

Volume 4 Number 12

Established 2016

December 2019

30 Years Ago...

Historical Information taken from Bill Gaskills TIMELINE

December 1989:

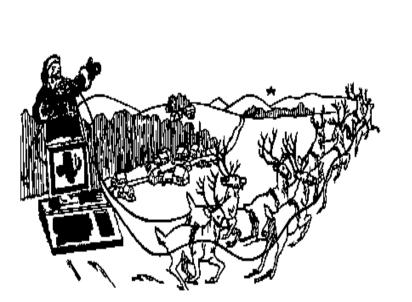
Texaments releases PUBLICATIONS INDEX for use with TI-Base.

JP Software announces the release of Firstbase v1.1.

Texaments releases The Organizer! for TI-Base, written by Bill Gaskill.

The Boston Computer Society announces the impending release of a manual on using the 99/4A P-Code System.

Travis Watford releases T-Shell99, an assembly language coded utility that provides DOS-like commands to the 99/4A operating system.







HAVE YOU BEEN GOOD?



Here's a challenge for you amateur hackers. In Extended Basic you can write IF X=1 T HEN Y=7 ELSE IF X=2 THEN Y=3 3 ELSE IF X=3 THEN Y=19 ELSE IF X=4 THEN Y=21. In Basic that would take several lines of programming - or would it? Can you do it in one line?

Some of the deepest secrets of the TI are being discovered and published by Craig Miller in "The Smart Programmer". They are already appearing on bulletin boards and elsewhere without credit to Craig. Perhaps the most valuable of them is: CALL INIT :: CALL LOAD(-31806,16)

Type that in before you begin programming, and you will never again lose a program to that infernal FCTN = Key! Also, put it in as one of the first program lines and your program will be Kidproofed against the open-palm press-all Key board technique.

Another extremely useful one is: CALL PEEK(-28672,A) If the Speech Synthesizer is attached, A will equal 96, otherwise it will equal 0. If you are putting optional speech in an Extended Basic program, you can avoid those silent pauses by putting that CALL PEEK at the beginning of the program, and then a line with IF A=0 THEN before each CALL SAY to skip over it if the synthesizer is not on.

I have also found good use for Craig's routine CALL INT :: CALL LOAD(-31888,63,255) This shuts down all of the Disk Drive files and makes it possible to load programs over 12K long from tape, and then copy them back to tape, without having to physically disconnect the Disk Drives.

I'm now receiving about 40 of the User's Group newsletters, and some of them contain invaluable tips that deserve wider circulation. Here's one from Doug German in the Central Iowa 99/4A UG "4A Forum" -100 PRINT "Press Fire Button to continue" 110 CALL KEY(1,K1,S) 120 CALL KEY(2,K2,S) 130 IF K1+K2<2<>17 THEN 110 140 JS=INT(K1/18+K2/9+1)

Now, when you program CALL JOYST(JS,K,S) the program will respond to whichever of the two joysticks you were holding when you pressed the fire button!

In previous Tips, I reported that if you absentmindedly typed OLD CS1 instead of SAVE CS1, and pressed Enter, you can save your program by typing Shift E, Enter, get an I/O error and start over. It turns out that this will work in Basic but will not work in either version of Extended Basic unless you have the Memory Expansion.

I am now the proud owner of a P-Box, disk drive, and Memory Expansion, so let me pass on a few things I've

If you have Keyed in a program with the disk drive turned off, DO NOT try to turn it on and save your program – you will lock up

already learned the hard way

the system, will have to shut down and lose the program. You must save the program to tape, then turn on the drive, reload the

program from tape and save

it to the disk.

If you are trying to load a program from tape and you get the ERROR FOUND IN DATA message at the very beginning, it means that your program is too long – the disk drive has stolen more 2000 bytes of your memory. If you just want to get the program into the computer, you can disconnect the disk drive (It doesn't help to just turn it off), or use Craiq Miller's routine described on the preceding page. If you want to get the program onto a disk, you might be able to do so by first typing CALL FILES(1) but you probably won't be able to get it back from disk to tape.

