PC GAMER

Issue

THE VR ISSUE

The Oculus Rift launch in depth

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THE TECH   **THE PEOPLE**   **THE FUTURE**

PALMER LUCKEY AND MICHAEL ABRASH ON ENTERING THE **NEXT AGE OF PC GAMING**

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PC GAMER

#279 JUNE 2016

VR has arrived

In this issue, Wes Fenlon goes behind the scenes at Oculus VR to talk to the creators responsible for one of the two headsets currently hitting the market. This feels like unprecedented territory on PC—whether the Oculus Rift or Vive takes off, it's a fascinating new frontier for PC users. As you'll discover for yourself, they're already producing games that offer an experience unlike anything else we've seen to date. Check out our Oculus studio visit, and impressions of the first software, starting on p34.

SAMUEL ROBERTS
EDITOR
samuel.roberts@futurenet.com
@SamuelWRoberts

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Our team of writers

WES FENLON
Specialist in
VR, SSDs
Twitter
@wesleyfenlon
This month
Bravely played every Oculus Rift launch game in order to deliver his verdict on the best ones.

PHIL SAVAGE
Specialist in
Reinstalling Windows 10
Twitter
@octaeder
This month
Interviewed Xbox's Phil Spencer in what we considered calling 'Phil or be Philled.'

JAMES DAVENPORT
Specialist in
New York, New York
Twitter
@my_beards
This month
Had a bad time in Times Square, but not because he spent too much at the M&Ms store.

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Fifty games you can play on PC right now, with handy links to all of them, too.

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PROCESSOR SUPERTEST
Dave James dims the lights and gets down to business with some CPUs.

PC GAMER

SEND

Electronic epistles. A free key for The Division for the month's star letter!

Caused me to lose

It's incredibly sad to see PC Gamer give *XCOM 2* 94%, considering the game was virtually unplayable to a large number of people on release. I had hoped we were long past the stage of mainstream reviewers giving free passes to games, not least because that's exactly what has caused so many people to migrate from mainstream reviews to YouTube and Steam reviews. My own experiences with the many performance issues, bugs, and glitches with *XCOM 2*, and knowing your review totally ignores them, has caused me to lose all confidence in your ability to review games. ■
Fred Vaughan

Like it or not, we can only review a game as we experience it. In the case of *XCOM 2*, we didn't have any major problems—just like the majority of people posting positive Steam and YouTube reviews. PCG

Able to hop

If I wear the VR headset and look at my wife, could it make improvements —rendering her all the more appealing and seductive? Could I travel to the shops, and maybe buy things for free? Would I be able to hop into my Toyota Corolla '89, but have it appear that I am driving a Ferrari Testarossa? Would I be able to attend virtual concerts of my favorite bands any time I want, for free? Most pressingly, if I go to the bank wearing it, could it be programmed so that all the tellers have no clothes on? ■
Robert Roemer

You seem to have mistaken VR for dreams, and wearing a VR headset for being in a dream. Also, don't ignore your real spouse for a virtual reality one unless you're starring in a kookie sci-fi romcom. PCG

The way I wanted

When I played through *Fallout 4*'s main storyline, I was disappointed it wouldn't let me roleplay the way I wanted. None of the conversations had options with my point of view. I understand the way modern RPGs are built: increasing the number of preset paths greatly increases the size of the game and cost of development. But what if RPGs used a different paradigm? What if conversations, instead of giving you a limited number of replies, let you type in what you want to say? Could RPGs in the future let the story evolve organically, based on what you type and a robust AI? ■
Robert Berahovich

We're still a long way from technology like that, but some games are trying. Check out *Event[0]* for a start, due later this year. PCG

Total War: Warhammer is both new (nearly) and an RTS.

WINNER!

✉ Like discovering Firefly

I've been playing games on the PC a long time now. My kids are growing up, and now playing *CS:GO, Dota 2, Rust, Minecraft* and everything else they can find, which means I have a bit more me time for the first time in years. I've loved war games since Games Workshop launched, so I downloaded a batch of strategy games and I'm having a great time. *Dungeons II* was fun, *Grey Goo* was alien and challenging, and *Homeworld: Deserts of Kharak* was like discovering *Firefly*. The music and atmosphere were great. The icing on the cake is sure to be *Total War: Warhammer.* Strategy gaming is in a great shape. Not just the systems, but the stories, worlds, art and music. If you like war games then dive back in and play the games I've mentioned.
Jonathan Gibbons

A few people got in touch about PCG 277's feature, 'End Game'. To be clear, we weren't suggesting the RTS is dead. As Jonathan shows, there are plenty of great new strategy games out there. PCG

Windows 10

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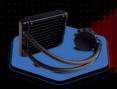
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THE TOP STORY

EPIC VS MICROSOFT

Epic CEO Tim Sweeney condemns the **UNIVERSAL WINDOWS PLATFORM**

It's tempting to dismiss Microsoft's latest attempt to break into PC gaming, especially after the debacle that was Games for Windows Live. It would be a mistake to do so, not least because Microsoft has announced a Windows 10 release for *Quantum Break* and a free, 'curated' version of *Forza Motorsport 6*. There's also another reason: the Universal Windows Platform, and what it might mean for the future of PC gaming.

The Universal Windows Platform, or UWP, is a set of programming interfaces used in the creation of Universal Windows applications (UWAs). It's designed as an alternative to Win32—the programming interfaces used to create just about every PC game and program that you use today.

For some, including Epic CEO Tim Sweeney, UWP is a threat to the idea of the PC as an open platform. "Microsoft is moving against the entire PC industry," wrote Sweeney in The Guardian, "including consumers (and gamers in particular), software developers such as Epic Games, publishers like EA and Activision, and distributors like Valve and Good Old Games."

Sweeney's concern is that Microsoft could restrict new features to UWP, forcing

"THE ULTIMATE DANGER HERE IS THAT MICROSOFT IMPROVES UWP WHILE NEGLECTING WIN32"

developers to leave Win32 development in favor of the new platform. "The ultimate danger here is that Microsoft continually improves UWP while neglecting and even degrading Win32," he says, "over time making it harder for developers and publishers to escape from Microsoft's new UWP commerce monopoly."

Were Microsoft to do that, it could have major implications for PC gaming. While UWAs can be installed from outside of the Windows Store—a process Microsoft calls 'side-loading'—it's currently rare to find them outside of the first-party storefront. Despite this, Phil Spencer, the head of Xbox, played up UWP's openness in his response to Sweeney's criticisms. "UWP is a fully open ecosystem, available to every developer," Spencer wrote on Twitter, "and can be supported by any store."

Turn 10 ported ForzaTech to UWP, and made *Apex* in the process.

Gears of War: Ultimate Edition is a Windows Store exclusive.

There are other issues. UWA games are more restricted than their Win32 counterparts. The Windows Store version of *Rise of the Tomb Raider*, unlike the Win32 version available through Steam, doesn't support exclusive fullscreen and lacks interoperability—meaning you can't run overlays such as Fraps's FPS counter, or even Steam's social overlay.

BLOCKED MODS

More than that, the UWP prevents modders from intercepting API calls. That means that, while UWAs can theoretically support mods, it would only be within the confines of what a developer or publisher has specifically allowed. Unsupported modding, such as *Skyrim*'s script extender, *Dark Souls'* framerate fix, or *Vampire: The Masquerade*'s unofficial patch, is currently blocked.

That's why the UWP is troubling. Openness means more than just where you buy something. It's also about the ability to take a sense of ownership of your games and programs—to tweak and tailor them to your preference. In its current form, UWP restricts that freedom. Microsoft has announced improvements to UWA, but it's unclear how far these will go.

Is this the beginning of the end for Win32? Despite Sweeney's legitimate concerns, we don't yet know what Microsoft has planned. Is UWP designed to be an alternative or a replacement? If it's the former, it's largely harmless—a way to lock down Microsoft's first-party games into a safe, Xbox-like ecosystem, without impacting PC gaming at large. It's not necessarily the ideal way to play games like *Quantum Break*, but the market can decide if the platform's restrictions are acceptable. We should find out more on March 30, at Microsoft's Build developer conference. ∎

Phil Savage

HIGHS & LOWS
THE MONTH IN PC GAMING

HIGHS

Planet Coaster
A classic and beloved sub-genre returns to PC in style thanks to Frontier Developments.

Tyranny
Obsidian and Paradox have teamed up again for a new RPG set in a world where evil has already won.

Stardew Valley
The cutesy farming RPG has sold over 500,000 copies. Pretty good for a game made entirely by one person.

Mount & Blade II
New *Bannerlord* footage was shown at the PC Gamer Weekender. The *Warband* prequel is looking great.

Mass Effect delayed
Andromeda's due in 2017 now. We can't wait to see what BioWare's working on.

Dota 2 drama
The Shanghai Major was a mess, and Valve fired its host, James '2GD' Harding.

Windows 10
It's been sneaking onto computers against people's wishes.

Online singleplayer
Hitman is a singleplayer game that kicks you back to the menu if you drop connection during a mission.

Microsoft clears house
Lionhead and Press Play closed, and *Fable: Legends* canceled.

LOWS

THE SPY

The Spy shot the Red Baron.

T he Spy has heard that war never changes. It's a line of thinking The Spy isn't convinced by. After all, war is no longer fought in a big field, between two armies firing flintlock rifles at each other until too many of one side fall over. That's one change right there. At best, you could argue that mankind's base urge to organize into broad social and geographical structures, and the desire to see that collective rise to dominance over other, similar groups leading to tensions that spill out into open conflict hasn't changed. That makes for a somewhat less pithy catchphrase, of course.

Why is The Spy contemplating the changing face of war? Because of rumors that EA's *Battlefield* is going to do something different this year.

A *Battlefield 5* listing was seen on the website of Swiss retailer World of Games, claiming an October 2016 release date. That, in itself, isn't particularly unexpected. It was the words that were originally attached to the listing: "Mehrspieler Taktik Shooter im 1. Weltkrieg". If your German is a bit rusty, that translates to "multiplayer tactical shooter in World War I".

Will EA's upcoming first-person shooter sequel really be set during the First World War? It seems unlikely, not least because it'll make for significantly less rousing speeches in cutscenes. "We fight not for democracy or honor, lieutenant," a heavily moustached British captain might say, "but because an Austro-Hungarian Archduke was assassinated by a Serbian conspirator, and we'd signed a bit of paper saying we'd protect Belgium's neutrality because we enjoy their chocolate and waffles. Don't look at me like that, lieutenant. I'm a captain in 1914, and haven't the hindsight to comprehend the web of treaties and negotiations that resulted in this historic conflict. Now pass me my moustache comb and dig me a latrine."

THE ONLY SIMILARITIES ARE THEY BOTH COME FROM THE SKY AND MAKE THINGS VERY HOT

On the other hand, a World War I shooter may provide legitimate context for the grind inherent in multiplayer shooters. A seemingly endless parade of soldiers running blindly to their deaths for no good reason save the promise of glory at the end of a long, protracted war of attrition? That does sound a lot like capture the flag. And, while it's tempting to assume WWI was too brutal and harrowing for mass entertainment, it's not as if World War II was a barrel of laughs either. If nothing else, though, it seems a strange choice technologically. Will there still be a mass of soldiers rushing to the spawn point of a Sopwith Triplane—ignoring all the objectives for the chance to fly that flimsy three-winged monstrosity? Probably, knowing *Battlefield* players.

It was the *Fallout* series that popularized the idea

that war never changes, and it's a phrase that survives into Bethesda's modern FPSRPGs. But Bethesda, of all developers, should really know better. One of their RPG series deals with nuclear bombs, the other with dragons. The only similarities are they both come from the sky and make things very hot. And, after numerous *Elder Scrolls* and *Fallout* games, Bethesda could be planning even more ways to wage war.

SCROLL ON

Bethesda is hiring programmers for a project that, in the words of the job listing, "is pushing the bleeding-edge of RPG development." That could well mean a new *Elder Scrolls* game—with *Fallout 4* now released, Bethesda won't want to ignore its other major moneymaker. But, during a DICE Summit talk, Todd Howard revealed that Bethesda Game Studios had three new projects in the works. "They're different from anything we've done before while also being a Bethesda-style game: big and crazy," said Howard. It's possible at least some of the projects are mobile titles—but would you really call that 'big and crazy'? If it was making you lots of mobile bucks, you just might.

BioShock's wars really haven't changed. Between the power-mad idealogues, the bizarre abilities and the improbable cities, it's a series with a very defined combat style. Yes, there is technically a difference between shooting bees out of your hands and shooting crows out of your hands, but it all falls under the umbrella of creatures coming out of hands. If you missed them all the first time round, it seems the full series will be bundled together in *BioShock: The Collection*—a compilation for PC, PS4 and Xbox One. The release, found on a Taiwanese game rating site, comes complete with some fetching boxart, suggesting it's probably legit.

You may be wondering why anyone would make a big deal of a collection of games you can already buy and play on PC. It's because commerce never changes. Spy out. ■
The Spy

NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
Winter	Frontier Developments	In-house	www.planetcoaster.com

PLANET COASTER

The next generation of theme park simulators is coming

Planet Coaster **is the spiritual successor to** RollerCoaster Tycoon, **that beloved series of theme park simulators. The basic premise hasn't changed much— build a park, fill it with rides, keep the punters happy—but now there are many extra layers of complexity. The simulation is richer, the creation tools are more powerful.**

"I worked on the *RollerCoaster Tycoon* series, and I always wanted to do more with it," says Jonny Watts, chief creative officer at Frontier Developments. "I'm really into simulation and creativity, and *Planet Coaster* is a combination of both of those things. Whatever you create also feeds into the simulation."

Watts also thinks this is the perfect time to revive the theme park simulation genre. "The success of games like *Prison Architect* and *Cities: Skylines* has shown that there's a commercial reason for making *Planet Coaster* too."

The goal of any park in *Planet Coaster* is to keep your visitors happy. You do this by creating exciting rides, catering to their needs (whether it's a burger or an easily accessible toilet), and making your park look attractive. You do so using a robust suite of creation tools that offer an impressive degree of freedom.

You aren't just snapping parts together like a Lego set: you can combine objects, splice them together, resize them, and do pretty much anything to ensure your park looks unique. But the option to snap to a grid is there if you need a hand.

TOOL BOX

"We're giving you more tools than ever before," says Watts. "As well as the building parts there are decorations too, which will give people's creations even more flavor. You can build things off grid.

PLAYED IT

Even the path system is exciting. You can have curved paths!"

That sounds like a minor addition, but theme park sim fans who've always been constrained by grid-like path placement will be overjoyed by this touch. I test it for myself, building a snaking network of paths around the rides in a pre-made park one of the devs created. I'm playing a pre-alpha build, but it works brilliantly.

"We're trying to get that balance between the creation tools being powerful and accessible," explains Watts." Our design philosophy is nested complexity. It's very easy to start building something, however, if you want to achieve something more advanced, you have to start digging. When you're building a coaster you can have it snap nicely to a grid, but at any time you can disable it and create a track at any angle.

"A lot of things have keyboard modifiers," he continues. "When you're laying a path, you can hold control to disable the auto-complete. This lets you create unique shapes like spirals. You don't have to do this, but it makes the tools so much more powerful."

As the title suggests, it's the rollercoaster rides themselves that are the real stars of *Planet Coaster*, and the track creation tools reflect this. You can choose from a wealth of preset parts, but also fine-tune every segment to a remarkable degree. You can accurately recreate any real-world coaster, or create something totally crazy.

One of the coolest features I'm shown is having coasters go underground. With a few simple clicks the track digs into the ground, creating a tunnel. Then the terrain tool is used to dig around it, creating 'windows' in the rock to watch the coaster through as it speeds along. These constructions not only look cool, but the people riding the coaster will be more excited by them as well.

And, as is tradition with games like these, you can click on any ride you build—whether it's a coaster or a so-called ≫

A ROBUST SUITE OF CREATION TOOLS OFFERS AN IMPRESSIVE DEGREE OF FREEDOM

Planet Coaster

‘flat ride’ like a drop tower—and view the action through the eyes of the shrieking guests. The parks are brilliantly alive, and I spend some time flying the camera around looking at people milling around and mascots waddling along in oversized costumes. You'll be able to click on any visitor to and see what they're thinking, which will let you know the strengths and weaknesses of your park.

WIDE WORLD

I notice that the game's main menu is a globe covered in icons. Watts says this is the game's hub where you'll access your own parks, as well as other people's creations. "There's a reason for it being called *Planet Coaster*," he says. "With the planet you see when you load the game you'll be able to download coasters and parks built by the experts. But you'll see friends, friends of friends, top picks, and your own stuff."

Much like Frontier Development's other big game, space sim *Elite Dangerous*, *Planet Coaster* will be released as an alpha first. Players will be able to pre-order it and get an early glimpse of the finished product. It's a model that worked brilliantly with *Elite* and Frontier is hopeful it will provide a similar outcome for *Planet Coaster*. "We'll be listening to the community," says Watts. "And hopefully they'll be a barometer of how well we're doing. But we're also making this game for ourselves, because we're fans of the genre."

The team making *Planet Coaster* is made up of ex-*RollerCoaster Tycoon* devs, as well as a slew of new talent fresh from university. "We have the enthusiasm and the knowledge of the people who developed the *RollerCoaster Tycoon* games," says Watts. "However, we also have a lot of new people too. New graduates who played it when they were younger and who can keep us old guys on our toes."

The full release of *Planet Coaster* is a way off, but the developers have made a tremendous start. The build I played was solid, and creating buildings with the new creation tools hinted at the immense possibilities of them. When it's released, the community is going to be making

YOU CAN CLICK ON ANY VISITOR TO SEE WHAT THEY THINK OF YOUR PARK

some mind-blowing stuff—something *Frontier* is understandably excited about.

"There's a lot of depth in the game," says Watts. "We want to get it out there and have people play it for hours to see if there's anything making it unenjoyable. Some of the things that are frustrating in the first 30 minutes actually improve the long-term experience. Placing lights by hand might seem fiddly, but it gives you a lot of freedom."

I see an example of this when Frontier loads up a park made by a developer, centered on an enormous tree created with the terrain tool. It's covered in spirals of lights, all hand-placed, and it looks amazing. Another park created by a developer features a giant monster carved out of rock, and I'm told it would be possible to build the park around it: with paths running up its arms and coasters running through its toothy mouth.

You aren't limited to regular theme parks in *Planet Coaster*: if you imagine it, you can probably build it. And when you're ready to show your creations to the world you can upload the whole park, or select specific rides and buildings to make available for people to download.

SMOOTH RUNNING

A game like this will thrive on being accessible, and Frontier is making sure the game scales well for a variety of PCs. "We're pushing a lot of polygons," says Watts. "If you've got a powerful PC, the game will look great. But if you have a less powerful one, certain elements will automatically reduce in quality to make sure it runs well."

The vivid, colorful art style makes for a vibrant game filled with personality, but the cartoony style is accompanied by some realistic lighting effects. I jump into the head of a visitor as they slowly rise to the top of a drop tower I built and I can see a golden sunset poking over the hills through their eyes.

Planet Coaster is shaping up very nicely, and I can already tell it's going to be one of those games that spawns a passionate, creative community. Once people get their hands on these tools, you're going to see some wild stuff. But there's also the simulation side to look forward to: managing your park, keeping people happy, planting trees, building concessions. Frontier is taking the classic theme park sim and boldly modernizing it, and taking advantage of modern PCs. It could be one hell of a ride.
Andy Kelly

Exciting coasters make for happy visitors.

You can have complete control over the camera.

The pirate theme includes these prop cannons.

Curved paths will please coaster sim fans.

Vampyr

Lesser vampires roam the devastated areas.

VAMPYR

1918 London is a dark, moody place—but then unlife is strange
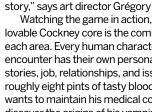
Dontnod definitely doesn't want to be pigeonholed. Moving from near-future Parisian cyborgs (*Remember Me*) to millennia American teenagers (*Life is Strange*) was one thing—but a Spanish Flu-ridden London in 1918 is a bigger departure. And focusing a talky-RPG on a very traditional reading of vampirism is moving further into the realms of cheese than it normally attempts.

You play Jonathan Reid, a high-ranking doctor turned into a vampire against his will. Freshly risen from a mass grave, he explores a London wracked by the lethal Spanish Flu and by another, more insidious vampiric plague. "One side of him is a man of science who wants to heal London's suffering," says Philippe Moreau, the game's director. "The other side is a creature of the night compelled to take lives to survive."

Dontnod's London features familiar landmarks stitched together by the sort of urban wasteland that made *Dishonored* and *Bloodborne* work so well. You'll travel between poverty- and plague-ridden Whitechapel, the docks, the City and more. "It's a gothic city, perfect for a vampire story," says art director Grégory Szucs.

Watching the game in action, the lovable Cockney core is the community in each area. Every human character you encounter has their own personality, stories, job, relationships, and issues—and roughly eight pints of tasty blood. As Reid wants to maintain his medical cover and discover the origins of his vampirism, he

FIRST LOOK

won't kill anyone out in the open—but if he can lure them to a dark corner (using his Seduce power) he'll drain them dry.

Draining fresh humans is attractive as it's the easiest way to get the experience to improve your vampiric powers. There are three skill trees, giving various passive and active abilities. For example, you start with the spring power, which allows you to jump great heights, but it can be upgraded to do damage on impact or grant temporary invulnerability. You also get XP from killing the lesser zombie-vampires and from completing quests, but who you kill and who you spare will affect the story in subsequent days. Kill no one and you'll struggle through without XP. Kill too many, or too many pillars of the community, and the district will just fall apart.

CRAMMED BESTIARY

Not everyone is a part of the community, though, particularly not other vampires. Dontnod's come up with a wide variety of vampire types, as well as humans and vampire hunters to battle, and it's not taken every vampire trope on-board. "It's a huge archetype, there are many versions of this creature," says Szucs. "Does holy water affect him? Can he enter a house without invitation? Does he shine under the sun? We have to create all the rules, then decide where they came from." The team also has to avoid the undead elephant in the room, *Vampire: The Masquerade*, which has trod much of this ground already.

Though combat is suitably gutsy and bloody, I have some qualms. First, the proximity of large numbers of homicidal vampire-zombies to unconcerned citizens is a little unbelievable. Second, the combat seems unnecessary—it feels like it would be more interesting without it. Still, at least it justifies the odd crafting system, which sees Reid scavenging the bodies of the dead or bartering with merchants to acquire the elements for strange weapons such as a wooden medical saw.
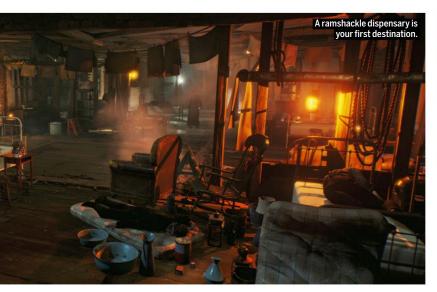
Alongside the monsters, the populace is facing the real enemy—the Flu, which killed doctors and policemen first, causing disarray. It's a forgotten time in London's history and with Dontnod's signature strangeness and a popular undead theme, *Vampyr* could be a Prince of the Night.

Dan Griliopoulos

DRAINING FRESH HUMANS IS THE EASIEST WAY TO IMPROVE YOUR VAMPIRIC POWERS

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FORZA MOTORSPORT 6 APEX

Forza finally comes to PC in an unexpected form

Forza Motorsport 6 Apex isn't how I envisioned Turn 10's racing series making its PC debut. Nor, if I'm honest, is it what I wanted. In Microsoft's own words, it's a 'curated' version of Xbox One's *Forza Motorsport 6*. And yes, 'curated' is a tactful way of saying that there's less of it. This is a streamlined, *Forza*-lite experience, but I can't complain too much because it's being made available for free through the Windows 10 Store.

PLAYED IT

To give Turn 10 its dues, *Apex* is more than a stripped down shell of a larger game. There are fewer cars, locations and track ribbons, but what's there comes together into a complete, albeit more compact work. *Apex* takes the form of a series of events, each of which the studio calls a car 'story'. "If we go and have drinks," says creative director Dan Greenawalt, "what we talk about is car stories, and cars."

Apex started its life as a technical exercise—of Turn 10 bringing *Forza*'s engine onto Microsoft's Universal Windows Platform. It was only at the end of that process that the studio came up with *Apex*'s structure. "We started talking about, 'What if we took this branch and turned it into a game,'" says Greenawalt. "The approach wouldn't be, 'Let's look at this market, or that market.' Let's just tell some stories. We looked at all the content that's available in *Motorsport 6* and said, 'How would we put that together in ways we've never done before?'"

I'm shown one of these events: a race series called Italian Greats that pits Ferrari against Lamborghini. Turn 10's obsessive detail shows in the introductory video, which lays out the car story being told in

"HAVING FORZATECH UNDERPIN ALL GAMES MEANS THEY'LL BE ON ALL PLATFORMS"

terms of the history of the companies. Each of the 12 events follows this structure. "We hand-picked these 60-plus cars, and these 20 ribbons across six environments, featuring a lot of night and wet, so we could tell these stories."

BONUS DIFFICULTY

Each event has a series of optional objectives—offering a bonus difficulty curve if you want to master *Forza*'s systems. For the first race in the Italian Greats event, a bonus objective tasked the driver with completing five 'perfect passes'. But later events will feature an objective to do the run with traction-control disabled.

For those still wanting the full *Forza* experience on PC, there's hope for the future. "Having ForzaTech underpin all *Forza* games moving forward means they'll be on all platforms," says Greenawalt, "and we can release them and deliver new and cool experiences that aren't about the hardware. They're about what we want to deliver to bring new gamers into this world."

Phil Savage

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Famous *Resi* environments make the cut, too.

WOLF

TARGET HUNTER

Alpha   0 / 5
Bravo   1 / 5

0.0   99:59   0.0

Presumably there's an umbrella inside.

This makes the zombies seem more threatening than they are.

