ALL FORMATS
116 PAGES MONTHLY

Wireframe

LIFTING THE LID ON VIDEO GAMES

HEIST ALMIGHTY

The chaotic story behind Grand Theft Auto

SIN AND PUNISHMENT

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cyber crime

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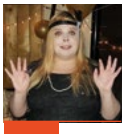
The retro bubble continues to grow

In the world of old games, there's always been conversation surrounding the retro game "bubble" – the continued hiking up of prices for games on the second-hand market to levels not far from, or even beyond what they originally cost in the shops. If you're not a seller, a lot of this talk speculates on when this bubble's going to burst, and a hope that it's going to be soon – people are always looking for signs. This, oddly enough, is a form of nostalgia in a hobby that's already driven by nostalgia – we want to go back to the good old days, when you could buy old Mega Drive or NES games or whatever for scarcely more than a few pounds on eBay, or at the boot sale.

But those of us waiting for that day – and many have been waiting for years – are not advised to hold their breath. Buying old games is only becoming more of a seller's market, and it's not as if people who are flogging unwanted items are suddenly going to stop being at the very least savvy enough to look on auction sites and see what the lots are going for these days, even if that price is not a reflection of a game's actual value. And so you end up with copies of, for example, *Super Mario Bros. / Duck Hunt* on the NES being listed for well over £10 despite it being the most common NES game on the entire planet, and not worth a whole lot at all. Either people are indeed buying the game for this price, or the market is being artificially massaged so that items appear more valuable than they actually are.

The recent state of the world has only exacerbated the problem – Covid-19 means that people are staying indoors, and in a lot of cases those people like to surround themselves with things they're familiar with. The price of retrogaming has only increased in the past year, and not just for 8- and 16-bit platforms. Not a whole lot has changed about platforms like the Sega Saturn – it's long been the case now that you might want to consider remortgaging your house if you wish to embark on a full Saturn collection – but even highly popular, incredibly common, and relatively recent platforms like the PlayStation 2 are starting to drift into the bubble. This is a platform where the majority of games, not to mention the platform itself, are incredibly common and thus dirt-cheap – but now the price of entry is getting more expensive. Will we eventually reach a point where, say, a *Grand Theft Auto* game is subject to the same price hiking as a *Mario* game? Even though there's no end of ways to legitimately play said game?

There is a certain sadness to this state of affairs. In one sense, the world of retrogaming is more open than ever – there are so many ways to play just about any old game you want to, and so many platforms to do it on, machines like Raspberry Pi, MiSTer, or Analogue's more bespoke consoles that cater to just about every part of the market. But retrogaming is often about more than just the game – in a world that's more and more digital, it's becoming one of the most visible reminders of the physical experience, not just the one that games used to be, but that used to be the primary way we consumed media. While rarer titles will always have a high price point, the thought of even the most common games becoming prohibitively expensive for most people represents a general loss of a big part of the retrogaming experience. But in a world that's ever-changing, it may be time to stop thinking of this seller's market as a temporary bubble – sadly, it may well just be the way things are.



KIM JUSTICE

Kim Justice is a YouTuber, Streamer, and writer who specialises in the world of retrogaming. If she isn't making lengthy documentary videos about old games and companies, she's probably chatting and mouthing off about them live to a dedicated handful of people.

#51



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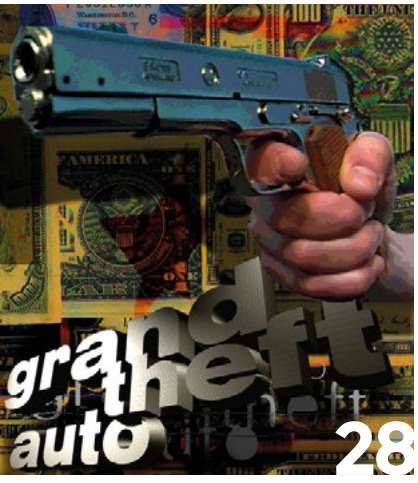
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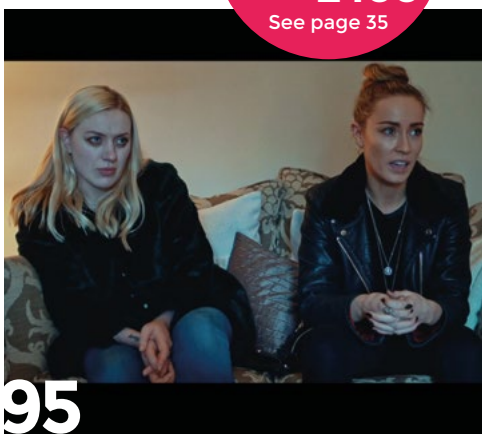
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WELCOME

What was the first crime-type game you ever played? The one that's really lodged in my head is *Syndicate* on the Amiga. At the time, its isometric cities and withering violence felt revolutionary: although the stages were small by modern standards, the sense of freedom was immense. You could steal cars, hypnotise civilians, blow stuff up, and generally cause mayhem wherever you went. Like a modern sandbox, *Syndicate* was one of those games where messing around was as much fun as knuckling down and completing the missions. I bring up *Syndicate* because there's a decidedly amoral tone to this month's edition of Wireframe: there's an inside look at the creation of the early *Grand Theft Auto* games on page 28, and we provide a run-down of our favourite ever crime sandboxes on page 38. Then there's our cover game, *Glitchpunk*, which marries the top-down perspective and mechanics of *GTA 2* to the cyberpunk theme of *Syndicate*. When I asked *Glitchpunk* developer Maciej Karbownik whether *Syndicate* was an influence, though, he revealed he was just six years old when he sampled it over a decade ago. It then dawned on me that *Syndicate*'s rapidly approaching its 30th birthday, and probably much older than Karbownik is. Time is indeed a cruel and unusual phenomenon. Enjoy the new issue!

Ryan Lambie
Editor




SWAT
ORDO
DESTRUCTOR
M23
MOM



CRIMES OF THE FUTURE

Polish developer Dark Lord takes us on a tour of its bleak, sci-fi homage to GTA 2: Glitchpunk

Polish game designer Maciej Karbownik positively buzzes with ideas. As we chat over Skype, the enthusiasm he has for his grim, cyberpunk world is infectious: he talks at breakneck speed about the dark motivations that drive his cast of characters; the unexpected real-world influences behind some of his mission ideas, and how he has enough snippets of story and notes to fill a sequel, or perhaps a novel. The influence of *Grand Theft Auto 2* looms large in *Glitchpunk*, the debut game from Karbownik's fledgling studio Dark Lord, but it's clear he has more ambitious plans than a straight retread of that top-down crime classic.

Glitchpunk takes place in a familiar future of heartless corporations, cybernetic body modifications, and benighted city streets. As an android navigating your way through this gloomy landscape, you're tasked with completing increasingly violent missions in exchange for cash and upgrades, while at the same time staying one step ahead of the law. It's a crime sandbox with all the mayhem and car theft you'd expect, but in Karbownik's telling, there's a deeper story here if you're looking for it. One NPC is seeking revenge for something dreadful that happened to him when he was a youth; there's a mission where you're asked to kill one of your allies and somehow make it look like an accident. Meanwhile, humanity's sliding towards oblivion: AI is taking over, and as you progress from city to city, you'll see the balance of power slowly shift from human to machine.

It's intriguing-sounding stuff, and the scale of what Dark Lord is attempting is all the more impressive given the size of the studio: this sprawling cyberpunk sandbox is essentially the work of just three developers. Here, then, is Karbownik himself to tell us the secret of making a cross between *GTA 2* and *Blade Runner* on an indie budget... ➔



› *Glitchpunk* makes ingenious use of pre-made, kit-bashed 3D assets, allowing the team to make an entire city with relative ease.



So, if we just start at the beginning, and just sort of talk about how the game got started – this is Dark Lord's first game, isn't it?

Maciej Karbownik: Yeah. The company started off as a freelance studio with just me – a one-man company, basically. But then at some point, I was like, I'm so tired of B2B corporate bullshit. I wanted to make games from the start, but I ended up making B2B stuff, mostly. So I decided to take a shot, arrange a team of my friends, get some new people. And around the end of 2019, we started making a prototype. That's how I started.

Right. So did you want to make a top-down crime game primarily, or did the cyberpunk theme come first?

When I decided I wanted to go back to making games, I took a look at the indie market – what type of games are in that space – and then overlapped those with the things I would love to make myself. At that point, there weren't many games inspired by the classic, top-down *GTA* and *GTA 2*. I thought, well, that's a game from my childhood, so let's go with it. So it was a cross between a passion project I was interested in doing, and at the same time seeing what's feasible and makes sense from a business point of view.

Glitchpunk is quite specifically influenced by *GTA 2*. Do you think it's a bit of an underrated game, in a way? It didn't have the controversy of the first or the leap to trendy 3D of *GTA III*.

Yeah, it's interesting, because I was looking at it through nostalgia glasses, to be honest. But then I played it again recently and I actually still like it. But my friends have said that *GTA 2* is basically the stinky kid of the series – everybody likes the first game, and then the later ones, but not the second one. I never felt like that – I always felt like this is the proper top-down *GTA*. The first one was kind of a rough prototype and looks terribly ugly to me. But *GTA 2* is like the first game, but made the proper way. I enjoyed the simplicity of it, and at the same time, the level of polish – the audio-visual fidelity that was feasible for the development at that moment in time.

So, looking at *GTA 2* through my lens of a developer with six years of professional experience at this point, I felt, like, that's something we're able to achieve – and hopefully add something more to it. It makes sense to go this route instead of, say, the next game in the series, *GTA III*, because it's a completely different, much more complicated project.

> **"My friends have said that *GTA 2* is basically the stinky kid of the series – everybody likes the first, then the later ones, but not the second"**

What are the advantages of having a game viewed from top-down rather than say, full 3D or even isometric?

Technically speaking, the game is still fully 3D. Some elements, like cars and characters and other objects, are sprites. But we still have a traditional 3D workflow for building cities... The top-down perspective makes stuff a bit easier, for sure. Having the camera far up, away from everything, allows us to not focus so much on details that would be absolutely crucial in a modern game. Unless we did some unusual stylisation, which is also a challenge in itself. Because we're a small team – at the core of the production, it's three people. There's me, another programmer, and our artist.

So that top-down viewpoint aside, what other techniques do you use to create the illusion of a much larger city?

We don't actually have a 3D artist, which might sound a bit surprising. I try to get



According to Karbownik, development on *Glitchpunk* is around 50 percent complete.

as many resources as I can – 3D models, sounds, other assets – from different marketplaces, and then I try to mix it all together. I try to use them to speed up the workflow as much as possible, so we don't create our 3D assets. I get a bunch of those asset packs, and I change them around by modifying them a bit in Blender. Then I add other materials, which makes them look completely different. All those assets are probably used in other games, but the top-down perspective makes them look so different. When you look at them from the top-down – which almost no other games do right now – it makes them even more difficult to recognise. So we use this approach of kitbashing pre-built assets wherever we can, because we can then put them in this cyberpunk universe of stories and characters, which is obviously 100 percent done by us.

It's interesting, because sci-fi movies have used kitbashing in one way or another for decades. *Star Wars* took pre-existing model kits and reworked them into spaceships. It's absolutely similar. *Like Blade Runner*'s scenery. I absolutely love it.

Yeah. *Blade Runner* took existing sets and then dressed them to look futuristic. I like the quote from Pablo Picasso, which I'll paraphrase – steal from one artist, and you're a thief; steal from 50 of them, mix it, and then you're an artist again. That's how I approach it.

Did you look at much sci-fi, cyberpunk cinema when making the game? *Blade Runner*, *Akira*, that kind of thing?

You just mentioned most of them! But I'd add *Ghost in the Shell*. So yeah, I had to do my homework, which wasn't so hard, because I was interested from the start. When I find something, I'm totally obsessed with it for months on end. I like reading books on it. I'm watching interviews. I'm watching the movie ten times in the background when I work, to kind of get the mood and just keep motivated.

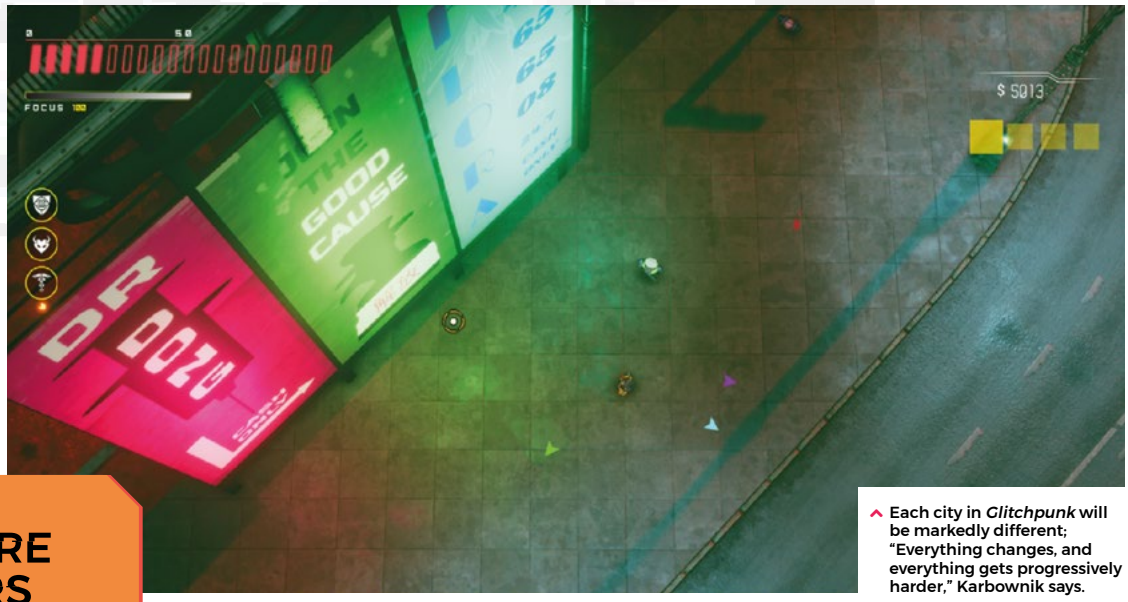
As for games, I think there's also two major titles beyond *GTA 2*. There's *Ruiner*, from the Polish studio Reikon Games, which is absolutely fantastic. The game's a bit more linear, with a fighting focus. That wasn't really our thing, so we hope we won't be called copycats, but the audio-visual style in *Ruiner* is absolutely fantastic.

WEAPON OF CHOICE

"Unreal Engine 4's our weapon of choice," Karbownik explains, "because I have the most experience with it, and the team is experienced with it, especially the second programmer. So it was kind of a no-brainer for us. We used Unity to make a super-rough first prototype, but then we thought, we're much more comfortable with Unreal Engine. And then for the other tools, we use some typical industry-standard stuff. I sometimes use Blender, for 3D modelling; the artist likes to use Adobe software."

If in doubt, toast it.





Each city in ***Glitchpunk*** will be markedly different; "Everything changes, and everything gets progressively harder," Karbownik says.

FUTURE WARS

For Karbownik, one of the biggest challenges was editing: there were so many character and story ideas on the table to begin with, they had to be whittled down if they were ever going to get the game finished. "I have a super-extensive database of quotes, ideas, tropes to use and tonnes of stuff, basically, that won't go into the game, probably because we won't have time for it," he tells us. "The joke is we'll make a sequel or write a book or whatever. So that was also one of the things – I had to curb my writer ambitions, and give up so many of those ideas. So those are the challenges we went through."

Still, some of those ideas could reappear in future content updates, Karbownik says. "There's so much potential – we could make one more new city, or a bunch of new characters and stories, or new cars. You could expand everything in such a cool way. So yeah, we'll see about that."

It's a big influence on us. And then at the same time, there's *Hotline Miami*.

To be honest, we used it because when I [mention] *GTA 2* as a reference, some people get it – people who like playing more old-school games – but kids don't really get it.

So I was like, 'OK, let's say it's like *Hotline Miami*, with cars and with the open city', which means basically *GTA 2*, in a way... And this kind of clicked and people went, 'Oh yeah, this game looks like *Hotline Miami*'. But a lot of the stuff is actually in the game from 1999, *GTA 2*. But it was refreshing to them, because they only knew *Hotline Miami* – they didn't know *GTA 2*.

I don't know if you've played *Syndicate*, but the android modifications in *Glitchpunk* immediately made me go, 'Ooh, this looks like *Syndicate*'.

Yeah. Living in Poland, we didn't have so much modern tech until, like 2005, 2010. So I remember being a small kid with really, really, slow, bad computers, so I played old games, and one of those was *Syndicate*. I didn't spend so much time with it, but I really enjoyed it – it was kind of a bit too hardcore for a six-year-old gamer!

But I think this kind of thing – corporations, body modifications, violent deaths, shady business – always influenced me... so *Syndicate* is a very distant inspiration. You can most certainly see some similarities in it.

It seems to me there are three things to balance – narrative, world design, and missions. So how do you make all of those mesh together nicely?

When I designed the story outline, I tried to use scripting techniques that have been around for a long time. There's Blake Snyder, who wrote a book called *Save the Cat*. In it, he basically made a formula for how 90 percent of successful Hollywood movies go. So I looked into that and I was like, 'Wow, I wish I knew that years ago when I started making games'.

And then when I set the mood for how the story should go, then I also have a list of crazy, interesting missions that should happen. So, say for example there's a scandal in Polish politics that makes me go, 'OK, it might be interesting to make a reference to that. And actually, making this into a *GTA* mission would be a perfect fit.' So there are very different, unusual sources from everyday life. There are times where I just play around, doing some bug fixes, and I notice an interesting dynamic. For example, we have a mission where we have this ally, and he follows you. But at the same time, the mission's about assassination. So I thought, 'Let's make a mission where the guy follows you, and you want to get him killed, but not directly'. So you have to run through highways and hope he gets run over, or jump onto the railroads and hope to not get electrocuted, while he follows you and gets electrocuted. Or maybe punching a guy on the street – then this guy pulls out



There's a compelling story in *Glitchpunk*, but if you just want to steal cars and wreak havoc, that's all here, too.



a gun. You then quickly hide behind this ally of yours, so that he gets shot into the face...

On the subject of AI, can you talk a bit about that aspect of the game? How aggressive are the cops in *Glitchpunk*?

We went with a more classic approach: we took the basic mechanics of *GTA 2*, and built on it. I'd say the biggest advancement is that we plan to add a few more Wanted levels, where more hardcore, unusual stuff happens, which will depend on the city you're in. So for example – and it's not 100 percent certain this will go in the game – in some cities, there'll be areas where an AI comes for androids. So with the Wanted level, it's not just police chasing, it's like, everybody wants to kill you. Because there are androids all around you and they can be controlled, they can be turned into killers. It could be an old grandma, or a beggar hanging out on the street – they just become your worst enemies.

So we have these ideas. We'll play around with them and see how it goes. I think these could add interesting new twists to the usual chases, for example. When it comes to AI, we have some interesting solutions, some cool dynamics, but I think we'll need some more time to play around with it.

When it comes to storytelling and writing, why do you think cyberpunk resonates so well in the 21st century?

I think the view of cyberpunk [has] changed over time. I'm looking to some philosophers, like Mark Fisher, who sadly passed away some years ago. He was a writer and philosopher who looked at the future and saw that it would not be a bright one. So that's the approach we're taking in our version of cyberpunk: it's dystopian, but not just for the sake of interesting visuals like neon and that kind of stuff. We use it to send a message that, well, things are going bad. Yes, there's a chance we'll get past every difficulty we face in the future. But there's also a chance we might screw up completely. There are so many things going wrong in the world – corporations are actually taking over. It's not like in the eighties, where you [thought], 'Oh yeah, that's how the future could look'. Right now, making a game in 2021, I'm like, 'Yeah, this is how it's going to go'. It's serious.

> **"Even Elon Musk's going 'Guys, stop. Please don't do fully autonomous AI.' It says a lot if Elon Musk says that"**

When we looked at what settings we could have, we were able to go with either cyberpunk or a post-apocalyptic setting. So we could have 'Crap's about to hit the fan' or 'Crap's already hit the fan'. We're somewhere in between, I would say. We went with the cyberpunk aesthetic, mostly, because it's easier, I'll be honest, because you know, there's already some kind of following after CD Projekt Red's [*Cyberpunk 2077*], so it can get some more attention. So that was a good call!

The idea is that AI takes over the world, and makes it a completely new place based on new rules where there's no space for humans. It's a catastrophe we brought on ourselves. That's the overall message. And I didn't care – and I don't care – how well it goes with a cyberpunk concept, because it's something that grew by itself. And I wasn't interested in following tropes. So it's a mix of political fiction at some points... the issues of the progression of AI. Even Elon Musk's going, 'Guys, stop. Don't do it. Please don't make fully autonomous AI'. I think it says a lot if Elon Musk says that.

So we took those concepts, along with the third world war – which is, you know, sometimes around the corner, sometimes not so much – and we just crammed them all together.

It's the absolute, total destruction of everything – which I think you can see perfectly on the cover of this magazine!



Old school

Expecting the expected in an expedition through New World

Info

GENRE
MMO

FORMAT
PC

DEVELOPER
Amazon Games

PUBLISHER
Amazon Games

RELEASE
31 August

SOCIAL
@playnewworld

The *New World* feels quite a lot like the old world, all things considered. The MMO, which has ended up being Amazon Games' first and so far only great hope in gaming (at least the first one that should reach a proper, full release), currently ticks a solid number of boxes on the MMO checklist. Open world stuffed with random undead enemies and turkeys to slaughter? Check. Customisable characters with a varied selection of 1600s-era-appropriate hats that you'll spend way too long comparing slightly different stats on? Check. Spamming attack and your specials keys to tank your way through encounters against damage-sponge enemies? Check. If you're playing as a tank.



This big burly boy has a hint of minotaur about him and, would you believe it, charges at you head-first.

New World also feels utterly banal, at least from my brief time playing one of the game's expeditions – instanced missions akin to many other multiplayer games. Think Strikes from *Destiny* mixed with a hefty *Dark Souls* dose. After waddling about the local area looking for trees to chop down and turkeys to bother, we began our mission to hunt down a missing settler – entering a dank cave, skimming through a page of a dropped diary, and getting sidetracked mining some ore when one of the first fights broke out. Solid team play from Wireframe, there.

What the expedition ended up being was a four-player jaunt through the aforementioned cave – a dungeon delve complete with hordes of zombified enemies to hit a lot, chests to root through for newer/shinier loot, and additional hordes of zombies to hit a bit more. 'Basic' about covers it. 'Competent', too. It's fair to say our team was levelled to the point that strategy wasn't necessary for the encounter – as long as one person healed the others periodically, we would all survive most encounters pretty much unscathed. The potential for strategy to come into encounters, then, cannot be written off – perhaps when things get a bit trickier it's an absolute necessity, and that's where *New World* might come into its own.

But I played what I played, and it didn't particularly show off the game in a very exciting light. My right index finger cramped from all the clicking to attack, and I learned very little about the techniques required to tackle enemies, or



See, the bat-like enemy has arms, thus making it a bold statement about... wings... being arms? Something like that.

why they were there to begin with, or what/who the giant stompy bad guy boss was at the end of the run. He was called Simon, or something similar, which didn't quite give this five-metre tall ogre-like creature the gravitas you might expect of such a girthy enemy. We actually failed against him first time, but second time around – making sure someone was healing the other three – we took him out without much trouble. It was... fine. It's genuinely difficult to get excited here, unfortunately, because you'd hope with the clout of Amazon behind it and this being the studio's first game to (potentially) be released as a finished, full game, there'd be something more noteworthy to shout about. There is not.

Plus, there's still the whiff of *yikes* about *New World* in its setting and general uncritical presentation of, well, colonialism. The island of Aeternum is as fictional as they get, riddled with some kind of magical curse and littered with glowing zombies that feast on empowering bile, as vomited up by bigger enemies. True story. But it doesn't step very far from its true historical influences – the look is realistic, the clothing authentic, the settlements what you would expect for that time in human history. And the tale of settlers going to claim new lands – even tales of settlers being 'corrupted' by new lands – is as traditional as it comes in the everlasting, uncritical portrayal of the history of colonialism. The dev team at Amazon Games isn't doing this on purpose, I'm sure, but that lack of awareness – naivety – is galling at the very least, and will likely leave a nagging thought twirling around in the back of at least a few players' heads.

But from a pure *game*-focused perspective... well, that's not exactly great either, at least not from the hands-on session with *New World*. It's *fine*. It looks to be a competent MMO – again, one that ticks all the right boxes, but in a way that feels mechanical and as though it was done to... well, *tick boxes*. Gathering materials and crafting. A (very) light *Dark Souls* feel to expeditions. Team-based adventures. Fine. Yep. Check. But, again, it's a particularly old-world feel for a game calling itself *New World* and right now it's hard to be particularly excited by what's been shown off. There's still time in development, and it being an MMO means there'll be plenty of time post-launch to bring everything up to spec, of course, so this is very much one that'll depend on how the chips fall.

"I played what I played, and it didn't show off the game in an exciting light"



Combat is hopefully more tactical than what was shown off, rather than just spamming clicks/attack shortcuts.



Gamedec

Heading to a gritty, neon future in this ambitious 'adaptive' RPG

Info

GENRE
RPG

FORMAT
PC / Switch

DEVELOPER
Anshar Studios

PUBLISHER
Anshar Studios

RELEASE
16 September

SOCIAL
@GamedecTheGame

It's a huge undertaking to make a game that reacts to the player's actions – that is, as *Gamedec*'s developer calls it, 'adaptive'. More so when the main thrust of the title is its story. But that hasn't stopped Anshar Studios, the Polish team behind the upcoming cyberpunk-themed detective RPG – this aims to be a game where the player's input can be right, it can be wrong, but it's always one thing: accepted. How far this translates to getting things *entirely* wrong in a murder investigation, for example, isn't completely clear from *Gamedec*'s early demo released this year. But there was enough going on in this stylish world of tomorrow to pursue further investigation and find out just what is going into the magic recipe of role-playing mechanics, story focus, and a lack of combat.

The initial idea for *Gamedec* came from the author of the book series, Marcin Sergiusz Przybyłek, who put the call out for developers who'd be willing to help bring the project to virtual life. "The goals were simple," explains Mateusz Greloch, community manager at Anshar Studios. "We wanted to ditch the combat and focus on a branching story, detective work, extracting as much data from the environment and interrogations as possible, and then proceeding with a deduction that allows progression in the case." From the beginning, it seems this was a game being made with patience and thoroughness in mind, rewarding players who take their time to pore over things – almost in a pixel-hunting, point-and-click adventure game style, but far less irritating.

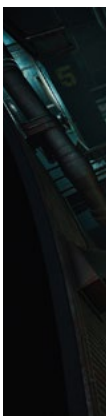
Simultaneously, the aim of the developer has been to make a game that keeps you on your toes – with its adaptive nature, Anshar wants players to question their choices. "Was the decision I made good? Did I support the right part of the conflict? What will be the consequences [of my actions] on this case, and how will it affect my playthrough?" Greloch says. "These are the questions we're hoping you ask while playing *Gamedec*. We don't recommend rushing the game to see the end credits, but we allow players to choose how much of the story they want to unravel before going forward."

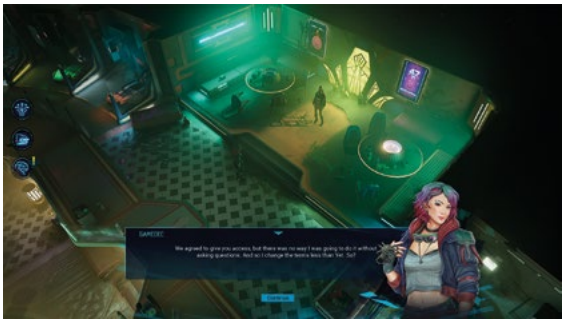
"Branching is so extensive that testing all options takes hundreds of hours"

While the desire to make a game that encouraged patience and adapted to your approach was there from the start of development of the RPG, the actual genre of *Gamedec* wasn't the same from day one – an adventure game was discussed, or even a collectable card game, though "that didn't feel right", according to Greloch. But once the move to a classic computer RPG style was adopted, isometric view and all, development remained focused on that style, and the goals of making a responsive title focused on the player's input.

^ ***Gamedec*** **uses Unreal Engine 4, which has helped the dev team work smarter, not harder.**

› **The more you put into a case, the more you – in theory – get out of it.**





Avoiding combat, *Gamedec* instead relies on dialogue and investigation for the player's kicks.

Of course, being open to a player's individual whims is an approach that makes for… complex situations, let's say. And it's something the team has been working hard on, with the direct input of *Gamedec*'s original author, for a while now. "[Marcin] has fantastic ideas on what and how to introduce to his *Gamedec*-verse," says Greloch. "Our designers sit down with him and think about the subplot, NPCs, twists, and interactions. We try to play every case as a pen-and-paper scenario, with different players to emulate the ideas for interactions and dialogue, and then try to implement them into the actual gameplay. This way, our characters feel more human and present various behaviours to cover most communication approaches.

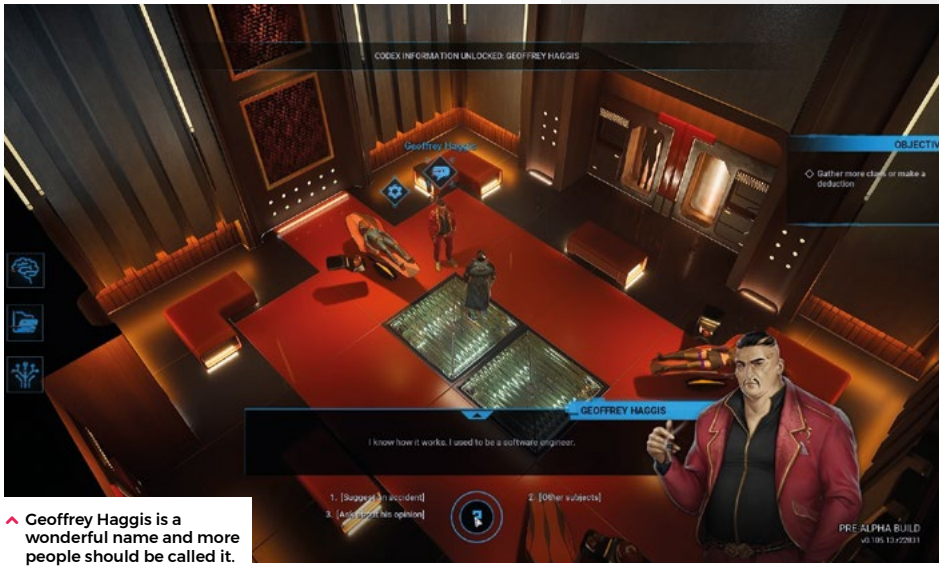
"What is the most challenging is the branching system," he continues. "It is so extensive that testing all possible options takes tens, if not hundreds, of hours. Branching is complicated, and it is a challenge to maintain such a system throughout the game because the decisions are supposed to influence the whole game, not just another case – that's why there's quite a big emphasis on these branches, their refinement, and overall perception."

The big aim, then, is to make a game that progresses regardless of what you do – of what you choose. A game that reacts and responds, that adapts accordingly and shows players – regardless of their experience, age, moral compass, or whatever else – the consequences of their decisions. "Is *Gamedec* challenging?" Greloch asks. "Only if you want it to be. You can rush the case, make a lousy deduction, and still finish the case. If you spend more time looking for clues, and focus on interrogating, the game will reward you with a more complicated plot and more complex deduction dilemmas. Suddenly, people turn out to be someone different from what you expected, and you must become a real detective to figure out who's lying and which of the parties is better to be partnered with."

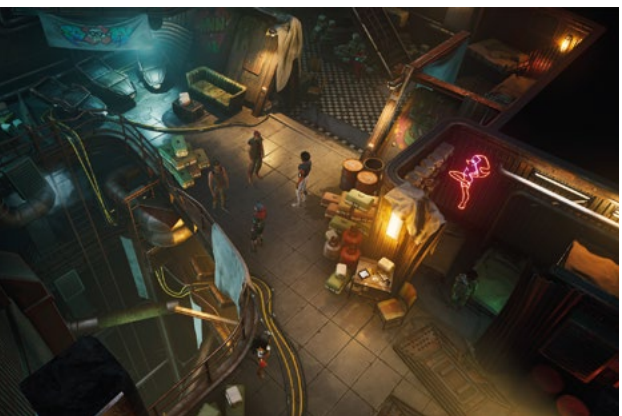
With such ambition on show, it's going to be interesting to see if Anshar can pull it all off. *Gamedec* certainly looks the part, oozing the sort of cyberpunk-ish atmosphere that can be so alluring. Starting out as just a couple of people working on an indie passion project, development is now being handled by around 25 people – designers, artists, writers, and audio designers, with more still being hired even as the announced 16 September release date approaches. "Managing a team of that size is not an easy task," Greloch says. "We have an experienced team of producers and a clear road map planned, so we are ready for whatever the future brings. We have learned a lot along the way, and let me say, that was an incredible journey with tons of knowledge picked up."

POST-PUNK REVOLUTION

Gamedec isn't strictly cyberpunk – in fact, Greloch is quick to point out it's more post-cyberpunk, with people in the game's world having lived through the era of rampant augmentations and coming out the other side. It's also, in a darkly fitting way, a world coming through the other side of a global pandemic that forced people to start living in closer proximity "in big cities with nothing to do and nowhere to go," says Greloch. "*Gamedec* is different to any other cyberpunk game in many ways," he continues. "But we do use a similar genre through which we tell a story."



Geoffrey Haggis is a wonderful name and more people should be called it.





Under a killing moon

A 1980s Konami title makes a surprise return in GetsuFumaDen: Undying Moon

Info

GENRE
Rogue-lite

FORMAT
PC / Switch (2022)

DEVELOPER
Konami / GuruGuru

PUBLISHER
Konami

RELEASE
Out now
(Early Access)

SOCIAL
@GetsuFumaDen_EN

I'm dying. A lot. As I spawn back at the start of the game for the umpteenth time and a shrine maiden innocently asks, "How does your body fare?", I'm tempted to respond with a surly "Don't bloody ask." Make no mistake, *GetsuFumaDen: Undying Moon* is a tough game – it's a 2D rogue-lite that showers you with loot and a generous armoury of weapons, but at the same time pits you against an army of ghoulish creatures who'll mercilessly club, stab, and explode you to death if your reactions aren't razor-sharp. What makes the challenge so palatable, though, is the sheer look of the thing: *GetsuFumaDen* provides an Unreal-powered tour through Japanese folklore, with gorgeous artwork inspired by traditional Ukiyo-e woodblock prints. The results are akin to the similarly pretty *Muramasa: The Demon Blade* (one of the best third-party hack-and-slashers on the Wii) and the more recent *Eastern Exorcist* (see Wireframe issue 44).