If the program is still too long, you can still get it onto a disk if you have Extended Basic and the memory expansion. The method recommended by Texas Instruments involves retyping them. My method is slow, but it eliminates the retyping. Proceed as follows

Shut down or disconnect all disk drives. Load the program from tape (in Extended Basic if possible because you can delete lines so much faster). Delete the first 50 lines. Save the shortened program to another tape. Turn on the disk drive, and memory expansion. Load the shortened program in Extended Basic. Save it to a disk

with the merge option. Shut down the drives again. Load the original program from tape. Delete the last 50 lines. Save it to a tape. Turn on the disk drive and memory expansion. Load it in in Extended Basic. Use the MERGE command to merge the previous shortened program into this one. Save the merged program to a disk. It will show up on the catalog as a file but it will load and run as a program. Don't give it to anyone who does not have Extended Basic and Memory Expansion!

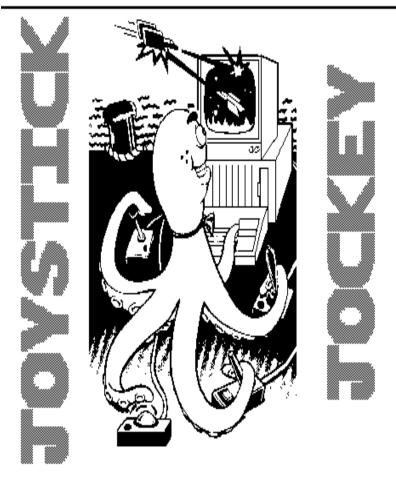
According to Duane Fischer in the 99/4 Users of America newsletter, there are two models of the new whiteplastic TI-00/4A. They can only be identified by the copyright notice on the bottom ridge edge of the title screen. It will read either (c) Texas Instruments 1981 or (c) Texas Instruments V2.2 – and if it is the latter, it is one of those which were gimmicked so they would not run the command modules produced by Funware, Romox, Atari or Parker Bros.

If you are having trouble determining locations on the screen during programming, put on a temporary grid with 1 CALL CHAR(32,"FF8080808080 808")

If it won't interfere with your graphics, you can even number the grid: 2 FOR J=1 TÕ 32 3 C=C+1-ABS(C=9)*10 4 CALL HCHAR(24,J,48+C) 5 IF J>24 THEN 7 6 CALL VCHAR(J,14,48+C) 7 NEXT J

ALMOST OUT OF MEMORY, so HAPPY HACKIN' Jim Peterson

Yesterday's News



99'er - 03/83 - Vol. 2, No. 5 - 99'er Staff

Joysticks have been around a long time - long before the first computer. Airplane pilots have been using them since the beginnings of flight. Back then, a joystick was no more than a metal rod coming out of the cockpit floor, and it gave the pilot control over the aircraft. As for the origin of the term "joystick," it is apparently so named because of the joy that comes with controlling the plane.

When computer game joysticks first appeared on the market, there were only one or two varieties to choose from. But in recent years virtually every product associated with the computer has experienced a massive proliferation of new models and types, and the joystick is no exception. Today's computer game player can select from a broad range of joystick models — analog joysticks, table—top models, hand—held varieties , or even a rolling ball type of controller. With such a wide selection available, it makes sense to do a little comparison shopping before purchasing one.

If you are serious about computer gamesmanship, the joystick may be one of the most important peripherals you'll ever purchase. Before you make a decision, take into account some of the models, colors, and options out there. Buy your first joystick the way you'd buy a car. Take it for a test drive, run the course, and see how it handles. Once you've tried a number of sticks, choose the

one that works best for you. here are several factors that will influence your decision.

Now does it handle

First of all, if you want a joystick that fits in your hand, allowing you to sit back in your favorite chair while blasting those pesky aliens, a hand-held model such as the TI joystick may be your best bet.

