ELECTRONICS
with
DENNIS
LINGANE

Technics in advance with cassette

Technics showed the prototype of the world's first cassette PCM deck at the Tokyo Electronics Show. Production is due to start in April in Japan and the initial production will be 1000 units a month.

Called the PCM P100 it is little different to any other cassette deck except that it is larger and uses VHS size cassettes instead of smaller compact cassettes.

This is the first serious PCM cassette recorder on the market.

There are a number of hybrid systems that have been shown, and Sanyo offered for sale the world's first PCM recorder system in America at the beginning of this year.

But that was a standard Beta video recorder and an analogue-digital decoder.

This unit from Technics is a dedicated PCM recorder and while the cost of the Sanyo system was around $5000 for the two components, this Technics unit is expected to sell for just over $2000.

When I first saw this monstrous recorder I couldn't see the point in it. But after a chat with the boffins in Technics in Japan, even I eventually saw the light.

When the PCM disc is launched late 1982 it will be capable of reproducing 90dB dynamic range. There is no tape recorder available at the moment that could record that sort of performance off the disc.

The best is around 60dB from an open reel system.

Although the Technics PCM recorder will have limited application at the moment it will have a place in the years to come in a top quality hi-fi system.

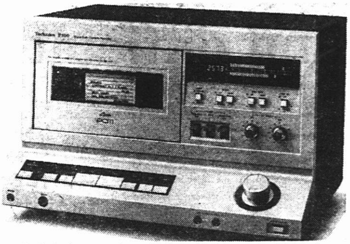
By getting this unit onto the market now, Technics is ensuring it is the leader, and hedging its bets towards the public adopting the VHS cassette as the digital audio cassette standard.

This will help to reinforce the VHS video cassette system as well.

Because people with a PCM, or a VHS video will choose to standardise on that VHS system so the cassettes can be used either for video recording or audio recording.

Technics plans to produce pre-recorded digital cassettes on this VHS audio cassette so those buying the machine will have something to make their fellow audiophiles go green around the gills.

The problem then would be to make sure your speakers are capable of handling that sort of dynamic range.



Technics have scored a world first with this cassette PCM deck.

Roller disco coming

If Chris Somas (Douglas Hi-Fi) looks as if he is going around in circles these days it is with good reason. He is halfway through building the most luxurious roller-skating disco underneath the Murray Street hi-fi shop.

Costing well over $100,000 the disco includes a Xanadu-type roller skate rink with a central DJ consul and love nooks, a hamburger refreshment bar, roller skate hire, and space invader machines.

Thunderbolts are being built into the ceiling, and thousands of lights will festoon the pillars and walls.

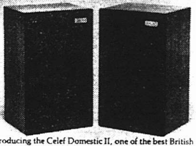
Carpets above shoulder height will save the beginners getting sore shoulders, and mirrors above that will create a spacious atmosphere although the rink is huge anyway.

Chris and his partner Jim Litis have poured money into the roller disco and it will be interesting to see if it takes off.

The roller skate craze is rampant elsewhere in the world but here it appears to be a minority group interest so far.

The roller disco will be opened in three weeks with a huge champagne function with stars, and jet setters.

New ear gear.



Introducing the Celef Domestic II, one of the best British speakers to appear in Australia. Efficient, with a high power capability, the Celef Domestic II offers excellent sound quality that bears no relation to its size. Carefully researched and tested, they incorporate a 6" base driver and soft plastic domed, fluid filled tweeter to give a fresh, open sound that creates the illusion of actually being there, as opposed to the 'boxey' sound of many small speakers. Hear how. Here now. At Leonard Hi Fi.

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282 Hay Street East, Perth. Ph: 325 2699.

4104

Agents for AVL

Multivision have been appointed WA agents for AVL audio visual equipment and join the global network of dealers for these multi-image control programming units.

Multivision will hold stock and maintain a service department to complement the 24 hour board replacement service implemented by the Australian distributors in Sydney.

Audio Visual House in Leederville will contain the AVL showroom and Multivision, in conjunction with Ron Sullivan Sound Images is arranging for early 1981, seminars in their theatrette to demonstrate the equipment and the now accept-

Sharp Corporation's talking electronic cash register.

Smart talk from cash register

Forget the check-out chick at the local supermarket. She won't be saying "good day", the cash register will.

Sharp has just released the world's first talking cash register.

It was previewed recently at the Melbourne Business Efficiency Fair.

With computer ordering from our homes just around the corner, and even with computer code check-out systems already on the program for the updating of supermarkets, who needs a talking cash register?

After all we are only a step away from a cashless society.

But practical or not, Sharp has come up with a retail store owner's pose of the year.

Using an advanced voice - synthesizer system, the electronic cash register reads out aloud such items as registration, total amount tendered, and change.

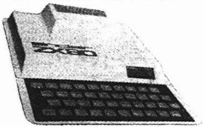
Sharp says that with verbal confirmation money transactions become easier, and more reliable for the customer and the operator.

This newcomer to the shop scene is aimed at the medium size store and will also offer vocal courtesies such as "have a nice day", and "thank you" when the drawers are opened and closed.

The talking cash register does more than just chatter its way through life. It has an automatic date advance system so that it knows what day of the week it is even if you don't.

It also has a clock function so that not only does it ring up on the receipts the item and amount, but the date the time as well.

AUSTRALIA'S FIRST PERSONAL COMPUTER UNDER $300



SINCLAIR ZX80

We also stock a full range of books and software, games for the T.R.S. 80 and Dick Smith computers.

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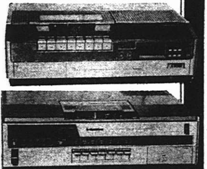

AKAI VHS 9700 VIDEO with features including remote pause, 8-day timer, repeat record facility and super compact design at only . . .

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SANYO BETACORD 9300: A most popular model with remote pause and 3-day timer facility. Be the master of your TV for . . .

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- JOIN the CHANNEL O VIDEO CLUB at Douglas Hi-Fi and you can hire a full length film for as little as $6.50 each and our range is top class! You can audition these on our giant National Video Screen in our Murray St centre now!

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EBA/DHF

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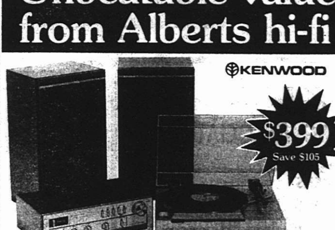
KENWOOD



Save over $100 on Kenwood!

This is without doubt the best sounding system we have ever auditioned for under $500. The latest Kenwood releases — two speed semi-automatic belt drive turntable and the new KA 300 amplifier, matched to a pair of fully imported Kenwood two way loudspeakers. These dynamic sounding speakers feature an 8" bass driver — to give plenty of life to your records, whatever the occasion. **Complete with matching AMFM stereo radio tuner $548.** *3 year written warranty.*

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AMELIA ST. 349 1055
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VIC PARK
642 ALBANY HWY. 362 1188

Noisy but a family hit

Name the game and play it

In my day the sound that set adrenalin pumping through a child's veins on Christmas morning was the noise of an electric train set.

These days it's the ping, bleep, zing, and thump of electronic games. Not the dreary old black and white ping pong of three years ago, but the super sophisticated games of the space invader type.

The noises may not be what one looks forward to with a Christmas hangover, but the advantage of the electronic games centre like the incredibly popular Atari is that you can turn down the sound.

The Atari electronic games centre is for children and adults alike and anyone who doubts the lasting popularity of this games centre should have seen the Futuretronics stand at The Sunday Times Electronics Show earlier this year.

Managing Director of the WA company Jeff Krasnostein, says the stand caved in three times under the pressure of the youthful enthusiasm of the kids.

He closed the stand down for five minutes to give his head a rest from the incessant pings and zings of the games. The children retired three steps and timed him, all rushing the stand on cue.

The electronics games industry has grown in less than three years from a bumbling amateur industry to a super switched on $400 million a year industry in the USA.

One of the leaders is Atari which is now owned by the massive Warner Brothers entertainment empire.

The Atari electronics games centre only became available in Australia earlier this year.

They doubled, trebled and quadrupled their orders during the year, and still they couldn't meet the demand. Europe, and the USA are completely sold out.

The Australian stock that landed here at the beginning of December was to see the company through to February. But a spokesman for the company in Melbourne says that they will be completely sold out by the end of December.

The Atari game has an elecronic control centre that costs $279 including one game package.

It comes complete with two control paddles and plugs directly into your home color television.

There are around 40 cartridges available for the unit so far in Australia—one of them with 112 games on it. The cartridges cost around $39.95 and offer a choice of games from space invaders, casino games, backgammon, brain games, golf, football and driving games.

ATARI
FAVORITE
ARCADE GAMES

Mark [illegible]ngane, 14, and Darren Krasnostein play space invaders.

New turkey stuffing

To help the harassed cook with Christmas meals, Pat O'Dea from Toshiba has come up with a couple of useful microwave hints and recipes.

If you have a frozen turkey, make sure it is fully defrosted in the microwave before cooking, says Pat. An 8-lb turkey defrosts in about 30 to 45 minutes and turning it over helps speed up the process.

Pat also advises that to stop over-cooking of the bird, put a small amount of aluminium foil over the wings or whichever part seems to be cooking quickest. But she says that "more meat than foil" is the rule.

For a change from the usual stuffing, Pat has a different recipe — Apricot Raisin Walnut Stuffing, which can be used for duck or turkey.

The ingredients are a large can of apricots in natural juice, 4oz seedless raisins, ½ cup of chopped walnuts, 4oz butter, 10oz breadcrumbs or sliced bread, 2 teaspoons mixed herbs, 1 teaspoon sage, 4oz fresh chopped green and red capsicums, one small onion, chopped, and a little freshly ground black pepper.

The method: Drain apricots well and put the juice and half of the apricots to one side. Put the rest of the apricots in with the raisins, walnuts, herbs, capsicums and onions. Melt the butter in the microwave for 30 seconds on Full, then add it to the breadcrumbs. Mix all the ingredients together and then stuff the duck or turkey.

There is also a glaze to go with the stuffing, and Pat says it is "absolutely beautiful" with duck.

. . . and Di's idea for a yummy Christmas

And here's an unusual Christmas pudding idea from Di Cowan of Sharp.

Called Australian Christmas pudding, it is a very simple recipe which makes a change from the traditional stodgy pud.

First cook an ordinary chocolate packet cake in the microwave using the mix, four ounces of water and two eggs. Cook for six minutes on full power, then let cool.

Divide the cooked cake into three sections horizontally. Take the bottom two sections and line an ordinary pudding basin with them. Mix a cup of orange juice with ¼ cup of brandy and pour over the cake.

Fill the centre with 300ml whipped cream, to which you add 150gm chopped glace fruit, 1 tablespoon Grand Marnier, 1 tablespoon hazelnut meal and 100gm hazelnuts (or any other nuts if you don't like hazelnuts).

Put the third section on top, cover with plastic wrap, place a plate on the whole lot (to weight it), and leave overnight in the fridge.

On Christmas Day turn the cake out, pour heated cognac over it and ignite.

It looks exactly like a traditional Christmas cake, says Di, specially if you've stuck a bit of holly on top. And it is much lighter than the real thing.

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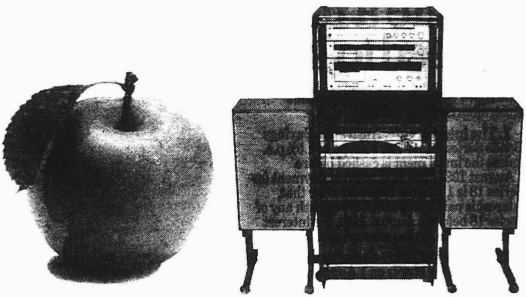

There's only one thing to do with temptation.

SYSTEM COMPLETE $1800

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But be warned, the temptation might prove too great.

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ELECTRONICS
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After the Pet, comes a Super Pet

The Commodore Pet computer starred throughout last week.

At the Leonard Hi-Fi official release of the Eumig cassette deck the Commodore Pet stole the limelight.

A real star of the show

Meanwhile down the road at the Chateau Commodore Hotel, Roger Davis, national sales manager for Commodore Computers, took the cover off the new Super Pet, a powerful business computer system aimed at the small business man.

While Roger was blinding the office equipment retailers of Perth with his Super Pet, its little brother was stunning the hi-fi fraternity at Leonards.

Nigel Headlam from Micro Applications had imported the German Pet program for the Eumig and married into the Eumig cassette deck was putting on a terrific show.

Vince Ross manager of Leonards, until now quite unmoved by the new computer wave has fallen victim in the few days the Pet has been installed.

Struggle

To get served in the shop you now have to put a half nelson on him to drag him away from the Pet and even then it's a struggle to get his mind back to hi-fi. German Space Invaders is something to be believed.

The Pet and Eumig is a superb marriage.

Nigel demonstrated to fascinated hi-fi buffs how you can put all your cassette library onto a floppy disc.

When you want any tune, simply give the Pet the first word. It will race through its memory and produce the tape on which the tune is available.

Then you put the cassette into the cassette deck and the Pet will find the song and play it all without you having to touch a button.

The complete library of songs on any particular tape is recorded digitally at the beginning of the tape.

Tell the computer which tracks or songs you want to hear on that cassette and it will take the information from the tape, store it in its memory and then race off to the first song.

When that is finished it will automatically race off to the next song. And so on.

If you want to run your own radio station you can hang up to seven Eumig cassette decks off one Commodore Pet computer and once programmed the computer will switch from one machine to the next as programmed.

If you put all the news on one cassette, disco on another, vocals on yet another the machine will switch from one to the other, mixing the songs, and then on the hour switch to the "news" machine for a news bulletin.

The Pet-Eumig marriage is so good that at least six enthusiasts have already laid out the $2500 each to buy it.

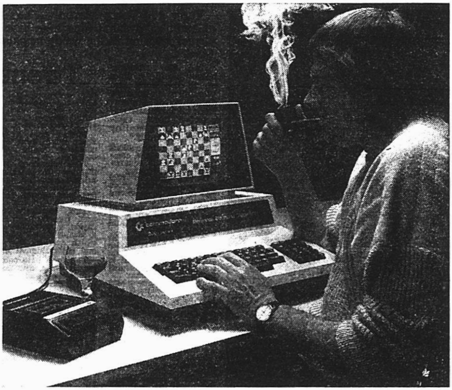
Cheques

Vince says that a lot of computer people from the North West have sent down cheques to buy the Eumig cassette un-seen, meanwhile hi-fi buffs are queuing to learn how to operate the Pet computer so they too can join the new wave.

Commodore is an American company that launched into the personal computer market a few years ago with the now famous Pet. Alongside the Apple and the Tandy TRS80 it stands as one of the leaders in this new and dynamic industry.

But nothing stands still in the competitive world of the chip and as competitors like Apple and Tandy upgraded their systems so Commodore upgraded its.

There are effectively three Commodore systems now:



The Commodore Pet computer that is everything to every man . . . games centre, business centre and now a hi-fi component.

Multi player takes five

Aiwa showed this prototype of a multi-play cassette deck at the Tokyo electronics show in October.

It takes five cassettes and will play them both ways.

You select the tape you want (1-5) by pressing one of the buttons on the front.

A microprocessor seeks out the tape requested and plays it.

You can also reverse the play so that both sides are played.

The unit works on a principle similar to a 35 mm slide projector.

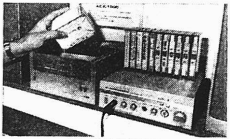
The cassettes are loaded into a cartridge holder.

The cartridge is then loaded into the machine.

The cassette required is slid out of the holder and into the cassette proper automatically.

The unit is a prototype that was put on show to get public reaction.

The portion of the 360,000 people attending the show that managed to battle their way to the Aiwa stand all gave it the thumbs up.



The Aiwa prototype.

Spirit still with us

The Christmas spirit is still bursting out all over.

John Sanders from Boans wants to give away one of the superb Atari electronic games centres to a family that didn't get one for Christmas.

And Chris Gulland from Alberts Hi-Fi has 10 superb girlie calenders from Kenwood that he says are reminiscent of the Pirelli calenders.

So tune in next week to find out how you can win both the Atari game centre and a calender for your office.

Warp in tapes is beaten

Summer is with us and so are the woes of summer like sunburn, hot sleepless nights, oven-like interiors in motors cars and warped cassettes.

Left in a hot car, a treasured cassette soon becomes a twisted molten mass of plastic.

But finally there appears to be an answer. An Australian company has developed a heat-proof cassette and it is now available under the Master label.

A spokesman for the company says that the pancakes (the uncut magnetic tape) have been sourced from well known companies to ensure good quality sound. The Cr02 for example comes from DuPont.