DNA HUNTER

Alpha   0 / 60
Bravo   0 / 60

0.0   99:59   0.0

NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
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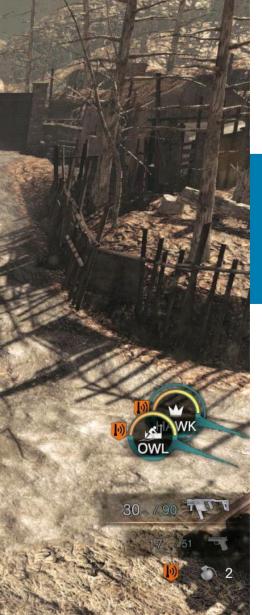
UMBRELLA CORPS

Resident Evil without the 'resident' bit. Or the 'evil', really

Resident Evil **has been pulled in so many different directions that no one's entirely sure where the series should go next. Once it was a fixed-camera survival horror game, but** *Resi 4* **pulled it in an over-the-shoulder shooter direction that would eventually lead to the bloated but enjoyable acrobatic combat sequel** *Resi 6*. **Who knows what** *Resi 7* **will bring?**

Then there are the spin-offs: *Resi*'s always had offshoots set in its corny, deliberately B-movie universe, most atrociously of all, the co-op shooter *Operation Racoon City*, which lacked the flavor or refined controls the series is known for. I thought *Umbrella Corps* was going to be some poorly conceived spiritual successor to the latter, but it's not. It's actually *Resi*'s answer to *Counter Strike: Global Offensive*. This is a fast-paced third-person 3v3 shooter where the camera is permanently pulled in extra close for precision shots. Each match lasts for an ultra-brief three minutes, though they're really more like rounds in a three-out-of-five format.

I'm playing the game's Multi-Mission mode, where the rulesets of each round alternate between eight variants, as voted for by the players. There's a variation on a capture point mode that requires collecting briefcases dotted around the level, as well as a neat one where you have to kill as many zombies wandering round the map as possible and collect the DNA left over (this is presumably based on real science). The more zombie DNA you get,

THE ZOMBIES DON'T REALLY POSE A THREAT BUT THE HUMANS SURE DO

the more points you're awarded. I'm pretty sure this was the only round I managed to win during my hands-on.

Oh, that loose zombie connection is why this gets away with calling itself a *Resident Evil* game, in case you were wondering. The two teams of military blokes taking each other out aside, the level I'm playing is set on two floors, and it's populated with shambling undead. Not thick with them, but enough that they need to be cleared out of the way in the pursuit of other human players. The zombies don't really pose a threat but the humans sure do—it doesn't take more than a few shots to kill or be killed. The UI constantly shows you any nearby, available cover, and the level I'm playing set on a cruise ship is packed full of small rooms and tight corridors.

EVIL MOST RESIDENTIAL

While the rounds are locked at three minutes, it'd be nice to give players the option of custom matches so they can tinker with the settings in the finished game. What's surprising is how good the shooting feels—it's really fast-paced, precise and the character movement feels pretty responsive. As an alternative to *CS:GO*, then, it's not without merit, though I've not played enough to know how much mileage there is in the various modes—and shipping at $30, it's asking a lot to get people to pay for another competitive team-based shooter at twice the price of *CS: GO*, particularly when another, highly refined alternative in *Rainbow Six Siege* is easy enough to find for around the same cost. I think there's a real uphill battle in convincing people that a *Resident Evil* spin-off is a worthy competitor. Launching with a Steam free weekend might be wise.

In some ways, *Umbrella Corps*' biggest challenge is the series it's a part of. The burden the *Resident Evil* name places on *Umbrella Corps* is that people will assume it's a half-assed spin-off—in some ways, I think it would have been better for Capcom to avoid a connection with that universe. But this at least feels like a relatively polished attempt to muscle into the multiplayer shooter space, even if attaching it to *Resident Evil* in any fashion is a bit misguided.
Samuel Roberts

PLAYED IT

In the alpha, you can train in a sparring arena.

Bows are appropriately overpowered. Arrows hurt.

See that 15th century village? You can die of plague there.

NEED TO KNOW

RELEASE	DEVELOPER	PUBLISHER	LINK
2016	Warhorse Studios	In-house	www.kingdomcomerpg.com

KINGDOM COME: DELIVERANCE

Dying by the sword in an ambitious historical RPG

I can't tell you how relieved I am to see blood on my own sword. *Kingdom Come: Deliverance* is a historical first-person roleplaying game that's committed to an unusually high degree of realism, from how (and how much) you fight to the world and the people who occupy it.

You wander 15th century Bohemia as a minor player, free to follow your own course through a real historical crisis—the Papal Schism. In this instance my course has taken me to a duel on a muddy forest pathway in the rain, a duel I worry I'm going to lose until I realize that the other guy is bleeding too.

When you fight somebody in *Kingdom Come*, your view locks on to your opponent and you circle one another with swords (and sometimes shields) drawn. You can rotate your angle of attack and defense around a dial, which dynamically alters your stance, and spring from that position into a slash, a thrust, or a block. These actions consume chunks of a regenerating stamina bar, which also doubles as a defensive buffer. These are the building blocks of a combat system that's slow, heavy and remarkably immersive. I daydream about RPGs that take the concept of swordfighting beyond 'hit each other until somebody runs out of hitpoints', and *Kingdom Come*'s developers clearly feel the same way.

So: I'm circling this anonymous attacker by the side of the muddy path and my sword has blood on it. This is important because it means that I've hurt him. While *Kingdom Come* lets you see your own stamina bar, you aren't told how your opponent is doing. Instead, you need to rely on visual clues—blood is a pretty convincing one—as well as audio. Opponents are vocal and sound increasingly stressed as fights wear on.

TO THE DEATH

I sweep my longsword up into my foe's flank and he barks "fuck!" He's hurt and worn down, which is good to know because so am I. I press a bit harder, into a bind that I break by punching him, forcing him to block to one side so I can stab him in the other—I press right up to the point where I'm out of stamina but I'm convinced that he is too. I try to press my advantage, forcing another bind, but I lose this one. My view snaps back and spatters with blood, an unnerving first-person simulation of being punched in the face with a mail gauntlet. I don't block the next hit—I don't even see it—but then I die. Given that this early beta version of the game doesn't include saving, this is a terminal problem.

Even so, it's a genuine thrill. I gambled and lost. I love the drama that uncertainty about your opponent creates and how much more convincing it makes the game. In real life, you can't truly tell how much energy somebody has left, how much they have in reserve—you can only test them and make a judgement, and there are consequences for getting that wrong. While there are certainly problems with *Kingdom Come*'s combat at this early stage—occasional glitchy animations and controls that seem to lag from time to time—the system is enough to have me excited about the game on its own merit.

Kingdom Come feels like it's heading for cult classic status—it has the ambition, the idiosyncratic commitment to realism, and the Kickstarter backers for that. If it gets the time it needs to deliver on all of its ideas, smooth its rough edges and deliver on the promise of a true simulation of medieval life then it has a shot at removing 'cult' from that equation. If nothing else, though, I'm on board—there are few other games set to let me lose longsword fights in the woods on my own terms.

Chris Thursten

PLAYED IT

I LOVE THE DRAMA THAT UNCERTAINTY ABOUT YOUR OPPONENT CREATES

1

2

Inside
Ocu

1 NATE MITCHELL
VP of Product, always game to talk about VR hardware.

2 PALMER LUCKEY
Oculus's founder. Big fan of anime. Not a big fan of shoes.

3 BRENDAN IRIBE
Talks smoothly of company vision and direction, as CEOs do.

4 MICHAEL ANTONOV
Works quietly as Oculus's chief software architect.

PC Gamer talks exclusively to the team behind the **OCULUS RIFT** VR headset

By Wesley Fenlon

i

t's a big day for Palmer Luckey. Upstairs, not far from the Facebook campus conference room where we're chatting, a sign counts down to the ship date of the Oculus Rift. 18 days. 18 days until the headsets stacking up in warehouses are loaded on trucks and planes and shipped around the world. Another sign counts down to a closer deadline: seven days until software is locked for release. But that's not what Luckey's excited about today. Today, his new La-Z-Boys are being delivered.

Oculus Rift

»

The 23-year-old co-founder of Oculus is still every bit as buoyant and unkempt as he's been since the Oculus Rift debuted on Kickstarter in 2012. He walks into our interview in a wrinkled button-up, with hair that wishes it was only bedhead messy. I don't mind when he has to take a call during our interview to give La-Z-Boy delivery instructions. That's just part of the package deal with Luckey, whose vision for the Rift has pushed him, the 500-odd people now employed at Oculus, and the rest of the games industry to this point: the first consumer release of honest-to-god virtual reality.

After three and a half years, they've made good on the dream of '80s science fiction and '90s arcades. So what happens now?

THE GOOD OLD DAYS OF VR

"[VR] is going to keep moving fast, but most of the advancement is going to come on the gameplay side," Luckey says, as we talk about Oculus's outlook on the future of the technology they've brought back from the dead. "In the software realm people can iterate very quickly. They're going to discover a lot of things that work in VR that didn't work before. On the hardware side things will keep improving, but not at the same rate."

Oculus's research division, headed by Michael Abrash, looks far ahead to the future of the technology. According to Abrash, who worked on cutting-edge graphics programming at Microsoft and id in the 1990s (you may be familiar with a game called *Quake*, which he programmed with Oculus CTO John Carmack), it's the first well-funded VR research team in 20 years.

"Until about four years ago, VR as an industry was completely dead," Abrash says over a laggy video chat from Oculus's Seattle office (it's heartening to know that even Facebook money can't stop video conferencing from sucking). "Until Palmer made that duct tape prototype, there was no industry at all."

Abrash's mantra is that the here and now are the good old days for VR: the time when trailblazers have the opportunity to shape what the technology will become. "One of the amazing things about VR is that everybody is figuring this out from scratch," he says. "How often do you get to be a game developer and it's like, nobody knows the syntax, anything about this. It's like the wild west."

Abrash has spent the past two years assembling experts in various fields to study the long-term challenges for VR, such as finding feasible and affordable ways to track our hands and provide haptic feedback, without the need for controllers. Breakthroughs that will evolve VR from a technology great for games, into a technology great for life.

The current Rift headset, for example, uses a pair of magnifying lenses in front of its display, giving it a field of view of about 90 degrees. "Right now, if you were to move your eyes around, believe it or not you'd be able to see at least 220 degrees, maybe as high as 320 depending on the shape of your head," Abrash says. "That means you're seeing about one tenth of your full field of view on the Rift. Getting out to a much wider field of view may be an incredibly powerful experience. ... we need to figure out how to build prototypes that give much wider fields of view so we can figure out what the curve is for [an immersive] experience. I don't mean prototypes that you'd ship as consumer products. I mean prototypes that have to be cabled from the ceiling because they weigh ten pounds. But they can

"UNTIL ABOUT FOUR YEARS AGO, VR AS AN INDUSTRY WAS COMPLETELY DEAD"

WHAT'S IN THE BOX

The Rift comes with more than just a headset. This is what you get for your money

1 THE OCULUS RIFT
The first consumer version of the headset, with special 90Hz, 1080x1200 panels (one for each eye), integrated audio and a strap system for staying snugly mounted.

2 OCULUS REMOTE
A simple remote with navigation and volume controls on the face. Likely most used for movie and photo viewing, but can be used to play some games, too.

3 SENSOR
The Oculus sensor reads IR LEDs to determine your position in space. The stand uses a standard ¼-20 screw thread, so you can also mount the sensor on a tripod.

4 XBOX ONE CONTROLLER AND RECEIVER
A wireless Xbox One controller and receiver for Windows 7, 8, and 10. Will be used to play most games until the Oculus Touch appears.

let us know what the experience is like. And then if that experience really is that compelling, now the question becomes, how do you get there?"

Abrash's dream is a fully virtual workspace, with multiple screens-within-the-screen, more dynamic and configurable than a wooden desk ever could be. He describes the difficulty of tracking your hands in VR and providing feedback. The resolution needed to be productive. The importance of audio sounding real based on the surroundings. "If you extrapolate that to games, you interact with a control panel, you want to hear the right sounds, you want to feel things in the right places. You want to feel them sharply and clearly. While right now, [VR] is kind of a magical experience, it's about 1% of the way there. There's so much more to do. It can get so much better."

Abrash's upbeat certainty leaves little room for doubt, but comparing the Oculus Rift to 2013's DK1 is already like putting a smartphone side-by-side with a Motorola N-Gage. Sure, both generations can technically play games, but the newer hardware doesn't make you want to vomit. That's vital for Oculus, which has finally shown off the full lineup of games—there are more than 30—launching with its headset this April. Nearly every Oculus launch game I've played is fun, either doing something with VR that wouldn't work on a monitor, or adding delight and dimension to a genre already fun in 2D.

VIRTUAL ON

"The thing to remember is that virtual reality doesn't make a game good," Palmer Luckey says. Those could be dangerous words for the head of a VR company if there were only demos to back them up, but the Oculus Rift is coming out guns blazing. Even some of the games that don't gain much from VR are still fun to play in a headset.

The charming 3D platformer *Lucky's Tale* is a prime example. As a platformer, it's got nothing on the sublime feel of *Mario* or the variety of *Banjo Kazooie*. But having your head fully enveloped in *Lucky*'s world adds such richness to the sense of scale, and makes moving in 3D so much more precise, that being in VR really does elevate the material.

The same goes for *Zelda*-like adventure *Chronos*, which Gunfire Games (composed of former Vigil devs who made *Darksiders*) compares to classic *Resident*

Evil. The pacing is deliberate—you explore fantasy worlds armed with sword and shield, picking up items and solving environmental puzzles, and fighting enemies that will wreck you if you go in button mashing. A touch of *Dark Souls* influence requires you to smartly block, parry, and time your attacks. *Chronos* is the least flashy VR game I've played—it presents each room from a static camera angle—but being inside those environments adds so much atmosphere and scope to the world you're exploring, I can see myself completing the 12 hour adventure in a few long sittings.

"It seems like the default expectation is that everything's going to be first-person shooters and just first-person games in general," Luckey says. "But there's a lot of stuff that doesn't fit into that category."

Oculus Studio head Jason Rubin oversees the games Oculus is developing and helping fund for its platform. Before he joined, there was no real plan in place to ensure there were enough Rift games available come launch. Oculus was also still learning how to develop games that didn't induce nausea at the first hint of movement. "[The pitfalls] aren't the same as games," says Rubin, "and that's very interesting when you're discussing the entire development community around VR. All you've learned over the last 20 or 40 years in videogames is useful but it's not encyclopedic. It's not 100% of what you need to make a game."

First-person movement may be the single biggest challenge in virtual reality game design at the

moment. Using an analog stick to walk is so uncomfortable, my skin crawls just thinking about the sensation. That's a testament to how thoroughly VR can convince your brain it's real. Trust me: don't let your first introduction to VR be a port of a game designed for screens.

There's no perfect solution yet. The most popular workaround for first-person movement currently is teleportation, as seen in Epic's *Bullet Train* demo, and Vive games such as *Budget Cuts*. Rubin sees that as the first step.

"We're going to get to a position where we have a way of locomoting that doesn't make you uncomfortable," he says. "I believe that the next thing that will happen is something that we're calling 'tunneling' around here. ... You effectively restrict the viewpoint when you're moving. Most of the discomfort comes from your periphery and the way that your eyes deal with things when they think it's real. ... I think over the next year [we'll see more of] the tunneling approach, where you restrict the viewpoint to get rid of the discomfort during movement but then broaden out to get all the benefits of VR when you're still."

Ubisoft is taking its first steps into VR with a game called *Eagle Flight*, one of the pioneers of the tunneling approach. Blackness creeps in around the edges of your vision as you accelerate and turn in first person, and I twisted and dove through the streets of its beautiful cartoon Paris without a hint of nausea. But like many other games, *Eagle Flight* is built from a

FIRST-PERSON MOVEMENT MAY BE THE SINGLE BIGGEST CHALLENGE

ABOVE: The Consumer Rift is far lighter and more comfortable than previous prototypes.

OCULUS RIFT LAUNCH GAMES

There's a strong lineup of 30 games, though a few are ported from GearVR, and not all make great use of VR

RADIAL-G

F-Zero meets 360 degree tubular tracks, but in VR. *Radial-G* is out on Steam Early Access, too, but it was born to be played from the cockpit in a VR helmet. It's ludicrously fast, supports up to 16 players online, and somehow didn't make me motion sick while driving upside down and around corkscrewing tracks. Well done, brain.

EVE VALKYRIE

CCP's space dogfighter makes fantastic use of VR on an awe-inspiring scale as you fight around enormous capital ships. The controls are easy to grasp, but deep enough to give multiplayer combat a real skill curve.

CHRONOS

A darker *Zelda* adapted for VR. Static camera angles immerse you in its world surprisingly well, with no motion sickness issues. A 12-hour quest, level ups, items to upgrade and puzzles inspired by *Resi* are all promised.

LUCKY'S TALE

This charming platformer woke everyone up to the potential of third-person VR. Since that prototype, it's only got better at putting you in a cartoony platforming world and keeping its camera moving smoothly enough to avoid motion sickness.

AIRMECH

A surprisingly deep RTS, with dozens of units to build and command, ships to fly, and 1v1 and 2v2 multiplayer and co-op vs AI. You don't have the control fidelity of a normal RTS, but the immersion shows that VR strategy is definitely going to be A Thing.

EDGE OF NOWHERE

This adventure quickly brings the paranormal into an Antarctic expedition, and is a testament to how much VR can pull you into the tension of the moment, even in third person. Straight horror in VR won't be for the faint of heart.

»

delicate latticework of tricks that keep VR comfortable. You can't fully stop, for example, and ramping speed up/down from stationary is where locomotion really induces vertigo.

The Rift's launch lineup includes about 30 games, a second wave due later in the year with the Oculus Touch controller. Even with dozens of games available on day one, the lack of motion-tracked controllers stings. While Oculus's competition shoots for the Moon, they're playing a more conservative hand.

THE TOUCH

Disappointing as it is to see Touch launch months after the Oculus Rift, I find it hard not to cheer for Oculus's success. Two years ago, that would've been a near-ubiquitous sentiment. But after a $2 billion Facebook acquisition, Oculus no longer has its scrappy upstart identity or the universal love of VR enthusiasts. And Valve and HTC have grabbed some of Oculus's thunder and goodwill with the Vive, which does a better job of selling the raw potential of VR thanks to its room-scale tracking.

But Oculus has shown an obsessive attention to detail in the design of its headset, which is lighter than the Vive Pre and better distributes the weight that it does have. It doesn't have as much vertical screen real estate as the Vive,

but is crystal clear when adjusted just right and comfortable to wear for hours. The integrated audio works damn well thanks to adjustable arms you can move onto your ears with ease.

When I ask Luckey about the Vive and room-scale VR, his answers followed a similar logic. He charitably described his job pre-Oculus at Army-funded research lab ICT as "cable monkey." It's possible to learn to avoid the cable in VR, he says, but ultimately you need to design for it. "If you turn in a 360 degree turn, it is very very easy to trip over the cable. Maybe ninety-nine times out of a hundred you're able to be fine, but what happens on that hundredth time, and how bad is it? Are you just destroying your headset? Are you tripping and falling and hurting yourself? ... The point is, we've done a lot of user testing around this issue and our conclusion was you can't pretend the cable doesn't exist. You have to design your game around the cable."

WAIT AND SEE

The Vive will prove Luckey right or wrong. His other gamble—holding the release of the Touch until the second half of the year—follows Oculus's theme of playing the long game, just like investing in research that may not come to fruition for a decade. They're still refining Touch, and he points out that it wasn't designed in a vacuum: developer feedback informed the shape and size of the controllers, which you can move very close together to perform actions such as flicking open a lighter. The Vive's more tool-like controllers can't do that.
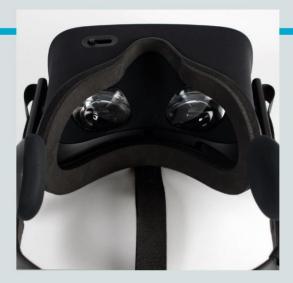
When I ask Rubin if the delayed launch of Touch will split the Oculus userbase and discourage developers from making motion-based games, he gets animated, almost angry—it's clearly a question he's heard many times.

"Any third party that makes a game not funded by a hardware manufacturer will try to make as many people happy [as possible] and therefore make as much money on their investment as they can," Rubin says. "Anything that's made for any manufacturer that has motion-tracked controllers will be ported to every other motion-tracked controller business. So if you fundamentally believe that any of our competitors will do really well with their motion trackers, there will be plenty of software out there, because all of that software, if they're not doing their own internally funded titles, will come over to our hardware."

And that is when the competition really begins.

Often the new VR headsets are compared to new consoles—entirely new platforms for games to be played and distributed on. But in PC terms, I think the Rift may be more like the release of the first 3D accelerator card. The 3Dfx Voodoo immediately changed the way games were made and how they were made, which also changed how we interacted with the new era of 3D worlds.

Michael Abrash, as ever, is thinking bigger. When I asked him for any final thoughts on the launch of

BELOW: CEO Brendan Iribe looks on as Luckey dives into the matrix.

"WE'VE DONE A LOT OF TESTING... YOU CAN'T PRETEND THE CABLE DOESN'T EXIST"

RIGHT: Important details: the Rift's easily adjustable straps, earphone arms, and interpupillary distance adjuster.

the Rift, he paused for a moment. Then he said something I'll be thinking about for a long time.

"A lot of times the world changes and you know the world has changed. Good things and bad things. 9/11 is one of the bad ones. You knew that things were different after that day. The Berlin Wall falling. You knew things were different in a good way after that day. But the world has changed huge amounts over the last few decades, and we almost haven't noticed it. I think about when my daughter was born, and there weren't cellphones, and there were personal computers but they weren't portable. There weren't smartphones, there wasn't really the internet. ... And now that's your life every day.

"I think that it's possible that we'll look back at the launch of the Rift as this inflection point, where that curve steepens again. All the communication channels we've had up to this point are kind of like these low-bandwidth, compressed channels. You look at a TV and it's not like you're looking at something in the real world, but you interpret it. Just like you interpret a book and visualize something. ... But the experience you have in the Rift, there's no mapping. It's now a direct connection, the way you deal with the real world. For the first time technology has the potential to fully engage with your perceptual system and through your brain. And then that's it. That's the full experience for us, what comes through our perceptual system. So I do think that 10 or 20 years from now, we might look back and say, OK, that's where things changed again in a big way. ... And that's why I'm working on this. I see the potential of what it could become to be pretty remarkable. Absolutely yes for gaming, but really, it's everything."

THE VR CONTENDERS

You know the Oculus Rift and the HTC Vive. Here are the other VR headsets you might want to keep track of

SULON Q
A wireless, AR/VR combined headset with an AMD processor, RAM and storage built into the hardware. Camera data from the front of the device is rapidly processed and piped through to a 1440p panel for augmented reality. We don't know much more about it, but it's coming soon.

STARVR
Developer StarBreeze and hardware company InfinitEye teamed up to build this, which uses two large QHD panels to provide the widest field of view in a VR headset. The current prototype runs at only 60Hz, lower than the much more comfortable 90Hz of the Rift and Vive.

PLAYSTATION VR
Launching in the fall, Sony's headset is built to run on a PS4, not a PC. But who knows what hardware hackers will make possible? It has a narrower FoV than the Rift, but can run at up to 120Hz at its 1080p res, or use a technique called asynchronous reprojection to reproject a 60Hz render at 120Hz.

WAR
HAS CHANGED

Magic and monsters will make **TOTAL WAR: WARHAMMER** a strategy game like no other.

By Jake Tucker

Every *Total War* game has reinvented itself, cutting even popular ideas to ensure each one feels unique. *Shogun: Total War* and *Medieval: Total War* play completely differently, and so they should: the political machinations and warfare of those cultures were entirely different. Tactics change over time, too. How do you fight Samurai? How can you protect your cannons from Russian Hussars? The launch of *Total War: Warhammer* introduces further questions: how can I best utilize dwarfen artillery? How do I stop the colossal Arachnarok spider from eating my zombies?

Some *Total War* fans may have found themselves on the fence about a Warhammer fantasy game joining the ranks of a series rooted entirely in real-world history, but the disconnect from established tactics may be its most appealing change. For the best example, take the Vampire Counts, which I got to play recently: they don't have any ranged weapons. This poses a problem, as the other races still have plenty of long range ways to make vampires hurt.

It's not noticeable at first, as I skirmish with other Vampire Counts for the title of 'most undead' and control of nearby dead-guy territory, but as soon as I try to push into the Dwarfen mountains to the north or the Empire's holdings to the south, I'm taken apart by an obscene number of arrows and bullets.

"You don't have any artillery, you don't have any missile fire, so you kind of have to rethink," says Scott Pitkethly, *Total War: Warhammer*'s lead programmer, when I ask how I'm supposed to keep my Vampires alive. "You have to be a lot more focused on using your magic appropriately to try to manipulate enemies' morale."

RAISED STAKES

Therein lies another massive change for *Total War* veterans: Vampires are a magic-based faction. They cast spells from afar that can buff troops, harm enemies or even raise the dead to fight by their side. Every race has their own magic abilities, except the Dwarfs, who make up for the lack with gigantic cannons. These races don't just have small differences relative to each other, they're unique, which is only appropriate when you're dealing with a fictional universe as broad as Warhammer's fantasy milieu.

Other additions to the series include towering creatures that can scatter entire formations if used correctly, and flying units. For the Vampires, flying units move however they want, swooping in to pick off stragglers or isolating key units. The Vampire's fellbats can harass opponents: the flappy menaces are ineffectual in a stand up fight, but as a flock can be a great distraction.

"We've never had flying creatures before," Pitkethly says. "How are they going to work? If you're now dealing in three dimensions, how does that work without confusing the player, how can they still have visibility of what's going on?" The team makes this work using a column of light, faintly illuminating the flying creatures but leaving the standard green ring on the ground below. Initially a bit jarring, it helps as you frantically order them around.

