

LEISURE LINES

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Max Payne

Usually, when talk turns to third-person games, a vision of Lara Croft clad in tight tops and hotpants springs to mind. Enter Max Payne, protagonist in a title from developers Remedy and 3D Realms, to be published in the UK by Take 2. Taking its lead from film noir, Max Payne brings third-person gameplay kicking and screaming into a darker, more modern era.

In development for three years and with no fixed release date as yet, Max Payne is powered by Remedy's in-house MAX-FX 3D engine, which allows spectacular levels of graphical realism. With both skeletal and skinning animation, the models and their textures present an incredibly accurate representation of movement. This, along with the 'radianity' lighting system, which uses surface reflection of light instead of ambient lighting, makes for a very realistic environment indeed.

Set in a bleak present-day New York, you play the eponymous Max, a DEA agent by trade, although he has recently



been framed for the murder of his boss and has just had his family brutally murdered by junkies. Needless to say, he's not a happy man. So he's on the run and out for revenge. Certainly not kids' stuff, but then the developers are going for an adult audience with this title.

Reminiscent of *The Matrix*, Max Payne also sports an interesting replay feature that allows you to watch your more stylish kills in camera-revolving slow motion. With a bullet cam, for that added bit of macabre cinematic fun, Max Payne promises to be spectacular.

www.maxpayne.com

SCOTT MONTGOMERY

Republic: The Revolution

The Revolution will be televised! Well at least played out on your PC with Elixir Studios' title Republic: The Revolution, due for release some time next year. Republic is one of the most ambitious titles currently in the pipeline and so far looks to be a ground-breaking leap for the simulation/strategy genre.

The game uses the most advanced graphics engine ever seen: 'Totality'. This engine seems too good to be true, as it is capable of rendering scenes comprising an unlimited number of polygons and in real time. This throws the door open for buildings and characters of unprecedented detail, creating a living,



breathing cityscape. The graphics engine also allows incredible versatility, such as zooming from a satellite-like image right down to a window box on a building, where even the petals on a flower are rendered in immaculate detail.

Elixir also plans to create a rich simulation environment by using revolutionary AI techniques to allow up to one million non-player characters, with their own beliefs, emotions and loyalties, to inhabit the city.

The synopsis of the plot is that you are a powerful faction leader who is charged with 'ousting the President of the Republic of Novistrana... by any means'. You must build up nationwide support for your faction in order to complete your task. If Elixir can deliver the goods, Republic: The Revolution will be stunning.

www.elixir-studios.co.uk

SCOTT MONTGOMERY

Diablo II

The next episode of the Diablo epic is **ready for your delectation** and it's a class act.

Just as the games industry was settling in for the summer slump, Diablo II has finally arrived. The long-awaited sequel to Blizzard's best-selling, multi-player, fantasy adventure looks set to send sales spiralling, as role-playing game fans are asked to tackle evil once again.

The original Diablo cast you as a wandering warrior, rogue or sorcerer with a mission to destroy the evil deity Diablo. Unfortunately, he proved to be stronger than anyone imagined.

Diablo II continues the story with the wanderer, now possessed by Diablo, on a mission to free the demon's brothers Baal and Mephisto. The evil has returned to Tristram and a new hero is needed to deal with things once and for all. This time you can choose to be a holy Paladin, a seductive Sorceress, an athletic Amazonian, a nefarious Necromancer or a beefy Barbarian.

As before, each character has a different set of skills available and the role you choose greatly determines the way the game unfolds. The Paladin, for example, is a holy knight who can call on the power of his god to help strike down his enemies. The Barbarian is the only character who can wield two weapons at once, while the Sorceress has more than a few tricks up her sleeve. Perhaps the most interesting is the Necromancer, who can raise the souls of the dead to do his bidding for him.

As before, each adventurer starts out at a basic level and, as their experience grows through battle and quests, so does their power. That said, changes have been made to the way you learn new skills. Instead of reading books to gain magical knowledge, this time you are given a point to invest in skills for every experience level. There are 30 levels in all,

so you get a maximum of 30 points throughout the game to invest. The great thing here is that, because of this, two players can choose the same class of character and have completely different abilities, depending on what they choose to master.

There are a raft of new skills and

can benefit everybody in the party.