In selecting a hand-held joystick, comfort in handling should be your main consideration. Check to see how the joystick feels — is it too heavy or light? And how well does it fit in your hand? Do you have to practice palming a basketball for a week before you can master the joystick? The base should be small enough for you to get a good grip, but large enough to hold onto when you fire. The size of the joystick stick is also an important consideration. You may find a small joystick difficult to grip, but you can manipulate it using only your hand muscles. A large, easy-to-grasp joystick, on the other hand, may require the movement of your entire arm. These differences can be crucial — hand and arm fatigue among joystick jockeys is an occupational hazard."

A hand-held model in a class by itself is Milton Bradley's analog joystick. An analog joystick can provide a much finer degree of control, allowing more precise movement on screen. Keep in mind, however, that you must have software especially written to take advantage of these capabilities. The Milton Bradley model is shaped like a ray-gun with a pistol grip, a rotating knob that either spins objects or changes their velocities, and three control buttons (in addition to the trigger-like firing button). It does, however, require the Milton Bradley Expander (to be available in the late third quarter of 1983) which plugs into the joystick port.

Table it

The table-top models are larger and less common than the hand-helds. For example, the Command Control joystick by Wico Corp. may be the right choice for those who prefer the heft and stability of a table-top stick. This type of stick leaves you one hand free to simultaneously work the Keyboard (or just munch popcorn). When playing Parsec, for example, you can change your lift levels without taking your hand off the joystick.

A new variant in the table-top collection has recently appeared on the market. The "track-ball" type of controller consists of a plastic sphere that is inset into a base. To move it, you run your palm or finger tips over the ball, rotating it in the desired direction. For those of you who tend to grip the stick tightly - digging your fingernails into your palms when things get tense - this model could be just the thing. We have yet to find one of these, however, that works well with current programming on the II-99/4A, so once again, we caution you to try before buying.

Button your blip

No joystick would be complete without the "fire button." That's the little button which spells death to thousands of aliens and all kinds of little munchers. The placement of the fire button on the joystick could mean the difference between just giving those aliens a run for their money, or really knocking the socks off 'em.

There are basically three places on the joystick where the fire button can be: The most common is the base-thumb position. This button is placed so that it can be pressed by the thumb of the hand holding onto the base of the joystick. If you're a lefty, you may want to pay attention to which side of the joystick the button is on. The best solution is a joystick which can be used by left or right-handed people, such as II's joystick. The button is wide enough so that either side could be used.

The next fire button position is in the tip of the stick. Wice's switch-selectable Command Control has one button at the tip and another at the base-thumb position. This location gives one of your hands all the movement control and firepower, while the other hand simply has to worry about holding on for dear life.

The last place you might find the button is the base-index position. Milton Bradley's analog joystick has its fire button in this position in the form of a pistol grip, plus an additional three buttons in the base-thumb position. This pistol grip allows the player to fire with the index finger of the hand holding the base.

Software-dependent joy

There seems to be some common problems with all the joystick devices we have tried. But in all fairness, some of these inconsistencies may not be the fault of the joystick itself, but rather of the game design. The responsiveness of the joystick is dependent upon how it is interrogated by the game's software. The design of high-quality game software must therefore take into account the human engineering aspects of the joystick interface. And some games currently available have better joystick interaction than others.

When you are selecting your joystick device, we recommend using the same game to test each model. This way you can observe true performance differences regardless of discrepancies between various games' software.

The joystick has indeed come along way since its lowly beginnings in the cockpit. And chances are that it will develop even further until today's simple stick and firing button model will seem as primitive to us as the room-sized ENIAC Computer. Fortunately, the joystick's price is low enough so that you can update your system when important developments show up on the shelves.

FAMILY COMPUTING - 01/85 - Vol. 3, No. 1 - Ken Coach

Joysticks look pretty much alike. They all have two crucial parts: a handle and a fire button (or two or three). When you start to use joysticks, though, you realize that each one is as different as a fingerprint.

While joysticks are used as drawing tools in some graphics programs, and as glorified cursor-control Keys in some educational software, they are designed primarily for gaming. Joysticks, in fact, are great scapegoats when learning a new game. A good score can be attributed to skill, while a poor performance is obviously the joystick's fault. "This stupid joystick . . ." There's some truth behind this attitude – there are good and bad joysticks. But how can you tell the difference?

