good.**

ERROR RECOGNITION

While not perfect, PowerEdit stood out in this category. We found that the product caught more errors than the other products, and it didn't misdiagnose as many correct sentences as incorrect. All of the other products, save RightWriter, seemed to perform fairly evenly: Some products caught errors that others didn't; some misdiagnosed correct grammar and vice versa. We found that RightWriter tended to have problems with complex sentences, although the grammar-checking capabilities seemed to work fine on simpler sentences. All of the products performed well in cases that involve the passive voice, cliches, and undesirable words and phrases.

Correct Grammar for DOS lets you set your preferences for styles, rules, and usage, for example.

Grammatik IV will publish readability statistics to inform you of the characteristics of your document.

PowerEdit's tutorial will highlight your errors, make suggestions, and give examples of how to improve your writing.

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Grammar checkers

to perform somewhat better than the standard settings, but we based our tests on what a non-expert might use.

We found certain commonalities in these programs. All of them found passive voice without fail. All of them have lists of undesirable words and phrases, and if it is in the list, the program will find it. All of them do well with short sentences, but then break down as the sentences become longer and more complex. All of them falter with complex punctuation involving parentheses, quotation marks, question marks, exclamation marks, and the like. Many do not do well with colons or semicolons.

In addition, we looked at the help messages that come along with the error diagnosis. Many times the programs will find the wrong error, not because there isn't something wrong, but because they can't figure out what. However, the flagged text and the help of clear messages will often resolve the question.

We also looked at customization facilities. These fall into two categories. All the programs let you select which rules to apply and which to turn off. So if you tire of seeing the passive voice message, you can turn it off. If you don't mind split infinitives, you can turn that off, and so on. You can combine many rules into special collections appropriate for your own uses that do not match exactly the collections of rules preset in the program. This arrangement and rearrangement of rules does not affect the basic sentence parser, which is the engine that diagrams the sentence and gets it ready to have a rule applied.

The second category of customization involves writing your own rules. This can range from the very simple entry of new forbidden words and phrases into a list to the incredibly complex construction of new parsing systems and complete new rules. In this last area of the custom-designed rules, novices should tread with care. We did not evaluate the effectiveness of these highly advanced systems, but simply indicated their presence and scope.

All these programs have various analytical capabilities designed to help you understand the complexity of your text. Readability indexes that help determine the education level of your audience, and statistics on word, sentence, and paragraph length also help. Several programs graph these and other characteristics and indices, and one system will even compare your text with any of three samples

Correct Grammar for DOS (Continued)

EDITING CAPABILITIES

Editing in the Correct Grammar interactive system is effective. You cannot do normal word processing functions, but you can delete, add, and change text without difficulty. **Score: Good.**

UTILITIES

Correct Grammar can find files, remove its own markings from files, and save the files checked. It does not handle any other file management chores, leaving those to DOS or a word processing system. **Score: Satisfactory.**

COMPATIBILITY

Correct Grammar works with all common word processing formats and has a hot link from within WordPerfect and WordStar. It handles Microsoft Word, Works, and Professional Write only in interactive mode, not in markup mode. It will also take PC-Write and XyWrite, as well as ASCII files. Correct Grammar will run under Windows as a non-Windows application except in 386 enhanced mode.
Score: Good.

Grammatik IV (Continued)

Grammatik IV's basic editing uses either its own or your word processor's spelling checker. Basic editing during interactive checking works well with simple editing commands. In addition, the program supports a mouse. **Score: Very Good.**

Grammatik IV uses file management of DOS or your word processor, although it can get files and save them. It also can delete marks from documents processed with the mark and edit mode. **Score: Satisfactory.**

Grammatik IV 2.0 has hotkey links to WordStar 5.X, WordPerfect 5.X, Word 4.X, Professional Write 2.1X, and XyWrite 3.X. In addition, its file compatibility includes support for almost every known word processing format as well as ASCII. **Score: Very Good.**

PowerEdit (Continued)

PowerEdit uses two windows, one with the messages and examples and one with the sentence involved. You can edit text in the sentence window with great ease, although you can't do enhancement or formatting. Or if you prefer, you can mark the file then edit later from within your word processor. The DOS-graphical interface and mouse functions work well for editing. While PowerEdit doesn't contain a spelling checker, it will flag a list of the 10,000 often misspelled words. **Score: Very Good.**
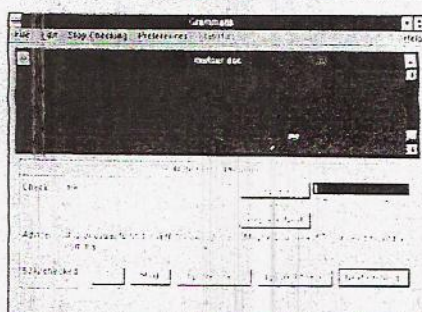
PowerEdit has good file-management utilities, which include backing up documents and removing markings or otherwise cleaning up files used in the grammar checking system. However, you can't move, copy, rename, or perform other generic file management tasks from within PowerEdit. **Score: Good.**