Although western readers may not recognise the name, *GestuFumaDen* sees Konami delving way back into the dustier parts of its back catalogue. Released on the Nintendo Famicom in the 1980s, the original *GetsuFumaDen* (or more accurately, *Getsu Fūma Den*) was a success in Japan, and while it didn't get a release elsewhere, it's still regarded as a cult item in its home territory. According to Shin Murato, *Undying Moon*'s producer, the thought of reviving *GetsuFumaDen* came about thanks to the burgeoning sub-genre of other games steeped in eastern folklore. "We noticed major titles using Japanese themes," Murato tells us. "So we wanted to create a low-middle-range game with great art, systems, and Japanese themes. *GetsuFumaDen* fit this perfectly, [and had] no sequel."

Undying Moon is set roughly a millennia after the first game, and sees Fuma, a descendent of the original story's Getsu clan, embark on a quest to close a portal to hell – and attempt to murder all the assorted demons that have



***Undying Moon* is a joint venture between Konami and developer GuruGuru. Murato wouldn't be drawn on how work on the game's divided up between the two.**



Although it looks 2D, the game largely uses 3D assets. The cel-shading, which gives it the look of hand-drawn art, is some of the best we've seen.

already escaped via that portal. Like the original game, *Undying Moon* is a 2D hack-and-slash with RPG elements. The sequel eschews the top-down bits of old, though, and instead goes for a more modern approach with randomly generated levels and a deeper array of weapons to collect and upgrade. There's a pleasing heft to the weapons, too: these are also randomly dished out before you begin a stage, and range from short-range yet powerful katana to spears, which deal less damage but are ideal for prodding enemies from a distance. There are also ranged weapons (bows, matchlock guns), as well as crude explosives which are ideal for lobbing at tougher enemies loitering on platforms. Our favourite of the lot, though, is the umbrella – a bit of weaponry we didn't expect to encounter in a scowling game full of demons and burning infernos, but actually turns out to be one of the most useful items we've encountered so far. "We decided to use this from the beginning of development," Murato tells us. "The Japanese umbrella is the only weapon that can use both guard and parry… Also, players can descend slowly by opening the umbrella. The attack ability is less than other weapons in that point, but if the player can master it, it will become a strong weapon."

"The umbrella is the only weapon that can use both guard and parry"

Undying Moon marks something of a change of direction for Konami. Not only is it unusual to see the firm revive one of its more obscure properties, but it's also the first time the *Metal Gear* developer/publisher has dabbled in Steam Early Access. "We want to use Early Access to get user feedback to improve the content of this title," says Murato. "By listening to users and creating discussion, we believe that we can further increase the quality of the game before opening it up for a wider audience. Any opinions on our Steam community, Discord, or Twitter pages will be read by the development team and we'll consider the updates in the future by keeping user feedback in mind. Similar games to *GetsuFumaDen: Undying Moon* have also shown us that the genre works well for Early Access release."

Back in the game itself, and I'm gradually getting the hang of its combat system. Even common enemies like a club-wielding ogre deal huge amounts of damage, so precise dodges are as important as well-timed attacks. I'm still dying a lot, since *Undying Moon*'s roguelike nature means you can sometimes get a bit unlucky with the placement of enemies – getting two of those ogres in one spot can make for a serious challenge, especially if you're low on health. Get to the end of the first stage, meanwhile, and more punishment awaits: a colossal, angry skeleton with an equally imposing health bar. It's quite a battle, but once again, its difficulty is leavened by the beauty of its design.

GetsuFumaDen: Undying Moon is a surprise from Konami, then, but certainly a welcome one. And who knows? If this release is a success, maybe Konami will revive some of its other neglected properties. A new 2D *Castlevania*, but given this level of style and polish? Now that really would be a treat.

IN ORDER OF APPEARANCE

Getsu Fūma Den may be an obscurity for all but the most dedicated Famicom importers among us, but its cult status in Japan led Konami to sneak references to the game into all kinds of unexpected places. Its lead character, Fuma, appeared (in playable form) in the Japan-only Famicom platformer, *Konami Wai Wai World* – a superhero team-up, of sorts, featuring familiar faces from all kinds of other Konami games. Fuma also showed up in the download-only *Castlevania* entry, *Harmony of Despair*, in 2011, and the music from that game made a cameo appearance in *Super Smash Bros. Ultimate*. Outside the realm of video games, Fuma even got his *Yu-Gi-Oh!* trading card a few years back. It's taken ages for *Getsu Fūma Den* to get a sequel, but all these cameos helped keep the name alive in the minds of Japanese gamers, according to Murato. "We're surprised that there are lot of fans who are excited for this sudden announcement of *GetsuFumaDen: Undying Moon*," he says. "The original game wasn't released in the west, but the characters or music of the game were used in other Konami games, so the IP's recognised."

MetaHuman Creator

Ryan takes an Early Access peek at Epic's potentially revolutionary digital human maker

Info

GENRE
Person maker

FORMAT
PC

DEVELOPER
Epic Games

PUBLISHER
Epic Games

PRICE
Free

RELEASE
Out now
(Early Access)

SOCIAL
@UnrealEngine

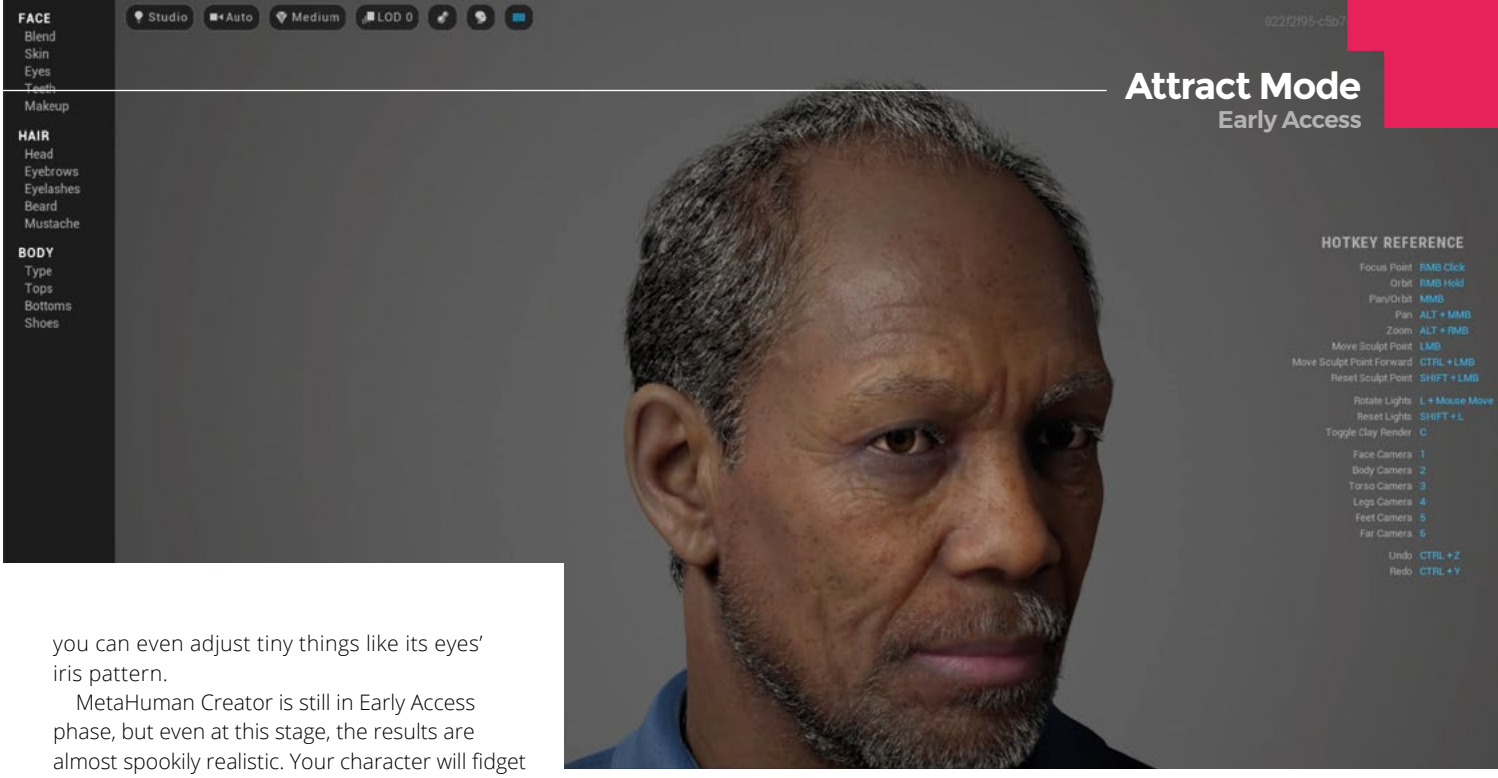
It was a cold day in April when I realised I'd accidentally made my own Brian Clough. I'd been tinkering around in MetaHuman Creator for a few hours, selecting and tweaking hairstyles here, adjusting eyes and nose shapes there, when I started to think that the face in front of me looked oddly familiar – uncannily like a young version of the late footballing legend, in fact.

There's more to MetaHuman Creator than just recreating the visages of bygone sports personalities, though. Built by Epic, the cloud-based application could be as revolutionary for indie developers as its stable-mate, Unreal Engine. Previously, realistic human character models were largely the preserve of triple-A developers – it takes a considerable amount of expertise, time, and money to build, texture, rig, and animate a character like Nathan Drake or *The Last of Us*' Ellie, after all.

MetaHuman Creator aims to change all this. It provides a streamlined, approachable set of tools that allows just about anyone to create a unique human character model; anyone who's spent time customising their avatar in *Mass Effect* or *Fallout 4* will likely be comfortable with the interface here. You start by choosing a base character model from the handful of presets the application provides, and then you're free to customise and tweak it via a suite of menus and sliders. One of the more ingenious options allows you to blend different facial types, meaning you can create a subtle amalgam of, say, Caucasian and South East Asian features. The level of granular control you have over every element of your character's face is huge:

We didn't set out to make a digital Brian Clough, but here he is anyway. We'll try Jack Charlton next.





The level of detail in MetaHuman's models is pretty incredible. Hair is especially realistic-looking.

you can even adjust tiny things like its eyes' iris pattern.

MetaHuman Creator is still in Early Access phase, but even at this stage, the results are almost spookily realistic. Your character will fidget and change facial expressions as you're editing them, and they're able to convey an almost worryingly broad array of emotions – there was definitely something eerie about watching our Brian Clough doppelganger suddenly crack a cheesy grin.

The selection of body options and clothes, on the other hand, is less impressive – at the time of writing, there were only six body types to choose from (though these are admittedly available in three separate heights), while your wardrobe is restricted to all of three sets of sweaters and trousers, and four kinds of footwear. We're guessing this is something Epic will add to as MetaHuman's development continues.

Once your character's designed, it's ready to be exported to Autodesk Maya or Unreal Engine. The exporting process is ever so slightly fiddly at present – you'll first need to install Quixel Bridge, a free bit of software that acts as an intermediary between MetaHuman and your package of choice – and if you're exporting to Unreal, then you'll need the latter application open for the process to work. This detail wasn't made clear to us until we read MetaHuman's documentation, so it's something to be aware of if you're thinking of trying the software out for yourself.

"I realised I'd accidentally made my own Brian Clough"

Those niggles aside, characters made in MetaHuman slide into Unreal as cleanly as you'd expect, though the process can take some time, depending on your PC's CPU power. You can choose the level of detail for your character, from 1K to 8K – we tried the latter and our computer nearly collapsed, so the images dotted around these pages were exported at 4K. Once in Unreal, your MetaHuman model is fully rigged and ready to animate using either keyframes or motion capture data. Even the face is rigged, meaning you have full control over everything from your character's jaw movement to the position of their eyebrows.

Again, it goes without saying that MetaHuman could have a major impact on indie game development. While fully rigged and textured models have been available for purchase on asset stores for years, you'd then have to spend hours customising the things in, say, Blender. With MetaHuman, you could potentially have an entire cast of (almost) photo-real characters ready for your game in an hour or two. Better yet, Epic's making MetaHuman available to Unreal Engine users for free. As noted earlier, the lack of clothing options is a definite drawback – if you used these characters in your game right now, they'd all be wearing more-or-less identical tops and trousers – but if Epic can keep adding to the more sparse aspects of its editor, then it could soon prove to be a literal game-changer.



Anyone who's tried rigging a character from scratch will know how time-consuming it is. MetaHuman should save us from all that.

VERY META

MetaHuman Creator is currently in Early Access, but you can request access to the program at **wfmag.cc/meta-apply**. The user interface is easy to get to grips with, but there's also plenty of documentation to look through to help get you started – the guide to using MetaHuman in Unreal Engine is particularly useful, since it explains how to move and animate your character using its built-in control rig. You'll find all those guides at **wfmag.cc/metadocs**.

That was the month that was



01. Epic apples

As the Epic-Apple court battle over *Fortnite*, App Store royalties, and general big tech company dominance is in full swing, there have been a fair few genuinely interesting facts and peeks behind the curtain popping up from the case. There's honestly too much to fit on these pages, but we've picked out a few interesting snippets to share.

FREE... ISN'T

Epic has been running a very public, very driven campaign of offering free games to any and all so long as you sign up to the Epic Games Store. No membership fees, no hidden costs – it's free, and all they need are some of your delicious details. But there's no way game developers and publishers will be keen to throw their own titles out there without seeing any of that fresh, delicious moolah for their work, meaning the free games offer has cost Epic a fair few quid over the past couple of years.

Thanks to the ongoing court case, we've been able to find out just how much things have cost the company, with documents totting up some £8.24 million ($11.6m) in costs for the weekly free games' first nine months of operation, through to September 2019. The *Batman: Arkham* collection proved the most popular freebie in the timeframe, being redeemed almost 5.5 million times – while the least popular title, *Axiom Verge*, still managed a massive 1.3 million purchases.

As for actual costs on a per-game basis, Epic offered buyout fees ranging from absolutely nothing for *Metro 2033 Redux* through to £1 million ($1.5m) for the *Batman: Arkham* games.

Super Meat Boy bagged Team Meat £36k ($50k), *Overcooked* brought in £160k ($225k) for Team17, while – somewhat surprisingly – Funcom's *Mutant Year Zero* required a buyout of £710k ($1 million). Freedom is, indeed, not something you get for free.

UNIQUE APPROACH

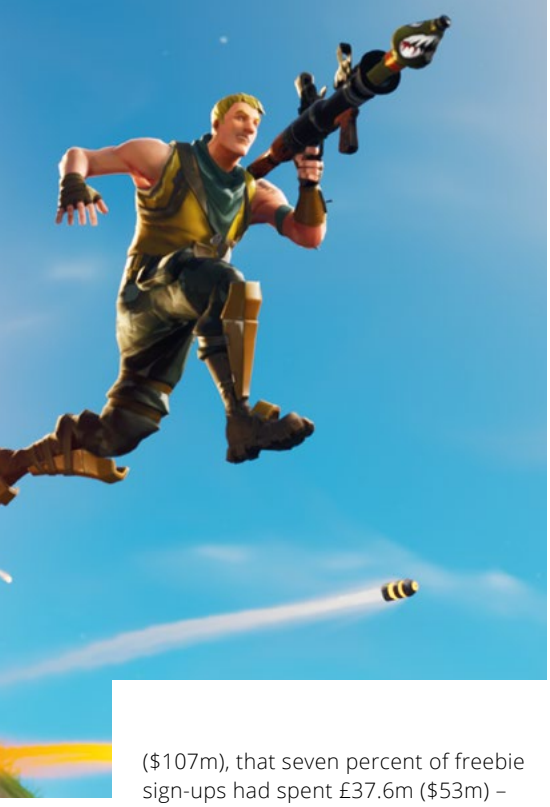
Epic's approach to setting up a new store has been aggressive, both in how it's brought developers and their games exclusively to the platform, and in how it's luring in consumers with those free games. But – in respect of those consumers – is being a platform known for its handouts working in the company's favour? Up to the timeframe the court documents ran – so, September 2019 – that'll be a 'No, not really'. But it's swinging around and it wouldn't be outlandish to think things are markedly more positive for the company by now, with lots of lines on graphs going up, slowly, even back in 2019.

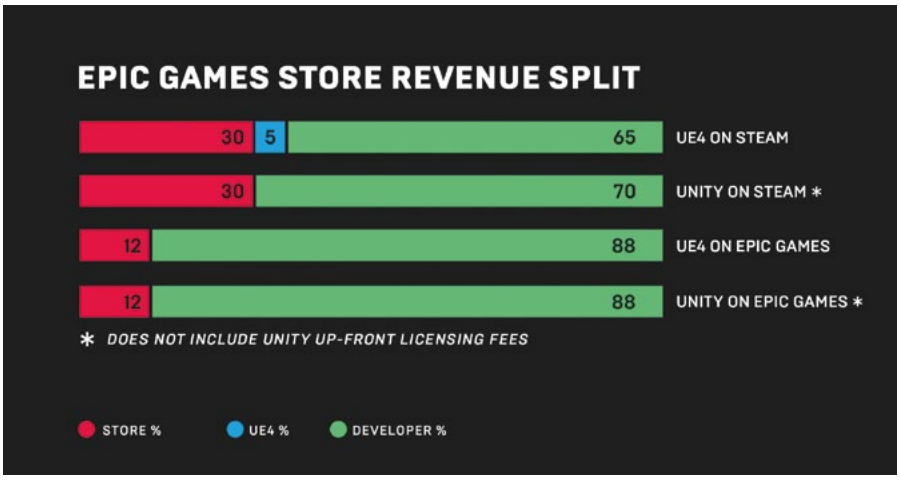
See, by the timeframe the documents cover, the Epic Games Store had around 20.7 million unique users. Of those, just 2.2 million had joined the platform by purchasing a game. Meanwhile, the remaining 18.5 million joined to acquire a freebie – and of those, only seven percent (1.3 million users) had gone on to make a cash purchase. But then that's where economies of scale come into play – while those users signing up to buy a game had brought in £76m



PS5 sells almost eight million units since 2020 launch, even with supply issues

Rambo joins *Call of Duty: Warzone*; subtlety officially dead





($107m), that seven percent of freebie sign-ups had spent £37.6m ($53m) – that's 67% of the total income from the former, and 33% from the latter. So while the 'first one's free' system only works if you have money to burn, it looks like it is indeed a system that works – especially when tens of millions of people sign up for your service.

Worth noting that Epic released – not via court, just via publicity – a year in review report for 2020 stating the Epic Games Store was up to 160 million users, and that over £496m ($700m) had been spent. Growth!

EXC(L)USES

Epic has been getting it in the neck from Gamers, to give them their official title, thanks to the firm trying to muscle in on the digital storefront monopoly Valve enjoys with its Steam service. After all, what we really want *is* one company to run everything, right? Hmm. Anyway, one way in which Epic has earned the ire of many a keyboard warrior is through its aggressive – there's that word again – acquisition of exclusive titles, keeping them off Valve's shop either permanently or for a set amount of time. It's divisive, sure – but it's also expensive at times.

The documents reveal Epic's biggest exclusive, *Borderlands 3*, cost the firm a massive £82m ($115m) to put together – £104m ($146m) if you include the supplemental 2K deal that included *Borderlands: The Handsome Collection* and *Civilization VI*.

In just two weeks, Epic had recouped 100% of the minimum guarantee it had paid to 2K for the exclusivity deal, 1.56 million people had picked up the game, and 53% of those people were new to the Epic Store. While after two weeks the costs hadn't been entirely recouped, it's not outside the realms of possibility for such a big, popular title to have indeed made all the £104 million back, with a few quid on top to make it worth their while. So yes, the exclusives model – which Epic will be winding down in future years – does work.

CROSS-PAY

Sony's reticence towards allowing cross-play was another area touched on in the court case, with details emerging about Epic's push encouraging Sony to adopt the now-standard feature, Sony's reticence to jump on board, and the eventual outcome with how things stand today. Basically, Sony operates a system whereby it receives royalties (or compensation) if cross-play is used on its platform and the game in question is played most on PlayStation, but the amount of money players spend in the game isn't the most. 95% of people play on PS4, but only 60% spend money there? That's a royalties payout. It's all nice and complicated.

XBOX AND THE SKIM

Microsoft did announce a change recently to its revenue share scheme, with the Windows Store taking a cut of 12% from sales on the platform as of August 2021, down from the industry-standard 30% previously charged. This revenue split matches Epic's highly publicised 88/12 ratio taken via the Epic Games Store. According to those pesky court documents, Microsoft had been considering the move to the 88/12 split some time ago, but it had been delayed until recently. Worth noting that for now, there's no reduction in how much Xbox skims from the console store.

IS IT WORKING?

Not right now – Epic's Tim Sweeney pointed out there were hundreds of millions of dollars in costs ahead of setting up the Epic Games Store, and right now, it's all about earning those costs back. But he is confident the marketplace will be profitable, with the next three or four years marked as the likely timeframe for that. It really is helpful to have a lot of money to start with, isn't it?

Xbox hardware revenue rocketed up 232%, though MS released no sales figures



***Cyberpunk 2077* refunds reportedly cost CDPR £36.5m**







02. It's-a-me, Ray!

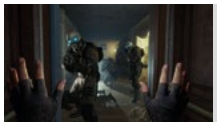
The PC port of *Super Mario 64* – that being the unofficial one Nintendo *really* doesn't like – has been modded to include the favourite feature of all retro gamers: ray tracing. Argentine modder Darío Samo created SM64rt, which adds full path ray tracing to the 25-year-old game, as long as you have a GPU capable of supporting it. It's not just a daft little project, either – seeing the game in action with ray tracing enabled is... really good. It's handled with enough subtlety to make it something you'd actually bother to switch on for more than ten minutes, and it looks so nice in action that... going back to the original *Mario 64* might actually look a bit bland by comparison. Check it out: **wfmag.cc/Maray**.

03. Me VS you

Blaze's Evercade is getting a home console makeover, with the Evercade VS arriving on 3 November this year for £89.99. A consoleified version of the original Evercade handheld, the VS does have a fair bit more under the hood – a 1.5GHz quad-core processor, 512MB RAM, and four gigs of internal storage. It's backwards compatible with all previous Evercade cartridge releases (except the Namco Museum Collections, which were only licensed for the handheld version), and outputs at 1080p; a step up from the handheld's 720p. We'll hopefully have a play with one in the future, but for now, if you want more info, go here: **wfmag.cc/VS**.

04. GTA free

Grand Theft Auto 3 and *GTA: Vice City* were reverse-engineered. The code was available online. *GTA* publisher Take-Two took umbrage at this and launched a DMCA (Digital Millennium Copyright Act) takedown. Story over? Not quite: one developer working on a forked version of the reverse-engineered code ended up launching a counter-DMCA, which actually prevailed. At the time of writing, the code for each game is available on GitHub, as while they replicate the *outcome* of each game's original code, neither repository contains any of the original games' *actual* code. That's reverse-engineering for you, bubba. It won't surprise anyone if Take-Two does move to legal action, but for now: a win for the tinkerers.



Gabe Newell hints consoles might see a version of Steam this year

Naughty Dog has 'story outline' for *The Last of Us III*, because... well, *of course*



04

05





05. We-bisoft

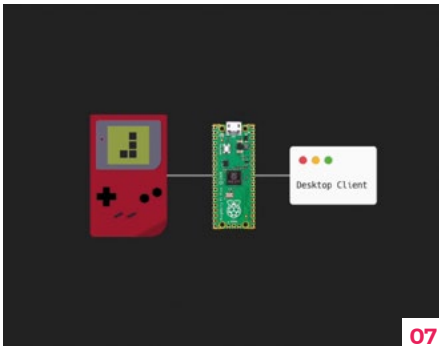
Ubisoft is introducing new branding to all its future releases, developed by its many studios around the world – you'll start seeing 'Ubisoft Originals' adorning many-a-game in coming months and years. While not particularly interesting by itself, the smart money is on this meaning that Ubi is moving to a model similar to that of EA – publishing titles made by external studios, usually of the indie variety. The EA Originals program has resulted in the likes of *It Takes Two* and *Sea of Solitude*. If we do get something similar from Ubisoft – and at the time of writing it's nothing more than an 'if' – it could be a very cool thing indeed.



06

06. PSVRumours

Sony's next-generation PSVR headset has had some specs enjoy the rumour treatment, and it's sounding far more exciting than the iterational update we worried it might be. Front and centre is a panel rendering at a resolution of 4000×2040 – so 2000×2040 pixels per eyeball, if you have use of two of those. Also said to be included is eye-tracking linked to foveated rendering, meaning the headset checks where you're looking and concentrates on rendering what you currently see – *meaning* reduced overheads on the system and so, effectively, better-looking experiences. Oh, and the rumours – coming from UploadVR – also claim there'll be haptic feedback *in the headset*. So... watch out for those headshots, yeah?



07

07. Game Boy online

In classic 'and finally' style, here's a waterskiing squirrel! Wait, no – here's someone using the raw power of the world's greatest microcontroller*, Raspberry Pi Pico, to add online multiplayer functionality to *Tetris* as being played on an original Game Boy. Using the hardware's system link cable, the tinkerer – YouTuber stacksmashing – ran the link cable's protocol through the microcontroller to a central computer server, which could then be shared with Game Boys the world over. That's a whoppingly simplified version of what was actually done, so we'd recommend you watch the video and find more details – including how to get one yourself – here: **wfmag.cc/GBonline**.

*(*as stated by Wireframe, published by Raspberry Pi Press, but that's probably a coincidence)*

Xbox launches Console Purchase Pilot in US; helps avoid scalping



Cancelled Dreamcast title *Castlevania: Resurrection* made available online. GOOGLE IT.

incoming



Abandoned

Dutch team BLUE BOX Game Studios is hard at work on this PS5 exclusive – a first-person survival horror shooter with, as the dev says, "a realistic approach to survival". Kidnapped and left abandoned (that's the name of the game!) in a forest, players are tasked with staying alive – no mean feat in a hostile environment, with firearms that behave more like the real things than we game-players might be used to. One to keep an eye on, for sure.

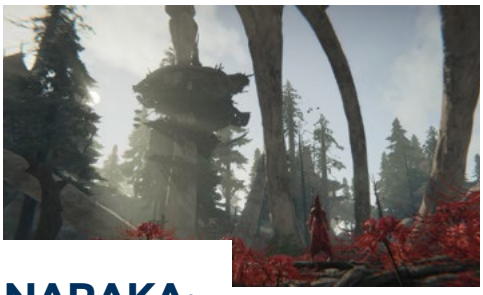
Gord

A traditionally focused dark fantasy single-player adventure strategy game, *Gord* sees players leading a tribe of people into forbidden lands, building up their settlement and attempting to ensure they thrive in this new life. Mysteries, quests both side and main, and magic all join the fray, helping *Gord* stand out from the crowd for sure.



Age of Empires IV

Relic Entertainment showed off some details of its upcoming sequel not too long ago – the first info we've had in about four years, fact fans. *Age of Empires IV: Wololo Edition*, as it's not officially titled, brings the classic *AoE* fare into the modern spotlight with visual tweaks and so on, as you'd expect. It also brings better AI pathfinding for larger armies, new civilisations to control, stealth/ambush mechanics, and a drive to make sure civilisations are asymmetrical, rather than the same team with slightly different walking speeds. It's looking: good.



NARAKA: BLADEPOINT

A melee battle royale title, *NARAKA: BLADEPOINT* mixes stylised sword and axe (and bow) combat with the ability to navigate almost anywhere in a map. Early footage of a grappling-hook in action brings back fond memories of the original *Tenchu*, so that's the vibe we're going to stick with here. It's in beta at the time of writing, so still a while 'til we get a finished game to really pore over.





OlliOlli World

Roll7 returns to the world of *OlliOlli* with... *OlliOlli World*, fittingly. Expanding massively from the side-on *Tony Hawk's*-alike of the series' beginnings (and sequel), *OlliOlli World* expands things to a broader, and much brighter, way of doing things. A few courses is expanded to – by Roll7's count – 'millions' in the game's sandbox mode, and there are over 100 tricks to be busting out along the way. It's a vast increase in scope and one thoroughly unexpected for those of us who played and enjoyed *OlliOlli*'s last two outings.

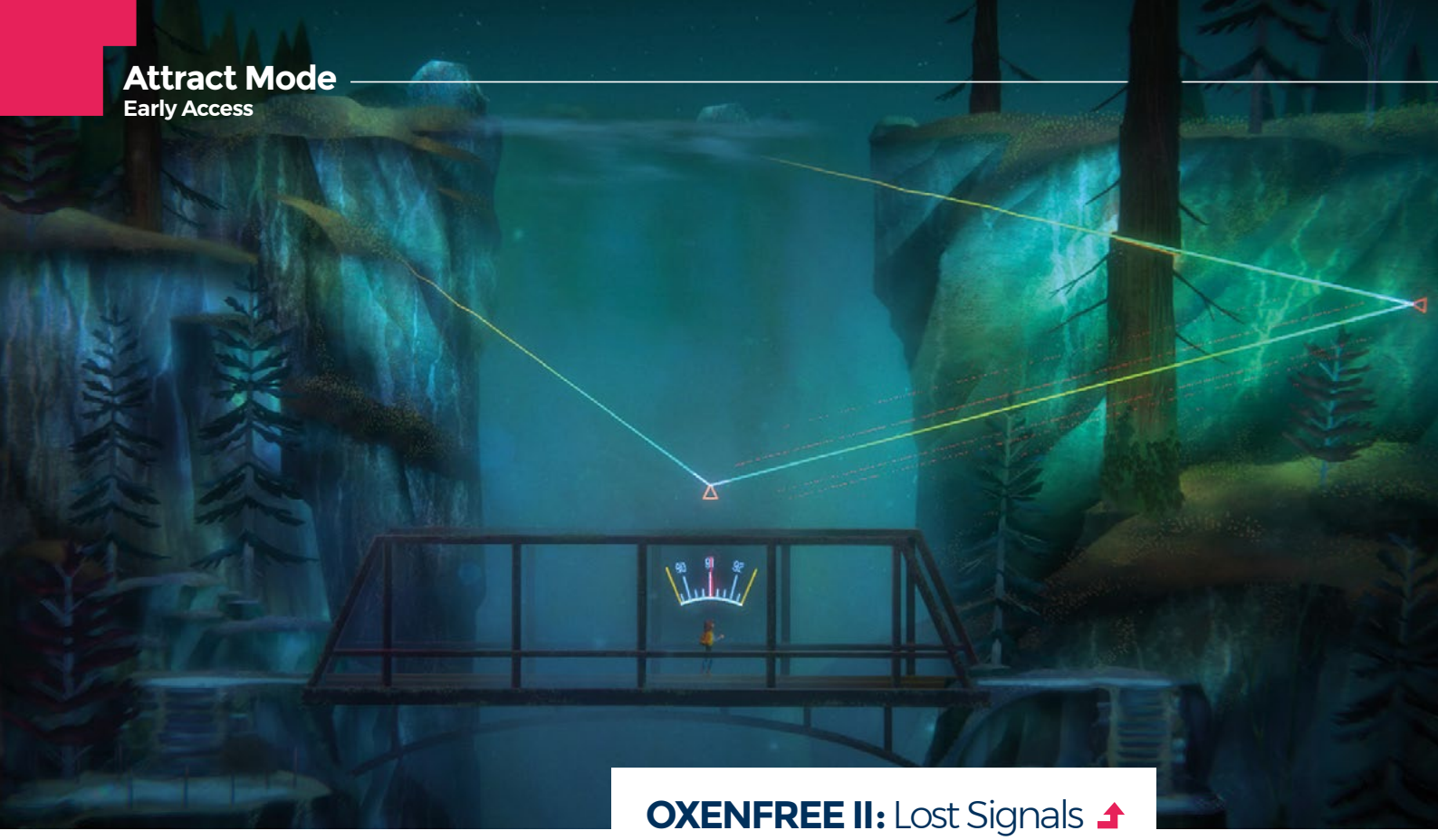
What really hits on first seeing the game in motion, though, is just how full of joy it all is. It's bright and colourful, full of life and creative characters – not just your protagonist, who you're able to customise, but the people (and creatures) you meet along the way, from happy-face bees to what can only be described as a bit of a smug-looking frog. Maybe they're not smug. Whatever the case, this one has popped up and made us very happy indeed – we can't wait to get our hands on *OlliOlli World*, and to establish if it is indeed a smug frog or not.





Starship Troopers: Terran Command

It's been a while since anybody tried to get the most from a *Starship Troopers* tie-in, but *Terran Command* is coming from The Aristocrats, a studio known in *serious wargaming* circles for its work on *Order of Battle: World War II*. That title and its many expansions have been very well received over the past few years, so there's certainly the strategy chops in the team for this human-versus-bug RTS. What isn't entirely clear right now is whether the game will opt for an approach closer to Paul Verhoeven's 1997 schlocky satire masterclass, or Robert A. Heinlein's 1959 crypto-fascist novel. We would like to know more.



OXENFREE II: Lost Signals

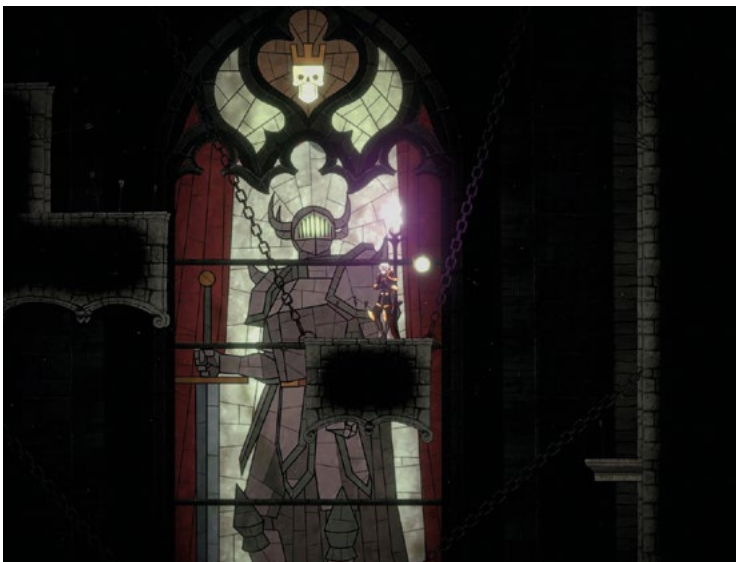


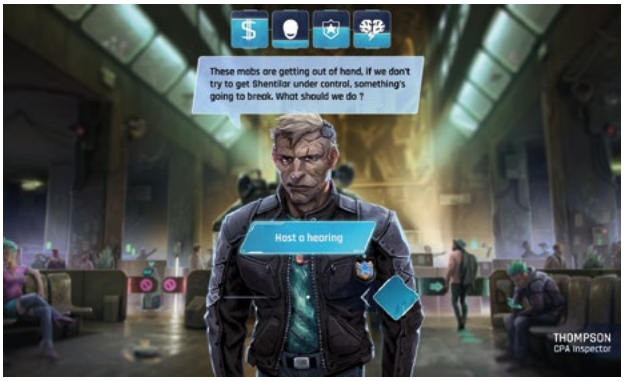
Night School Studio is bringing the sequel to its beloved indie darling, with *OXENFREE II: Lost Signals* coming later in 2021. The game follows the story of a researcher returning to her hometown to investigate mysterious radio signals, and one can assume it significantly escalates from there. A return to the delightfully natural dialogue system of the original game is genuinely something to look forward to, and we're keen to see what the team does with a sequel that sees a lot more expectations laid on its shoulders than the original had.