GETTING A GRIP ON JOYSTICKS

The problem is, beauty is often in the eye of the beholder. Different people look for different qualities in a joystick depending on the size of their hand, their hand-eye coordination, etc. Beyond that, different games respond better to joysticks than others, and some games respond better to certain joysticks. In other words, the type and quality of the software is often a factor.

Most joysticks are spring-loaded to make them spring back to the center when you take your hand away. For some games, such as Flight Simulator, or for some graphics programs, it's better to use a free-floating stick that doesn't automatically center. High-quality joysticks have a switch to let you choose between the self-centering and free-floating modes.

TWO TYPES

Another important factor to Keep in mind is that there are two basic types of joysticks. Make sure you get one designed for your computer. Digital joysticks, often called "Atari-type", work with Atari, Coleco, and Commodore computers. Most can also be used with the Texas Instruments 99/4A, but require a plug-adapter. And some are designed with a numeric Keypad, specifically for the Coleco ADAM. These digital joysticks cannot directly control the speed of an object, and can move it in only eight directions. They range in price from about \$10 to \$50.

Analog joysticks. which have much smaller shafts (or sticks), can control both the speed and position of an object for a full 360 degrees. These joysticks are used with the Apple, IBM. and TRS-80 Color Computer. Many analog joysticks can be calibrated to adjust the response of the stick to the users particular style. They cost about \$50.

YN The best way to decide if a joystick is right for you is to plug it into your computer, boot up your favorite game, and spend an hour or two testing it out. That, of course,

is not always possible, so our FAMILY COMPUTING playtesters have checked out a range of joysticks from leading manufacturers for comparison purposes.

ATARI

Atari's original joystick is a classic, but the new ProLine is even better. It works on all Atari computers, and is smaller and more streamlined than the old Atari sticks. It's self-centering, and has fire buttons on the sides of the base. Our testers were impressed with the ProLines response, and the placement of the fire buttons.

CHAMPIONSHIP ELECTRONICS

Championship Electronics has two joysticks, both with suction—cup bottoms for secure table—mounts, and retractable cables. The JC-250 Super Champ has a 10-foot cable that disappears into the base, while the JC-351 Mini Champ has a 4 1/2-foot cable. Both sticks have a fire button on top of the stick. The Super Champ has a second one in the trigger position. The Mini Champ, which has a button on each side of the base, is not very sturdy.

COIN CONTROLS

Coin Controls makes a series of joysticks under the Competition Pro label, ranging from the very low quality model 200X to the very high quality model 5000. All of the joysticks are of medium size, although the 200X and 1000 are slightly shorter. We tested models 3000 and 5000.

The 3000 has a wide fire bar instead of a button in front of the pistol-grip stick. There's also a trigger fire button, and another fire button on the top of the stick. Each of the three is always live.

The model 5000, which has a straight slick with a ball-top for a grip. and two fire buttons on the base, received raves from our testers. Everyone found it sturdy. with a good feel. It responded well, and rested comfortably in the hand.

DISCWASHER

The PointMaster series from Discwasher has two models: the basic model and the Pro, which has suction cups to hold it on a tabletop, and a feature called "constant fire". By holding down the button, you can fire continually. Despite this nifty feature, however, the PointMaster sticks did not rate too highly with our testers, who thought they had a flimsy quality.

GIM ELECTRONICS

GIM's Fire Command probably comes The closest of any joystick reviewed here to capturing the feel of an arcade stick. It's almost a foot wide and weighs 5 pounds. making it far heavier than any other controller for the home market. It sits firmly on a table, or squarely on your lap, and allows you to use two hands without worrying about losing control of the joystick. Both the stick and the base are of extremely rugged construction.

Our testers liked this joystick and agreed it lent an arcade feel to a living room. But they also thought it was not quite as responsive as some of the other sticks, and that the fire button was sometimes slow on the draw.