Not all the improvements are as obvious. For a start, while the mouse-controlled interface has been refined and the graphic engine updated to include support for 3D accelerators and some amazing parallax perspective scrolling, you are limited to running at a resolution of 640 x 480. Yes, the

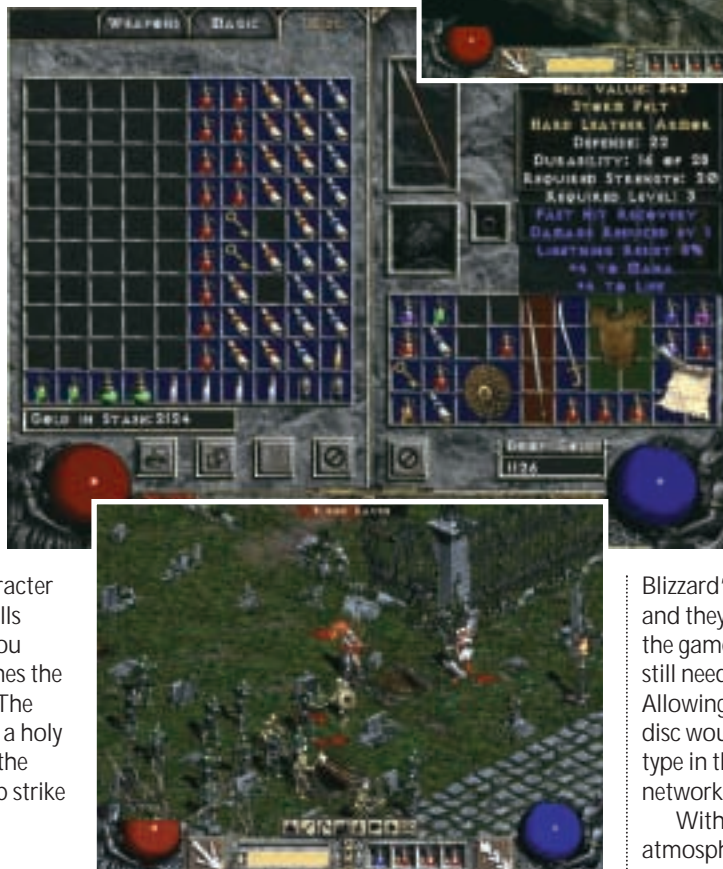
graphics look good, but they would look much better at higher resolutions. Stranger is the fact that the game switches to 800 x 600 for menu screens. Limiting the resolution may make it easier to port the game to other platforms, but it seems plain daft on today's PCs.

However, it's easy to overlook things like this once you get into the action and especially the multi-player games. These can be played over a network or via

Blizzard's Battle.Net over the Internet and they add a whole new dimension to the game. The only downside is that you still need a copy of the game per player. Allowing two players to use the same disc would be good. You also need to type in the host's TCP/IP address on network games, which is a tad annoying.

With detailed graphics and atmospheric audio complete with Dolby Surround sound, Diablo II looks set to be the role-playing adventure of the year.

CHRIS CAIN



spells to be learned, thousands of items to collect and plenty of nasties to defeat. You'll see some old faces, too, with the return of blacksmith Griswald, although he's not quite the man he used to be. The world in Diablo II has grown. Whereas the first game had a single town and its underground catacombs, Diablo II has four realms to explore.

Another nice twist is that you can hire other people to join you on your quest, increasing your chances of success. And some skills – such as the Paladin's ability to heal himself –

DETAILS

★★★★★

PRICE £34.99 inc VAT

CONTACT Havas Interactive 0118 9209100

www.blizzard.com

SYSTEM REQUIREMENTS Pentium 233MHz, 32MB of RAM, Windows 95, 650MB of hard disk space, four-speed CD-ROM, Direct X-compatible video card



MDK 2

Janitor turned superhero Kurt Hectic returns in this **deranged third-person shoot 'em up**.

MDK was a surprise success a couple of years back, combining terrifically violent gun-toting with comic-book characters and oddball humour. So MDK 2 has been a much-anticipated release. The wait has been well worth it.

In MDK 2 the character of Kurt Hectic, transformed from a simple janitor to sniper superhero by Doctor Fluke Hawkins, is back to save the world when news reaches him of an alien invasion. Kurt's mentor and guru, Doctor Hawkins, has built him a coil suit, complete with ribbon chute, enabling him to float large distances. He's also got a chain gun and a sniper scope that lets him pick off his enemies from a mile off.

You get to play both characters, as well as Max, another of Doctor Hawkins' inventions. Max is a robotic dog with four arms, so you can use multiple weapons, and a jet-pack. Hawkins is the weakest of the player characters and has an extremely limited and ostensibly useless arsenal, consisting of household items such as a toaster, a loaf of bread, or a pile of dirty towels. Beware, though, when you're playing the inventive Doctor you can try different combinations of items in his left and right hands to varying effect.