The big guys, on the other hand, are more like tanks, barreling through the enemy lines and clearing out swathes of smaller enemies. They seem nearly impervious to harm. "Those big creatures are great," says Pitkethly, laughing as I recount my many victories with a Varghulf, one of *Total War: Warhammer*'s monstrous giant bats. "But you can't leave them undefended. I had to keep my general nearby to be healing him up, because he has quite weak leadership." He doesn't look like he's got weak

THESE RACES DON'T JUST HAVE SMALL DIFFERENCES: THEY'RE UNIQUE

ABOVE
What are the chances of getting *that* pony for Christmas?

LEFT
Character designs are more exotic than previous *Total Wars*.

leadership as he plows through enemies, but Pitkethly tells me nearly every one of the game's big creatures has a weakness.

I watch another journalist end up in a fight to the death between an enemy Vampire general and a Varghulf. After they'd beaten the crap out of each other, the Varghulf won. There's so much appeal in just the spectacle and the individual character animations of these creatures—but bringing these amazing units to the series challenged Creative Assembly to fit them into the rest of the game.

ONE SIZE FIGHTS ALL

"You can have a dwarf fighting a giant, a giant fighting a giant, a man fighting a bat, whatever," Pitkethly says. "Because of that we really had to think 'Well, how's that gonna work?', and we had to start being much more reactive in our combat and relying less on trying to sync two people up, because you might be fighting a dwarf, but over here there's a giant kicking you or something

RACIAL PROFILING *The pros and cons of the factions*

DWARFS

Pros: Good morale, guns, low center of gravity.

Cons: Slow to move, no access to magic.

EMPIRE

Pros: Plays the most like a traditional *TW* faction.

Cons: Plays the most like a traditional *TW* faction.

GREENSKINS

Pros: Versatile and spoiling for a fight.

Cons: Troops don't live long, have low morale.

VAMPIRES

Pros: No morale problems, cheap troops.

Cons: No ranged ability, may crumble to dust.

TOP
Battles are just a whole lot *weirder* now.

and we actually found that made the combat much more dynamic."

The undead have plenty of challenges of their own. They're immune to morale issues but still need leadership as they're susceptible to crumbling when overwhelmed. Crumbling, by the way, is exactly what it sounds like: when your minions are feeling the pressure the flesh will fall from their bones and they'll crumble away to nothing.

All this makes undead grudge matches interesting, but you really see the differences when you're facing off against the other races. Battles have a pleasing asymmetry as you try to use your strengths to protect your weaknesses. This helps you get past late campaign boredom: tired of fighting the Empire? Why not pick a fight with the Greenskins or Dwarfs?

The vast differences between each side's abilities are an exciting

Total War: Warhammer

translation of what the tabletop game itself offers. Another is the handling of sieges: they're much more focused here. You're fighting for one or two flashpoints at a time. You might be scaling the walls or breaching the gate for one stage, then battling your way through the city streets in the next. Emphasizing just one or two points of conflict keeps the fight manageable, but also makes it more tense.

The team has paid close attention to the boardgame when making key design decisions. "You can read the rules, and you think, 'OK, that's the rules,'" Pitkethly says, "but when you're actually playing it you realize, 'Oh, that unit's really good at doing this. It didn't really come across just from reading the rules, but I see why that unit's useful now, because the way my army's set up I really need something fast to get rid of their artillery. OK, that's what that unit's for.'"

He cites the magic system as an example of how they're reinterpreting the rules. "We've kept the idea of the Winds of Magic, which is like a pool of magic, so that you if you've built up to the bigger spells that you'll get later on in the game, we don't want you to be able to win a battle with them straight off, because there's then no gameplay there. So there is always a management of that pool of magic. The Winds of

ABOVE
Low morale makes the Greenskins easy to break.

BELOW
From up here, they look like tiny angry ants.

Magic have to be balanced so that you're using those spells at the right time. If you use it, just shoot it off at the beginning, you might not be able to cast it again until the battle was decided, so you need to pick those times."

STATE OF DECAY
This demo is the first time I've been able to spend real time with the overarching campaign map as the Vampire Counts. While some of the changes are immediately familiar, such as Dark Magic being money by just another name, some are more extensive. Vampires need to truly control an area before they move across it. They'll slowly spread vampiric corruption over it. This corruption will

improve public order over your undead cities, while reducing public order in the cities of your enemies.

On top of that, vampiric armies start to suffer attrition as soon as they walk through uncorrupted ground. They do have the ability to raise entire units of the dead to join their armies though, even outside of their own provinces. If there's been a big battle you'll be able to swing by and raise more powerful forces. This means after a massive fight, you can recoup some of your losses, but it also means after your enemies throw down you can roll past and profit from their deaths with a few new troops.

Each race will have their own perks and drawbacks on the campaign map, and the entire structure is going to feel

EISENHORN: XENOS
You play Inquisitor Eisenhorn, and follow him through the story of the first book in the Eisenhorn trilogy, and into battle. Expect to be smacking those Xenos in cinematic brawls.

BATTLEFLEET GOTHIC: ARMADA
Based on the tabletop game, *Battlefleet Gothic* promises to show you the galaxy and let you explore it while thumping enemies with your collection of ships.

SPACE HULK: DEATHWING
An FPS where you stomp around an abandoned spaceship in the boots of a Space Marine. Acquire skills, abilities and loot while trying to survive against aliens.

WARHAMMER 40,000: DARK NEXUS ARENA
Dark Nexus Arena is a MOBA with one word too many in its title. It's a 4x4 scrap through the Wych Cult arenas. You can play as a Khorne berserker in it. Sold.

WARHAMMER 40,000: ETERNAL CRUSADE
A grimdark third-person MMO where you control your favorite grumpy space-warriors. You can play as Orks, Space Marines, Eldar or Chaos Space Marines.

WARHAMMER 40,000: INQUISITOR–MARTYR
Yes, another 40K game due this year. This one is a persistent action RPG similar to *Diablo III*, switching to a sandbox world once the campaign is over.

DARK FUTURE: BLOOD RED STATES
A reboot of Games Workshop's boardgame, this is a turn-based vehicular combat affair. Think chainguns, tearing metal and desperate battles.

ABOVE
Enjoy some scenic vistas with your slaughter.

LEFT
Few franchises have a bestiary to rival this.

pretty different: for a start, you can't take over the entire world. Humans aren't big fans of living underground, surprisingly, so while you can sack the cities for financial gain, you can't actually take them over. This means that even as you move into the late game, you're watching a few problem corners of your map. You can't steamroller everything and paint it your color like you could before, which means you might have to learn a few things about diplomacy.

If this all seems too much, don't worry. This is probably the most rookie-friendly *Total War* game yet. The game's explanation of what each unit is good at and what they should be used for was invaluable as I faced off against other races, or got to grips with my own. Being able to hover over one of the qualities to get a tooltip describing exactly what something means is a great boon for those just starting out. From the battles to the campaign screen, the UI is clearer than it's ever been before, which means you can work things out as you're playing rather than trying to wrestle your way through on guesswork.

Balancing so many different parts of the game when the combat features so many different types of beast is a challenge for Creative Assembly.

VAMPIRES CAN RAISE ENTIRE UNITS OF THE DEAD TO JOIN THEIR ARMIES

Keeping everything understandable, fair and still open to new players has clearly required enormous effort. After translating elements of the boardgame to *Total War: Warhammer*, the details are fed into a series of automated systems that crunch the numbers overnight. "These automated systems run hundreds and hundreds of battles and fight all the units against each other," Pitkethly explains. "And they say, 'Well, this is how you balanced it, but this is what actually happened.' Then we'll look at those kind of troublesome units and we'll play them in the game and we'll try and work out, 'well, why is it doing so much better than the stats would suggest?'"

After some readjustments, the team drops the stats back into the system and they go through the whole process again, until everything comes out correctly. The goal is to create a strategy game that captures the attention not just of fans of *Total War* or Warhammer, but also gamers who have never tried either before. The spectacle of watching a giant spider tear through dwarfs in a mine is unlike anything the Creative Assembly team have shown us before—and the challenge of combining *Total War* with such an odd, broad fantasy universe is bringing out the best in them. ■

Phil Spencer

The head of Xbox on Microsoft's plan for **WINDOWS 10 GAMING.** *By Phil Savage*

Phil Spencer, head of Xbox, is talking Windows 10 again. For just over a year now, Spencer has been talking up Microsoft's return to PC gaming, but until now little has come of it. Recently, however, the company announced that Remedy's *Quantum Break* would release on PC on the same date as on Xbox One, and at the Xbox Spring Showcase, MS revealed *Forza Motorsport 6 Apex.* I was at the Showcase, and asked Spencer about Xbox's PC plans.

PROFILE

Phil Spencer has been with Microsoft for 28 years. In 2014 he became the head of the studio's Xbox division. He is now responsible for games and entertainment across all Microsoft platforms.

Based on your opening speech this morning, it seems that unification between the two platforms—Windows 10 and Xbox—is one of the things you're working towards. Is that a fair assessment of your PC strategy?

I look at the work we're doing on the platform as an enabler for us becoming relevant in PC gaming. I wouldn't say our strategy is to unify, because when I hear 'unify' I worry a bit that people will interpret that, my own teams included, as 'hey, we just want to say a game is a game and all games should run everywhere.' There are games I was talking about earlier, like *Ashes of the Singularity*, a fast-paced RTS game, probably not the best controller game. I want to make sure those games are great. What I want to make sure is that [as] gamers on our platforms, you feel like you have access to as many games as you can, and, as a developer, you feel like you have the tools and service to reach as many gamers as you can.

What characterizes a PC game for you? If there are games that are more suited for keyboard and mouse, which Xbox games are not good candidates for the PC?

You'll laugh when I say this, but let's say a Kinect game. *Dance Central* [for example]. Probably not the best PC game. So—and we've said it—I'm committed to bringing our biggest franchises to Windows and Xbox. I always hesitate to say 'all,' because I think that inhibits creatively what could happen.

I think there are a real two factors that today differentiate what I consider PC and console gaming. One is input. We've said we're going to support keyboard and mouse on console, and clearly you can plug a controller into a PC, so that's not a trump card. But PC games can support keyboard and mouse, console games today usually don't and for the most part can't. The other thing is the playspace itself. I'm usually closer to my monitor, it's a smaller screen. All these are 'usually'. And my TV experience on a console, I'm further away, it's more of a communal play experience. If I take my PC and I HDMI it into my television, and I use my wireless dongle to play with controllers, is it now a console or a PC? Yeah, I think you could get into scenarios where the hardware specs kind of overlap, probably at the fundamental level, or the hardware capabilities overlap enough where the differentiation kind of blurs.

But the console experience is a dedicated gaming hardware device that is very appliance-like, instant on, ability to basically do one thing—which is play games—very well. PC is a multipurpose device. I love that people play games on their PC. You see a ton of people playing games even on Windows 10 already. But it also can do Outlook and load Photoshop and browse the Web. So there are some fundamental differences about the hardware that I think will always mean there are differences between console and PC gaming, and I want to embrace those differences, not try to get rid of them.

It seems like your focus on Windows 10 gaming kicked off in 2015, but it's been quite small, incremental steps. We're just getting to the point where *Quantum Break* has been announced. That's the first big, new game that's exclusively available as a Universal Windows Application. Why such a long road?

LEFT: *Forza Motorsport 6 Apex* is a free, streamlined version of the Xbox One game.

RIGHT: Spencer says that, as the owner of *Minecraft*, Microsoft understands modding.

⏵ Well, we first talked about it January of last year, so it's been a little over a year. On development timelines I don't look at that as an incredibly long road, but I get the question. We started from our development platform and making sure that our development platform, both with DirectX 12, and Xbox Live, our service platform—that that was equally capable of being used on console and on PC, because that makes developers' lives easier. We also knew that the launch of Windows 10, and our relationship with Windows 10 as the Xbox team, gave us an opportunity with that launch to really beef up the gaming capability of that launch. And games take a while to build.

Now, when we originally started *Quantum Break,* we didn't know that Windows 10 was going to be there, we didn't know how our strategy would evolve. We obviously knew in working with Remedy that having a PC version of a Remedy game makes total sense, [with] *Alan Wake,* you can kind of look at where those games have come from and where their heritage is with *Max Payne.* So we had an idea that there could be a PC version of *Quantum Break* at some point, if we chose. But as our strategy came together, we saw the opportunity to be able to ship these at the same time, and supporting things like shared save games and other things that have been part of the strategy. So that came together relatively late based on when the whole strategy came together, but it's nice to see the game actually now realizing its potential.

So in terms of your general PC strategy—Xbox's strategy on PC—what would you say the end goal is? When you've got to a point where you feel you're in a good position, what does that look like?

Well, as I talked about on stage, I think the result of our work is how many people are actively playing on our service—this funny MAU [monthly active users] thing that people make fun of me about sometimes. I think that's the result of the work that we do. That's probably the best score card: are we growing more and more people engaged in our service, playing our games across these devices. And the devices include Xbox 360. We still have millions of people who play on Xbox 360, obviously on Xbox One, and growing on Windows 10.

But that's kind of backward looking. That's the result of some of what we've done. On the PC space specifically, I think the signs that we're successful are that gamers feel like Windows 10 is the best version of Windows for them as gaming customers. Even if all they do is use Valve's Steam. If that's their primary way of buying games and playing games, and they hate the Windows Store and 'Phil can fall off a bridge', but they feel like their experience playing games on Windows 10 is better than it was on [Windows 8-7], that's a real success. That's a high point for us. And it's something we're very focused on, outside of anything else. Now, if I then evolve it: I want to see games like *Quantum Break* and *Gears* and *Forza* and *Tomb Raider* do well on Windows. That's good for gaming all out. More games that sell means it's more likely that new games will get built, and I think that's also a sign of a healthy platform that's working.

Is seeing more of your core franchises come to PC reliant on games like *Quantum Break* doing well?

No, we've said we have a commitment to bring our biggest franchises [to PC]. We talked about *Halo Wars,* we've talked about things. So it's not a, 'hey, we're gonna wait and see.' We're in, right, we are in and we want to make sure that PC gamers are able to play PC games that we can go build. I love investing more in PC games. It would be nice to invest in some very tried-and-true PC genres. We think about that, of 'hey, let's go and build some great PC games as part of our portfolio.'

But no, the *Quantum Break* thing is definitely not a, 'hey, we're gonna try this out and see how it does.' From the top of the company on down, we're committed to making sure gaming is great on Windows, and we think first-party content has a role to play there.

You're also trying out experiments, like *Apex*—a free, curated version of *Forza*. Why not just release *Forza 6*?

Yeah, that's a great question. We're very transparent on this one. We shipped *Forza 6* obviously in the fall on Xbox One, and the team started to look at could they build a 4K version of *Forza* with the assets that they had—because they capture and build their cars and tracks at very high resolutions. They were already supporting DirectX, obviously, from Xbox, so they were able to bring up the engine and bring up the assets, and show something that when you see it is just stupidly stunning. But we don't think *Forza 6* is what the PC racing fan thinks of as a racing franchise. If you look at the racing franchises that

LEFT: *Rise of the Tomb Raider* was released on both the Windows Store and Steam.

RIGHT: Like all Xbox PC games, *Gears of War* is exclusive to the Windows Store.

are on PC today and do incredibly well, they're not kind of $60 shrinkwrapped products the way we built *Forza 6*.

I'm not trying to make all games the same everywhere you go. So, we're going to learn. We're going to put Apex out there and people are going to give us feedback about what they like and what they don't like. I wouldn't say it's a model for how we would do PC *Forza* in the future, but it's a great opportunity for us to get it in the hands of people, allow them to play—as you said, it's free, so we're not charging people to go play it—and get the feedback from the PC gaming community.

I think we have something to offer, because I think we have one of the best racing studios on the planet in Turn 10. But we didn't build *Forza 6* with the idea that it would go to PC, so instead of kind of creating the wrong experience for the PC community that's there, we chose to do something less expensive for the customer and, to be honest, an experiment by us on what we could do.

"ENSURING THAT THE WINDOWS GAMING ECOSYSTEM IS STRONG IS IMPORTANT TO US"

Is there not a danger that the PC-only gamer enjoys *Apex*, but sees the message as, 'hey, like this? Go buy an Xbox'?
Well, I'll tell them that's not why we're doing it. I am not trying to use the PC community as a way to… to tease them into buying an Xbox. I think playing a racing game on a PC, again it's fundamentally different than playing on a console, both how you buy the game and frankly how you play the game. So, as much as my public statements mean anything, I would just say flat out that's absolutely not why we're doing this. It's not trying to entice people.

If we were going to do that, we probably wouldn't have created 4K on the PC side, because, you know, it's the best-looking *Forza* we've ever built, is *Apex*, and it's not to try to pull them back to what it looks like on a television on a console. It's a good question, but absolutely it's more forward looking, around 'hey, let's get feedback from the PC racing community.'

So-called Universal Windows Applications currently don't support a lot of the features that most PC gamers would expect, such as multi-GPU support, exclusive fullscreen, modding, that sort of thing. What are you doing to improve UWA functionality?
Yeah, well, we obviously have the same list, and maybe even a little longer than what the community has brought up around [*Rise of the Tomb Raider*]. Certain things will happen very quickly in terms of mGPU support and stuff where there's no policy, it's just us working through the timeline of implementation. Vsync lock, kind of the same thing. There's specific reasons that it's there, but it's not something that's kind of a religion on our side that this has to work. Modding, we're focused on modding even on console with *Fallout*. We obviously own *Minecraft*. We understand the importance of modding, and making sure that we support that in the PC ecosystem is critical to UWA success.

Our goal for game developers and gamers is to make [Universal Windows Platform] the best platform for game developers and gamers to support, but we know we've got room to grow.

With *Tomb Raider* coming out, I think for most people that just want to go play a great game, the UWA version doesn't keep them from playing a great game. That's not to downplay the feature list that people have sent us. I understand the need to react and to fit in in the PC gaming community with the tools that they rightfully want at their disposal, and we have it in our tracking system—stuff that we're going to get done—and we have a real path to get it done. The reason I wanted to stand on stage and just articulate those issues and deficiencies is so that people recognize I'm not trying to say they're not important. I'm not trying to say that, 'oh, 90% of the people don't even know what mGPU means so go away.' I'm saying, 'no, these are features we know we need to support, and we know they're not there today, but we are committed to supporting in the future.'

I don't want people to think—you brought it up with the *Forza* question—to look at this as a passing fancy on our part, of 'can we just quickly port some console games over to PC and hope to make a little bit of money?' It's not all about that. We are the Windows company, and ensuring that the Windows gaming ecosystem is strong is important, and that means supporting these features. ∎
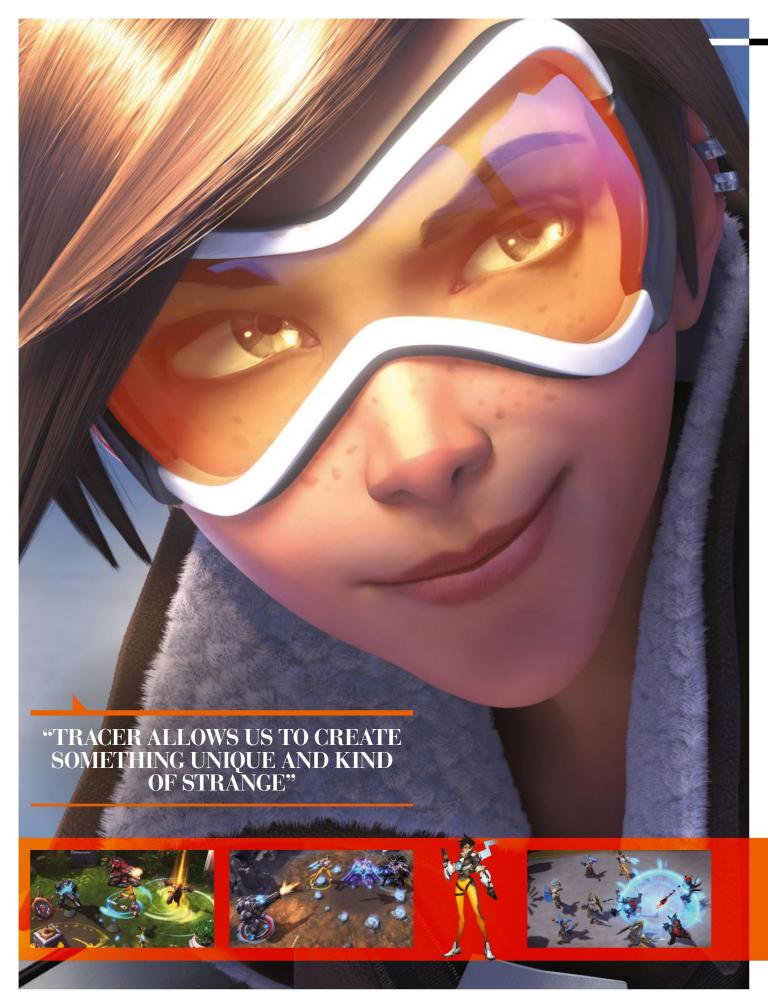
LEFT: The Windows Store edition of *Minecraft* is getting Oculus support.

RIGHT: UWAs like *Rise of the Tomb Raider* lock Vsync, something that MS is working on.

"TRACER ALLOWS US TO CREATE SOMETHING UNIQUE AND KIND OF STRANGE"

RELOADED

Blizzard brings OVERWATCH to HEROES OF THE STORM. *By Chris Thursten*

The launch of a new Blizzard game usually has some kind of impact on the games that orbit it in Battle.net: *World of Warcraft* pets, *StarCraft II* user icons, *Diablo* cosmetics. When *StarCraft II: Legacy of the Void* was released last year, *Heroes of the Storm* gained an entire character in the expansion's honor. The same thing will happen when *Overwatch* launches in June—time-skipping adventurer Tracer will make the leap from multiplayer first-person shooter to isometric lane-pusher.

It's one thing to convert a *StarCraft II*, *Warcraft* or *Diablo* character—after all, they all originate in games that control roughly the same way that *Heroes of the Storm* does. Tracer presents a different challenge. She's fast, twitchy, and defined by bursts of action followed by strategic repositioning using teleportation and time travel. This works well in a shooter, but presents a challenge in a much slower-paced game.

"Tracer is a character that we feel really speaks to *Overwatch* and also really allows us to create something unique and kind of strange for *Heroes of the Storm*," says *Heroes* game director Dustin Browder.

That 'kind of strange' is most keenly felt in the form of a new ammo system. Tracer's basic attacks hit fast and hard, and she's the only character in *Heroes of the Storm* who can fire while moving. Every shot consumes ammo, however, and you have to periodically stop to reload before you can fire again—like in a shooter. Also like in *Overwatch*, none of her abilities use mana. Everything is on a short cooldown.

"What this does for us is we can make her damage very 'bursty' and then make her pay that reload time in order to remain balanced," Browder says. "Because of her mobility, what you're hoping to do is close rapidly, use that burst ammo, and then get out before the enemy can really properly retaliate."

What Browder describes is more or less exactly how Tracer works in *Overwatch*: she's a flanker, an annoyance that defenders can't ignore but who wastes their time if they focus on her for too long. While there are characters in *Heroes of the Storm* who can achieve the same effect— Zeratul springs to mind—none achieve it like this.

"The ability to constantly juke while fighting makes her play very differently to any other hero in the game," Browder says. "She functions a little bit like she does in

Overwatch, in the sense that she often finds herself circling the battlefield looking for the sick and vulnerable."

She's also the only *Heroes of the Storm* character to get her heroic ability (read: ultimate) at level one—and, unlike most, she only has one. Blizzard toyed with expanding her skillset, but ultimately opted to stick with the only ultimate she has in *Overwatch*: Pulse Bomb. In order to diversify her playstyle, however, you can choose between three variants on Pulse Bomb at level ten. These allow her to tune her role between crowd control, single-target damage, and ranged poke.

TIME HEALS NO WOUNDS

Tracer's blink teleport ability works much as it does in *Overwatch*, down to having charges that regenerate over time. Her ability to recall through time to a previous position survives too, refilling ammo and purging debuffs, although, unlike *Overwatch*, it doesn't restore any health Tracer has lost in that time. "That was something we discussed extensively," Browder says. "We tried it for quite some time—a little too long, probably. By adding healing to Recall players were just recalling to heal. They didn't Recall tactically or strategically, it was just the heal button. It was kind of falling apart." Tracer does have the option of taking this power as a talent at level 20, however. "We think this is an acceptable place for that kind of power."

Tracer has also gained a melee attack that boosts up the charge rate of her ultimate. This is new, but a considered addition to her kit designed to diversify her playstyle within *Heroes of the Storm*. "This is a character who doesn't really tend to have any incentives to get very close," Browder says. "By adding that melee we can give you a bit of extra damage if you're willing to risk it."

The design goal for Tracer goes beyond making a shooter character work in *Heroes of the Storm*. "We're trying to introduce a few more characters that are higher skill cap than the characters we've got in the game now," Browder says. "This is a character that's very glass cannon-y but has lots of rewards if you manage to start snowballing your combos into total enemy team destruction." That's what appeals about Tracer in *Heroes of the Storm*, to me—she's shaping up to be not just a promo tie-in, but a meaningful expansion to the scope of the game she's joining. ■

A throwback to the old days, when Blizzard devs doodled in the back of the game manual.

RIGHT: Being able to fire on the move makes Tracer uniquely able to 'kite' enemies by forcing them to chase her.

THE *Top 50* FREE DOWNLOADS

From **ANCHORHEAD** to **ZINETH**, we've assembled our latest list of the very best freeware games for you to enjoy.

By Tom Sykes

The PC remains the greatest platform for free games, and not because of The Pirate Bay. Every day, new freebies are added to places like Itch.io and Game Jolt, and we do our best to bring you the most worthwhile examples.

Many are fun distractions that you'll have forgotten about an hour later, but some will linger in your memory, wheedling their way into your unconscious and demanding much more of your time than you might otherwise have expected.