PowerEdit's meager support includes only WordPerfect 5.X and Microsoft Word 5.X file formats. All other formats must first be converted into ASCII to be checked. Graphics and other nontext elements remain unchanged in the supported word processors, but are lost in the conversion to ASCII for other systems. **Score: Poor.**
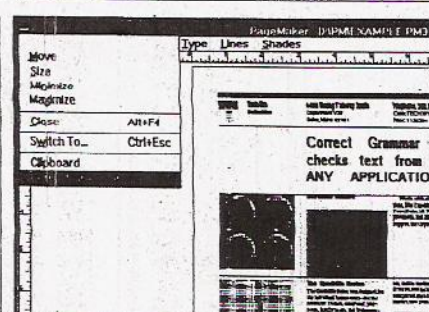
RightWriter provides an analysis of your document with various statistics about your document, in addition to various indexes such as Flesch and Flesch-Kincaid.

Grammatik Windows offers suggestions on how to correct questionable text. You can choose to replace text or ignore suggestions, for example.

Correct Grammar is compatible with any Windows application, and you can access Correct Grammar quickly and easily via a pull-down menu.

RightWriter (Continued)	Grammatik Windows (Continued)	Correct Grammar for Windows (Continued)	Summary (Continued)

EDITING CAPABILITIES

RightWriter: Because RightWriter only has a mark mode, all editing is done with your favorite word processor. **Score: Satisfactory.**

Grammatik Windows: Within Grammatik for Windows, editing is very simple, reduced to changes of a word, letter, punctuation, and the like; you can't do extensive editing. No enhancements can be added or changed from within Grammatik. **Score: Very Good.**

Correct Grammar for Windows: Correct Grammar for Windows works like any other Windows application. It can be used from within the supported Windows applications, or as a stand-alone product. Editing is simple and works well using standard Windows conventions. No formatting enhancements (such as boldface or italics) are possible. **Score: Good.**

Summary: We found that the Windows products — Correct Grammar for Windows and Grammatik Windows — in addition to PowerEdit, handled our basic editing category quite well. Correct Grammar's and Grammatik's editing capabilities parallel that of Windows and your favorite word processor, if you desire. Although PowerEdit doesn't have the advantage of the Windows interface, it does operate in two windows, and has color capabilities (if you have a color monitor) that make editing clean and understandable. RightWriter works a bit differently because it operates only in mark mode, but we found no problems with its performance.

UTILITIES

RightWriter: Operating only in mark mode, RightWriter selects the file easily, and it will remove all marks if needed. **Score: Satisfactory.**

Grammatik Windows: Grammatik Windows shares file management with the Windows File Manager. It also follows Windows conventions for selecting files to be proofed. There are special facilities for removing markings placed in a text by the program. **Score: Good.**

Correct Grammar for Windows: Correct Grammar uses Windows File Manager, has its own Windows-compliant file-section system, and handles its own system for removing markings from documents through a pop-up window. **Score: Satisfactory.**

Summary: We found that the products performed equally in this category: none was spectacular, none was awful. Correct Grammar for Windows and Grammatik Windows both use the file management capabilities of Windows. PowerEdit, while it can back up documents, for example, does not have file management capabilities from within the application.

COMPATIBILITY

RightWriter: RightWriter uses most common word processing formats and can work from within with hotkeys in WordPerfect, LetterPerfect, Word, WordStar, PFS, Multimate, First Choice and Q&A It handles ASCII, WordStar 2000, Word for Windows, XyWrite, and Office Write formats. **Score: Very Good.**

Grammatik Windows: Grammatik Windows lets you start the grammar checker from within Word for Windows and Ami Pro, although you must save your document first or Grammatik won't be able to use the latest version. Grammatik Windows' file compatibility includes Windows Write and Ami. It also supports file formats from all major DOS word processors, including WordPerfect, WordStar and WordStar 2000, PC-Write, Q&A, Sprint, Troff, Volkswriter, XyWrite, PFS, Office-Writer, and others. It can take files saved in Microsoft's Rich Text Format and in ASCII with and without paragraph information. **Score: Excellent.**