Gameplay itself feels a bit staggered. Although there is a linear plot that holds the whole thing together, each stage is like a challenge in the Crystal Maze. All the pieces are there and you just have to locate them and use them in the right manner to pass on to the next. The game does, however, retain the humour of the original, with your alien opponents pulling faces while you're training your

sniper rifle on them, or laughing callously as they slice you in two. Even so, when you finish one of them off they collapse and die with a suitable gurgle of slime.

Movement is great in this game. As with all third-person shooters, the viewpoint is vital, both in order to see your own

bouncing bullet and an invisible cloak.

Max, on the other hand, has a pure killer instinct. No special weapons here, but you start off with double the health, get to use multiple weapons and play a robotic four-armed canine, so who's complaining?

The AI of the aliens isn't really an issue either. They may prefer shooting the dummy and don't

take the game seriously, but they'll still whip you if you're not careful.

The environments you explore are magnificent, with vast swirling organic arenas and deep twisting vaults. Truly the work of the deranged.

The movies between each stage of the game are wacky to say the least, although they don't stand up to much repeated viewing. And on our

466MHz Celeron test machine, the best we could get was an 800 x 600 display, which gave these movies a blocky look at times. The rest of the game was fine, however.

In all, as Max might say, we think this game is the mutt's nuts in terms of giving the third-person shooter a new lease of life. With beautifully conceived graphics, a narrative that sweeps you along and enough mindless killing to keep diehard fraggers on their toes, this is a game that will fly off the shelves.

MATT WHIPP



character and to get a good view of his surroundings.

Hitting the enemy with your gun is also more difficult because of this, as there is no cross-hair through which to aim. Having said that, most of the target work with Kurt is done through the sniper scope. When you enter sniper mode, a whole new arsenal of powerful and accurate weapons becomes available and you can zoom in and out effectively. Kurt also has a few other tricks up his sleeve, such as a dummy decoy, a

DETAILS

★★★★★

PRICE £34.99 inc VAT

CONTACT Interplay 020 7551 0000

www.interplay.com/mdk2

SYSTEM REQUIREMENTS Pentium

233MHz (300MHz recommended), Windows 95/98, 24MB of RAM, 250MB of hard disk space, 8MB graphics card



Vampire: The Masquerade

This age-old tale of **revenge and bloodsucking** gives you the opportunity to play the storyteller.

Vampires have always had a big following in film and literature, and a game based around them has more scope for an intelligent storyline than zombiefests such as *House of the Dead*. *Vampire: The Masquerade* has one up on the competition, as it is based on an already popular role-playing game and has a wealth of background information to fill in the history behind the undead. The plot takes place among warring clans of bloodsuckers and follows a gory trail across the centuries and through four cities – medieval Prague and Vienna, and then modern-day London and New York.

The game mixes its styles to set the exploratory gameplay of *Diablo* in the 3D environment of *Quake*. The character is moved using the cursor to point and click in the desired direction, with the view panning around as you move the mouse. This system is a lot easier than the clunky controls of *Tomb Raider*. But, unlike Lara,

you're not going to die by falling off the edge as the game makes you keep to the path. This makes it easier to navigate, but it also makes you feel as if you are not really in control and are just following a set route.

The narrative follows an 18-year-old soldier called Christof, who is wounded fighting an unholy war and falls in love with the nun who nurses him back to health. But dark forces and the forbidden nature of their relationship keep them apart.

It's the age-old story of boy meets

nun, boy becomes vampire, vampire seeks revenge across 800 years and half the globe. The story opens with him defending Prague against the undead



with swords, bows and arrows. But when it moves forward in time the weapons become more high-tech and

you're more likely to be touting a flamethrower or an assault rifle.

The manual kicks off with a well-crafted tale of Christof's life in the crusades, but this isn't carried through into the game. There are also some odd quirks: when Christof meets some fellow Knights of St John they tell him in an English accent how good it is to hear another French accent. He replies in his vaguely Irish accent while standing before them in his tunic emblazoned with the red cross of St George.

As you progress through the single-

player game you can pick up allies to add to your coterie (the vampire word for a group of undead working together for mutual ends). Your characters will also gain in experience and you can add to their physical attributes, such as learning new disciplines, which are vampire powers similar to magical abilities.

