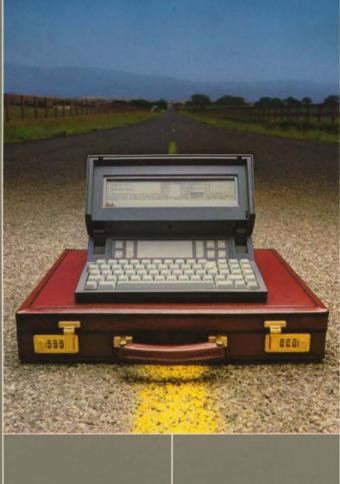
# THE FIRST MOBILE COMPUTER.

THE COMPLETE COMPUTER FOR THE MOBILE PROFESSIONAL.







The evolution from vacuum tubes to transistors to microchips has spawned a series of stunning successes for computers-from the mainframe to the mini to the micro. Not since the introduction of the telephone has a piece of equipment made such a positive impact on the workings of business.

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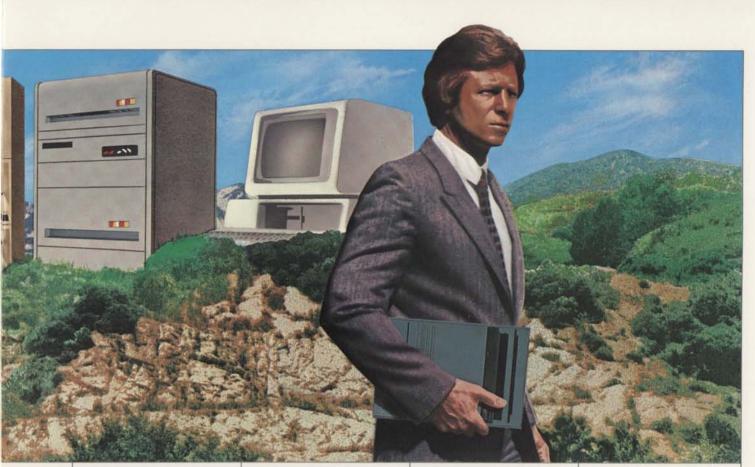
Yet, a substantial workforce in today's business has been largely overlooked by the computer industry: the mobile professional. Ticket for: Mr. A. Christensen

These are the executives, salespeople and fieldsupport personnel that spend many of their workdays doing battle against the competition away from their desks-far from the comforts, conveniences and computing aids of the home office.

### THE HAZARDS OF THE ROAD.

The mobile professional spends hours on planes, trains and in taxis traveling

Ticket prepared by: ERAVEL AFFAIR



to business meetings only to have to return at a later date with the typed contract. Or mail in the revised report. Or call back with the final numbers.

#### A CHANGE IS ON THE HORIZON.

Too often, the mobile executive has to carry around a forty pound briefcase jammed full of big binders of pages of columns of little numbers. Not to mention paper, pencils, pens, files, triplicate carbon copy order pads, along with a calculator, dictation recorder, appointment diary and phone book.

A week on the road like that is enough to immobilize anyone.

Office automation simply hasn't moved fast enough for today's mobile professional.

Something, indeed, must change.

THE EVOLUTION OF OFFICELESS AUTOMATION.

Clearly, what's needed is a viable alternative. A computer designed specifically for the demands of the mobile professional.

Not just a clumsy per-

sonal computer with a handle on it. Not a handheld computer with a cashregister tape printer. Or a programmable calculator with a squint screen.

But rather, a complete, powerful ultraportable computer made for the rigors of the road.



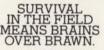
A mobile computer has to be carried easily day in and day out without being a burden. It has to fit easily inside a briefcase and carry its own power supply, good for several hours of continuous use anywhere. Quick rechargeability is a must.

Anything less than a substantial screen and a fullsized keyboard with a 10-key numeric pad would be a mistake for word processing and mathematical analysis.

But even at that, a keyboard is not the easiest way to manipulate data on the screen. A user-friendly interface, or integrated solidstate "mouse" pointer control mechanism, is. With such a control device, computer operation is at its simplest,



minimizing keyboard entry.



But by far, the most important aspect of a truly practical mobile computer is its software.

Software written for the office simply doesn't work well in the field. Out of necessity, mobile computing software has to be uncomplicated. It must be simple enough for the first-time user to learn and remember easily.