Correct Grammar for Windows: Correct Grammar for Windows' file compatibility includes direct support for Word for Windows, Version 1.2, Lotus Ami and Ami Pro, Version 1.2, NBI Legacy, Aldus PageMaker, and Microsoft Write. The Writing Tools Group is currently working on support for WordStar for Windows, WordPerfect for Windows, and Word Version 2.0. File formats for standard DOS formats, such as ASCII, WordStar and WordStar 2000, Word and Works, WordPerfect, Xywrite, PC-Write, Professional Write, and others can be used directly by Correct Grammar. **Score: Very Good.**

Summary: Both versions of Grammatik and Correct Grammar for Windows have the best file compatibility. Correct Grammar for Windows will run directly from several Windows word processors, and it is compatible with numerous others. Grammatik for DOS has several hot links to popular word processors, and the Windows version will run with Ami Pro and Word for Windows; in addition to support for nearly every word processing file format. RightWriter also supports an impressive list of word processors. Correct Grammar for DOS supports a range of formats but will only run in several word processors in interactive mode. PowerEdit supports only two word processing formats; all others must be converted to ASCII, which we found to be quite tedious.

HOW WE TEST / from page 72
Grammar checkers

you provide.

Editing. This category focuses on how you implement the changes to your document. Products that have basic features of adding or deleting words or phrases earn a satisfactory score. Bonuses are awarded for features, such as a spelling checker, an interactive mode, or the capability to change formatting.

Document utilities: In this category, products earned a satisfactory score for capabilities, such as finding files, removing marks, and saving marked files. We awarded bonus points to products for features, such as using Windows file management, file management within the grammar checker, or automatic backup.

File compatibility: Finally, we looked at various mechanical aspects of the programs, such as how well they interact with word processors, how they fit into the Windows environment, how they used dictionaries, and similar concerns. Products that support several word processing formats received a satisfactory score. Higher scores were awarded to products that supported an extensive word processing list and Microsoft's Rich Text Format. In addition, we awarded bonuses to products that have hot links to one or more word processors. We checked to see if the programs protected the original text before correcting errors, and we looked to see whether the product had support similar to what we would expect of a word processing program.

OTHER CATEGORIES:
We also looked at standard categories of documentation, ease of use, error handling, support policies, technical support, and value.

GRAMMAR / from page 65
Keep writing in line

markup operating mode. In this mode, the program checks the text, marking all errors and, if you like, inserting a comment about the error right into the text. Then you can go through the text with your word processing program, fixing or ignoring the errors marked. The

> **The key to the success of these grammar checker programs lies in the interaction between parser and rule application.**

grammar checker will then follow up and remove all the marks you have made if you want. However, in this mode you usually do not have the advantage of tutorial advice. Correct Grammar and Grammatik have Windows versions that differ in some respects from their DOS counterparts.

The scores developed for these products follow the testing procedures outlined in the sidebar "How We Test Grammar Checkers" (See page 68).

Correct Grammar for DOS (Continued)

DOCUMENTATION

The manual for Correct Grammar is clear, complete, and has an index. It offers good start-up information and has appendices for special issues related to memory management, video cards, and characteristics of particular word processing programs. There is a basic learning document for tutorial purposes. Messages and the grammar tutorial information provided throughout the grammar checking process are very helpful.
Score: Very Good.

EASE OF USE

Correct Grammar's capability to tailor styles and rules enhances its adaptability to different user requirements. Its menus are clear, on-line help is effective, and grammar information is complete. The program can't handle partial documents or selections from a document and has no system for custom rule writing.
Score: Good.

SUPPORT POLICIES

The Writing Tools Group has an unconditional 60-day money-back guarantee. In addition, the company offers unlimited free, but not toll-free, phone support from 7 a.m. to 4 p.m. Pacific time, every business day except Wednesday, when it's 8 a.m. to 4 p.m. There is also fax and BBS support.
Score: Excellent.

TECHNICAL SUPPORT

We reached technical support relatively easily, and we found the staff to be polite and helpful.
Score: Satisfactory.

VALUE

Among the DOS grammar checkers, at $99, Correct Grammar is a fine value. It is effective and has a good user interface. Although not as powerful as PowerEdit, it's more flexible, and it serves users who need general error correction. In addition, Correct Grammar handles a wide range of file formats, which is an advantage.
Score: Good.

Company: Writing Tools Group Inc., One Harbor Drive, Suite 111, Sausalito, CA 94965; (415) 332-8692.
List Price: $99.
Requires: IBM PC or higher running DOS 2.0 (3.0 recommended), 512K of RAM, and a hard disk.