The most interesting aspect of the game, however, is the Storyteller mode, which allows one player to create and run an adventure of their own over the Internet or LAN. Using the tools in the Vampire software developers' kit,

Embrace, storytellers will be able to manipulate the game and create their own levels, chronicles and objects. Commands include in-game manipulation to further the story, such as adding or deleting creatures, objects or props and taking control of any character, whether they are actual players or are controlled by the computer.

Overall, the game is extremely playable and even

those unfamiliar with Vampire's role-playing roots should enjoy it, as there is plenty of background material in the manual. And if the storytelling aspect takes off, you could be starring in a different vampire flick every night.

MATT CHAPMAN

DETAILS

★★★★★

PRICE £29.99 inc VAT

CONTACT Activision 01895 456 700

www.activision.com/games/vampire

SYSTEM REQUIREMENTS Pentium II 233MHz, 64MB of RAM, DirectX 7.0-compatible graphics card and sound card, 720MB of hard disk space plus 80MB of swap file space, Windows 95/98

Shogun – Total War

Honour, politics and war in 16th Century Japan takes 3D strategy games to new heights.

You can almost hear the melodramatic American growl of the voiceover as visions of sword and sorcery appear on the screen: 'Many years ago, in a far off land, warring clans did battle for supremacy.' Now change that voice to one with a Far Eastern accent and the place to historically accurate Japan, circa 1530. Creative Assembly's *Shogun – Total War* has one of the most refreshing and impressive intros we have ever witnessed, and is an apt prelude to the best of the current crop of strategy games, mixing realtime out-and-out warfare using a great 3D engine with turn-based resource management and strategic manoeuvres.

The start menu offers you several choices. It would be unwise to skip the tutorial and head straight for the campaign mode, as it's a slowish game with a lot of controls and skills to master.

If you feel like skipping the turn-based element you can play out historical conflicts using the realtime 3D engine only, or load the odds in your favour with the custom battle option.

In the campaign you begin as a Daimyo, controlling a number of provinces and with the ambition to conquer the rest. Not surprisingly there are many ways to accomplish this based on strategic alliances or battles. The turn-based element incorporates training troops and placing them on the map.

There is a huge variety of troops at your disposal. Those on the battle field brought no surprises: spearmen, cavalry, archers and such. But you can also muster some more interesting individuals, ranging from emissaries and spies to priests, Ninja and the most deadly assassin of all: the Geisha. Place

these in your enemy's province and let them do their work.

To afford these troops you must pay for them in Koku, the rewards of the annual harvest. Harvests are reaped once every four turns and the rewards can be increased by

which you can make your decisions.

However, more often than not, we felt like getting stuck in there in the battle mode. The realtime strategy 3D engine

opens up vistas below you of rolling hills dotted with castles and encampments, wildlife and small woods. Both the terrain and the weather affect your troops' performance, so use them wisely.

Your troops can assume many formations and you can view the options by clicking on their flag.

One thing that did impress us here was the sound. As you move your viewpoint around, for example, you can hear the thunder of horses' hooves and battle cries grow louder as you pass over a troop of mounted samurai.

Honour and morale are important concepts in the game and, should you manage to take out the enemy leader, the honour and morale of his troops will droop and you'll rout or make mincemeat out of them. Similarly, if you march your troops uphill for too long they'll flag.

So to sum up, *Shogun* seems impervious to faults. There is a lot to learn in order to get the most out of it, but you can get by on the basics without disrupting the flow of the game. It simply exudes class, from its astounding attention to detail to its playability.

MATT WHIPP



irrigation or building mines and gaining more territory. One way or another, you'll want as much as you can get, so guard your harvest carefully.

To get the more advanced units you'll also need to start building such constructions as Tea Houses enabling provincial trade, watch towers, temples and Ninja Houses. You'll also need a castle, if only as a stronghold to fall back to and hold out in during a siege.

To find out the latest news or consider or propose alliances you must visit the throne room where your trusty advisor will dole out the advice from

DETAILS

★★★★★

PRICE £34.99 inc VAT

CONTACT Electronic Arts 01932 450 000

www.totalwar.com

SYSTEM REQUIREMENTS Pentium

233MHz, Windows 95/98, 500MB of hard

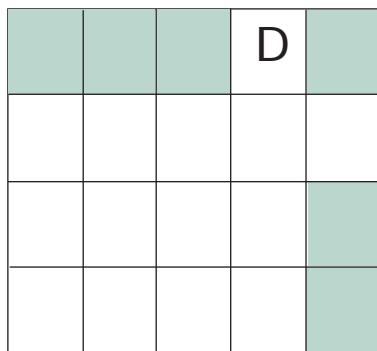
disk space, 4MB DirectX 7-compatible

graphics card, four-speed CD-ROM



Dawn chorus

This month's brainteaser is certainly not for the birdbrained among you. All you have to do is insert a letter into each of the 14 blank squares so that you can trace out the nine birds listed below. To trace out a word you may start from any square, but each move to a letter must be to an adjacent square – horizontally, vertically or diagonally. You may use a letter as many times as you