"Words cannot begin to express how happy I am to finally talk about *OXENFREE II: Lost Signals*," Sean Krankel, co-founder and studio director at Night School Studio, said in a statement. "*OXENFREE* is such a special game to us, and it has been an incredible experience to revisit this world. We're eager to welcome our players back while inviting newcomers to embark on an adventure with an entirely new cast of characters that retains the weird, heartfelt, and personalised experience of the original." Our eyes will be focused closely on this one.

Aeterna Noctis

Are we allowed to start getting bored with indie Metroidvanias yet? No? Well, that's actually fine because *Aeterna Noctis* is a stone-cold looker and we wish to stare at it a lot of the time. The hand-drawn art sits in a world inspired by *Castlevania* – mainly *Symphony of the Night* – the *Ori* series, and even a bit of the Studio Ghibli world of animated films. In motion, it looks superb and – helpfully – appears to offer the level of precise control you need in a challenging game of platforming and punching (also: stabbing). If we're still not bored of Metroidvanias by December, that'll be grand because it's when *Aeterna Noctis* releases.





NeuroNet: Mendax Proxy

As part of the lead-up to its game *NeuroSlicers*, developer Dream Harvest is bringing the small-but-intriguing *NeuroNet: Mendax Proxy* to mobile, PC, and consoles. In it, players control an AI system tasked with keeping citizens of a cyberpunk city happy. What this amounts to is following a narrative and making choices along the way – simple and streamlined, sure, but when it's described as 'a bit like Tinder', it does get your attention.



Teenage Mutant Ninja Turtles: Shredder's Revenge

Blammo, there's a massive smash of nostalgia all up in your face: the Turtles are back for more side-scrolling, up-to-four-player beat-'em-up action, but it's 2021 and not the early 1990s. Tribute Games is behind this part-homage, part-entirely new game, with the classic coin-munching arcade action galvanised by more modern combo mechanics and similar. Hopefully it's a sympathetic update and not just cynical nostalgia profiteering – though there's nothing pointing to the latter so far. Which is nice.



NEO: The World Ends with You

We've covered *NEO: The World Ends with You* previously on these pages, but it's worth an update to inform you that a release date has been confirmed: 27 July. On that day we'll all be able to jump into the stylish RPG sequel coming both to console and PC. Hopes are high, but whatever the final quality of the game, it'll be great to dive deep into a sequel hardly anybody expected to actually happen, owing to the cult classic nature of the original.

The Forgotten City

Another one previously covered on these pages, we're oddly proud to see *The Forgotten City* is finally getting its full, standalone release later this year. Originally starting life as a *Skyrim* mod, the project has grown to become an entirely separate project over the years, and hopes are high for this rework of the original mod's award-winning story. Controlling a time traveller suddenly transported to the titular city, players have to figure out the mystery of a time loop trapping its denizens. Our breath is bated.



"It was a mess"

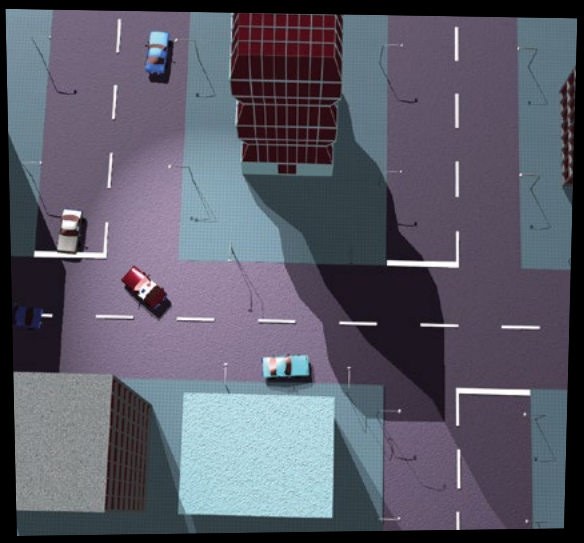
The chaotic origins of **Grand Theft Auto**

The turbulent journey of GTA from its origins at DMA Design to international success with Rockstar North

WRITTEN BY
JACK YARWOOD

The *Grand Theft Auto* series is now synonymous with the billion-dollar juggernaut it's become under the guidance of Rockstar Games. Before all that, though, it began life at Dundee's DMA Design, which made *Grand Theft Auto* (1997) and *Grand Theft Auto 2* (1999). The games introduced many of the traits that became series hallmarks: the exhilarating police chases and shootouts; the irreverent NPCs; the ridiculous radio stations.

Before the release of *Grand Theft Auto III*, however, publisher Take-Two shut DMA down, moving a number of its staff from Dundee to the newly formed Rockstar North in Edinburgh. It was a controversial decision, but helped to



One of the surviving mock-up images of *Race 'n' Chase* – the game that became *Grand Theft Auto*.



In *Grand Theft Auto*, you could only sell cars if they were in peak condition or you'd get an earful.

further establish the Rockstar brand – a name that still dominates the industry today. To hear more about the series and its turbulent rise, we tracked down a bunch of ex-DMA and Rockstar personnel to discuss the original game's controversy, how the series evolved, and why it almost never happened in the first place.

RACE 'N' CHASE

The *GTA* story began in March 1995, when a team at DMA Design met up to discuss ideas for a new PC project. Back then, DMA was mostly known for its hugely successful action puzzler *Lemmings* (1991), and to a lesser extent, shooters such as *Menace*, *Blood Money*, and *Hired Guns*. In need of a new project, the studio started kicking an idea around for a racing game.

Race 'n' Chase – as the project was eventually called – used programmer Mike Dailly's Legovision graphics engine, giving players the choice between three top-down cities to explore. Playable modes included cannonball run, demolition derby, and bank robberies where you could choose to be either a cop or a robber. As development progressed, however, the team chose to focus on the robbers instead, with the latter proving the more exciting. Along with this new direction came a new name: *Grand Theft Auto*.

GTA was an open-world game split between three cities based on real locations in the US: Liberty City, San Andreas, and Vice City. The goal was to earn enough money to beat each stage, but how you did this was entirely up to you. You could pick up jobs from a payphone that had you assassinating rival gangs or transporting passengers, complete special objectives scattered around the map, or steal cars and sell them on. You only had a limited number of lives, though, so you had to keep an eye out for the police who would try and hunt you down.

Progress on *GTA* was anything but easy, with the studio lacking structure: multiple other game ideas were also in the works at DMA at the time, including a *Metal Gear Solid*-like game called *Covert*, later cancelled, and *Body Harvest*, a title later published by Nintendo. "*Grand Theft Auto* was one of maybe eight or twelve projects," says Colin Anderson, the audio manager at DMA. "We were also keeping all these other plates spinning as well. It's odd from my perspective, because the only one out there that anybody ever cares about now is *Grand Theft Auto*, but at the time we didn't know that."

"*Body Harvest* was the one everyone cared about; that was going to be big"

"It wasn't the golden child in the company," says Steve Hammond, a writer and designer at DMA. "That was *Body Harvest*... that was the one everyone cared about; that was going to make it big. *Grand Theft Auto* was just this other thing trundling along in the background." ➔

DMA Begins

David Jones founded DMA Design Ltd in 1987. Some of the first employees at the studio were Jones' friends from the Kingsway Amateur Computer Club (KACC) in Dundee. This included Russell Kay, Steve Hammond, and Mike Dailly. The name DMA was taken from an Amiga programming manual where it had stood for Direct Memory Access. But DMA as the company name had no meaning, with developers often joking to the press that it stood for "Doesn't Mean Anything".



To prepare themselves to make the game, Rockstar Toronto watched car chase movies like *The Italian Job*, *Bullitt*, and *Robbery*.



Speaking to those at DMA who played it during development, *GTA* wasn't exactly stellar: it wasn't fun to play, and technical problems were rampant. "It was a mess," says creative manager Gary Penn, who moved from publisher BMG Interactive to the *GTA* project. "There was a point where I was at BMG and seemed to be about the only person trying to keep it alive. I'm not entirely sure why; it was going nowhere."

Recalls Brian Lawson, *GTA*'s project manager: "There were no proper car chases with cops, only a single pistol weapon, no health bar (just one-shot-and-you're-dead), and the progression system was more mired in mission completion than in the score-based system we ended up with."



Writing *GTA*'s mission dialogue was tricky, as many of the objectives had already been laid out. Most of the dialogue also had to fit on an in-game pager.

There wasn't a single eureka moment that fixed *GTA*'s issues. Rather, those at DMA point to a number of changes that helped get the game on track. Among these was an overhaul of the vehicle handling, the introduction of the in-car radio, and the change from a linear mission structure to an arcade-style points system. Inside BMG, the game started earning a number of fans. Among them was BMG head of development Sam Houser, who'd later become a major creative force behind the series.

THE FALLOUT

Grand Theft Auto released on PC in October 1997, but before it came out there was a change of ownership behind the scenes, with the British software house Gremlin Interactive acquiring DMA Design. As part of this acquisition, Gremlin honoured BMG's original publishing agreement, allowing the publisher to release *GTA* on PC and PlayStation in Europe. When the game came out, audiences reacted favourably to its anarchic mix of driving, shooting, and open-world hijinks. But along with the praise, there was also a backlash aimed at the game's adult-oriented content.

BMG was responsible for provoking much of this backlash, having hired the controversial PR firm Max Clifford Associates to generate interest. Believing that all publicity was good publicity, the firm exaggerated *GTA*'s violent content. But BMG underestimated the reaction from the British tabloid press, who criticised the game's violence and joined UK politicians in calls for it to be banned.

"We weren't setting out to be controversial," says Brian Baglow, a writer on *GTA* and head of the PR department at DMA Design. "We didn't include things because it shocked people. It

Gouranga Bonus

One of the most baffling and controversial features of the original *Grand Theft Auto* was the Gouranga bonus, whereby if you ran over a line of Hare Krishnas, you would receive a special points bonus. Brian Lawson recalls its origins: "I think originally the orange colour was supposed to represent a chain-gang of convicts rather than Hare Krishnas, but someone made the observation that that was what they looked like, and it was one of those things that once you'd seen it, you couldn't unsee it.

"Not long after we put the Gouranga bonus in the game, I was driving through Aberdeen and got stopped by lights at a pedestrian crossing near Holburn. Parked on the other side of the road was a large coach, and as I sat there waiting for the lights, a stream of about 20 Hare Krishnas, in full orange regalia, got out of the coach and streamed across the road in front of me, heading for a Chinese restaurant on the other side of the crossing. Strange but true."



was all about fun. So when the campaign hit and the controversy started – I believe Lord Campbell of Croy was the first person to ask for this sick filth to be banned – pretty much everyone on the team thought it was quite funny, because when you look at the game, it wasn't graphic. Everything was implied."

"It was a lot," adds Jamie King, who worked at BMG and was later a co-founder at Rockstar. "The messaging obviously had to be controlled, especially with the UK tabloids. There was a bit of a reputation that this is an unhealthy game. This is a bad game. But we were on a mission to be, like, 'We have 18-certificate films, why can't we have 18-certificate games?'"

> **"There was a point where I was about the only person trying to keep it alive"**

Amid the controversy, British tabloid News of the World tried to paint Baglow, DMA's resident PR expert, as a law-breaking speedster. "They wanted to speak to Dave Jones," says Baglow. "But I had to leave bear traps outside that man's office to get him to talk to the press. None of the team would take responsibility for it, so I ended up going, 'Fine, it'll be me'. So there was a full page one Sunday in the News of the World of me scowling and wearing a BMG Interactive sweatshirt. [The News of the World had taken] a car crash I had when I was 19, when my car hit a patch of black ice on Knockhill... and turned it into a high-speed chase with the police in my XR3 or XR2i."

Fortunately, the game wasn't banned in the UK, and the controversy merely drew more attention to it: *GTA* became a cult hit, something to play secretly with a bunch of your mates, out of sight of your parents. Behind the scenes, work was already underway on a sequel. BMG wouldn't, however, be the publishers for the next entry in the series.

In March 1998, BMG sold its interactive division to publisher Take-Two for $9 million. As a result, a group of ex-BMG employees including Sam and Dan Houser, Jamie King, Arista Records' Terry Donovan, and Gary J. Foreman all moved to New York to start a US publishing label for Take-Two that would later become Rockstar. Some of the first projects the group discussed were for an adaptation of Walter Hill's *The Warriors*, a licensed game based on skateboarding magazine Thrasher (after a failed attempt to strike a deal with pro-skater Tony Hawk), and more *GTA* games. But there was just one small problem: Take-Two didn't have all the rights to *GTA*.

"We were on a mission to get all the rights back," says King. "Sam knew what he had with *GTA*, even if the rest of the world didn't appreciate it. He had the vision and he could see where it could go. But it took a while for Take-Two to buy back the rights. It was all a bit messy... temporarily between *GTA* and *GTA 2*, we didn't have the publishing rights globally."

It may have been a messy process, but Take-Two eventually managed to track down the *GTA* rights, purchasing the IP from Gremlin entirely in 1998. The first *GTA* game Take-Two published was a simple reissue of the original – but the company had other, much more exciting plans for the future.

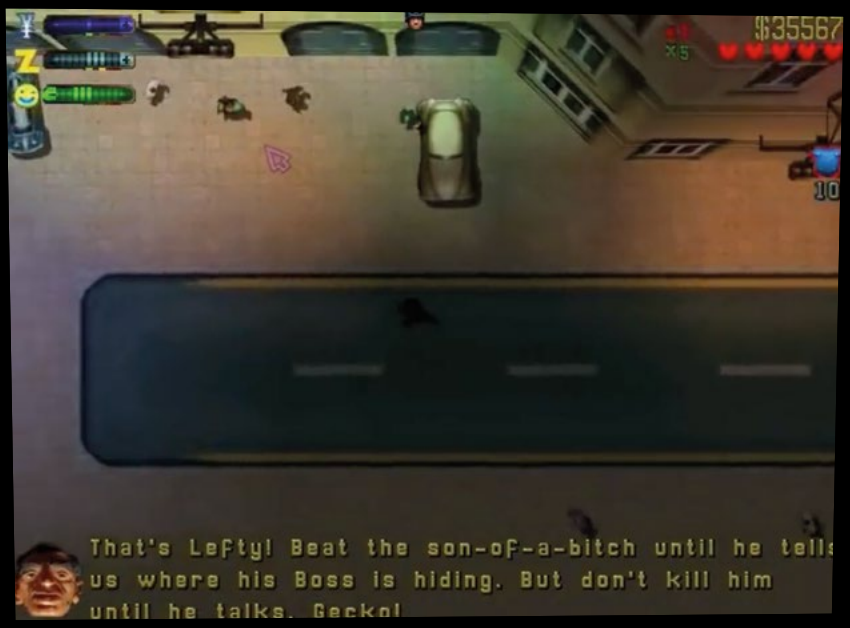
SPIN-OFFS AND SEQUELS

In December 1998, former BMG employees at Take-Two rebranded the US publishing branch to Rockstar Games. The new name was designed to signal the publisher's disruptive aims, and to counter the idea that games ➔



Here it is: perhaps the most 1990s graphic ever made.

GTA 2 was less vibrant than its predecessor, boasting a more stylised retro-futuristic look to match its setting.





Players could activate hidden side missions to make money in *GTA III*, including picking up a job as a taxi driver. Robert De Niro, eat your heart out.

GTA in 3D

Both DMA and Rockstar Toronto tried to get *GTA* into 3D several times prior to *GTA III*. DMA, for instance, created a prototype of the first *GTA* in 3D, but it never went further than a quick concept. Then, later on, Rockstar tasked Rockstar Toronto with recreating the first *GTA* game's aesthetic in 3D for the Dreamcast. The experiment was again unsuccessful. Says Jamie King: "We had Kevin Hoare, who ran Rockstar Toronto, really trying to use a Dreamcast devkit to get *GTA* into 3D and he said, 'The best we can do is kind of like isometric'. And that's why they ended up doing *The Warriors*. But the PlayStation 2 came out and then DMA were like, 'OK, now we can get this into 3D.'

were only for kids. *GTA* was set to be a big part of this strategy, but *GTA 2* was still almost a year from release. As a result, Rockstar tasked the newly acquired studio Rockstar Toronto with creating a couple of expansions to the original game to keep people interested.

GTA London: 1961 and *1969*, released in 1999, played similarly to the original, but swapped fictional locations for London landmarks. Another key feature was its soundtrack, which featured licensed music for the first time in the series. Previously, DMA's audio team had been solely responsible for creating the music for *GTA*'s radio stations. But the *London* expansions used Terry Donovan's connections to get music from performers like The Upsetters and Harry J. All Stars. The idea was to add authenticity to the open world and bring the experience closer to a film. "[The *GTA: London* expansions] really didn't add anything new in terms of mechanics or gameplay, but they were really sweet," says Baglow. "Terry Donovan, the marketing director who had come from Arista Records, played an absolute blinder on the soundtrack. It was all Trojan records. Then you had all the different voices in Cockney too... and then if you skidded over some dog [poo], you got a big brown trail, which I think was the high point of the whole franchise."

Though the response to the expansions was mostly positive, it took a few developers at DMA by surprise. Some were annoyed at the liberties taken with the IP, which seemed counter to what the studio had intended the games to be. Many at DMA thought *GTA* took place in a parallel timeline to our own, so having the game go to London and feature real-world artists undermined that vision. Nevertheless, the decision proved successful with fans and became a common feature of the series, continuing with *GTA 2*.

Originally codenamed *GBH* (*Grievous Bodily Harm*), *GTA 2* ditched Liberty City for a retro-futuristic landscape called Anywhere, USA. As in the original, players roamed cities completing missions, but this time there was a greater emphasis on gangs, and gang affinity.

"When I got hired, I was told, 'This is going to be X-rated, Sony is crazy,'" recalls Michael Keillor, a writer at DMA on *GTA 2*. "Then Sony was very quickly like, 'We want a big hit game. It's not really X-rated at all'... But [DMA] had some outline gang members and I had to flesh out the world. I didn't know much about gaming. So I started giving a backstory to these gangs, and then the world around them..."

DMA had more resources for the sequel, allowing them to put more effort into the

game's sound. Adverts were a notable addition, which would feature prominently on radio stations in later games. This came with some risks. "We were under a lot of pressure to deliver *GTA 2* to a tight schedule," Anderson says. "We needed to make sure everything was planned well in advance. All the lines we needed to complete the ads and the DJs were pre-written before the recording sessions, and all the actors had been pre-selected based on their demo reels."

Despite these improvements, it failed to eclipse its predecessor's success. Reviews were mixed, with publications praising the soundtrack while criticising the lack of innovation. That's not to say it was a failure, but it was clear to everyone involved that the game needed to move into 3D to bring the series to new audiences.

MAKING A 'HIT'

In the same month *GTA 2* released, Take-Two announced it was buying DMA Design from Infogrames, a French company that'd recently acquired Gremlin. The idea behind the purchase was for Rockstar to have some continuity between the teams working on the *GTA* franchise.

But as soon as Take-Two completed the acquisition of DMA, the decision was made to split the studio in half. One half of the studio comprised the *Body Harvest* and *Space Station Silicon Valley* teams, and moved to Edinburgh to form Rockstar North, while the other half remained in Dundee at DMA Design.

For a while, it seemed that Rockstar intended to keep both studios open. But in March 2000, shortly after a round of redundancies at the Dundee studio, the announcement was made that DMA Design would close, with the remaining staff relocated to Edinburgh.

According to the former employees we spoke to, the relationship between Take-Two and DMA was tense, with DMA staff often feeling at odds with the publisher and distrustful of its intentions. To add to the studio's woes, DMA was going through a bit of an identity crisis at the time. Not only had DMA co-founder Dave Jones left in 1999, but the studio was struggling to understand what games they could make that would fit with Rockstar's catalogue.

Keillor, who left during this period, recalls: "When I went there, it was this incredible place with all of these different games. It was almost a throwback to eighties gaming, where it was lots of creative people making different games, and then there was one stellar hit and Rockstar came in and said, 'We only want the hit.'"

"There was a huge amount of antagonism," says Baglow, who was at Rockstar at the time. "And there was a huge amount of arrogant behaviour, and being honest, a lot of the activities at Take-Two were questionable."

> **"There was a huge amount of antagonism and arrogant behaviour"**

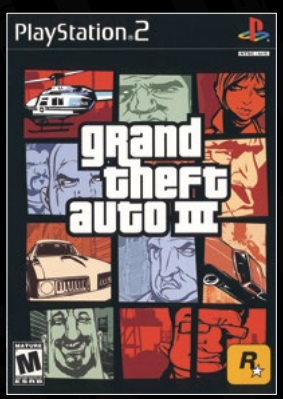
Despite DMA's closure, work on *GTA III* continued, with the *Body Harvest* team taking the lead. The mission statement was clear: get *GTA* into 3D. After Keillor left, Dan Houser and radio personality Lazlow Jones became lead writers, producing a vast amount of dialogue. *GTA III* was a major improvement on its predecessor, and was a critical and financial hit. It was also the first release to have a single protagonist, allowing for a more cinematic story about betrayal and revenge.

The series has only grown in popularity since *GTA III*, but Rockstar hasn't forgotten its Scottish roots. Not only is Rockstar North still going strong, but the firm recently acquired Dundee-based Ruffian Games, marking a return to the area.

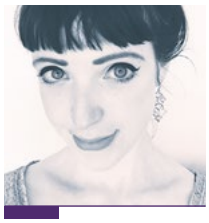
"Ruffian fits in perfectly with that Rockstar work ethic about getting stuff done," says Penn, now an internal development manager at Denki Games. "Ruffian helped enormously with the first *Crackdown*, and it ended up salvaging some of *Crackdown 3*, so the studio has really good form not only in terms of getting stuff done but in terms of that type of game. I think that combination is ideal for Rockstar. I'm surprised it hadn't happened earlier."

"It's a testament to the work Ruffian has done, and that Scotland has such a great talent pool," says Baglow, now a board member for Creative Edinburgh. "They're going to be doing some fascinating projects; whether we hear anything about them or not remains to be seen. [As for Rockstar] – we knew they'd come crawling back."





Slouching Tiger, Missing Dragon



LOTTIE BEVAN

Lottie's a producer and co-founder of award-winning narrative microstudio Weather Factory, best known for *Cultist Simulator*. She's one of the youngest female founders in the industry, a BAFTA Breakthrough Brit, and founder of Coven Club, a women in games support network. She produces, markets, bizzes, and arts, and previously produced *Fallen London*, *Zubmariner*, and *Sunless Skies* at Failbetter Games.

"Marketers are always telling me to use a 'female' angle for pieces"

A grumpy Russian model found himself 'trapped in a 21st-century Kafkaesque nightmare' as he reluctantly sang, danced, and pouted his way to viral popularity on Chinese social media. Vladislav Ivanov, aka 'Lelush', was trying his damnedest to get voted off *CHUANG 2021*, a Chinese reality TV show following 90 contestants as they go through 'boy band boot camp'. It's *Pop Idol* meets *Groundhog Day*. Or a millennial update of Terry Gilliam's *Brazil*, where Michael Palin has pink hair and it's confusingly set in Hainan.

Lelush was a last-minute addition after being scouted by the producers. He quickly realised he, erm, hated singing and dancing, and didn't want to be in a boy band – but leaving the show on his own recognizance would have triggered a significant fine from his contract, which he couldn't afford. So he tried his best to be really, really bad at everything, hoping he'd be voted off. Instead, he accidentally connected with a bubbling Chinese subculture and rapidly became the face of 'sang wenhua'. Composed primarily of teenagers, 'sang wenhua' rejects traditional expectations of overachievement, perfectionism, and self-sacrifice in favour of fatalist Gen-Z ennui. A beautiful, sullen 20-something refusing to engage with a reality TV show is their perfect mascot.

Lelush – who I'm relieved to say was finally voted off after three gruelling, but really very funny, months – got me thinking about subculture in games. For most people on the planet, games are still an odd, nerdy pastime for boys who like computers, board games, and wizards. Marketers are always telling me to use a 'female' angle for pieces, because I'm still a 'woman in a man's world'. And so far, nothing the industry has produced has reached the water-cooler, mass-market popularity of Marvel films or *Game of Thrones*. *Pokémon GO* nearly managed it, but not quite.

This is all at the macro-level. Look a little closer and you have hundreds of gaming subcultures, from relative normies who play the latest tycoon game on the train, to eleven-year-olds making 'obbies' (obstacle courses, for the uninitiated) for their friends in *Roblox*, to activist devs using their games to change the world, to the attractive influencer selling her bath-water to adoring fans. It's a fun game deciding what the 'face' would be for each of these communities, and these are just a handful of major ones which leap to mind. Art is always reacting against what came before, so subcultures are constantly evolving, every generation peering slightly suspiciously at the one which came before. The one thing we all seem to have in common is that gaming isn't just a hobby, it's a lifestyle – and that's why we see such a vast array of identities within it. The full spectrum of humanity is reflected here, not just consumer spending.



We gamers could learn a lot from Lelush, the unwitting face of Gen-Z slacker cool.

So where does this leave us, and poor Lelush? Now he's escaped *CHUANG*, Lelush is embracing his new identity as the Slacker King by becoming an influencer, promoting mobile games to his 500,000 Weibo followers. And perhaps we gamers should embrace our position in the great cosmic hierarchy, too. Maybe we do like wizards. Maybe we aren't mainstream. And maybe that's OK. I'd just encourage you to look outside of games sometimes: the best art and culture draws from a wide variety of sources, not just others like it. The world is wide and full of beauty. And, apparently, boy bands.

WIN A 34" IIYAMA G-MASTER GAMING MONITOR

Here's a chance to get your hands on a 34-inch gaming monitor, courtesy of the lovely folks at iiyama. One lucky Wireframe reader will get a curved iiyama G-Master GB3466WQSU Red Eagle monitor, which has a 3440×1440 resolution and 144 Hz refresh rate, sent direct to their home.

Here are some more juicy tech specs:

- 34" VA panel
- 144 Hz refresh rate
- FreeSync Premium Pro
- 1ms response time (MPRT)
- 3440×1440 resolution
- 2 × HDMI (100 Hz) and 2 × DisplayPort (144 Hz) inputs
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- USB 3.0 hub



WORTH **£400**

Immerse yourself in the game with the iiyama GB3466WQSU Red Eagle with FreeSync Premium Pro. The 1500R curved VA panel, with its 144 Hz refresh rate, 1ms MPRT and 3440×1440 resolution, guarantees superb image quality and a comfortable, realistic viewing experience.

The height-adjustable stand ensures total flexibility for your perfect screen position. Customise the screen settings using the predefined and custom gaming modes, along with the Black Tuner function to give you total control over the dark scenes and make sure details are always clearly visible.

Meanwhile, the VA panel guarantees an excellent contrast ratio, making all the nuances between light and dark colours clearly visible.

You can enter at **wfmag.cc/iiyama**

Competition closes on Monday 5 July 2021. Prize is offered to participants worldwide aged 13 or over, except employees of the Raspberry Pi Foundation, the prize supplier, their families or friends. Winners will be notified by email no more than 30 days after the competition closes. By entering the competition, the winner consents to any publicity generated from the competition, in print and online. Participants agree to receive occasional newsletters from Wireframe magazine. We don't like spam: participants' details will remain strictly confidential and won't be shared with third parties. Prizes are non-negotiable and no cash alternative will be offered. Winners will be contacted by email to arrange delivery. Any winners who have not responded 60 days after the initial email is sent will have their prize revoked.

GAME
Beautiful Desolation

DEVELOPER
The Brotherhood

RELEASE
Out now

WEBSITE
wfmag.cc/Desolate









Beautiful Desolation

The heavy influence of the original *Fallout* games is all over *Beautiful Desolation*, but there's a twist that really helps this later game stand out: it's a looker. There's a game behind it too, of course, but we just want to ogle the pretties here for now. "We believe that isometric art is uniquely able to emphasise elements in video games," explains Chris Bischoff, creative director at The Brotherhood. "The higher vantage point illustrates the area surrounding the character, ensuring the player can visually experience the world and absorb the architecture, history, and design in its entirety from a bird's-eye view. Two-dimensional art retains a handcrafted aesthetic that has been lost in parametrically generated modern games, and we hope to have captured some of that nostalgic magic."



sandboxed in

Being like Grand Theft Auto doesn't mean you have to be a free-roaming sandbox where you commit crimes – there's plenty more to do, as evidenced by this selection of fantastic GTA-alikes... minus Rockstar's input, so no Red Dead Redemption here today

WRITTEN BY
IAN DRANSFIELD



Mafia II

2K Czech / **2010** / PC, PS4, XBO, PS3, X360, Mac

Mafia II opens in the Second World War, offering a level of context to our main character seldom seen in other open-world titles. Vito Scaletta witnesses the power and – genuinely – positive influence the Sicilian mob can have, and from there, it's a straight line to the Mafia. The story is decent – sub-*Godfather*, sure, but entertaining – but it's in the atmosphere that *Mafia II* shines. Arriving home after the war, Vito returns to a subdued-yet-chaotic Sicilian/Italian-American neighbourhood, Christmas is thick in the air; it's just one of those moments you *feel* in a game. The sense of place dulls somewhat, but never really goes away, and *Mafia II* leaves an indelible mark on all of those who play it – Empire Bay might be expansive, but experiencing it feels taut, *concise* in a way. That is the key aspect in *Mafia II*, the experience you have with the game – because nothing about it from a base mechanical layer screams any particular complexities. Drive here, shoot them, grab that, hit the next cutscene. It's not an easy sell from a strictly critical perspective. But from an experiential one, it's an easy game to recommend, bringing with it, as it does, a real slice of movie-mob-style magic and all the stereotypical Italian-American accents to imitate as it does.

The remaster, which arrived in 2020, gave the game a second chance to grab the attention its original release richly deserved. While not without its flaws, *Mafia II* is still a *GTA*-alike that has to be played – if even just for that (post-Second World War) introduction.





Saints Row IV

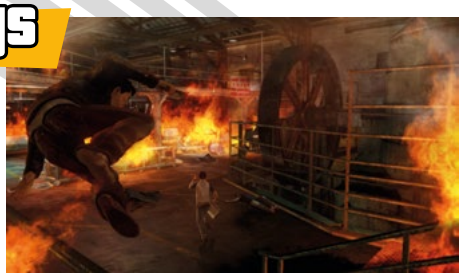
Volition / **2013** / PC, PS4, XBO, Switch, PS3, X360, Mac, Linux

There are fans of the second game – it's aged, but still harbours a chaotic spirit that helps it stand out to this day – and *Saints Row: The Third*, which is where Volition really found its footing. But *Saints Row IV* is where all pretence was left at the door: this was no longer a game trying to be *Grand Theft Auto*; it was a game trying to be anything it wanted, and laughing the entire time about it.

It suffered at the hands of being a glorified expansion pack – reusing the same city and mostly the same assets as the previous game, *SRIV* was something of a 'budget' entry to the franchise. But *what* a reused setting it was. Slapping the city of Steelport into the virtual realm allowed developer Volition to a) jazz things up visually, with a nice amount of neon flair, and b) introduce superpowers, because this was no longer even pretending to be the real world.

There are arguments to be made for and against *Saints Row*'s ever-veering path with its sense of humour and zaniness, but there can be no denying that leaping huge distances, flying, punching aliens in the crotch with enough force to send them careening into oncoming traffic, then zipping away at a running speed much faster than any actual vehicle in the game is *incredible* fun.

Sleeping Dogs



United Front Games / **2012**
PC, PS4, XBO, PS3, X360, Mac

One of the most sadly overlooked *GTA*-alikes in memory, *Sleeping Dogs* certainly appeared to be yet another drive-and-crime-'em-up on the surface. So it's understandable folks might not have been drawn in. It's a big shame, because United Front's mix of undercover cops, brutal melee combat, and genuinely appetising street food was a gem of a game.

Riffing heavily on *Infernal Affairs*/*The Departed*, the game's story told a tense, often captivating tale. Players controlled one Wei Shen, a Hong Kong-born cop based in San Francisco who heads to his home city to bust a dangerous Triad. Shen is undercover to the point only one person knows, and *Sleeping Dogs* manages a delicate balance between playing the cop and the criminal at the same time. You're punished for crimes, but you're never actively stopped from committing them. You will get into fights with people, because that's what these gangsters do, but you'll do what you can to not seriously hurt – or kill – people, because you *are* still a cop. *Sleeping Dogs* is also blessed with atmosphere to spare – this virtual Hong Kong is dense, lived-in, the sort of place you can almost *smell* coming through your screen.

Special mention to the *True Crime* series from which *Sleeping Dogs* emerged – never a classic, it nonetheless offered a genuine alternative to *GTA* in the PS2/Xbox/GameCube era.

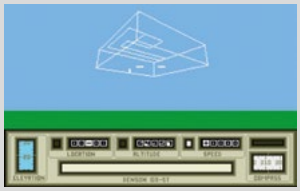


INFLUENCERS

While the original *Grand Theft Auto* popularised the open city/do-what-you-like approach and the third game codified what the style of game would be, the entire genre owes its existence to forebears such as these:

MERCENARY

Novagen / **1985** / Atari 8-bit, multi



You weren't running over lines of Hare Krishnas or stealing cars to sell on the docks, but *GTA*'s lineage can be traced in a direct line back to *Mercenary*. This early 3D title mixed open-world exploration with then-unprecedented freedom in a manner that's very recognisable in the context of these pages.