It's those games that are suitable candidates for our Top 50 list, which collects the very best in freeware entertainment. The following are drawn from decades of PC gaming, and cover pretty much every genre you can imagine, save dancemat-based rhythm games, which remain cruelly under-represented on our platform. We've been deliberately all-encompassing, so whether you're a fan of RPGs, adventures, strategy games or type-'em-ups, you'll find something here that you will enjoy.

01 DWARF FORTRESS

Madly ambitious, this ASCII-based masterpiece doesn't just procedurally generate a world: it generates a history, a society, nuanced characters and even poetry, giving you the tools to engage with its complex simulation in a sophisticated, if unwieldy manner. A landmark game.
www.bay12games.com/dwarves

02 THE DARK MOD

This is an engine for creating new *Thief* missions, of which there's a pile of excellent examples. While the creation tools are slightly boggling, *The Dark Mod* makes it a trifle to find and play great maps including the Garrett-less William Steele series, and the multi-part Thomas Porter chronicles. Thanks to *The Dark Mod*, *Thief* will never die.
www.thedarkmod.com

03 COMMAND & CONQUER: TIBERIAN SUN

Westwood's sequel is still one of the go-to RTS games. The fresh isometric viewpoint enabled terrain with variable height, while the day/night cycle brought the futuristic battlefield to life—even as the new mech units did their best to stomp it out.
www.cncnet.org

04 SPELUNKY

The original *Spelunky*'s chunky sprites, catchy music and purity of design mean that it's still worth playing today. It's a marvel of procedural generation, designing a thrilling dungeon full of traps, treasure, and f***ing bats every time you play, no two quite the same.
www.spelunkyworld.com

05 THE ELDER SCROLLS II: DAGGERFALL

This RPG boasts over 62,000 square miles of space, and some 15,000 towns full of stealable goods. There's something to be said for a game you'll never be able to fully explore in your lifetime.
www.elderscrolls.com/daggerfall

06

MASQ
That it's still one of the most vital works of IF, even after the recent explosion in the genre, says much about its unique premise. Choose Your Own Adventure meets soap opera in this explosive murder mystery.
bit.ly/1RZHqSS

07

N V2.0
A minimalist platformer that focuses squarely on level design. With no fancy backgrounds to distract you, you're free to concentrate on the only thing that matters: the graceful arc of your ninja's jump.
bit.ly/1mQIEnc

08

CAVE STORY
It's probably not *entirely* accurate to credit one game with the birth of a movement, but it often feels that way with *Cave Story*, a labor of love that showed the world how polished indie projects could be.
bit.ly/1NPyIoJ

09

BROGUE

There's ASCII, and then there's the ASCII in the roguelike *Brogue*, enhanced by dynamic lighting and mouse-based interaction so that navigating its procedurally generated dungeon is both easy and fun.
bit.ly/1diz33i

10

FROG FRACTIONS

At first glance an edutainment game, this soon blossoms into a witty and ridiculously expansive blend of genres. If the Kickstarted *Frog Fractions 2* ever arrives, it has big flippers to fill.
bit.ly/1WjAdwV

11

VVVVVV: MAKE AND PLAY EDITION

You have to pay out for the main campaign, but this nets you the platformer's level editor and a lot of player-made stages, some of which compare favourably to the main event.
bit.ly/1Wq1eQH

12 TRIBES: VENGEANCE

B oasting *Tribes'* first proper singleplayer campaign—a surprisingly detailed story—Irrational's take on the series didn't please everyone. *Vengeance* has its fans, however, not least thanks to the addition of a grappling hook. Grappling hooks make everything better, right?
www.tribesuniverse.com

13 FREECIV

T his fan effort makes *Civilization* even *Civ*ier—placing a mighty 541 different nations at your disposal. Couple that number with the enormously high player count (126), and you surely have the biggest *Civ* that's ever existed. Not that quantity is the most important facet of a 4X, but it's the perfect arena for experimentation on a massive scale.
www.freeciv.org

14

DR. LANGESKOV, THE TIGER, AND THE TERRIBLY CURSED EMERALD: A WHIRLWIND HEIST

A hilarious and punchy short story that's over well before you could get bored. There are far too few modern comedy games, and even fewer that are actually funny.
www.bit.ly/1QXkfsq

15

BARKLEY, SHUT UP AND JAM: GAIDEN

I t's 2053, in the ruins of Neo New York. Only one man, and his B-ball, can restore a sport to its former glory—that man, obviously, is Charles Barkley. This JRPG-style sci-fi adventure takes its wonderfully silly world *incredibly* seriously. By the end, you'll care too.
www.bit.ly/1liOsoy

16 GRAVITY BONE

Y ou'll recognize the blocky characters from Brendon Chung's similarly excellent *Thirty Flights of Loving*, to which this serves as a sort of prelude. It's a small game of espionage with exquisite graphic design and cinematic flair. Chung's worlds are full of genuinely charming characters, despite not a single line of voiced dialogue.
www.blendogames.com

17 ZINETH

A rcane Kids is the kind of development team with a manifesto. Sure it's a jokey one, but "Make the games you wish to see on the Sega Dreamcast" sums them up pretty well. You could put pretty much any of their games on this list—and I've not been able to resist including another—but beating the likes of *Bubsy* *3D* and *Room of 1000 Snakes* to the punch is their student project *Zineth*. It's a free-running skating game clearly inspired by *Jet Set Radio*, meaning style, speed, and colors you don't normally see in videogames. Jump, grind and wall-run your way across a vast desert landscape, conveniently rewinding time every time you die.
www.arcanekids.com

18 THE EXPENDABROS

L icensed games are supposed to be terrible. Someone forgot to tell *Broforce* devs, and so we've ended up with this fun promo that mixes that game's explosive 2D action with the weathered faces of action movie heroes.
www.bit.ly/22fVWL6

19 DOUBLE ACTION: BOOGALOO

A *Max Payne*-a-like full of over-the-top gunplay, swan dives, and tactically activated slow-mo—somehow working in multiplayer. The key is surely the ludicrous diving system, which lets you fling yourself from sheer buildings and across granite rooftops without grief.
www.doubleactiongame.com

20

CANABALT
This kickstarted the endless runner genre, and remains one of the most enjoyable to play, thanks to its great artwork, music and tight controls, and that satisfying smash sound after you fly through glass.
bit.ly/1kXJ3SJ

21

BATTLE FOR WESNOTH
It's been going for years now, and its development shows no signs of slowing. It's a massive tactical RPG, something like *Final Fantasy Tactics*, but more complex, with bigger maps, and multiplayer.
wesnoth.org

22

SUPER CRATE BOX
The two-man dev team Vlambeer made this deceptively simple arcade game. Using weapons from a handy crate... box... your job is to stop spawned monsters from leaping into a pit.
bit.ly/1z7D6b6

23

RED ROGUE
As in *Rogue*, you're trying to retrieve the Amulet of Yendor, but this couldn't be more different in approach. It's a side-scrolling, optionally real-time game with minions, stylish hats, and tasty kobold hearts.
bit.ly/1jJ3Iae

24

CANDY BOX 2
One of the best browser-based, productivity destroying clicking games, this one is nominally about stuffing your face with sweets. However, it soon blossoms into a compelling and funny RPG.
bit.ly/1ab5WMK

25

DIASPORA: SHATTERED ARMISTICE
While there's still no (good) official Battlestar Galactica game, a handful of exceptional mods float around, including this standalone built in the *FreeSpace 2* engine.
bit.ly/1pjtQAe

26

SONIC DREAMS COLLECTION

This assortment of faux *Sonic* games might be Arcane Kids' magnum opus. It's an authentic-looking collection of four, let's say *unusual* Sonic prototypes—the premise being that the Kids had obtained a Dreamcast development kit and found this lot after rooting around. *Make My Sonic* lets you generate and customize your own Sonic, *Eggman Origin* supposedly contains the remnants of an abandoned MMO, while *Sonic Movie Maker* asks you to film increasingly disturbing scenes between hedgehog and chums. Probably the most unsettling is the VR-enabled *My Roommate Sonic*, a game about chatting up Sonic via text messages.
www.hedgehog.exposed

27

INTERNATIONAL JETPACK CONFERENCE

You're a freelance journalist attending the latest jetpack conference in this chat-driven psuedo-DOS adventure. Somehow this surreal experience lives up to its glorious name.
jetpackconference.biz

28

BERNBAND

The strange appeal of exploring a neon-drenched alien city is the reason this captured my attention. It's a game about wandering around a strange metropolis, eavesdropping on people in nightclubs, or simply soaking up the atmosphere. The lo-fi artwork is endearing, but it's the sound design that makes it, suggesting a city humming with activity.
www.bit.ly/1UAlJlc

29 FISTFUL OF FRAGS

I t's like *Team Fortress 2*, only with Wild West weaponry including an assortment of Colt pistols and a bow-and-arrow. You can dual-wield, throw handguns, and it's one of the depressingly few FPS games to let you kick people in the head. More head-kicking in games, please.
www.fistful-of-frags.com

30 DATAJACK

A game about sneaking into facilities and hacking/stealing/ assassinating anyone that gets in your way. The Crosslink-style visual hacking system recalls *Gunpoint*, while the involved stealth and bountiful options at your disposal make this feel like an isometric *Deus Ex*. You can enhance your body with technology, and you probably should.
www.epicbanana.com

31 ICARUS PROUD-BOTTOM'S WORLD OF TYPING WEEKLY

T his is an episodic whodunnit masquerading as a typing game. It's really a mad murder mystery that spirals into weird and hilarious territory over five episodes. The original game, *Teaches Typing*, is worth playing too.
www.bit.ly/1prgimS

32 NITRONIC RUSH

Y ou're racing solely against the clock, and whatever obstacles the developers care to throw at you. So it's an endless runner, as much as anything. But it's an endless runner with tricks, points, and banging dance music, and now boasts an expanded sequel, *Distance*.
www.nitronic-rush.com

33 WESTERADO

I t's recently been embiggened and given a pricetag, but you can still play the free version of this open-ended cowboy adventure, and you should. In time-honored Western fashion, your family has been murdered and you've picked up your gun and gone in search of answers. You can shoot any character, at any time, cutting dialogue short with a bullet if you get bored.
www.bit.ly/1dVw25e

34

DIGITAL: A LOVE STORY
With its interface styled like the Amiga's Workbench OS, you might not realize Christine Love's landmark visual novel is a visual novel at all. Its engaging story unfolds via email and BBS.
bit.ly/19aWFWs

35

QWOP
Different keys have been assigned to an Olympic runner's calves and thighs on each leg. To propel this ragdoll puppet forwards, you have to delicately yet frantically hammer them. Hilarity ensues.
bit.ly/1O6W2hp

36

COLORATURA
A text adventure that explores territory only text adventures can. As a telepathic and deeply alien lifeform trying to return to its own world, you must find a way to communicate with clueless human beings.
bit.ly/1V9ovrA

37

NO-ONE HAS TO DIE

Spoiler: rather a lot of people die, in this turn-based puzzler/visual novel. You have to order them to safety while fire spreads through a building. You can't save everyone, so who do you sacrifice?
bit.ly/1TLyOCY

38

TORIBASH

A turn-based fighting game where you make your own moves, by extending, shrinking, or otherwise manipulating your bobbly character's joints. Ragdoll physics makes this crazy fun.
bit.ly/1DpKHmX

39

ONE CHANCE

Few games are as aptly named as this one, which gives you one chance to save the world. When you've reached an ending, you supposedly won't be able to ever play it again, at least on the same computer.
bit.ly/1W4VPyV

40 ALIEN SWARM

Valve hired the devs of *UT2004* mod *Alien Swarm* to remake it in Source, and the result is a fun, under-appreciated co-op game set in an insect-heavy facility. You have a bunch of different characters to choose from, and four classes: Officer, Medic, Special Weapons and Tech. Tech's the one to pick if you're looking to recreate Aliens, as they carry a motion sensor.
www.alienswarm.com

41 OPENTTD

The two main advantages of this open-source version of *Transport Tycoon Deluxe* are its stability and its sheer size: it supports maps up to 64 times bigger than the original game. A whopping 255 players can manage transport networks simultaneously, while some work has gone into the interface, including the addition of drag-and-drop functionality.
www.openttd.org

42 DON'T TAKE IT PERSONALLY, BABE, IT JUST AIN'T YOUR STORY

Christine Love's more traditional visual novel, set in a high school in 2027. It concerns the increasing destruction of privacy in relation to digital social networks, and the conclusion might just surprise you.
www.bit.ly/252ft45

43

DUNGEON CRAWL STONE SOUP
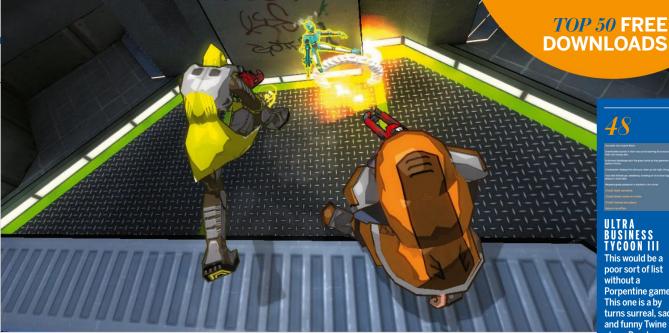
What do you do when development stops on one of your favorite roguelikes? You pick up the baton. *Stone Soup* branches off from '97 hit *Lynley's Dungeon Crawl,* famous primarily for its complex skill system. It's now one of the most approachable roguelikes.
crawl.develz.org

44 WONDERPUTT

Golf mixed with *Marble Madness*: a combination that works beautifully. Rather than whacking the ball with an assortment of big sticks you simply move it by positioning the mouse and clicking. The physics feels just right, but it's the isometric course that's the star: a gorgeous diorama that's constantly shifting as you work your way across.
www.bit.ly/1S25sga

48

ULTRA BUSINESS TYCOON III

This would be a poor sort of list without a Porpentine game. This one is a by turns surreal, sad and funny Twine story. Porp's game satirizes *Tycoon* sims, and pursuit of money.
bit.ly/1nLG9V0

49

RHYTHM DOCTOR

A smart, funny rhythm game inspired by *Rhythm Paradise*: a minigame collection where you hit a button to a changing beat. You're a heart doctor here, healing folk by tapping.
bit.ly/1QVmgq3

50

ANCHORHEAD

A detailed piece of interactive fiction inspired by the works of HP Lovecraft. Over three days, you have to stop the arrival of a Great Old One by getting to the bottom of a vast conspiracy. No pressure.
bit.ly/1V9GNJi

45 WARSOW

This is a fast-paced, *Quake*-style multiplayer shooter, starring a bunch of rocket-launching pigs. That's surely enough for you to bunny-hop to the website and hit 'download' with abandon, but I have a few more details about the venerable pork-'em-up while you wait. Pigs, obviously, are known for their acrobatic nature, so that's where *Warsow* differentiates itself from the herd. High-level play involves mastery of its various gravity-defying techniques, including rocket-jumping, wall- and strafe-jumping, and lots of other moves that end in 'jumping'. *Warsow*'s been going since 2005, and has a dedicated community that's still playing today.
www.warsow.gg

46 SKRILLEX QUEST

This tie-in *Skrillex* title is much, much better than it should be, given that it's a game based on a noise-mangling jerk with an irregular hairdo. Think *Zelda* meets *Superbrothers* meets [hits mute button] deafening dubstep.
www.jasonoda.com/v10

47 REPRISAL

This modern godgame plays like a micro-*Populous*, or that episode of Futurama where Bender governs a civilization living on his stomach. Your goal is to reclaim and expand your lost tribe across an array of teensy maps, using the awesome power of totems to raise water or lower land. Before long, rival tribes appear and try to undo all your hard work.
www.reprisaluniverse.com

REVIEW

HOW WE REVIEW

Wherever possible, we finish a game before finalizing the review. We review each game on its own merits, and try to match it to a reviewer who's a passionate expert in the field. The main aim of the reviews section is to help you make buying decisions.

ALPHAS & BETAS

This means we'll review any released alpha, beta or otherwise unfinished game that you can currently buy. For these games, we won't assign a score, but we will tell you whether they're worth your time in their current state.

DOWNLOADABLE CONTENT

DLC might be hours-long new missions for a game, or it might be a single new item. Either way, if we think you want to know about it, we'll review it.

OUR SCORING SYSTEM EXPLAINED

00%-10% A game of absolutely no value. Are you playing one of these games? Take 3d6 emotional damage.
Examples *Big Brother*

11%-39% Yikes. Technically broken, or so fundamentally flawed that it's ultimately not worth any time or money. Bad.
Examples *The War Z, Sonic: Lost World*

40%-49% This game is functional, but majorly flawed and disappointing.
Examples *Firefall, Star Trek, Armikrog*

50%-59% Mediocre. If it has any interesting ideas, they don't work well. Might suffer from bugs or technical issues.
Examples *Primordia, Painkiller: Hell & Damnation*

60%-69% An interesting idea poorly expressed, or a derivative idea executed averagely. Comes with caveats.
Examples *SimCity, Just Cause 3, Blood Bowl 2*

70%-79% Good, but not a classic. This score is a recommendation, just not a glowing one.
Examples *Broken Age, Batman: Arkham Knight*

80%-89% A great game with exceptional moments or features, and touches of brilliance.
Examples *Elite: Dangerous, Soma, Fallout 4*

90%-94% A compelling recommendation for most PC gamers. Ahead of its time and important to PC gaming.
Examples *MGS V, Rainbow Six Siege, Undertale*

95%-98% This is far and away one of the best games we've ever played, and we recommend it to the entire world.
Examples *Half-Life 2, Kerbal Space Program, Spelunky*

99%-100% Advances the human species. Life-changing. A masterpiece and more. Actively boosts the immune systems of nearby children and small animals.

EDITOR'S CHOICE

The Editor's Choice award is granted in addition to the score, at the discretion of the PC Gamer staff. It represents exceptional quality or innovation.

Divided we fall

It was inevitable, really. After an exceptional start to the year, we were due some disappointment. That's not to say this month's issue is full of bad games, but there's little that isn't held back by design flaws or ancillary problems. Take *The Division*. It has its fans, but James Davenport was left cold by its uneasy attempt to juggle shooter and RPG systems.

The first episode of the new *Hitman* is better, but has flaws of its own. Despite being a welcome balance between *Blood Money* and *Absolution*, the bugs and forced disconnections keep it from scoring high. Yet, even on arid land, there can be growth. See *Stardew Valley*, the brilliant farming RPG, and this issue's surprise success story.

Phil Savage

PHIL SAVAGE
DEPUTY EDITOR
phil.savage@futurenet.com

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CLICK AND DRAG

Cover shooting and RPG progression don't quite fit together in
TOM CLANCY'S THE DIVISION. *By James Davenport*

I'm cornered by three strangers. They can see the loot I'm carrying on my back. I expect them to shoot any second—instead, all three start doing jumping jacks in unison. Welcome to *The Division*, where fitness comes first. I joined in and they helped me extract my loot from the PvP Dark Zone. We spent the next hour parading through central Manhattan, helping out strangers in need and hunting down rogue soldiers in a series of vigilante revenge quests.

Yet with or without impromptu friends, the vast majority of my time in *The Division* was spent sprinting between abstract world-map icons, completing shallow side missions for incremental loot snacks, and firing entire ammo reserves into soldiers whose superhuman health bars could feed a family.

The Division is an open-world RPG co-op cover shooter set in the ruins of Manhattan after a bout of bioterrorism on Black Friday sent the city spiraling into a mini-apocalypse. Manhattan is quarantined, so the Division, a covert federal force, is sent into the city to restore some semblance of federal civility, by shooting everyone highlighted in red.

I spent over 30 hours sprinting between the icons of this beautifully rendered open world, which is typical of Ubisoft games. But *The Division* doesn't lift the *Assassin's Creed* template directly, as progression leans on traditional RPG game mechanics. I leveled up my soldier, unlocked new abilities, and scoured the city for better guns and gear. I had fun with the campaign, but at the expense of 22 hours of filler, and I won't go back.

TAKE COVER
The Division is a collection of story missions, side missions, and random combat encounters. You can opt to tackle them alone, with three friends, or with strangers via matchmaking. Safe houses are small social hubs and the only place you'll meet other players (besides the Dark Zone).

Fighting the AI can be tense and challenging, especially when you have teammates. Press a key to take cover on corners or highlighted chest-high objects. From cover, you can blindfire, take aim, toss grenades, or use one of your class abilities, such as throwing out an automated turret that suppresses nearby enemies or a med station that heals everyone in a radius. I rarely had time to dig in, as enemies flanked or sent explosives my direction with reckless abandon. Under that kind of pressure, I changed cover a lot, and with ease. Highlight the cover you want to move to with the camera and hold a key to go there. That simple movement meant I didn't have to

Enemies flanked or sent explosives my direction with abandon

maneuver around a tangle of obstacles, creating space for more improvisational thinking.

During intense firefights conversations with teammates fell into a natural rhythm based on abilities and weapons equipped. I ran with a semi-automatic shotgun, a cover reinforcing buff, and a turret. In my favorite scenario, two tanky shielded enemies paired with a medic walked up a tight corridor toward our cover. I threw out my turret to distract the shielded enemies, my teammates told me they'd suppress, and I took off to the other end of the corridor to get behind their line of defense, take out the medic, and open up the shielded enemies to fire. If only more of the combat had the same strategic construction.

The Division punishes bad decisions well enough (stay out of cover too long, get shot; stay in one place too long, get flanked), so it's disappointing that the elite enemies are just prolonged versions of regular encounters and that they're used so often. Elites don't employ especially erratic behavior, or complex patterns: they just swallow magazine after magazine while talking smack. One of the fights went so long the music ended.

When my teammates and I were around the same level, and played missions at or just below the recommended starting point, the combat was usually a good challenge. We depended on one another to fill out blind spots: I was a shotgunner, so we knew a sniper would be necessary. If I had the turret and cover buff equipped for flanking, a teammate would spec out a medic class on the fly.

However, incentive to play with one another faded as our levels grew apart. All it took was one teammate a few levels higher to turn balanced combat into a personal shooting gallery. Conversely, when matchmaking for some of the later missions, I was often thrown into a team of antsy players who were

NEW YORK, NEW YORK
Some real places you can sightsee

1 TIMES SQUARE
The crossroads of the world, where shiny things are.

2 ROCKEFELLER CENTER
If you've not been there, it's where 30 Rock is set.

3 FLATIRON BUILDING
Or, the Daily Bugle building from the Spider-Man films.

4 MADISON SQUARE GARDEN
A big venue that appeared in the beta for the game.

5 GRAND CENTRAL STATION
Part of The Avengers was shot here, apparently.

Environments are dotted with natural cover.

The turret is a reliable ally.

The Manhattan setting itself is amazing.

Clutter tells its own stories.

Tom Clancy's The Division

Why the Cleaners are the most fun faction to fight.

Obligatory sniper screenshot #1.

Iconic locations make for good firefights.

Leader of the Last Man Battalion, Charles Bliss.

Fallen shoppers of Black Friday, we will remember you.
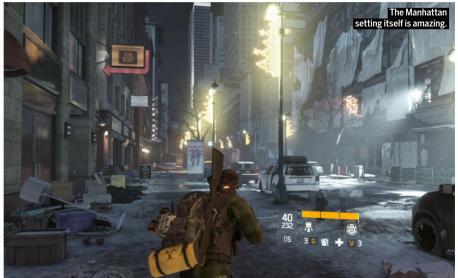
one-hit-and-dead underleveled. Leave that group, and I'm kicked back to the nearest safe house, which is a two-minute sprint back to the mission starting point.

There's no way to just power through the campaign, where the best level design and encounters are, as they don't reward enough XP to prep you for the next. Collectibles and killing enemies give out even less XP, which leaves the side missions as the primary gate between you and the best parts of *The Division*.

Some side missions feed reward points that feed into upgrading your base of operations, a repurposed post office full of repetitive NPCs and visual rewards that coincide with newly unlocked perks, combat abilities, and passive abilities. Most boil down to defending a point from enemy waves or infiltrating a warehouse to kill an elite enemy. They take five to ten minutes to complete, running between locations included, which meant I had to dedicate hours to them to upgrade my perks and abilities.

Weapon imbalances aren't as frustrating since better ones drop so often, but whether a gun is common trash or an impressive purple drop, they all feel the same to operate. The same goes for vanity items and armor. Tom Clancy's worlds are typically grounded in realism, but without some kind of eccentricity or customizable expression built into the drab wardrobe, I looked like every other bundled up, sniffly-nosed player out there, level one or level 28.

My attire might have been lacking, but Manhattan was gorgeous. With settings maxed, minute details stand out. Glass, tile, and fabrics shatter and perforate almost like their real life counterparts. Hazy golden-hour light spills into the slick city streets, while thick snowstorms turn streetlamps into conical havens and wandering NPCs into creepy silhouettes. Post-processing and weather effects layer on a grimy, sterile palette. Areas are stocked with natural props (one with giant Christmas ornaments), and most can be shot, which make otherwise routine firefights cloudy and frenetic with debris.

The overarching story is poorly communicated and easily ignored. It's a political narrative nested in a game

INTO THE DARK ZONE *How PvP works in* **The Division**

1 The Dark Zone itself is a separate, infected area of the map where your character can encounter 24 other players.

2 The main objective is to get the better loot in the game and extract it—but other players can kill you and take your loot.

3 If they open fire on you, other players will be alerted that they've gone rogue. The idea is to forge uneasy alliances.

4 The goal is to extract contaminated loot by helicopter. See how Andy got on with this in his diary on page 92.

about simple, material rewards, where you're saving a city by killing half the people in it. In *The Division*'s most discordant moment, a friend and I walked through a scene in the campaign where dozens of coffins and bodies, some covered in American flags, littered the sewers. It's a somber scene with scary connotations. When I climbed down for a closer look, it wasn't to see what I could learn about what happened here, but to see if a loot chest was nestled between the coffins. By the story's conclusion, hardly anything is resolved; it's left set-up for as many small narratives as *The Division* needs for future expansions. But there's nothing lost by missing the pulpy sociopolitical beats—it's nice enough as a wash of moody light and sound.