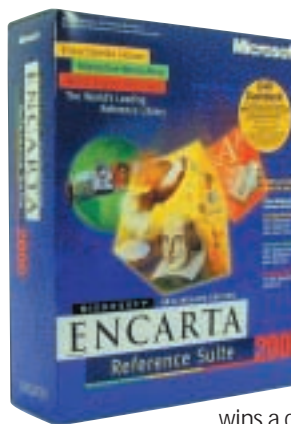
like, even within the same word.

AUK
KAKA
KIWI
REDWING
SERIN
SILKTAIL
SOLAN
SWAN
WAGTAIL

Find the solution to this puzzle for a chance to win a copy of Microsoft Encarta Reference Suite 2000.

Send the answer, along with your name and an address where you would like the prize to be mailed, on a postcard to: PCWPrize Puzzle (September 2000), VNU House, 32-34 Broadwick Street, London W1A 2HG, or by email to: letters@pcw.co.uk.

Answers should arrive no later than 20 August 2000. Please note that we DO NOT open attachments.

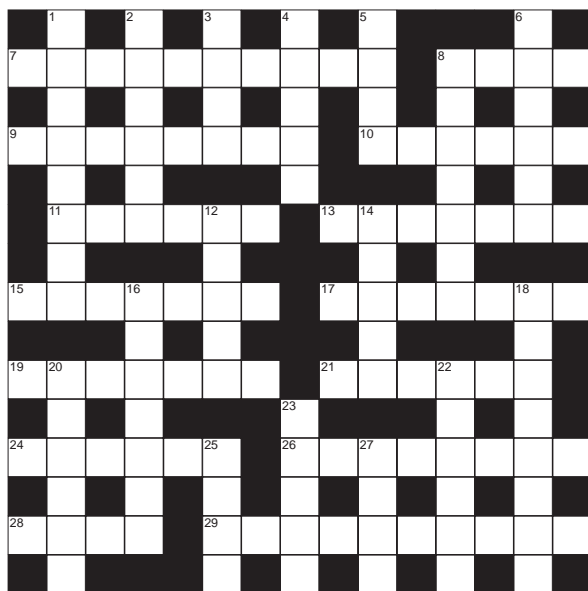
**June's Prize Puzzle answer**

The solution to our Once is enough puzzle in the June issue is below.

C Hodgson from Stockport was the first reader out of the hat and wins a copy of Encarta Reference Suite. Congratulations, your prize is on its way.

2	6	3	4	1	5
5	1	4	3	2	6
4	5	6	1	3	2
1	2	5	6	4	3
6	3	1	2	5	4
3	4	2	5	6	1

prize crossword

**ACROSS**

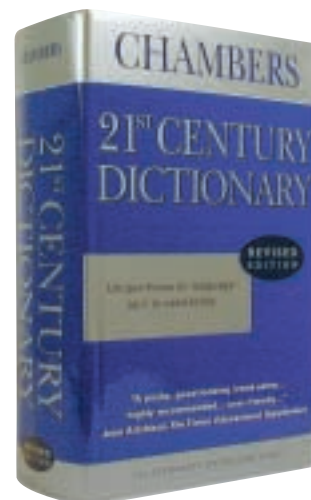
- 7 Image sharpness (10)
8 Reference lines on a graph (4)
9 Gratis software (8)
10 and 24 across
Moving images for idle monitors (6, 6)
11 Packet of personal details (6)
13 Fashionable internet companies (3.4)

- 15 Computers served by servers (7)
17 The C of CPU (7)
19 Devices for directing data between networks (7)
21 Port that's not parallel or USB (6)
24 See 10 across
26 Computer's underlying structure (8)
28 Program's defects (4)

- 29 File appended to an e-mail (10)

DOWN

- 1 Having poetic rhythm (8)
2 Piece by Ravel (6)
3 Chrysalis (4)
4 Large stream (5)
5 Taverns (4)
6 Buy back (6)
8 Orange-coloured fruit (7)
12 Bury (5)
14 Overweight (5)
16 Respects (7)
18 Attractive (8)
20 Non-transparent (6)
22 Notoriety (6)
23 Flood (5)
25 Marine mammal (4)
27 Curved entrance (4)



Each month, one lucky PCW Crossword entrant wins a copy of the Chambers 21st Century Dictionary. The winner of July's crossword puzzle is: D Medrow from Sussex. This time, it could be you. Send your completed crossword to: 'PCW September – Prize Crossword', VNU House, 32-34 Broadwick Street, London W1A 2HG, to arrive no later than 20 August 2000.