The Master tape concept is the brain child of David Donkin, former general manager of Edels Music Stores and Goldring Audio Industries.

His idea was to produce a tape series that had all the obvious advantages that the bigger tape manufacturers didn't bother about.

This special material has high heat resistant properties, retaining its high tolerances necessary for accurate tape transport even in the hottest car environment.

And it is also crack and break proof so should you accidentally stand on it, it won't break.

This anti-warp property is enough to guarantee Master tapes a market.

For further information contact Del Willmott the WA agent on (09) 3864828.

Tooth Fairy new dental health aid

The problem of tooth decay tends to get pushed to the back of one's mind during the ritualistic consumption of rich and sweet food over the Christmas - New Year holiday period.

So a new release from Sunbeam is very timely — a dental aid which provides dental protection for the whole family, and in particular for people with braces or fixed bridgework.

Called the Dental Jet, it clears away food particles normally left by a conventional toothbrush.

This is done by means of a pressure jet of water which quickly and easily reaches all those hard-to-get-at areas missed by the toothbrush.

The water pressure can be adjusted to individual requirements by a selector dial, which is helpful for those with special problems such as dental braces, when a stronger pressure would be needed.

Sunbeam says the jet of water has a pulsating action of up to 1200 pulses a minute.

This not only finishes off the task of cleaning the teeth thoroughly after brushing, it also massages the gums which is an important function in checking periodontal disease.

The simple-to-operate Dental Jet (around $48 at major stores and electrical retail outlets) is compact enough to store in your bathroom cabinet. Alongside it could be stored another new Sunbeam dental aid, the Tooth Fairy.

A battery - operated tooth polisher, powered by two penlight batteries, the Tooth Fairy has four color-coded rubber polishing pads to be used by different members of the family.

It polishes teeth with toothpaste or dental cream — or for false teeth wearers, denture paste.

The Tooth Fairy who used to leave money in exchange for your baby teeth never looked like this — the Sunbeam Tooth Fairy, a battery-operated tooth polisher that costs about $8.95.

Golden oldie for a gift

If you are trying to think of a present for a movie buff who has or might have in the near future a video recorder, how about a golden oldie.

Nostalgia Merchant has released 27 movies from the pre 1949 era. The local agents are Videolink.

The titles include Citizen Kane with Orson Welles (1941), Hitchcock's Suspicion with Cary Grant and Joan Fontaine (1938), The Hunchback of Notre Dame with Charles Laughton, and King Kong (1933).

There is a selection of John Wayne movies, and for the romantics Fred Astaire and Ginger Rogers. There are more than 200 titles in the Nostalgia line-up and these will be released gradually over the next few years.

KENWOOD
$399
Save $105

Unbeatable value from Alberts hi-fi

Save over $100 on Kenwood!

This is without doubt the best sounding system we have ever auditioned for under $500. The latest Kenwood releases — two speed semi-automatic belt drive turntable and the new KA 300 amplifier, matched to a pair of fully imported Kenwood two way loudspeakers. These dynamic sounding speakers feature an 8" bass driver — to give plenty of life to your records, whatever the occasion. Complete with matching AM FM stereo radio tuner $548. *3 year written warranty.*

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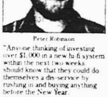

ADVERTISEMENT

HI·FI SPEAKER BUYERS WARNED

RETAILER WARNS PUBLIC TO WAIT UNTIL NEW YEAR TO BUY

Peter Robinson

"Anyone thinking of investing over $1,000 in a new hi-fi system within the next two weeks should know that they could do themselves a dis-service by rushing in and buying anything before the New Year.

The reason is that the manufacturers of Acoustic Research speakers have just won the Audio Video 'Grand Prix Award' for 'The Best Hi-Fi Component of 1980' in America...and we will be demonstrating those speakers on Friday Jan. 2 and Saturday Jan. 3 ... so it will pay to wait until then.

Japan Hi-Fi won't be open between Christmas and New Year.

"Firstly, it is Christmas and everyone needs the break. Second, by having our AR Open House on January 2 and 3, people can take a leisurely listen to these incredible speakers without the high pressure hustle of Christmas holiday crowds".

OPEN HOUSE TIMES

Between 9am to 5.30pm Friday January 2 and Saturday January 3 between 9am and 12 noon.

JAPAN HI·FI & VIDEO

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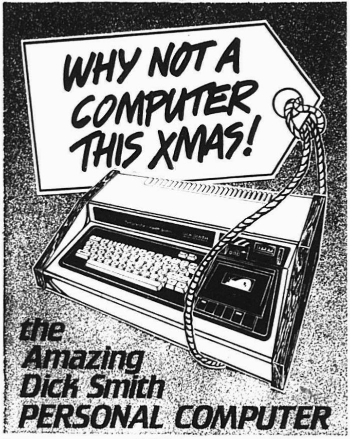
East Victoria Park.
Ph: 362 1466


WHY NOT A COMPUTER THIS XMAS!
the Amazing Dick Smith PERSONAL COMPUTER

Yes, a personal computer for your family is an investment in their future (And you'll find it just as much value yourself!)
Dick Smith's System 80 Personal Computer is Australia's fastest selling computer – and small wonder. It offers features the others don't like inbuilt cassette deck & compatability with the world's largest range of programs. And you don't even have to buy a video monitor: you can use any TV set with the System 80.
If you were thinking about toys or games this Christmas, think again. And watch your children benefit!

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Big 16K memory

System 80 computer with inbuilt cassette deck & big 16K memory
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INTRODUCTION TO THE SYSTEM 80
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Similar to popular Space Invaders but alien has to be hit 2-3 times. Difficult, fast & exciting.
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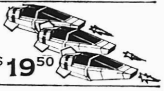

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Approach the city on a high speed bomb run. Avoid ground fire & air attacks. Very realistic & exciting.
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Teaches you to touch type. Acclaimed by many business colleges & you'll save $$$ by this method!
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Can you get through a war zone & land just by using co-ordinates? You could teach yourself to fly! Very challenging. X-3684 P&P 3.30

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FIRST IN AUSTRALIA WITH COMPUTERISED ELECTRONIC SHOPPING

New pool and top off great

"What a year! Was it a good year?" Sir George Bedbrook was not talking about his social life nor on the quality of a wine.

By LESLIE ANDERSON

As chairman of the WA committee for the International Year of the Disabled Person (IYDP) he was summing up 1981.

The occasion was to mark two solid achievements. The start of a new hydrotherapy pool and the calling of tenders for a new out-patient day hospital at Royal Perth Rehabilitation Hospital.

But Sir George was at pains to emphasise that achievemen could not be measured by the amount of capital spent — the maintenance of programs was of equal importance.

He felt that IYDP had succeeded in WA given the staff, the finance and the availability of both.

"The objectives of the year were clear cut," said Sir George, "breaking down barriers, increasing awareness of disability and changing community attitudes towards disability — particularly intellectual and psychiatric disablement."

Mr Ted Barrow, a polio victim in the 1974 WA epidemic, agreed with Sir George that IYDP in WA had been a success.

"We gained a lot in 1981," he said, "I'd hate to see that impetus lost.

"The danger is that everyone will fragment and go off again in their own groups. There

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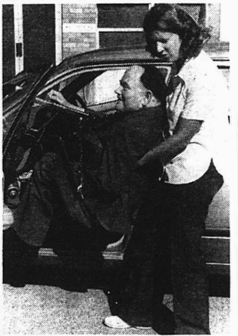

Jane McGibbon, senior physiotherapist with the spinal unit at Royal Perth Rehabilitation Hospital, adjusts Ted Barrow's car hoist.

Mr Barrow's electric wheelchair and car hoist have given him a great deal of independence. He has been working this year for IYDP in Western Australia.

WHAT A LOVELY WAY TO HEAR!

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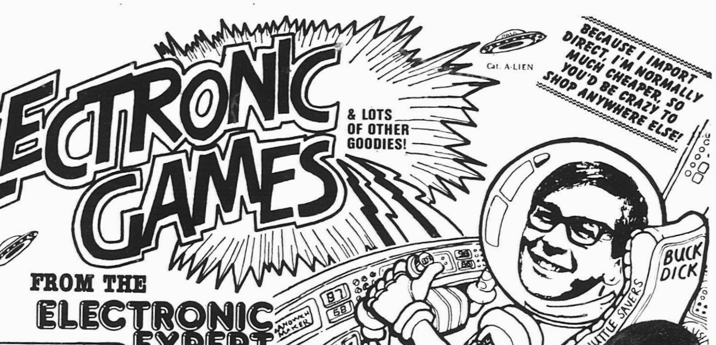
Cat. A-LIEN
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& LOTS OF OTHER GOODIES!

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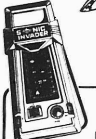

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If you really want to give the enemy invaders a blast, then this unit is for you! It looks like something out of Star Wars and even plays the famous Star Wars tune when you switch it on! MULTI COLOURED DISPLAY (just like the arcade games) with realistic sound effects. Darth Vader had better flee from this galaxy fast!
Cat. Y-1153 P&P $3.50

YOU REAP THE BENEFIT! **$39**

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The Dick Smith WIZZARD has an inbuilt personal computer facility! Just plug in the optional 'BASIC' cartridge and the WIZZARD becomes a powerful personal computer, complete with 17K memory (that's more than you get with many personal computers! Learn how to run your own programs. Finance, homework - anything! Cat Y-1605

Available soon
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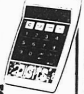
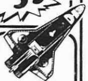


MATCH WITS WITH DIGITS

An electronic game of mind it will keep you guessing for hours you pitting your skill against digit's computer. Two skill levels. Cat. Y-1141
P&P $1.40

WHY PAY MORE? $9.95



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It even looks like the space shuttle! This is one that will keep them amused for hours - when they're not busy playing the exciting space shuttle game they can pretend they're shuttle pilots!
P&P $3.50 Cat Y-1145

$34.95

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At last — a walkie talkie for spies, secret clubs, etc — and you don't need licence! Why risk a $1,000 fine with illegal types? Great for kids — and for short range business use (e.g. on building sites, antenna installers, etc.)
Cat. D-1101

$9.95 each
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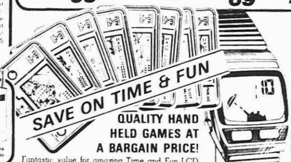
This transceiver complies with Department of Communications specifications RFME001 and does not require a license to operate



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YES! It's more than a watch, it's a cleverly disguised space attackers game. Shows date, day, month and time, but at the touch of a button it's an exciting space game. Even plays space music! Cat Y-1154 P&P $3.50

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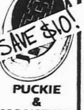

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Here's a real blast! The bank guard has a lot of money — but there are robbers waiting to ambush him at every turn. And one of them has a bomb! He have to run to foil the robbers. And the solar cells keep him on the move. Cat Y-1005

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Uses standard Parker refills

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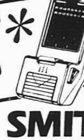

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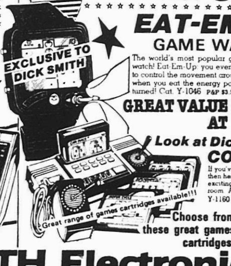
ALIEN INVADERS

Now you don't have to leave home to play this ever popular game. This is an improved version over last year's model, it now features a two coloured display and two levels of difficulty!
Cat. Y-1152 P&P $3.50

$32.50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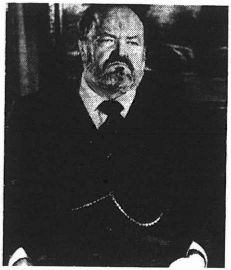
HFC Deferred payment until after Xmas to approved applicants.

STORES THROUGHOUT AUSTRALIA

New gumshoe dines to win



William Conrad as the eccentric crime-solving genius Nero Wolfe.

NERO Wolfe now joins the distinguished list of private detectives of film and television in a new series premiering on Channel 9, Wednesday, at 9.40pm.

Nero is of the eccentric kind, allowing his brilliant mind to solve the most way-out problems in the luxury of his New York apartment.

The corpulent Wolfe is played to perfection by a heavy William Conrad who will be remembered as the overweight private eye Cannon.

In his elegantly furnished apartment, Wolfe indulges his epicurean passions with his faithful chef, Fritz, never allowing a meal to be interrupted for any reason, especially business.

Wolfe's only physical activity is to lavish attention on his prize-winning orchids in his roof-top greenhouse.

The leg-work in his cases is done by his faithful assistant, Archie Goodwin, played by Lee Horsley.

Archie forages for clues and facts, supplying the detective with the raw material from which he draws his brilliant conclusions.

Nero Wolfe was created by American writer Rex Stout. He joins a long series of literary and film protagonists in the detective genre which includes Sherlock Holmes, Charlie Chan, Hercule Poirot, Ellery Queen, Perry Mason, Philo Vance, Sam Spade, Philip Marlowe, Father Brown and Miss Marple.

After playing a series of cold-blooded heavies and detectives in the 1950s, William Conrad turned to producing and directing.

Lee Horsley plays Archie Goodwin, Wolfe's trusted aide.

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THE SUNDAY TIMES
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Epic history of Christians

THE repeat screening of Granada's epic series, The Christians, brings to the small screen once again a scholarly but not academic history of Christianity from the birth of Christ.

The 13 one-hour episodes follows the Christian thread that runs through the history of our world for two thousand years.

Author and presenter of the series, Bamber Gascoigne, makes it clear that his story treats the subject differently from a conventional Christian history.

• The sculptured head of Emperor Constantine, who made Christianity the religion of Rome in the third century.

It's about people, events and places, rather than theory and theology.

He sees Christianity as a "dynamic force which had shaped the thinking and policies of much of mankind."

The story sweeps through the centuries on a broad front, pausing now and then to trace the strands and study the achievements of the Christian faith.

Gascoigne also asks awkward questions and quotes from many sources.

In the first episode, A Peculiar People, he relates the story of a Jesuit missionary telling an Indian emperor about the crucifixion.

"The emperor was shocked that the god of the Christians should have allowed this to happen to him."

Gascoigne adds: "Christianity is the only major religion to have at its central event the suffering and degradation of its God."

At the end of this first study, the writer turns to the Emperor Constantine who adopted the Christian religion for Rome.

Idealism pits Arab against Jew

THE Jerusalem File (Channel 7, Friday, 10.40pm)***. In a poor week for feature films, this one rises above the others for its fine acting and cinematography.

The story centres around two students, one Israeli and the other an Arab, attempting through their idealism to solve the Arab-Israeli turmoil.

There is violence, tension and excitement but the critics did not like this action mixed up with politics. It was argued that idealism has no place in life-and-death conflicts.

But unless people like the two young students try, which is the essential message of the film, then there is little hope for a peaceful settlement.

The cinematography of Raoul Coutard gives the film an extra dimension. Coutard introduced a new form of camera mobility in New Wave films of Godard, Traffaut and Demy. One of his finest works was the filming of the political thriller Z.

The Jerusalem File is given a lift by the acting of Nicol Williamson and Donald Pleasance.

Daria Halprin in The Jerusalem File.

Glen storms in Britain

GLEN Campbell is one of those rare entertainers who can take a country and western show to Britain and perform before huge crowds.

His latest tour was filmed and edited into a one-hour special titled Glen Campbell In The British Isles which will be screened by Channel 7 tonight at 6.30.

His easy style has a deceptive simplicity which slots in nicely to country and western music.

During the program you will recognise many of his major hits — Rhinestone Cowboy, By The Time I Get To Phoenix, Galveston, Try A Little Kindness and Southern Nights.

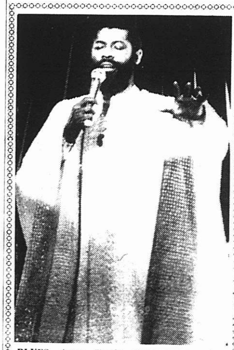
Glen Campbell . . . rare talent.

Desperate

Fifteen years ago Campbell was just another guitar player desperately looking for work alongside another country boy who could pick out a tune, Roger Miller.

Their first forays into the entertainment world were as session musicians and on TV commercials. Suddenly they both hit the jackpot at the same time.

Today Campbell has established himself as one of the leading popular singers in the US. He has salted away a fortune and does not need to make many concert tours.



BLUES singer Teddy Prendergrass mixes ballads with disco in his first television special on Channel 9, Thursday at 9.40pm. In the 60-minute concert at Lake Tahoe, he includes two of his million-copy sellers, Only You and Close The Door.

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Hours of fun in the VIC

THE Commodore VIC home computer marched into Australia earlier this year and turned the country upside down.

At $299 it is a genuine computer and has become a firm favorite with kids from London to Sydney.

The machine is expected to clean up in the home computer market following the price reduction this month.

The demand overseas was so great in the early days we had to wait for some months before it arrived in Australia.