TURBO ESPRIT

Mike Richardson / **1986**
Spectrum, Amstrad CPC, C64



A free-roaming, 3D driving game in which you could pursue bad buggers or completely ignore the job at hand in favour of going where you wanted and mowing down pedestrians. Sound familiar? Of course it does. *Turbo Esprit* was *GTA* before *GTA*, and its influence shouldn't be overlooked.

APB

Atari Games / **1987** / Arcade, home ports



A definite stylistic influence on those early *GTA* titles. *APB* followed the player's cop car as it chased down suspects from a top-down view, obviously similar to DMA's first couple of sandboxes, and the mix of cops-and-crime is another bit of shared DNA.

HUNTER (AMIGA/ST)

Activision / **1991** / Amiga, Atari ST



Entering a 3D polygonal world, the player controlled a soldier able to traverse as they saw fit, or use any number of vehicles – cars, boats, bikes, and more – to pootle around. Missions were open as to how they could be completed, and the sense of freedom in this one was palpable.

THE TERMINATOR

Bethesda Softworks / **1991** / PC



A surprisingly complex open-world Los Angeles for you to either protect or hunt Sarah Connor in, playing as Kyle Reese or the T-800. Ambitious for its time, the free-roaming approach still holds up to this day, and while clunky around the edges, there's still that Bethesda open-world feel to things.



Ubisoft Montreal / **2016** / PC, PS4, XBO, Stadia

Where the original game opted to be largely dull and grey, the second game pivoted hard to fun and colourful. A good switch, safe to say. Ubisoft's open world has leaned heavily on the tech and rebellion side of things from day one rather than crime and cars, so there's always been a genuinely different feel in both *Watch Dogs* and *GTA* – and it hasn't been more apparent, or more skilfully handled, than in the second entry to the Orwell-riffing series.

One factor in which *Watch Dogs 2* stands apart from the rest is in its action – 'total freedom' is a misnomer, but there's a definite range of styles players can adopt to take on the situations they're met with. Guns blazing (with your 3D-printed arsenal, because *tech*), stealthy, hacking systems and setting traps – all blending fantastically with traversal that's an *Assassin's Creed*-lite version of the free-running everybody loves to sit back and watch. Because heaven knows you don't 'play' those bits. It was a refreshing mix of approaches at the time, and while it has been done elsewhere (including in this very series), it's *Watch Dogs 2* where everything coalesced so very well.

Another way *Watch Dogs 2* stands out as something genuinely worth your time is through its story and – more specifically – characterisation. You run with a motley crew as you'd expect, but these are people with real lives, histories, motivations – actual *character*. And, helpfully, the game didn't take itself anywhere near as seriously as its predecessor did, meaning if you were so inclined, you could very well like the people in the game. This, as we all know, was impossible in the unceasingly dour original game.



Crackdown

Realtime Worlds / **2007** / X360

There's always a wait before the first 'proper' next-gen game releases on a new format. With the Xbox 360, that game was *Crackdown*, three months after the console's launch. Created by Realtime Worlds – helmed by *GTA*'s creator, David Jones – *Crackdown* put players in the shoes of a superpowered super-agent for a superagency. It involved hunting criminals and throwing them off buildings, driving an obscene special agency car in order to *get* to criminals and throw them off buildings, and getting into gun-fights you would force yourself to prevail in, if only to get to baddies and throw them off buildings.

Oh, and the orbs. It's hard to overstate the collective mania that overtook the games-playing public with regards to the orbs: hundreds of glowing objects hidden around the game's map, noticeable only if you could see them, or if you heard their telltale hum. Many a player stopped their superpowered leaps and bounds across the city to turn on a dime and hunt down an errant orb they thought they possibly, might have just heard. Discussion was rife. Those who grabbed every orb were revered. The main aim of the game was largely forgotten. *Crackdown* became The Orb Game. And it was all the better for it.

The Simpsons: Hit & Run

Radical Entertainment / **2003**
PS2, Xbox, GC, PC



Of all the licensed games based on family-friendly TV shows, you really wouldn't expect one to partner *The Simpsons* with a distinctly *GTA*-like game experience. Yet that's exactly what *The Simpsons: Hit & Run* did. And probably most surprising of all, it did a half-decent job of things. This was the most in-depth representation of Springfield we'd ever played by the time of its release, and mixed with the involvement of not just the voice cast, but the actual writers from the show, it really helped to elevate the whole thing beyond just being *like The Simpsons*.

Of course, it lives and dies by the quality of the actual game behind it and, while not without issues, *Hit & Run* played a solid *GTA*-alike game. In and out of the car it was fun to play, to run or drive around, to explore and get into scrapes, even if it never felt *quite* right kicking people randomly as Lisa. But hey. So while beating up pedestrians and exploding cars outside Springfield Elementary might not *really* fit the ethos of the show, it's hard to actually take anything away from *Hit & Run*. It was fun, it worked, and it offered something no other mainstream game was doing at the time: a parody of the most influential series in the world.



LEGO City Undercover

TT Fusion / **2013** / Wii U, PC, PS4, XBO, Switch

Whether you see it as a beloved children's toy or a tool of unlimited creative potential, the fact is LEGO seems like the perfect thing with which to create a city of your own. You might not, though, then go on to add in a *GTA*-like mix of driving, on-foot action, and delightful missions to the mix – though that'd mainly be because you were building a model in your house and not coding a game. *Still*, TT Fusion picked up the slack for us all with *LEGO CITY Undercover*, the blend of LEGO and *GTA* nobody knew they wanted until they played it.

Naturally, this being LEGO, you were never in any danger of helping crack dealers hunt down rival gangs – instead, *Undercover* had you playing as cop Chase McCain who… well, he actually did commit some crimes after going undercover, but it wasn't ultra-violence and spreading the horror of urban decay via addiction. More stealing moon buggies, stuff like that. Regardless, both the game proper and the story were top notch: TT Fusion was clearly hitting the project twofold, having a hell of a lot of fun with the writing of the thing, while also bringing considerable technical chops to the project. It all combined to make for one of the most surprising – and surprisingly good – *GTA*-alikes ever released.

Fortunately, the game received an updated re-release in 2017 across multiple formats, meaning it was opened up to an audience wider than the 13 people who bought a Wii U.





Just Cause 3

Avalanche Studios / **2015** / PC, PS4, XBO

Square Enix's tale of revolutions and grappling hooks took some time to really hit its stride, but by the third game, most elements had been honed to a wonderful sheen. Where in other *GTA*-alikes you might be tempted to get in a car normally, like a *boring person*, *Just Cause 3* revelled in the chaos of darting about with your retractable grappling hook, parachuting massive distances, latching on to the top of a beaten-down old banger, then surfing it through an enemy checkpoint guns-a-blazin'.

Zooming out a bit, *Just Cause 3* was never going to win any awards for its narrative, and at launch, the game was riddled with a fair few irritating bugs that sullied the experience for some players. But the sense of freedom – the, fittingly, *liberation* you felt as a player soaring through the sky on another endless paragliding trek; latching onto a passing jetliner and surfing it into the stratosphere – has always been up there with the best examples. A heavier lean into the wilful silliness of what you were doing as a player was appreciated, but *Just Cause 3* never would risk itself going as far as, say, the *Saints Row* series did when it came to silliness. Perhaps that's what held back the fourth game from really improving on much of anything, we can't say for sure. But *Just Cause 3* was, and is, fantastic fun with a world you do just want to go hog-wild both in and over.



Mercenaries: Playground of Destruction

Pandemic Studios / **2005** / PS2, Xbox

Some *GTA*-alikes focused on the organised crime, the expansive storytelling, the grand open cities to explore. Some on the act of driving or otherwise navigating. Others still set their sights on gunplay and combat – the acts of cleansing violence bringing peace to an otherwise unruly world. *Mercenaries: Playground of Destruction* said what it was going for right there in the title.

Pandemic's game was never the most technically competent, especially not on the by-then creaking PS2, but its over-ambitious nature didn't harm things when it came to mucking about with the game's destruction. Calling in an air strike on an enemy compound has never felt quite as impressive as it did in *Mercenaries*, and the array of different destructive toys you had at your disposal, ready to be selected from a menu… well, it lent credence to the whole 'playground' thing. A nigh-on broken sequel followed, and a third game was cancelled, so sadly this is the best *Mercenaries* will ever be – but it's always been a hoot, so that's to be celebrated.

Retro City Rampage

Vblank Entertainment / **2012**
PC, PS3, PS Vita, X360, PS4, Switch, multi



Starting out life as a homebrew project attempting to bring *GTA* to the original Nintendo Entertainment System, *Retro City Rampage* developed over the years into something made for the modern machines that riffed on the consoles of old, rather than directly supported them. That is, apart from the Game Boy Advance version that's apparently being worked on at the time of writing.

Still, *Retro City Rampage* is a fine mix of old-school visual style, fantastic chiptune music, and a decidedly recognisable take on the original *GTA* formula. Viewed – mainly – from a top-down perspective, players set about exploring the city of Theftropolis… and exploring time… as a gangster-then-time traveller. Naturally. It's a fun game and one that really does evoke the spirit of the first couple of *GTA* titles, while bringing in its own twist on the formula and more than enough winks, nods, and references to keep players in the know happy.





Red Faction: Guerrilla

Volition / **2009** / PC, PS3, X360, PS4. XBO, Switch

Pivoting away from crimes against individuals to (perceived) crimes against the ruling party, *Red Faction: Guerrilla* pits players against the tyrannical Earth Defence Force in a tale of revenge, uprising, and – ultimately – revolution. On Mars. But as is often the case, it's not the narrative that actually matters here – and in fact, the more you ignore the story, the more fun you'll have with *Guerrilla*.

Volition's game is home to an upgraded version of its Geo-Mod engine, see, and this allows players to destroy practically any human-made structure throughout the game. The planet itself is off-limits for blowing up, but that minor disappointment soon melts away as you realise you're able to drop massive chimney stacks into one another, with realistic physics models backing up the destructive domino effect. *Red Faction: Guerrilla* is one of the purest experiences of joy a person can have in their life, and that's not an overstatement. Sometimes you don't need a compelling narrative – sometimes, you just need to be able to knock down a gigantic bridge using just a sledgehammer.



AS WELL AS...

There were some *GTA*-alikes we couldn't bring ourselves to write about in detail, but they're worth a mention for one reason or another. Let's go:



SCARFACE: THE WORLD IS YOURS / **THE GODFATHER:** THE GAME

Two ridiculous film tie-ins coming many years after the movies they were based on, and both riffing heavily on the *GTA* formula. Terrible? Surprisingly, no. Not great, but genuinely neither game was awful.



THE GETAWAY

Bar this and *GTA*'s 60s-themed London expansion packs, there hadn't been a UK-based sandbox game in this style until 2020's *Watch Dogs: Legion*. And, to be fair, *The Getaway* is the game that still nails the British gangster atmosphere the best.



APB: ALL POINTS BULLETIN

Created by *GTA*'s father David Jones, *APB* saw a troubled development process and was ultimately a failure – but there's the argument to be made that it helped pave the way for *GTA Online*, certainly.



L.A. NOIRE

A game that would have been far better served had it been *less* like *GTA*, Team Bondi's *L.A. Noire* (published by Rockstar) found the impact of its detectives and investigating diluted by the need to drive from one side of late-40s Los Angeles to the other.



DRIV3R

Has to be mentioned, doesn't it? Where the previous games in the series had hints of *GTA* to them, it was the third game that went all-out into '*inspired by*' territory. Shame it was a rushed, buggy mess, really.

Toolbox

The art, theory, and production of video games

46. Design Principles
Why self-delusion's a useful tool for a game developer

48. CityCraft
Exploring the cities in classic point-and-click adventures

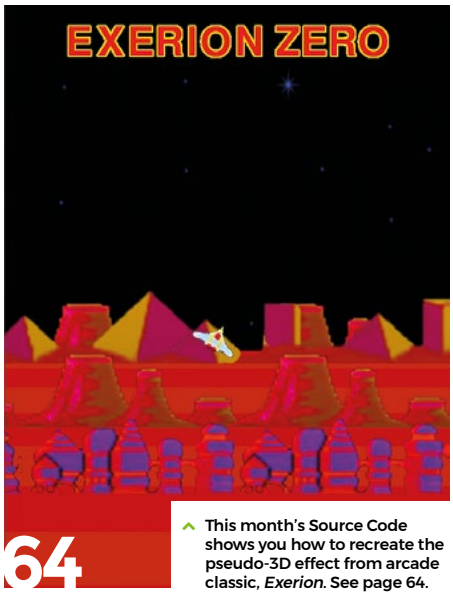
50. Snakes in a Maze
A beginner's guide to recursive backtracking – with snakes

56. Narrative Design
Dissecting the superior writing in Return of the Obra Dinn

58. Infinite Bunner
Code a fully featured action game in the mould of Frogger

64. Source Code
Recreate the striking 3D effect from the arcade hit, Exerion

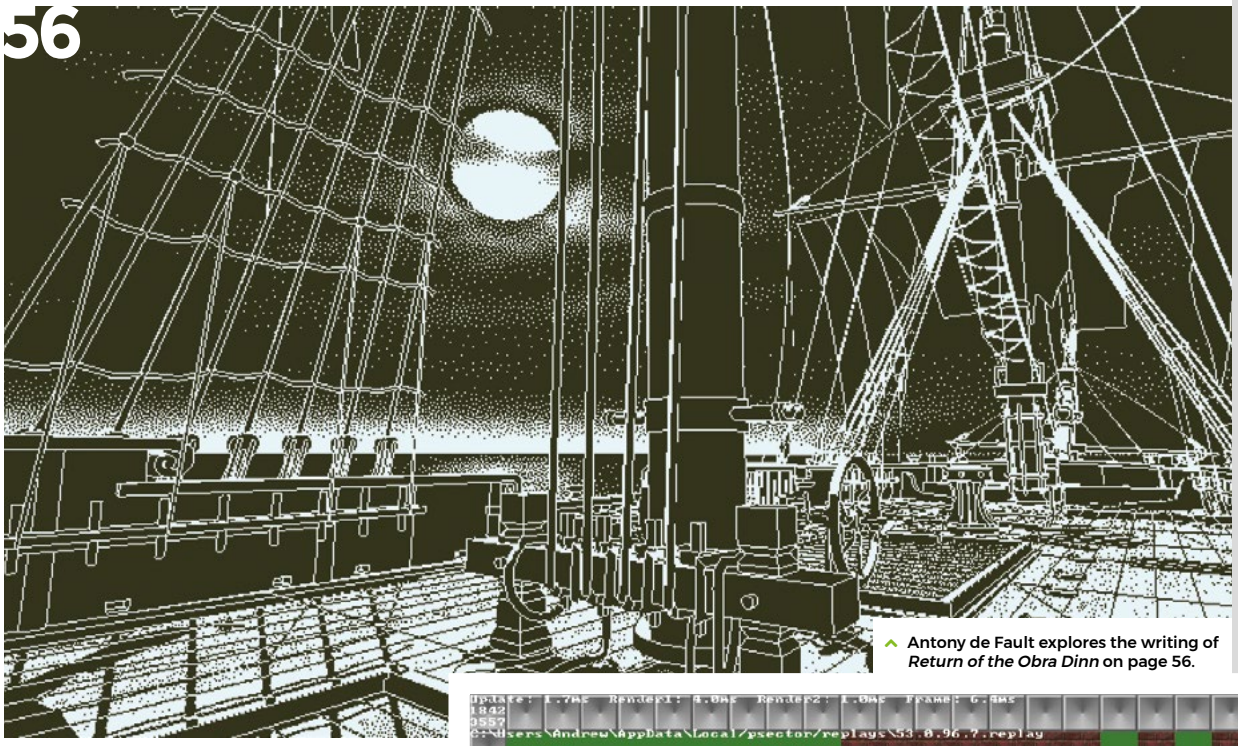
66. Making Anew #16
Tips on making your game challenging yet also rewarding



This month's Source Code shows you how to recreate the pseudo-3D effect from arcade classic, *Exerion*. See page 64.



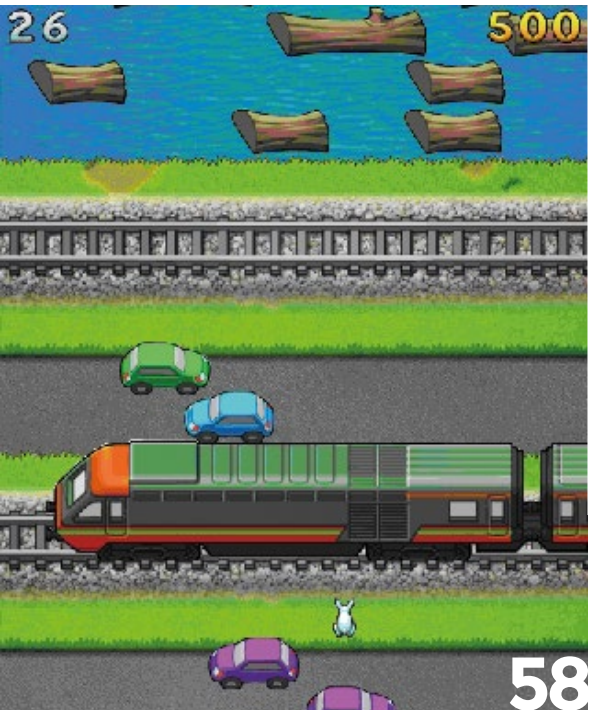
How do adventures like *Thimbleweed Park* create such compelling environments? Find out on page 48.



Antony de Fault explores the writing of *Return of the Obra Dinn* on page 56.



Make a snake roam a maze – and learn a bit about game AI in the process. See page 50.



Straight from the *Code the Classics* book: how to make your own modern *Frogger* homage, *Infinite Bunner*. See page 58.

The principles of game design

What do you need to survive in an often brutal games industry? A touch of delusion, Howard writes



AUTHOR
HOWARD SCOTT WARSHAW

Howard is a video game pioneer who authored several of Atari's most famous and infamous titles. His new book, *Once Upon Atari: How I Made History by Killing an Industry*, is out now. **onceuponatari.com**

You may recall Sir Isaac Newton's third law of motion: for every action, there is an equal and opposite reaction. Last month, I touched on the fact that many developers at The 3DO Company had to deal with disillusionment – in other words, they'd grown up with video games and idealised their production, but then saw the harsh reality when they got into the industry themselves. Applying Newton's third law, it follows that for every disillusionment there must be an equal and opposite illusionment – so let's talk about illusionment at 3DO.

The 3DO Company also made some fairly OK games in its lifetime, including the 1998 RTS, *Army Men*.



Disillusionment requires a dream. All you need for illusionment is a delusion. We had plenty of those at 3DO. Let's face it, by the time I arrived there, our entire company culture was pretty delusional. It didn't take long to realise this, either. Here's a typical conversation with a newbie:

"Welcome to 3DO. The 'D' is for denial."
"What's the 'O' for?"
"What 'O'?"

Denial is an essential component of delusional culture. The delusions came in a variety of flavours. The first was our corporate strategy. At 3DO, our internal working model was making B-games on a C-budget. Just give people fewer resources in time and money and expect them to turn out decent games. And *Get It Out On Time!* "A week of missed sales will never be made up!" – this was the battle cry. Unfortunately, this came at a time when A-games were selling tons and nothing else was moving. 3DO was poised to bring tremendous development talent to bear on a great game, but the company instead chose to make a gaggle of lesser games. The thinking was: if you make them cheaply enough, lower sales can still make money. They never anticipated near-zero sales.

Another delusion was that competing groups produce better product. 3DO management actually pitted groups against each other, thinking this would stimulate competitive juices and encourage greater productivity. Instead, it bred some petty or hostile group interactions which diminished our output (and our spirits). In creative



B-grade games on a C-grade budget? Well, The 3DO company didn't exactly produce the most memorable games of the PSone era.

production, spirit is crucial fuel. Atari was a smaller community with a larger community spirit.

One thing that was no delusion at all was that game development is the entertainment business. Even in the late 1990s, it was already clear video games were the biggest grossing sector of the entertainment industry by far. And let's face it, before video game tech even existed, the entertainment industry stood as a bastion of delusional thinking – a torch of illusionment that drew aspiring entertainers like moths to a flame. The cliché of starving actors, musicians, and artists became a cliché because it's true. Of those who try, the vast majority die. Few possess the skill level needed to succeed, and of those who do, many are just unlucky or lack the pluck to stay the course.

Nonetheless, for a bunch of nerds who can't sing, dance, or act, video games create an opportunity where none existed before. Now there's a chance to have our internal needs fulfilled by making it in entertainment. That's the deal with entertainment: it's a chance to get some intense ego needs met through applause and/or recognition, and that's a powerful draw. The downside is these ego needs can supersede everything. Large portions of your life can get ignored or disappear entirely. This is bad news for the non-co-worker people in your life, or any semblance of a balanced life for that matter.

"3DO management actually pitted groups against each other"

Play a game and you can waste an afternoon. Learn to make games and you can waste an entire career.

Young people were at 3DO, throwing their lives away trying to realise this opportunity to *make it* in video games. And how can you blame them? They'd grown up with video games and were beguiled by the magical aura of game creation. At Atari, we had no adolescent fantasy of what development would be, it was simply a newly discovered opportunity. We voluntarily abused ourselves, free of obligation.

By the time I reached 3DO, people felt "This is where I *need* to be" and accepted the abuse of others. After all, you get to do games! There's the allure, excitement, and romance of entertaining millions of people without ever having to get on stage or on camera. And perhaps most compelling of all, "I'm following my dreams, aren't I?"

This is it, then: the big delusion that keeps people from turning away from games. The idea that making games is their ultimate destiny.

Video game developers are highly skilled technologists. They have lucrative alternatives in the working world. If you're really committed to being a video game maker, however, then leaving games means sacrificing your identity. My friend and mentor Edwin Reich is a great example. He'd tell me about great opportunities outside the games industry, and this odd look would come over his face. Like he wanted to take the job, but it contradicted some deeply-held belief. He'd say: "It sounds really good, but... I make games." It sounded more like a question than an answer when he'd say it.

Most delusional enterprises lose their balance and fall. 3DO was no different. In late spring of 2003, it suddenly closed its doors, leaving resolution of outstanding pay to a court proceeding. This is the way of modern video game development in many cases – you give it your all, and then you get discarded until the next big project forms. Each time game development spits you out, those other alternatives become easier to swallow. To paraphrase Julius Caesar, "Veni, Vidi, Crunchi." I came, I saw, I burned out.

The main downside of leaving video games is you're no longer making games. If you've ever done this kind of work, you really notice the letdown. Making video games is more brutal, abusive, and risky than it ever was at Atari. But if you hit the motherlode, it's still every bit as sweet. That's what keeps people seeking it. That and one other delusion: something I call The Game Maker Identity. More on that next month.

Apple Newton

Is it revisionist history to consider how the world would change not by altering the past, but rather by moving elements of the past into the present? In particular, when I think about Sir Isaac Newton, I think about his interaction with apples. What if he were alive today? I wonder what he would make of a falling iPhone hitting him on the head. And what might Newton do with an iPhone if he had one? Some rather rousing browsing I suspect. Imagining the consequences of bringing the past forward in time isn't revisionist at all. It's envisionist.

Unpicking the secrets of point-and-click cities

Konstantinos explores the thought and design detail that goes into the urban settings of Grim Fandango and more



AUTHOR
KONSTANTINOS DIMOPOULOS

Konstantinos Dimopoulos is a game urbanist and designer combining a PhD in urban planning with video games. He is the author of the *Virtual Cities* atlas, designs game cities, and consults on their creation. **game-cities.com**

TRIZBORT

A simple tool created to help designers and players map interactive fiction (or text adventure) spaces, Trizbort is an elegant mapping solution I've also found useful for designing point-and-click adventures and RPGs. It lets you name, create, and join rooms in all the ways that matter, is completely free, and can be found over at **wfmag.cc/Trizbort**.

Game cities are routinely shaped by the demands of the genre they appear in, and thus really get to shine in games led by world-building and narrative. Adventure games, in particular, have been lovingly showcasing detailed settings and interactive environments since the late 1970s, and have provided us with some of the medium's earliest and most intricate cities.

Part of the richness of adventure game urbanism can be attributed to the genre's requirements for solid world-building, and to the slow, methodical pace of their gameplay, which allows players to take in all the details. Similarly, cities are perfect locations for adventure games: they can serve as pithy encapsulations of larger settings, and the best of them are packed with character, history, overlapping systems, and countless people to talk to.

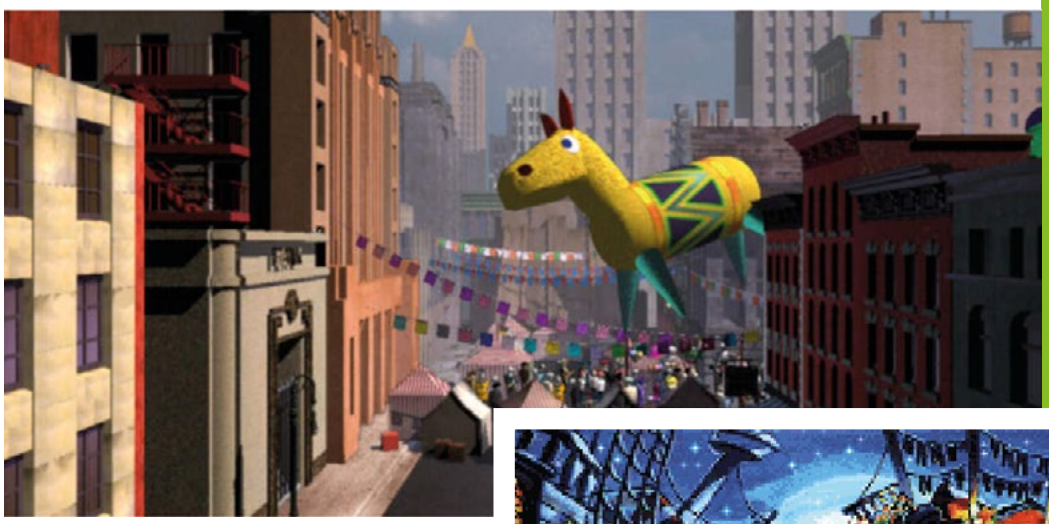
The adventure genre's 'look at' and 'examine' verbs offer ways to subtly provide depth and granularity, while also allowing for the inclusion of a multitude of non-essential details. Players take in the setting organically by choosing when and what to examine, and quickly learn to pay attention both to their surroundings and to the narrative threads running through them, which in turn allows designers to structure complex puzzles, confident that their audience is paying attention. (On the downside, such intense scrutiny means that a game world's slightest discrepancy will quickly stand out.)

The focus on depth also comes at the cost of width, as many adventure game cities consist of relatively few locations. If a city is to be convincing, though, that level of detail needs to be matched by a sense of scale, and it's here that maps can come in useful. They can show the relation between one place and another, tie locations together, and fill in missing spaces, implying a wider geography. Panoramic views are useful too, as are cutscenes, in-dialogue references to a wider reality, and brief travelling animations.

Space constraints also mean the look of each city has to be distilled to its essentials. Locations need to be curated, and become symbolic or characteristic of their wider region and themes. The pirate town of Woodtick in *Monkey Island 2* – which consists of half-sunken and stranded ships – is tiny, but remains one of gaming's most iconic locations. It certainly feels much bigger than its constituent parts: a scrolling background connecting a handful of interiors. Similarly, local history doesn't have to be conveyed via tedious exposition – indie masterpiece *Unavowed* simply tells us the story behind Wall Street's name (it was where the old Dutch city's walls stood) to remind us of New York's long history.



› Modern open worlds seen from the traditional 2D adventure game perspective are both rare, and, as *Thimbleweed Park* proved, incredibly enjoyable.



An evocative background blocked off in a logical way can imply a much larger space, as we can see in *Grim Fandango*.



The brilliantly nautical Woodtick from *Monkey Island 2: LeChuck's Revenge* – surely one of the great adventure game locations.

INSPIRING EXAMPLES

Adventure game urbanism overflows with ideas, successes, and smart designs. Infocom's text-only *A Mind Forever Voyaging* was one of the medium's first truly evolving cities, and the original *Leisure Suit Larry* was a masterpiece in cleverly restricting its explorable world via gameplay boundaries: try to cross a road, and a car will run you over; enter a dark alley, and you'll be mugged. But when speaking of the greats, we can't forget the stunning metropolis of the afterlife: *Grim Fandango*'s Rubacava (1998).

Rubacava feels grounded, and allows players to connect to it via its protagonist, Manny Calavera. He gets to actually live in the city, as a full year takes place off-screen, and he goes from a nobody to a club owner. As Manny establishes a connection to Rubacava, so do players. Clever writing like this provides much of the city's vibrancy, all supported by a superb musical score, and Peter Chan's stunning art. Well-chosen references beyond the confines of pop culture create a blend of noir literature and cinematography, Mexican folklore, and Mesoamerican history. The city's striking architecture combines Aztec and Art Deco elements, providing spatial immersion on a grand scale. It feels bigger and older than any individual, even if its size is mainly implied by the scale of its buildings and via cutscenes.

The more traditional-looking *Thimbleweed Park*, released in 2017, makes certain its 2D world is slowly introduced and much easier to mentally map than *Grim Fandango*'s heavily abstracted space. On the subject of complex places, the world of Propast from *Dreamfall Chapters* is also worth closer study. Propast draws inspiration from cities such as Berlin and Prague, and movies like *Blade Runner* and *Judge Dredd*. It feels like a logical evolution of European urbanism, preserving traditions and monuments while also serving corporate behemoths.

Despite its modest size, Propast isn't easy to navigate, though the game makes up for this by densely packing its locations with life. Streets and alleys are overflowing with activity, and people lead varied and convincing lives in spaces designed not as backdrops, but for a society to actually function in. Locals merely suspect the dystopian nature of their setting, and refuse to give up hope. They still care and try to find ways to challenge oppression, and discuss their thoughts with friends and co-workers on the streets and bars of their city. It's an example of how much life can be generated in a location, and well worth exploring when thinking of making your own entry in the genre.

"Many adventure game cities consist of relatively few locations"

VIRTUAL SCUMM

Researching the civic spaces, maps, systems, and immersion techniques of a gaming genre that goes back decades and spans dozens of platforms would have been an almost impossible task were it not for the brilliance of ScummVM. It's an open-source program that lets you run countless classic adventure games by such studios as Sierra On-Line, Lucasfilm, Westwood Studios, Infocom, Cyan, and Revolution Software on a variety of modern platforms. It's available at **wfmag.cc/ScummVM**.

Snakes, and an introduction to recursive backtracking

Download the code from GitHub: **wfmag.cc/wfmag51**

Make a snake navigate around a maze using recursive backtracking. Andrew shows you how



AUTHOR
ANDREW GILLETT

Andrew Gillett is a tutor and programmer who has worked on ten published games including *RollerCoaster Tycoon 3*, *LostWinds 2*, and *Kinectimals*.

Earlier this year I launched *Partition Sector*, my first release as a solo developer. It's a *Bomberman*-style multiplayer game with several team-based game modes, including Capture the Flag, Battle Royale and King of the Hill. During development, I thought a number of times about whether I should add computer-controlled bots to the game. However, writing decent bot artificial intelligence (AI) for this kind of game would have been a considerable challenge. Computer players would have to take many factors into account, combining the need to place bombs in suitable positions with the desire not to get blown up. For a simple *Bomberman* game it might have been doable, but the need for the AI to understand a wide range of power-ups and game modes made it unfeasible.

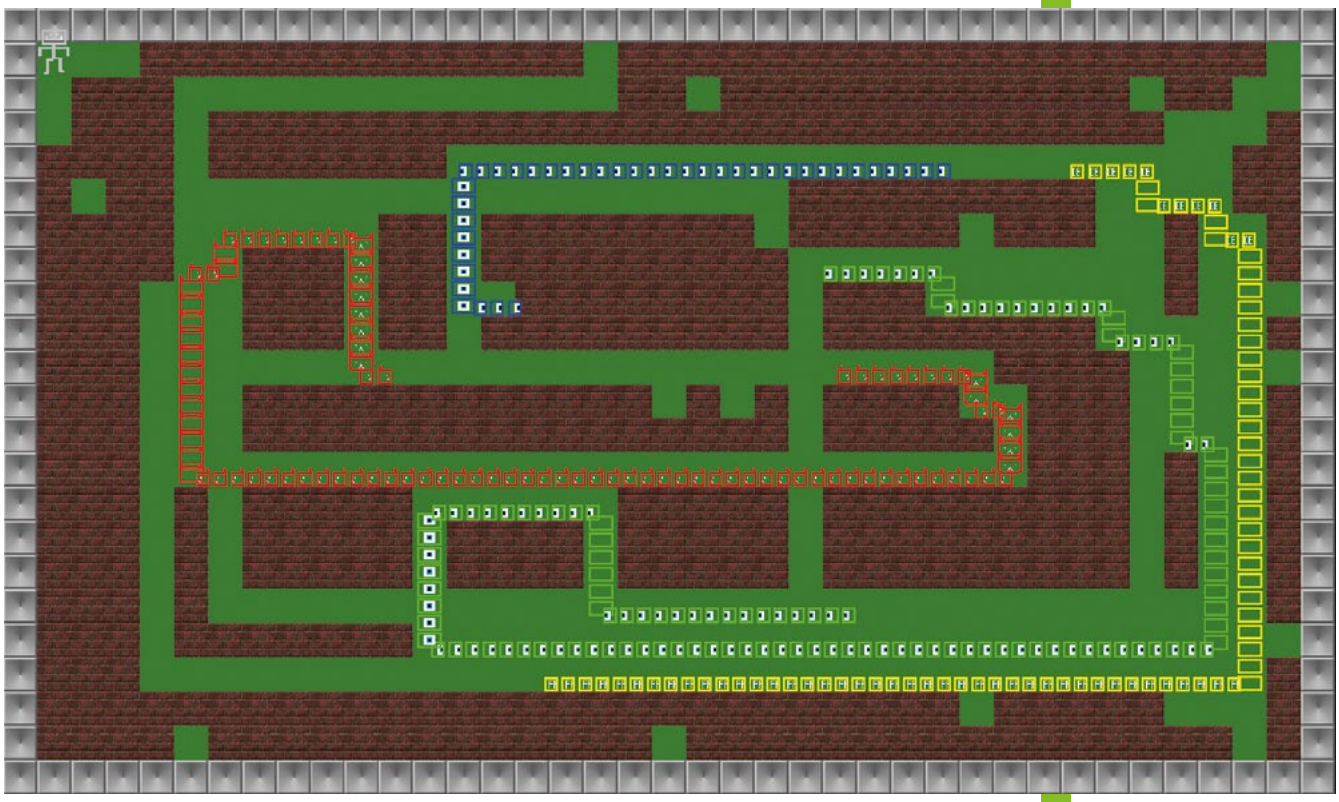
My plans changed into a game which is nothing like *Bomberman*, but rather more like the word game Boggle, where players must find words within a grid of randomised letters. It's fairly straightforward to write code that finds every possible word within a Boggle board.