• Please state clearly on your entry if you do not wish to receive promotional material from other companies.

Solutions to August's crossword

ACROSS: 7 Basic 8 Font 9 Read 11 Bounce 12 Firewall 13 Demo 15 URL 16 Error 19 History 20 Retried 23 Cells 25 Exe 26 Spam 28 Protocol 30 System 32 HTML 33 User 34 Media
DOWN: 1 Halo 2 Signpost 3 Norfolk 4 Stern 5 Brewer 6 Bawl 10 Require 14 Exile 17 Opera 18 Release 21 Resisted 22 Replied 24 Little 27 Scrub 29 Rate 31 Epic

WIN 3 great Philips Brilliance monitors

We have three stunning monitors to give away this month, thanks to award-winning manufacturer Philips. Three lucky PCW readers have the chance to win a great 17in, 19in or 21in monitor from the Philips Brilliance range. Brilliance, Philips' line of professional displays, offers high-performance products that, with the help of ICE technology, deliver excellent performance. The monitors are incredibly easy to use thanks to Customax monitor control software connected via USB.

The 17in Brilliance 107P has a VESA flicker-free display of 1,024 x 768 at a refresh rate up to 85Hz, and a maximum resolution of 1,920 x 1,440, and its dual inputs allow simultaneous connection to two computers.

Philips' 19in 109P offers a maximum resolution of 1,920 x 1,440 with a flicker-free display of 1,280 x 1,024 at up to 85Hz. An exclusive Auto Calibrate feature is included that guarantees consistent performance and extends by a third the useful life of the monitor.

Finally the Brilliance 210p has a stunning 21in display with a staggering horizontal frequency of 121KHz, a maximum resolution of 2,048 x 1,536 and a VESA flicker-free display of 1,600 x 1,200 at up to 85Hz. It also benefits from the Auto Calibrate feature mentioned above.

■ *For a chance to win one of these Philips monitors, just answer the question and follow the 'How to enter' instructions opposite.*



The Brilliance 107P's maximum resolution is:

- 1) 1,024 x 768
- 2) 1,920 x 1,440
- 3) 1,600 x 1,200

Packard Bell and ATi winners

Nigel Massen of Surrey is the winner of July's competition for a Packard Bell Spirit PC. The runners up, who win an ATi All-in-Wonder graphics card, are Mr Gooch of Letchworth, T Campbell of Leicester, and Alan White of Bath.

How to enter

Fill in the coupon and send it to the following address by 30 August 2000:
Personal Computer World
 VNU Business Publications,
 32-34 Broadwick Street,
 London W1A 2HG
 Or email your name, address and daytime telephone number to us at pcw_competition@vnu.co.uk

Please state in your email if you **DO NOT** wish to receive information about other products and services from VNU Business Publications Ltd, and if you **DO** want your details to be passed to other carefully selected companies for marketing purposes.

◆ *Competition open to UK residents only.*

PCW September 2000 competition entry form

Name:

Email address:

Daytime telephone number:

Address:

Answer: The Brilliance 107P's maximum resolution is:

• Please tick here if you **DO NOT** want to receive information about other products and services from VNU Business Publications Ltd ☐

• Please tick here if you **DO** want your details to be passed on to other carefully selected companies for marketing purposes ☐

Rules of entry

This competition is open to UK readers of *Personal Computer World*, except for employees (and their families) of VNU Business Publications, and Philips. PCW's Editor is the sole judge of the competition, and his decision is final. No cash alternative is available in lieu of prizes.

The Micro Chess Championship, a modular PC and the imminent launch of Windows 95.

20 YEARS AGO September 1980



With chess very much flavour of the month, *PCW* asked the question, 'Who'll be World Micro Chess Champ?' This was in reference to the first official World

Microcomputer Chess Championship that was to be staged at the forthcoming 3rd *PCW* Show. To set the scene, Kevin O'Donnel looked back at chess micros, including the famous late 18th Century Automaton Chess Player. This was a life-sized figure, sat behind a chest in readiness to defeat any challengers. It was all the rage, but you have to feel sorry for the tiny chess expert crammed inside the chest.