KRAFT

Kraft jovsticks are small and neat, and Known for their "precision feel". The Atari-type model is adequate, though Kraft is better Known for its deluxe sticks – the Kraft Premium line available for Apple, IBM. and TRS-80 CoCo. Kraft also sells an adapter for the Tl-99/4A.

The Premium Joystick allows you to set each axis independently in free-floating or spring-centering mode. Small calibration controls allow you to align the stick accurately with cursor position. WiIh these features, the joystick is good for both drawing or gaming, and can be adjusted to suit the user.

NEWPORT CONTROLS

The Prostick line from Newport Controls features left and right-side fire buttons, and an option that blocks the stick from making diagonal movements. This feature is helpful in right-angle maze games, such as Pac-Man.

The Prostick is a sturdy, dependable product that received high marks from our testers. It was the favorite stick for a fast-moving game of Archon or Boulder Dash. But, some users might find the joystick's feel too "stiff" or hard on the hands, especially those who get excited in the heat of a game. Overall, though, the Prostick is a responsive joystick that fires well.

PRIDE ELECTRONICS

The Power–Stick, formerly marketed by Amiga. is the smallest joystick on the market. It's so tiny you can use it with one hand, moving the shaft with your thumb. Two-handed use is also possible, of course, and Ihe Power–Stick has buttons for either right or left–handed play.

The Power-Stick allows for precise movements and responds well in delicate maze-type games. Its dainty feel also works well with some shoot-em-ups, though in games requiring bold action, such as Boulder Dash, our testers sometimes found the small shaft a liability.

SUNCOM

Suncom makes four different Atari-type joystick models, and one for the Apple. In design, all models have small, compact bases much like the Kraft sticks, but larger handles that are easier to grip. From the Slik Stik (\$7.99) on up to the Starfighter (\$49.95), all models have a reputation for good handling. The Slik Stik will break down with heavy playing, hut with such a low price it's a great deal while it lasts. The Starfighter for Apple affords excellent control and has a nice feel.

Yesterday's News

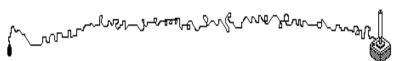
WICO

Wico. whtch makes several joysticks that work with a wide range of computers, has built a strong reputation for quality and durability. The Boss, a basic Atari-type stick, costs somewhat more than similar sticks from other manufacturers (\$17.95): but has an arcade-size pistol grip shaft, and is of rugged construction.

The Command Control model is available in bat-shaped handle, a ball-top handle, and pistol-grip models. There is also a combination model that allows you to choose from all three. All Command Control joysticks have two fire buttons, one on the base and one on the stick. Testers liked the choice of a fire button on top of the stick or on the base.

JOYSTICK BUYING TIPS

- 1. Make sure the joystick is designed for your computer. If it's an Atari-type joystick and you have a II, ask for an adapter plug.
- 2. Pick up the joystick and decide if it feels comfortable In your hand. Remember that you might spend an hour or two at a time in heavy combat! An uncomfortable stick will cause your hand to tire. Stiffer sticks especially tend to cause fatigue, because they force the hand holding the shaft to fight the hand holding the joystick base.
- 3. Check the fire button(s). Are they in convenient spots for your gaming style? Is there a trigger on the shaft, atop the stick, or on the base? Or does it have a combination? A nice (and rare) combination is a trlggerlike button on the shaft for the thumb, and one on top for the forefinger. If you're left-handed, make sure the fire button allows easy access for southpaws, too.
- 4. Check the quality of construction. Does the joystick look and feel strong enough to fire repeated broadsides at enemy invaders? Some people like suction cups that hold a stick on a table, but most seem to prefer holding the joystick in their hands.
- 5. Plug in the joystick for a road test. Do movements on the screen occur as soon as you move the stick, or is there a lag? Is the fire button quick or slow? One good way to test a joystick is to play a game you're very good at on the beginner's level. If you miss a shot then it's more likely the joystick's fault than yours.
- 6. Does the joystick have a free-floating option or is it only spring-loaded (self-centering)? Drawing (with a graphics program) and some game-playing is easier with a stick that does not always spring back to the center.