When it finally arrived the VIC more than lived up to its reputation.

The VIC simply plugs into the home TV and comes with a 5k memory and a 23 character x 22 line display.

Memory system

A 3k expansion memory system is available for $49, and plug-in modules for games and programs are available off the shelf along with joy sticks and paddles for playing games.

It is an excellent compromise between an electronic game centre and a home computer. However, the paddles are extra while they come included in the price with the Atari game centre.

The VIC with its color capability and graphics is ideal for the beginner. Especially school children wanting to get into the computing scene.

The graphics will keep them happy for hours.

The VIC Commodore which can double as an electronic game centre and a home computer.

Fight for computer sales on

I always saw the home computer eventually taking over from the electronic games centre for home entertainment.

After all the small home computer is no more than a more versatile version of the electronic games centre.

But I never thought I would see them pitched in a fight against each other.

Until now the electronic games centres have been winning hands down.

According to market research, people are frightened of the computer keyboard and tend to buy the game centre in preference

Hence in the U.S. sales of electronic games centres are now 18 per cent saturation and home computers are around 3 per cent.

In Australia we have around 5 per cent saturation for game centres and a negligible number for home computers.

But that is about to change if Commodore has its way.

Commodore has reduced the cost of its extremely popular home computer from $399 down to $299 and is now promoting it as a game centre.

Roger Davis, national sales manager for Commodore, says that the official explanation of the price drop is that Commodore has lifted production from 200,000 a year to 700,000.

This increased production means huge cost savings, says Davis, hence the price drop.

But speculation in the industry indicates the price of the VIC has been dropped to compete with the Atari electronic game centre.

The game centre sells for $279. So with only a few dollars between them, on paper the better value must be the VIC.

But Atari has counter attacked by introducing a pre Christmas offer to its customers of three free games with each game centre. The package is worth $100 — so effectively lowering its price by $100 to counter the VIC move.

Hurting

Meanwhile Intellivision with a retail of $379 looks like hurting the most in this battle and is now offering an extra free game worth around $60.

But the VIC team is unmoved by Atari's counter atack.

They anticipate there are plenty of people out there who will appreciate the on going value of a computer for their children instead of just a game centre.

Commodore expects the promotion will help them sell 10,000 Commodore VICs between now and Christmas.

"We would normally expect to sell around 2000 VICs", says Davis "working on the basis that we have sold 9000 since we launched it in May.

"The industry forecasts that there will be 50,000 game centres sold between now and Christmas.

"With this new low price point for the VIC, we expect to increase our 2000 sales to 10,000 so taking 20 per cent of the electronic game market."

In an attempt to get wider penetration Commodore has signed an agreement with Video Classics which has video movie outlets all over Australia.

The VIC will now be available through department stores, computer stores, and video stores.

Companies woo Dept

THE pace is hotting up in the schools and computers arena.

All major computer manufacturers would give their eye teeth to be the recommended computer for schools in South Australia.

So far the BBC Acorn seems to be winning that race.

But that isn't stopping Commodore, Atari, Tandy, and Apple from trying to get in on the action.

The fact the Education Department recommends a particular computer doesn't mean that schools have to adhere to that recommendation. They can go out and buy any computer they want.

For example the BBC Acorn costs around $2700 for a complete system.

Argue

There are other schools of thought that argue that it would be better to buy 30 Commodore Vics for $299 each and give every child in the class a computer to work on rather than invest in an expensive one only computer that they would have to take turns on.

Then there is the school of thought that says a class should be completely computerised. So every child sits in front of a computer working at his/her own pace and a teacher with a master control can switch into any one of the computers to see how the child is managing.

Tandy has donated one of these complete computerised classrooms to the South Australian Department of Education and they are now analysing it.

Meanwhile Tandy has launched huge discounts on its TRS-80 range to schools across Australia.

The offer lasts until February 28, which means the schools have got the holidays to think about what they want.

Savings range from $400 on a 16K TRS-80 Model 111, to more than $10,860 on a complete ready to run TRS-80 classroom.

The classroom configuration includes a disk version 48k model III teacher station, a newtork controller that enables the teacher to communicate with any of the computers in the classroom, a high speed printer, two educational program packages, and a choice of either five, 10 or 16 stations.

Pocket

Tandy is also offering schools pocket computers for every station they buy.

These pocket computers are ideal for on-the-go applications says Tandy, or can be used as a promotional vehicle to assist schools in raising funds towards the TRS-80 classroom.

According to Tandy's outspoken managing director Chuck Wyse, this Tandy offer far excels any other computer deal being offered to schools at the moment.

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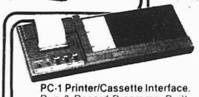

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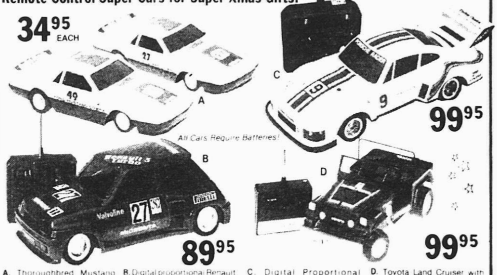

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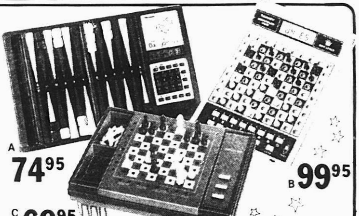

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FROM LEFT: Mr Gordon Bobbin, national sales director of Roadshow WA; Mr Terry Glaser, manager for WA, and Mr David Pye, general manager and a director of the company at a home video preview of Gallipoli.

Gallipoli among new home videos

Between now and Christmas video enthusiasts are going to be buried in "super sensational" titles for home viewing from the video movie companies.

This week Roadshow started the ball rolling by announcing the release of Gallipoli — reputed to be the most expensive title yet launched into Australia's burgeoning video market.

Roadshow paid $750,000 for the video rights and a spokesman says that it is expected to be the biggest dollar earner launched to date.

The film isn't being released until today, but pre-orders have broken all records, says Roadshow.

Video Clasics have finally put Emily on the market which they got after heavy biding against [illegible] other video companies.

Emily stars Koo Stark, Prince Andrew's much publicised [illegible] when she flew off for a [illegible] holiday with the prince.

The video tape comes packaged with a black lace garter and is expected to replace Emmanuelle as the top-selling sex movie.

It was filmed in 1976 when Stark was 17 years old, and is a sex fantasy made by the Earl of Pembrook. Set in the late 20s, it is above average production with excellent photography.

It isn't a really heavy porn movie. It's about a girl home from Swiss finishing school who is learning about sex. It's set in the English countryside with the sort of people that Prince Andrew would probably associate with anyway — English upper class.

Different

Star Video has taken a different tack. It has come out with a range of films for the children.

Labelled Storytime Collection they feature Marco Polo, Buster Bear, Peter Cottontail, Captain Harlock, and Little Lulu.

There are four stories on each cassette and although they will be available for rent through the video libraries these may be ones worth buying for the children's bookshelf.

A ripoff by Govt.

The Government is ripping off consumers and electronics industry, according to group general manager of Philips Consumer group, Mike Orvis.

During the press release of the Philips new digital disc due to be released [illegible] the Australian public in April, Orvis launched a bitter attack on the Government.

He [illegible] digital players when they are released [illegible] around $1[illegible] and the players around $800.

"Before you compare the prices for Australia [illegible] Japan [illegible] that [illegible] 5 per cent [illegible] consumer [illegible]

"And if you would like to quote me [illegible] it is a rip[illegible]

Philips [illegible] the digital [illegible] press conference at the Sydney Opera House.

Philips [illegible] offer a [illegible] on the Australian market [illegible] the new [illegible] Marantz [illegible]

The [illegible] include [illegible] with [illegible] models with lift [illegible] one of which [illegible] and [illegible] the front loading model.

Marantz [illegible] makers under the Philips and Marantz brands.

At the press conference was managing director of Marantz Ted Fawke who said digital [illegible] least a [illegible] in the audio market.

Marantz is a subsidiary of Philips. Both Orvis and Fawke made a point of emphasising that one of the most [illegible] for the consumer to be aware of is that the digital disc will not replace anything.

Important

In fact one of the most important considerations for those in the market for a digital disc player [illegible] another [illegible] good enough to make the most of the new [illegible] sound technology offered by the disc.

Bert Ga[illegible] the international marketing chief for Philips digital disc [illegible] from Holland for the press conference, says that the digital disc player is [illegible] more than a dedicated component.

The [illegible] has [illegible] late [illegible]

Winning name

The winner of our Name the Toshiba Mouse competition is Janine Tsuchiya, of Como.

She and several other people came up with the name Hushiba Mouse which our Toshiba State manager Bruce Thomson liked. It combined the name of Toshiba and the super quiet concept of his air conditioning.

And as he was giving the cassette radio away we thought we'd better bow to his whims.

We put all the Hushiba entries in a box and drew out a winner and Janine won it.

Meanwhile our six Festival audiophile record winners that correctly named Half-speed mastering as the system Festival used for producing its audiophile records are:

B. P. Bodie of Cooloongup, N. Barron, Embleton; J. A. Davie, Kingsley; Mrs J. Nicholls, Mandurah; Gavin Cottrell, Stirling; R. Stewart, Fremantle.

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*[illegible]

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*[illegible]

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ATARI

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Browsers' food for thought

By LESLIE ANDERSON

THE Minister for Arts, David Parker, says he dreads having Sunday lunch there. The food is cheap, but the books cost a poultice.

He keeps returning to the New Edition Bookshop and Tearooms in Fremantle because for booklovers it's suddenly the in-place.

How it all came about is quite extraordinary.

The English winter of 1974 was so horrendous William de Winton and his Australian wife Nancy decided they would head for Bali and open a restaurant.

They got to Bali and hated it.

Nancy comes from Sydney so that was their next stop. The problem was what would they do. According to the economic experts a worldwide recession was about to start.

William had a chat with a publisher friend who said there were only four areas which succeeded when economic times were hard — food, liquor, films and books. Everyone always ate and drank and all were seeking some form of escapism.

William decided to combine books and food.

He opened his first New Edition Bookshop with tearooms in Paddington in the same year. He opened a second one in the historic Strand Arcade a few years later. The arcade promptly burnt down, which was quite a financial setback.

Then someone suggested Fremantle. He came to WA in February, 1986, during a world yachting championship and promptly fell in love with the city.

☐ William de Winton encourages son, Guy, to discover the wonder of books

He started his bookshop and tearooms in November, 1986. This week there was a large birthday party to celebrate the first anniversary.

But it isn't only the range of books which fascinate Perth and Fremantle readers.

In March this year William de Winton started his now famous Literary Dinners with top-selling American writer Sidney Sheldon. It was another idea which took off.

Originally he planned to hold small literary gatherings in the tearooms adjacent to the bookshop which holds about 50 people at the most.

William placed a small advertisement in the local press then had to jump back and rearrange his thoughts. More than 300 people were clamouring for a ticket.

William crossed the road to Papa Luigi's Function Centre which holds 300 and now the Literary Dinners have become part of the Perth and Fremantle social scene.

Champagne brunches

They have been so successful that William is now organising champagne brunches at the Matilda Bay Restaurant for the 1988 Festival of Perth.

"The whole thing has snowballed," he said. "I have been terribly lucky in the kind of staff the bookshops have attracted. Some of Australia's best known writers and poets work in the Sydney and Fremantle shops.

"I had this firm idea of the kind of bookshop I wanted. A quiet, welcoming place where people were encouraged to come and browse. It has worked. I believe it would work anywhere."

The shops are open seven days a week until 10.30pm and the tearooms serve light French food. On Saturdays a harpist plays gentle music.

Perth link to lost Renoir

Painting's owner in 'poverty'

A FORMER WA family is scouring the world in search of what they claim to be a lost painting by French Impressionist, Renoir.

The bizarre story spreads across Australia, Britain, New Zealand, Fiji, South Africa, Switzerland and the United States.

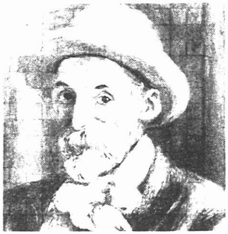
It began to unfold this week when Mr Brett Carrol telephoned the *Sunday Times*, from a caravan park in Penzance, in Cornwall.

Mr Carrol said he and his mother, Jennifer, who used to live in Geraldton, were living in near-poverty in the caravan park, because the Australian Government had cut off Mrs Carrol's war widow pension.

He said his father had been killed in Vietnam, in 1968.

Loss of the pension had spurred the family to search for the Renoir, "Les Daffodils."

Mr Carrol says the painting was purchased in 1971 by Mrs Carrol's de facto husband, Mr Philip Woolfendon and a British art historian, the late Mr Anthony Robert Eden.



☐ A portrait of Renoir, whose painting "Les Daffodils" is the subject of an international search.

According to newspaper reports, the painting, which Mr Eden is reputed to have judged as genuine, was found hidden in a secondhand shop in Henley, Berkshire, in 1971, and bought for 17 pounds sterling.

Imprisoned

Mr Carrol said the painting left the family's hands after his mother and Mr Woolfendon were imprisoned, in Fiji, in 1982.

He said it was given to a man who now lives in South Africa.

A relative of Mr Carrol, who lives in Perth, but asked not be identified, partially confirmed Mr Carrol's story.

He said the painting had been given to a man who claimed to be a prominent Fijian rugby union identity and former MP involved in the recent Fijian Barbarians rebel tour of South Africa.

The man had said he would take it to Switzerland and the United States to have it authenticated and valued.

"That was the last any of us heard of it," he said.

Mrs Carrol was released from jail in 1983 and deported to Australia, while her de facto husband was deported to Britain.

Mrs Carrol joined him there in December, 1983.

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Choice evaluates computer range

IF YOU are about to buy a personal computer for home, school or business use, chose carefully – different machines are better for different tasks.

Choice magazine, journal of the Australian Consumers Association, reports in its November issue on personal computers with price tags under $3000.

The target price included CPU (central processing unit) with two disk drives, serial and parallel ports, color monitor, dot matrix printer and a software package with programs which put the computer to work from the moment it was unwrapped.

Models tested were Microbee 256TC, Commodore Amiga 1000, Atari 520ST, Apple IIc, Commodore PC10-II, DSE Multitech PC-500 System 2, Amstrad PC1512DD and Tandy 1000 EX.

The magazine's testers recommend the Amiga, Microbee, Amstrad, Apple and Multitech. It rated the Atari and Commodore PC as acceptable and made no comment on the Tandy.

Features

In the report, the machine's features and performances are charted and it includes advice on monitors, printers, software, warranty, service costs and industry standards.

It also lists a glossary of computer jargon to help first-timers.

Choice reports all manuals were easy to follow. One in particular was very easy and would get a user started in no time at all.

Tests were carried out by a consulting computer expert, a scientist from the magazine's electronics laboratory and professional typists.

In a separate report Choice also surveys word processing programs for children.

Choice reports educational computing experts recommend word processing packages as among the most useful software for children.

Testers – including eight children – evaluated 11 word processing packages for Apple, Commodore, IBM-JX and Microbee computers in terms of their simplicity, performance and overall appeal to children.

They recommended nine, six with reservations.

The most expensive cost $161 as the cheapest was public domain – and free.

Desk package popular

CITY DESK is one of the more popular desktop publishing packages available for the Amiga. On close inspection it turns out to be a well thought-out product.

There is no word processor on board and the graphics editor is better left untouched.

With this package, you use your own word processor and graphics editor.

The people behind City Desk thought it would be unfair to make the user learn how to use yet another word processor, so they intergrated the two.

This means City Desk will load data from any word processor text file.

Graphics can also be loaded through City Desk.

Printing is simple. The entire page is treated as a picture by City Desk and printed out as such.

City Desk will print out to whatever has been pre-selected in the preferences, including a LaserPrinter.– Mark Lingane

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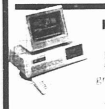

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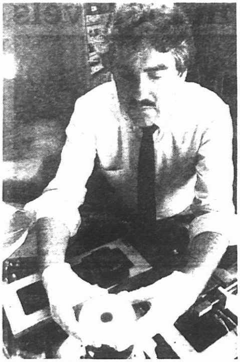
Technology improves data memory



☐ IBM scientist Ian Sanders mounts an experimental high denisty magnetic disk on a test apparatus.

IF YOU thought the amount of information stored on an ordinary computer disk had just about reached its limit, then read on.

Scientists at IBM's Almaden Research Centre in the US have producted experimental magnetic disks with tracks 20-millionths of an inch wide (half a micron).

With these dimensions, 3.5inch storage disks could each hold 10 billion bits of information (10 gigabits) or 620,000 double spaced typewritten pages.