In the grid shown in **Figure 1**, various words can be made by choosing a starting letter and then making a series of moves from there. Unlike in a crossword or traditional word search puzzle, you can change direction as many times as you like in the course of making a word – the only restriction is that you can't use the same tile more than once.

To find all possible words on a Boggle board, you can use a technique known as recursive backtracking. Imagine starting with the letter D on the top left-hand side of the board. Before we do anything else, we're going to check a dictionary to see if 'D' on its own is a word. It's not. The next step is to check a dictionary to see if there are any words that start with D. There are, of course, so we're then going to explore a series of possible words. Let's start by going to the right, so that we now have 'DO'. Obviously, that's a word, so we're off to a good start – we'll print it out.

D	O	Q
N	P	O
W	E	R

Figure 1: A Boggle grid – just starting from the first letter, we can make the words do, door, dope, don, done, and doner.



Four snakes in *Partition Sector*. The snakes use player head sprites for their head and body parts.

We then check to see if there are any words that start with 'DO'. There are, so we'll go further down this path, again by moving to the right, so we now have 'DOQ'. That's not a word, and there aren't any words that start with that, so there's no point in going any deeper down this rabbit hole. At this point, we backtrack, and go back to the situation where we were looking for words starting with 'DO'. We've already checked the letter Q to the right, so now we'll go clockwise and check the letter O to the bottom right. 'DOO' isn't a word, but there are words that start with that, so we'll repeat the process again – which will lead to finding the word 'DOOR'. What we have here is an algorithm that tries each possible path through the board, but skips paths that clearly aren't going to be successful.

POWER-UP

What does this have to do with a *Bomberman* game? One of the power-ups in *Partition Sector* turns the player into a snake, in the style of the old Nokia phone game. The snake can grow longer by eating brick walls, but turns back into a (temporarily stunned) normal player if it gets trapped. Each time it reaches the centre of a grid square, it can choose to go in a new direction, although it can't do a 180° turn as it would collide with its own body. I realised that I could implement snake AI using a recursive backtracking algorithm, similar to the one that solves Boggle boards. I created a new game mode named Snake Hunter, where players cooperate to destroy AI-controlled snakes.

"My plans changed into a game which is more like the word game, Boggle"

The snakes aim to grow longer by eating brick walls, and try to avoid getting trapped – defined as reaching a tile where there's nowhere to go. Players can bomb a snake to halve its length – a snake dies when its body is only four tiles long.

The code below shows a simplified version of the snake AI from *Partition Sector*, recreated using Python and Pygame Zero.

```
import pgzrun
from random import randint
```

FUNCTION FUN

A recursive function is a function that calls itself. Each time the function calls itself, another instance of that function is added to an area of memory known as the call stack. Each instance of the function has its own separate copy of its local variables. A recursive function always needs what's known as a base case, where it stops calling itself and instead returns a value – the lack of a base case leads to the recursive equivalent of an infinite loop, which will ultimately result in a stack overflow error.

```
WIDTH,HEIGHT = 1200,448
MAX_DEPTH = 20
GRID_SQ_SIZE = 64
TILE_SPRITES = {'X': 'gridblock', '.': 'wall'}
DIRECTIONS = ((1, 0), (-1, 0), (0, 1), (0, -1))

GRID = ['XXXXXXXXXXXXXXXXXX',
        'X..  .   ..      X',
        'X.X X.X X X X X X X',
        'X .. ..  . ..    X',
        'X X X X X X X X X X',
        'X  .   . ..  .   X',
        'XXXXXXXXXXXXXXXXXX']

def snake_step_score(score, depth, snake):
    head_pos = snake[0]
    square = GRID[head_pos[1]][head_pos[0]]
    if square == ' ':
        snake = snake[:-1]
    if square == 'X' or head_pos in snake[1:]:
        return score/2
    elif square == '.':
        score += 2
    else:
        score += 1

    if depth <= 0:
        return score

    best_score = 0
    for dir in DIRECTIONS:
        new_head_pos = (head_pos[0]+dir[0],
                        head_pos[1]+dir[1])
        result = snake_step_score(score, depth-1,
                            [new_head_pos]+snake)
        best_score = max(result, best_score)

    return best_score

snake = [(1,1)]

def change_grid_pos(row,col,char):
    grid_row = GRID[row]
    new_row = grid_row[:col] + char + grid_
row[col+1:]
    GRID[row] = new_row

def update_snake():
    global snake
    head_pos = snake[0]
    best_score, best_snake = 0, None
    new_pos_eats_wall = False
    for dir in DIRECTIONS:
        new_head_pos = (head_pos[0] + dir[0],
                        head_pos[1] + dir[1])
        new_snake = [new_head_pos] + snake
        result = snake_step_score(0, MAX_DEPTH,
new_snake)
        if result > best_score:
            best_score = result
            best_snake = new_snake
            new_pos_eats_wall = GRID[new_head_
pos[1]][new_head_pos[0]] == '.'

    if best_snake != None:
        snake = best_snake
        if not new_pos_eats_wall:
            snake = snake[:-1]
        else:
            new_head_pos = snake[0]
            change_grid_pos(new_head_pos[1],
                            new_head_pos[0], ' ')

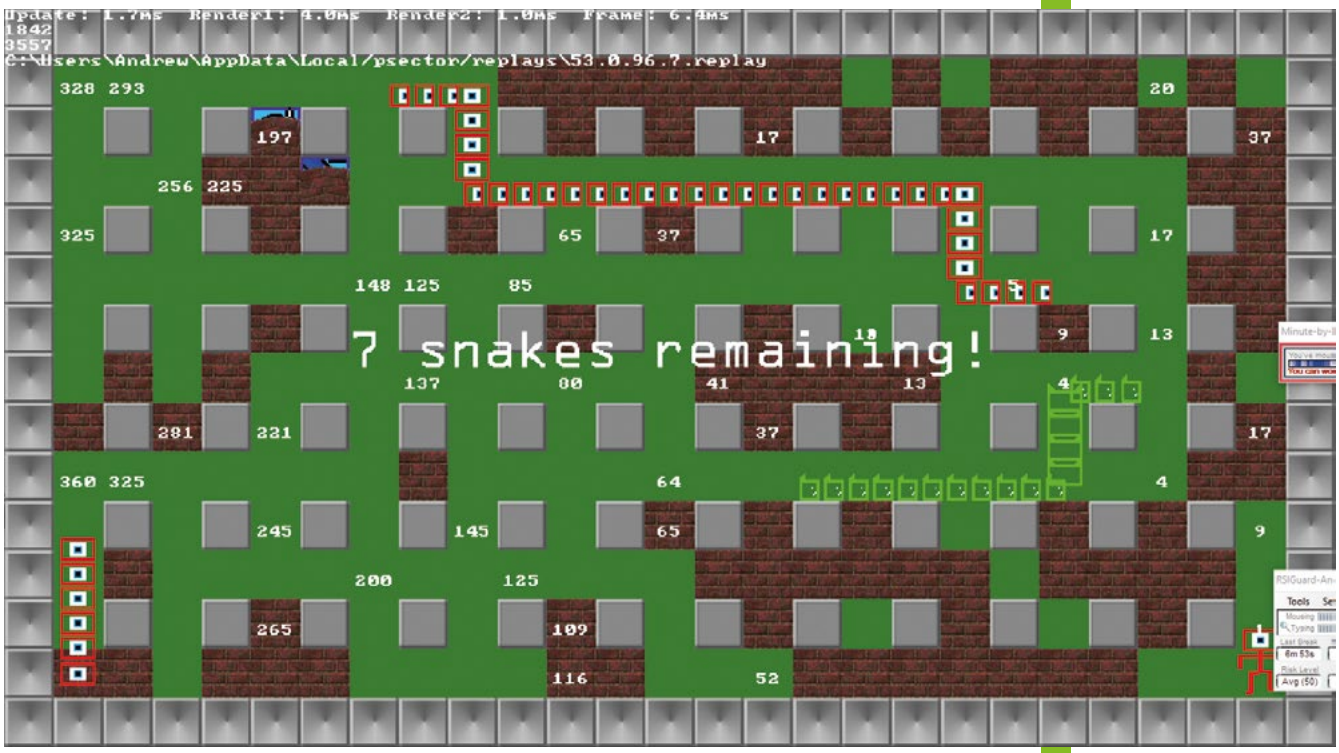
def update():
    update_snake()

def draw():
    screen.clear()
    for row in range(len(GRID)):
        for col in range(len(GRID[row])):
            square = GRID[row][col]
            if square in TILE_SPRITES:
                x = col * GRID_SQ_SIZE
                y = row * GRID_SQ_SIZE
                screen.blit(TILE_SPRITES[square], (x,
y))
            pos = (col, row)
            if pos in snake:
                if pos == snake[0]:
                    image = 'snakehead'
                else:
                    image = 'snakebody2'
                screen.blit(image, (col * GRID_SQ_SIZE,
                                    row * GRID_SQ_SIZE))

pgzrun.go()
```

SNAKE PASS

In this code, a snake is defined as a list of pairs of grid coordinates. So for example, [(1,1),(2,1),(3,1)] represents a snake with its head at (1,1), and two tail parts in the squares to the right. On each update, the snake looks at the available exits from its current head position, and essentially imagines a series of paths it could take from each exit. Each possible path



A screenshot from *Partition Sector*'s development – the numbers shown in certain squares are path scores calculated in the snake AI code.

has an associated score – a high-scoring path is one where the snake can travel for a long time without reaching a dead end. Bonus points are given for paths that include edible brick walls. The snake will choose the exit which includes the highest-scoring path.

The key function in assessing the paths is **snake_step_score**. This recursive function receives three values. **score** is the current score for the path currently being assessed. **depth** indicates how many more steps ahead we will look before returning. Without this, the program would try to look an infinite number of steps ahead! **snake** is the state of the snake on the current path.

When **update_snake** is called, we loop through the four possible directions in which we could go. For each direction, we determine what the new head position would be, and create the list **new_snake**, which consists of the existing snake but with the new head position at the front. At this stage **new_snake** assumes that a wall will be eaten, so will be one unit longer than before – whether or not a wall is eaten, and what to do about it, is dealt with later.

We then call **snake_step_score**. This will eventually return the best possible score from going in the current direction. We give it an initial score of zero, the constant **MAX_DEPTH** and **new_snake**.

snake_step_score starts by checking to see if the grid square under the snake's head is an empty space – i.e. no edible wall or solid wall. If it is an empty space, that means the snake isn't going to grow in length, so we need to remove the last tail piece to account for the fact that a new head piece was added at the front. The next check is to see whether the square is blocked. That could be due to a solid wall, or it could be because part of the snake's tail is in that square. In that case, it's not a path we can go down ➔

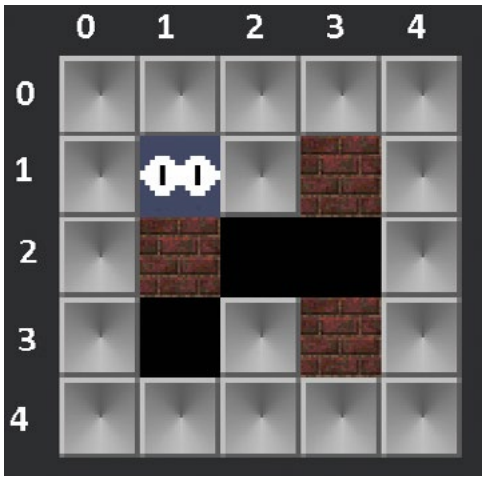


Figure 2: A small level with a snake at position (1,1).

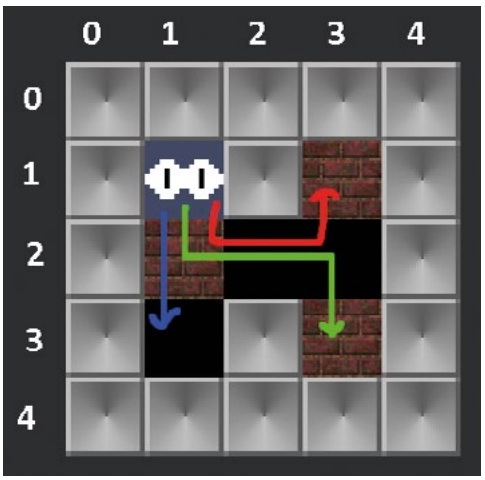


Figure 3: The coloured arrows show the possible paths through our simple maze.

any further, so we return the current score divided by 100. As for why, I'll explain that later. If there isn't a blockage, we add either 1 or 2 to the current score depending on whether we're looking at an empty space or an edible wall. Each step along the path is good, but an edible wall is considered to be better.

The next step is to check to see if **depth** has reached one. If so, we have searched as far as we're allowed to down this path, and we haven't hit a dead end, so we'll just return the current score.

The next part is very similar to the direction-checking code in **update_snake**. For each of the four possible directions, we make a recursive call to **snake_step_score**. We pass in the current score, **depth-1** and a new snake list which consists of the existing snake with the new head position added at the front. The process described above repeats for each step of each possible path. At the end of **snake_step_score** we return the best score returned from the recursive calls.

Before we look at a concrete example, I'll address why hitting an obstacle causes the code to return the current score divided by 100, rather than zero. Hitting an obstacle is bad, so we want to return a very low score, but we still want to favour a long path which ends in a dead end, over a short path which ends in a dead end.

Let's run through an example scenario. **Figure 2** (overleaf) shows a very small level, with a snake at position (1,1). The grey blocks, represented in **GRID** by '**X**', are impassable. The brick walls, represented by a dot character, can be eaten. The empty squares are stored as spaces.

In **update_snake**, we call **snake_step_score** for each direction, starting with right and left. Because there are impassable walls in each of those directions, **snake_step_score** returns zero. That's also the case for up, which is checked last. When we check down, however, things get more interesting. Grid position (1,2) contains an edible wall, so **score** goes up by two. We then get to the recursive stage. We first check the path to the right of (1,2), using a recursive call to **snake_step_score**. (2,2) is an empty square – as the snake won't be eating anything here, we score one point and remove the last entry from the **snake** list, to balance out the effect of having added the new head position to the front of the list. It's important to note here that the **snake** variable in **snake_step_score** is not the same as the **snake** global variable. The latter is the current, 'official' snake, which is updated once per frame based on the chosen direction, and displayed on the screen – whereas each recursive instance of **snake_step_score** has its own **snake**, which is the snake being assessed at the current point along a possible future path.

From (2,2), up and down are impassable walls and going left would mean colliding with the body of the snake on the current path. So the next square along this path is (3,2). Again, we score one point and remove the last tail piece. From here, going left or right result in immediate collisions, so the only valid moves are up or down. Each of these squares is a dead end containing an edible wall, so both will score two points.

By this point in these two paths, illustrated in red and green in **Figure 3**, the total score will be six. But the game doesn't yet know that these are dead ends – that happens when we do the next recursive calls to **snake_step_score**, which will find that there are no valid moves from these squares. That means the final returned value from both paths ends up as 0.06, as we divide the score by 100. That's still a better score than the blue path, which will be assessed next, as the algorithm backtracks to (1,2). The blue path will return 0.03 – two points for a brick wall, one point for an empty square, then divide by 100 because it's a dead end. The end result of all this, back in **update_snake**, is that the snake head will move down by one square, from (1,1) to (1,2), because down returned a score of 0.06 whereas up, left, and right, being impassable

walls, returned zero. Because the new square contains a wall, we won't remove the tail piece, so the snake now has a length of two. We replace the wall with an empty square using **change_grid_pos**. On the next frame, the whole process is repeated, except this time the starting point is a snake with its head at (1,2) and its tail at (1,1). This time the decision will be to go to the right, because that's a better prospect than going down.

THE DOWNSIDE

The main downside of this algorithm is that it can get massively CPU-intensive. In the example above, all paths quickly ended in a dead end. On a larger level, or one which contained places where the snake could go round in a loop indefinitely, we need to put a limit on how many steps ahead we look. This is the purpose of the **MAX_DEPTH** constant. On anything other than a very small level, making changes to this will have a big effect on performance. If it's too high, situations where the snake has many possible paths in front of it could cause the game to freeze up for seconds at a time, as the code may have to evaluate tens or hundreds of thousands of possible paths. On the other hand, if **MAX_DEPTH** is too low, the snake won't be looking very far ahead and may end up going down a path which ends in a dead end.

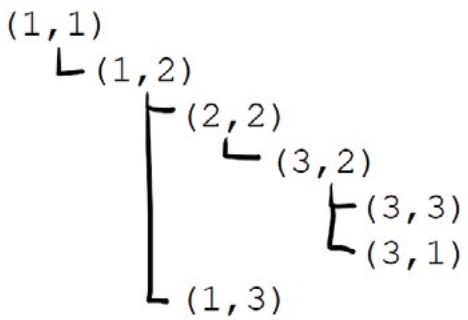
"Hitting an obstacle is bad, so we want to return a very low score"

For the snake code in *Partition Sector*, I had to make some sacrifices for the sake of performance. Although the game is written in C++, which performs a lot better than Python, the snake AI code needs to run quickly enough to allow the game to maintain 60 frames per second. One sacrifice I had to make is that unlike the Python version of the code, the original snake AI doesn't take into account the movement of the snake's tail as it checks each possible path. Taking this into account means having to make copy of the entire snake list for each recursive call to **snake_step_score**. This had too much of a performance penalty to make it feasible. Unlike the Python code, the C++ version allows more than one CPU core to be used – for example, one core can be checking the paths down from the current head square, while another can be simultaneously checking the paths above the current square. The C++ version also dynamically varies **MAX_DEPTH** based on how long the previous snake update took, so it can adapt to a variety of level sizes and CPU speeds.

This kind of algorithm can result in emergent behaviour, where the complexity involved makes it very difficult for a programmer to predict how it will behave in practice. During development of the Python version, I occasionally came across a situation where the snake would fail to go for certain edible walls, even though the scoring system incentivises it to do so, and it wasn't in any danger of getting trapped. When the snake reached a particular point on the grid near these walls, it had a choice of going either down, which would lead it to eat the walls, or left, which would take it past them. The snake always went left. I eventually realised why – when it went left, the snake could see that one of the possible paths along this direction would lead it to eat the walls later on. Therefore, both the left and down directions scored the same. Because the code in **update_snake** assesses the horizontal directions before the vertical ones, it ends up favouring left over down when those directions give the same score. It just so happened that in this situation, the end result was that it would never eat those walls. One way of fixing this would be to give a higher score to paths which lead to eating walls sooner rather than later.

You can download the full code and image files at GitHub (**wfmag.cc/wfmag51**), which includes additional comments, plus some extra code in **update** which randomly adds edible walls to the level over time.

***Partition Sector* is out now on Steam.**



The call tree for the example paths in Figure 2, showing how snake_score_step calls itself recursively for each square along a path. Squares which cannot be moved into are not shown.

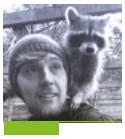


FURTHER READING

For more on the subject of AI and pathfinding, check out Paul Roberts' feature on the subject, An introduction to pathfinding in games, in issue 48's Toolbox. You can purchase a copy or download a PDF from **wfmag.cc/48**

Obra Dinn: The Rule of Three

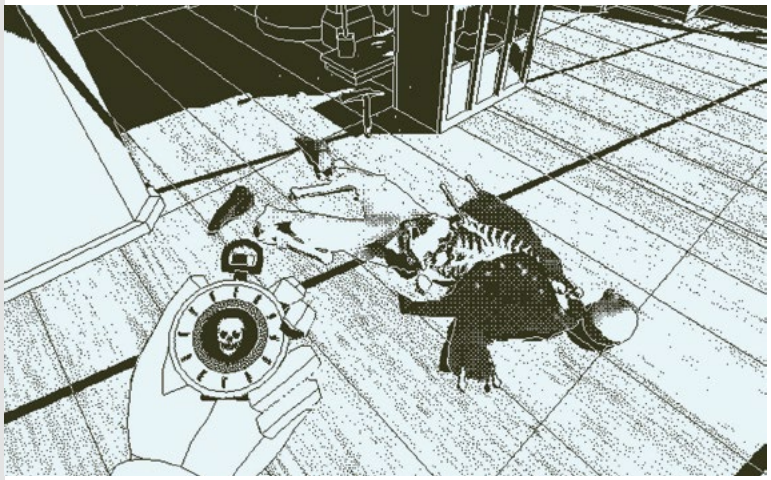
Return of the Obra Dinn is a puzzling and storytelling masterpiece. Antony investigates what makes its narrative design tick



AUTHOR
ANTONY DE FAULT

Antony is Wireframe's game writing and narrative design columnist. He's also creative director of Far Few Giants, and you can find his work on **default.games** or **@antony_de_fault** on Twitter.

Return of the Obra Dinn is a deduction game. It describes itself as an insurance adventure, which is a very literal description; you are an insurance assessor, and journey one stormy evening to the good ship Obra Dinn, which has mysteriously reappeared after five years lost at sea. There are no evident survivors. It's your job to complete a report chronicling the fate of everybody on board. To do so, you use a magic pocket watch called the Memento Mortem. When 'activated' near a corpse, the watch will replay the last few things they heard, and show you a still-life diorama of the location and moment of their death.

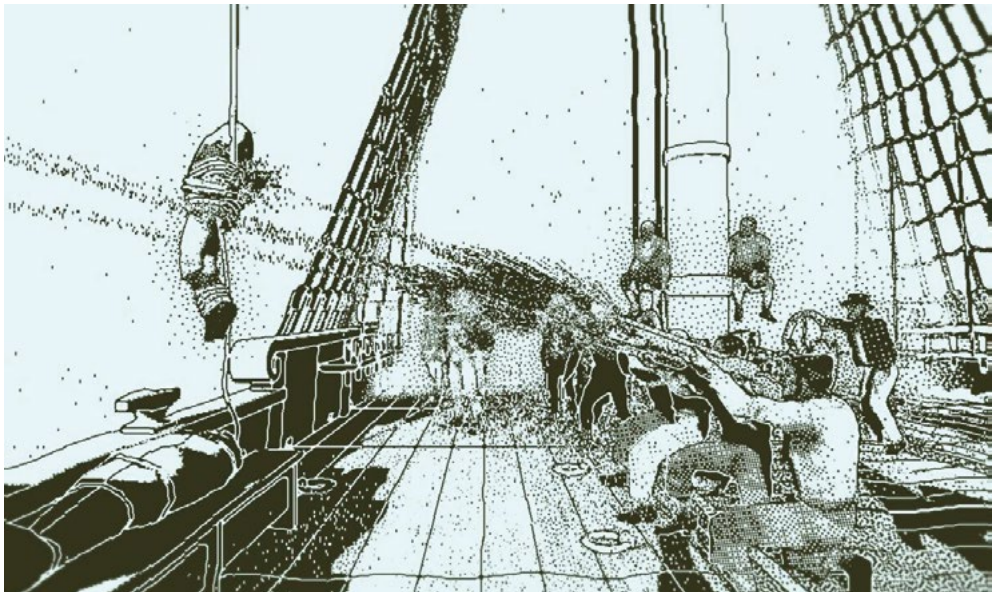


You never know where the watch will take you, as many aboard died somewhere other than their final resting place.

For example, I approach a disembodied arm, and I 'use' the watch on it. I hear a scuffle, some clashes of steel, a meaty slicing sound, then gurgling cries dying down to a whimper. I then see a diorama of a passenger lying on the ground armless, in their moment of death, and perhaps also see a scimitar-wielding sailor stood over them, wide-eyed. From this, I deduce that the sailor killed the passenger. I open my journal, into which I must enter a) the victim's identity, b) their mode of death, and c) their killer via a set of three multiple-choice fields. Some modes of death preclude a killer, such as suicide or accident, but most 'fates', as the game calls them, require these three components. The only problem is, I don't know the names of either character. But I have a few unlabelled drawings of the crew, and also the ship's crew manifest, which gives me the names, nationalities, and titles (such as second mate, midshipman, or passenger) of everyone who was aboard. So, since the mode of death is usually obvious (in this case, I select 'was killed with a sword'), the real puzzle lies in identifying the souls who embarked on this cursed voyage.

IDENTIFICATION

So, it's thinking time. Let's say that, as another individual expires of flu, I hear "Roll the dice, Eddie!" yelled in the background. When I look around in his moment of death, I notice a man with dice in his hand and a scimitar on his hip. I've not seen anyone else with a scimitar, and there's only one 'Edward' on the crew manifest! Maybe I



An example of a death diorama. Accessing the corpse of the hanging man allows us to view this exact moment, frozen in time.

also see the passenger, sketching in a notebook. Is he, in fact, not a passenger, but the ship's artist, Giorgio? I select this combination in my book: a) Giorgio b) was killed with a sword by c) Edward.

Ding ding! That's correct. But, when my deductions are true, the game doesn't always verify its accuracy straight away. If it did, I could simply sit and try every combination of names, or at least if I knew one of these characters' names but not the other, I could click through the others until the game verified the correct answer. Instead, *Obra Dinn* verifies fates in sets of three at a time. It's the rule of three: as soon as three deaths have been accurately logged, the game pulls me out of the action and lets me know that they were correct, stamping them permanently into the insurance ledger.

EVALUATION

This is an elegant way of dealing with the issue of player solution input in deductive games, and *Obra Dinn*'s is *nearly* there. The multiple-choice lists are extensive enough to not be too restrictive, although the list items give away some broader thematic clues. And waiting until you get three sets of three-part entries precisely correct prevents most brute-force verification. But the rule of three mechanic does still lead, in my own and every playthrough I've seen online, to a reasonable amount of blindly fishing for answers. Since any three fates can be verified together, every time a verification occurs, you know for sure that any fate you've entered but which didn't get verified is incorrect. Once you learn this, you can use it to cycle between possible answers to the incorrect fates.

"*Obra Dinn* makes you feel smarter than you really are"

One such example which seems to be very common in people's playthroughs is regarding the identities of the Chinese sailors. Let's say we see a sailor clearly being crushed by falling rigging. He spoke a Chinese language in the moments before his death, so you can quickly guess that he's one of the four Chinese aboard. But they never refer to each other by name. So you take a stab, perhaps selecting 'Huang Li', first in the list. A little later, three other fates are verified, but not this one, so you know the crushed man isn't Li and you instead change the name to 'Jie Zhang'. More are verified, and still no luck. So you change it to 'Ban Lim'. Fifteen minutes later, another three are verified and this time – bingo! – Lim was the one who got smushed after all. You've solved the puzzle using your brain, yes, but that wasn't an actual deduction, you simply figured out how to manipulate the game design.

PLAY VS PURITY

Overall, *Obra Dinn* is an admirable attempt to solve the problem of input verification in narrative design. It tackles it head-on, and is highly playable: using the game's systems, it's difficult to get stuck. Process of elimination and reviewing earlier deaths with fresh eyes will usually give you everything required to solve harder fates, so you're never left feeling dumb. *Obra Dinn* provides a whirlwind sort of deduction, which makes you feel smarter than you really are. There are imperfections – multiple-choice answers are still revealing and are easily exploitable. But I, for one, can't wait for the next breed of deduction games, which inherit what works from this design, and attempt to transcend beyond.

OBSERVER EFFECT

As I've previously written, one of the hardest things I've encountered in narrative design is finding a way to recognise a player's deduction, without the very mechanic you use to verify their input revealing too much information *itself*. In a classic RPG, for example, I might only be given three dialogue options: 1) Edward dismembered him, 2) Giorgio fell on a sword, or 3) a beast ripped his arm off. The very presentation of options severely limits the range of possibilities, here so much so that a dumb guess has a good chance of being correct.

The multiple choice list for fates is sizeable, but suggestive. It immediately suggests that clawed creatures will feature, for example.



Make a Frogger-style arcade game

Straight from Code the Classics, here's how to make your own road-crossing action game akin to Konami's Frogger

Download the code from GitHub: **wfmag.cc/ctc1**

AUTHORS
EBEN UPTON, DAVID CROOKES, AND ANDREW GILLET



Magazine advert for Sega's home computer conversions.

A *Frogger* coin-op was featured in '*The Frogger*' episode of the sitcom *Seinfeld*.

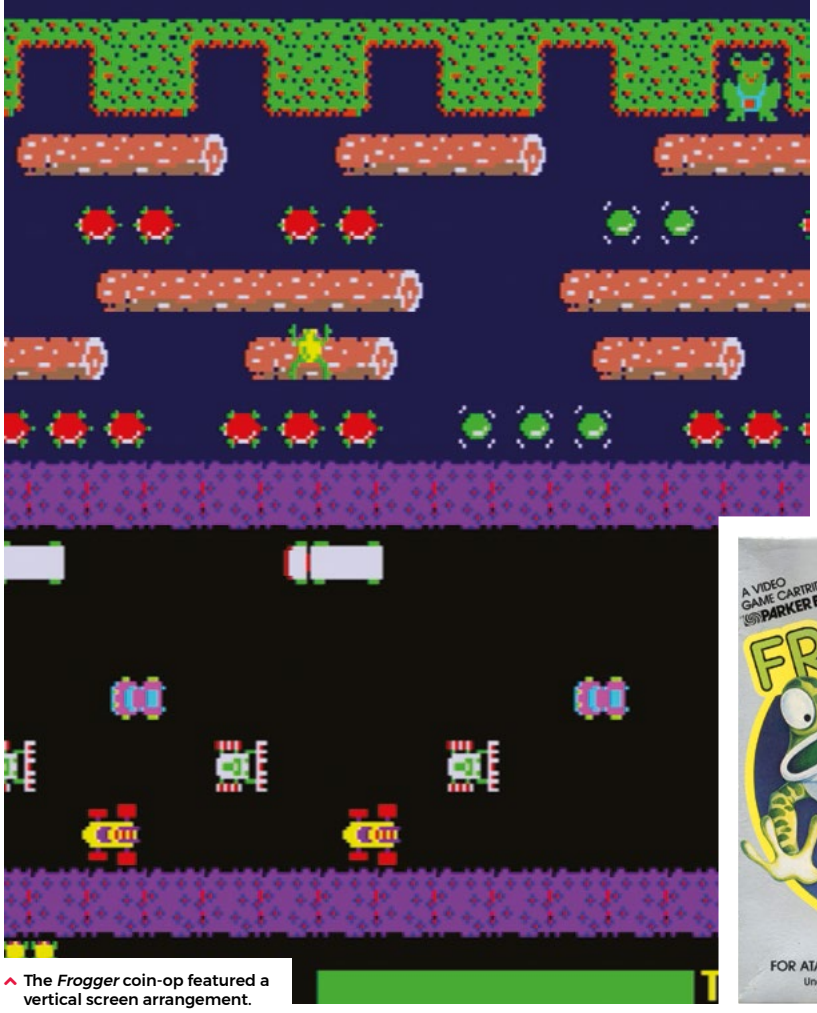
Released in 1981, *Frogger* was one of the most popular and enduring games from the golden age of arcades – a top-down platformer with rules that could be understood at a glance. Players guided five frogs from the bottom of the screen to the safety of their home at the top, with such obstacles as a busy road and a treacherous river full of predators complicating their journey. To keep players coming back for more, the developers made it difficult enough to ensure that failure would, at some point, be inevitable. The frustration resulting from not being able to get all five frogs to their various homes on the riverbank was all that was needed to ensure the flow of cash into the arcade cabinet.

Frogger was a big hit for Japanese studio Konami, but what really helped spread its popularity was its array of ports to home computers and consoles. Programmer John D. Harris was responsible for two of those ports – the Atari 400 and 800 computer versions, which were among the games used at the first video game world championships, held in January 1983.





Home versions, including John's Atari 800 game, had to convert this to a horizontal TV screen.



The *Frogger* coin-op featured a vertical screen arrangement.



Harris used the 48kB Atari 800 as his development platform, albeit with some extra hardware to help out: he had an Axlon RAMDisk that lent an extra 128kB of memory, a high-speed floppy disk interface made by LE Systems, and an Austin-Franklin 80-Column Board which presented an 80-column by 25-character screen display on a monitor. With those in hand, he began to deconstruct the original game and make notes about the various aspects of its gameplay.

"In the years to come, the Atari would forever establish itself in my mind as one of the greatest computers ever made," Harris says. "People were still discovering new graphic tricks and techniques ten years after the machine was introduced. If you compare the latest programs written for the Atari with the earliest programs, the huge difference between them is a testament to the magic they accomplished with its design."

"What helped *Frogger* spread its popularity was its array of ports to home computers"

You'll find the full story of *Frogger*'s Atari 400/800 development in *Code the Classics*, Raspberry Pi's book about classic games, how they were made, and how you can recreate them in Python. The *Frogger* chapter goes into far more detail about Harris' experiences – including the heart-stopping moment where the original source code was stolen, and work had to start over almost from the beginning. In the meantime, though, here's how to make your own modern take on *Frogger* – with code by Raspberry Pi's Eben Upton and graphics designed by the legendary Dan Malone, may we present *Infinite Bunner*...

RUN RABBIT RUN

Infinite Bunner is our take on the classic *Frogger* gameplay. The original game takes place on a single screen, with a busy road at the bottom and a river at the top. In our game, the level is procedurally generated and scrolls continuously. The player must progress fast enough to avoid falling off the bottom of the screen – if this happens, an `Eagle` flies down the screen and catches the player, resulting in Game Over.