Considering the distractions of working in the field, it must be entirely confusionproof, with self-explanatory prompts and menus that tell exactly what is happening every step of the way.

Capable, strong hardware is a prerequisite. But it's truly intelligent software that gives the mobile professional the edge.

Yes, computers have come a long way. But change, they must.

Because for the mobile professional, survival of the smartest is the unwritten rule of the road.

### THIS IS NOT THE MOST AMAZING PART OF MOBILE COMPUTING.

The requirements of mobile computing demand nothing less than a complete 16-bit computer with the largest possible display screen, full-sized keyboard, large and expandable memory, removable storage, and a correspondencequality 8½" x 11" or legal page printer.

But the criteria of necessity was only our starting point in designing the mobile computer's hardware. The end result takes the idea much farther as a solid combination of some of the most highly evolved microcomputer technologies ever to appear in the same package.

#### THIS 9 POUND COMPUTER IS NO LIGHTWEIGHT.

The decision to incorporate the power of a full 16-bit processor over the 8-bit approach wasn't a tough decision. From the outset. we saw that for the Gavilan mobile computer to offer the highest degree of software capability and flexibility, it would have to use a 16-bit processor. Eight bits just can't run the software and interface required. Additionally, most of the software innovations of the '80s will be in 16-bit packages.

The LCD screen is a bitmapped 80 character per line display with plenty of room to zoom in and out for viewing entire documents and scroll through letters, tables and spreadsheets easily. Horizontal and vertical scroll is standard. We also equipped the Gavilan with an adapter for a 24 line x 80 character video monitor.

The keyboard is a fullsized typewriter layout with an integrated 10-key numeric pad — the best ergonomic arrangement possible for serious word processing and number entry.

#### THE PRINTER FOR THE COMPLETE PORTABLE OFFICE.

Putting your work on paper in the field means having a good lightweight printer. So the mobile computer comes with a true technological advancement: a 5 pound printer that produces correspondencequality  $8\frac{1}{2}$ " x 11" and legal (or continuous) documents at the rate of 50 characters per second. Its self-con-

CAPSULEWARE AND MEMORY EXPANSION CAPSULES CORRESPONDENCE-QUALITY 50 CHARACTER PER SECOND PRINTER WITH SELF-CONTAINED BATTERY PACK WEIGHS FIVE POUNDS

3½" FLOPPY DISK DRIVE, 360 KBYTES FORMATTED tained battery pack will print up to 60,000 characters between charges. It attaches compactly and securely onto the back of the portable main unit and was designed as an integrated part of the computer for regular daily use, rather than as a dangling cableattached accessory. With printer attached, the entire computer weighs only 14 pounds.

#### A 3½" FILE CABINET HOLDS IT ALL.

The Gavilan mobile computer is made possible in part by two of the newest miniaturizations in memory devices: the 3½" floppy disk drive and plug-in memory expansion capsules. Both memory components are contained within the portable

FULL-SIZE

TYPEWRITER

**KEYBOARD** 

main unit of the computer behind the display screen, adding no additional volume to the computer.

The 3½" microfloppy disk drive provides 360,000 characters of formatted memory. Adding a second disk provides an additional 360,000 characters of formatted storage. That's more than 100 pages of text per disk.

The plug-in memory capsules contain both expansion memory capability and software programs. The standard 80 Kbytes of system memory can be expanded by additional capsules. Further, external memory options can boost it to 336 Kbytes.

For field communications between computers, the

Gavilan incorporates an integrated modem offering direct connection, autodialing and auto-answering.

An RS-232 port allows direct link data transfer at 9600 baud rate.

#### WHAT COULD BE EASIER THAN A KEYBOARD? A TOUCH PAD.

But the one piece of hardware that orchestrates all of the rest—the fully integrated solid state mouse —is the single most significant advancement in easyto-use computer hardware available today.

It's a touch-sensitive panel located below the display screen at the top of the keyboard. The touch panel, as it's called, is the means by which the user directs practically all of the computer's selection capabilities. With it, we've eliminated keyboard operation for all but number entry and word typing. The rest of the operation is "menu driven," meaning that selection menus containing commands for the computer are displayed on the screen, and you run the computer by simply using the touch panel to select the capabilities you want from the menus.