THE DARKNESS

At the literal core of the game is the Dark Zone, by far its most interesting element. It's a social exercise in stranger danger: a huge section of the map dotted with elite enemy mobs, hidden chests, and a ton of other players. The catch is that loot is contaminated and can only be extracted via helicopter. Every time this happens, all the players in the Dark Zone are alerted to the drop's exact location. They can help stave off the waves of incoming enemies, or kill you and take your stuff. Doing so marks them as rogue, and 'pure' players get a reward for taking them down. Proximity mic chat is enabled, so you can plead for your life, ask strangers to do jumping jacks with you, or coax them into attacking with insults. Sometimes, nothing would happen for an hour and I'd extract loot as a lone wolf without issue. Sometimes, we'd befriend a dozen

> **A game where you're saving the city by killing half the people in it**

other players and roam the map like some preternatural loot-extraction force. Sometimes, a group would remember my name and hunt me down repeatedly. That's what I get for name-calling. It's unpredictable, tense, and my favorite way to upgrade weapons and gear. But even in the Dark Zone, the drip slowed soon enough, and I was confronted with what exactly to do with my hoard of high level stuff. Not much.

The endgame is vapid. Daily missions unlock at level 30, but they're just campaign levels with difficulty modifiers that reward crafting material, which I've yet to find useful. There's more powerful loot to find, but it all requires serious amounts of repetition to obtain. And afterwards, there's nothing except the same levels and enemies to test it out on. Free updates are on the way with Incursions, scenarios designed to test players in the endgame, but until they're out the sense of progression is distilled into fleeting number comparisons between weapons that feel exactly the same to shoot.

The RPG-ness of *The Division* is no more sacred than *Cookie Clicker*'s. Numbers spill out, you collect resources, loot, and make the numbers spill out faster. It's there for the sake of kill efficiency, increased by little more than a restricted nibbling at *The Division*'s gristle, a rubbery, tasteless collection of repetitive side missions and heavy health bars. Beneath all the excess is a challenging and strategic eight hour co-op cover shooter that deserves an audience, but it's occluded by a thick, noxious loot haze. ■

PC GAMER

VERDICT

A challenging co-op cover shooter and a gorgeous open world diminished by unnecessary RPG tropes.

68

Stardew Valley

OK, so the creepy wizard feels a little out of place.

The mines are a surprisingly fleshed-out adventure.

For some reason I keep expecting zombies.

Wild Horseradish

Dandelion

GREEN THUMBS UP

Escape to the countryside in **STARDEW VALLEY.** *By Daniella Lucas*

As a quiet person working in a loud open-plan office, the idea of packing it all in to go live on a farm is something that appeals to me greatly. *Stardew Valley* has given me that opportunity, albeit in a cutesy, pixelated form and via the death of my digital grandfather. It's not quite the way I'd choose to acquire a farm, but, let's face it, the only way anyone affords any kind of property these days is by inheriting it.

It's very much like a *Harvest Moon* game in that you get your farm up and running by first making a patch of land usable, then planting, tending, and ultimately selling crops to build a stable income. What starts off as a few parsnips snowballs into a steady supply of beans and potatoes, and then fancier things like eggs and mayonnaise. You can supplement your earnings by heading out into the forest to forage for berries and leeks, or go fishing, but everything you do consumes energy.

The nearby town is filled with people to befriend, buy things from, and, if you're feeling particularly frisky, woo. Unlike *Harvest Moon* games where the local town seems to be filled with anime tropes and idiots, *Stardew Valley*'s residents feel like they'd all actually live there. Everyone

is a little eccentric from living in such a small, isolated place, and some even feel depressed and unable to escape.

Over time more of the world opens up to you. After being given a sword I found a mine filled with monsters, which in turn meant I could gather metals to craft with and monster parts to sell. This also led me to *finally* finding the crafting tab in the menus and all of the customization options.

Tucked away between the stats pages and map is one of the most fun elements of the game. It's just a case of having the right materials to make things like fence posts and scarecrows, but being able to place them exactly where you want to customize your farm as you see fit is a joy. I turned my lopsided hoeing and patchy groundwork into a professional-looking garden just by

> ### I never wanted to put down my hoe and return to the office

adding a stone border and a path. When I finally built a coop and an area for my free-range chickens to roam in, the whole place really started to come together.

A few niggles: you earn experience and raise skills, but there's no notable leap in proficiency, and when you can upgrade your tools later anyway this RPG layer seems unnecessary. My mouse cursor would randomly reset to the center of the screen during events, and it's too easy to miss a festival by not meeting the right conditions to trigger it properly. A bit more polish and better signposting would go a long way, but for a game made by just one person this is a momentous achievement.

Its imperfections never damaged that feeling of gentle escape to the countryside. They never made me love my imaginary dog any less or want to put down my hoe and return to the office. I might be a long way off getting an actual farm, but *Stardew Valley* makes for a good start. ■

PC GAMER **VERDICT**

A breath of fresh air. *Stardew Valley*'s blend of pixel charm and gentle pacing makes for an excellent little escape.

80

BLOOD TEST

HITMAN: INTRO PACK offers a strong first level, but struggles with its execution. *By Phil Savage*

In many ways this latest *Hitman* is exactly what I—someone who loved *Blood Money* and disliked *Absolution*—wanted the series to do next. This first episode, available as a standalone Intro Pack, contains a couple of smaller tutorial levels and one full-size mission. That might not sound like much, but the Showstopper level, set in a Parisian palace, is a huge, intricate sandbox filled with possibilities for you to explore.

Hitman takes *Absolution*'s accessibility—a slick third-person control scheme, and 'Instinct' mode, which highlights targets, weapons and other key information—and applies it to *Blood Money*'s broad sandbox design. There are snippets of story, but they're seeded into incidental conversations and cutscenes that take place after each mission. This does not feel like a *Hitman* game that would ever take away control mid-mission.

As Agent 47, you're free to take down your targets in any way you please. As in *Blood Money*, part of the joy is that you're given the space to stop and observe. 47 has an invite to the fashion show his targets are running, and that means you've got limited access from the start. To venture deeper into the palace, however, you'll need to acquire a disguise.

Even masquerading as a member of staff isn't a free pass. Each uniform has its own restrictions, and you'll need to watch out for any NPCs who will recognize you aren't one of their own. This is clearly highlighted through a UI indicator. Disguises, and the suspicion 47 raises while wearing them, are something the *Hitman* series previously struggled with. Here it's more transparent, and feels more consistent than ever before. The new system is a success, but, like so much of the game's UI, the indicators can be disabled in the options to create a purer, more challenging experience.

Getting close to a target is just half the challenge. The act of killing is just as open to experimentation. *Hitman* supports a variety of playstyles, from clean, professional hit to destructive murder spree. The end-of-mission rating screen clearly prefers the former, but the episodic format encourages replayability. I've spent nearly 15 hours in *Hitman*, much of it in Paris, and I'm still finding new ways to dispatch Viktor and Dalia. They've been shot, stabbed, poisoned, drowned and bludgeoned. I think I'll try explosions next.

IN PLAIN SIGHT

If you need a little direction, a new Opportunities system guides you towards some unique solutions. It works like an expanded version of *Blood Money*'s setpiece accidents, and points you at some of Paris's most satisfying kills. Fully enabled, Opportunities are a bit too hand-holdy, telling you how and where to complete each action— removing the puzzle element entirely. But you can select a cutdown version that removes objective markers, or disable the UI altogether, instead discovering Opportunities naturally through overheard snippets of conversation or notes left around the level.

I'd personally recommend turning off Opportunities, at least for your first few attempts. Nevertheless, it's good that the option exists for those who want it. *Hitman*'s sandbox isn't just about how you approach each level, but how you approach the systems. That feels in keeping with the series' pre-*Absolution* philosophy.

Yet despite everything it does so well, I can't help but be frustrated by *Hitman*—largely thanks to problems that exist on a technical and

> ### They've been shot, stabbed, poisoned, drowned and bludgeoned

infrastructural level. For one thing, I've found plenty of bugs. Getting a "Body Found" message when I'm alone in a bathroom with the level's only corpse chips away at my confidence in the simulation. As does the ease with which you can upset NPC scripting—to the point where a crucial conversation ended because 47 moved slightly too far from a character's peripheral vision. I've also experienced a few crashes.

But by far the biggest annoyance is that, if you lose your internet connection while playing, you're kicked out of the mission and back to the main menu. *Hitman* doesn't have always-on DRM—an offline mode is available—but challenges, and the post-mission unlocks that you receive for completing them, are all tied to online mode. Worse, the game uses different saves for offline and online, so if you can't reconnect, you won't be able to reload your existing run.

I'd be less bothered if the online functionality justified such extreme measures. But the returning user-created Contracts mode is barebones, with limited options for scenario creation and no ability to search through or filter published missions. The lack of online features also applies to leaderboards. This is a major release in the year 2016, and yet I can't press a button to only see my friends' scores.

It's one thing that *Hitman* is episodic—I think it suits a monthly release schedule, especially given the variety within this first level—but the lack of polish makes this initial release feel like a beta. Right now, it's a great game but a poor user experience. As such, while this Intro Pack shows a lot of promise, it falls short of an unconditional recommendation from me. ∎

PC GAMER **VERDICT**

Despite being a smart progression of *Blood Money*'s ideas, *Hitman* feels unrefined and unfinished in many ways.

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"This is how we serve drinks now. It's all the rage in San Fran."

If you were in any doubt over who you need to kill.

You know it's a party when everyone wakes up naked in a cupboard.

"So, do you have full NPC AI, or are you just a background idiot?"

A reasonable response to being served cold soup.

THAT ESCALATED QUICKLY *Refine your strategy in Escalation*

MISSION 1	MISSION 2	MISSION 3	MISSION 4	MISSION 5
Wear disguise: Soviet Soldier Eliminate using: Pistol **TARGET:** Cilas Netzke	Break into the safe and steal the contents **OBJECTIVE:** Break and Enter	Wear disguise: Hangar Mechanic Eliminate using: Any Weapon **TARGET:** Moses Butusov	Hide all dead bodies within 90 seconds, or you will fail the mission. **COMPLICATION:** Body Remover	Pacify anyone, and you will fail the mission. **COMPLICATION:** No Pacifications

Escalation is a new mode, featuring repeatable missions that get more difficult on each tier. Here's how the first asks you to refine and tweak your approach.

LOCKED UP

GEARS OF WAR: ULTIMATE EDITION is a disappointing
PC version of a great game. *By Tyler Wilde*

My criticisms of *Gears of War* haven't changed much, which is exceptional for an Xbox 360 game from 2006. Long after it first redesigned third-person shooting into a chunky, cover-to-cover alien meatgrinder, *Gears* is still fun as hell and doesn't feel dated. It's aged wonderfully, tasting just a bit better, even, because it sticks out among modern shooters as thicker, stronger, and simpler.

But it's grown some pretty gross mold, too. This new *Ultimate Edition* is one of those fancy DirectX 12 games built as a Universal Windows App, which is supposed to make it more efficient and simpler on us, but in this case has only introduced limitations. It looks great—the stones are grimier, the meatheads gruffer—but do you want to play at an ultrawide resolution? There's no ini to edit. Want to record a session with ShadowPlay? You can't, so get used to Xbox DVR (which sucks). And you'd better hope *Gears* likes your videocard, because it doesn't like my GTX Titan or the GTX 980 Ti we tried it on in the office, and that grudge comes as nasty audio and video stuttering if I have the texture quality above 'low.' Microsoft is working on it, but it's still a pain a week after launch.

Gears softens the frustration by being so much fun. The campaign can be a little self-serious—it's *Doom* as an ensemble action flick like The Expendables, with a cast of ultimate tough guys flexing their neck-trunks at every problem—but there's no drawn-out character development or weak attempts at high-concept sci-fi. Yeah, the cast is a bunch of melancholy soldier archetypes, and the grimdark gothic stonework becomes a grey paste in places. But I only have to care about that for one minute of walk and talk exposition, and then I get to spend 20 minutes with *Gears*' wonderful shooting in a shower of alien gore.

Gears still owns one of the best cover systems ever. The spacebar puts in a lot of work: hold it to charge forward, tap it to enter cover, and hit it with a direction key to move between cover points, dive into the open, or hurdle over a concrete barrier. Except when I accidentally magnetize myself to a pillar while trying to transition from cover to close-quarters, the system feels clean and responsive.

Active Reload adds golf swing timing to magazine swaps

The battlefields are like strategy game boards, with cover points arranged at 90 degree angles to each other. There's a lot of playing it safe, staying behind one comfy concrete cube or rusted out car while playing pop-and-shoot with likewise stationary grunts. But *Gears* gives you that routine so that it can freak you out when one of its Locusts decides to rush your position, or a new unit of them crawls out of the ground to your side. It feels nice to find a home and let the adrenaline settle into a pool, because a minute later *Gears* is going to splash me into action. I'll point my nose at the ground and dash half-blind to a new cover fort where I can settle in again. It's a bracing game of fight and flight.

HEAVY METAL

The guns are fierce, imprecise fun. You can spray tracer bullets wildly over cover or more neatly down the sights. Giant mounted guns spit a whirl of projectiles and handle like firehoses, severing alien legs at the knees. Shotguns are hole-punches for headcrab-like rug beasts. There's even an orbital beam weapon, guided by a targeting gun.

I love that rather than the game reprimanding the player for shooting

squadmates, Marcus (that's you) yells at *them* for getting in the way. *Gears* is here because it wants you to have fun shooting aliens, and little else. It even makes reloading, a shooting staple you'd think needs no change, more fun. The Active Reload system adds golf swing timing to magazine swaps: tap R to reload, then again when a moving bar hits the sweet spot and you'll reload faster and apply a damage boost to your new bullets. This sounds dumb, but my left index finger tingles when I hit a perfect reload, and my right hand feels more anxious and powerful with a special bullet in the chamber. With a bolt-action sniper rifle especially, it's invigorating to send power from the R key to the mouse to the head of a brute, like I'm completing a circuit.

Gears is at its best in co-op, and on that front, I managed to find a random player to join up with for some brief shooty friendship. The competitive multiplayer is quieter, and that's part of the reason I won't be recommending *Ultimate Edition* wholeheartedly. *Gears* has some pretty fun multiplayer, but it can take a while to get into a match and there's so much else you could be playing outside the walls of the Windows 10 Store.

And despite how good *Gears* still is, *Ultimate Edition* makes a poor case for venturing into that walled garden. The stuttering issue is a big pain, and even if Microsoft fixes it, this will still be a limited piece of software. You can't inject shaders, or capture video with the tool you like, or do anything we've become accustomed to doing on our wonderfully open platform. *Gears of War* is a great game, but the spirit of PC gaming does not inhabit this muscly incubus. ■

PC GAMER   **VERDICT**

Gears of War is fun as ever, but the technical flaws and limitations of *Ultimate Edition* are disappointing.

69

Sorry, I dropped some jam on this screenshot.

Even without complex ballistics, sniping is a lot of fun in *Gears*.

Pushing cars around exemplifies the simple approach to fun.

The textures are decent –if you can run them.

THINGS LARGE MEN SAY

Which of these outrageously awful quotes isn't in the game?

1

"Shit yeah, baby we got the hook-up! They given us a big-ass dinner!"

2

"Back in your home, bitch!"

3

"I didn't pump these lats two hours a day my whole life to sit in this shitty hidey hole."

4

"Plan? What plan? You don't have a plan. You're just talking shit. Huh! Plan!"

Answer: 3

Oh, come on, that was nowhere near you.

The Make Everything Explode gun.

ASYLUM SEEKER

A torturous exploration of a real asylum, THE TOWN OF LIGHT is a raw original. *By Edwin Evans-Thirlwell*

I wanted more for Renée. *The Town of Light* isn't an elegantly made game—it has the unforthcoming quality of scar tissue, of painful ideas soldered haphazardly together—but it's among the few that left me feeling bereft for the character under my control. Not that Renée's fate is exactly yours to decide. A fictitious patient of the non-fictional psychiatric hospital of Volterra in Tuscany, she's returned to the facility some years after its closure to make sense of her experiences.

Players are tacitly cast as a voice in Renée's head, guiding her through peeling, faithfully recreated wards in search of objects or spaces that trigger memories, manifest as gothic hand-drawn storyboards and brief playable flashbacks, clouded by sedatives. In theory you're there to heal her mind, to re-enact long-buried events and loosen their grip on the present, and there are a number of possible endings, depending on how thoroughly you scour the place and the choices you make at certain intervals. But the one thing that's established early is that there's only so much or, rather, little you can do.

The key to its accomplishment, I think, is the fact it wasn't a game to begin with. Creative director Luca Dalcò had intended at first to create a virtual tourist exhibit, and this shows in the limited, clunky way you interact with the environment—picking things up, opening doors or windows and scanning documents using an unresponsive, hard-to-see cursor. Progress is mostly a question of going where the voiceover tells you to go: hallways and rooms unlock at scripted intervals and there are only a handful of threadbare puzzles.

This much you might expect from so-called 'walking simulators', but comparable games come alive in the playfulness of the artifacts you uncover. Here the props are few and inert, reflections of Renée's emotional paralysis: medical textbooks, broken wheelchairs, old shoes. They're the components of a plot, but you don't revel in their specificity and implications—they simply exist.

Voyages of introspection in games are often suspiciously fluid affairs. Something is lost, something is found and the character walks away. Due to its grounding in case history, the story here is much choppier. Renée's tale is one of infrequent hope and

Far more appalling are the signs the world at large has moved on

frequent regression, of personal demons incompletely understood and of a backward cultural context she's powerless to change. In detailing her trials, the game resists the temptation to demonize the hospital's staff out of hand: among the monsters you'll find good people made impotent by limited resources and an uncaring society. It's a convincingly uneven portrayal of an awful era in medicine, despite writing that occasionally teeters into affectedness.

HORROR TROPES

Where the game goes wrong is in resorting to tropes from the horror genre. At times the geometry twists, plunging you into hallucinatory spaces. There's the odd door that flies open without explanation and the soundtrack mixes ambient noise with trickles of mournful piano. There are no jump-scares, and the surreal bits perhaps owe more to LKA's research on psychosis than repeat viewings of Jacob's Ladder, but extra care might have been taken in avoiding clichés. Far more appalling, though, are the signs the world at large has moved on. The truly terrible things in *The Town of Light* aren't the stone-faced orderlies pinning Renée down in the flashbacks, or the disembodied shrieks and cackles of other inmates, but the scaffolds and bags of cement. Volterra's history of suffering is being painted over and forgotten.

This is a game that's never fun, never challenging and evidently the work of an inexperienced and under-resourced team. But it also tackles the subject matter with a cold, fractured sophistication that exposes much too-smooth, too-cohesive psychological horror as trivial. I had a dreadful time playing it. I want you to play it anyway. ∎

VIDEOGAME ASYLUMS *Four psychiatric hospitals in other games*

SHALEBRIDGE CRADLE
Thief 3's finest chapter, and a masterstroke in slowly building suspense. The technology may be old but the chills are timeless.

UNDEAD ASYLUM
Dark Souls begins with you locked in a cell in this mountain facility, guarded by demons. More of a holding pen than a hospital.

THE APIARY
Pathologic has more than its fair share of weird geometry, but this institution shaped like a hornet's backside takes the biscuit.

MOUNT MASSIVE ASYLUM
Outlast's asylum hails from the less respectable B-movie tradition, all rust, blood and giggling madmen with wonky eyes.

PC GAMER **VERDICT**

65

Uneven, bleak and unflinching. It's an experience you endure rather than engage with, but it's one of a kind.

Renée's anxiety is reflected as a blinding radiance.

The storyboards are over-the-top but effective.

Movement is sluggish, but that suits the story's purposes.

The doll isn't the conventional horror device it resembles.

Evidence of ghastly procedures is everywhere.

Other patients appear in flashbacks.

DEMON DAYS

It'll take more than an *Afternoon of Darkness* to deal with the PC port of **DISGAEA**. *By Daniella Lucas*

Set in the Netherworld where all things demonic and treacherous are celebrated, *Disgaea* is a game where you control Prince Laharl and a ragtag collection of misfits, hired help and explosive penguins. Waking from a two-year nap Laharl discovers his father is dead and other demons are moving to claim his crown. He decides to get proactive by beating up as many demons as he can through the art of grid-based strategy and flashy attacks.

It's a quirky setup for a strategy RPG, but one that's worked incredibly well since 2003 on consoles. It's only now that it's made the leap to Steam. The port is based on the PSP's *Afternoon of Darkness* rather than the PS2 original so it comes with a few tweaks and the hidden Etna Mode, where Etna accidentally kills Laharl at the start and tries to take his place. It also comes with a full suite of launch problems, including huge FPS drops, screen tearing and crashes.

Yet it's the other choices the dev team have made that really let the game down. Depth of field and other options that rely on blurring are a bad fit for *Disgaea*'s small but well formed character models, while the lack of even basic resolution options feels like a massive oversight.

The new map textures are the one thing that feels like an actual upgrade. All the menus have been remade to be clearer to read, but even that is let down by a terrible and distracting choice of font. You can switch to the old menus if you wish, but as they also use old and blurred character portraits it's a choice between which style you find least offensive.

It's a shame. A tactical strategy RPG like *Disgaea* is an excellent fit for PC. Clicking through positions and attack menus with a mouse is a great idea—but here it feels rushed and inaccurate. Also, why do I have to select individual letters to name a character instead of just being able to type?

If you've got the patience to put up with all this you'll find a surprisingly deep strategy game full of likeable characters and funny writing. Clearing a map of its zombies and ghosts takes a fair bit of thought—positioning your team to chain attacks is the key, but with foes scattered across the map at different heights that's easier said than done. Throw in Geo panels—obelisks that affect colored tiles with various stat boosts and hindrances—and each stage becomes more a puzzle than a fight. You can be clever about who you pick for your team, who you attack first and how you throw

> ## Graphics options that rely on blurring are a bad fit for *Disgaea*

people to cover greater distances, but if that's not your style you can also overpower any foe through grinding previous stages.

I picked the grinding path to victory, and not once did it feel like a chore. Part of the series' appeal is that you can overlevel any character into a monster capable of unspeakable things, and you can even dive into your own weapons to make them stronger through an 'Item World'. Every stage with an item is randomized, so when you're done with the story there's still an endless number of stages to play.

DOING BADLY

You meet various ne'er-do-wells on your travels, but the Dark Assembly is where you want to do your recruiting for the most useful classes. You find healers, archers, mages, etc, to do your bidding by spending mana earned from the people you've already murdered. You can also use that mana to petition senators within the Assembly to do stuff such as provide the item shops with more stock or extort them for funding. The more powerful a character is the more influence they have—just like a real government.

When I first played *Disgaea* on PS2 I lost over 200 hours to it because I kept finding new corners to explore, its intricate systems and endless leveling pulling me in ever deeper, but the PC version has left me cold. I can't go ten minutes without being distracted by a bug or inaccurate clicking so I'm never being drawn in. The frustration the port causes makes it hard to want to put the effort in. It makes me feel guilty; there's a great game here just waiting to be played, but this version of *Disgaea* is not worth the stress. ■

VISUAL LOWS

Trying to make the port more bearable

1 Turn off the character filter so you're not controlling a group of smudged thumb prints.

2 Now turn off depth of field, screen end blur and shadows because for some reason they all make the game look worse.

Window Mode:		Window
Window Size:		Default
Full Screen Window:		OFF
5	V-Sync	ON
	User Interface	New
1	Character Filter	OFF
	MAP Texture	New
	Shadow	None
	Screen End Blur	OFF
2	Depth Of Field	OFF
	Normal Map	ON
4	SSAO	OFF
	CPU Optimization	OFF
	Previous Page	

[General] Change shadow intensity

3 Looking for the resolution options? Give up because there aren't any.

4 Turning on SSAO is just asking for buggy trouble. Nobody knows what SSAO means anyway.

5 Vsync is a Catch 22—turn it on and you'll experience major slowdown, and if you turn it off you'll get frequent screen tearing.

PC GAMER **VERDICT**

A solid and unusual RPG strategy game frustratingly buried under a terrible and lazily thought-out port.

61

That horrible fuzziness is the *new* look.

4 ATTACKS
TOTAL DAMAGE 0

Your hub area is functional but charming.

Victim blaming.

Etna

Yep, it's his fault for dying so easily.

Some special moves can hit more than one target.

Adonic Shot

TOTAL DAMAGE 0

There's more Geo panel trickery in the Item World than anywhere else.

odm

NIGHT CLUBBING

The fun but familiar **FAR CRY PRIMAL** gets mesolithic on our asses. *By Andy Kelly*

Walking through a moonlit forest, I see a glowing orange light in the distance. Curious, I head towards it. Then I notice it's heading towards *me*. It's a bear, and it's on fire. I leap out of the way and the beast thunders past, roaring in pain. It disappears into the undergrowth and I hear human voices echoing through the trees. Hiding in the shadows, I watch a group of hunters from a rival tribe chase after it.

They corner it, a fight breaks out, and the bear—still on fire—mauls them to death. It's a beautiful, absurd moment of colliding AI, and I can't bring myself to finish the weakened bear off, despite its pelt being a valuable crafting material. *Far Cry Primal* is a very silly videogame.

It's also one you might have played before. Ubisoft has taken the structure, systems, and general feel of the previous two games and transplanted them to the year 10,000 BC. There are no guns, but you soon find yourself settling into a familiar routine of hunting, crafting and missioning. It's amazing how neatly the formula fits such a wildly different setting.

That setting is Oros, a valley somewhere in primeval Europe. It's a lush, beautiful expanse of grassy plains, redwood forests, sleepy villages and cascading waterfalls. Hazy sunlight pours through gaps in the trees by day, and moonlight drapes the world in ghostly luminescence at night. It's also *teeming* with wildlife, feeling more alive than any previous *Far Cry*

setting. The air is filled with the strange calls of long-extinct birds, and animals are everywhere you look—including saber-tooth cats and woolly mammoths. In terms of world-building, atmosphere, and evoking a rich sense of place, it's one of Ubisoft's best open worlds.