In magnetic disk drives, information is recorded as bit cells, tiny magnetised regions along tracks similar to the concentric grooves in phonographic records.

IBM scientists successfully recorded, read and erased bit cells measuring only 0.5 x 0.5 microns.

While more work is required to pack half-micron tracks close together and take full advantage of their size, the scientists demonstrated that magnetic disk technology can continue to support dramatic improvements in data memory.

They also learned the magnetic regions in these narrow tracks behave similarly to the much larger regions in current disks.

Cells

Scientists discovered recorded information acts in a predictable manner down to sub-micron bit-cell dimensions and magnetic interactions within such small cells enable further reductions in bit-cell size, leading to even higher storage densities than originally anticipated.

The IBM team formed sub-micron tracks by etching the surface of storage disks with photolithographic techniques similar to those used in semiconductor processing.

A thin film of cobalt alloy was first deposited onto a smooth surface, then a circular track pattern was defined on the disk by an electron beam on an electron-sensitive photoresist layer.

A developing step removed the exposed photoresist and an etching step removed the magnetic material between the resist-defined tracks, leaving tracks of cobalt alloy.

Tracks were separated by radial distances of 200 microns so that conventional recording heads with relatively wide track width could be used for reading and writing.

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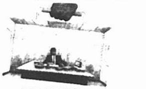

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☐ Steve Payne fronts the new Midland Computer store in Morley

Midland Computers open in Morley

WHEN Midland Computers began operations two years ago, the proprietors chose its location in preference to a site in Morley.

But that did not stop clients making the trip from west to east and now Midland Computers are opening a new store in Morley.

Paul Dodson and Steve Payne have developed a business concentrating on home users and small business people.

Mr Dodson has spent most of his working life in the building industry and Mr Payne worked with the agricultural protection board.

Like many in the industry they began as computer buffs and worked their way through programs until they felt they had something to offer.

Sometimes the seemingly unrelated background can pay off.

One of the firm's specialties these days is a building package — Berry Craftsman — for the small to medium builder.

The software tracks costs from an initial estimate to the start of a job.

Mr Dodson said it was a sophisticated aid to the small builder and helped the business keep in touch with all material and financial movement.

Because of Mr Dodson's building experience he is well qualified to advise and provide support.

Midland Computers work closely with John Marshall, of Luna Soft Computer Services, a well known software and hardware consultant.

If a business is considering an installation, Mr Marshall will survey its needs and write a report recommending hardware and software.

Midland Computers stock Ipex, Atari, IPC, Commodore, Amiga and Amstrad machines.

The new shop is at 34 B Russell and Rudlock Sts, Morley.

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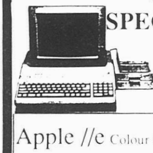

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☐ Mike Lenz from Nimrod Computers (standing) and Brett Rainsford from Royal Perth Hostpital with the donated Nimrod computer

Nimrod-patient connection

THE recent donation of a Nimrod computer to Royal Perth Hospital will mean increased patient computer interfacing.

In the past, most computers at RPH have been used in administration and patient and staff management.

The Nimrod machine will be placed in the Royal Perth Rehabilitation Hospital in Shenton Park and used in patient rehabilitation.

Responded

Hospitals Australia-wide have found patients responded well when interfacing directly with computers.

Patients seem to find it less stressful, for example, to answer questions when left alone with a computer terminal.

They can take their time with their answers, check them and change them if they wish.

The Nimrod patient relationship will be monitored and if all goes well, the hospital will probably use more computers in patient rehabilitation.

New system allows training by video

PC training by video has arrived.

The MPT Interactive Video System allows the use of a standard personal computer to control the operation of a video cassette or video disc player.

It is designed to operate on the IBM PC AT and compatible personal computers with 640K RAM, equipped with an RGB composite video sound monitor to allow replay of both analog video and digital computer signals.

A video disc or industrial standard cassette player is required.

For longer or more complicated training programs, a laser disc player can be used for greater speed.

Lessons, questions and responses are programmed in by instructors.

Instructors need only know the subject they are teaching — professional computer programmers are not necessary.

Students can train at their own pace. Lessons can be programmed to stop and replay if requested.

The system can also be programmed to stop at certain points and examine the student to ensure information is fully understood.

Lesson

At the end of the lesson, the system will compile the student's performance data and either display it or hold it for retrieval by the instructor.

Features of the system include the following.

No complicated commands to learn; multi-processing capabilities; easy marking of video scenes; go-to and review edit any video scene at any time; up to 200 video scenes per lesson; eight edit page formats available at any time; full screen text editor; built-in graphics editor; and student database.

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Apple prices down to grab-a-bargain level

RELATIVES and friends of Apple users have no doubt planned a visit to Computer Choice in West Perth.

But the wellknown Apple dealer also has a few specials running for the potential user.

Ed O'Conner Smith said he has done something this year he thought he would never do – dropped his prices below a respectable level.

Comuter Choice has indeed dropped prices by a bundle.

A second-hand Apple II Plus can be bought for $795 and the all-new Apple GS, with a 512K memory can be bought for $2750.

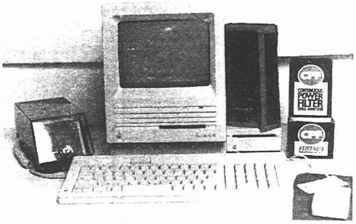
The GS normally sells for $3223.

Among the Apple IIe range, Computer Choice has also slashed prices.

The IIe with color monitor can be bought for $1995 (normall retail $2929), the IIe with monochrome is selling for $1695 (retail $2479) and a IIe demonstration model will leave the shop for $1295.

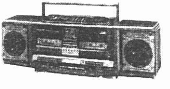
On the Macintosh front, a 512K machine ($3895) can be bought for $2895 and the firm has created a Christmas Safety Pack that sells for $500.

The pack includes a mouse mat, spike master – an electrical protection device, disk box, computer covers and a disk wallet with six disks plus software.



[] The Christmas Safety package

Wide range of portable units



AT the JVC Shop there is a wide range of portable units, including the PC-V55.

It has a single cassette deck, short-wave radio, AM-FM radio, AC/DC, detachable 60W speakers and an auxilliary input for a CD player. The most striking feature of the unit is its Hyper-Bass sound system. This includes a super woofer. The cassette deck has auto-reverse, built-in graphic equaliser and sells with a 12-month warranty at $299.

The midi achieves higher quality

AT first, midi systems seemed to be ideal buys for apartment dwellers and people who wanted an extra system for the teenagers.

But according to a number of hi-fi dealers, with the increase in the quality of the units, they are now selling to average hi-fi consumers.

At Pacific Hi-Fi, the firm has reduced the price of a Technics midi for Christmas shoppers.

The unit is remote controlled, with the remote operating the cassette deck, the receiver and the turntable.

Dave White from Pacific said the only operatioon the remote could not handle was turning the records.

The amplifier is 30W per channel and it has a built-in five-band graphics equaliser.

A double-deck tape adds style with tape editing facilities, Dolby B and auto tape selection.

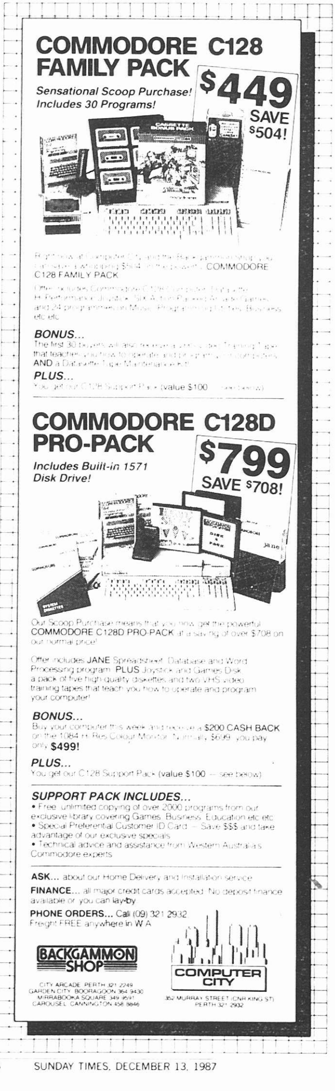
And the tuner is also up with the latest technology. It is a quartz digital tuner with 16 pre sets and FM stereo.

Technics two-way bass reflex speakers make up the package.

CD player is an optional extra.

Mr White said the midi system would normally cost $1199 and Pacific was offering it for $1099. He said supplies were limited.

"It sounds excellent and would make a great Christmas buy for anyone who wants a good quality midi system," he said.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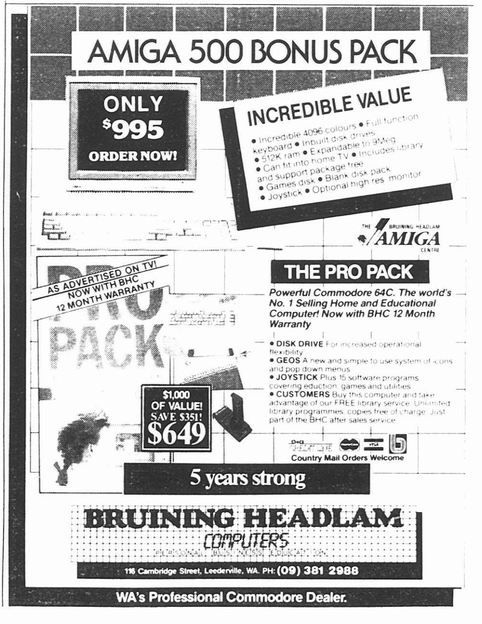
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Filled with extras

THE Ultra Turbo XT from Imagineering has arrived.

Imagineering is one of Australia's largest software and hardware distributors and the company researched and designed its new computer to suit Australian conditions, said a company spokesman.

The Ultra is assembled in Australia using only quality components, he said.

"It includes what we believe is the best motherboard and the finest keyboard with the feel of an office typewriter.

System

"The Ultra comes with fully licensed MS-DOS and BIOS system for industry standard compatibility.

It has 640K RAM (random access memory) and an Intel 8088-2 central processing unit.

For older software, the computer can be run at 4.77MHz or switched to 8MHz.

"While other companies sell extras for their computers, the Ultra comes crammed with bonus features, including parallel and serial printer ports, one 360K disk drive, a 20Mb Seagate hard disk, clock calendar, games port, security keylock or EGA monitor," the spokesman said.

"To get a user underway, it comes with manuals, 10 blank diskettes and a cross-section of good public domain software."

□ Garry Barnes from Computer Village with his idea of the perfect gift.

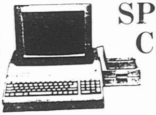
Prices are $2350 (monochrome monitor), $2795 (color graphics monitor) and $2990 (enhanced graphics).

The Ultra Turbo XT range is available from Computer village in Milligan St, Perth.

Garry Barnes from Computer Village said if parents were thinking of buying a full system for students in the family, then the Ultra would be a good buy.

"Now that high schools have IBM compatible machinery, it is a good time to think about reasonably priced quality machines," Mr Barnes said.

"And the Ultra can also be used for business purposes."



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Apple //GS Colour+Mouse'	$3223	$2995
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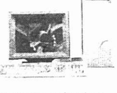

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Many other systems offer 80386, but look for the fine print on the CHIP. The others say "16 Bit Code only!"

The NEW SLEEK TOWER Case has been designed to accommodate 3 Floppy Drives and can even house 2 FULL HEIGHT or 4 HALF HEIGHT FIXED DISK DRIVES.

The System comes with 2MB of Ultra High Speed 32 Bit RAM and can be expanded to 16MB and beyond. Most important is the systems 100% IBM Compatibility! All your existing PC or MS-DOS Software will run at Lightning Speed.

The TOWER 386 is ideal as a CAD Workstation, NETWORKING as a File Server or for MULTI-USER applications and will run the New Generation of Operating Systems such as PC-MOS 386, PICK, UNIX, XENIX 386 etc.

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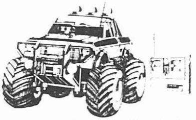

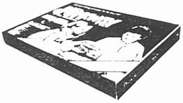

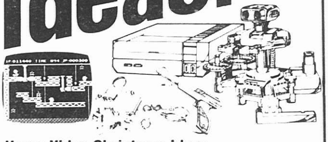

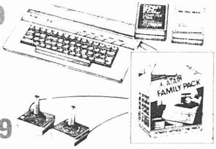

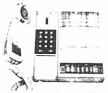

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Four Macintosh users and consultants decided the only way to deal with their similar interests was to form a business – Cognition – and open a shop.

Ruth Clark was the prime mover behind the group's formation and it came at a time when she felt a need to expand her operations.

Ruth's firm was offering a wide range of corporate services and was heavily involved in desktop publishing before it became the buzzword it is today.

Each of the four members of Cognition have specific skills.

They all agreed the think tank method worked for them and they enjoyed the move from the backyard to the shop front.

"We don't just sell, we also consult," said Debbie Dzelzitis. "And we do not compete with the established dealers. In fact, many of our clients are sent to us by Apple Macintosh dealers.

"One very important advantage we have is that most of the software we sell, usually by default, is software we ourselves are using and we have intimate knowledge of its pitfalls."

Booklet

Cognition has published a small booklet outlining its skills, products and services.

The booklet is a serious attempt to describe the benefits of doing business with the group but it is not without humor.

Among the backgrounds of the partners are listed psychiatric nursing (it helps!), knife-hand for Metro Meats and gliding instructor.

John Patterson, once a town planner, is now a Macintosh music expert.

John is developing a professional music studio centred around the Mac.

He intends to provide clients with a choice from the largest selection of music software in the country.

"The two emerging computers in the US music industry are the Mac and the Atari," said John.

"The Atari is gaining ground because it is a cheaper machine, but the Mac has been around longer and is more often used in high-end applications."

One of the big musicals in the eastern States – Rasputin – was poduced with the assistance of a Mac.

Wayne Tubman, ex aircraft engineer, specialises in electric power protection systems for all makes of computers.

One of his Jaymac units would keep two or three Macs operating for one hour after a power failure.

With Ruth's desktop publishing skills it is not surprising it has continued to be a strong point with Cognition and the firm is considering publishing a range of children's books.

Among other desktop publishing work by Cognition are publications for Murdoch University, company annual reports and sales catalogues.

Package

Debbie Dzelzitis markets MacSpecialist, an accounting package for health professionals, and she has developed Gumnut Graffix, a clip art package with typical Australian graphics.

Much of the clip art currently available in Australia is from the US and Gumnut Graphics is selling well because of its local flavor.

"We are also hoping it will do well in the US," Debbie said. "It is sure to attract attention because Australia is still of great interest in America."

Cognition runs a software library on its Maddington premises, a public domain library and midi support centre.

It also offers mail order laser printing, Farmac – a farm management method, disks, computer covers and a whole range of sundry services and peripherals.

For information phone 459 5666.

☐ The Cognition team (left to right) John Patterson, Wayne Tubman, Debbie Dzelzitis, Robin Page and Ruth Clark (seated).

PC TALK

RICHARD SWANNELL

The writer is technical director of Intouch Computing, a Perth-based firm specialising in computer education.

QUESTION: What are the advantages and disadvantages of buying computer equipment by mail-order?

ANSWER: The difference is price and service. Mail order companies can offer a much better price because they don't have the overhead of running a retail store or having to provide service.

But if you have trouble putting the equipment together and getting it to work, that is generally your problem.

When you purchase a computer form a store, you can walk back into that store when you need help.

If you are familiar with computers and you have access to people who can fix them, buy mail order and hope it will work. If you are going to use your computer for business and you cannot afford to have the computer out of service, mail order may well prove to be false economy.

If you decide to purchase from a store, pick a store that can provide all the extras even if it costs a little more.

I remember shopping around for the very best prices on various computer components – I bought the computer from one store, printer from another and modem from a third.

The prices were good, but when the modem didn't work that store claimed it was a faulty computer. The people who sold me the computer said it was a faulty modem.

I spent more money on petrol driving from store to store than what I saved buying the components separately.

Now I purchase everything from one store whenever possible. If something doesn't work, I go back to the store and they make it work without excuses!

IF you have any questions about computers you would like answered, Richard Swannell will do his best to answer them.

Write to PC TALK, c/-The Computer Editor, Sunday Times, PO Box D174, Perth 6001.

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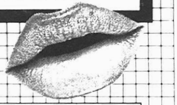

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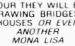

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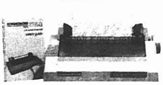

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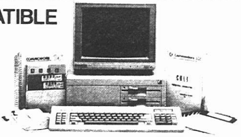

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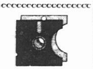

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High quality hi-fi units

FOR those wanting to spend under $2000 on someone special this Christmas, midi systems are well worth a look.