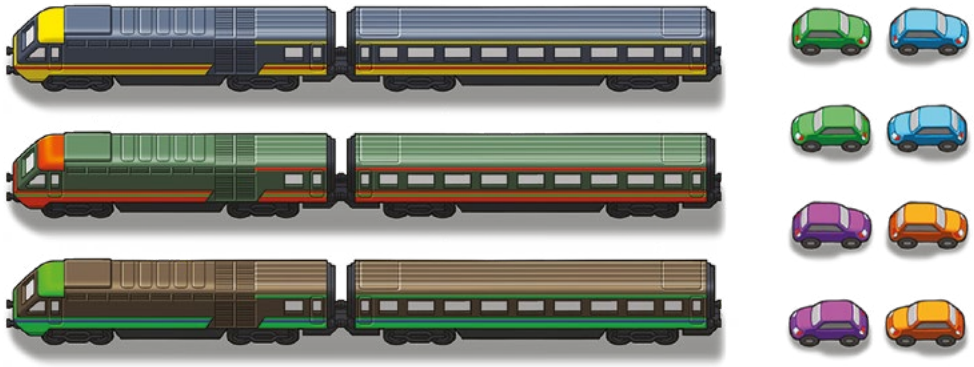
The level is divided into a series of sections, each of a particular type – `Grass`, `Dirt`, `Road`, `Pavement`, `Rail`, or `Water`. Each section is made up of a series of rows, where each row corresponds to one sprite from the images folder. Rows are 40 pixels high, although you may notice that some of the sprites are 60 pixels high; this is just a visual effect – the sprite overhangs the row ➔

CHALLENGES

`ActiveRow.update` ensures a minimum distance of 240 pixels between the start of one child object and the start of the next – or half that for rows where child objects have a speed of 2. A random factor varies the distance between each child object. These rules apply to both `Road` and `Water` rows – but how would you make it so that each of those row types could have its own custom values or rules for the spacing of child objects? Try adding a new type of row to the game – perhaps lava, ice, or space? The graphics could initially be a copy and recolouring of an existing row type. More importantly, you'll need to think about whether the new row will be a variation on an existing one, or have a completely new gameplay mechanic.



These paved areas provide a welcome breather between furious bouts of hopping.



Trains hurtle along the rail tracks, while various coloured cars move right and left along the roads.

above, but the row is still considered 40 pixels high for gameplay purposes.

Road, **Water**, and **Rail** sections all feature moving objects: **Cars**, **Logs**, and trains (the latter has no class of its own). **Grass** sections may contain **Hedges**, which the player must walk around. Because these objects always stay within their rows, we classify them as child objects of the rows. Child objects are drawn relative to their parent rows – e.g. if a road row has a Y coordinate of 200, and a car on the road has a Y coordinate of 10, the car would be drawn at Y coordinate 210. To provide this functionality, all objects in the game inherit from a class called **MyActor**, which in turn inherits from Pygame Zero's built-in **Actor** class. **MyActor** works just like **Actor** except that it overrides the update and draw methods in order to update and draw the list of child objects. It also ensures objects are drawn at the correct position on screen, taking the scrolling of the level into account.

"All rows inherit from the Row class. This performs several important tasks, such as collision detection"

All rows inherit from the **Row** class. This performs several important tasks, such as collision detection. Some of the methods provide default results, which can be overridden in inherited classes. For example, the **push** method – called by the player to determine movement on the X axis –



RANDOM ROWS

The `__init__` (constructor) method of the `Game` class creates a list to contain the rows. To begin with, this just contains a single `Grass` row. This will be the first row, and will appear at the bottom of the screen – but how does the game decide which types of rows to create after that? Each row class – `Grass`, `Road`, `Dirt`, `Rail`, `Pavement`, and `Water` – has a `next` method, which decides what the next row will be. Each method makes a decision based on the current row's `index` – in other words, the number of the row's sprite.

There are 16 grass and dirt sprites, four rail sprites, six road sprites, three pavement sprites, and eight water sprites. These sprites only tile together correctly in certain combinations – for example, Grass 6 must be followed by Grass 7. So some of the rules in the next methods ensure that such rows occur in the correct sequence. Other rules make random choices as to which row comes next. For example, a sequence of `Grass` or `Dirt` rows is followed by either `Road` or `Water`.

Random probabilities of rows can also be used to determine how many rows of certain types occur in sequence. In the case of `Water` rows, there are always at least two in sequence, but after the second one, there's always a 50-50 chance of another, up to a maximum of seven. The use of randomness ensures that the level is different each time you play.



Logs provide a shift in challenge, since they have to be landed on rather than avoided.

returns zero, resulting in no movement. In the `Water` class, however, this method is overridden, and causes the player to move on the X axis if they're currently sitting on a log.

The `ActiveRow` class inherits from `Row`, and is the base class for `Water` and `Road`. What those two classes have in common is that they both feature moving objects (logs and cars) which start just off-screen and move horizontally. `ActiveRow` deals with creating and destroying these child objects. The two subclasses override a number of methods – one key example being `check_collision`. The `Bunner.update` method calls this to find out if the player has collided with something, and if so, what to do about it. In the case of `Road`, colliding with a car kills the player and replaces the player sprite with the 'splat' image (see the sprites below left). For `Water`, however, colliding with a log is a good thing, whereas not colliding with a log ends the game and replaces the player sprite with the 'splash' animation.

The `Game` class maintains a reference to the player object, and is also responsible for creating, updating, and deleting rows.

The final part of the code uses a simple state machine system to update and draw the game objects. ➔



Movement and splat frames for our bunny.

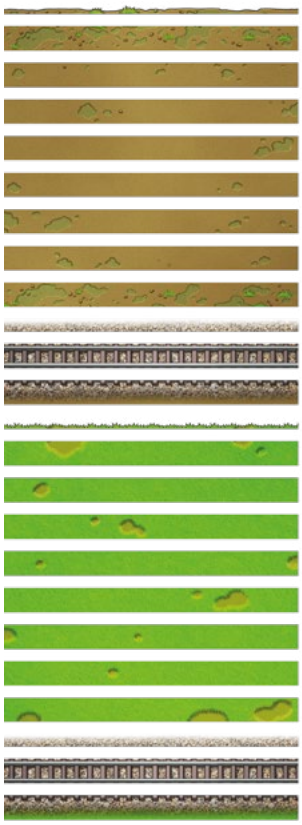
HEDGE MASKS

Grass rows sometimes contain `Hedges`. These block certain parts of the row, requiring the player to make a detour around them. The function `generate_hedge_mask` decides the layout of hedge segments in a row. A mask is a series of Boolean values which allow or prevent parts of an underlying image from showing through. This function creates a mask representing the presence or absence of hedges in a `Grass` row. `False` means a hedge is present; `True` represents a gap.

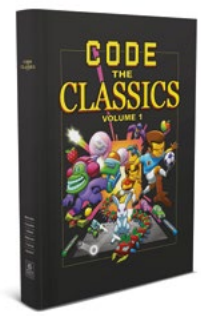
Initially we create a list of twelve elements. For each element there is a small chance of a gap, but often all elements will be `False`, representing a hedge with no gaps. We then randomly set one element to `True`, to ensure that there is always at least one gap that the player can get through. Single-tile gaps aren't wide enough for the player to fit through, so the next step is to widen any gaps to a minimum of three tiles. Once the mask has been generated, the function `classify_hedge_segment` is used to determine which sprite to use for each hedge segment.



The scrolling backdrop is contructed from horizontal rows such as dirt, grass, and rail tracks.



This feature is taken from ***Code the Classics***: a lavish, 244-page book that relates the stories of seminal 1970s and 1980s video games, and also shows you how to create modern games inspired by them in Python and Pygame Zero. You can order your copy right now at **wfmag.cc/ctc**.



Infinite Bunner

The code here is just a small sample – the full program and assets can be downloaded directly from our GitHub: **wfmag.cc/CTC1-bunner.** Open the **bunner.py** file in a Python editor, such as IDLE, and select Run > Run Module.




```
from pygame import mixer
from random import *
from enum import Enum
import pygame, pgzrun, pzgero, sys

if sys.version_info < (3,6):
   print("This game requires at least version 3.6 of Python. Please
download it \ from www.python.org")
   sys.exit()

if pgzero.__version__ != "1.2":
   print("This game requires at least version 1.2 of Pygame Zero.
You are using \ version {pgzero.version}. If this is older than
1.2, please upgrade using the \ command 'pip install --upgrade
pgzero'")

WIDTH = 480
HEIGHT = 800
TITLE = "Infinite Bunner"

ROW_HEIGHT = 40
DEBUG_SHOW_ROW_BOUNDARIES = False

class MyActor(Actor):
   def __init__(self, image, pos, anchor=("center", "bottom")):
      super().__init__(image, pos, anchor)

      self.children = []

   def draw(self, offset_x, offset_y):
      self.x += offset_x
      self.y += offset_y

      super().draw()
      for child_obj in self.children:
         child_obj.draw(self.x, self.y)

      self.x -= offset_x
      self.y -= offset_y

   def update(self):
      for child_obj in self.children:
         child_obj.update()

class Eagle(MyActor):
   def __init__(self, pos):
      super().__init__("eagles", pos)

self.children.append(MyActor("eagle", (0, -32)))

   def update(self):
      self.y += 12

class PlayerState(Enum):
   ALIVE = 0,
   SPLAT = 1,
   SPLASH = 2,
   EAGLE = 3

DIRECTION_UP = 0
DIRECTION_RIGHT = 1
DIRECTION_DOWN = 2
DIRECTION_LEFT = 3

direction_keys = [keys.UP, keys.RIGHT, keys.DOWN, keys.LEFT]

DX = [0,4,0,-4]
DY = [-4,0,4,0]

class Bunner(MyActor):
   MOVE_DISTANCE = 10

   def __init__(self, pos):
      super().__init__("blank", pos)

      self.state = PlayerState.ALIVE
      self.direction = 2
      self.timer = 0
      self.input_queue = []
      self.min_y = self.y

   def handle_input(self, dir):
      for row in game.rows:
         if row.y == self.y + Bunner.MOVE_DISTANCE * DY[dir]:
            new_row = row
            break

      if new_row.allow_movement(self.x + Bunner.MOVE_DISTANCE *
DX[dir]):
         self.direction = dir
         self.timer = Bunner.MOVE_DISTANCE
         game.play_sound("jump", 1)

   def update(self):
      for direction in range(4):
         if key_just_pressed(direction_keys[direction]):
            self.input_queue.append(direction)

if self.state == PlayerState.ALIVE:
         if self.timer == 0 and len(self.input_queue) > 0:
            self.handle_input(self.input_queue.pop(0))

         land = False
```

```
        if self.timer > 0:
            self.x += DX[self.direction]
            self.y += DY[self.direction]
            self.timer -= 1
            land = self.timer == 0

        current_row = None
        for row in game.rows:
            if row.y == self.y:
                current_row = row
                break

        if current_row:
            self.state, dead_obj_y_offset = current_row.check_
collision(self.x)

            if self.state == PlayerState.ALIVE:
                self.x += current_row.push()

                if self.y > game.scroll_pos + HEIGHT + 80:
                    game.eagle = Eagle((self.x, game.scroll_pos))
                    self.state = PlayerState.EAGLE
                    self.timer = 150
                    game.play_sound("eagle")

                if land:
                    current_row.play_sound()
            else:
                if self.state == PlayerState.SPLAT:
                    current_row.children.insert(0, MyActor("splat" + \
                          str(self.direction), (self.x, dead_obj_y_
offset)))
                self.timer = 100

        self.x = max(16, min(WIDTH - 16, self.x))
    else:
        self.timer -= 1

    self.min_y = min(self.min_y, self.y)
    self.image = "blank"

    if self.state == PlayerState.ALIVE:
        if self.timer > 0:
            self.image = "jump" + str(self.direction)
        else:
            self.image = "sit" + str(self.direction)
    elif self.state == PlayerState.SPLASH and self.timer > 84:
        self.image = "splash" + str(int((100 - self.timer) / 2))

class Mover(MyActor):
    def __init__(self, dx, image, pos):
        super().__init__(image, pos)

        self.dx = dx

    def update(self):
        self.x += self.dx

class Car(Mover):
    SOUND_ZOOM = 0
    SOUND_HONK = 1

    def __init__(self, dx, pos):
        image = "car" + str(randint(0, 3)) + ("0" if dx < 0 else "1")
        super().__init__(dx, image, pos)

        self.played = [False, False]
        self.sounds = [("zoom", 6), ("honk", 4)]

    def play_sound(self, num):
        if not self.played[num]:
            game.play_sound(*self.sounds[num])
            self.played[num] = True

class Log(Mover):
    def __init__(self, dx, pos):
        image = "log" + str(randint(0, 1))
        super().__init__(dx, image, pos)

class Train(Mover):
    def __init__(self, dx, pos):
        image = "train"   +str(randint(0, 2)) + ("0" if dx < 0 else
"1")
        super().__init__(dx, image, pos)

class Row(MyActor):
    def __init__(self, base_image, index, y):
        super().__init__(base_image + str(index), (0, y), ("left",
"bottom"))

        self.index = index
        self.dx = 0

    def next(self):
        return

    def collide(self, x, margin=0):
        for child_obj in self.children:
            if x >= child_obj.x - (child_obj.width / 2) - margin \
                  and x < child_obj.x + (child_obj.width / 2) +
margin:
                return child_obj

        return None

    def push(self):
        return 0
...
```



Source Code



Exerion's arcade flyer was careful to push the game's visual splendour.

Our homage to *Exerion*. You can't tell from a static image, but the illusion of depth is amazing. Honest.

Recreate Exerion's pseudo-3D landscape

Swoop over mountains in our homage to Jaleco's shooter



AUTHOR
MARK VANSTONE

Taking the shooting action of *Galaxian* from a few years earlier, Japanese developer Jaleco released *Exerion* in 1983. What helped *Exerion* stand out from other shoot-'em-ups of the period, though, was its pseudo-3D background, which used both a scrolling landscape and moving background elements to create the illusion of depth. This was quite an achievement considering the hardware of the day, and it's still an eye-catching effect even now.

To recreate *Exerion*'s scrolling in Pygame Zero, we need to break the effect down into three main elements. The first is the scrolling stripes that form the landscape's base layer. These are followed by the elements that roll over the landscape as it scrolls down the screen. Then thirdly, there's the player's movement, which affects both the other two elements. Let's start with the scrolling landscape, which is made of alternating coloured stripes. To give the sense of perspective, they start very thin on the horizon and, as they move down the screen, they grow in thickness. We can create this with a list that contains the heights of each stripe, increasing as we go through the list. Then in our `draw()` function, we run through the list, drawing the stripes downwards from the horizon using the heights in our list. Then we increase the height of each stripe. When the first stripe reaches a certain height, we take the last one off the end of the list and add it to the beginning, resetting its height to the smallest.

The next items to code are the landscape details. These are buildings and hills that we want to move with the stripes so that it looks as though the player's flying over them as they scroll by. We need to do this in two sections as some will be drawn behind the stripes as they're over the horizon, while others will be in front of the stripes. We'll give each landscape item an index which ties it to a stripe, but we'll give items that are beyond the horizon negative indexes, and those in front, positive. All the landscape items will start with a negative index to indicate that they all start beyond the horizon. So in the `draw()` function, we have an initial loop to draw all the items behind the horizon, and then while we're drawing the stripes, we also draw the items which have the same index as the stripes, so they appear in front. Once we have these two parts, we'll have a continuous carousel of stripes and landscape items.

Now we need the player aircraft. We can move it around using the arrow keys, but we want to have the background graphics moving to give the impression of a 3D landscape: if the player moves upwards, we move the horizon down, and do the opposite if the player moves downwards. We then apply a parallax effect to the landscape items. The way we do this is by moving the items at the back a small amount in the opposite direction from the player's movement, and as we work down through the items, they move more and more. This enhances the impression of depth.

Once we've added a tilt to the aircraft as it turns, we have the makings of an *Exerion* clone. All that needs to be added are the aliens to shoot at – if you want to add these, then you could take the *Galaxian* routine from last month's Source Code.

An Exerion landscape in Python

Here's Mark's code, which will create a neat pseudo-3D effect in Python. To get it running on your system, you'll need ot install Pygame Zero – full instructions are available at **wfmag.cc/pgzero**.

Download the code from GitHub: **wfmag.cc/wfmag51**

```
WIDTH = 600
HEIGHT = 800
ship = Actor('ship', center=(300, 700))
count = 0
startcol = 0
stripes = []
for s in range(0, 20):
    stripes.append((s+1)*4)
landscape = []
landitems = [1,2,3,3,2,1,2,3,2,3,1]
landindexes = [-5,-8,-10,-13,-14,-20,-22,-26,-28,-30,-31]
for l in range(0, 10):
    landscape.append(Actor('landscape'+str(landitems[l]),
center=(300,1000)))
    landscape[l].index = landindexes[l]
    landscape[l].yoff = 0

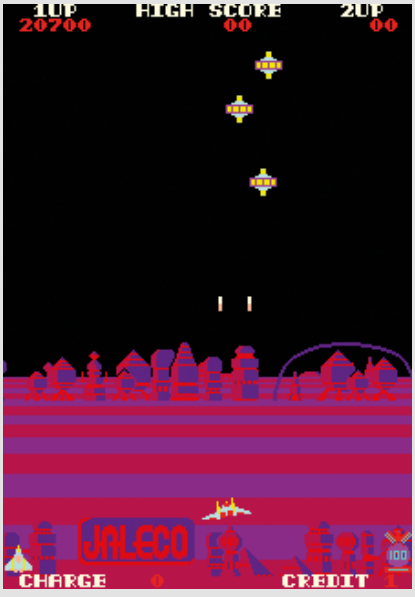
def draw():
    drawLand()
    screen.draw.text("EXERION ZERO", center = (300, 60),
owidth=0.5, ocolor=(255,255,0), color=(255,0,0) , fontsize=80)
    ship.draw()

def update():
    global count,startcol
    count += 1
    if keyboard.left and ship.x > 100:
        if ship.angle < 30: ship.angle +=2
        ship.x -= ship.angle/6
    if keyboard.right and ship.x < 500:
        if ship.angle > -30: ship.angle -=2
        ship.x -= ship.angle/6
    if keyboard.up and ship.y > 400 : ship.y -= 4
    if keyboard.down and ship.y < 750 : ship.y += 4
    if not keyboard.left and not keyboard.right:
        if ship.angle > 0: ship.angle -= 2
        if ship.angle < 0: ship.angle += 2
    for s in range(0, 20):
        stripes[s] += 0.2
    if stripes[0] > 10:
        stripes.insert(0, stripes.pop())
        stripes[0] = 1
        if startcol == 0:
            startcol = 40
        else:
            startcol = 0
        updateLandscape()

def drawLand():
    sh = (800-ship.y)/2
    screen.blit("background", (0, sh/2))
    y = 300 + sh
    col = startcol
    for l in range(0, 10):
        if landscape[l].index < 0:
            landscape[l].x = parallax(y)
            landscape[l].y = y - landscape[l].yoff
-(landscape[l].index*23)-30
            landscape[l].yoff += 0.5
            landscape[l].draw()
    for s in range(0, 20):
        col = col + 40
        if col > 40: col = 0
        screen.draw.filled_rect(Rect((0, y), (600,
stripes[s])),(200,col,0))
        for l in range(0, 10):
            if landscape[l].index == s:
                landscape[l].y = y-stripes[s]-30
                landscape[l].x = parallax(y)
                landscape[l].draw()
        y += stripes[s]-1

def updateLandscape():
    for l in range(0, 10):
        landscape[l].index += 1
        landscape[l].yoff = 0
        if landscape[l].index > 20:
            landscape[l].index = -10

def parallax(y):
    sh = (800-ship.y)/2
    return ((300-ship.x) * ((y-sh)/500))+300
```



Exerion's pseudo-3D effect helped the game stand out from the crowd of other shooters packed into arcades at the time.

Indie reflections: Making Anew Part 16

How do you make your game truly rewarding? Jeff has a few words of advice



AUTHOR
JEFF SPOONHOWER

Jeff Spoonhower is a game developer, artist, and university professor who has been working on triple-A and indie games for over 18 years.
anewthegame.com

From the start of production on our open-world action-adventure game, we set three high-level design goals: create a large, beautiful world that encourages exploration and discovery; design rewarding gameplay experiences that encourage creative, experimental play through combinations of individual play mechanics; develop elements of gameplay that interact in ways which create interesting, unexpected results for the player.
In this article, I'll share some design philosophies and techniques that we implemented to achieve these goals.

UP TO THE CHALLENGE

We began by researching other games in our genre (Metroidvania) in order to get a 'lay of the land' for common design elements. We noticed that the player character almost always traversed the world on foot, by running and jumping, but this can become boring after many hours of play.

To add gameplay depth and interest in *Anew*, we designed an expanded set of player movement options, including sliding, wall-climbing, jet-packing, and swimming. We also created several pilotable vehicles such as a dune buggy, flying saucer, rocket ship, and combat mech. These new forms of travel add variety and fun to the exploration and combat.

In *Anew*, acquiring new movement types acts as a reward mechanism and allows players to experience the game in new and unexpected ways. For example, early in the gameplay flow, the player explores a cave, and discovers an alien rocket ship on a launch pad. The player can climb in the cockpit, but is unable to pilot the rocket. The player understands that this vehicle is important in some way, and their curiosity is piqued. Later in the game, the player acquires an 'actuator device', which functions as a key to ignite the rocket ship. The player can return to the cave with the device in hand and then pilot the rocket. The player is rewarded for their curiosity and for remembering how to navigate back to that specific location in the game world. The rocket ship blasts off, giving the player access to a secret area above the clouds, effectively expanding the boundaries of the world.

"Acquiring new movement types acts as a reward mechanism"

The player collects a variety of weapons used not only to dispatch enemies, but to strategically navigate environments. Certain combinations of bombs, reflecting laser beams, and bouncing projectiles can be used to trigger puzzle switches, open doors, and blast through rock barriers, allowing progression through the world. Some weapons have hidden functionality, such as the shotgun, which can be used to boost the player higher into the air when fired at the ground or during jumps. Each weapon can be enhanced using an upgrade system, another enticement and reward mechanism for skilful play.



What Metroidvania game is complete without a host of awesome weapons and abilities to discover?

Our player upgrade system, based on chips and sockets, adds additional depth to gameplay.





Many gameplay systems were necessary to encourage the player to experience our large open world.

The player's spacesuit features a fixed number of available upgrade slots, which are fictionalised as electrical sockets on the suit. While exploring the world, the player finds computer chips in hidden or difficult-to-access areas. On returning to their ship, the player can plug the collected chips into any available sockets on his suit. Each chip has a specific gameplay effect on the player, such as increased movement speed or resistance to extreme heat. This system allows the player to creatively modify the rules of the game, leading to unique and unexpected results.

In much the same way that films are paced through the ebb and flow of dramatic conflict, rhythm of dialogue, length of shots, and tempo of editing, gameplay pacing must be intentionally planned and implemented. Well-paced gameplay has a profound impact on the player's immersion into the game world, and creates diversity and variety in the moment-to-moment play experience. Poorly paced games can cause problems such as gameplay fatigue (too much of one type of mechanic) or boredom (not enough variety in mechanics). We used the following design techniques to create well-paced gameplay:

- Contrasting sizes of adjacent play spaces, such as cramped tunnels connecting to cavernous rooms, and vice-versa; and shifts between horizontal and vertical room layouts, which require the player to use a variety of movement skills, weapons, and gear, create visual contrast and alleviate gameplay fatigue.
- Frequent shifts among the core mechanics of combat, platforming, and exploration provide variety in pacing. Combat creates hectic, fast-paced play, requiring quick reflexes and reaction times; platforming challenges test the player's movement and combat skills; exploration is slower-paced, allowing for moments of observation, reflection, and exposition through environmental storytelling.
- Dangerous environmental hazards and traps, such as lava, poisonous fumes, electrified water, rolling boulders, flaming geysers, quicksand, and moving walls create additional challenges.
- The density, placement, health levels, and attack strengths of creatures and enemy characters present in any given combat encounter affect how the player plans their moves.
- Locked doors restrict access to new abilities or areas, and require the player to use a key, specific weapon, or combination of found items in order to be unlocked.
- Puzzles require high levels of skill to solve and can involve trick shots using specific weapons, flipping switches, or pulling levers in a pattern while on a timer.
- Hidden rooms are usually discovered accidentally and encourage exploration of environments and reward curious play. Finding a hidden room and collecting rewards motivates the player to explore the world to discover more of them.
- Easter eggs are prizes hidden in the game world. They often break the fiction of the game and are humorous. Easter eggs can provide meaningful rewards to the player, or they can simply act as inside jokes.

We've been able to create a fun and rewarding gameplay experience for players by spending time on designing, implementing, testing, combining, and refining each of these techniques. Regardless of its genre, be sure to give yourself time to thoroughly explore all the available options to create a game you'll enjoy making, and that your players will enjoy playing.

STEP BY STEP

Complex, multifaceted gameplay systems don't come together quickly or easily. Attack each of your planned 'elements of fun' one at a time, giving each system or mechanic a due amount of attention. Prototype, implement, test, and iterate until it's functional and relatively bug-free. Thoroughly playtest it (internally and externally with friends/family), then move onto the next one. Scrap ideas that don't work as early as possible. If all goes well, each of these gameplay elements will combine in new and unexpected ways, which will result in more fun for your player.

Stonefly

"For all of our games, stylistic inspiration comes from different mediums like painting, illustration, and graphic design," explains Adam Volker, creative director at Flight School Studio. "We believe there is a rich history across all sorts of visual mediums that could inspire the look of games.

"This particular art style was heavily inspired by the work of Charley Harper. Specifically, it was his design sense. He was able to iconize and simplify the natural world. His eye and mind are so clearly on display in his work. It's how he sees shape and colour. We wanted to try and make something as equally iconic for our fantastic forest world."

Adapting this inspiration from a 2D to 3D space was a challenge, though it's one the team is confident it met. "As we translated what he does into a full 3D environment, we had to depart from some of the ways he treated designs," Volker says. "Knowing where to stick to the inspiration and where to depart from it was probably the biggest visual challenge to overcome."









GAME
Stonefly

ARTIST
Flight School Studio

RELEASE
1 June

WEBSITE
wfmag.cc/stony

RIOT AND RESISTANCE

how video games depict acts of defiance

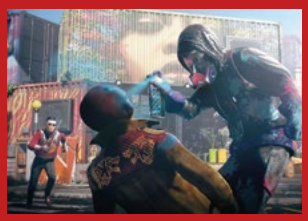
Demonstrations and riots often turn up in video games – but there's a huge gulf between the digital fiction and the hard reality

WRITTEN BY **HAYDN TAYLOR**



Tonight We Riot satirises the militarisation of police, juxtaposing their excessive force against rioters armed with bricks and bottles

In *Watch Dogs: Legion*, players enter a rather banal dystopia, where many don't even bother to protest.



Mindless mobs, extreme violence: the depiction of riot and resistance in video games provides an illuminating glimpse into how we understand them on a cultural level. Triple-A developers tend to centre their stories on lone heroes versus cartoonish bogeymen, and where meaningful change is only brought about through violence. The reality of these movements is, however, far less straightforward, and these stories of demonstrations and defiance deserve to be portrayed in their full complexity.

Few moments in recent history have challenged our collective assumptions around riot and resistance quite like the uprisings in America, which erupted in the summer of 2020. The protests began after George Floyd, an African American from Minnesota, was murdered by a policeman. Floyd was another in a long list of Black victims of police violence, and his death sparked one of the largest waves of protests in US history. The demonstrations continued into the winter, bringing the issue of police brutality into sharp focus, and also the disparity between how resistance is commonly portrayed and what it actually involves. While resistance is a common issue across all forms of media, the way it manifests in video games is a strange distortion that speaks to our individual sense of powerlessness; whether it's through offering overly simplistic solutions to complex problems or excusing us of personal responsibility.

"The way resistance manifests in video games is a strange distortion"

what we see

Dr Alfie Bown is a lecturer in digital media, culture and technology at Royal Holloway, University of London. As he notes, there is an interesting parallel here between how the media views both video games and riots. "Video games are specifically important when it comes to the depiction of riots, precisely because of how our media – and particularly a kind of mainstream centrist media – always wants to depict riots as mindless and violent," he says. "For those of us who care about them and think about them carefully, we do not think of video games as mindless or associated with violence.

"But by having this kind of connection between video games and riots, there's nevertheless a sense in which these things are →



In *Detroit: Become Human*, Markus embodies the myth of a hero and a martyr.

Leonard Menchiari used second-hand accounts and personal experience to accurately recreate riot scenes in *Riot: Civil Unrest*.

cast as play, or as an outlet for frustrations; as mindless button-bashing. In many ways, the government and the media want to see actual rioters as bad, mindless button-mashers. And actually, they're not; they're very organised, coherent symptoms of the frustrations with capitalism and neo-liberalism."

Portraying riots as a mindless mob also ignores the ideological underpinnings of such movements, and downplays the context of wider resistance, solidarity, and police violence from which riots emerge. Indie developer Leonard Menchiari looked to address some of these elements in his game *Riot: Civil Unrest*. The game revisits famous riots from recent history – such as the Arab Spring, the No TAV riots in Italy, and the Indignados movement in Spain – from the perspective of both protesters and police.

In researching the game, Menchiari attended multiple protests around the world. "Each nation has its own problems, and each culture has its own ways of dealing with them," he says. "The one thing in common to all events is that you do start to understand the difference between being an individual and being part of a much bigger collective organism: the crowd."



What sets *Riot: Civil Unrest* apart, however, are the moments before the riots, which show the protesters as people. In the opening cutscene of the No TAV campaign, we can see protesters scouting police movements and using fireworks to signal warnings to their comrades whose camp is about to encounter riot police. In later scenes, protesters are shown gathered around a bonfire late at night before waking up on the cold tarmac of a blockaded highway, steeling themselves for another long day on the front line. The scenes are quietly powerful, displaying the dedication and ingenuity of resistance movements.

"The cutscenes are based on things that actually happened," says Menchiari. "Each event represents situations I have seen personally, or that I selected through videos and research from people who experienced [them] first hand."

the hero myth

Notions of exceptionalism are rife in history. Be it the unfaltering leadership of Winston Churchill or the divine wisdom of the founding fathers, the popular view of these figures reveals how we latch onto stories of supposedly exceptional individuals. But these classic hero myths undermine the bravery and



Leonard Menchiari being arrested by riot police during the No TAV protests.

sacrifice of everyday people. The comforting lie that we're not personally equipped to save the day helps these stories soothe our sense of powerlessness.

Games tend to feed this myth. Quantic Dream's *Detroit: Become Human* is a particularly egregious example. Falsely accused of murder, android Markus finds himself among a group of outcast non-humans existing on society's fringe. But following his arrival, the androids form a resistance under his leadership, and Markus becomes a messianic figure on whom the resistance is entirely dependent. "You're the only one who can lead us!" says a fellow android, "If you die, our cause dies with you."

The parallels between the American civil rights movement and the plight of androids in *Detroit* are less than subtle. Quantic Dream employs police violence, segregation, and oppression of an underclass as themes in common, but paints it as a story of a heroic martyr and his band of followers, rather than a collective movement. Ultimately, the android fight for freedom boils down to a few violent clashes with police, and posits that the androids would be powerless without their leader.

Peter Ó Máille is an activist and organiser with the Anarchist Federation. He argues that this reflects media portrayals of such movements, which "reduce the narratives of millions to a handful of paragons".

"Activism and organising are almost always universally broad spectrum movements with any of dozens of focal points for organising and informal leadership," he says. "It is the combination of ordinary folk, working together and creating extraordinary results, usually through the idea of political unity and a diversity of tactics as appropriate."

merit and carnage

Watch Dogs: Legion presents usurping an authoritarian regime as a fun romp; tear down propaganda, expose a few war crimes, and hack a government database or two – usually leaving a pile of bodies behind. As Bown notes, games favour the idea of resistance-as-destruction, rather than resistance-as-organising, and *Legion* replicates this idea; a tendency born from what's believed will create a fun player experience.

"I think it's assumed that blowing up a building is inherently fun and that organisation would be less so, but in fact, I doubt that this is true," says Bown. "There are only so many buildings I can be bothered to explode; I'm sure other players feel the same. Perhaps games need to start showing resistance-as-organising."

On the surface, *Legion* attempts to capture these ideas of organisation and solidarity, placing emphasis on recruiting 'everyday people'. But the decision to forgo a traditional protagonist in favour of its titular legion is ultimately a gimmick that falls well short. Each operative exists in their own bubble, working at the behest of an exceptional AI, and never collaboratively with other members.

Additionally, *Legion* punishes the player for recruiting any characters other than the most skilled and best-equipped, and downplays the sort of intersectional solidarity that is common in effective uprisings. The end result is one in which the fight for London's freedom from corporate tyranny is played out through isolated vignettes, and relies on a handful of exceptional people. Bown, who appears in *Legion* on the in-game radio station discussing the machinations of fascism, highlights how defaulting to the exceptional is a "typical feature of games", and that even when they're ostensibly critical of oppressive systems, they tend to reinforce toxic notions around self-worth and individual merit.

"Events represent situations I have seen, or others experienced first hand"

"Superficially, [*Legion*] looks like a diverse and intersectional thing," he says. "But essentially... it's not dreaming of a different kind of social organisation at all." Throughout *Legion*, acts of resistance are typically about high-level espionage or brute force. There are glimpses of wider resistance and organising, seen in food

MASS EFFECT

By examining the recent uprisings in America, we can see how games oversimplify street-level action, and fail to capture what is powerful about these real-life stories. Watching the riots unfold, the hero myth of a strong, indispensable leader falls away. Instead, we can see a diverse and complex organism that operates without a vertical hierarchy; each element is part of a symbiotic whole, with people from across social divides employing a range of tactics to achieve a shared goal.

Tonight We Riot is unapologetic in its politics: pro-worker, pro-people, anti-billionaire. It's also a fair bit of fun, helpfully.



MIXED MESSAGES

"I think the real issue is that even as liberal as some game developers can be – and in my experience they do [generally] skew this way – they tend to run into argumentative limits to their ideology," says Ted Anderson. "They can't have a resistance movement or uprising occur without trying to shoehorn in a message about violence being bad – oftentimes, even while the entire game has been about blasting bad guys whose sole goal is your death."

banks and poorly attended protests across London; you're usually foiling devious plots that threaten to turn your nan into a computer or put surveillance drones in your cornflakes.

Video games are far too attached to these ideas of resistance, says Bown. While he points out that some missions in *Legion*, like tearing down propaganda, recognise the city as a "symbolic space to be fought over", it also embodies establishment perceptions of resistance as violent and mindless through its focus on action and lack of ideology beyond restoring the status quo; something which politicians and anarchists alike are apparently united on in this universe. "It's perhaps a marker of the frustration we have with this form of neo-liberal capitalism that we want to see it explode but struggle to articulate alternatives," says Bown.

"Resistance is empowering, collaborative, and something anyone can participate in"

a riotous alternative

Tonight We Riot, from Texas-based Pixel Pushers Union 512, meanwhile, depicts a worker-led revolution against the oppressive capitalist system. The pixel-art game sees you play as a riotous collective, brawling through the capitalist machine like *Pikmin* in revolt.

"We wanted to make sure every player knew they were a part of a group – that they, their friends, neighbours, and fellow workers were all heroes in their own right, and doing whatever they could in order to make a movement that can sustain itself under withering abuse and assault," says Ted Anderson, a member of the worker-owned cooperative studio.