You play Takkar, a hunter fighting to restore his scattered tribe to its former glory. Ubisoft worked with linguists to create a convincing prehistoric language, so all dialogue is subtitled. In a notable departure from previous games, however, there's no central villain to drive the story, and it feels a little thin as a result. Instead, two rival tribes, the cannibalistic Udam and the fire-worshipping Izlia, are your antagonists. Your allies are a cast of oddballs including shaman Tensay, hunter Jayma, and Karoosh the warrior, who must be located and convinced to join the tribe.

Takkar's field of expertise is taming animals, which can then fight alongside you. Toss bait near whichever beast you want to tame and—providing you've unlocked the

> ## The sting bomb 'grenade' is basically just a bag filled with angry bees

requisite ability—you can creep up on it and magically make it your friend. Eventually you can tame, and ride, mammoths and saber-tooths. It's an enjoyably silly idea, and one of the few ways *Primal* feels distinct.

BLUNT INSTRUMENTS

Your arsenal comprises Stone Age favorites such as clubs and spears, as well as the staple *Far Cry* bow. Occasionally I yearned for the deadly rattle of an assault rifle, but the new gear, while limited, is fun to use. Hearing a spear thud into a cannibal's chest is gruesomely satisfying. I also love the attempts to make prehistoric versions of modern weapons, like the sting bomb 'grenade', which is basically just a bag filled with angry bees. Attacking an enemy camp with a woolly mammoth and a pocketful of bees is hugely entertaining.

Instead of binoculars, you have an owl, and this is an improvement. Rather than being stuck in one place, you can fly around as you scout and tag enemies. Later you can use the owl to drop bombs, attack foes, and free angry animals from cages. I hope future *Far Cry* games—even if they have a modern setting—give you an owl instead of boring old binoculars.

Otherwise, *Primal* is business as usual. You slaughter a zoo's worth of animals to craft upgrades; you light bonfires to reveal more of the map; you assault enemy outposts and take control of them; you play trippy dream sequences; you complete story missions. As much as I love the setting and the animal-based tomfoolery, I can't shake the feeling of deja vu. If you've invested significant time in *Far Cry 3* or *4*, you'll find your enjoyment of *Primal* dampened by its deep-rooted similarity to those games. ■

ANCIENT ARSENAL *Some of* **Primal's** *most useful tools*

STING BOMB
It's a bag full of bees. Throw it at people and run.

GRAPPLING CLAW
Climb cliffs, swing across ravines.

BOW
A kind of primitive gun that fires sharp wood.

SLING
A device for throwing rocks more efficiently.

SPEAR
Stick them with the pointy end. Or just throw it.

CLUB
Hit people with this until they stop living.

PC GAMER **VERDICT**

A very decent *Far Cry*, but its handful of fun, original ideas are overshadowed by a feeling of familiarity.

79

You have to prove yourself to Jayma the hunter.

Whatever you do, don't mention the eye.

Oros is one of the best *Far Cry* worlds yet.

You become the leader of this tribe.

The cold temperatures in the north are deadly.

Making a new friend.

Ancient binoculars.

Cities: Skylines Snowfall

Plows make for trouble-free traffic.

Christmas seems to come earlier every year.

Geothermal plants can keep you toasty.

COLD PLAY

CITIES: SKYLINES SNOWFALL turns down the heat and raises the pressure. *By Chris Livingston*

The weather outside is frightful, but the fire is so delightful! At least I hope the fire is delightful—the fire in this case being a burning furniture factory—because that's the only way my poor citizens are going to stay warm now the power has gone out across the entire city. It's not the snow causing the problem, mind you, it's the cold. In *Snowfall*, the new expansion for *Cities: Skylines*, snow may slow down traffic on unplowed streets, but cold is the real killer. When the temperature drops, your chilly citizens crank up the heat in their highrises and townhouses, sucking the juice from your overworked power plants.

You have a few different ways to keep your city warm. A new policy is available requiring buildings to use more insulation, though construction and maintenance will cost a bit more. You can stick with electric heat, though you're going to need reliable routes to truck-in coal and oil. Also available are new boiler plants and eco-friendly geothermal plants, both of which use upgraded piping to deliver heat directly to your residents. If you want to use the new piping throughout your city, be prepared: upgraded piping costs five times as much as regular water pipes.

This new temperature feature is added to all your cities and maps, though it will be far more drastic in winter-themed maps where the temperatures really dip. Less of a big deal is the actual snow. It's certainly pretty, and it'll cover your roads and slow traffic even more than that line of donut trucks you've got inching their way through town. It's not much of a hindrance, though, and adding a few 'snow dump' buildings produces a fleet of snowplows that race around clearing roads for you.

It's a bummer that snow only occurs on winter-themed maps, and winter-themed maps are eternally winter. I would have much preferred a true, yearly seasonal cycle that could be applied to all maps. Modders: I'll give you two weeks.

> *Skylines* begins to feel closer to the complex simulation many wanted

Lots of new winter-themed parks and buildings are available: hockey rinks and stadiums, ski resorts and winter-themed hotels, and a new health building, the sauna. Best are the trams, long desired by fans. Upgrade roads in your city with ones that have electrical cables running over them, then plan your routes just as you do for bus lines. Even if you don't buy the expansion, you get free stuff with the update, such as rain and fog, UI tweaks, the temperature system, and various fixes.

With *Snowfall*, *Skylines* begins to feel closer to the complex simulation many wanted. I wouldn't say it's a complete game-changer, but it does add more frosty layers to your management challenges and options when it comes to power, and makes smooth traffic even more important for resource deliveries. Plus, there's something about the sight of a city at night, blanketed in snow, that warms the heart. Even if your citizens are freezing. ■

PC GAMER **VERDICT**

Snowfall adds new challenges and complexity—as well as more pronounced effects than the first expansion.

85

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CONTINUED ADVENTURES IN GAMING

I had to clear a lot of trees to make space for my eco-city.

"Welcome to Disappointment. Please drive carefully"

Fixing broken Britain in CITIES: SKYLINES

E ngland is terrible. I realized this after a holiday in Switzerland, which has double-decker trains, geothermal heating and a selection of delightful cheeses. I can't fix broken Britain, but thanks to *Cities: Skylines* I *can* create an English town built on Swiss architectural values. Unfortunately, I have the urban planning skills of a walnut.

I start by choosing the foggy hills map because it sounds like the perfect, drizzly place for my underwhelming hamlet. I'm pleased to discover I can tweak the traffic to drive on the left, just as God intended. My haven of clean energy and efficient transport gets the most British name I can think of. Welcome to Disappointment. Please drive carefully.

I'm eating breakfast while I play (two soft boiled eggs with toast, thanks for asking) and I miss the info panel that

MATT ELLIOTT

THIS MONTH
Won hearts and minds with wind turbines and rubbish.

ALSO PLAYED
Street Fighter V

tells me how roads work. I pay closer attention on my second go, but my road system reminds me why I took up writing rather than town planning. I design an asphalt pretzel of brutalist one-way systems, and the residential district looks like an airstrip. It's not like Switzerland at all, so I begin again.

I make New Disappointment small so I can manage stuff properly. I keep my road layouts sensible, and create tidy residential and commercial districts. I can't choose what type of heating the houses have, but I can make sure we use clean energy. I accidentally

discover the mode that shows me where the wind is strongest, and I build wind turbines on the hills. Lots of wind turbines. Entirely too many wind turbines. They're creating enough energy to power Dubai, and I'm left penniless. I *could* bulldoze the lot, but I have a much better idea.

FRESH AIR
My fourth and final attempt is a success. One wind turbine powers my pumping and sewage stations—that's one bit I manage to get right first time—and another the residential district. I work out how pipes work, and happy faces begin popping up in my tiny

IT'S INSPIRING TO SEE MORE PEOPLE ARRIVE, UNTIL THE RUBBISH BEGINS TO PILE UP

Foggy Hills: the ideal site for Disappointment.

They're smiling because they can't see the filth.

Next stop: brutalist surrealism.

"Suddenly I'm in a weird(er), (more) abstract space"

Hunting secrets in **SUPERHOT**

▶ **PHIL SAVAGE**

THIS MONTH
Found a peaceful world away from the red guys.

ALSO PLAYED
Stardew Valley

I thought I was done with *Superhot*. I'd completed the main campaign, died a few times in Endless mode, and realized I wasn't good enough to complete the speedrun challenge. I'd only played for about four hours, but I'd had fun along the way. Time for the next thing in my life.

Then, while I was grabbing a couple of extra screenshots for last issue's review, I noticed there were secrets. In the level menu—unlocked after you complete the game—next to each option was the words "SECRET NOT CRACKED". Intrigued, I picked a level at random and fired it up.

I'm in the subway. A train is pulling into the station. Three red dudes are running towards me. So far, so normal. I play the level, but pay closer attention to my surroundings this time around. In the bin behind me, I spot a katana I hadn't previously noticed. The screen flashes with a message: "CHOP CHOP". Was that the secret?

"SECRET NOT CRACKED," says the level menu. Not the katana, then.

Unfazed, I reload. This time, I'm more thorough, rubbing up against the walls in the vague hope that something happens. This proves pretty difficult, as I need to keep at least one enemy alive so as not to end the level. It's during a pretty nifty jump-dodge away from a bullet that I remember: jumping.

TRAIN SAILING

This, it turns out, was the key. Restarting, I notice a bin next to the platform. It's just the right height to let me jump on the train as it rolls past. I run across its roof until I'm out behind the level. Suddenly I'm in a weird(er), (more) abstract space, with benches hovering over a blueish white void. This is definitely a secret. I jump across the benches, and up some more benches. Then I find it: a computer terminal of scrolling red text. I click it, get some pointless dialogue, and exit to the menu. "SECRET CRACKED".

Now I'm hooked. I'm jumping out of windows and off balconies, trying to find the one bit of each level that leads somewhere strange and surprising. I've seen upside-down palm trees, eerie carousel rides and nightmarish toys etched into the side of a wall. I'm enjoying breaking *Superhot*'s levels as much as I enjoyed playing them. I don't care about the extra story, or what I'll unlock what I'm done. I'm just glad to be spending more time in what I thought was a short game. ∎

town. I accidentally flatten a few homes tweaking the road system, but nobody important dies. I build an industrial area, nestled behind a bank of trees so it doesn't offend anyone. We're only using green energy, which feels marvellous. We're progressive like a carbon-free Christmas, with recycled gifts and rented turkey.

As Disappointment grows it expands into the nooks between the foggy hills. Any sense of structure is lost. I've always found grid layouts vulgar and dull—the transport equivalent of line dancing—so I let my town ooze recklessly across the map. It's inspiring to see more people arrive, until the rubbish begins to pile up. I have to create a landfill site, which feels contrary to my mission, but other, more progressive options are grayed out. I shove it next to the industrial district, behind the increasingly polluted and blackened forest. It becomes my gloomy secret. Away from the prying eyes of Disappointment, the filth is accumulating. Crisp turbines spin on the horizon, but the earth beneath is crammed with foul matter.

In trying to make a town that's both progressive and homely, I've fallen short, like a Oreo trapped between two sofa cushions, and it's the most English thing ever. You are now leaving Disappointment. Please come again. ∎

Jupiter is 4.5 billion years old.

"The blue marble is a comforting sight in all this cosmic vastness"

Taking a tour of our solar system in ELITE DANGEROUS: HORIZONS

Elite Dangerous is set a thousand years in the future, but our solar system hasn't changed that much. Time moves slowly in space. I'm passing through the Sol system on my way to complete a mission, and decide to take a tour of humanity's galactic hometown.

My journey begins with Mercury, the closest planet to the sun. It seems an unremarkable rock from orbit, but I land on the surface and find impressive sweeping valleys and immense craters. Next, I visit Venus, the swirling gas surface of which has a pleasant pink hue. But the edge of its atmosphere glows with a fiery, fluorescent orange, reminding me of its 450 degrees Celsius surface temperature.

Then I arrive at the third rock from the sun, our own planet, Earth. The blue marble hanging in space is a comfortingly familiar sight in all this unfathomable cosmic vastness, and I can see the lights of cities twinkling through the clouds on the dark side. You'd never know it was the year 3302. But when I reach Mars it's clear I'm living far in the future. The red planet is now the red, blue and green planet. Humans, it seems, have finally achieved the science fiction dream of terraforming this formerly lifeless rock. I

▶ **ANDY KELLY**

THIS MONTH
Visited all the planets in our solar system one by one.

ALSO PLAYED
The Long Dark

can make out green continents and blue oceans, although there are still areas of red desert near the equator.

The next planet, however, is untouched by the passage of time. The surface of Jupiter is a turmoil of vast, churning storm clouds, and the great red spot peers at me like a giant, alien eye. Saturn is next, the majestic ring system of which is quite a sight. I fly my ship into the rings and find myself surrounded by millions of gently spinning rocks as the pale yellow mass of Saturn looms in the distance. It's one of the most awe-inspiring sights in the solar system, and especially jaw-dropping if you're playing *Elite Dangerous* with a virtual reality headset.

THAT'S THE THING ABOUT EASY SPACE TRAVEL: YOU TAKE WORLDS FOR GRANTED

The end of my trip draws near as I arrive at Uranus, which after Jupiter and Saturn feels fairly unremarkable. That's the thing about easy space travel: you take worlds for granted. Neptune is more impressive, glimmering like a sapphire in the blackness of space. Like Jupiter, huge anticyclonic storms appear on its surface as dark spots. And that's the end of my tour—although I do stop off at Pluto briefly, just so it doesn't feel left out. The amount of detail Frontier put into the Sol system is remarkable, and it's amazing to think that it's just one of a hundred billion systems in the game's scientifically accurate recreation of the Milky Way.

SOL SURVEYOR

Some people play *Elite Dangerous* purely for combat and trading, but it's the exploration that keeps me coming back. Whether it's Sol or some distant, uncharted system, the sense of discovery and adventure is exhilarating. It's the same feeling I get when I read or watch great space-faring science fiction, but more powerful because I'm actually *there* and experiencing it for myself.

Next time you play *Elite Dangerous*, visit the Sol system (providing you've earned the permit) and take a walk around the space-block. It's an unforgettable experience. ■

"I shoot them both because at this stage, why not?"

The bodies pile up when you're exhausting the possibilities of HITMAN

SAMUEL ROBERTS

THIS MONTH
Played as the world's least effective assassin.

ALSO PLAYED
Freedom Planet, Max Payne 2

I'm in a changing room with two soldiers, who so far today have seen me dress up in three different outfits: a soldier, a security guard and a flight technician. Now I'm back to change into my soldier's costume again after a failed attempt to kill my target, Jasper Knight. The plan was to mess with the ejector seat of a test aircraft and shoot him through the roof of the hangar and into the sky with no parachute, which I've been reliably informed is hilarious. But I wasn't paying attention to how to get him into the aircraft, and I've been waiting for about 20 minutes in uniform, not knowing what to do.

Let's rewind. I'm outside the hangar and I throw a coin to attract a security guard's attention. Using the cover of a car, I strangle him, take his outfit and teabag his near-naked body (accidentally). I wander into the base, overhear a conversation about the eject function of the aircraft being turned off for a test, run into the changing room and steal a flight technician's uniform. I go outside, avoid the eyes of another technician who could spot me as an imposter, grab a spanner and mess with the ejector seat controls. Ha! You're dead, Jasper Knight, whoever you are.

But where is this bloke? And why isn't he getting in the plane? This is the part I wasn't paying attention to. I look up and identify the target on a walkway, overlooking the plane with a guard. He wanders back inside.

RADIO ACTIVITY

I change back into the security guard's outfit and wait by the plane for ten minutes. Jasper Knight is not budging. I wander into a waiting room next to the plane where I overhear two guards talking about a radio system that Knight can use to contact some person or other—I'm far too busy to listen to the particulars. When the two guards

WHEN THE TWO GUARDS SEPARATE, I SHOOT ONE DEAD BECAUSE I'M BORED, THEN HEAD OUTSIDE

separate, I shoot one dead because I'm bored, then head outside to where I started, where the necessary radio equipment is. Unfortunately, a fellow security guard spots me and I have to kill him. A nearby guard spots the commotion and heads over, so I kill him too. Then, finally, a soldier carrying a machine gun comes to investigate and I murder him as well, leaving a pile of three bodies outside the hangar.

I'm a bit worried that the walls are collapsing around me, so I head back to the changing room to cool off. I still can't figure out how to get this Knight guy into the plane. The two guards in the changing room have now seen me change clothes four times but haven't batted an eyelid. I shoot them both because at this stage, why not? Finally, I realize that I need to be dressed as a higher-ranking soldier if I want to get Knight to do anything. I catch his guard at a quiet moment and murder him, return for the unsuspecting Knight and lead him to some radio equipment in a hidden room. But he's just sitting there. Relying on my ingenuity was an error.

Forget this. I strangle him to death and quickly walk out and escape, having murdered about seven people, mostly for no reason. The ejector seat will have to wait for another day. ■

Trespassing

"Trespassing," thinks the man being beaten to death.

Arresting

I have dreams like this all the time.

Adding objects is as simple as selecting and placing tiles.

2

COBALT LEVELS

MAPS Get a load of this metal gear

Impossibly expansive robo-based platformer *Cobalt* is finally out, and among its many features is the ability to create your own maps. There are already a ton of these available on the Steam Workshop, playable across the game's many singleplayer and multiplayer modes. Like these.

RAINFALL
Janeator's drizzly map asks you to free a radio tower from the grip of evil robots, who are all too keen to separate your shiny head from its gleaming body.

www.bit.ly/Cobalt1

SUPER COBALT BROS.
It never takes long for someone to recreate *Super Mario Bros.*, and that's exactly what's happened here, minus Luigi. It's a surprisingly faithful recreation of World 1-1, including a working pipe.

www.bit.ly/Cobalt2

LEAFBOTTOM
Cobalt features its own sport, Plug Slam, and what better place to slam that plug than in a lovely leafy forest. The ruin's nooks and crannies offer plenty of handy hiding spots.

www.bit.ly/Cobalt3

1

DUNGEON DECORATOR

TOOL Game Maker meets Trading Spaces in Hell

Loren Schmidt's *Dungeon Decorator* is already a hugely exciting and surprisingly fun game development tool, even if it's currently lacking in many areas. Saving is a little temperamental, while your browser often gets in the way by hijacking button inputs—particularly annoying when you're trying to jump.

Yep, this is a game dev tool that lets you explore your platformer as you edit. Live editing feels like the future of game development, and it works so well here you'll forgive the occasional glitch or tiling error. *Dungeon Decorator* isn't a program for making your own games, exactly; it's a tool for making platformers in the Loren Schmidt style. Luckily, he's making some of the best

around. (Stop what you're doing and download *Strawberry Cubes* if you haven't already.)

The current selection of tiles is small, but you're still able to design foreboding side-on dungeons replete with vines, skeletons, teapots and underwater sections. You build a series of connected rooms, zooming in from the map screen to place blocks and whatnot, while using the arrow keys and spacebar to control your character. By the time you read this, the next update should have hit, which will add ladders, more creatures, editable dialogue, working signs and puzzle blocks—enough to turn projects into games.

I'd like tile and palette editing before I get too committed to this, but there are the makings of something special here.

DOWNLOAD AT www.bit.ly/DungeonDec

3 WARCRAFT: ARMIES OF AZEROTH

MOD No guilds, no emotes, just old-fashioned strategy

A rmies of Azeroth is a complete remake of *Warcraft III* in the *StarCraft II* engine, and it'll more than do until Blizzard gets off its frozen throne to make a proper sequel. There's no campaign yet, but this alpha version allows you to engage in multiplayer with *almost* every race from the original game. While there are other *War*-to-*StarCraft* mods out there, this is easily the prettiest and ambitious yet—it's basically an 'HD' remake. You can download *Armies* from the *StarCraft II* Arcade.

DOWNLOAD AT www.bit.ly/ArmiesAzeroth

Rumor has it Blizzard is working on its own HD remakes.

4 EMERGE: CITIES OF THE APOCALYPSE

DEMO Rebuild society while shooting zombies

R ather than looking out for numero uno, your job is to build a community in a ravaged city setting, while the undead shuffle ever closer to your settlements. The map overworld plays like a 4X: scout and acquire territory, research upgrades, build structures as you hunt for resources. Characters also level up through combat, and you can trigger random events that make each game feel unique, and the world alive.

When a horde attacks your territory you can defend it, triggering a side-on minigame where you have to manually dispatch every shambling corpse. The presentation is a little basic, but there's a lot going on here.

DOWNLOAD AT www.bit.ly/EmergeGame

A DEAD GOOD
Red indicates a sector taken over by zombies. Greens are ones you've scouted out but not yet captured.

B GEM FATALE
The economy is very stingy, requiring a huge number of gems before you can recruit for battle.

C LEVEL HEAD
Fighters earn XP after every battle. Battles can involve turrets and other special equipment.

5 THE DARK PLAGUE

FREEWARE As opposed to a light plague, presumably

T his brief adventure offers a number of different endings—some obvious, some more obscure— and the fun lies in experimenting with the poky environment to ferret them out. You play a quack plague doctor hiding in a barn from a bunch of angry villagers. They're angry because you promised them a cure that didn't deliver, and as is so often the way with medieval villagers, the pitchfork-wielding peasants are out for revenge. You can either stroll stridently out the door to confront the mob head on, or investigate the barn a little, to see whether you can actually concoct a cure. There's a little more to it than that, so be sure to poke around each area fully to see how the barn changes around you.

DOWNLOAD AT www.bit.ly/DarkPlague

6 SVEN CO-OP

MOD Venerable mod gets a new lease of life

I f you follow *Half-Life* modding at all, you're probably aware of *Sven Co-op,* which has been around for a staggering 17 years. It just hit version 5.0, and to celebrate the occasion, the mod is available on Steam. *Sven Co-op* adds a *lot,* for a start by re-imagining the entire *Half-Life* campaign as a multiplayer affair. (Yep, that includes *Opposing Force, Blue Shift* and *Uplink.*) No longer is the burden of saving humanity solely on poor Gordon's shoulders—he can bring a few buddies along for the ride, buddies who will heal and revive each other when the going gets tough.

Sven is also notable for its huge assortment of custom maps, offering a variety of objective types and environments.

DOWNLOAD AT www.bit.ly/SvenCo-op

Gordon, did you start *another* resonance cascade?

7 SKORPULAC

FREEWARE Just a guy, a spear, and aliens

P latformers tend to be met with groans rather than barks of excitement these days, particularly if they decide not to feature elements of *Metroid* or *Castlevania. Skorpulac* contains neither an open world nor RPG game mechanics—and it's all the better for it. Instead, it's an exquisitely engineered freebie that looks, sounds and feels just right. The weight of your jump, the heft of your spear, and the careful level design coalesce into a micro-platformer thick with an unsettling atmosphere. The game even comes with an illustrated booklet offering a closer look at the various enemies. It's a nice touch in today's manual-phobic world. Arty and interesting, *Skorpulac* is also damn hard.

DOWNLOAD AT www.bit.ly/Skorpulac

Imagine Star Wars vs Capcom.

8 JEDI FIGHTER

MOD Something something the force is something

I 've never been hugely into fighting games, but I remember being ridiculously excited about an extravagant brawler named *Star Wars: Masters of Teräs Käsi:* a side-on beat-'em-up that let you pull off swish lightsaber moves via tricky button combos. *Jedi Academy* mod *Jedi Fighter* channels that dreadful PlayStation-exclusive fighting game, by restricting the action to a horizontal view and adding *Street Fighter*-style combos that utilize The Force.

This second open beta for the in-development mod features five stages and ten combatants drawn from the Extended Universe, giving you the chance to wallop Rebel/Empire scum as everyone's favorite Star Wars characters, Wedge Antilles and Carnor Jax. OK, so *actual* favorites like Luke, Darth and Chewie are included, but it's a pretty slim selection currently—fingers crossed the next beta will add a few characters from The Force Awakens.

DOWNLOAD AT www.bit.ly/JediFighter

9 XCOM 2

MODS Time to wheel out the big gun: Bob Ross

The modding of *XCOM 2* began before the game had even been released, when Firaxis smartly contacted the developers of *XCOM*'s celebrated *Long War* mod to ask them to make a bunch of stuff for the expanded sequel at launch.

You'll want to grab the Leader, SMG, and Muton Centurion packs if you want new leader perks, sub-machine guns, and brutal new aliens to contend with respectively, but in the weeks since launch, *XCOM 2*'s Steam Workshop page has exploded with all manner of essential and just plain nutty mods. Want a celebrity chef voice pack? Tough, you've got one.

I've picked a bit of everything to give a flavor of what's available, but it's worth browsing the Workshop to see what else the community has in store. Pretty much every issue you might have had with the original game has been eliminated by now.

TAKE OVER
Invade your *XCOM 2* game with these mods

1 STOP WASTING MY TIME
As the name suggests, this removes those annoying pauses that occur after actions. Delays of a few seconds might not sound like much, but they add up.
www.bit.ly/XCOM2-1

2 CAPNBUBS ACCESSORIES PACK
A growing wealth of new customization options await you after installing this, from radio headsets, masks and balaclavas to berets. The creator even takes requests.
www.bit.ly/XCOM2-2

3 BOB ROSS VOICE PACK
Gentle, now-deceased painter Bob Ross recently took Twitch by storm, and here he lends his calming voice to *XCOM*, chipping in with quotes as you save the world.
www.bit.ly/XCOM2-3

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10 TWO INTERVIEWEES

FREEWARE ...but who gets the job?