The compact hi-fi systems were once sold as items for those living in apartments and other dwellings with limited space.

But these days, with their improvement in quality, midis are sold as quality hi-fi units.

It possible to buy the units for under $1000.

The Electronic Enterprises Group has four in its Christmas catalogue for under $1000, including an Amstrad, JVC, Aiwa and Akai system.

Similar

Also in its catalogue is the Amstrad Studio ($999), similar to a midi in many ways, but advertised as a recording studio mixer.

Among the systems I have had a good look at are those manufactured by Panasonic and by Marantz.

Both companies make midi systems with separate components.

This sensible arrangement means if one piece breaks down, repair or replacement is relatively easy.

With many three-in-one systems, repair and replacement means carting the entire box to the store and leaving it for the duration.

Recently I had the pleasure of a Marantz system in my home office.

This provided me with the opportunity to listen to some great comedy in the privacy of my own room.

The Marantz MX583 ($1999) comes with turntable, tuner, amplifier, cassette deck, compact disc player and remote control.

The remote will operate controls on the cassette deck, compact disc player, tuner and amplifier (including graphic equaliser).

Connected

It will also operate items not sold with the system, but which can be connected – television set, video recorder and CDV (compact disc video).

Speakers with the system are of a good standard and the remote is easy to follow and operate.

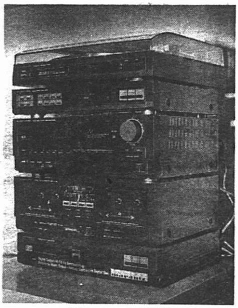
The CD features 16-bit, 4-times oversampling, automatic music search and shuffle play.

On the graphic equaliser is a memory button which allows the user to memorise a graphic setting and then experiment with others.

The cassette deck is a useful unit with Dolby B and C, continuous play, high speed dubbing, fast forward and fast reverse buttons that work when the unit is playing and a synchronised recording button.

Marantz has a range of midis and they start from $1499.

Items from all systems can be mixed and matched to suit a user's requirements.



☐ The Marantz MX583.

New PC

AMSTRAD will release a new computer for the Christmas trade.

The PC20 will be MS-Dos compatible sell for $899 on its own, or $1199 with a color monitor.

It will be bundled (sold in a package with) with a number of software programs – expected to include a number of games and typing tutor, aimed at attracting the first-time user.

Amstrad is obviously aiming, in part, at the market segment occupied by the games computers manufactured by Atari and Commodore.

PC20 can be connected to a television set.

Those who have seen the unit say it looks like an Amiga 500 or a Atari 520ST.

Around 2000 are expected to arrive in WA next week.

Its release was shrouded with secrecy and dealers who were talking were not saying anything.

One dealer offered this journalist a free lunch, as much as I could eat, and he would tell me all he knew – without saying a thing!

(I would reveal his identity, but a journalist never reveals his sources – or his salad dressings.)

Amstrad fanatics will be hoping the company gets its stock control right this time around.

No point in buying a Christmas present for someone if it will not be here for the big event.

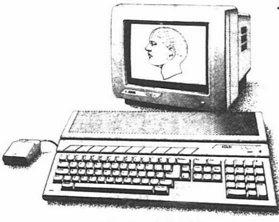
The PC20 is fitted out with an 8MHz 8086, 16-bit microprocessor, 512K of Ram (random access memory), single 3.5inch, 720K floppy disk drive, enhanced AT-type keyboard, parallel and serial ports, speaker with volume control, analog joystick port and expansion sockets for external disk drives.

PC20 also features an integrated display adaptor compatible with CGA (color graphics adaptor) for television set and monitor and MDA (monochrome display adaptor), an adaptor for monochrome text.

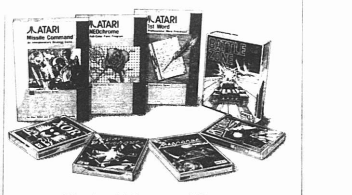
A feature of the software package will be a version of the popular Gem menu program.

Gem Version 3 includes a color printer capability.

Save $300 on software when you buy the world's best home computer.



The Atari 520ST.
Recommended Retail Price $799*



The Atari Advantage Offer.
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For a mere $799* you always get a great deal when you buy the world's best home computer, the Atari 520ST. You get a home computer with the same brain as the legendary Apple Macintosh. You get eight times the speed and memory of an ordinary 8-bit home computer, such as the Commodore 64.

And because the technology on the Atari ST is so advanced, it's actually easier to use. Simply point and click with the mouse...you don't need to know how to type.

And if that's not enough, with the Atari ST you get a number of additional features built in that other computers offer as options. Like MIDI (Musical Instrument Digital Interface) to teach and enjoy music.

And an RF modulator which allows you to simply plug your ST into the home TV.

Perhaps this is why Info World has described the ST as "the best hardware value of the year". Well now it's just become the best software value too.

We call this incredible software offer "The Atari Advantage".

Why? Because for an additional outlay of only $99*, when you buy either the Atari 520 or 1040ST, you automatically take home over $400* worth of educational and entertaining Atari software.

There's First Word which turns your home computer into a powerful word processor. Neochrome for high-resolution graphic design. Plus the challenge of 6 more engrossing and entertaining Atari games. The Atari Advantage. It's the computer software offer that you'll find impossibly hard to resist. And it's available now, at your nearest Atari dealer.

But hurry, stocks are limited.

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*Recommended retail prices (Monitor not included). Apple Macintosh is a Trademark of Apple Computer. Commodore 64 is a Trademark of Commodore Business Machines

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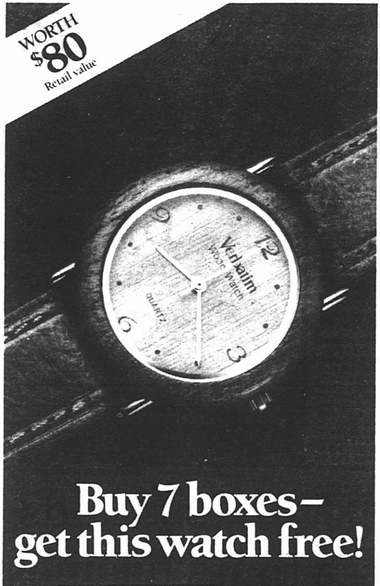
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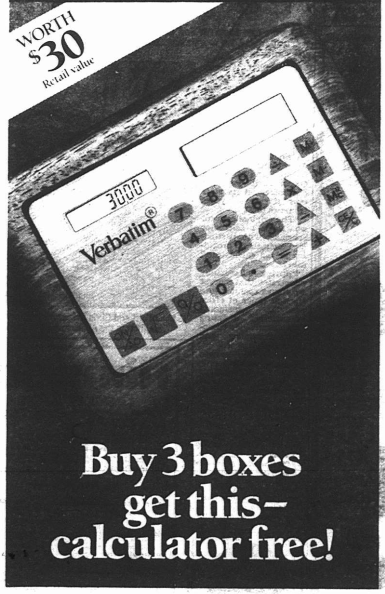
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Lauren's loyalties are quite clear

Commodore keeps this family happy

LAUREN Standen (12) is a Year Eight student at Swan View Senior High School and a Commodore 64 user.

Time on the computer is sometimes hard to find – she must first get past father, Alf, and brother, Luke.

"Sometimes we fight over the keyboard, but usually the first there gets to use it," Lauren said.

"I am using a typing tutor and dad is teaching me how to use Speedscript, a word processor which I will use to type out my school assignments.

"My favorite games are Summer Games and Winter and World games, all based on the Olympics.

"The player chooses countries and plays them off against each other, or you can play against the computer."

Luke's favorite game is a version of space invaders and Alf uses the machine to write letters and documents.

Lauren has no desire to change her Commodore 64, but for Christmas she would like to expand the 64's games capabilities.

She would also like a few fun and educational games, including some based on the Olympics.

Lauren will take a computer course next year, but doesn't intend to move into the industry when she completes her studies.

She would rather be a scientist, a dancer or an occupational therapist.

☐ Lauren Standen is a loyal Commodore 64 user.

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Abacus adds to its business

IF you are looking for calculators and are not sure where to start, it might be worth a wander down to Cloisters Arcade in the city centre.

Since 1981 Abacus has been in the middle of the Cloisters and business has grown steadily.

The product range has expanded from calculators to computer systems.

Owned by West Australians Ron Macfarlance and Mike and Glenn Ford, the firm has increased its staff over the seven years from two to 23.

"The original concept was to be a calculator specialist with particular emphasis on providing school calculators," said Mike.

"Having successfully penetrated that market we then expanded into the full range of office products, including typewriters, dictating equipment, photocopiers, facsimiles and computers.

"We soon learned that a business is only as good as its staff, so we place great emphasis on recruiting and training our people to ensure we can deliver a quality service."

Abacus now handles equipment from Sharp, Hewlett Packard, Texas Instruments, Casio, Canon, Olivetti, National, Olympus and Sony.

And in a new move to make an impact in the personal computer market place, Abacus has now become an Amstrad dealer.

☐ Mike Ford and Chris Johnson check out the latest addition to the Abacus range of products.

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Farming software impresses

ALTHOUGH many aspects of farming have altered with time, there is one area that has remained almost unchanged.

It is the part many farmers would like to forget, but it is every bit as important as the management of the crop or stock – farm accounts.

A company based in Busselton has developed a program called Farms – Financial and Rural Management Software.

Computer Directions director Stephen Brown said Farms was not just Cashbook, but a fully integrated perpetual accounting system.

"An unlimited amount of farm accounts can be stored at any one time, and fully integrated asset controls enable calculation of future deprecation benefits in advance," said Mr Brown.

"Profit and loss, balance sheet and stock reports can be called on over one week, month, year or as required.

"The program features easy pop-up menus, calculator and help-screens."

Other features include the ability to delete or modify previous transactions, integrated budgeting for cashflow predictions, built-in word processor and spreadsheet.

Other modules are now available and they include – beef, sheep, dairy and paddock management as well as genealogy.

These will be fully integrated with the financial module.

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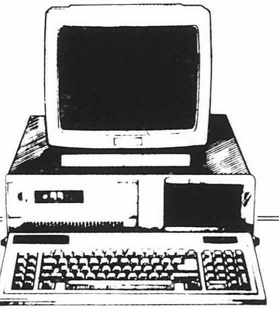

The Sunday Times Computer section has built a solid reputation in recent years for its news, views and reviews.

Computer users from the home to small, medium and big business read the section regularly to find out what is happening in WA, nationally and overseas.

It is the only Computer Section with in-depth product reviews and helpful tips and information for users.

It is the only Computer Section with the space and the desire to cover all computer systems – Macintosh, Atari ST, Amiga, Amstrad and IBM and compatible systems.

Jon Doust is a computer writer with a national reputation for product knowledge, honesty, fairness and good humor.

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Sunday Times

Curb theft, says leader

THE Australian information industry urgently needs to do something about unauthorised copying and illegal marketing of proprietary software.

"Unauthorised software reproduction is on the increase worldwide," said Mr David Curtis, chairman of BSA and senior corporate attorney for Microsoft Corporation.

"Urgent action needs to be taken internationally to protect the rights of software developers and ensure our industry can continue its reinvestment in developing new products," he added.

Mr Curtis was visiting Australia with US attorneys and board members of the Business Software Association (BSA).

He came with fellow BSA board members from Lotus Development Corporation and Ashton-Tate Corporation.

He said the primary purpose of the BSA visit to Australia was to discuss enforcement and other initiatives against software theft.

Action

It was also to call on the information industry to take greater action against unauthorised use, to protect its intellectual property assets.

"The major challenge for the industry is to advance the issue of intellectual property protection for software among government and legislative bodies throughout the world.

"Many of these don't fully recognise the extent of the problem or the rights of software developers," said board member Richard Neff.

"Meeting this challenge requires unanimous support from all industry members – not just software manufacturers, but hardware vendors, OEMs and dealers which market the products."

Mr Curtis called on public authorities in Australia to play a greater role in the enforcement process.

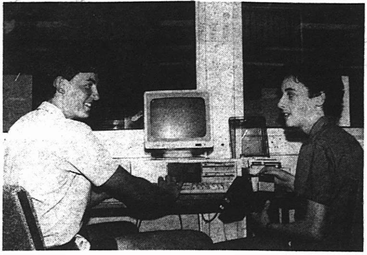
Formed in October 1988, the BSA represents leading manufacturers and distributors of business software for personal computers.

Its members are Aldus, Ashton-Tate, Autodesk, Lotus Development, Microsoft and WordPerfect.

This year, the BSA has initiated a series of civil and criminal actions against organisations involved in unauthorised software copying in Italy, Taiwan, Singapore and Hong Kong.

In comparison with the UK and the US, Australia fares poorly in countering the problem of software theft.

In Australia, only 0.82 software products are shipped per PC compared to 1.5 in the US and 0.89 in the UK, said board member Neal Goldman.



☐ Jason Wood (left) and Devin Kilminster at work on the bulletin board.

Pupils apply skills

THE students at Rossmoyne Senior High School have set up their own electronic bulletin board.

Setting up, management and sponsorship of the board was organised by three youngsters at the school – Jason Hay, Jason Wood and Devin Kilminster.

Keen to share their computing knowledge, the three run classes at school in their own time to instruct other students on the use of the system.

The board runs on one of the school's XT compatible computers with a 40Mb hard disk drive donated by Y-Micro. It is linked by a Maestro 2400 ZXR modem purchased with funds donated by Alcoa of Australia.

A small subscription fee charged for use of the service is to be channelled into a hardware-hire venture, designed to give all students at the school an opportunity to experience electronic communications.

The bulletin board is on 354 1412 and the Sysops Jason Hay on 310 5065.

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● WordPerfect Level II	56:05
● WordPerfect Level III	57:00
● Introduction to Lotus 1-2-3	45:00
● Lotus 1-2-3 Level II	74:00
● Lotus 1-2-3 Level III	50:00
● Introduction to WordStar Professional 4.0	58:10
● WordStar Professional Level II	75:25
● Introduction to dBase III Plus	68:00
● dBase III Plus Level II	61:50
● dBase III Plus Level III	45:00
● Introduction to Microsoft Word	53:00
● Microsoft Word Level II	49:30
● Introduction to Ventura	68:40
● Introduction to Pagemaker (Mac)	48:00

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WA mission in bold Asian marketing foray

A BOLD two-part marketing foray into South East Asia by a mission representing WA's software industry will get underway later this month.

Economic Development and Trade Minister Julian Grill said the Strategic Alliance Mission would visit Malaysia and Singapore this year and Taiwan and Thailand next year.

Mr Grill said because of a lack of marketing knowledge and cultural expertise, WA had been shy in exploring the pacific rim market and the time was now overdue for the state to chance its arm in the region.

"We have the product – especially in education, banking, communications and medical software – all of which have been identified as potential market areas for WA in Malaysia, Singapore, Thailand and Taiwan," he said.

"The Asian software market is growing at between 20 and 50 per cent a year, an exciting opportunity in our own backyard which we cannot afford to pass up."

Mr Grill said the strategic alliance mission had been organised by the State's Technology and Industry Development Authority (TIDA) and was part of the Government's three-year information technology (IT) strategy program.

The November mission would undertake a series of seminars to be held in Austrade's offices, followed by direct company-to-company discussions and factory visits.

Mission delegates would also participate in the Informatics '89 IT symposium in Singapore in December.

Companies represented in the mission include Caz Computers, Australian Technology Resources (ATR), Execom and Open Access.

ATR representatives will return to Perth following the mission, but the others will remain for Informatics '89 where they will be joined by representatives from Audio Visual Equipment, Universal Defence and Unilab.

"The WA information technology industry is undersold in the region at the moment and the mission will not only raise the state's profile but also increase bilateral trade and technology transfers between WA and Asian countries," said Mr Grill.

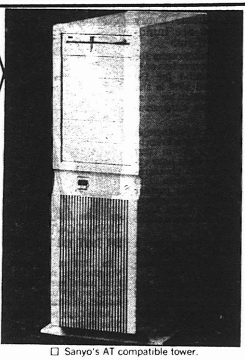
Tower range here

THE newest in Sanyo's range of personal computers, the MBC 19+ Tower, has just been launched in Australia.

This 80386-based, fully IBM-PC AT compatible machine features an 80387 co-processor option, IMB Ram (fast memory) with up to 15 Mb total, and 32K Rom.

It supports all popular video interfaces, has standard serial and parallel printer interface and features a 101-key snap membrane switch keyboard.

The compact-size MBC 19+ fits easily under a desk or alongside one, yet is able to accommodate three full-height hard disk drives.



☐ Sanyo's AT compatible tower.

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BYTES and PIECES

Who's next to crash?

THE big question in Australian corporate affairs is who is next?