Grammatik IV (Continued)

DOCUMENTATION

The documentation includes a manual for Grammatik IV, a quick-reference card, and a full description of how to set up the program and run it. Almost half of the manual discusses how to develop custom rules and styles and how to use the parsing system to further customize the program. The custom rule system requires careful attention and thorough knowledge of grammar to be useful. There is also a fine index.
Score: Very Good.

EASE OF USE

Although very easy to use in general, Grammatik IV's customization options may challenge even the most expert computer user. The process of creating custom grammar rules and parsing rules takes more than casual attention. However, the capability to turn existing rules on and off permits the creation of custom styles without special programming. Menus are clear, and instructions are easy to understand. **Score: Very Good.**

SUPPORT POLICIES

Reference Software offers free, but not toll-free unlimited technical support to registered users from 8 a.m. to 5 p.m. Pacific time Monday through Friday. There is also a 30-day money-back guarantee, in addition to corporate-extended support polices. **Score: Good.**

TECHNICAL SUPPORT

We found technical support to be knowledgeable and friendly. **Score: Satisfactory.**

VALUE

Grammatik IV 2.0 for DOS is reasonably effective with a good user interface. This program is not as strong as PowerEdit and is comparable to CorrectGrammar for DOS. At $99, it is particularly well suited for users who need to check documents from many file formats or for those who have special customizing needs.
Score: Very Good.

Company: Reference Software International, 330 Townsend St., San Francisco, CA 94107.
List Price: $99.
Requires: PC or higher, DOS 2.0 or higher, 512K of RAM, hard disk.

PowerEdit (Continued)

DOCUMENTATION

The PowerEdit manual offers clear instructions on how to use the program, but the explanations tend to be rather terse and the examples minimal. Almost half of the manual is comprised of appendices that illustrate some of the variations that can be used. A regular user has difficulty figuring out what can be done with the program from the documentation. The help on-line is terrific and the messages superior. PowerEdit provides the best information on the errors flagged and offers a superior tutorial focused on the error class identified.
Score: Very Good.

EASE OF USE

The numerous options, the complexity of the program design, and the unfamiliarity of many concepts used make this a tough program to learn. There are clear messages, the program interface uses lots of buttons and menus to help the user. Once you understand the logic and operation of this program, it becomes much easier to use. The cryptic characteristic of some of its menus and documentation becomes meaningful as you learn how the program approaches text. Unfortunately, you can't analyze portions of your text.
Score: Good.

SUPPORT POLICIES

Artificial Linguistics offers unlimited free, but not toll-free support to registered users from 8:30 a.m. to 5:30 p.m. Monday through Friday, Central time. They also offer fax support.
Score: Satisfactory.

TECHNICAL SUPPORT

We had no problems getting through to technical support, and the technicians were helpful. **Score: Satisfactory.**

VALUE

At $295, PowerEdit is the most expensive product in the group. However, it is more specialized and intelligent than the other products. It is a very powerful product, and we find it to be a fine value. Its main drawback is its lack of word processing support; it is a fine value for WordPerfect and Word 5.X users. **Score: Satisfactory.**

Company: Artificial Linguistics Inc., 2301 North Akard St., Suite 200, Dallas, TX 75201; (800) 800-4254.
List Price: $295.
Requires: IBM AT, PS/2, or equivalent; EGA or VGA monitor; 12 megabyte disk drive; 470K of available memory; 1 megabyte additional available memory either extended or expanded; 286 or above processor.

RightWriter (Continued)	Grammatik Windows (Continued)	Correct Grammar for Windows (Continued)	Summary (Continued)

DOCUMENTATION

| RightWriter's manual is clear and complete with an index and a reference card. The start-up information is useful and there are appendixes for special issues related to different word processor formats. There is a section in the manual that walks you through a tutorial based on a test document. Messages are adequate. **Score: Very Good.** | Grammatik Windows comes with a useful manual and a quick-reference card and has superb on-line support for advice on grammar and help for program functions. The manual, however, has no index. The elaborate description of customization options takes up almost half the manual, including information on designing menus, creating rules, and creating rule classes. The rule system is quite complex and not appropriate for novices. **Score: Very Good.** | Correct Grammar offers basic information, explains the use of the program, and discusses general customizing. However, the manual has no index, and its technical section is deficient. Correct Grammar requires an additional manual, which is not included, to use the rule-making facility. Examples are minimal, and the tutorial is a demo document. On-line messages and information are superb and suggestions about points of grammar very helpful. But the lack of rule-making documentation detracts significantly from the other advantages. **Score: Satisfactory.** | We found that all of the products had fine documentation, save Correct Grammar for Windows, which doesn't ship with the customization manual, an integral part of the program. |