By presenting relatable problems like "a crappy job, low pay, struggling to make ends meet [and] being tired constantly", *Tonight We Riot* translates these issues into a narrative that fights against real-world injustices of worker exploitation and wealth disparity. From there, it offers a solution: fight back in solidarity with those in similar circumstances. While it still leans on a power fantasy, it does so through the perspective of power as collective action.

"We wanted to show that no singular person causes a revolution, and that everyone has a part to play – often small, almost never solely on the streets, but also valuable in their own ways," says Anderson.

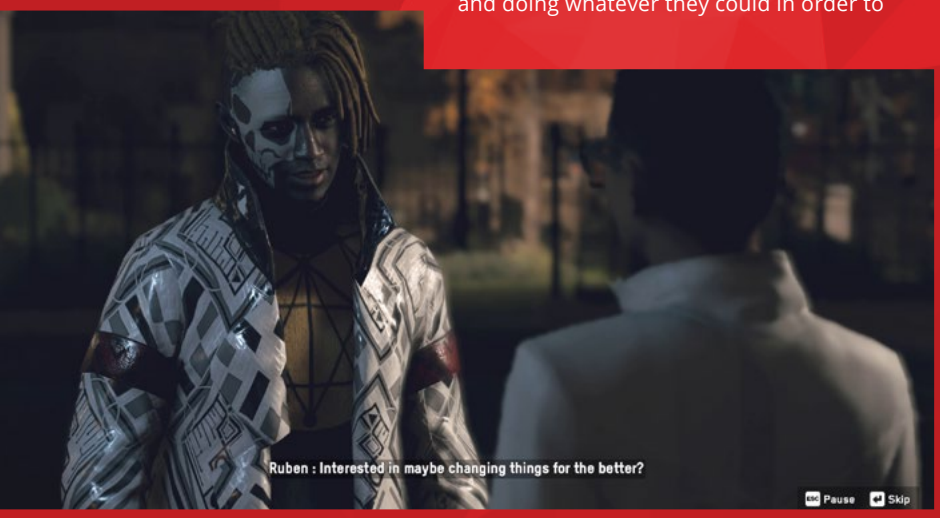
resistance-as-organising

By casting our net wider than the triple-A gaming space and mainstream media, we can see a more complete picture of what resistance looks like. It's about organising and building intersectional solidarity rather than unleashing destruction. In reality, the notion that resistance is destructive is perpetrated by those who would be swept away by it.

This year in Poland, following a court ruling which rolled back women's reproductive rights, women across the country went on strike. The government claimed the decision could not be reversed, and protests were framed as an attempt to "destroy" Poland. After just two weeks, the government delayed implementation of the ruling and Poland still exists.

After the UK government announced it would not be extending support to feed underprivileged children during the coronavirus pandemic, people immediately took action. Local businesses began offering free meals to children, and protesters carried out stunts like leaving plenty of empty plates outside the offices of those who had voted in favour of the cuts. Combined with support from celebrity activists like Marcus Rashford,

Direct action in *Watch Dogs: Legion* is, ultimately, to re-establish the status quo rather than to effect change.





It's not quite a precise, realistic portrayal of rioting, but *Tonight We Riot* does – oddly – get things right, like the group working as one for a collective goal.

the government reversed its decision and extended meal support.

Neither of these examples are glamorous, and don't have much place in a video game about shooting and hacking your way across London, but the point is to demonstrate that effective resistance is never the result of an individual, and acts of defiance are born from people united in spontaneous solidarity. While Rashford will be labelled a hero, it was local communities jumping in to provide immediate aid. Resistance is empowering, collaborative, diverse in tactics, and something anyone can participate in.

Ó Máille, meanwhile, argues hero narratives send a message that "you at home aren't this exceptional... It does little but reduce social change to a distant fantasy about as viable as riding into battle with your elven pal on the back of a warg.

"The Black Panthers were so successful because they fed the kids and gave educational programs," he continues. "In the UK, some 400 mutual aid networks sprang up at the start of Covid, and workplace solidarity expanded. Real social change and pretty much every revolution has been the work of a plethora of individuals and 'forgotten voices'."

Unless a game is focused solely on telling a story of uprising, developers are bound to take shortcuts in how these themes are depicted. Revolutions are years in the making: that's hard to convey in a 20-hour game. But what we see in most games is less a shortcut and more repaving of the roads. As French philosopher Guy Debord wrote in *The Society of the Spectacle:* "The media interprets (and reduces) the world for us with the use of simple narratives."

But how can game developers look to employ themes of resistance in an effective and representative way? Through city-building games that don't "lean heavily on capitalism and settler/colonial ideology", Anderson suggests. Menchiari, meanwhile, encourages developers interested in riots to "go and see things with their own eyes", because it's more than just a "violent punk with a bandana throwing Molotovs... In riots, there is no specific stereotype, as the crowd is made of every kind of person, of every age, every race and gender, with one thing in common: anger towards lies and injustice."

If the purpose of art is to reflect some truth about humanity, modern games show us very little when it comes to oppression and resistance. In the context of oppression, the typical hero/power fantasy narrative builds an unscalable wall around ideas of resistance, and strips the stories of their real power. Games teach us that only mythic individuals can achieve change, and we internalise that myth. Fighting oppression becomes the responsibility of someone else, because we lack the exceptional heroism and leadership required. That's a lesson we need to unlearn.

TALK IT OUT

Dr Hannah Wood, narrative designer and founder of micro-studio Story Juice, says: "I think resistance to dominant ideologies can come from the representation of complex characters and stories, so we get windows into other realities and ways of being and thinking. Sometimes this can be better achieved by dialling down the hero narrative and the fight or flight mechanics, where you have to shoot people in the face rather than have a conversation."

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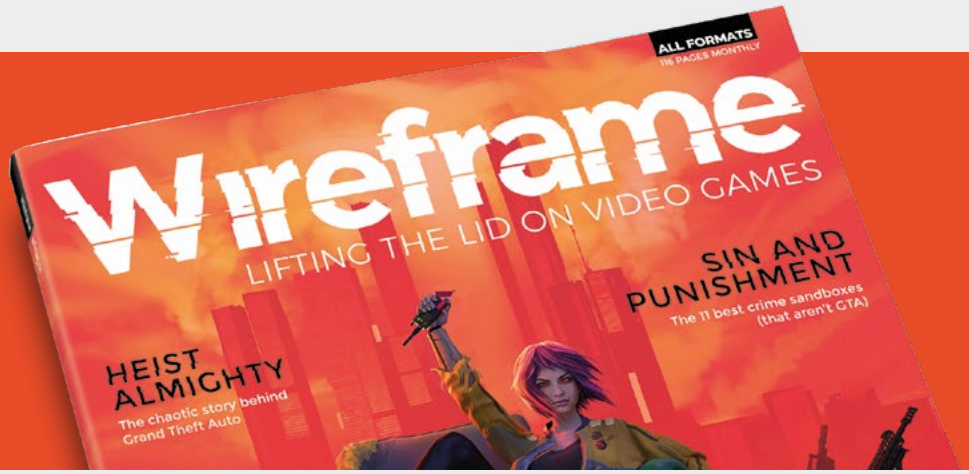
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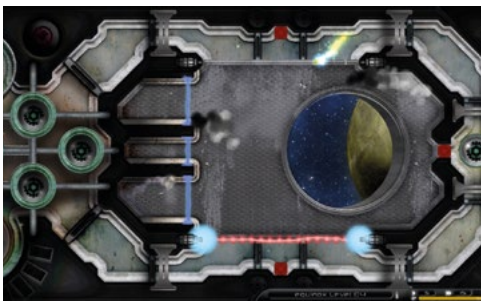


Interactive / Alpha Particle

South African developer Bruce Nicou takes us behind the scenes on his mysterious action-puzzler, Alpha Particle

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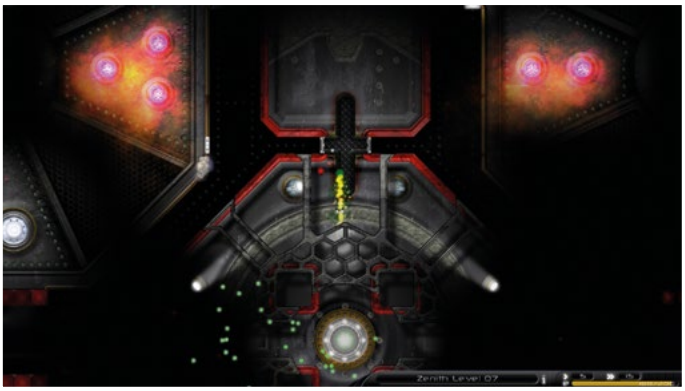
In an era of detailed tutorials, screen prompts, and lengthy cutscenes, it's unusual to encounter a game that leaves the player to figure out pretty much everything for themselves. *Alpha Particle* casts you as a mysterious life form – essentially, a sentient blob of light – that finds itself aboard an alien space vessel. Exactly what the particle is doing there, or even the various functions of the ship itself, are completely obscure. In essence, *Alpha Particle* is a top-down action-puzzler, but it's primarily also about exploring and experimenting with the ship's inscrutable switches and defence systems. This means the game can be frustratingly obtuse one minute, but also rewarding the next: solving a problem and progressing to a new area can be exhilarating; in other areas, trying to understand the functions of a trap-infested chamber can lead to irksome bouts of trial and error. Such frustrations aside, the game's mix of puzzles, action, and mystery – making it a kind of existentialist pinball – certainly help distinguish it in a crowded indie marketplace. "I'm an old gamer, and I remember how hard but rewarding some classic games were," says *Alpha Particle*'s designer, Bruce Nicou. "I wanted to carry some of that old feel, but also not as potent as it was then. So you won't have much hand-holding in this game, but at the same time, all the information you need is within reach at most times. I would say the start of the game may be a little challenging, but only until you start understanding this strange world and how it works. As you progress, more information will be made available to you and along with some abilities, you will start feeling more confident and more powerful."



› Environmental puzzles can be complex and sometimes opaque, but then that's all part of the game – figuring out what stuff does.

Work on *Alpha Particle* began about four years ago when Nicou – based in Port Elizabeth, South Africa – started to teach himself programming. Without a set concept, the initial prototype changed considerably as development progressed. "The original idea for the game look wasn't even sci-fi," Nicou tells us. "I was going to have each section have its own theme. But as the game grew, a story implementation was decided,





Alpha Particle **isn't all about puzzles and exploration – there's also plenty of action, including some formidable area bosses.**

Development began four years ago, but Nicou started working on the game full-time just before the pandemic unfurled. "Timing is everything," he notes.

so a single theme was required. The way most of the mechanics worked strongly suggested a sci-fi theme, so that's what I went with."

Nicou has always had a creative streak – he also makes and sells fantasy art figurines, called Arcana, with his wife and business partner – and so turning his interests in 3D modelling, digital art, and music to game development seemed like a natural progression. "I'd just started my programming journey, not even three months into it, when I made a prototype of my game idea," Nicou says. "As the game mutated over the years, different mechanics came and went as well. There's a perk to indie development that allows you to not know exactly where you're going. You can change your mind as often as needed – kind of. Yes, it creates more iterations, but it also makes for a more rounded end product."

Alpha Particle uses GameMaker Studio 2 as its platform, while its futuristic soundtrack was written in FL Studio 20. Nicou soon discovered that the sci-fi particle effects he was after couldn't be generated in GameMaker, however, so he used an external plug-in called Geon FX to create the game's glowing points of light. And while Nicou was new to programming when he started the project, he soon found that far greater challenges lay elsewhere: first, in balancing the game's mysterious quality with the need to give players some sort of explanation as to how it all works ("I've completely redone the tutorial the game had before... while also leaving some things open for discovery," he says), and second, in figuring out how to get his game noticed online. "As time went along, I learned that hands down, marketing is the beast hardest to slay. Your game is like a little paper boat in an ocean alongside millions of others; you have to sail across all the chaos if you want anyone to notice your game. If I had to give one tip, it would be to start marketing when your game starts. That way it will slowly build up momentum."

"I remember how hard but rewarding some classic games were"

Alpha Particle launched on 28 April, and Nicou already has plans in place for his indie studio, Function Unknown – though inevitably, those plans hinge on how his debut is received. "I have various ideas related to *Alpha Particle*, including a sequel, " he says. "And also some ideas that play in the same universe but are completely different. At the same time, I'm excited about a few other ideas that have nothing to do with *Alpha Particle*. The public's response to *Alpha Particle* will be a strong factor in helping me decide what the future holds."

You can download *Alpha Particle*'s demo now at **wfmag.cc/AlphaParticle**.

LESS IS MORE

Alpha Particle has a 2D, burnished look that recalls the shiny surfaces of the Bitmap Brothers' games of the 1990s – *Xenon*, *Speedball*, and so forth – along with a cunning use of light and shade. It's a look that gives the game an air of shadowy mystery without stretching the budget on detailed 3D assets. "The look has a lot to do with the feel that I am trying to create," Nicou concurs. "A lot of the game plays in the dark to make things glow and look suitably sci-fi, and various strangely-placed windows give you a view of each station's unique star system. Stations are clearly not designed for humans, and not much around looks familiar. It's all [intended] to fit this strange story of a particle made of energy and its first moments of life."

Post Apocalypse

Noir games, intellectual properties, and bragging about expos – it's this month's letters...





Issue #50

Want to write to Wireframe? Message us at **wfmag.cc/hello** or tweet us **@wireframemag**

Noir Automata

Hi guys. Love your magazine. I'll try and get a physical copy of the current issue as well as my free PDF! I have a small page called Games Noir where I publish brief or sometimes long features on games that fall either visually, thematically, or both into the noir category. I'm also a huge classic film noir fan, so I try and bring up comparisons and influences of the classic noir era in video games of past, present, and future from 8-bit to PS5. I especially loved the *Martha Is Dead* and film noir article [in issue 49].

Lee Morrall

Ryan writes:
Thanks very much for the kind words, Lee! If anyone else is as keen on noir games and movies as Lee is, then you can check his Facebook page devoted to this very subject at wfmag.cc/GamesNoir.

Expo-nential

Reading the conversations and debates over the upcoming E3 show, I find myself not for the first time thinking that some people live in a very different world to the rest of us. Most of us have been stuck at home for the last year, worrying. Most of us can never afford to go off to America to attend a games show, no matter how much we might want to. Most of us are in this for the games.

I fully understand the desire for people to mix and have drinks and socialise again. However, there's always been this odd divide in games media, between the writers on a free trip away who think it's the best thing ever, and those of us who just want the games. Hopefully, whatever the new normal turns out to be, some sort of recalibration of this would be possible. And we can stop having to read people moaning because they can't go to a games show. Look at what *Minecraft* has been doing: a virtual event that everybody can enjoy. Perfect.



Alex George

Ryan writes:
If there's one good thing that's come out of this wretched pandemic, it's that humanity has firmly established that virtual events can work remarkably well. In future, then, I think we'll get the best of both worlds – the in-person events for those who have the money and time to fly to the US, and online versions for those of us who prefer to enjoy these things from the comfort of our sofas/gaming chairs/hammocks.



Retro tech-tastic

I've been enjoying your pieces about Sega Game Gear restorations and other such projects. One thing I'd really love to read though, for those of us who still enjoy tinkering with old consoles, is a feature about getting the sodding things working on a modern television. That, or can we have a group test of old-fashioned CRT televisions? Much obliged.
John Winder

Ryan writes:
If you're after a guide to connecting old consoles to modern tellies, then you should check out Wireframe #49 (wfmag.cc/49) – *My Life In Gaming* did an in-depth breakdown of all the solutions available, from budget-price HDMI adapters to pricier options like the RetroTINK-5X. As for a group test of old-fashioned TVs – it's a nice idea, but we'd have to get hold of the things in the first place, which is getting increasingly hard now so many have wound up in landfills. Then there's the process of moving them around into one place to test them – my back hurts just thinking about it.

Last of the Summer Whine

I just want to be that person who writes into a magazine and says I remember when games were called games and not Intellectual Properties. Thank you. I feel better now.
Jim Jones

Ryan writes:
I'm so old, I remember when platformers were called climbing games, and first-person shooters were called '*DOOM* clones'. Now, where did I put my slippers?

Shortcuts

There's a decidedly nefarious feel to this month's Wireframe, so we asked the good people of Twitter: what's your favourite crime game ever, and why? The reactions we received are eclectic, to say the least...

***The Swindle* is the best crime-themed indie game ever. Robbing procedurally generated houses and nabbing every penny is so satisfying. Equipment upgrades keep the game fresh for weeks.**
@RehdGator

Contact Sam Cruise for the ZX Spectrum! It was quite bleak, actually; he was a weary character. He's fighting the corrupt police as much as the gangsters, and when you get arrested, you'd have to pay bail, which greatly impacted what you could then do. It had a sense of hopelessness, but the puzzles were devious!
@computermuseum

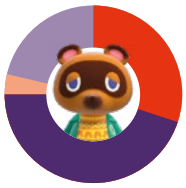
***Detroit: Become Human*. It's the most lovely game because of its graphics, storytelling, and number of ways the story could proceed.**
@AshishK83337064

The Colonel's Bequest was a fun game – I always did like the Sierra titles.
@femtosonic

The original *GTA* because I loved people screaming as a reaction to my farts.
@Daley_Kong

The burning question

Our criminal theme continues in this month's poll: we asked which of the following games do you think should be given a *Grand Theft Auto*-style reboot? As you can see, *Animal Crossing* was the runaway choice. Raiding Tom Nook's store at gunpoint, then flying off with our purloined Bells in Wilbur's seaplane? Yeah, we'd definitely play that.



- **Kirby** – 32%
- **Animal Crossing** – 43%
- **Five Nights at Freddy's** – 4%
- **Football Manager** – 21%

Online Diary

GITTIN' GUD

Now we play the waiting game (aka Borderlands 3)

WRITTEN BY IAN "S'NOT FUNNY" DRANSFIELD

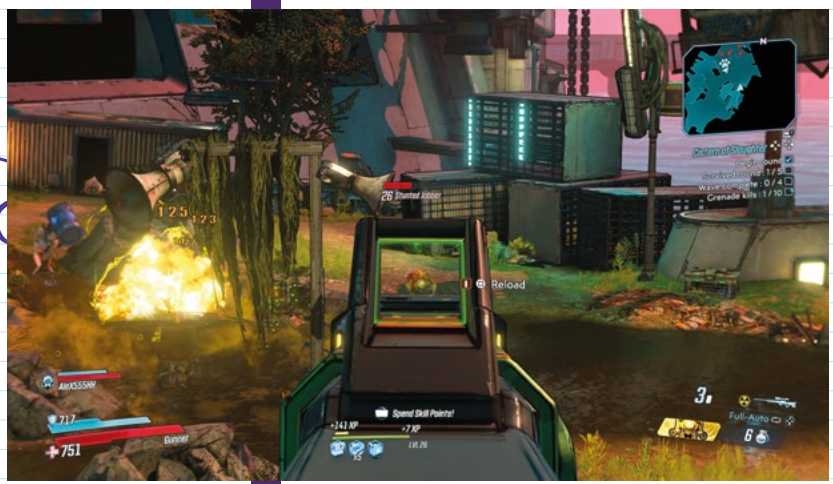
One and a half hours. One-point-five big ones. Rounded up: the double. That's how much of my ever-more precious time was wasted in *Borderlands 3* waiting for the built-in matchmaking to find me a team to jump in with. And after all that waiting, I just gave up and did something else, because it's absolutely ridiculous that you can't just choose a game from a list in a lobby like in most other games of the past couple of decades.

So it was that I spent most of the time I had dedicated to playing *Borderlands 3* online, offline. On three occasions I did manage to get a lone partner for this best-with-four team-based looter shooter, and two of those times, I was reminded just how much fun the barely controlled chaos of *Borderlands* can be with folks by your side. More people equals more enemies to face, which in turn equals a lot more *stuff* going on around you and that panicked sense of exhilaration that being overwhelmed in a game can produce. It's not particularly smart or in any way deep – *Borderlands* as a series is wallpaper: it's just there – but it does trigger certain lizard brain aspects inside my noggin. And that's a good thing.

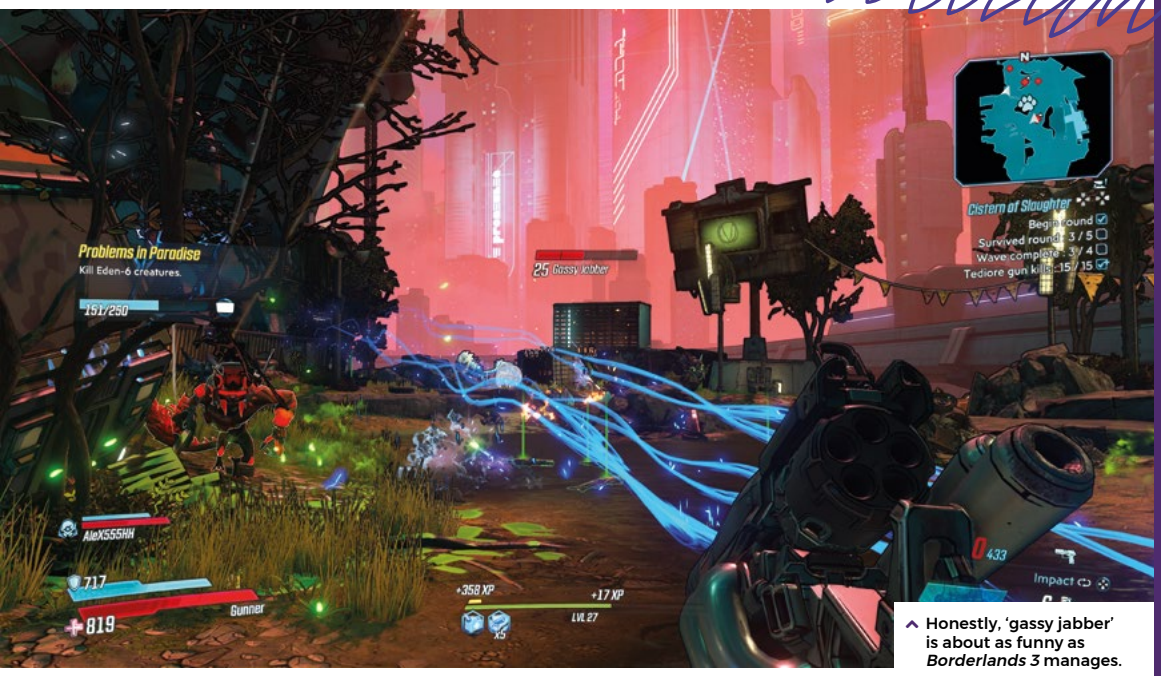
Oh, the third time playing with another person was when one of the previous people who joined my game rejoined, then left after ten minutes – I *think* because I was mucking about picking up dollar bills rather than shooting the baddies. Who can tell? Anyway, that one can't count as a good time, sadly, so it's a mere 66% of the time as a good time.

Playing through the core *Borderlands 3* campaign with another person – and I'd assume with up to three others, so long as they're all strangers – won't be the best way to do things. I acknowledge this. Not only is this a game made to be played with others, but it's also made to be played with those you can at least scream at in a way that's knowing and considered, rather than toxic and destructive. It's fun though, I found, to just have *someone* there alongside you tackling the ever-embiggening waves of monsters and wastelanders and unfunny one-liner-spouting cannon fodder.

It's even better now there's the option to run things as pure co-operative, rather than the previous games' competitive loot-grabbing escapades. You can run it like that, where all



More players means more chaos, which tends to mean more fun. Usually. Sometimes.



Honestly, 'gassy jabber' is about as funny as *Borderlands 3* manages.

the loot is shared between games and it's a free-for-all when a boss bursts into a cascade of guns raining down from the sky. But you can also keep things instanced – what you see in your game is yours, nobody else can even see it, never mind nick it, and it's the same for everyone on their own device. It removes the unnecessary – as I see it – competitive nature of a game that should be 100% co-operative.

Aside from the campaign, I got stuck into *Borderlands 3*'s horde mode, which did exactly what you'd expect: sent hordes at us. With a stranger, this was easily the most fun, as you don't have to move far, or think much (even less than in the main game), and the rewards are thick and plentiful should you make progress to the end. I'll definitely be going back to this mode in future, should the matchmaking aspect manage to ever work well in future. I will, however, be muting the game while playing it.

Turns out *Borderlands 3*'s horde mode is where some of the absolute worst examples of the game's genuinely awful writing comes out to play. Humour is subjective and so on, but I struggle to see how anyone with an opinion worth listening to can find the "I SHOUT THINGS, THAT IS THE PUNCHLINE" sense of humour throughout *Borderlands 3* to be anything other than... let's keep it simple: not funny. It's just not. It's grating. And off-putting. And makes you very grateful for volume controls on TVs.

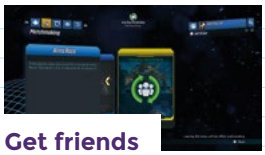
"It's a free-for-all when a boss bursts into a cascade of guns"

But yes, the matchmaking in *Borderlands 3* is so... touchy. This *is* a series made to be played with others, so you'd think the barriers to entry would be as low – or at least as transparent – as possible. Instead, it's an automated matchmaking system that, apparently, doesn't go through the motions of trying to find players at the same level, *then* players of a similar mission progress, *then* players slightly lower of level, and so on and so forth. Instead, it seemingly just pretends to search for a couple of hours while you play along in single-player like the friendless chump you've always been. See that, *Borderlands 3*? You've made me be needlessly mean to myself. This is your fault. It's just another way in which you're not funny.



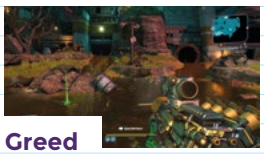
The wider *Borderlands 3* world, meanwhile, is probably best tackled with friends rather than randoms.

Beating boredom(lands)



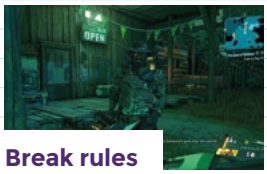
Get friends

Just get actual friends to play *Borderlands 3* with, seriously. The matchmaking is borderline broken, to the point it's actually laughable. Friends = fun, as we all know.



Greed

Check loot before you bother picking it up – you've limited capacity, and having to navigate archaic menus to drop stuff is more hassle than just paying attention *before* picking up.



Break rules

Play it alone. You should play this game primarily designed to be played online, offline, by yourself. Why? Because a) you'll be a renegade, and b) it's actually fine brain-off fun.

CODING BACK THE YEARS _

WRITTEN BY
DAVID CROOKES

AMOS creator François Lionet is back with AOZ, and aims to turn a new generation of gamers into developers



AMOS and AOZ creator François Lionet.

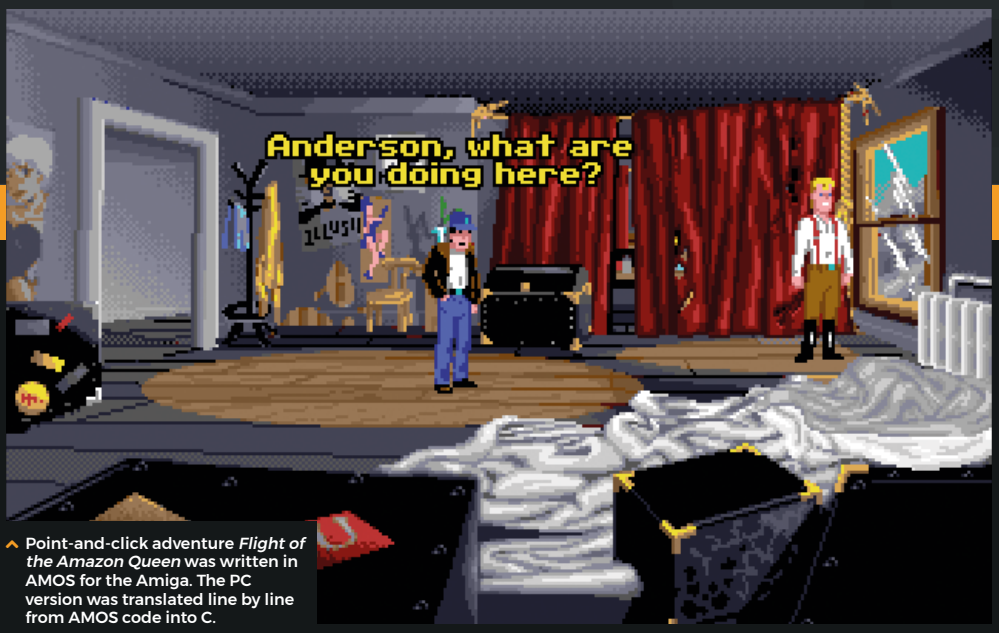
Once AMOS was loaded, you could immediately begin typing, clicking Run to check your code.

Two years ago, François Lionet was in hospital, alone, and broke. He was far from his birthplace in France, having moved first to Norway and then to Poland for work, and he freely admits he was struggling. "I'd been living in an Airbnb with only €2000 to my name, in winter in November in Warsaw," he recalls. "After one month in the hospital, I was desperate. I was in a really bad situation. But I'd already seen a ray of hope, and it proved to be the start of something."



About three years prior to this low point, Lionet had begun receiving a steady trickle of letters about a programming language called AMOS, which he created for the Amiga in 1990. He's not entirely sure why they started arriving, but the overriding message was abundantly clear: "The writers were thanking me for developing the language, saying they owed me their careers, and I'd look at these people and they were all very high in IT," Lionet says. "Yet when I worked on AMOS, I wasn't aware of how widely used it was. I knew that demo makers saw it as the lamest tool around – some would call it 'Lame-os' – but when these letters arrived, well, I thought that maybe it wasn't so bad after all."

As if to confirm this, Lionet found himself working alongside an AMOS fan for 18 months



Point-and-click adventure *Flight of the Amazon Queen* was written in AMOS for the Amiga. The PC version was translated line by line from AMOS code into C.

at Friend Software Corporation in Norway. "He was a genius, and he learned to code using the language," Lionet says. Around the same time, he attended Pixel Heaven 2018, a huge event held in Warsaw where, again, much love was expressed for AMOS. "My depression had meant I wasn't focusing on the positives of the projects I'd worked on in the past," he says. "It was only when I was getting great feedback that I realised the language still had a life."

And so it was that he got down to work, taking tentative steps towards the development of a new yet similar programming language.

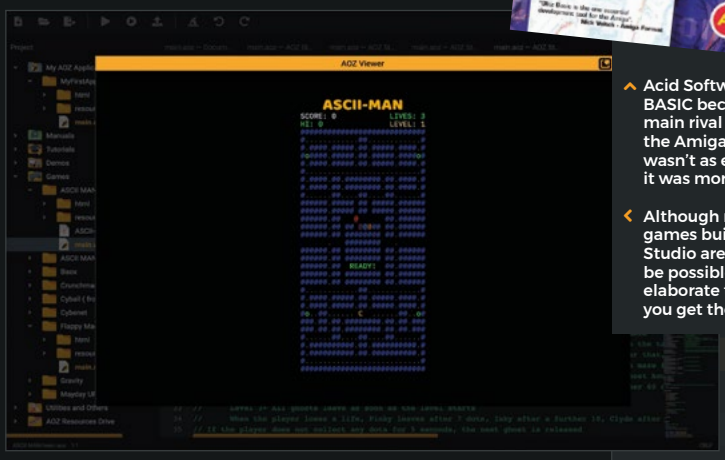
NAILING THE BASICS

Lionet is chirpy and jovial when we chat over video to discuss his new venture. A small bird is flying around the room, periodically landing on his shoulder. The room also has various bits of technology strewn about, including a Raspberry Pi 400, which he picks up and waves in front of the camera, unaware of Wireframe's loose connection to the Raspberry Pi Foundation. "This costs around €75, and you only need to connect it to a monitor; a refurbished monitor maybe, which means for not much more than €100 you can have a complete machine with an internet connection," he gushes. "You could get a classroom full of them for about €2000. I'm going to run my new language on it at some point and help as many children as possible learn coding. It's the kind of thing I want to do."

For now, however, Lionet's aim is to simply get his new programming language out there and, like AMOS (as well as its predecessor, STOS, released for the Atari ST in 1988), the hope is that focusing on simplicity will do the trick. To that end, the new language, as with those two previous releases, is again a dialect of BASIC. It harks back to the days of 8-bit computers, which routinely had a flashing Ready prompt, beckoning users to get stuck into coding.

"When I worked on AMOS, I wasn't aware of how widely used it was"

At first, Lionet called his latest creation AMOS 2. But after he set up a new company ➔



A SLICE OF PI

Although a Linux version of AOZ has been developed, François Lionet tells us he's planning a version that can be installed on a Raspberry Pi. "The problem is that the editor we use, Atom, is too big for the little guy, so we're writing our own, and that is going to take some time," he says. "We're actually using AOZ to write the editor and that's our aim: to use our own tool to make other tools."



Acid Software's Blitz BASIC became the main rival to AMOS on the Amiga, and while it wasn't as easy to learn, it was more powerful.

Although many of the games built into AOZ Studio are simple, it will be possible to create elaborate titles once you get the practice in.

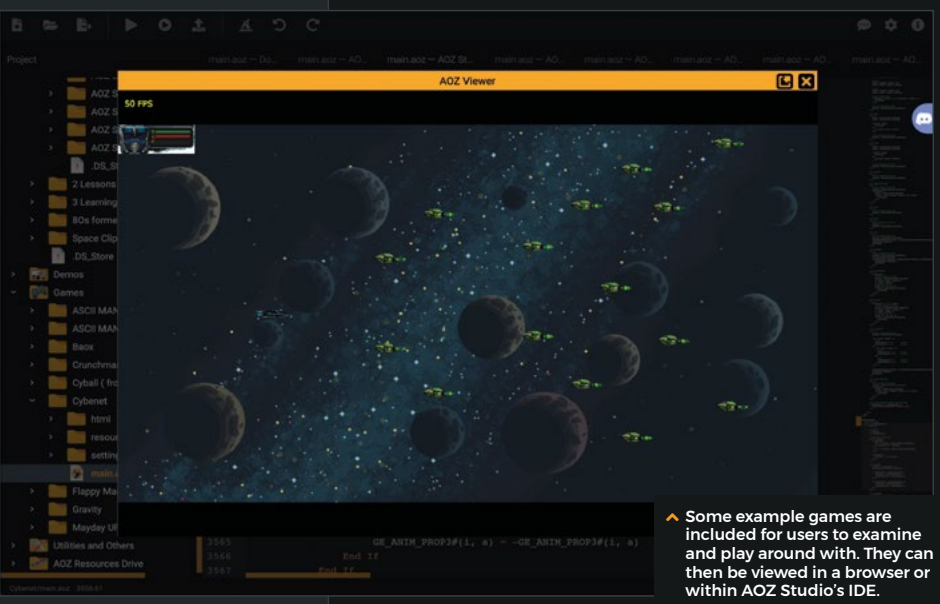


AOZ FOR FREE?