The same question is being asked in the computer industry.

President Computers has gone and CCA, makers of the highly regarded Cleveland computer, is sailing close to the wind.

This week it was the turn of a dealer to disembark – CP Powerlink.

Some of the company has been sold to ICL Australia and some of it is waiting for its parent's next move.

By the end of last week, most of Powerlink's Apple division staff could be seen hard at work at the other end of the city.

AppleCentre Random Access offered the necessaries to attract its competitor's team members and looks like cornering an even larger slice of the Apple trade.

Imagineering Technology Limited, Australasia's largest independent technology distributor, is to link with a major new shareholder, First Pacific Company Limited, through a proposed issue of new shares by Imagineering.

Hong Kong based First Pacific is a multinational investment and management company.

It has diversified business interests in Asia, North America and Western Europe.

First Pacific has a strong distribution network in Asia for a variety of products, in particular telecommunications systems.

□□□

TWO of Australia's market leaders have signed an exclusive agreement which brings their products together in the marketplace.

The companies are Intouch Tutorials, the producer of the leading range of PC-based software learning aids in the country, and Amstrad, the PC sales market leader.

Unique game

A UNIQUE new computer game allowing communication between players scattered throughout the country has been launched on Viatel.

Valley of Heroes, an innovative and exciting adventure game is being presented on Viatel by The Games Machine (TGM), a well-known computer games firm who already operates the world's first electronic Casino through Viatel.

A new concept

Kim Collard from TGM said the Valley of Heroes represented a new concept in computer games.

"Unlike all other computer adventure games, players can communicate with each other during the action, irrespective of whether they are physically in Broome or Ballarat," Mr Collard said.

"The action revolves around rescuing the king's daughter and surviving the many perils of the quest.

"Players compete by accumulating gold for their deeds.

"But as the month ends, players will need to tread warily as their competitors ambush them to steal their gold and win soon-to-be-released cash prizes.

"It's a great form of escapism."

Competitors are only known by the pseudonyms they select, adding a further degree of mystery to the game.

The new Valley of Heroes game is one of many new services now available to Viatel subscribers.

If you are not already a viatel subscriber further information about the service can be obtained by contacting Viatel Customer Services on (008) 033342.

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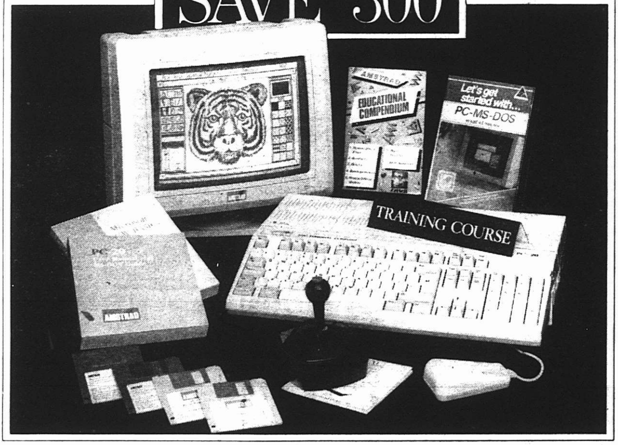

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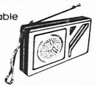

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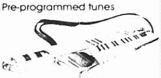

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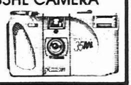

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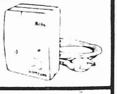

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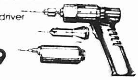

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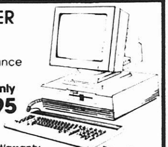

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Chance for electronic Christmas

NEXT week this column will spread its sheets for the annual electronic Christmas, and what a Christmas it will be for two lucky readers.

This year the *Sunday Times* is giving away almost $10,000 worth of computer hardware and software in the Sunday Times/Hay Computers Competition.

The major prize is open to all readers of this column and is an Amstrad PC2286 – 40Mb hard drive, 14inch high resolution VGA monitor, Microsoft Word 5 (wordprocessor) and Microsoft Excel (spreadsheet).

The minor prize is open only to new subscribers of the *Sunday Times* and is an Amstrad PC2086 – 30Mb hard drive, 14inch high resolution VGA monitor, Microsoft Works (word processor, database and spreadsheet).

Both models are big sellers for Amstrad in the business market.

The PC2286 was the source of some controversy earlier in the year, but Vince said his company had not yet had one system returned.

It is supplied with 1Mb of main memory (Ram), the 80286 microprocessor runs at 12MHz and it has twin, 1.44Mb floppy disk drives.

Hay Computers is owned by the generous and humorous Vince Govan.

Vince was once State representative for Amstrad, and has operated Hay Computers for seven months.

"These two computers are at the top-end of the amstrad range," said Vince.

"They are aimed primarily at the business market, but have the power and flexibility to cater for a wide range of users.

"We have sold units to home users, corporations and government departments.

"They can operate as stand alones or be linked via Novell in a network system."

Hong Kong company has eyes on WA

A PROMINENT Hong Kong PC research and development company looks set to relocate to Australia, and WA is in the front line to win the company's manufacturing business.

Digital Designs Company managing director Ron Nation was in WA last week to sign an expression of interest with executives of Data-Tek Computers and talk to senior officials in the State Government.

He said he was keen to rejuvenate the electronics industry in Australia.

Mr Nation said the company was looking at the feasibility of moving to Australia and setting up a manufacturing plant. He estimated the initial investment at around $US3 million.

Resulting export dollars could top $US6 million in the first year of operation and reach $US30 million within two years.

The company's computers were manufactured by hand four years ago, and are now assembled in a completely automated plant using surface-mount technology.

"This means the labor factor is a lot less now," said Mr Nation. "The higher costs in Hong Kong and the automation of the plant have reduced the labor content.

"The process is now capital intensive rather than labour intensive and it has got to the stage where Australian manufacture is viable at the high-end."

Problems associated with running the business from the British territory include the brain drain because of the 1997 return to mainland China and the doubling over recent years of salaries, real estate values and rentals.

Qualified

Mr Nation said most of Digital Designs employees were highly qualified engineers and many of them were emigrating.

The company is owned by Australian-born Mr Nation and his wife, Susan, who is also involved in company operations as sales director.

Mr Nation said Digital Designs sub-contracted its designs to a manufacturer in Hong Kong.

"We do not have our own in-house manufacturing capabilities," he said. "We do all the design work, the support and the marketing of the products."

While in Australia, Mr Nation will talk to other parties interested in his plans, but because the company has a long relationship with Data-Tek the two are considering an amalgamation of the WA computer dealer with Digitals Designs Sydney operation – Computer Control.

In NSW and Queensland Digital Designs computers are sold with the Digital Designs name, while in WA Data-Tek assembles and markets the computers as its house brand – Promax.

"The amalgamation would give us a solid operation because Data-Tek is a going concern with high exposure in the government marketplace and our Sydney office is similarly placed," said Mr Nation.

"This means our marketing would be in place in Australia and, of course, we have our established export market out of Hong Kong, which we would continue to supply out of Australia.

International

"Our international clients will buy from us wherever we are."

Mr Nation said the company wanted to put together a consortium that would fund the manufacturing plant. It is keen to talk to investors interested in the project.

While in WA Mr Nation also had talks with State and Federal Government representatives.

He recognised that times were tough in the Australian marketplace, but he felt his company would succeed while others had failed.

A comparison with President or Cleveland was not valid because Digital Designs would manufacture for an existing export market – 70 per cent of its production currently goes to Europe and 30 per cent to Australia.

"One of the reasons a lot of these companies are biting the dust is that none of them are true manufactures, they are really just importers," Mr Nation said.

"To survive in this business you really need to be a manufacturer, selling the product direct and supporting it yourself.

"A lot of Australian companies seem to go berserk, while we are a lean mean type of company. Survive in Hong Kong for five years, against the intense competition there, we have no intention of returning to Australia and playing fat-cats."

This month Digital Designs will release its 33Mhz 386 computer.

Boost for electronics industry

FROM AMSTRAD,
THE PERFECT CHRISTMAS BOX.
(AT THIS PRICE, IT'S A GIFT).

INDUSTRY STANDARD COMPATIBLE

This Christmas, Amstrad are playing Father Christmas.

You see, for just $1999, Amstrad will give you the IBM*-compatible PC1640 computer with 640K RAM, dual 5¼" floppy disk drives, full-size keyboard, parallel and serial ports, MS-DOS 3.2 operating system, two-button mouse and colour monitor.

Now for most companies that would be Christmas enough.

But not Amstrad.

We'll also give you over $1200 worth of extras, absolutely free.

Like the Amstrad DMP3160 dot-matrix printer, complete with its own cable, which enables you to create printed copies of everything you do.

Plus enough software to fill even the biggest Christmas stocking.

For starters, there's the Intouch tutorial to help you master the MS-DOS operating system.

To make things even easier, we've also included the GEM package, making the system totally mouse-driven. So to tell the PC what to do, all you need do is point the mouse and click the button.

From there, it's on to letters, memos and other documents using Wordstar; spreadsheets with the SuperCalc package; and, to keep all your important lists of information at your fingertips, Tracker database.

Finally there's the 'PC Challenge' pack of four high-tech computer games.

As if all that isn't enough, there's also a three hour 'Introduction to Computers' training course The Australian Business College or other leading business colleges in all mainland capital cities.

So for more information, see your Amstrad dealer as soon as possible.

Because if you get in before stocks run out, you'll think all your Christmases have come at once.

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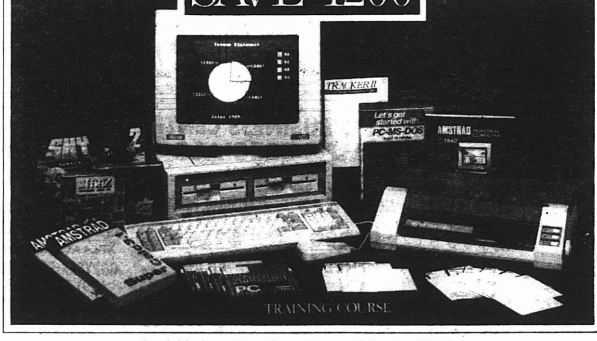

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Conroy Partners AMS1529(W.A.)

Apple Australia tops

APPLE Pacific has awarded its Australian subsidiary the title of Country of the Year for outstanding performance in 1989.

Apple Pacific president Del Yocam said Apple Australia had broken ground, broken records and set new standards of excellence for customer satisfaction initiatives.

Apple Australia reported a 42 per cent increase in sales revenues at retail level to $302 million for the financial year 1989 over the previous year.

Yocam said David Strong, Apple Australia's managing director, had been awarded the General Manager of the Year.

"Australia's success is the result of all of our business partners, including our resellers, third party distributors and developers assimilating Apple's values of providing truly innovative computing solutions for its customers," Mr Strong said.

"Apple is after all a totally different personal computer company that focuses heavily on the individual and striving for excellence no matter what we do.

"Our business partners have been imbued with these values and it's reflected in our tremendous success."

New standards of excellence

APPLE TALK

Yocam, who is stepping down as Pacific president, praised the Australian subsidiary's innovative marketing, sales and customer services programs which springboarded the company into record revenues in 1989.

He pointed to its continuing success as Australia's number one personal computer vendor by value and volume as evidence of the Australian team's outstanding achievement.

□□□

INTERGRAPH Corporation has released its MicroStation computer aided design and drafting software for the Apple Macintosh.

MicroStation is a full-featured production grade CADD package which also runs on Unix workstations and IBM XTs, ATs, PS 2s, 386s and true compatibles.

The software is fully compatible with Intergraph's IGDS CADD software for Digital VAX computers.

MicroStation Mac runs on Macintosh IIci/IIcx and SE/30 systems with a minimum of two megabytes of random access memory.

"We decided to make the Mac version take full advantage of the Mac interface," says Murray Richards, Intergraph's MicroStation marketing manager in Australia.

"MicroStation Mac has been beta tested with Macintosh users since January.

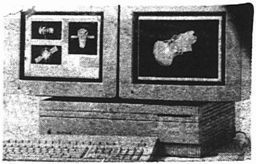
"The beta sites gave enthusiastic reports on the user interface."

Strong praise for the software even came from Apple headquarters in the US.

Apple's director of marketing, Michael Homer, said: "Intergraph has created an outstanding and intuitive user interface for the new MicroStation Mac.

"The sophisticated design capabilities of MicroStation Mac, combined with the upward compatibility with Intergraph's high-end solutions, provide a very attractive option for our growing base of technical users," Mr Homer said.

Standard features of MicroStation Mac include – support for up to eight active views which can be displayed simultaneously on a single screen or on up to six 19-inch graphics monitors; true 3D designs with integrated hidden-line removal and shading; an interface to Oracle relational database manager for non-graphic data; DXF and PICT format input-output plus Clipboard support.


□ Intergraph CAD software is now available for the Mac.

Software companies to move on piracy

IN a move designed to eliminate unauthorised copying and piracy of software in Australia, a union of major software companies has set out on an education and enforcement campaign directed at major users of business software products.

The union comprises the five largest distributors of proprietary business software products in Australia – Ashton-Tate, Autodesk Australia, Lotus Development, Microsoft and WordPerfect Pacific.

The union has formed a company to undertake Campaign activities under the name BSA Australia (BSAA) which is in the process of registration.

Sales by these five companies account for 70 per cent of the legitimate business software market in Australia, said a spokesman for the group.

Announcing the campaign, BSA Australia director Glenn Miller said the primary objective of the campaign was to ensure strict compliance with current legislation protecting the intellectual property rights of software developers and manufacturers by major corporations, government departments, the professions and educational institutions.

Principle

"Research recently commissioned by the BSAA among chief executive officers of Australia's top 1000 companies revealed there was strong support in principle, at a senior management level, for the software industry to implement a campaign of education and enforcement on this issue," said Mr Miller.

"More than 45 per cent of respondents admitted they were unfamiliar with the term software theft."

Mr Miller said the research findings highlighted an urgent need for Australia's software industry to take action in educating end-users on software theft and legal compliance.

"BSA Australia estimates more than half the business software in use by companies, government departments and businesses throughout Australia has been obtained illegally," he said.

Outlining details of the Campaign Plan, a second BSAA director, Daniel Petre, said over the next three months BSA Australia would mount a major education program.

Following the education phase BSA Australia will initiate widespread investigations to identify organisations engaged in unauthorised software copying or piracy.

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Group adds to range

☐ These hand held terminals have been added to the Microscribe range.

UK specialist data products manufacturer Microscribe, has added the 400 Series to its range of hand-held terminals.

Microscribe units have found applications in such diverse fields as industrial areas and military and police investigative work.

Australian distributor, Lynwood Pacific said the new series comprise the Model 440 —with a liquid crystal display of 4 lines of 40 characters – Model 450 – 8 lines of 40 characters – and the soon to be released Model 480 – 16 lines of 80 characters.

All models have a full feature qwerty keyboard and use industry standard DEC VT100 terminal emulation.

Compact (A5) size and weighing less than 1kg, the 400 Series terminals are ideal for field applications.

Standard features include a choice of normal or HEX display modes, capture and search, preprogrammed messaging and the ability to receive 8-bit data.

Plain is the trend

RECENT market research conducted for IPL on the facsimile machine market in Australia suggests that the plain paper fax machine is high on most customers wish list.

Almost 30 per cent of those questioned believed that plain paper fax was emerging as the number one trend.

IPL's OKI fax machine division recently released a plain paper fax machine.

Until now, fax machines have generally been of the thermal sensitive type, which requires specially treated (and quite expensive) paper rolls.

The plain paper fax machine is very much a spin-off from laser printer and photo-copier technology.

Capri system on target

A NEW software package designed to improve productivity and profitability of repetitive manufacturing businesses is now available after six months testing in Perth.

The system, named Capri, was devised by Perth management accountant Robin Gomm and is marketed by Capri Software.

The package guides the user to establish records of product specifications, labor operation times, costs per unit of purchase, wage rates, selling prices per product, sales forecasts, and expected overheads.

This information generates a profit and loss account, displayed in aggregate as well as by profit line.

Whenever prices change, the affected wage rate, material cost or overhead cost, is quickly updated which in turn can generate a revised profit and loss statement.

"There are a number of inherent problems experienced by the small to middle sized manufacturer which no micro-computer software program has ever addressed," Mr Gomm said.

"These range from the problem of profits being less than forecast – despite good sales volume and tight overheads – to the problem of re-costing and re-pricing products as a result of supplier price increases.

"The Capri system targets these problems directly and can improve efficiency in virtually any aspect of repetitive manufacturing – foodstuffs, pharmaceuticals, smallgoods, light engineering, furniture making, electronics, restaurants, or any industry that uses perishables."

The software package is IBM compatible and is already being used in the chemical, food processing and electronics industries.

