Evaluating Word-Processing Programs

A 100-point checklist simplifies the decision-making process

by Arthur Naiman

How to Keep Score

In the case of all yes/no questions, yes is the answer that earns the points.

When keystrokes are being counted, control characters count as a stroke and a half. So do shifted characters. Shifted control characters—or any other combination of three keys you have to hold down at once—count as two keystrokes. If a program can't do the function at all, it gets a five-keystroke penalty.

Count cursor arrows with autorepeat for a minimum of 3 (it takes a while to get started) and a maximum of 10 (to move from the top to the bottom of the page or from one end of a line to the other).

If a question asks, "Is there a one-stroke command to . . .," count control characters (but not shifted control characters or other three-key commands) as one stroke.

Since some microcomputer keyboards have special function keys like those on dedicated word processors, and since certain word-processing programs have been designed to work with them, such programs may get different scores, depending on the system they're used on. But for dedicated word processors (which always use the same hardware), and for word-processing programs that can't take advantage of special function keys, the score won't vary.

If a file name is required, assume it consists of eight characters. Be sure to include *every* keystroke—Return, Enter, etc. Remember that you can give partial points (for partial performance) on any item.

Since the checklist is so long, I've boldfaced certain key words throughout, to help you find particular items more quickly and easily.

Safety and error handling—10 points

How hard is it to **lose text**? (4)
Are there hard-to-avoid fatal error(s) that are likely to occur:
- about 1% of the time? (−25)
- about 2% of the time? (−50)
- about 3% of the time? (−75)

How well are **errors documented**? (2)
How clear are the error messages? (1)
Is verification of **saves** automatic? (1)
Are backup copies automatic? (1)
Can you save to either disk, or switch disks without exiting the program? (1)

Subtotal for safety and error handling:

Documentation—18 points

Is the **training manual:**
- well-organized? (3)
- readable? (3)
- complete? (1)

Is the **reference manual:**
- complete? (3)
- well-organized? (2)
- understandable? (2)

Is there a good, complete **index**? (1)
Are the manuals **typeset**? (1)
- If not, is the text proportionally spaced? (½)

Is the layout intelligent and the **design** graceful? (1)
Are there **special kinds of documentation,** other than manuals (like a

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reference card, on-screen tutorial, training tape, etc.), that you find useful? (1)

Subtotal for documentation:

Ease of use and human engineering—18 points

Is the **workfile held** in **memory** or **on-and-off disk**?

(no score, but an important consideration)

How many keystrokes does it take to go through the following **sequence of 23 commands?** _____

1) open a new text file (don't count the characters in the file name itself);
2-4) center, boldface, and underline a title;
5) skip a line;
6) indent the next line of text 5 spaces;
7) indicate the end of that paragraph;
8) skip a line;
9) indent the next paragraph 5 spaces;
10) put a page break at the bottom of that paragraph;
11-14) reset the top, bottom, left, and right margins (just count the commands, not the numerical values);
15) order the file to be double-spaced (if single-spaced is the default), or vice versa (again, not counting the numerical values);
16) save the file;
17*) print it out;
18*) stop in the middle of printing out;
19) return to the text;
20) delete a word (5 characters and a space);
21) delete a line (60 characters or more);
22) save this new version of the file, keeping the old version for backup; and
23) begin printing out again at the top of the page.

[*Systems with virtual representation can skip these two steps (17-18), since it's just as likely that a mistake will get caught on the screen as in a printout.]

Fewer than 55 strokes—5 points
56-60 strokes—4½ points
61-65 strokes—4 points
66-70 strokes—3½ points
71-75 strokes—3 points
76-80 strokes—2½ points
81-85 strokes—2 points
86-90 strokes—1½ points
91-95 strokes—1 point
96-100 strokes—½ point
more than 100 strokes—no points

How **easy** is it **to remember commands** (thanks to mnemonics, cursor diamond, and other logical key placement, menus, logical command structure, reference card, key tops, dedicated keys, reconfigurable commands, etc.)? (3)

Is the main editing **menu suppressible,** or not normally on the screen with the text? (½)

Is there a way to know:

what **page** of the printout you're on? (½)

your **location** with respect to the entire file (what percentage of it is behind you, for example)? (¼)

Can you **find** out the **total size of the file** you're editing without exiting the program? (½)

Can you do that and return to where you were in the file in less than 3 keystrokes (or two control characters)? (¼ additional)