FAMILY COMPUTING - 12/85 - Vol. 3, No. 12 - Special Ks

K-POWERS Special Ks (David Langendoen, Damon Osgood. and Alex Shakar) have logged hours of intense game play on all sorts of joysticks. Their finding: Its not always the price tag that makes for a hot-shot controller. What they suggest is to look for sturdy construction, well-placed fire button(s), and a stick that has just the right amount of give. Their thoughts on some of the most popular controllers follow. Compatibility and prices are specified within parentheses.

APPLE

APPLE JOYSTICK (Apple lIe/llc; \$59.95). Comfort and durability are this joystick's strong points. The stick is fairly loose (maybe too loose for some games), and the fire buttons make rapid fire easy. Both buttons are located on top of the base, so it's sometimes difficult to use both at once.

ATARI

CX43 SPACE AGE (Atari, C 64: \$9.95). Built for comfort above all, this joystick is pistol-shaped, with a trigger-type fire button and the stick on top. The trigger is very sensitive, but the stick isn't always accurate.

CH PRODUCTS

MACH II/III (Apple II plus/lIe/lIe, IBM PC/PCjr, Tandy CoCo: \$44.95-\$54.95). An exceptionally comfortable and accurate joystick, the Mach II has a sturdy base and a metal stick for extra durability. The stick itself is a little too loose for some games, and the fire buttons are fast. A special feature lets you perfectly center the joystick by turning a couple of knobs. The Mach III has an added button on top of the stick. This is a good feature, but makes the stick somewhat top-heavy and can slowdown play.

COIN CONTROLS

COMPETITION PRO 5000 (Apple Ile/llc, Atari, C 64, II-99/4A with \$7.95 adapter: \$17.95-\$29.95). One of the best joysticks we tested, the model 5000 is accurate, durable, and good for extended play. There are two large fire buttons on the base that are helpful for rapid fire.

Apple games requiring two buttons are difficult to play because the buttons are spaced far apart.

KRAFT

KRAFT PREMIUM (Apple II series, IBM PC; \$32.95) and KRAFT QUICKSTICK (Apple lie/Macintosh; \$69.95–\$79.95). A superior joystick in every respect, the Premium is extremely accurate and comfortable to use. The fire buttons are responsive, and placed so you can use both without moving your hand. An added feature: The user can switch between a self-centering and a free-floating stick. Quickstick has a mouse option.

(Atari, C-64; \$11.95). Although this Does your II-99/4A fail to SWITCH-HITTER joystick feels and looks fragile, the fire button works well, and the stick is responsive and easy to control. There is also a switch that lets you alternate between four and eight-way directional control.

RADIO SHACK

THE DELUXE JOYSTICK (Tandy CoCo; \$19.95 a pair). This joysticK is hard to use in some game situations because it is free-floating and not particularly accurate, The fire button is good (when it doesn't pop off), and the stick is fairly comfortable.

SUNCOM

TAC2(Atari, C-64, VIC-20: \$12.95). The casing is hard plastic, and the stick is metal with a plastic ball on top. It fits snugly in your hand, feels solid, and provides accurate control. The only drawback is the stiff fire button, which cuts down on speed. STARFIGHTER (Apple II series (\$5.95 adapter needed with II/II plus), Atari, C-64: \$10.95-\$24.95). The Apple version offers two unique features: a throw selector, which lets you adjust how far you want to move the joystick, and a high/low sensitivity switch. The fire buttons are slightly stiff, and the alternate button on the Apple may give righties some difficulty since they have to reach past the cord to press

T.G. PRODUCTS

J–2000 JOYSTICK (Apple II series, IBM,PCIPCjr: \$49.95). Bood for long periods of game play, this joystick consists of a big, sturdy base, a small stick on the right, and two large buttons on the left. The user can choose between self-centering and free-floating stick modes. The two fire buttons are good for fast firing, but might break after too much use.