For information phone Capri Software on 481 5922.

Stratus projector on display

New Products
Hardware

THE new Chendai Stratus overhead projector panel is ideal for displaying computer text and graphics to large groups.

The small, compact Stratus plugs into the CGA or EGA port on any IBM clone, said Geoff Kendall, manager of Kelectronics, the WA Chendai distributor.

It can placed on any overhead projector.

The Stratus features eight levels of grey shading and a reverse video switch will display characters on a white background or vice versa.

A blanking switch allows the OHP to be used in normal mode without removing the Stratus panel.

The text display is a full 80 column by 25 lines.

The Stratus, includes a user manual and costs $1395 including tax.

For information, phone 227 8952.

□□□

UNISYS is expanding the range of its Personal Workstation2 (PW2) line of MS-Dos compatible personal computers by adding a new processor, the 16MHz PW2 5500 PC, based on the Intel 80386SX chip.

The PW2 500/16A has the speed and computing power of a 32-bit Intel 80386 processor, but in a 16-bit architecture that is compatible with 8286 processors.

By using the 386SX processor, Unisys can offer significant savings on the standard 80386 chip.

The new Series 500/16A PC can be used as a stand-alone desktop system, as a low-cost local-area network server, an economical desktop multi-user system with the Santa Cruz Operation's SCO Xenix System V operating system, or to begin developing applications in OS/2.

The new 500/16A includes 1Mb of high-speed, parity-checked memory, expandable to 8Mb on-board memory.

Two RS-232C communications interfaces are provided.

The Series 500/16A also includes a Centronics-compatible 25-pin parallel printer port and control circuitry.

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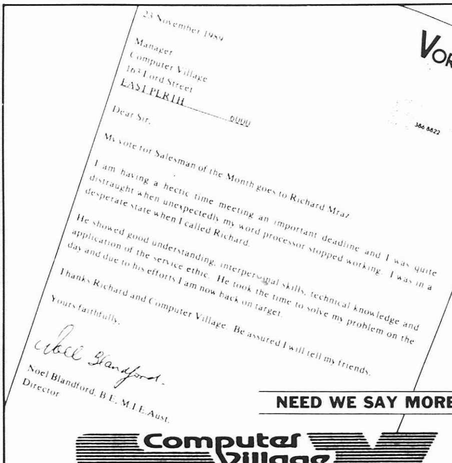

VORAN

23 November 1989

Manager
Computer Village
163 Lord Street
EAST PERTH 6000

386 8822

Dear Sir,

My vote for Salesman of the Month goes to Richard Mraz.

I am having a hectic time meeting an important deadline and I was quite distraught when unexpectedly my word processor stopped working. I was in a desperate state when I called Richard.

He showed good understanding, interpersonal skills, technical knowledge and application of the service ethic. He took the time to solve my problem on the day and due to his efforts I am now back on target.

Thanks Richard and Computer Village. Be assured I will tell my friends.

Yours faithfully,

Noel Blandford.

Noel Blandford, B.E. M.I.E.Aust.
Director

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Local dealer a witness to computer revolution

VINCE Govan from Hay Computers has witnessed the Amstrad revolution from both sides.

He was once WA representative for Amstrad and before that, AWA Mitsubishi when it distributed the computers for the British parent.

While in that role he perceived what he thought was a need for a different attitude in the Amstrad marketplace.

In April this year, Mr Govan and his partners took over Hay Computers and began offering Amstrads with long-term relationships in mind.

For four months in a row, Hay Computers has been the State's leading Amstrad dealer.

"We wanted to sell the computers which had become associated with box-moving dealerships, with service and support packages," Mr Govan said.

"It has worked well for us and business is continuing to increase, even though many have said there is a downturn.

"It became clear there was a need for support and service, especially in the business community."

The store is centrally located and clients come from as far apart as Exmouth and Esperance.

"The beauty of the location is that people from all over the State walk in the door," he said.

"We have found we can offer all these people sufficient support.

"Service is a little difficult to the more distant areas, but we do what we can on the telephone."

Hay Computers expanded its computer range three months ago and now stocks the Samsung range of PC compatibles, including portables.

In addition, the business sells Star printers.

Software plays an important role in its business activities and the shop stocks a wide range of word processors, accounting packages, databases, spreadsheets, games, utilities, education programs and computer accessories.

Sunday Times

Computer 90

"Towards 2000"

PERTH ENTERTAINMENT CENTRE MAY 10 - 12 1990

Preparations are already underway for Computer'90 and most of the exhibitors from this year's successful show, Computer'89, have signed up to next year's exhibition.

In fact, one of the exhibitors was so pleased with the response that he predicted that if all the enquiries received led to orders, his company would earn more than $5 million in sales and these would be directly attributed to Computer'89.

Another Eastern State's exhibitor claimed that Perth's computer show was the best in Australia and consequently made his Australian launch of his new product at Computer'89.

With the start of a new decade next year, the theme for Computer'90 is "Towards 2000" and many exhibitors are already planning eye catching and advanced technology to delight attendees.

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Apple gift ideas

IT'S that time of the year again, just before Christmas, when the festivities haven't quite started and the onerous task of choosing presents is upon us.

If the person for whom you are buying a present owns an Apple Macintosh, then here are a few ideas and suggestions which could ease your headaches.

As with all Christmas presents there really is no need to spend a fortune to find something suitable.

Present

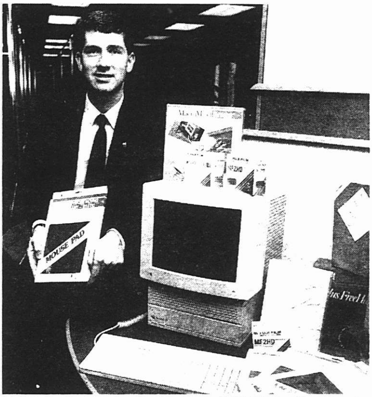
My low budget suggestion is a floppy disk wallet which is ideal for the average Mac-user – who can't afford a portable to carry with him his precious data and selected programs.

For as little as $10 to $20 it makes an excellent present for mum or dad.

It is always difficult to buy a computer gift when you haven't a clue which model Macintosh it is, or whether it's a hard disk, or how many megabytes of Ram there are in the computer.

The easy answer to this dilemma is HyperCard.

If the Macintosh has been purchased in the past couple of years then the chances are that it uses HyperCard software which opens up a new set of possibilities.



☐ Bret Hunter from the Random Access Apple Centre with a few more suggestions for Apple Macintosh users

APPLE TALK

There are various HyperCard programs available from the university, or any local Apple dealer which are free of charge.

These stacks, as they are called, can be educational, recreational or business orientated and often give hours of fun to the average Macintosh enthusiast.

A really novel Christmas present for a Mac-user is the WristMac – a watch which can accept names and addresses and other tidbits of information straight down from a HyperCard stack on the Macintosh.

The watch comes with software and a cable.

There are three models of watches ranging from $245 to $295.

A good software idea is a program to check for viruses in the computer system.

These are readily – and in some cases freely – available from Apple dealers.

Games are always an alternative with MacGolf and Beyond Dark Castle being the major players.

For big spenders, a Macintosh Plus is currently on Christmas special for a reasonable $1995.

As the Plus was selling for $3995 at the beginning of this year, this represents good value for money.

Another special is the Macintosh SE 30 4/80 and keyboard – 4Mb of Ram and 80Mb hard drive.

This machine also offers MS-Dos data file compatibility in both 720K and 1.44Mb formats.

Normal retail price is $11,332 and it is now selling for $8095.

For more information phone Random Access AppleCentre on 221 4511.

– by Eamonn D'arcy.

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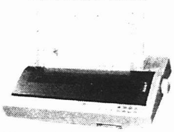

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Computers 3

Electronic Christmas

Money was well spent

THIS Christmas I will not get a thing.

We made an agreement, my partner and I, not to spend on each other.

And besides, throughout the year, I have done well, spending on computers and the computer room.

The computer room was money well spent.

It combines the best of both worlds – high technology and natural bushland.

This side of the French doors it is a technological paradise, on the other side the goannas, lizards, ants and birds do what they have always done.

My confused machine started the year as an XT and will finish up a confusion of XT and AT.

Inside is an 80286 microprocessor running at 15MHz, with two 20Mb hard drives, 1Mb of main memory (Ram), one 720k floppy drive and one 360k floppy drive.

The floppy drives will remain as they are until I can afford those with larger capacities.

The expense is not great, but with money as tight as it is, everything must take its place in the budget of things.

Admires

In addition to this increase in power and memory, I have bought, of course, a Z88, that funny, flat little machine everybody admires but nobody buys.

Why the thing is not given a good marketing I will never know.

Time after time I have wished I was in the business of business and the Z88 was mine to market.

It is easy to use, a joy to carry about, not offensive to airline check-in people and it will slip data across to a PC or Macintosh.

Laptops are great and I would dearly love one for Christmas – in particular, the LTE 286 from Compaq, or the lastest Toshiba T1000SE when it gets its hard disk – but there are many occasions when the Z88 defeats all-comers weight-for-weight.

As for software, well this has also been a great and a big spending year.

I have taken delivery of Wordstar 5.5, Norton Utilities and Norton Commander and Tracker Plus.

All have made my working life just that little bit easier.

In addition, I have begun looking at Microsoft Word 5 and am so impressed that I am thinking it may challenge my commitment to Wordstar.

But more on that in the new year.

Other programs that have impressed over the year include Formworx (a form designing tool for businesses), Contacts Plus (Australian Contacts management program), Mace Gold (utilities program), PC-Tickle (a shareware program) and Cram Analysis (a WA written program that will do your accounts, but will not make tea with sugar).

Turning play into learning

Games

IF you have a computer at home, used extensively by a pre-school child, and you are continually on the hunt for suitable software, read on.

The Playroom, a new software package from Broderbund, turns child's play into child's learning.

They discover a delightful on-screen room filled with games, toys, surprises and valuable learning experiences, says a spokesman from Australian distributor Dataflow.

Aimed at children from three to six years-old, The Playroom is a set of games and activities built around the theme of a child's playroom.

It sells for $69.95.

The child can select any object in the room and something funny will happen.

Some of the activities teach reading or maths, others deal with creativity, while others are simply fun.

There is a variety of personalities to play with, including a cute and cuddly mouse named Pepper.

"In fact, Pepper is so cute and cuddly, Broderbund have actually packaged it, a plush toy mouse, in with the software," said the spokesman.

"The child controls the program, with a variety of games and activities that never become boring or repetitive.

"Sound and animation add to the realism and the enjoyment."

Also included in the package is a parent's guide with reproducible activity sheet and Early Childhood information, along with keyboard stickers for either IBM PC or Apple computers.

A keyboard, mouse or joystick can be used in all formats.

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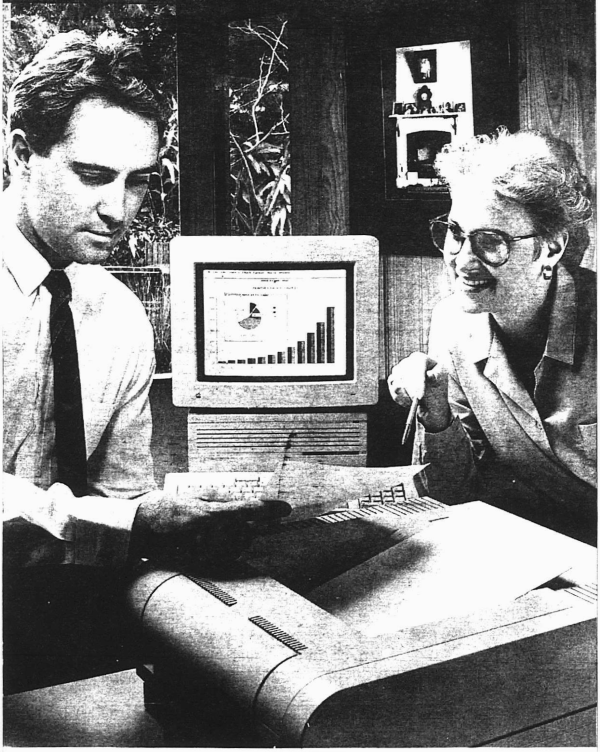

Random Access has the resources to help small business people and professionals get the best results from today's Macintosh technology.

That's one of the reasons we have been named WA's first and only AppleCentre - a classification for a special group of Apple computer resellers. And that's why our clients include many of the State's most successful small businesses and professional practices.

It's our policy to offer a level of advice, service and support which is second to none, and this policy is implemented by the State's strongest team of Macintosh system experts - a resource of immense value for all our clients.

So if you're seeking the latest Macintosh advice, and the very best in systems support and service, doesn't it make sense to start at the Centre?

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Electronic Christmas

Computers 4

Covering is the key

IF YOU are looking for an efficient and useful gift to give a computer user, you could not go wrong with a protective cover.

Increasing numbers of industry, business and home-based workers are relying on electronic equipment.

But what happens when the equipment breaks down because of dust, moisture, static electricity, cigarette ash, foreign objects or a faulty sprinkler system?

Reliability is shot.

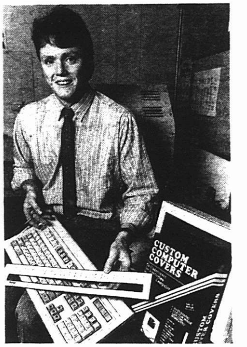
That is where WA manufacturer Custom Computer Covers can help.

Protection

The computer and electronic equipment protection company has been operating in WA for over two years and already has a large share of the Australian computer dust cover market.

Custom Computer Covers manufactures a variety of protection products for electronic equipment and wholesales them to the retail industry.

Products include dust covers to order for virtually any type of equipment, mouse pads, disk wallets, static guard mats (dissipative mat) and the Custom Keyboard Safeskin.



☐ Al Landy showing off a Custom Computer Covers keyboard seal.

The Safeskin is a moulded cover which fits over the keyboard like a second skin and allows the user to operate the keys while the cover is on, never giving contaminants a chance to destroy expensive keyboards.

Static guard mats protect computers against static electricity and prevent corruption of electronic components and data.

Keyboard overlays are designed to suit specific software programs.

The company is currently fulfilling individual order for covers, but next year expects to release a product that can be customised by users.

Clear dust covers cost between $16 and $38 and the anti-static covers cost from $20 to $50.

Other recommended retail prices include disk wallets at $10.50 and $22.20, keyboard seals for $48.60, mouse pads $12.60 and static guard mats $40.

Among news products developed by the company are the CFU or Continuously Filtering Unit.

This product is a box which completely encloses the CPU and filters the air, drastically reducing the chances of head crashes due to dust, smoke particles or other pollutants entering the CPU.

Custom Computer Covers is wholly Australian owned and in its short history has been nominated for Australian Small Business of the Year and has received government sponsorship to assist in the exporting of its products.

Markets

"So far we have found markets for our products in New Zealand, Papua New Guinea, and Canada," said joint director Matthew Landy.

"In the past year we have doubled our retail base and increased our turnover by more than 100 per cent."

The company expect to release more new products early in the year.

For information phone 446 4813.

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XT/B2	8088	4.77/10	640K		360K*2	1/1/1	8/6	$880	$1095	$1380	$1669	$1860
XT/20	8088	4.77/10	640K	20M (65ms)	360K	1/1/1	8/5	$1210	$1415	$1710	$1999	$2200
XT/40	8088	4.77/10	640K	40M (45ms)	360K	1/1/1	8/5	$1410	$1625	$1910	$2189	$2390
AT/B	80286	12/16	640K/4M		1.2M	1/1	8/5	$1350	$1565	$1850	$2139	$2330
AT/20	80286	12/16	1M/4M	20M (45ms)	1.2M	1/1	8/5	$1780	$1995	$2280	$2569	$2760
AT/40	80286	12/16	1M/4M	40M (28ms)	1.2M	1/1	8/5	$1950	$2165	$2450	$2739	$2930
NEAT/40	80286	16/20	1M/8M	40M (28ms)	1.2M	1/1	8/5	$2380	$2595	$2880	$3169	$3360
386/40	80386	25M	2M/8M	40M (28ms)	1.2M	1/1	8/5	$3650	$3865	$4150	$4439	$4630

System includes 101 keyboard, manuals, 12 MONTHS WARRANTY and *Monitor with appropriate display card specifications and prices subject to change without notice.

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● *From Computers 1*

used (chosen from a palette of 262,144), creating outstanding graphical display ability.

This VGA capability is actually built on the motherboard of the system, unlike many other machines which require the purchase of an adaptor card with the use of an extra expansion slot.

It is also compatible with less advanced Hercules, CGA and EGA standards, so that existing software can be used without modification.