Mauro Vanetti's clever piece of interactive fiction uses its limited interaction options to make a point. You're Martin, and you're applying for a job. But you're also the similarly jobless Irene. There's just one set of dialogue options for both applicants, and while your choices might seem innocuous, they mean different things to each of your interviewers. For instance, Martin saying he wants a family earns him bonus points as he's a 'family man', while Irene's identical declaration has them instantly worrying about maternity leave. Jewelry makes Irene look 'pretty' and Martin look 'weird, possibly gay?'. You'll want to play this one a few times to explore all the options.
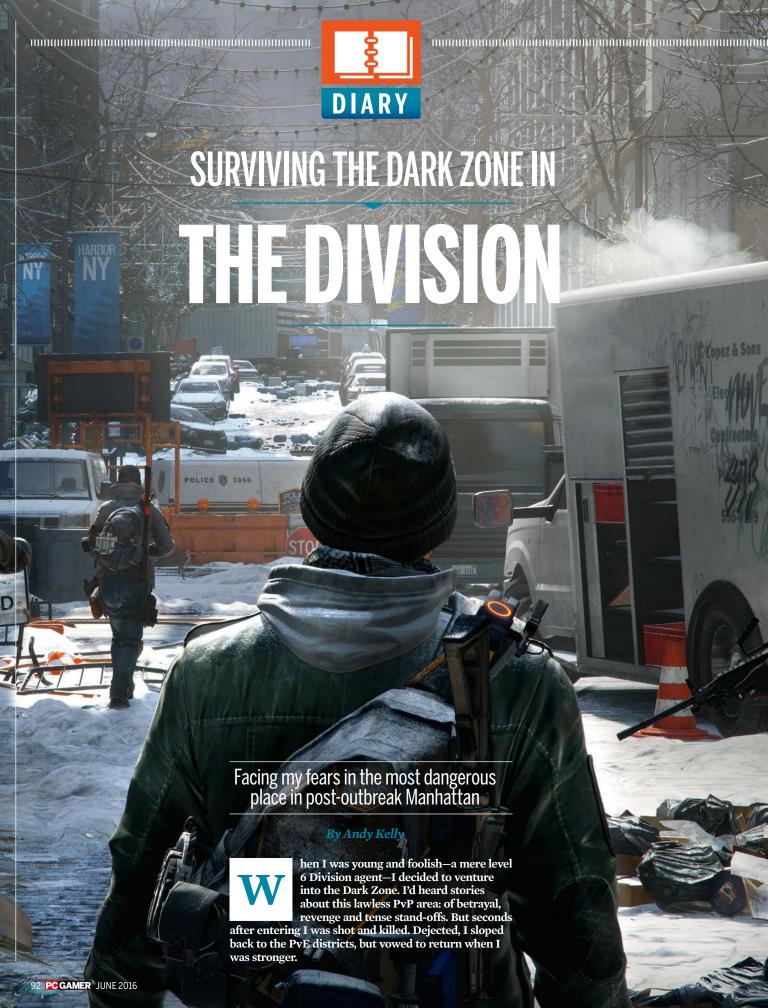
DOWNLOAD AT www.bit.ly/2Interviews

SURVIVING THE DARK ZONE IN

THE DIVISION

Facing my fears in the most dangerous place in post-outbreak Manhattan

By Andy Kelly

When I was young and foolish—a mere level 6 Division agent—I decided to venture into the Dark Zone. I'd heard stories about this lawless PvP area: of betrayal, revenge and tense stand-offs. But seconds after entering I was shot and killed. Dejected, I sloped back to the PvE districts, but vowed to return when I was stronger.

THE RULES

1 Learn the ways of the Dark Zone.

2 Locate and extract some quality loot.

3 Resist the urge to kill other agents.

New York City has been devastated by a weaponized virus, but the government—thanks to a group of super-agents called The Division—has a fragile grip on law and order across most of Manhattan. The Dark Zone, however, is a different story. This closed off, highly contaminated area has been overrun with criminals and rogue Division agents, but it's also where you'll find the game's best gear and weapons.

The Dark Zone is the most dangerous place in the city, thanks largely to the presence of other players. When you enter it you share the space with 24 other agents, and the chances that at least one of them wants to kill you and steal your stuff are, unsurprisingly, quite high. The result of this is a constant feeling of tension and unease.

The first Dark Zone area comes with a recommended minimum level of ten, but I wait until I'm level twelve. Then I brace myself and step through the door into no-man's land.
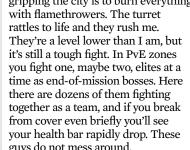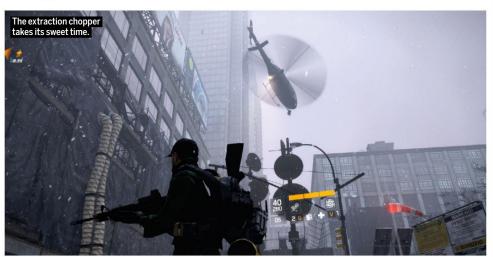
LET IT SNOW
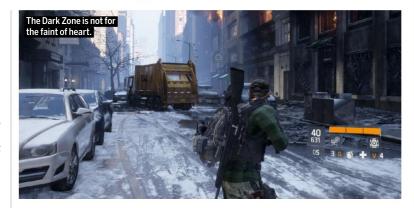
The PvE districts are rough, but it's clear the Dark Zone has suffered more than the rest of Manhattan. It's night when I enter and a thick blizzard fills the screen with swirling snow. Through it I can see abandoned military vehicles, wrecked cars and looted stores. Fires burn in the skyscrapers above and there are bodies everywhere. I feel a sense of foreboding as I walk through the eerie, ruined streets, which are quiet except for the occasional crack of distant gunfire. Then, in a street lit

The Dark Zone is not for the faint of heart.

up by neon signs, I run into my first group of enemies, their yellow health bars indicating that they're elites.

I pin myself behind cover, toss a turret ahead, and drop a health pack at my feet. The bad guys in this part of town are Cleaners—a ruthless gang whose solution to the pandemic

FIRES BURN IN THE SKYSCRAPERS AND THERE ARE BODIES EVERYWHERE

gripping the city is to burn everything with flamethrowers. The turret rattles to life and they rush me. They're a level lower than I am, but it's still a tough fight. In PvE zones you fight one, maybe two, elites at a time as end-of-mission bosses. Here there are dozens of them fighting together as a team, and if you break from cover even briefly you'll see your health bar rapidly drop. These guys do not mess around.

It becomes clear that I've bitten off more than I can chew. I'm out of medkits, my ammo is dwindling, and there are still a handful of Cleaners bearing down on me. Then, suddenly, two other players rush in. They're a few levels above me, and they polish off the remaining enemies with ease.

It's my first encounter with other players in the Dark Zone, and it's a pleasant one. We salute each other and they disappear into the blizzard.

I grab the gear the enemies dropped, including a few blue, or 'specialized', armor pieces. A yellow hazmat bag appears under my pack, revealing to other players that I'm carrying loot, but not the contents. I might as well paint a target on my back if there are any rogue agents nearby.

ROGUE ONE

Killing another player marks you as a rogue and places a bounty on your head, but people still do it. People will do anything for sweet, sweet loot. And for some, the potential contents of a yellow bag will be hard to resist, so I decide to extract my stuff before anyone tries to steal it. I mark the nearest extraction zone on my map.

When I arrive, another player is already calling in a chopper. Anyone in the area is alerted when one is incoming, and more players arrive. The tension rises as a dozen agents nervously shuffle around wondering if someone will turn rogue. But before the tension boils over, a wave of enemies approach the LZ. The group works together silently and repels the attack. Then the chopper arrives and we attach our yellow bags to the rope. I breathe a sigh of relief as they're yanked to safety.

The extraction chopper takes its sweet time.

PERSONAL ADVENTURES IN GAMES

All the people I've met in the Dark Zone so far have been extremely pleasant. It can't last. I return to PvE for a few hours and increase my level to 16, then venture back into the DZ to spend some time killing bad guys and collecting loot. Inevitably, I run into some players who are less inclined to help strangers. There are two of them, obviously playing together. I salute and they salute back. Over voicechat I can hear them talking about heading to the extraction zone, then one of them says, "Shall we go full sexy?" The other replies, "Yeah, let's go full sexy." Then they gun me down for no reason, saying, "Sorry!" in the most insincere voice possible.

My blood boiling and my heart racing, I respawn back at the DZ entrance and sprint to the extraction zone, knowing they'd be there. I don't think much of my odds against two players, but the rage takes over. I see them waiting for the chopper and toss a sticky bomb at them. I detonate it and hear one of them shout over voice chat, "It's that guy!" The other says, "Time to go full sexy again." A firefight breaks out. I get a good few shots in, but they gun me down. As I'm dying I see other players approaching the LZ, gunning for the two rogue agents who now have a bounty on their heads.

I respawn again and dash back to the extraction point. And I'm met with silence. I'm not sure what happened, but there are no agents nearby. And then, where the 'full sexy' guys were standing, I notice a pile of loot—including the stuff they took from me. I grab it, as well as what they were carrying, and attach it to the extraction rope with seconds to spare. I didn't manage to kill them, but this is somehow sweeter. Among the spoils I find my first purple, or 'superior', item: body armor with a critical hit buff. In the space of 20 minutes a bad situation turned into a lucrative one at the expense of a pair of murderous assholes.

As my level rises, the Dark Zone gets much tougher. I reach the point where clearing an extraction zone alone is nigh-on impossible, and

AIR SUPPORT *How to extract loot from the Dark Zone*

1 FIND SOME LOOT
Enemies in the Dark Zone are tougher, but they also have better loot. Grab everything they drop.

2 LOCATE EXTRACTION
Once your pack is filled with loot, bring up your map and set a marker for the nearest extraction point.

3 REQUEST EXTRACTION
Hold F to call in a chopper to extract your loot. Other players will be alerted to its imminent arrival.

4 HOLD THE LINE
Waves of enemies will attack while you wait. Team up with other players to repel the attack.
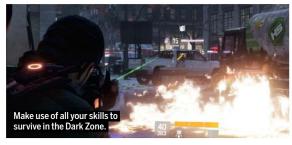
5 ATTACH THE LOOT
Attach your loot to the rope when it falls down. This leaves you open to attack, so watch your back.

6 CHECK YOUR STASH
Your decontaminated loot will be waiting for you in your stash box, accessible from any safe house.

Koreatown is part of the first DZ district.

That explains why there are no cars driving around.

Make use of all your skills to survive in the Dark Zone.

forming uneasy alliances with other players is the only way to leave the DZ with something to show for it. But since most people have their own loot to extract, they don't want any drama, so extractions are often conflict-free. Going rogue is a pretty risky gamble: you *might* get away with the pile of loot you nabbed from the guy you just killed, but chances are you'll be ganged up on and killed for the bounty, losing a lot of Dark Zone XP as a result.

KILL ZONE

Some players don't care about loot, however, and see the Dark Zone as their own personal hunting ground. They kill for sport, and they don't care about what you're carrying. I've run into people like this many times, indiscriminately killing people for the hell of it. They're annoying, but their presence does add a sense of excitement and danger to every journey into the DZ. Sometimes they wait near an entrance and ambush

players as they come in, which is just griefing, pure and simple. Always be careful when stepping through the entrance. There aren't as many ways to mess with people in *The Division* as *DayZ*, though—you can't handcuff someone and force-feed them a rotten banana—but the same kind of players who became bandits in Chernarus

I FOUGHT AS BEST AS I COULD, BUT LASTED ALL OF FIVE MINUTES AS A ROGUE

seem to be drawn to the Dark Zone, for obvious reasons. But unlike Bohemia's zombie game, at least dying in the Dark Zone isn't permanent.

Once I'd learned the ropes and felt more confident in the Dark Zone, I inevitably found myself wanting to go rogue myself. I'd been putting it off for a while, but then fate stepped in. During an extraction, I accidentally shot another player who ran into my

line of fire. It was enough to mark me as rogue, and I thought I might as well finish the job. I killed the guy and immediately felt bad about it. He wasn't even carrying anything decent. Accidentally going rogue through friendly fire is a little too easy at the moment. It needs some tweaking.

I fled the scene, but found myself being chased down a wide avenue littered with abandoned cars by a dozen other players attempting to claim the bounty. I fought as best as I could, but lasted all of five minutes as a rogue. As time goes on, and more players kill me for no reason, I can feel myself becoming jaded and suspicious. If I see another agent I instantly assume they're going to turn on me. And I've killed a few (probably well-meaning) people as a result of this paranoia. The Dark Zone, it seems, has got to me. I've gazed into the abyss, and the abyss is gazing right back at me. ■

The sticky bomb never gets old.

Even the military have abandoned the DZ.

"Payne lives in a heightened, ludicrous world of neo-noir"

Sam Lake's face was swapped out for another in the sequel.

MAX PAYNE 2: THE FALL OF MAX PAYNE

Rediscovering the game that perfected bullet time. *By Samuel Roberts*

Whatever happened to bullet time? I think the death knell of the early noughties' most overused shooter idea was rung in slow-mo when *Matrix Revolutions* came out in late 2003. All the style established by the first Matrix film suddenly seemed a bit passé, a lesson no doubt learned by hundreds of virgins wearing long leather jackets to nu-metal gigs. *Max Payne* was the first game to popularize slow-mo, but *Max Payne 2* was commercially disappointing enough to put the series on hold for nine years. Bullet time gradually faded as the go-to idea for every third-person shooter.

When *Max Payne 3* arrived years later it was unfamiliar, and shaped by the more popular conventions of the

genre established in the meantime, particularly cover-based shooting. Bullet time and cover are both solutions to the same problem: how do you create a sort of real-world logic to third-person shooting? Both are about making you feel more involved in the fight, not just strafing uncomfortably from behind a wall. Cover shooting's been around for so long now that we're never getting rid of it. Bullet time had a much shorter lifespan. Playing *Max Payne 2* again, or even the recent *Superhot*, I feel it's a bit of a shame that it faded away so quickly. I say it's *better* than sitting in

▶ **NEED TO KNOW**

RELEASED
2003

PUBLISHER
Rockstar Games

DEVELOPER
Remedy Software

LINK
www.bit.ly/maxpayne2

cover for five minutes while slowly clearing all the enemies out. You feel like a superhero. What's heroic about sitting behind a wall and blind firing?

BULLET BALLET

Bullet time wasn't just a gimmick when it was used properly, and Remedy was the master of it. *Max Payne 2*'s use of it is so elegant it turns every room into a puzzle. It's about learning the positioning of enemies and figuring out the perfect way to use your weapons and the quantity of slow-mo you've got left in the tank. In the back of your mind you're anticipating where the next medicine cabinet will be, so you don't blow all your painkillers after one scrappy firefight. This was a time before recharging health, after all. The need for strategy and precision ensure that *Max Payne 2* is still an empowering, exciting shooter today. »

PC PAYNE

Getting Max to work on modern PCs

Rockstar should salvage the first two *Max Payne* games and get them (and preferably the rest of their library) on GOG—I couldn't get the Steam version running on Windows 7, and while it worked when I upgraded my PC to Windows 10, it wouldn't run in

fullscreen until I tinkered with Control Panel. I can't get it working on two other Win 7 and 8 PCs, either. This is why GOG is more important to classic games than Steam—I'd pay $15 to own a copy of *Max* I can easily play on any OS in ten years' time.

You're not sure where Mona's loyalties lie until the end.

Max as he prepares to experience Havok physics.

>> *Max Payne 2* shows its age in other areas, like the entertaining overuse of Havok physics. Platforms collapse to form convenient new routes around the levels, bad guys fall into neatly stacked piles of barrels like something out of Garth Marenghi's Darkplace, and stuff in the environment pings around the place whenever a barrel explodes. I don't think this spoils the game—like *Half-Life 2*'s use of physics puzzles, it just tells you everything about the mid-noughties timeframe it hails from. It's fun to mess around with, and part of the reason (along with easily loadable custom campaigns) *Max Payne 2* ended up with such a healthy modding community.

DEEPER PAYNE
This sequel didn't add a great deal to the core bullet time system established in the first game—but there's a lot more style layered on top in terms of sound design, ludicrously flashy reload animations and weapon feel. Diving into a room and surveying it in slow-mo, popping bullets at enemies in all corners, before quickly snapping to a backwards dive as I clear out the remaining perps... it still feels fantastic. Max might be the most miserable man in the Americas but damn, he sure doesn't move around like a man with nothing to lose. Nothing's really aged about the way *Max Payne 2* plays, because no one makes games like this anymore.
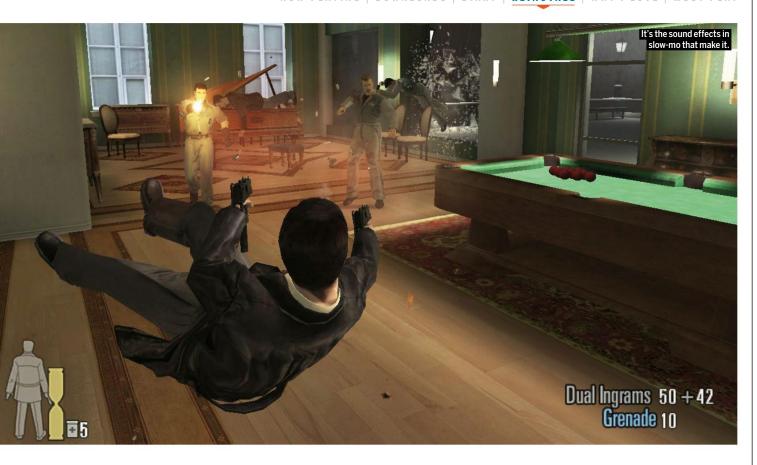
The other half of the enduring appeal for me is Max's fictional universe. Payne lives in a heightened, ludicrous world of neo-noir, of betrayals and secret organizations, always running a gauntlet of personal tragedies. As in the original game, the story is presented through comic book panels, though there are fleeting instances of proper cutscenes, too. The dialogue is so overwrought, but I love it, and there's never any doubt that Remedy is aware of how over-the-top it all is. Hell, even quitting the game presents you with the line "The night seemed to stretch out into eternity," with your two options being "I was afraid to go on" (quit to desktop) and "But I refused to give in. I had to continue" (continue). It's B-movie, but they completely own it. There's an unrelenting commitment to being daft and serious at the same time.

While the game offers nothing as visually memorable as the line-of-blood nightmare sequence in the original, there's more confidence in the cinematic presentation of the world. One segment lets you walk peacefully around the police station where Max works. I stopped to watch an episode of Lords and Ladies, one of the in-game TV shows, with two other cops in the rec room. When it was over and the ads came on, the cops started a conversation about nothing in particular.

One entire level, later revisited, is set inside an abandoned amusement park based on Address Unknown, a Twin Peaks-inspired fictional '90s TV show. It's a wonderfully specific choice for an environment, where your only frame of reference comes from watching the show on the various TVs found in the game. I love stuff like that. I can't see any triple-A developer but Remedy coming up

NOTHING HAS AGED, BECAUSE NO ONE MAKES GAMES LIKE THIS ANYMORE

It's the sound effects in slow-mo that make it.

Dual Ingrams 50 + 42
Grenade 10

with that framework for an important level of a game.

And then there's the story itself. Whereas *Max Payne* was a revenge story about the murder of Max's wife and kids, this is a fraught love story between Max and femme fatale Mona Sax, coupled to a narrative about the Illuminati-like Inner Circle. I couldn't fully work out what was going on with the conspiracy storyline this time, to be honest, but I have a real soft spot for the doomed Max/Mona coupling, and particularly the tense sequence where control flips to Mona and you're tasked with saving Max from swarms of enemies with a sniper rifle on a building site. The assured voice-acting helps—it's better than a lot of what was around at the time.

A KISS BEFORE DYING

I last completed *Max Payne 2* when I was 22, and I worried the romance might make this less naive version of me cringe years later, but not so—Remedy knew what game it was making, and the line at the close of the credits, 'Max Payne's journey through the night will continue' is very well-judged.

REMEDY TV *Max Payne 2's in-game TV shows all parallel the main story*

DICK JUSTICE
The premise
A blaxploitation drama about a fugitive cop.
Sample dialogue
"I had a permanent, constipated grimace on my face. I was revenge personified."

ADDRESS UNKNOWN
The premise
An homage to Twin Peaks set in the ludicrously named Noir York.
Sample dialogue
"You have a tumor in your brain. We're forced to operate... aggressively."

LORDS AND LADIES
The premise
A costume drama where the words 'lord' and 'lady' are used frequently.
Sample dialogue
"I can still hear the voice of my lord, calling out to me, saying 'My Lady.'"

CAPTAIN BASEBALL-BAT BOY
The premise
A demon-battling kid with a kidnapped girl pal.
Sample dialogue
"Can he save Bicycle Helmet Girl from the evil Maxwell's Demon lair?"

Max, of course, never gets a happy ending, and the finale is pretty brutal here. I think it's one of the best game endings there is, and even the choice of music got me. The song 'Late Goodbye' by Poets of the Fall that plays over the credits is heard throughout the game at different moments. The lyrics contain unsubtle references to the game, much as the same band's music (now billed as The Old Gods of Asgard) would later do in *Alan Wake*. Mona's last line, too, "I turned out to be such a damsel in distress" is a final demonstration of Remedy's self-awareness. They know this is a story awash with the conventions of other fiction. Even the villain, Vlad, mocks Max for being so damned miserable all the time.

This self-awareness is what was missing from the third game, for me. It felt like a reboot in a lot of ways, swapping the heightened noir for the feel of a three-star action movie like Man on Fire, though it definitely has its moments. Bullet time aside, there's a real magic to the other touches that made *Max Payne* and its sequel so special: the mythical, forever nighttime New York backdrop, the feeling of being swallowed into the criminal underworld over the course of the story, and an understanding that irony offers plenty of leeway for purple scriptwriting. ∎

THE BEAUTIFUL ISOLATION OF THE LONG DARK

Hinterland's wilderness is powerfully atmospheric. *By Andy Kelly*

A geomagnetic storm has rendered all technology useless and plunged the planet into a quiet apocalypse. Suddenly humanity is no longer at the top of the food chain and every day is a fight for survival. This is the harrowing premise of *The Long Dark,* an atmospheric survival simulator created by Canadian studio Hinterland. Your only goal is to stay alive, but this freezing, merciless landscape doesn't make it easy.

It's a bleak game. But there's a strange serenity to be found amid the devastation. There are moments when the weather is calm and you have enough food and water that survival briefly takes a back seat. You're free to enjoy the atmosphere and beauty of your surroundings. You hear the crunch of snow under your feet and the wind blowing through the trees. You see tumbling waterfalls and silent, snow-dusted valleys. You forget about about the apocalypse, at least until a blizzard sets in or you start running out of food.

Hinterland's painterly wilderness is one of the most evocative settings on PC. Every location has its personality. Whether it's the rugged slopes of Timberwolf Mountain, Pleasant Valley's rolling fields, or the abandoned cabins in Mystery Lake, the places you visit tell a story: of what life there was like before the cataclysm, and what has happened since. The feeling of isolation is powerful, but occasionally you'll see traces of life. Smoke curling from a chimney or freshly-cut firewood stacked on a hearth. Signs that maybe

you aren't as alone as you think, which is both eerie and reassuring.

But the only people you see are dead, lying frozen in the snow. A grim reminder of how life hangs in the balance in this frigid wasteland. While exploring a cave once, the warm glow of my oil lantern revealed the body of a man sitting hunched by the remains of a fire. For all its beauty, the game also has moments of melancholy like this that bring home just how grave your situation really is.

HEARING AID

The Long Dark also has remarkable sound design, which is a big part of why its setting is so transporting. When you're indoors by a crackling fire, listening to a blizzard wailing outside, you can almost feel the warmth of the flames. If your pack is full of firewood it rattles and clunks as you walk. Cross a wooden bridge and you hear it creak under your feet. Hike through a valley and your footfalls subtly echo. The sparse use of music brings the excellent environmental audio to the fore.

A recent update improved the weather effects, giving Hinterland an even broader palette of moods, feelings, and colors to paint with. Plump, gently falling snowflakes give

a misty morning a sense of calm, then the wind picks up and suddenly you're trudging through a hail of ice. Sometimes the sky will be gray and overcast, then the clouds part to reveal a piercing blue sky. As the sun sets, it casts a pink glow over the forests and valleys, and on a clear night the moon shines like a spotlight surrounded by twinkling stars. The weather and light change constantly.

I love how all the environments are connected, enabling you to travel freely between them. Hiking from Mystery Lake to Timberwolf Mountain involves crossing a treacherous ravine and navigating a maze-like coal mine, and when you reach your destination you feel you've been on a real journey. But there's no map, so you have to find your own way—or, if you want to make things easier, search for maps created by the community's talented cartographers.

The next step is a story mode. I'm excited about it, but I wonder if the loneliness of the sandbox will be as alluring when you encounter other survivors. There's something captivating about feeling like the last person alive, which makes this one of the most compelling post-apocalyptic games on PC. But I trust Hinterland. It knows what it's doing. ■

▶ NEED TO KNOW

RELEASED
Sept 2014 (alpha)

EXPECT TO PAY
$20

OUR REVIEW
Early Access

LINK
www.intothelongdark.com

OUT IN THE COLD *Places to visit in* The Long Dark's *sandbox*

1 PLEASANT VALLEY
A stretch of farmland that's relatively abundant in resources, including a farmhouse where it's possible to find a rifle. Also, look out for metal hatches in the snow: these lead to hidden bunkers.

2 TIMBERWOLF MOUNTAIN
A rugged landscape of valleys, ravines and steep cliffs. To climb the highest mountain you'll need ropes, but a secret waiting at the peak makes the journey worth the effort.

3 MYSTERY LAKE
Abandoned cabins surround this icy lake, a popular camping spot before the world went to shit. The interior of the hydroelectric dam is worth investigating, but maybe take a weapon.

4 COASTAL HIGHWAY
A long, curved road skirting the edge of a frozen coastline. Cross the solid water and you'll find two islands with cabins on them, which make for good shelters.

RIGHT: It's grim, but searching frozen bodies often yields useful supplies.

TONY ELLIS

I run to death, and death meets me as fast, and that doesn't leave much room for videogames. These are the ones that didn't waste my time.