MICO

THE BOSS (Atari, C-64: \$17.95). The Boss is one of the best sticks on the market. It features a square base with rounded edges, a grip handle that offers comfort with little slipping, and a fire button on top that is built for speed and comfort. There is no button on the base. This can be a drawback if you don't like top-of-stick firing. It can become very tiring on the hand if used for prolonged periods.

COMMAND CONTROL (Atari, C-64, TI- 99/4A, VIC2O; \$26.95, \$32.95 for combination model). The Command Control's base is slightly larger and has a fire button in the left-hand corner, as well as on the stick. To the rear of the stick is a switch that lets you select operating buttons. The Command Control comes with a bat handle, ball handle, or with three interchangeable handles: bat, ball, and grip.γN

control your cassette recorder through the remote lack? One possible solution for this is not difficult at all. If you can solder two wires together, then it is likely that you solve this problem yourself.

The remote plug on the 99/4A cassette interface cable contains two wires the ground and the lead. The lead is located on the tip of the plug, while the ground is the shaft. It Is possible for the remote jack on a recorder to have these two wires switched thus making it incompatible with the cassette-Interface cable. Fixing this is simply a matter of switching the two wires so that the recorder's ground is the same as the cable's ground. So that we don't have to modify the recorder itself, we've come up with a gadget called the Tex-Sette dapter. Here's how to build your

First, you'll need to collect everything that is shown in the parts list. Two holes will have to be made in the enclosure one for the jack, and the other for the plug. Solder one end of your two-conductor wire to the jack. Mark the strand that is soldered to the lead connection of the plug. Then take the marked wire and solder it to the ground connector of the jack. The ground on a jack is the outside rim. Now solder the remaining wire to the jacks lead connector. Finally,

Originally sold for \$5.95 plus \$1.00 for postage and handling!

carefully slip all the wires into the enclosure, making sure that no bare connections are touching, and close it all up. Your finished product should look somewhat like the picture above.

Testing your adapter is fairly simple. Using an ohm meter, or some other Kind of continuity tester, check the connection between the tip of the plug and the rim of the jack. If they are connected, you have correctly built the adapter.

To use your latest creation, insert the remote control plug (the black one) of the 99/4A cassette interface cable into the Tex-Sette's jacK, and put the plug from the Tex-Sette adapter into the cassette recorder's remote jack. The remote feature on your recorder should now be working in conjunction with your TI-99/4.A. You will now be able to load data files under program control expanding the usefulness of your home computer.

PARTS LIST

submini phone plug Radio Shack Part 274-289 or equivalent submini phone jack Radio Shack Part 274-292 or equivalent Enclosure 35mm film canister, or similar container 5 two-conductor wire

Yesterday's News



yesterday's News Information



Yesterday's News is a labor of love offered as a pleasure & information for users of the TI-99/4A source of and Myarc 9640 computers.

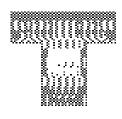
TI-99/4A HARDWARE
TI99/4A COMPUTER
MODIFIED PEB
WHT SCSI AND SCSI2SD
MYARC DSQD FDC
MYARC 512K MEMORY
HORIZON 1.5 MEG HRD
TI RS232 TRIPLE TECH CORCOMP 5,25 3,50 5,25 3,50 3 60K 360K DRIVE DRIVE 720K

TI-99/4A SOFTWARE
PAGEPRO 99
PAGEPRO COMPOSER 99 COMPOSER PAGEPRŌ FΧ PAGEPRO HEADLINER PAGEPRO GÖFER Pagepro flipper PAGEPRO ROTATION PIXPRO PICASSO PUBLISHER PLUS

PC HARDWARE
COMPAG ARMADA 7800
COMPAG ARMADASTED SAMSUNG SYNCMASTER

PC SOFTWARE
DEAD WINDOWS 98SE
FILECAP PRN2PBNS IRFANVIEW Adobe distiller

Yesterday's News is composed entirely using a TI-99/4A computer system. It consists of 11 PagePro pages which are "printed" via RS232 to PC to be published as a PDF file.



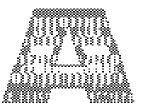














CHRISTHAS IS ALMOST HERE!



CHRISTMF