The PC2000 series uses the convenient 3.5inch disk format, but some users will have software or data stored on 5.25inch floppy disks.

In order to overcome this potential problem, an external drive adaptor has been built into the side of all PC2000 machines.

It is easily accessible and will allow for a standard 5.25inch drive to be simply plugged in.

Once connected the drive will enable the transfer of data from one disk to another, or the actual use of the data stored on the 5.25inch format.

This adaptor also allows for the use of tape streamers for back-up data storage or the addition of an extra 3.5inch disk drive.

One of the partners at Hay Computers is Vince Govan.

Mr Govan was once state representative for Amstrad and has operated Hay Computers for seven months.

"These two computers are at the top-end of the amstrad range," said Mr Govan.

"They are aimed primarily at the business market, but have the power and flexibility to cater for a wide range of users.

"We have sold units to home users, corporations and government departments.

"They can operate as stand alones or be linked via Novell in a network system."

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- Data created on the Laser PC3 can be transferred to any IBM (TM) or compatible PC. The PC3 comes with PC tools for your PC and data from your PC can be transferred to the PC3. Data can also be stored on to most cassette recorders.
- excellent typing tutor for anyone including children.
- showroom: SOMCO — 382 2511
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Heaps of products at the right price

THE Morley Commodore Users Group is a social group that meets every Thursday night at the Les Hansman Community Centre, Walter Road, Morley.

And what's more the club offers members heaps of products at reasonable prices.

So if it's Commodore gear you are looking to buy this Christmas, check out the Morley User Group prices.

They include the following.

Combo – the latest product from the group allows a user to plug into a computer, via a gender box, a mouse and joystick. Designed for the Commodore Amiga, it sells for $30.

Soft Knock – will help prevent head misalignment of your disk drive and save you a repair bill of $80-$200. Only $10 fitted and highly recommended for 1541 drives.

Reset Switch – will prevent main switch on/off spikes through your computer. Only $10 fitted. Recommended safeguard protection for your 64 computer.

Original

Turbo Burst Nibbler – the latest back-up system available, will back-up your original in just 21 seconds. Fitted for $45. For all 1541, and 1571 drives.

8/9 Disk Drive Switch – for switching your drive to source 8 or destination 9, so easy, so handy. $10 fitted.

Arcade Super Joysticks – super micro switch type (softer feel) fitted with auto rapid fire. Costs $60. No kid can break them (guaranteed unbreakable).

This joystick is made by our group, and carries a money back guarantee.

Ribbon Re-inking – re-ink your printer ribbons. All types can be done for $5. Color re-inking is also available in red, blue, green and brown.

Head align – head alignment will happen some time to your disk drive. If you have trouble loading programs then have us test your drive, free of charge.

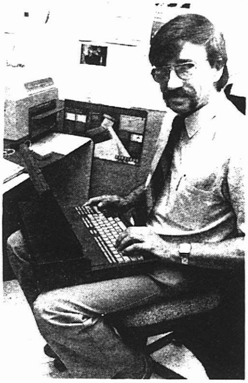
Head alignment service now available for all disk drives – $40 and completed on the same day.

Turbo Dos Fastload Kernal – will load all programs seven times faster than normal. Latest development, cheaper than any other fast load system, only $45 installed.

Have your own name and screen colors on the load up screen, helps stop thieves. It's the latest super fast load system.

For information about any of the above, phone John on 276 6287

☐ The Morley Commodore User Group holds regular displays in shopping centres around the city.


☐ Phil and his ideal Christmas present – an Atari laptop

All way to UK to prove a point

PHIL Reeves is a man on a mission.

He wants us all to realise the great benefits of owning an Atari computer.

To prove his point, he flew all the way to the UK for this year's PCW '89 in London.

While there he bought one of five Atari laptops in the world.

The Stacy 4 has 4Mb of main memory (Ram), a single 720K floppy disk drive, high resolution 640 x 400 pixel screen and 40Mb hard disk.

"When the full range of Atari laptops are released on the market, there will be four models," said Phil.

"The Stacy 1, a 1Mb model with a 20Mb hard drive, will sell for $2995, but the Stacy 4 will sell for $4995.

In the middle is the Stacy 2 (40Mb hard drive) which will sell for $3995.

Phil is a partner in Paragon Computers, and he says the computer marketplace in Australia has been persuaded into believing IBM compatibility was the way to go.

While warming to the conversation, Phil pointed out that his laptop had four times the power of the PC on which this story was written.

"Initially the product will cause great interest in the music industry," said Phil.

"It is ideally suited for musicians heavily involved with midi and other electronic music systems."

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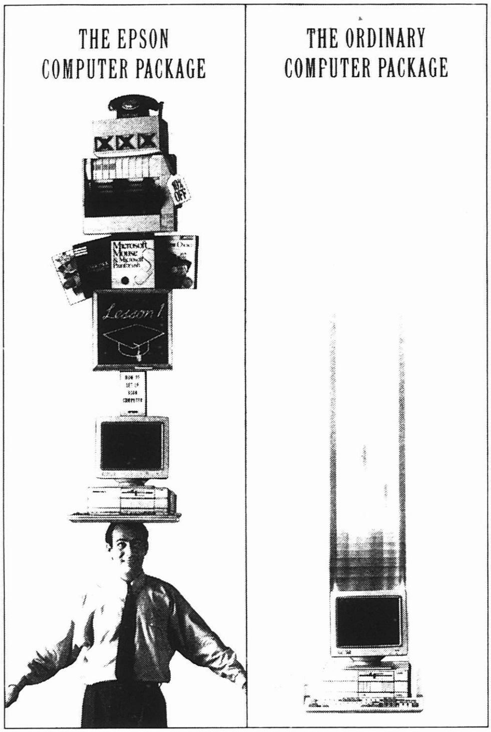

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Pocket Rocket out for Mac

APPLETALK

NETCOMM Australia has released the Pocket Rocket 1234 Modem for the Mac.

Introduced for use with the Mac portable, the Pocket Rocket modem also provides portable communications for Macintosh SE users.

"NetComm is excited about the opportunity to augment the capabilities of the Macintosh Portable with the Pocket Rocket," said product manager with Netcommm, Ian Hendersen.

"Sales representatives along with all other travellers can now transmit vital information using the Macintosh and the Pocket Rocket."

Designed and manufactured in Australia, the miniaturised multi-standard modem is a high performance battery powered modem, capable of up to 2400bps operation and supports the Videotex standard of 1200/75 bps used by Telecom Viatel, as well as 1200 bps and 300 bps.

The modem supports CCITT and Bell standards.

The modem also supports the industry standard AT command for auto dialing, auto answer and auto-disconnect; pulse and tone dialing; modem control from a wide variety of telephone exchanges; built-in local and remote testing procedures; long-term memory; and a miniature speaker to allow the user to monitor the progress of a call.

The Pocket Rocket 1234 for Macintosh package includes – the modem (a small black box 110mm x 75mm x 33mm, with an RS-232 socket at one end); an internal 9V Nicad battery that can be recharged from the mains plug pack, or by using a car accessory adaptor (supplied); and the NetComm Program for Macintosh communications software and a Macintosh modem cable.

The Pocket Rocket will sell for $649 including tax.

□□□

In other communications news for the Mac, Farallon Computing has released the Farallon Portable Pack, a set of hardware and software for the portable.

According to its makers, it provides all the tools necessary to connect the unit on the road, in the office or at home.

The Portable Pack allows Mac portables equipped with modems to operate and exchange files with their office machine from any telephone, to connect to remote AppleTalk local area networks and to transfer files between portable and office machines at high speed.

It was designed to provide a one-stop solution for the mobile executive, field auditor, consultant or salesperson.

The pack includes Farallon's Timbuktu and Timbuktu Remote screen sharing and file transfer software, PhoneNET StarConnectors and necessary accessories.

Suggested retail price is $895.

Gibbon new chief

BYTES and PIECES

RICHARD Gibbon has been appointed WA state manager for business software specialists Automation One.

He will operate from the company's Como office in Perth.

He joins Automation One from an accounting firm where he was computer services manager.

□□□

Peter Krantz has ideas and enthusiasm available to share in the area of SSD – Small Systems Development.

Mr Krantz works in a small company producing software for money market dealers which is marketed throughout Australia.

He is interested in initiating a group of professional small system developers in the PC and mini area.

The group would provide a forum for more technically oriented systems people.

It would for example, allow developers to share ideas about software development tools to facilitate problem solving and to avoid the costly exercise of having to buy every new product released on the market in order to evaluate it.

The group would target individuals, in contrast to the Software Industry Association which targets software-producing companies.

For more information contact Peter Krantz on 271 7988.

Intel now available

Review

INTEL has released its range of computers in Australia, and fine looking machines they are too.

The Intel 386 Model 302 sat beside my insignificant machine for a few days recently and made it look like something out of the 80s (that's a 90s joke).

But, it did not remain, because I could not afford the asking price.

The Intel machine was made, of course, by Intel, better known for the chips that are at the heart of the vast range of ISA (industry standard architecture) systems.

DX 302 runs a 25MHz 80386 microprocessor, 64K cache (providing zero wait state) and is compatible with MS-Dos, OS/2 and Unix.

In its in-house magazine, Microcomputer Solutions, Intel executives say the computers are built for OEMs (original equipment manufacturers).

This gives the Australian distributors – Email Electronics – a great deal of flexibility when selling the machines.

Email technicians can build computer systems to meet the requirements of the purchaser.

To buy the box, power supply and motherboard with 4Mb of main memory (Ram), with no extras, would cost around $5500.

The unit fully setup with monitor, keyboard, 40Mb hard drive and ports would cost close to $9000 before tax.

The computer box itself looks a mite big in these days of diminishing models, but with the potential to add numerous cards and disk drives, it could not be much smaller.

There is space, in fact, for the addition on at least seven expansion cards.

It is a solid box, well made and built for crunching long hours.

The Benchmark CPU speed test clocked the unit at 37.8MHz, which is not a pace to be sneezed at.

And as for instructions per second, the Intel clocked up 3.31MIPS (million instructions per second).

Peter Norton of Norton Utilities fame gave the computer a computing index relative to an IBM XT of 25.1, disk index of 3.7 and an overall performance index of 17.9.

DX 302 has two serial ports and one parallel, one floppy 1.2Mb disk drive, 4Mb of main memory (Ram) and a 30Mb hard disk drive.

The keyboard is AT-style and a classy model. Its keys are solid and firm to the touch.

The machine has a VGA card and the Taiwanese monitor is of a high standard.

Ron Thornton, sales service engineer, from Email in Perth said the company was aiming the computers at CAD/CAM, Unix, Xenix and OS/2 users.

For information phone 446 9044.

386SX a unit for the future

THERE are good reasons why business people looking for their next computer system should choose the latest technology – machines that use 386SX microprocessors.

It is possible for a 286-based machine to run faster than a 386SX, but it does not mean tasks will be completed quicker, or cancel the major advantage in using the 386 technology – the ability to run 386 software.

Perhaps the most common complaint heard from systems managers is the time taken to change programs in 286 and other less powerful environments.

Data bottleneck

It is not long before managers face a data bottleneck and productivity suffers as a result.

Programs like DESQview 386, Microsoft Windows 386, Paradox 386, Foxbase 386, Interactive 386 Unix, Novell Netware V3 and memory managers like Qemm 386 and 386-to-the-Max all allow users to take advantage of the memory mapping abilities of the 386 environment.

For example, in a 286 network environment the network drivers can leave a user with less than 500K of free Dos memory, while within the 386SX environment the above programs will allow up to 600K of free Dos memory.

"This is available now and users do not have to wait for OS/2," said Karl Enright from Data Tek Computers.

"OS/2 386 will offer multiple Dos sessions and Windows 386 and DESQview 386 offers the same.

"Purchase of a 386 machine now will give users future flexibility – especially for those committed to Presentation Manager."

Mr Enright said he regularly ran off several reports covering business operations and with his 386SX was able to complete the task in a quarter of the time.

This was achieved by loading four copies of the report software into Ram and setting each one at work on a separate report.

"Recently one of our customers was considering the purchase of a fast 286 machine, but opted for the 386SX," Mr Enright said.

"They were able to log into their IBM AS/400, run DisplayWrite 4, hot-key to Dos and run Lotus 1-2-3 Release 3, hot-key back to DisplayWrite and, while holding this session, establish a second session and download dBase IV from the AS/400 to a PC while both Lotus 1-2-3 and dBase IV were active.

"All this under IBM PC support software."

Internally the 386SX-based machine is a 386 computer and outside the microprocessor it operates with 286 technology.

There is no doubt that its manufacturer, Intel, intends that the 386 chip will become a standard in the industry.

So far Intel has not licensed 386 technology.

While its competitors have made 286 chips running at 20MHz, Intel has not made a chip faster than 12MHz.

Industry analysts believe it will not make versions of the processor that would compete in the 386 market.

Intel has licensed all other chips prior to the 386 and is now facing stiff competition from those manufacturers.

Mr Enright has spent long hours with his 386SX machine and says business users will find it hard to ignore its benefits.

"Whatever the reasons for Intel developing the 386SX chip, the advantage in bringing this technology on to the market means users can purchase advanced technology at less cost," Mr Enright said.

Major advantage

And the SX allows manufacturers to put 32-bit technology into existing 286-based machines without additional circuitry and with major advantages in the way it handles memory.

It is the use of 32-bit architecture internally that allows the SX to run 386 software within what is essentially a 286 machine.

The 386SX combines both systems – processing instructions internally in 32-bit chunks and outside operating with a standard 16-bit bus.

The 386SX is also based on CHMOS II, low power technology.

Chips are packed in tubes and mounted on motherboards by automatic handlers, which allows them to be mass produced and sold for less than standard 386 computers.

Gem of a prize

☐ Rosemary Egan reveives her prize from Reg Hicks, of Office Products International.

THE smiling faces belong to Rosemary Egan, of Duncraig and Reg Hicks, of Office Products International.

Rosemary is smiling because she won the biggest Gem package of them all – the Presentation Manager – in the Sunday Times/Gem Competition.

Reg is smiling because he loves handing over prizes to people.

Products featured in the $2000 competition were Dr Dos with Gem Desktop, Gem Presentation Team, Gem Artline, Gem Desktop Publisher and Gem 1st Word Plus.

Sunday Times

Computer 90

"Towards 2000"

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Preparations are already underway for Computer'90 and most of the exhibitors from this year's successful show, Computer'89, have signed up to next year's exhibition.

In fact, one of the exhibitors was so pleased with the response that he predicted that if all the enquiries received led to orders, his company would earn more than $5 million in sales and these would be directly attributed to Computer'89.

Another Eastern State's exhibitor claimed that Perth's computer show was the best in Australia and consequently made his Australian launch of his new product at Computer'89.

With the start of a new decade next year, the theme for Computer'90 is "Towards 2000" and many exhibitors are already planning eye-catching and advanced technology to delight attendees.

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Pegasus comes to the rescue

THE Wilderness Society received an early Christmas present this year when Pro-Line Computer Systems offered the conservation group a sophisticated computer system, the Pegasus.

Pro-Line, a WA-based distribution company, imports the Pegasus range of computers.

The XT compatible will be used by the society (TWS) to maintain its growing WA membership, link-up electronically to other State branches and keep the books for the Wilderness Shop, in Fremantle.

Campaign officer for TWS, Peter Robertson, said the computer would prove of immense value to the society in its on-going campaigns.

"TWS now has computers in all major branches and its Pegasus will soon be linked to other States, creating an on-line information network," Mr Robertson said.

"With environmental matters prominent on the public's agenda, this high-tech approach will assist us to offer even more information and services to the community."

☐ Peter Robertson from The Wilderness Society goes on line with Pro-Line's Pegasus XT.

The Pegasus PP-186 12-XT donated to TWS ran a high speed 8-bit V-20 microprocessor, switchable clock speed (6/12MHz), 640K of main memory (Ram), FDD 10 controller card, 360K 5.25in floppy disk drive, MGA CGA dual mode card, serial parallel card and a 101 keyboard.

The 640K of Ram is expandable to 1Mb.

Lou Schillaci, from Pro-Line, said the company was happy to support TWS with a computer system.

"The Pegasus range is very popular in WA and our sales have increased by 180 per cent over the past quarter," he said.

"In fact, due to this increase in sales, proposals are now being drawn up to consider the possibility of an assembly plant in Australia.

"This would give the product local quality control and give Australians a greater say in the configuration of the computers.

"The end result would be a product best suited to Australian conditions."

Mr Schillaci said the range had done well since entering the market because of parity checking chips, high speed Ram chips and quality chip sets from major manufacturers.

The Pegasus range carries a price tag similar to other XT compatibles, but carries extra features such as auto switching EGA video adaptor cards in the basic XT.

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