Can you **copy the program** as often as you need to? (2)

Total program size:

Less than 25K? (1) 25-35K? (½)

Or—on dedicated word processors, and other systems where the software and hardware are integrated—

Workspace more than 30K? (1)

Workspace more than 20K? (½)

Are the **editor and formatter** loaded **together**? (1)

If not, can you keep the workfile in RAM while switching from the editor to the formatter? (½)

How often does the **program** have to go to the disk to access **overlays**? (never, because whole program resides in memory—1; only goes to overlays occasionally, for special jobs—½; overlays are essential part of program—0)

Can you:

rename the file you're working on without abandoning the edit? (¼)

rename a file other than the one you're working on without leaving the program? (¼)

delete a file other than the one you're working on without leaving the program? (¼)

Can you get a **directory** of files on the disk without exiting the word-processing program? (—1 if not)

Does this directory also give you the size of each file? (½)

Can you ask for just part of the directory? (¼)

Is there a **type-ahead buffer (keystroke storage)**? (1)

Will this program run **memory-mapped**? (½)

Subtotal for ease of use:

Editing power—25 points

What is the **total number of commands** this program offers you (for editing, formatting—everything)? [Count every possible option.]

more than 170—4 points
150-170—3½ points
130-149—3 points
110-129—2½ points
90-109—2 points
70-89—1½ points
50-69—1 point
30-49—½ point
fewer than 30—no points

Is there **wordwrap**? (1)

Ease and power of **basic** cursor movement, insertion and deletion **commands** (6)

[The next 16 questions will give you a reasonable score for this item for programs that use conventional techniques. For other programs, you have to make this judgment subjectively.]

Is there a one-stroke (or one-control-character) command to **move the cursor**:

right one character? (—1 if not)
left one character? (—1 if not)
up one line? (—1 if not)
down one line? (—1 if not)
(two-stroke or two-control-character commands count half for the next 11 questions)
forward one word? (½)
backward one word? (½)
to the end of the line? (½)
to the beginning of the line? (½)
to the top of the screen? (½)
to the bottom of the screen? (½)
to the beginning of the file? (½)
to the end of the file? (½)

Is there a one-stroke (or one-control-character) command to:

OVERALL SCORES	Version(s) (of software)	Operating system(s) and/or machine(s)	Price	Overall score	Safety and error handling	Documentation	Ease of use	Worktile in memory or on and off of disk	Editing power	Formatting power	Responsiveness and support
CPT 8100	G-2	ded. word proc.	$15,000	94¾	9	16¾	14¾	M	24	26¼	4
DICTAPHONE DUAL DISP.	D	ded. word proc.	13,500	85¼	7	16¾	12	D	18¾	26¾	4
PIE WRITER (W/ PRO/FORMAT	2.1 (2.2)	Apple II, Flex, IBM PC, TRS-80 Color Computer	200	84¼	9½	15	13	M	20½	22¼	4
A. B. DICK MAGNA SL	7	ded. word proc.	14,500	83	8	16½	9¾	D	19¾	25	4
WRITE	1.4	CP/M	400	82¼	10	15½	16¾	M	19	17½	3½
MICOM 2001	5.1R	ded. word proc.	12,000	82¼	7¾	15¾	10¾	M	20½	23½	4
WORD STAR	3.0	CP/M, Apple II, IBM PC	500	80	7½	11¾	13	D	21¾	22	4
NEW SCRIPT	7.0	TRS-80 Models I & III	125	79¼	8½	15½	12¾	M	18¾	19¾	4
WANGWRITER 5503A	3.1	ded. word proc.	6,400	74	8	16	13½	D	18¾	14½	3¼
WANG SYSTEM 5, MODEL 3	3.2	ded. word proc.	11,500	70	6	14¾	10¾	D	18	17¼	3¼
MINCE & SCRIBBLE	2.6 + 1.3	CP/M, UNIX, PDP-11	275	67¼	7	12¼	8	D	18¼	17¾	4
SCRIPSIT	2.0	TRS-80 Model II*	400	61½	2	14¼	7¾	D	18¼	16¼	3
MAGIC WAND	1.11	CP/M	400	61¼	3¼	12¾	8	M	17¼	20	0
EASYWRITER	1.0	IBM PC**	175	35	—24	14¼	11¼	M	12½	16¾	4

*Similar Scripsit program also available for Models I & III
**Very similar program called Easywriter Professional available for the Apple II