EASE OF USE

| RightWriter remains easy to use, and the customization of rules helps tailor the product to your writing needs. Not as flexible as the other products in this comparison, RightWriter does have some capability to enter special word lists. Absent are an interactive mode, a spelling checker, and the capability to proof partial documents. **Score: Satisfactory.** | Grammatik Windows, similar to the DOS version, requires effort to customize adequately. If standard options serve well and if simple modifications meet a user's needs, over time, this remains very easy to use. Its complexity becomes apparent only when attempting to use the advanced customization features. Its Windows interface is relatively easy to understand, its on-line tutorial helpful, and its menus generally self-explanatory. **Score: Good.** | Correct Grammar for Windows permits easy customization by turning on rule classes and changing styles. However, the user-designed rule capability, which is apparently very powerful, is inaccessible without a technical manual that is not supplied. Partial documents can only be checked by cutting to the clipboard and repasting the checked text. The on-line help and tutorial system make the program relatively easy to understand. Correct Grammar could benefit from advanced customizing features. **Score: Good.** | We found Grammatik Windows to be the easiest product to use, followed by both versions of Correct Grammar, Grammatik IV, and PowerEdit. RightWriter was the most difficult, as it lacks an interactive mode and the capability to edit portions of a document. |

SUPPORT POLICIES

| Que Software offers unlimited toll-free support to registered users from 9 a.m. to 5 p.m. Eastern time. Monday through Friday. Que also offers fax support. **Score: Very Good.** | Support policies are the same as those for Correct Grammar for DOS. **Score: Excellent.** | Support policies are the same as those for Grammatik IV. **Score: Good.** | The Writing Tools Group has the most extensive support policies, including a 60-day money-back guarantee and unlimited technical support. Reference software offers a 30-day money-back guarantee in addition to unlimited support. Artificial Linguistics and Que Software both offer unlimited technical support, and Que has a toll-free number. |

TECHNICAL SUPPORT

| The technical support from Que software was reliable and effective. We had trouble getting through to the support staff, although it was not a serious problem. **Score: Satisfactory.** | Technical support for Grammatik for Windows was the same as that for Grammatik IV. **Score: Satisfactory.** | Technical support was the same as that for Correct Grammar for DOS. **Score: Satisfactory.** | We found that all of the products had satisfactory technical support. The staff was helpful, but none went above and beyond the call of duty. |

VALUE

| At $99, RightWriter competes well with the DOS grammar checkers. It is reasonably effective, easy to learn and use, and has some flexibility. Not as powerful as the other products, and much less effective than PowerEdit, RightWriter can be helpful in catching errors in relatively straightforward writing. **Score: Satisfactory.** | Grammatik Windows is reasonably effective, with a familiar user interface. However, this program is not as strong in performance as PowerEdit. It is particularly useful for users who need to check relatively short documents often and those who handle many file formats. At $99, it is a bit cheaper than Correct Grammar for Windows. **Score: Very Good.** | At $119, Correct Grammar for Windows is fairly effective, and it has a solid user interface. Somewhat more effective than Grammatik Windows but less successful in error recognition than PowerEdit, it will serve users who need a good desktop checker. Correct Grammar works directly with more Windows products than its competitors, but it has an inaccessible, user-modifiable rule system. It can handle a wide range of DOS word processing formats. **Score: Good.** | We found that the two Grammatik products give you the best performance for your dollar. The products are flexible and did well in our performance categories. We found Correct Grammar, both the DOS and Windows versions, to be fine values. PowerEdit is much more expensive than the other products, but its capabilities stretch beyond those of a grammar checker. RightWriter is fairly priced, although it was an unspectacular performer. |

| **Company:** Que Software, 11711 N. College Ave., Carmel, IN 46032; (800) 992-0244, (317) 573-2500. **List Price:** $99. **Requires:** IBM PC or higher running DOS 2.0 (3.0 required for hotkey interface); 512K of RAM; and a hard disk. | **Company:** Reference Software International, 330 Townsend St., Suite 123, San Francisco, CA 94107. **List Price:** $99. **Requires:** PC with Windows 3.0; 1 megabyte of RAM required, 2 megabytes recommended; uses 450K of RAM; requires DOS 3.1 or later and Windows 3.0 or later. | **Company:** Writing Tool Group Inc., 1 Harbor Drive, Suite 111, Sausalito, CA 94965; (415) 332-8692. **List Price:** $119. **Requires:** Intel 8088 or higher PC capable of running Windows 3.0; 1 of megabyte of RAM recommended; uses 640K of RAM; requires Windows 3.0 or later. | My brother, you will be pleased to hear, is fine. *insert commas* |