MUST ★ PLAY

A PERSONAL LIST OF THE BEST GAMES YOU CAN PLAY RIGHT NOW

by Tony Ellis

STAB IN THE DARK

MGSV: THE PHANTOM PAIN

www.konami.jp/mgs5

→ For me this is part stealth shooter, part self-inflicted torture. If anyone spots me on a mission and gives the alarm, I have to restart. I have to be the guy who leaves a wake of stunned guards and slit throats but is never seen. I'm an idiot. Good thing Kojima made such an amazingly engrossing and replayable game.

FEEL FOR REALS

LIFE IS STRANGE

www.lifeisstrange.com

→ This is a great detective adventure, high school drama sim, and portrait of intense teenage feelings. Many devs would be happy to nail just one of those. It's suffused with a pleasant, poignant regret—for abandoned friendships, lost innocence, bad choices. Most games don't even try to go near this sort of stuff.

MAKE KITTENS HAPPY

KITTEN SANCTUARY

www.bigfi.sh/1oMfmsh

→ *Bejeweled*-type games are already relaxing and addictive. Now add kittens. The adorable waifs of Kitten Island need you to rescue them from aliens. And play with them. And buy them cat treats. Your reward is cuteness, on an inhuman scale. Little old ladies have died playing this game because they forgot to eat.

MURDER IN PARADISE

FAR CRY 4

www.bit.ly/1kqZsBj

→ I feel oddly guilty for enjoying one of the most Ubisoft games that Ubisoft ever made, but I just can't help it. The setting is fantastically rich—painted elephants bathing outside a temple garlanded with flowers, while you drive past in a tuktuk—but there's also so much to do and so many people to shoot.

HAVE BETTER FRIENDS

DRAGON AGE II

www.bit.ly/BiowareDA2

→ So what if the scenery repeats— setting years of intrigue, adventure and interaction in the same fortress city was a stroke of genius. The longer you play, the more real Kirkwall and its cast of colorful, sexy misfits becomes, until in the end it's less a game than a second, more interesting life you lead.

COWER IN FEAR

DARK CORNERS OF THE EARTH

www.callofcthulhu.com

→ It's dated and wildly uneven, but it's also the best Cthulhu Mythos game on PC, and the one that gets closest to the source material. Stealthing through dark, dismal Innsmouth, defenseless and in fear of your life from inbred fishmen, is an experience every Lovecraft fan owes it to themself to try.

MEET HORRIBLE PEOPLE

GRAND THEFT AUTO V

www.rockstargames.com/V

→ I hate Rockstar's smug and lazy sneer at the world, but this is the game that made me endure it. It's got the biggest, richest, most ambitious and most dizzyingly varied game setting ever created, where simply driving around is a pleasure in itself. When I think about it, I still can't quite believe anyone made this.

REDISCOVER FANTASY

PLANESCAPE: TORMENT
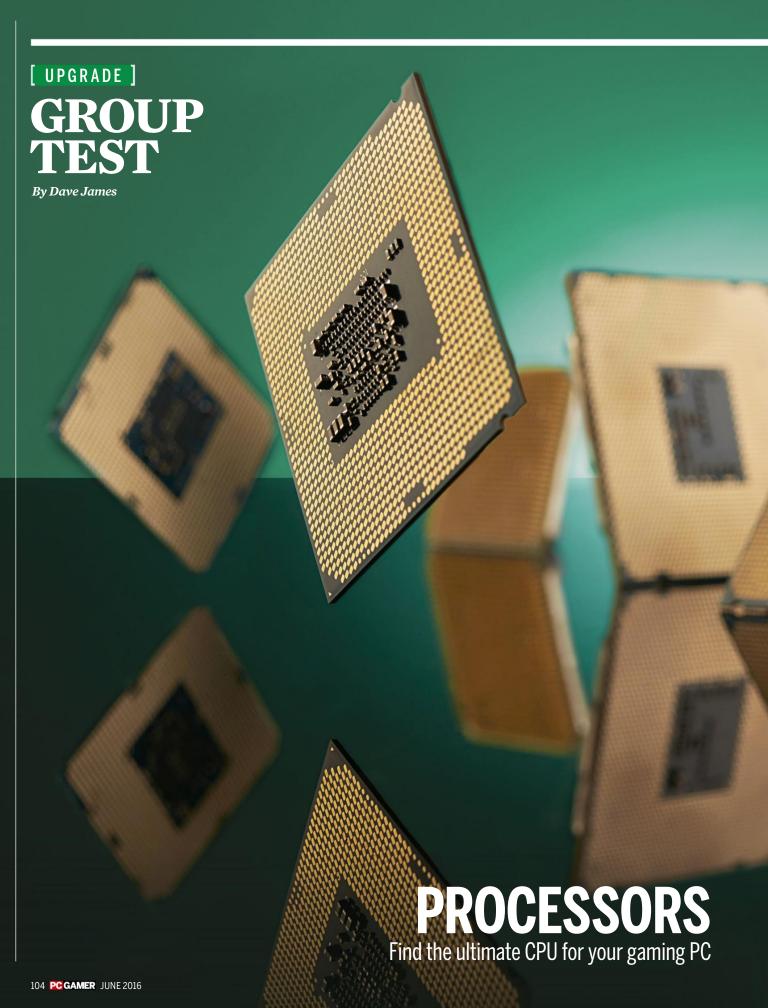
www.gog.com/game/planescape_torment

→ It turns out you don't have to set your RPG in a quasi-medieval Europe at all! Apparently 'fantasy' means you can go to exotic, original and interesting places, too. I know, right? People rightly praise *Torment*'s smart, sprawling and very wordy story, but for me it's the baroque city of Sigil that's the real achievement.

GROUP TEST

By Dave James

PROCESSORS

Find the ultimate CPU for your gaming PC

Q&A

But the graphics card is still where I should spend the most upgrade money, right?
In essence, yes, but if you really cheap-out on the processor you won't be getting the full performance you paid for with that graphics card.

Do I definitely want an Intel CPU over an AMD?
In a high-end gaming rig, yes. But Intel's not so dominant in the budget arena. You can pick up a six-core AMD chip for less than Intel's HyperThreaded dual-core chips. If you're on a really tight budget, and pairing it with a mainstream GPU, you're not really missing out too much in gaming performance, and you'll save a heap of cash.

Do more cores and threads equal better gaming performance?
Not linearly, because most game engines are still heavily reliant on single core performance rather than optimizing the load across multiple cores. That's why CPU overclocking is still a good way to squeeze a little extra performance from an aging rig.
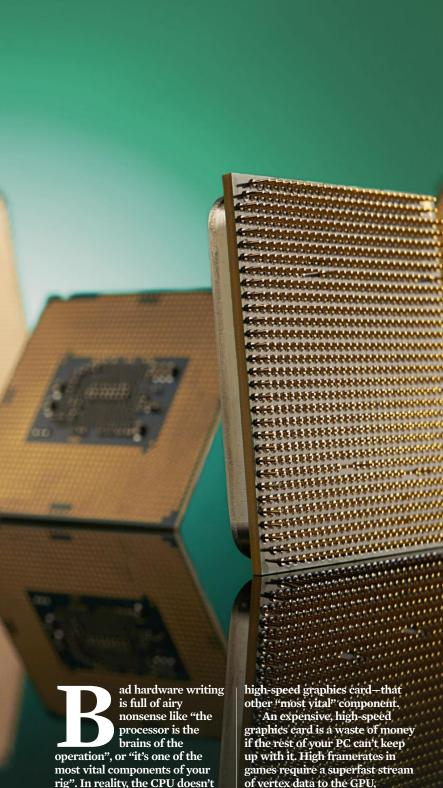
However, game engines are beginning to utilize multiple cores and I've used a couple in my testing to show where it can make a difference. DirectX 12 also promises better scaling across processor cores.

Dictionary

Cores/Threads—A processing 'core' is an actual piece of silicon. Intel's HyperThreading creates two processing threads per core.

TDP—The thermal design point of a processor indicates the level of cooling needed.

Production process—Refers to transistor size. Skylake's 14nm production process addresses the smallest transistors the company has used in the processor's design.

Bad hardware writing is full of airy nonsense like "the processor is the brains of the operation", or "it's one of the most vital components of your rig". In reality, the CPU doesn't do any of the thinking, and pretty much any component is vital. Try taking out a single diode. What matters most in a gaming PC is that your processor is fast enough to keep up with a modern, high-speed graphics card—that other "most vital" component.

An expensive, high-speed graphics card is a waste of money if the rest of your PC can't keep up with it. High framerates in games require a superfast stream of vertex data to the GPU, regardless of the card, and this in turn requires a game engine unrestricted by a plodding CPU.

But how many cores do you need? Do you want an i5 or an i7? And what's all this about Skylake?

INTEL CORE I5-6600K

www.intel.com **$254**

→ When we're talking about the best processor for gaming, that doesn't necessarily mean the absolute fastest, most powerful CPU you can put in your PC. This Core i5 is the ultimate mix of value and gaming performance for me.

1 The i5-6600K is a quad-core CPU, without the HyperThreading of the pricier Core i7, but in gaming that doesn't make as much difference as clockspeed. At stock speeds the i5 is initially slower than the i7, but the beauty of Intel's easy overclocking with the K-series chips means you can soon hit the same 4GHz speed that the 6700K ships at, and for less money.

At the same clockspeeds the gaming performance difference shrinks to almost invisible. And it doesn't stop there: you can push the i5 well above 4GHz. I hit 4.5GHz with ease, and with some judicious voltage-tweaking I got that up to a peak of 4.8GHz. At those speeds you're well past the gaming performance of a stock-clocked i7.

Pair the i5-6600K with a moderately-priced Z170 motherboard and you'll have the flexibility that overclocking delivers (on the H170 boards it's more hit-and-miss) and you'll find that this great CPU will form the base of an outstanding gaming rig.

91%

INTEL CORE I7-6700K

www.intel.com **$385**

→ The i5 processors often represent the best value option to build a gaming PC around. But DirectX 12 will potentially deliver improved scaling across CPU threads, in which case the i7 offers a certain amount of future-proofing.

2 This top-end Skylake chip is a great CPU, but the extra HyperThreading (which offers eight threads compared with the 6600K's four processing threads) doesn't deliver a lot of extra performance in today's game engines. The hope is that by the end of the year DX12 will become the standard and those extra cores and threads that games aren't currently using will start to become a factor.

The other problem is that this chip doesn't provide much more performance than the last few generations of desktop i7. The difference is that Intel's platforms are becoming longer-lived. What was once a two year upgrade cycle has now stretched to at least three years. Making the switch to Skylake now will mean an upgrade path to subsequent Kaby Lake and then 10nm Cannonlake CPUs without changing anything bar the chip itself.

Future-proofing aside, the i7-6700K is a great performer. But not enough to really justify that extra $100+ over the excellent i5.

86%

INTEL CORE I7-5960X

www.intel.com **$1,064**

→ **I am sometimes accused of putting too much stock in value and not covering the absolute finest of modern componentry. And right now the Core i7-5960X is the pinnacle of Intel's processing power.**

3

That might seem odd, given that this Haswell-E processor is two architectural generations behind the 14nm Skylake chips, but the super high-end of Intel's consumer silicon is always a little behind.

Where the chips make up for it is in the core counts. While the standard desktop range has been stuck at four cores for the longest time, the high-end chips just keep on growing. This is because they're made for the server side of Intel's manufacturing, as opposed to the mobile side where the other desktop parts originate.

The 5960X is the first consumer-facing eight-core CPU Intel have created, with more affordable six-core chips further down the stack. But it's also getting a bit long in the tooth, and has a stock clock of just 3GHz. It is still more powerful than everything else, but if you've got the spare cash, I'd recommend holding off for the Broadwell-E CPUs on their way soon, because that way lies the new ten-core behemoth, and it will still fit an X99 motherboard.

87%

INTEL CORE I3-6100

www.intel.com **$126**
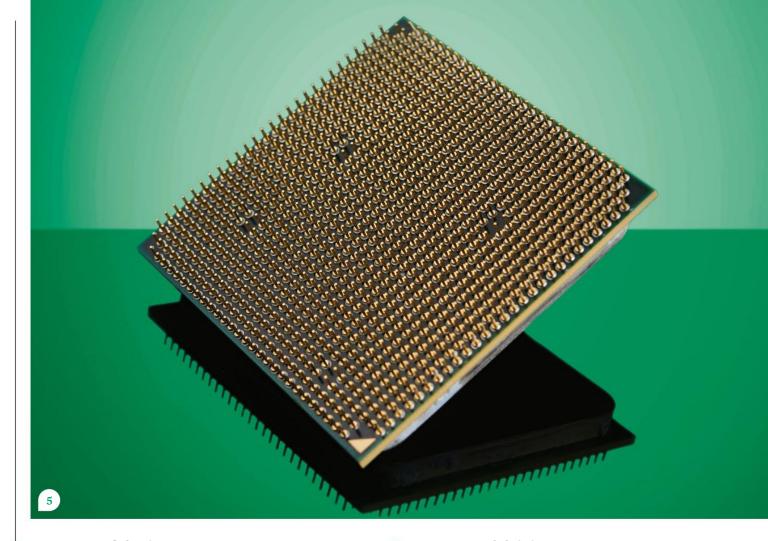
→ **In terms of the budget side of gaming processors, I've long been recommending the Pentium Anniversary Edition chip as the go-to CPU for low-cost gaming. Now that the Skylake generation is here things have changed.**

4

The bargain dual-core Pentium was a great little chip, capable of incredible overclocking feats and keeping mid-range graphics cards fed with data. Unfortunately its dual-core nature now counts against it in the gaming world, as more engines begin to demand quad-core CPUs as minimum and sometimes even block dual-core chips.

The Core i3-6100 is still a dual-core part but, thanks to Intel's HyperThreading tech, comes with four threads. It runs at 3.7GHz, so you might bemoan its lack of overclocking compared with the unlocked Pentium, but while the i3's multiplier is locked down the Z170 platform does still make possible baseclock boosting. That will wring well over 4GHz out of most i3 chips, but it does require you to pick a more expensive Skylake motherboard.

Z170 would put the i3 ahead of the six-core FX-6300 even if the tested performance was equal. It's going to be around for a while making it a great base for your rig, even in a relatively low-cost build.

85%

(5)

AMD FX-8370

www.amd.com **$204**

→ **Zen cannot arrive soon enough for AMD. Until the company's new chips arrive the aging FX series is its only answer to Intel. The FX-8370 is its direct competitor for Intel's i5-6600K and in all honesty it really isn't much of a competition.**

5

On the face of it the combination of no less than eight CPU cores, all of them capable of running at a stock 4GHz, sounds fantastic. By those numbers this CPU ought to be running up against the i7-6700K, surely?

Unfortunately, not all processors are created equal. Those eight cores do help to even things up when it comes to ordinary, multithreaded processing tasks, such as encoding movies, but the Core i5 maintains a healthy lead in my computationally intensive tests and in half the gaming benchmarks too.

There are some instances where the FX chip takes the lead, and with its lower price it may seem mighty tempting, but the Skylake silicon is far more contemporary and has the bonus of being seriously overclockable. You won't get much more out of the straining AMD silicon in the FX-8370.

For my money the Intel i5 is the far better bet, and has a platform that will have an extended life too.

76%

AMD FX-6300

www.amd.com **$102**

→ **AMD's six-core superstar has been the darling of AMD processor enthusiasts for a while. Its price is modest, and its potential impressive. But now that the chip manufacturer's tech is stagnating it's falling behind.**

6
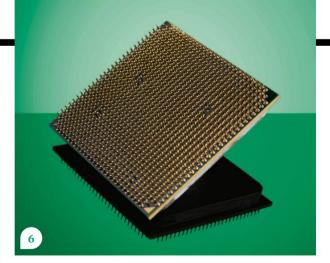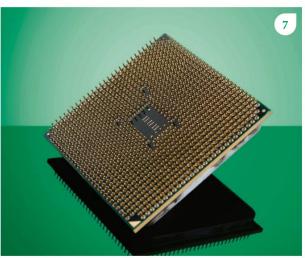
The FX-6300 is a Black Edition AMD chip, which means with a little judicious waving of the overclocking wand you can get some serious extra processing out of it. My stock chip managed to hit the heady heights of 5GHz with some voltage tweakery, which is a huge boost, especially for AMD's rather long-in-the-tooth CPU architecture.

If Intel's i3-6100 was saddled with the locked-down baseclock of all i3s before it, there would be a real case to make for the FX-6300 being the best budget gaming chip. With six threads of processing it plays nice with multithreaded tests and, with a clock boost above 4.5GHz, it does remarkably well in real-world games, too.

For anyone with a low-end AMD chip in their AM3+ motherboard, the FX-6300 is a great upgrade, but I couldn't recommend that anyone start a gaming PC build with such an old platform. It may be cheaper than an i3 and Z170 board, but with Intel's upgrade path the savings will come later down the road.

81%

STACKED UP

■ PRICE ($) ■ CINEBENCH R15 Index score

AVERAGE FRAMES PER SECOND
■ Total War: Attila
■ Batman: Arkham Knight

1 Intel Core i5-6600K
- 254
- 591
- 38.1
- 87

2 Intel Core i7-6700K
- 385
- 873
- 46.5
- 87

3 Intel Core i7-5960X
- 1064
- 1387
- 53
- 109

4 Intel Core i3-6100
- 126
- 393
- 30.6
- 78

5 AMD FX-8370
- 204
- 621
- 27
- 89

6 AMD FX-6300
- 102
- 409
- 24.9
- 34

7 AMD Athlon X4 860K
- 75
- 304
- 19.7
- 64

AMD ATHLON X4 860K

www.amd.com **$75**

→ Not all processors can make the grade. CPU manufacturing is a complex business, even more so when you try to attach GPU processing to the design. This budget AMD chip is where broken APUs go to be reborn.

7 The Athlon X4 860K is one of the cheapest quad-core CPUs you can buy and potentially make the basis of a decent budget gaming rig. Up against something like the Pentium Anniversary Edition the quad-core setup looks good and, with its Black Edition origins, the 860K can be squeezed just over the 4GHz mark too.

Those origins mean these chips started out life as Black Edition A10-7850K APUs. During qualification the GPU portion was deemed below standard and lopped off, but the processor cores were left intact. As a result the 860K uses the same FM2+ motherboard as the latest APUs, which is possibly this chip's biggest failing. Sadly, there is simply zero upgrade path from that starting point, as AMD isn't producing any higher-end options for the FM2+ platform.

So while it may form a bargain base for a gaming rig, a little extra outlay will net you an FX-6300 with way better performance and more of an upgrade future.

73%

ESSENTIALS

	Cores	Threads	Clockspeed	Production process
1	4	4	3.5GHz	14nm
2	4	8	4GHz	14nm
3	8	16	3GHz	22nm
4	2	4	3.7GHz	14nm
5	8	8	4GHz	32nm
6	6	6	3.5GHz	32nm
7	4	4	3.7GHz	32nm

BUYER'S GUIDE

Build the best PC for your budget

ADVANCED

MID-RANGE

BUDGET

KEY

Budget build

PC gaming is for everyone. Pick the parts you want to build a new, well-rounded PC for a good price.

Mid-range build

You want to run every new game at 1080p 60fps. This recommended build will see you through.

Advanced build

You're looking for the best PC on the market and superior components. But you still want to spend smart.

MOTHERBOARD

H81M-P33
MSI **$46**

A bargain-priced microATX board that pairs nicely with the Pentium G3258, letting you overclock into 4GHz+ territory.

PROCESSOR

Pentium Anniversary G3258
Intel **$70**

Ludicrously cheap and overclockable, the dual-core G3258 rivals far more expensive processors in gaming performance.

GRAPHICS CARD

AMD R9 380 2GB
Sapphire **$200**

AMD's R9 380 is a refreshed R9 285, but it still packs enough power to handle 1080p gaming at a decent price.

COOLER

Hyper 212 EVO
Cooler Master **$35**

A legendary cooler, still the best for its very reasonable price. Overclock to your heart's content with this.

MEMORY

Crucial Ballistix Sport 1600MHz (8GB)
Crucial **$51**

Cheap, low-profile, and reliable. Does its job. The best 8GB you'll find.

POWER SUPPLY

EVGA 500W 80PLUS Certified ATX12V/EPS12V
EVGA **$45**

A reliable PSU with enough juice to run your CPU and a reasonably power-hungry GPU.

SSD

BX100 250GB
Crucial **$85**

Thinking about skimping and going HDD-only? Don't. The BX100 is much faster and a fantastic performer for the price.

CASE

Carbide 200R
Corsair **$70**

The 200R gets the job done with toolless trays and plenty of space. ATX-sized, so you can upgrade that microATX board later.

DISPLAY

VX2263SMHL
Viewsonic **$130**

An affordable 1080p monitor with vibrant IPS image quality and low response times. A real bargain.

KEYBOARD

CM Storm QuickFire Rapid
Coolermaster **$80**

A no-frills mechanical keyboard with a standard layout and Cherry switches. We recommend Browns or Reds for gaming.

MOUSE

G303 Daedalus Apex
Logitech **$46**

The best gaming mouse sensor in existence paired with buttons with extremely low click distance. Especially ideal for MOBA players.

HEADSET

HyperX Cloud
Kingston **$76**

Our favorite gaming headset, and it happens to be as cheap as plenty of inferior cans. A good buy for any gaming rig.

BUDGET BUILD

Enjoy 1080p gaming without breaking the bank

TOTAL
$934

MID-RANGE BUILD

Our recommended build for playing the latest games

TOTAL $1600

MOTHERBOARD

Z170 Pro Gaming
Asus **$160**

The latest revision of our favorite gaming motherboard, with an M.2 PCIe x4 slot, Intel network port, USB 3.1 and SLI support.

PROCESSOR

i5-6600K
Intel **$243**

Intel's new Skylake processor is nearly as fast as an i7 for gaming. Comes with some important memory/storage speed boosts.

GRAPHICS CARD

GTX 970 Gaming 4G
MSI **$335**

Offers the best price/performance ratio right now, and MSI's model is cheap and overclockable, with a quiet cooler.

COOLER

Hyper 212 EVO
Cooler Master **$35**

If it ain't broke… the Hyper 212 EVO is a great cooler for the price. Save a bit of money in your mid-range build.

MEMORY

Vengeance LPX (8GB)
Corsair **$65**

8GB of reasonably fast DDR4, and one of the cheapest deals you'll find. Corsair is reliable, and the RAM's overclockable too.

POWER SUPPLY

CX600M
Corsair **$65**

80Plus Bronze efficient, with enough power for a good gaming PC. Modular design is a great perk that cuts down on cable tangles.

SSD

850 EVO 250GB
Samsung **$98**

Samsung retains its top spot on the SSD pile with the fantastically priced, very speedy 850 EVO. Still the best price/performance.

CASE

S340
NZXT **$75**

The stylish S340 has some nice touches, such as removable dust filters and space for huge liquid cooling radiators.

DISPLAY

G257HU
Acer **$280**

A step up from 1080p to 1440p territory, with a vibrant IPS display and good response times at a strong price.

KEYBOARD

K70 Vengeance
Corsair **$110**

A great, full-size mechanical keyboard with an ergonomic wrist rest. We recommend Cherry Brown or Red switches for gaming.

MOUSE

Deathadder 2013
Razer **$58**

There's not a huge range of price differences on the best mice, so stick with the best for your mid-range build too.

HEADSET

HyperX Cloud
Kingston **$76**

Even for our medium build, we still recommend this decently-priced headset. There's nothing better for the money.

MOTHERBOARD

ROG Maximus VIII Hero
Asus **$240**

Fantastic overclocking and stability, with a great UEFI BIOS from Asus. M.2, USB 3.1 and on-board power, reset, CMOS, etc, buttons.

PROCESSOR

Core i7-6700K
Intel **$339**

Intel's new top-of-the-line Skylake processor. Its new chipset includes important memory/storage speed boosts.

GRAPHICS CARD

GTX 980 Gaming 4G
MSI **$520**

Right now the GTX 980 is the best value single-GPU card for ultra 1080p and 1440p gaming, bar none.

COOLER

Hydro H110i GT 280mm
Corsair **$120**

Quiet, cool and capable of providing even the most aggressive overclocker with more than enough headroom to hit that 5GHz mark.

MEMORY

Savage Black 16GB @2400 MHz Cas12
Kingston **$137**

Thanks to insanely low timings, these two 8GB sticks of DDR4 are more than enough.

POWER SUPPLY

Supernova 850W G2 80 Plus Gold
EVGA **$145**

A reliable, quiet, gold-rated EVGA power supply, modular, with enough juice to sustain two overclocked graphics cards and a CPU.

SSD

850 EVO 500GB
Samsung **$155**

The 850 EVO is so good, there's not much need to step up to the more expensive 850 Pro for a gaming rig. Just get a bigger drive.

CASE

Noctis 450
NZXT **$130**

Thanks to its innovative interior layout and daring design, this case is a pleasure to work in and a beauty to behold.

DISPLAY

Predator XB270HAbprz 144Hz G-Sync
Acer **$800**

Simply the best: a 27" 1440p 144Hz IPS display, with Nvidia's variable refresh tech.

KEYBOARD

Ducky One
Ducky **$120**

An elegant set of keys from mechanical keyboard fan favorite Ducky. Renowned for their impeccable feel and build quality.

MOUSE

Deathadder 2013
Razer **$58**

Even if you've got money to burn, the Deathadder really is the best mouse you can buy right now.

HEADSET

H Wireless
SteelSeries **$273**

Our favorite wireless gaming headset, with great sound quality and a convenient battery swapping system for long gaming sessions.

ADVANCED BUILD

Go above and beyond with a PC powerful enough to end worlds

TOTAL $3037

This used to be a quaint, friendly community. Then you started selling kale, and now Pierre only stocks $15 craft beers, Haley's ordering salted caramel parsnips from UberEats, and I can barely afford the rent on this tent.

Linus

...UNTIL
MAY 24

WORLD'S MOST
ADVANCED PCs

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$899

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