Table 1: *Composite scores of some word processors.*

delete a whole word? (½)
delete a whole line? (½)
switch between insert and write-over mode? (1)
either mode missing (—5)

Is there continuous and unlimited:
forward **scrolling**? (½)
backward scrolling? (½)

Can the **scrolling speed** be altered? (¼)

Can you **call** up any **page** in the text **by number**? (1¼)

Can you **move** the **cursor where** there is **no text**? (½)

Can you:
copy **blocks of text**? (¾)
move blocks of text? (¼)
delete blocks of text? (1)
make a new file out of a block of text without having to stop editing the file you're working on? (½)
insert another file into the one you're editing (½)

Can you:
find a string anywhere in a file? (1)
replace a string anywhere in a file? (1)
search **backward** as well as forward? (¼)
do many substitutions **all at once,** without having to approve each one? (1)

Can you **see each change** for approval if you want? (—2 if not)

In doing finds or substitutions, can you tell this program to **ignore caps/lowercase**? (½)

Look for **whole words only**? (½)

Can you:
make substitutions that affect more than one file at a time? (½)
store stock phrases in memory and insert them with a *coded* command while typing? (½)

Are there **other** special **global capabilities**? (¼)

Is there a command that **moves** the **cursor** to **where it was before** the ***last*** **command** was executed? (¼)

Is there a **split-screen** feature? (1)

Can you **edit** one file **while printing out** another? (1)

Are there **other** special **editing features** that appeal to you? (1½)

Subtotal for editing power:

Formatting power—25* points

[*With virtual representation, possible total of 30]

Can you vary:
the top and bottom **margins**? (—1 *if you can't*)
the side margins? (—1 if you can't)
character **spacing**? (1)
line spacing? (1)
the **tabs**? (½)
each tab setting individually? (½)
Are there decimal tabs? (½)
Are there automatic **indents**? (½) outdents? (¼)
Automatic **page numbering**? (1)
Can you choose:
where on the page the page numbers go? (½)
what text (if any) accompanies them? (¼)
Can you get **headers** and **footers** printed automatically on each page? (1)
Are there special features like horizontal scrolling to help with formatting **extra-wide text** or **tables**? (½)
Will the program allow you to **boldface** on printers that are capable of it? (¾)
Is there **overstriking**? (1)
Are there **subscripts**? (¼) superscripts? (¼)
Can you **underline** continuously, i.e., under spaces and punctuation as well as letters and numbers? (½) (—1 if program can't underline at all)
Can you automatically **center** lines? (¾)
Is there automatic **two-column printout**? (½)
Do you have a choice of **single-page or continuous** printout? (1)
Can you **link files** during printout, either by embedding a line at the end of each file or by specifying the files to be linked when you give the print command?
Either (1) Both (1½)
Can you have **multiple copies** of the same file printed out with one command? (½)
Can you embed a command that makes the printout **stop and wait** for your instructions? (¼)
Can you stop printout from the keyboard? (—2 if you can't)
Can you **print from** the **middle** of a file? (1)
Can you **justify** the **right margin**? (1)
Is there true **proportional spacing** on printers that allow for it? (2)
Is there **on-screen formatting**? (2)
(line breaks—½; page breaks—½; centering—½; other formatting information displayed—½)
[An extra 5 points is given for **virtual representation** (which is machine dependent). To qualify, the screen must display all of the following (partial points as indicated):
full page (at least 54 lines) of text (1)
underlining (½)
double underlining (½)
boldface (1)
justified right margins (1)
proportional spacing (1)]
Is there automatic **hyphenation**? (1)
If not, are there conditional hyphens? (½)
Is there a **conditional page break** feature? (1)
Can you ask for a no-break space? (¼)
Is there an **instant print** feature? (½)
Are there **other** special **formatting features** that appeal to you? (1½)

Subtotal for formatting power:

Responsiveness and support—4 points

(Based on reputation, users' comments, what the vendor says, etc.)

Program Name: Version #:
Operating system(s) it runs under and/or machine(s) it runs on:
Price: $
Publisher:
Vendor(s):
Overall score:
Scores in specific areas:
Safety and error handling (10):
Documentation (18):
Ease of use (18):
Editing power (25):
Formatting power (25*):
(*With virtual representation, a total of 30 is possible)
Publisher support (4):
Special notes: ■

Arthur Naiman is the author of several books on computers and is currently working on more. They include Introduction to WordStar *and* Computer Dictionary for Beginners.

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