In keeping with the chess theme, *Computer Games* by David Levy, quoted the findings of Claude Shannon. This mathematician calculated that there are some 10,120 possible games of 40 moves (the average length in a masters game), and analysing this at the rate of one game per microsecond would take a computer 1,090 years to make its first move. These heady figures led to the development of Shannon's evaluation function – a theoretical estimate of who had the upper hand, obtained by assigning importance and positional values to each chess piece.

Up for bench testing, was the long-awaited Commodore SuperPET. With built in IEEE-488 interface and parallel port, it was aimed at the business market interested in cross-computer comms.

Finally, back in the chess world, Sargon 2.5 was a program devised by husband and wife team Dan and Kathe Spracklen. It eventually found its way into the Sargon chess console, which had 8K of ROM and could out-manoeuvre the average chess club member.

15 YEARS AGO September 1985



Inexplicably, a rather pale Charlie Chaplin graced this month's cover, draped around our lead review product: ACT's Apricot F10, priced at a humbling £2,295.

Our man at the scene, Peter Bright, peeled off the flimsy casing to find the same Intel 8086 chip, driven at 4.7MHz

as on the earlier Apricot F1. Significantly, though, the RAM had been doubled to 512KB and a 10MB drive had been added. The monitor impressed, too. A Sony FD Trinitron screen blazed away in four colours and, to this day, we still prefer the aperture-grille flavour of the Trinitrons over their shadow-mask brethren, as seen in our monitors group test on page 186 of this issue.

The other exciting news this month was the eighth *Personal Computer World* show at Olympia. The list of major names gracing the floor of the National Hall reads like the past few months of our Retro column: Amstrad, Acorn, BBC and Sinclair were all showing off their latest machines. And for the first time in the UK, Atari brought us its 520ST (as 'reviewed' in our Retro column overleaf). Who knows how many boffins browsing that stall turned out to be the drum 'n' bass icons of today? Finally, Psion pre-empted today's PDA-crazy world with its Organiser.

10 YEARS AGO September 1990



A decade ago, Guy Swarbrick was saying: 'The PC industry is, without doubt, going through one of its slow periods. Strangely, though, while there is little new hardware or software around, what there is is innovative.'

One of the innovations he was talking about was the Agilis System, which he described as 'a rugged, flexible, portable PC quite unlike anything else on the market'. It was a machine that could be pieced together to create a system to suit individual needs. It included packet radio capabilities, a portable handheld computer that could communicate with the PC back at base via an Ethernet network. The system was apparently used by the Morgan Hill police department in California to check suspects' details.

The criminal world was also on MP Emma Nicholson's mind with the imminent arrival of the Computer Misuse Act. Far from being a politician in the ivory towers of Westminster, Nicholson had spent 18 years as a programmer and, 'she really does think hacking is wicked and hackers are either wrong minded or criminally intentioned. And if you spend your leisure hours playing pass-the-parcel with someone else's data, she really does

want to see you in the nick,' according to writer John Diamond. Strong words indeed, but faced with today's hackers and viruses, such as the Love Bug, we have to wonder whether times have really changed and if the law introduced 10 years ago has worked.

Where times have changed, however, is in the specs of notebooks. The ever-present Guy Swarbrick tested Sharp's 'power-packed' PC-6200 notebook, an 80286-based machine with a massive 20MB hard disk. And for the number-crunchers, there was a connector for a numeric keypad!

5 YEARS AGO September 1995



The imminent launch of Microsoft's Windows 95 dominated this cover, not to mention the issue. A 36-page review bared all about the new OS, as the *PCW*

team separated Windows fact from fiction. Windows was compared to floor wax and dessert topping as the *PCW* team attempted to explain everything a user needed to know, including whether to make the leap. However, not everyone was convinced that Windows 95 was the future. Jez Deacon, technical director at Carrera, told *PCW* it would probably be: 'an optional purchase initially, and we'll gauge the reports and customer reception when we decide whether to make it the initial product on all systems'. Isn't hindsight a wonderful thing?

It may come as a surprise to some that it was five years ago this month that the PlayStation was originally released. It competed with Sega's Saturn and helped fuel the beginning of the games console wars. Chris Cain reviewed both machines, concluding that the PlayStation outclasses the Saturn in terms of hardware design, although Saturn might win the competition initially, because of its superior game titles. However, as Chris said: 'This is an issue Sony can do something about, and once it does, Sega will have a big problem.'