All of this, including 8hour continuous-use rechargeable batteries, weighs in at 14 pounds. The portable main unit itself including display, keyboard, central processing unit, memory plug-in capsules and batteries—is only 9 pounds.

But, the hardware, as state-of-the-art as it is, is not the most amazing part of mobile computing.

10-KEY NUMERIC PAD

TOUCH PANEL WITH COMMAND FUNCTIONS ALLOWS PRESSURE-SENSITIVE POINTER CONTROL OF ON-SCREEN MENUS, DOCUMENTS, NUMBERS AND TEXT

80 CHARACTER PER LINE LCD SCREEN WITH ABILITY TO DRIVE A 24 LINE X 80 CHARACTER VIDEO MONITOR

## **BUT, THIS IS.**

CapsuleWare,<sup>™</sup> the software for the Gavilan mobile computer, comes preprogrammed in tough, modular 2" x 2" x 1" capsules. Each capsule contains a complete application program – word processing, analysis & calculation, portable secretary, communications or forms processing.

This software-in-acapsule innovation eliminates the need to constantly load programs into the computer through the disk drive. Instead, it holds up to four interchangeable capsules contained within.

Each program is available for use the moment the computer is turned on. No shuffling floppy disks around and booting up programs. Just plug the capsules in and forget about them.

CapsuleWare affords the highest degree of integration among programs and protection of program code with the least possible effort.

Of course, we offer all of our programs on 3½" microfloppy disks also, but CapsuleWare offers advantages of convenience and mobility that floppies can't begin to approach.

SOFTWARE THAT SPEAKS YOUR LANGUAGE.

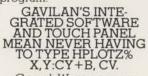
Each program was designed especially to be streamlined and effective. At a jobsite, on a plane or in a client's office, you can't afford to waste time entering excessively complicated computer commands. Nor can you carry a user's manual around to remind you of the computer's language. All of the instructions for its use must be selfcontained and it should be able to tell you in each program, what you just did, where you are in the program, what you can do and how to do it. In plain English and familiar graphic symbols.

When you turn on the Gavilan, you'll see a full program menu from which you select desired programs and functions. Visual symbols, such as file folders and documents are consistently used as reminders of program functions.

At any time in any pro-



gram, you can press the HELP button and the computer will display what you just did and what you can do next to continue the program.



CapsuleWare programs are all fully integrated with each other, allowing for example, text, forms and spreadsheet data to be intermixed and manipulated in the same document using a Most of the computer operations take place at the command of the touch panel, rather than the keyboard.

By simply moving your finger across the touch panel, an on-screen pointer, or arrow, follows your finger movements. Using an onscreen selection menu, you choose the function you wish to execute just by moving your finger over the touch panel while the cursor moves to and highlights the menu item you want.

Then, by tapping the touch panel once, that item appears on the screen—be it a list of client files, an index of reports or a summary of "to do" tasks.

The touch panel is used throughout all of Gavilan's fully integrated programs, from the portable secretary and word processing to spreadsheet analysis, communications and forms processing.

HOW EASY COULD WORD PROCESSING BE?

CapsuleWord<sup>™</sup> word processing takes full advantage of the touch panel operation. Through the touch panel you select the format for your document from pop-up menus on-screen: page layout, left or right justification, typefonts (bold, strike-out, underline or italics) and point sizes.

Then type your document using the keyboard and edit it using the touch panel. once more and the highlight covers the entire paragraph. Then moving the paragraph, or a portion of it anywhere in any document, is done through touch control.

CapsuleWord word processing also includes standard features such as global word search, allowing you to automatically find and change words in any document with only one command.

Also, you can save time viewing chapter or segment headings, by zooming out to view an entire document and scrolling through until the desired heading is found, then zooming in on selected page portions or paragraphs.

NEW TRICKS WITH NEW MATH. Math is easily one of the hardest languages businesspeople have to be conversant in. Having the right numbers on the spot is often the deciding factor in closing deals, developing good estimates, and quoting payments and rates

accurately. In the field, there's not often time to double-check an analysis or update a change that may appear several times in a document.

Further, the requirements for a spreadsheet analysis will always change from one job to the next.

The CapsuleCalc<sup>™</sup> analysis and calculation program was designed specifically for flexibility, speed and ease of use. The elec-

 F1
 F3
 F5
 F7
 F9

 HELP
 EXTEND
 SCROLL
 VIEW

 EXTEND
 SELECT
 MENU
 SCROLL

 CANCEL
 F4
 F0
 F5

common human interface. All without having to clumsily enter and exit programs. Or type in computerese instructions.

For ease of use, the Gavilan's pressure-sensitive panel (integrated solid-state mouse) called the touch panel is the primary way you "talk" to the computer. Moving words, sentences and paragraphs is just a matter of using commands from the word processing menu through the touch panel. Move the pointer to any word in text, and by tapping the panel, highlight that word. Tap it again and the highlight expands to cover the sentence. Tap it tronic spreadsheet gives you the capability to define the format with independent column widths, and conduct automatic math calculations through touch panel control, and move the contents of one cell to another, or to another document. All in the cleanest, simplest way. Of course, Gavilan's integrated software lets you combine text, spreadsheet results and tables in the same report. But better yet, when a number or result in the spreadsheet is changed, it is also updated in the associated report, automatically.

The SCROLL and ZOOM buttons let you quickly see the results on any size format.

#### THE PERFECT SECRETARY FOR THE PORTABLE OFFICE.

A serious flaw in the bulk of office automation equipment is its general lack of a centralized, personal organizer. Executives in the office use microcomputer terminals to retrieve and store big chunks of information. Then they jot down their personal reminders on scraps of paper, or in columns of yellow legal pads and in their appointment books. But rarely in one central place.

But now, the Capsule-Office™ portable secretary provides a comprehensive alternative for use in the field, at home and in the office.

The portable secretary becomes your personal database, with your appointment schedule, mail list and phone book, tickler file, "to do" list and report generator all in one location.

The appointment schedule graphically looks onscreen just like the appointment diary on your desk. Each page has entries for every hour of the workday. You can view portions of the day, enter the details of each meeting, zoom out to see the whole day, and zoom out further, displaying the entire week and month on the screen at once. A quick point and tap on the touch panel moves the contents of one time slot to another. Or erases it. Or calls forward more details of the appointment, like addresses, phone numbers and even files on the persons involved.

Programmable "beep" alarms warn you of upcoming deadlines and events. The tickler file lets you know the details of your projects while the "to do" list reminds you of priority projects and those items previously scrawled on notepads.

You can also enter your traveling expenses, client time billing and miscellaneous costs in the time and expense section.

Then, after meetings, you can type activity and service reports while the information is still fresh in your mind. They're entered into your portable secretary program, held in memory and printed later at your convenience.

Having your own personal filing and organizing system is one clear advantage you'll have over anyone still using the paper and pencil approach to executive productivity in the office.

But the biggest difference will be that you can take it with you.

#### KEEPING IN TOUCH FROM AFAR.

CapsuleComm<sup>™</sup> communications provides mobile professionals with an easy way to gain access to the home office computers, remote time sharing services and other Gavilans in the field.

With it you can conduct phone line data communications using the integrated modem, or an accessory modem for faster rates. Remote communications give you the power of some of the world's most complete and diverse databases: news, stock reports, library documents, airline schedules, hotel availabilities, company mail & messages, even games.

Subscription information services are becoming a major tool of our information-intensive business environment.

With CapsuleComm



communications and mail system, you can use it in practically any environment.

APPLICATION DEVELOPMENT. Generation of specialized applications that fit into the Gavilan integrated data storage and common human interface is an important aspect of supporting the professional in the field. The Gavilan application development system allows customer programmers to write applications in C that take full advantage of the mobile computer's common human interface. Forms created as part of the application provide a natural means for you to interact with the systems. The application development system, which runs on the mobile computer, provides all the tools needed to create, load, and debug custom application capsules.

MS/DOS FOR COMPLETE CAPABILITIES AND COMPATIBILITY.

Although we developed CapsuleWare specifically for the mobile computer, we made our hardware compatible with the MS/DOS operating system—the industry standard.

MS/DOS applications packages are available as the most popular 16-bit software in existence. The range of applications for virtually every field is growing faster than any other system. That's why we chose it to complement the CapsuleWare programs and operating environment developed at Gavilan.

#### LOOKING AHEAD, NOW.

We think the Gavilan mobile computer with CapsuleWare is the fastest, easiest way to bring the conveniences of office automation to work in the field. In essence, it's the only complete computer for the mobile professional in the office, at home or in the field. Gavilan Computer Corp.,

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