Finally, the chip of the moment, the Pentium 90, was put to the test with the review of 21 P90 PCs. Adams Accura Professional 586 WS picked up the Editor's Choice for its top-quality components, including a new Matrox Millennium with 2MB of VRAM.

THE PCW TEAM

Atari ST

A 16bit processor and graphical user interface made for a **cheap and cheerful** home computer.

Say Atari and great video games spring to mind, right? After all, this was the company where video games legend Nolan Bushnell created the seminal Pong arcade coin-op in 1972, then followed it up with Breakout. And who can forget the awesome Atari VCS games console in 1977, complete with fake corrugated wooden case and the first home version of Space Invaders?

While Atari was a force to be reckoned with on the games front, more serious projects were afoot. The Atari 400 and 800 ranges during the late Seventies and early Eighties proved Atari could cut the mustard on the home computer front, but better things were on the horizon.

In 1984, Atari was sold to former head of Commodore, Jack Tramiel, and from that day on, the company would focus on computers. The fruit of Atari's labours was a system employing a 16bit Motorola 68000 processor, which with 32bit internal architecture led to Atari coining the name ST – short for sixteen/thirty-two. The first model featured no less than 512KB of RAM, and hence was known as the 520ST (give or take a few kilobytes). Launched worldwide in 1985, the Atari 520ST weighed in at a not inconsiderable £750, but most crucially beat Commodore out of the 16bit gates. £750 was also sufficiently cheap for Tramiel to coin the slogan: 'Power without the price'.

In beating arch-rival the Commodore Amiga to the shops, Tramiel did, however, cut a few corners. The first ST's operating systems were not in ROM, but instead supplied on 3.5in floppies. Worse still, Jack named the OS after himself, resulting in the unfortunately acronymed Tramiel Operating System. It did, however, employ Digital Research's GEM desktop, which was the first time a graphical user interface had ever been seen on an affordable home computer.

The 520ST's 68000 CPU ran at 8MHz, backed up by 512KB of RAM and up to 192KB of ROM. The system could drive a mono monitor at 640 x 400 pixels in crisp black and white, or a colour monitor at 640 x 200 in four colours or 320 x 200 in 16 colours, each out of a palette of 512 colours. A 360KB 3.5in floppy drive was built in, and a two button mouse supplied. There was no shortage of plugs: a ROM cartridge slot, a

boasted 1, 2 or 4MB of RAM. At this point, Atari introduced the 20MB MegaFile hard disk and the SLM804 laser printer, creating a new killer application for the ST: a complete desktop publishing system for less than the price of a typical IBM laser printer.

There was even more to come. Atari released the STacy, a portable ST albeit weighing a lap-crushing 15lb. Next, the long-anticipated TT030 arrived boasting a modular case with removable hard disk, a 32MHz 68030 CPU, along with SCSI, LAN and three serial ports on top of the connections already offered on the ST.

In 1988 Atari and Immos

Atari's 520ST beat Commodore to a 16bit machine and offered 'Power without the price'

pair of joystick ports, video, parallel, serial, floppy and hard disk connectors, but most importantly of all, a pair of MIDI ports.

PC owners take it for granted that their joystick port doubles up as a MIDI interface, capable of talking to and controlling all manner of musical instruments. Impressively, the ST boasted built-in MIDI 15 years ago.

On the games front the ST absolutely shone, with such classics as Jez San's 3D Starglider 1 and 2, the addictive platform action of Bubble Bobble, and the intricate adventures of The Pawn and Guild of Thieves.

Later, the 1040ST arrived with 1MB of RAM and TOS on ROM, and subsequent STs also included RF modulators for direct connection to a TV set. Much more exciting was the introduction of the Mega ST range, which separated the keyboard from the main processing box, and

announced the ATW800 Transputer Workstation, which combined

the power of multiple T800-20 processors (each delivering 10MIPS) running in parallel with the easy-to-use front-end of the Mega ST. However, by 1992, Atari was winding up its computer story with the Falcon 030, a 16MHz 68030 system featuring DSP and hard disk audio recording in a conventional 1040ST case.

Atari was now focused on its Jaguar games console, but the less said about that and its consequences, the better. Let's instead head over to the appropriately named Little Green Desktop website, download Paul Bates' superb WinSTon emulator (<http://lgd.fatal-design.com>), and remember the good times when Atari offered a true GUI powerstation at a price IBM could only dream of.

GORDON LAING