Visit **wfmag.cc/aoz** and you can install the free Beta version of AOZ Studio. This will allow you to create a program, but you won't receive any support, and you'll have to include adverts in your game. To remove advertising and distribute your games without having to pay royalties, you'll be able to buy a two-year license for €89 or pay €9 each month. "People are used to the subscription model, and we've ensured that you'll get the full-blown experience for free for the first month as a kind of trial," says François Lionet. "We think our prices are reasonable."

called AOZ Studio with Laurant Weill, who co-founded the once-huge French video game publisher Loriciel, it became known as AOZ. It allows users to develop games and applications for smartphones, PCs, and Macs. Lionet – whose official title at AOZ Studio is 'Magicien Fondateur' ('founding magician') – wants it to inspire a new generation of computer users to pursue a career in coding. "BASIC is the perfect language," he says. "The names of the instructions reflect the actions they have, and it's as simple as that – it's why it's called BASIC, because it's almost spoken, making it the obvious option to me."

Simplicity is what drove AMOS and STOS, both of which Lionet developed in partnership with Constantin Sotiropoulos. Created in various guises from Easy AMOS to AMOS Professional in 1993, the packages provided user-friendly environments as well as a host of new commands and ready-made routines. There was no need to worry about writing high-level assembly code, or understanding a computer's custom chips. Importantly, AMOS and STOS led to the creation of many games by users who may have never tried their hand at coding for fear it was too complicated.



Some example games are included for users to examine and play around with. They can then be viewed in a browser or within AOZ Studio's IDE.

Flight of the Amazon Queen, the *Valhalla* series, *Jetstrike*, *Base Jumpers*, and *Spatial Hyperdrive* were all notable releases, while the public domain scene was also flooded with AMOS-created titles.

PLAY IT AGAIN

With AOZ, the emphasis is again on games. Anyone who created a game in AMOS or STOS will be able to dust down their code (assuming they still have it) and bring it up to date in AOZ, since it allows the importing of AMOS files. It will extract and export sprites, sounds, and images as PNG and WAV files. Source code is saved as ASCII.

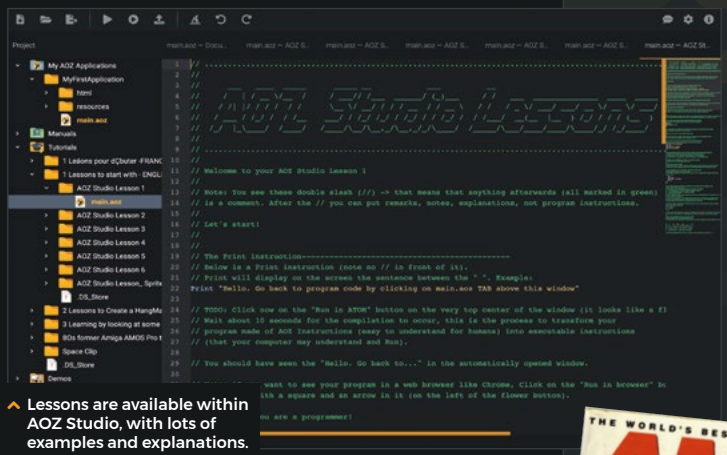
"For the moment, it's kind of so-so emulation, but we're offering support for the original instructions for both of those 16-bit languages, as well as support for the original Amiga fonts and support of tracker music from the Amiga and Atari ST," Lionet says.

Lionet doesn't merely want to attract former (maybe even current) users of AMOS or STOS, however. He wants AOZ to be the go-to starting point for new programmers, which is why the feature set is modern, allowing users to work in full colour up to 4K resolutions, and make use of interrupt-driven colour animations with cycling, fading, and other such functions. There's also simple support for 3D, an enhanced sound mode with 32 channels, and support for many video and image file formats. "After creating a program in AOZ, you'll be able to convert it to HTML5 and JavaScript and run it on any platform," Lionet says, adding that the engine uses Three.js for rendering and supports shaders, Google Fonts, and JavaScript technologies. Conversions are carried out via a transpiler, which means games and other applications can be packaged as apps or run in a web browser.

That recipe, he argues, has different ingredients from many other approaches to programming, and it's unique in that it offers the ability to gradually transition to another language, such as JavaScript. Lionet certainly believes AOZ to be a better introduction to coding than other beginner-aimed languages, such as the block-based Scratch. "Scratch



Vulcan Software's *Valhalla and the Lord of Infinity* – another game written in AMOS.



Lessons are available within AOZ Studio, with lots of examples and explanations.

doesn't teach you coding; it teaches you logic, and there's this thought that you want kids to be logical and then code, but I don't agree," he says. "Logic isn't coding because you're only seeing the surface. Although I feel a bit guilty, because I created a script-free programming tool called Klik & Play in 1994. The vision of AOZ is to bring back the joy of actual, intricate coding."

Lionet recalls his own childhood experience, using a Superboard II computer in 1981. The machine had a 6502 processor and 4kB of memory but, crucially, it also had Microsoft BASIC. "All of the documentation was in English, and there were few others using this machine in France, but I loved it," he says. "I turned it on having never touched a computer before, typed PRINT "Hello World" and done! I had a program. It was one instruction, but within five minutes I'd written my first successful program."

It's that sense of immediacy that he wants to achieve with AOZ. "I want a user – a child – to feel instant gratification," he says.

THE NEXT LEVEL

By ensuring users have easy access to the tools needed to program, Lionet wants coding's barriers to fall. "Let's take colours: kids understand that blue – b l u e – means blue. OK, that's easy to understand. So why is it also #0000FF? That's a step further in comprehension," he says.

This emphasis on ease of use extends to the language's installation. "Look at Python – that's the representation of simplicity... from the view of a Linux programmer," he laughs. "It can be simple for the kid when it's installed by [a parent], but I bought a computer and tried to install Python on it. I went on the Python website, followed all the steps and still hit a problem. It's fake simplicity, and you have all of these objects and indentations. It's linking the display to the structure."

AOZ, meanwhile, is designed to make game development easy, Lionet says; he also wants to see hundreds, if not thousands, of extensions eventually become available (AOZ is open source, with the exception of the transpiler). There are plans to support conversion to C#, Python, and Swift, while 3D support is in the works. Lionet also hopes the company will be able to skill-up teachers to give lessons in AOZ. "I'd love to see AOZ Studio become an educational company that teaches the teachers first so that they can teach others," he says. Above all, though, he wants to make creators out of us all, and provide a stepping stone for a professional career.

"I will confess," he whispers, "[that] I'm not really a gamer. I don't have the time to play, and I don't know anything about games. I don't even know very many Amiga games. I played *Arkanoid* but not much else. For me, the fun is in creation and not play. When you create, you offer yourself to others, and I've learned that it doesn't matter if what you do is terrible at first. You keep going, you get inside your own universe where it's safe, and beauty eventually finds its way out."



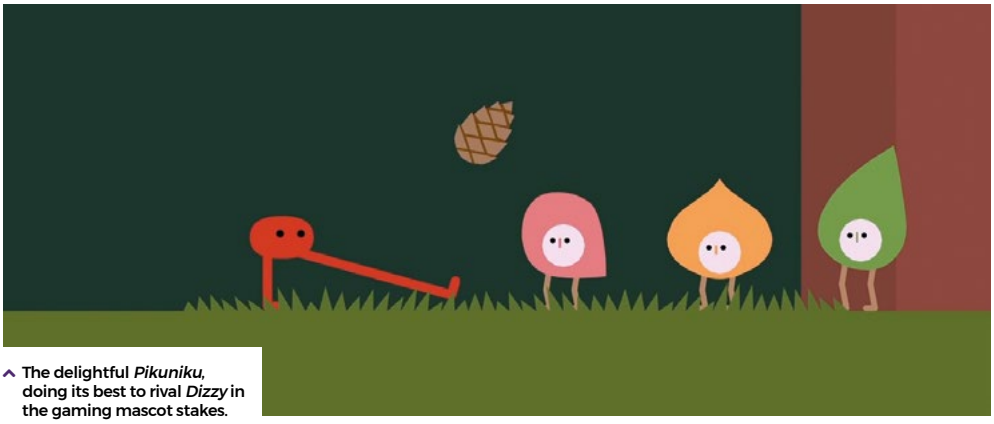
AMOS reached a whole new audience when Amiga Format gave it away on the cover in January 1993.

Game Pass? More like Game Yes!



STEVE MCNEIL

Steve knows the title doesn't really work. He was looking for some wordplay on 'passing' on something, and the opposite of that, but he didn't find it, and now this explanation is too long and so this bit's ruined too. What a mess.



The delightful *Pikuniku*, doing its best to rival *Dizzy* in the gaming mascot stakes.

It's not exactly a hot take at this point to sing the virtues of 'Xbox Game Pass Ultimate', but it's fair to say a lot of attention still focuses on the bigger titles – Day One Access to Xbox Game Studios titles, or the integration of Bethesda's library and EA Play. Yes, it is rad* that titles like *Halo*, *DOOM*, and *FIFA* are all right there, but the real prize to be had is in digging a little deeper.

As regular readers will know, I'm doing everything I can to get my kid fully into video games so that I don't have to be a proper parent, and there are some obvious titles on there that tick the box such as *Disneyland Adventures* and *Rush: A Disney•Pixar Adventure*. But the indie games are where it really shines. *Pikuniku* is a cracking little puzzle/exploration game with more than a hint of Dizzy the Egg (the best gaming mascot ever) about it; *The Little Acre* is a really quirky point-and-click narrative title set in 1950s Ireland, and *Rain on Your Parade* has the same sort of vibe as *Untitled Goose Game*, albeit with a more accessible (and consistently funny) be-a-cloud-that-ruins-weddings-by-raining-on-them flavour.

All three of those indie games are fun for big kids (you) as well but, if you want something a bit more adult, you can't go wrong with the BAFTA-winning *Ape Out*, which sees you take on the role of a very angry primate, as you smash seven shades of sugar out of a seemingly infinite supply of gun-toting humans/water balloons filled with blood.

As I've got more au fait with Game Pass, I've even invested in one of those plastic gizmos that lets you clip your Xbox controller to your smartphone for cloud gaming – and that's also well worth dipping into as it seems largely bug-free at this point. The adaptor I grabbed was only £12 and it does the job perfectly, and means I can now scratch my deck-building itch wherever I am, with titles like *Monster Train*, *Nowhere Prophet*, and *Slay the Spire*, even maintaining my progress across platforms thanks to cloud saves.

So, yes, it is cool you can play things like *Forza*, *Minecraft*, and *GTA* on Game Pass. But the cool kids are far more likely to be found on *Spiritfarer*, *The Touryst*, and *Octopath Traveler*. At this point, I should probably add my regular – I have not been sponsored to say all this stuff – disclaimer to the article, so:

I have not been sponsored to say all this stuff. But I'm very open to bribes, so do feel free to slide into my DMs.

"I'm doing everything I can to get my kid fully into video games"

* *I'm an eighties child and there's nothing any of us can do about it.*

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Reviews, retro games, and lots more besides

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Page 92: Is *Balan Wonderworld* quite as bad as the internet might have you believe? Not really, no.

OUR SCORES

1–9
Trash. Unplayable; a broken mess.

10–19
A truly bad game, though not necessarily utterly broken.

20–29
Still awful, but at a push could be fun for two minutes.

30–39
Might have a redeeming feature, but otherwise very poor.

40–49
Adds in more redeeming features, but still not worth your time.

50–59
Average. Decent at best. 'Just about OK'.

60–69
Held back by glitches, bugs, or a lack of originality, but can be good fun.

70–79
A very good game, but one lacking spit and polish or uniqueness.

80–89
Brilliant. Fabulous fun. Everyone should at least try it.

90–99
Cutting edge, original, unique, and/or pushes the medium forward.

100
Never say never, eh?

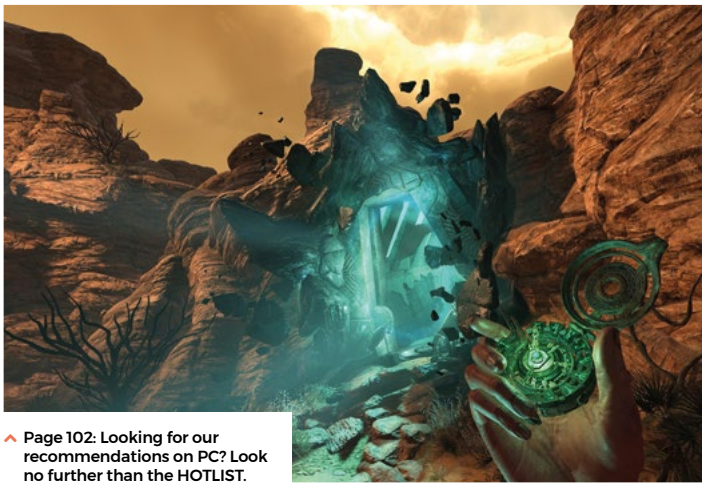
PLUS

101. **Stream of Consciousness**
Musician and streamer Katt Strike lets us in on her favourite gaming gems.

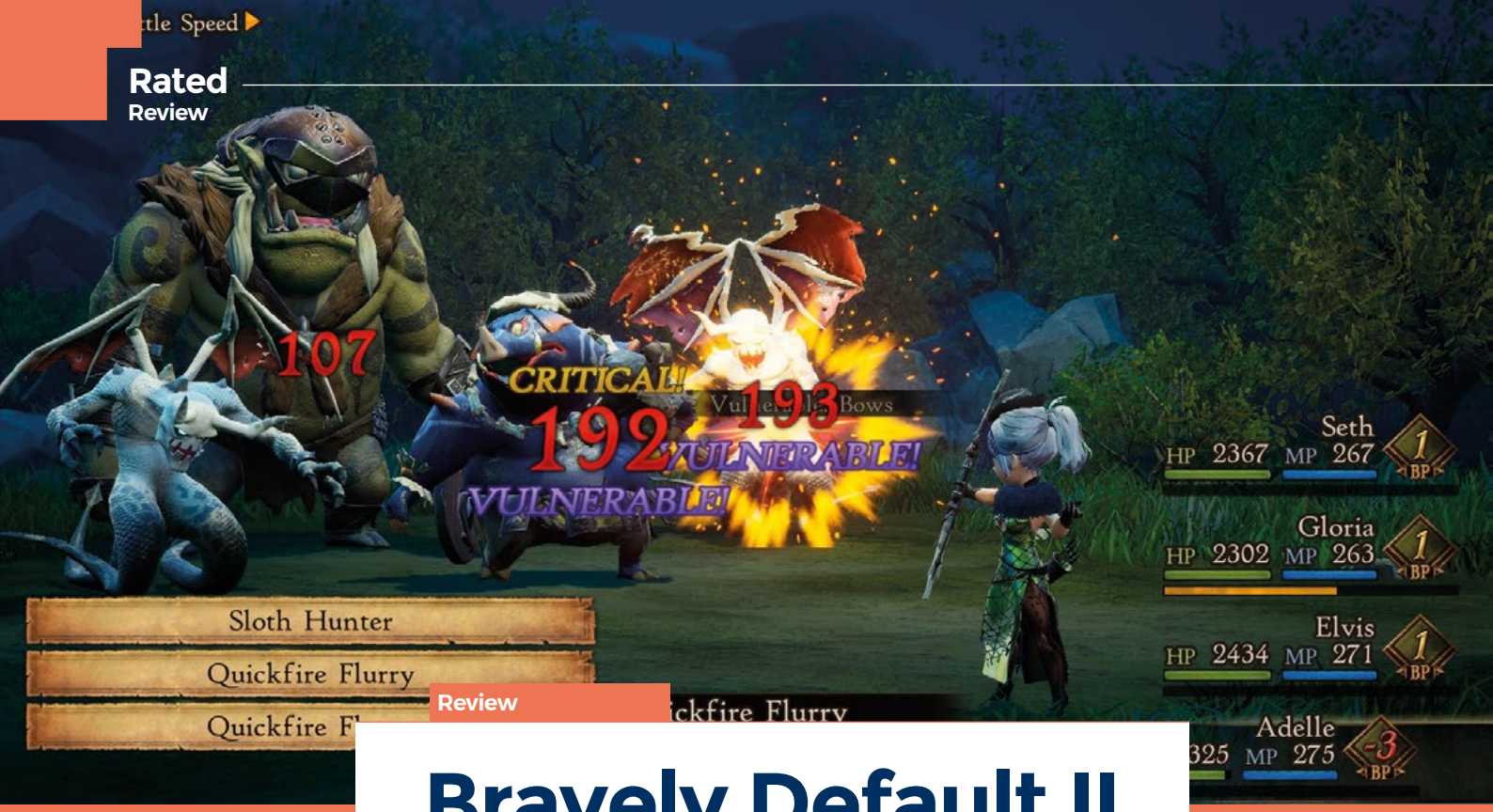
102. **The HOTLIST**
Our faves on PC, handily listed according to the mood you're in.

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Sometimes you buy a clunker that turns out to purr like it's factory fresh.

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The games that have been gobbling up our spare time, discussed.



Page 102: Looking for our recommendations on PC? Look no further than the HOTLIST.



Review

Bravely Default II

Never play it safe. Be brave and be bold

Info

GENRE
JRPG

FORMAT
Nintendo Switch

DEVELOPER
Claytechworks / Team Asano

PUBLISHER
Nintendo

PRICE
£49.99

RELEASE
Out now

REVIEWED BY
Daniel Lipscombe

For the purpose of this review, I started my playthrough of *Bravely Default II* with English voice acting turned on, since I wanted to gauge how the dialogue was localised. 'Badly' is the verdict I came up with before switching over to the Japanese voice cast. The English acting is a hodge-podge of accents – the Scottish brogue of Elvis being the only one that doesn't grate – and none of them add anything to the world-building of Excillant. This hodge-podge is an apt descriptor of the central cast who, led by Seth, are out to hunt down elemental crystals which are causing chaos across the land. It is very JRPG.

The cast comprises various amnesiacs, princesses, mystical mages, and mercenaries who feel put in place only for the purposes of combat rather than to enhance the story.

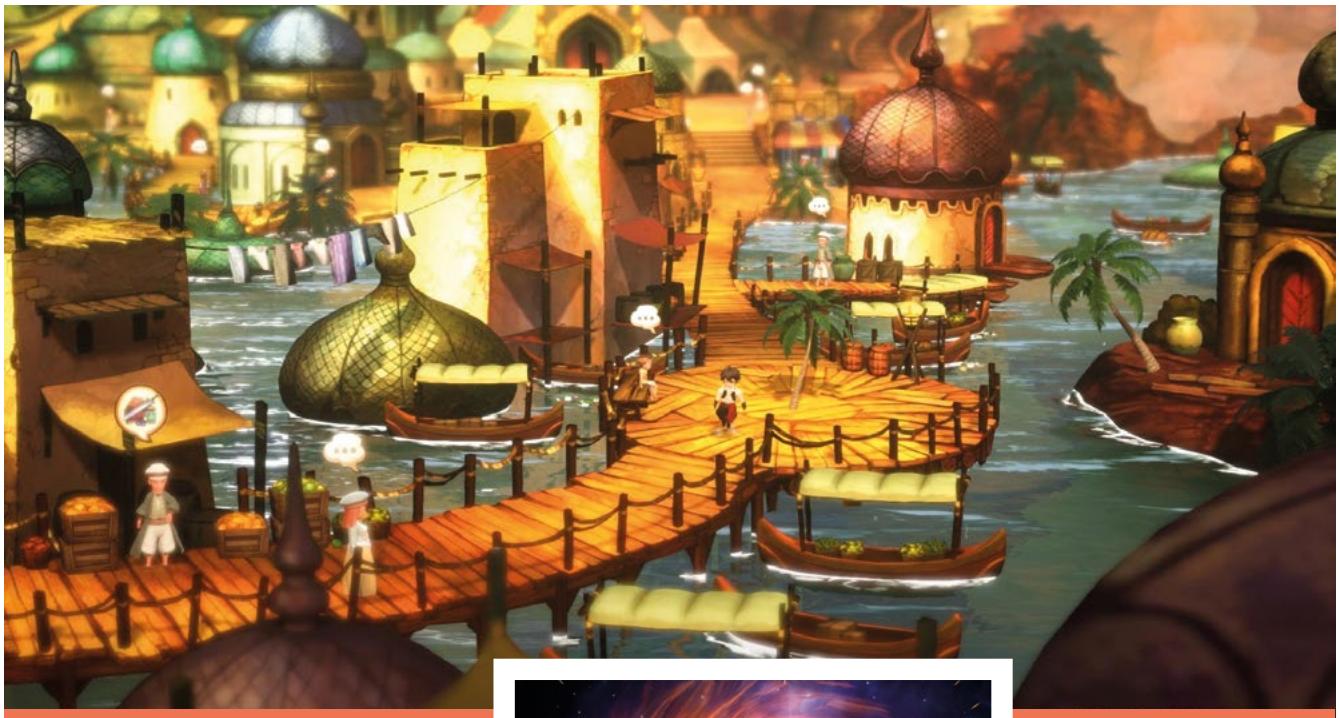


› An asterisk, the game's other McGuffin, which bestows various jobs.

And that's because *Bravely Default II*, much like its predecessor, uses a unique brand of turn-based combat. While you're presented with the usual options – 'attack', 'magic', etc – you have the choice of whether to be Brave or Default into a shielded stance. Choosing the latter allows the character in defence to store an action, up to the count of four separate actions. Then, later in that battle, you can choose to be Brave and spend your action points to attack, heal, support, or cast spells in any order you choose.

This playstyle greatly shakes up the usual JRPG combat, though personally, I only ever fell back on Default stance against particularly tricky boss fights. Minions and smaller monsters never posed enough of a threat, even on the harder difficulty. But it's worth keeping this tactic at the front of your mind, as the enemies in *Bravely Default II* can also choose to Default or be Brave, adding a layer of depth to battles, which are already impressive. Examining monsters will show their HP, which weapon type they're weak to, and which elements will cause the most magic damage. While this level of complexity's welcome, it also means your team will occasionally lack some of the harder-hitting abilities.

For example, early on, some monsters are weak to earth magic, and yet Elvis, our primary black mage, has no earth magic in his arsenal at this point. Other monsters may be weak to spear-based weapons, and perhaps you kitted out your squad with daggers, staves, swords, and



Each painterly landscape is a delight, even if the game as a whole could use a touch more imagination.

a bow. This delicate balance is the game's core. A traditional risk versus reward system. Throughout the job system too, you'll find abilities which strike up a 'do I, don't I' question. The monk job allows for big impact physical abilities, but instead of spending MP, you must trade HP. Some vanguard abilities also deliver larger, impactful moves, but the trade becomes an action point. And if you haven't stocked up on action points through Default, you'll end up in deficit, and that character misses a turn.

The developers have gone to great lengths to make the fighting as customisable and enjoyable as possible. Many jobs can be applied to characters, changing up not only their abilities but also their proficiencies with weapon types. You can assign sub-jobs too, use items to heal, or dish out damage, and at points in the story, a character accompanying your party will jump in to give aid. If this all sounds like a lot, it is.

If only this level of detail were applied to not only the story but also the environments. That's not to say the world of Excillant isn't lovely to look at or explore, especially with humorous or saccharine side quests and varied NPCs wandering about the place. But none of it feels original. We already have a cookie-cutter team or tropes to control. The worlds never feel 'new' – they always feel recycled in the faux-medieval styling, which runs like a river through lands of sand, snow, and fields of grass. It's all achingly beautiful, even in handheld mode, but many of the areas are forgettable.



This involves some story, so no spoilers here, but isn't it just lovely?

"Elvis has no earth magic in his arsenal"

The monsters, and in fact all the character designs, are memorable, however. The character models are lovely to look at, even when a monster's supposed to be grotesque. The details of the combat are reflected here, and every new monster is met with a sense of awe, especially if they tower over your party with hulking strength. As I begin to reach my word count limit, I realise there's still a lot left unsaid – brief touching moments between characters, the lengthy dungeons where the fighting happens, the especially great and passionate Japanese voices, and the seemingly never-ending endgame. *Bravely Default II* is a good JRPG, but it isn't a genuinely great JRPG – perhaps because the developers just weren't Brave enough.

HIGHLIGHT

Rather than the Default/Brave concept, it's the job system that really stands out. There are so many options, and these can be used in combination with each other. Many are obvious, like the white mage. The monumental damage of the Hellblade job is a particular standout.

VERDICT

An enjoyable and detailed JRPG, which doesn't feel as fresh as the original.

77%

Review

Balan Wonderworld

Does Square Enix have the Naka for platformers?

Info

GENRE
3D platformer

FORMAT
PS5 (tested) / PC / XB X/S / XBO / Switch / PS4

DEVELOPER
Balan Company / Arzest

PUBLISHER
Square Enix

PRICE
£49.99

RELEASE
Out now

REVIEWED BY
Alan Wen

If there's one thing that's synonymous with platformers, it would surely be jumping. So when you discover that you can't always jump in *Balan Wonderworld*, it's an early sign that something is amiss. In a game about acquiring power-ups – a total of 80 costumes, each with their own ability – sometimes a variation of jumping *is* your power-up as the main buttons are all tied to a single action. It's bizarre design, the kind of deliberate limitation that will no doubt frustrate players who take the freewheeling traversal of Mario and co for granted. Though it's not entirely surprising when the original Sonic games also saw the same action for every button.

The latter is an especially apt comparison, since *Balan Wonderworld* reunites the Blue Blur's co-creators Yuji Naka and Naoto Ohshima for the first time since *Sonic Adventure* more than two decades ago, with a game that wouldn't feel out of place from that same era. That said, anyone going in expecting the exhilarating speed of Sega's hedgehog or even *NiGHTS into Dreams* – which the titular hat-wearing maestro certainly has some resemblance in figure – are advised to slow their roll. Indeed, with its pedestrian pace, unapologetically old-school design, and twee storytelling about its tween protagonists restoring the balance in their hearts and others, it's about as unhip (which I guess makes it... square) as games can get.

Based on the central hook of amassing a ton of costumes as power-ups, it's easy to paint *Balan Wonderworld* as a bargain basement *Super Mario Odyssey*. There's nonetheless an endearing wonder to these outfits, such as a sheep that floats in the air, soaring higher with undercurrents, or a bat with a Sonic-style homing jump attack. Yet with so many costumes,



The music from Ryo Yamazaki is a frequent delight, especially in the surreal song and dance numbers at the end of each chapter.



Some NPCs have a quirk of disappearing when you approach them, though they also appear in a line cheering you as you cross a checkpoint.

it's inevitable that some abilities are little more than rehashes or single-use gimmicks (which you could argue is the case with a few of the captures in *Odyssey*, where eliciting delight takes priority over function). On the other hand, having rehashes gives you options so that you're not just relying on one costume to do the job. You can also only hold a maximum of three costumes – the third one in the row automatically banked in your wardrobe, and accessible at checkpoints when you need to switch them. Costumes also act as lives, meaning you lose one if you get hit by an enemy or fall down a bottomless pit, so it makes sense to have some in reserve to save you the hassle of backtracking. Understanding the deliberate limitations of each costume becomes key for navigating each level and finding the gold Balan statues.

Because while it can be very easy to get to the end of a level, reaching and finding these statues is required to unlock further chapters, and is ultimately where the challenge and replayability lies. Indeed, there are some levels where I couldn't even find a single statue on the first go, while others had me carefully observing my surroundings for secret paths or parsing an object that's surely interactable with the right costume, some of which actually need to be unlocked from a different chapter, thereby encouraging revisits. If *Balan Wonderworld* rarely tests your platforming prowess, it fulfils the other ingredient of a compelling 3D platformer by making you *curious*.

This also applies to the boss fights, which deviate slightly from the three-hit formula, because if you want to be awarded with all three statues, you also need to figure out how to defeat the boss in three different styles. This little touch makes the otherwise predictable affairs more thoughtful, as you may have to take advantage of a new attack pattern, or you may need to bring an appropriate costume.

"I can't hate the game; it's made with such wide-eyed earnestness"

Bundled with this are also awfully questionable design decisions, such as why you need a key to unlock these costumes to begin with, while a few seem to exist purely to troll you, such as the fox that turns into a box at random. Its greatest offence, however, is when you get to play as Balan himself in extremely tedious QTE sequences, which still demand nothing less than a flawless performance to earn a statue as reward – being told you're 'Great' *can* be infuriating.

Yet despite how unfashionably counter to conventional wisdom it can be, I could never bring myself to hate *Balan Wonderworld*; it's made with such wide-eyed earnestness and old-school stubbornness. Obviously, it doesn't stand a chance against the likes of *Super Mario* – the dire technical performance on Switch also means it's wasted on that audience. But in being so consciously unconscious of modern game design, it's neither a safe by-the-numbers flagship platformer nor trying to pretend it's a playable Pixar production. It dances to its own nonsensical beat, and at a time when publishers are ever more risk-averse and prefer to stick to what they know, it's a miracle that weird and flawed games like this even get a chance in the spotlight.



A few costumes unlock minigames, although their rewards of extra gems doesn't make them particularly worthwhile.

HIGHLIGHT

Harking back to a time when games didn't need to grip players with a three-act plot, the dozen-odd stories in *Balan Wonderworld* are told with next to no dialogue when a few frames can express the necessary emotions. These are conveyed with beautiful CGI sequences from Visual Works, whose output includes Square Enix blockbusters such as *Kingdom Hearts III* and *Final Fantasy VII Remake*.

VERDICT

It won't be destined for classic or even cult status, but you'll still find unbridled charm in this flawed, restrictive platformer. Better than *Knack*, at least.

60%



Safe to say, it was going well at this point.

HIGHLIGHT

Training, weirdly. And the music, which is brilliant. The training mechanic initially seems a bit fiddly and micromanage-y, until it dawns on you that it's a set-and-forget. You say how many of a certain profession you want, and the game will keep to that number so long as you have the bodies to spare. It's smart, and effort-saving.

Review

Evil Genius 2

A light-hearted romp featuring global domination

Info

GENRE
Baddie-'em-up

FORMAT
PC

DEVELOPER
Rebellion

PUBLISHER
Rebellion

PRICE
£34.99

RELEASE
Out now

REVIEWED BY
Ian Dransfield

VERDICT

Taking over the world might be easy, but it's still good fun.

79%

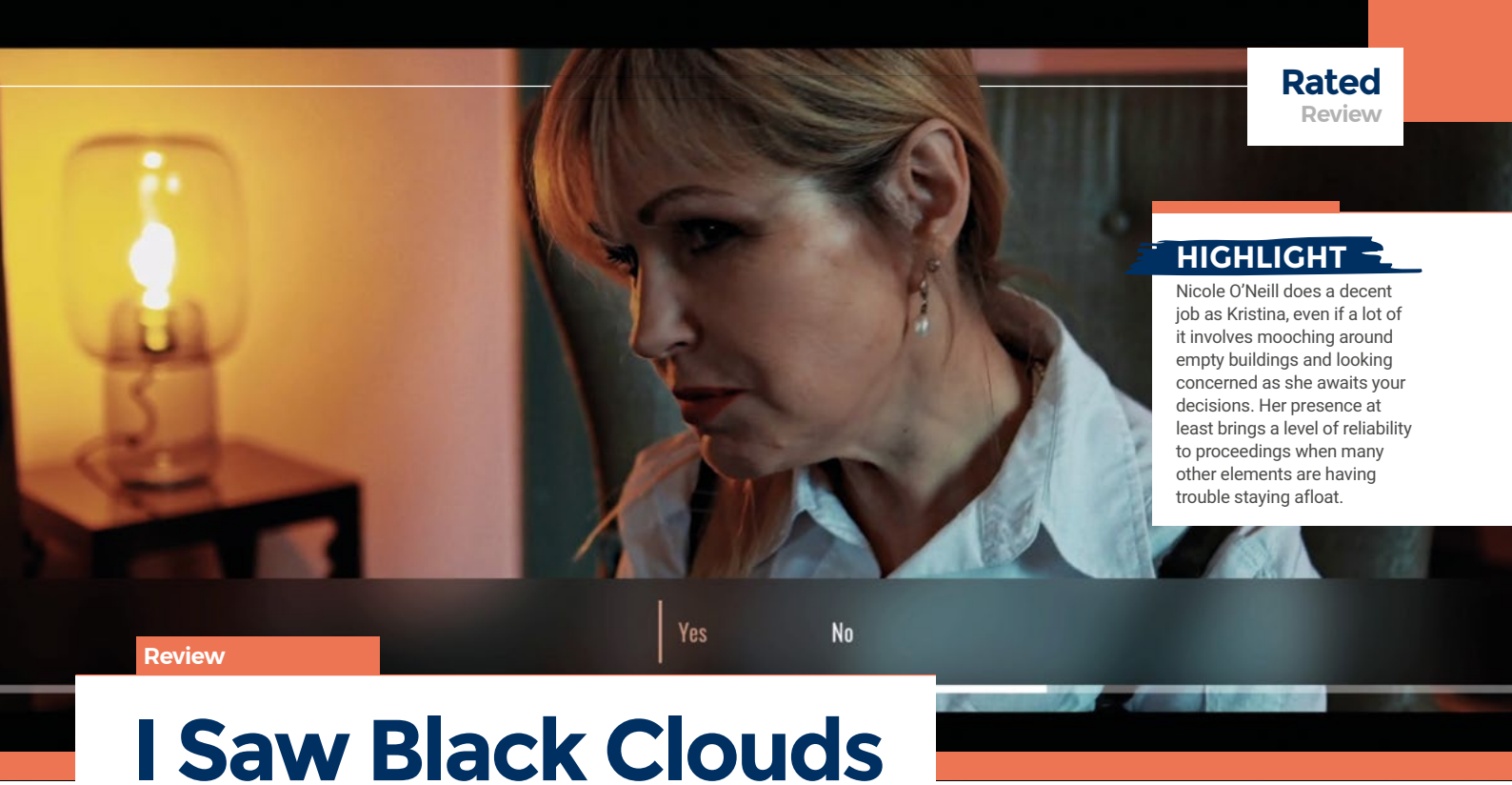
It was about the time I executed my first minion that I remembered *Evil Genius 2* concerns itself with... yeah. Being *evil*. Its sprightly and bright presentation, effectively mimicking the stylistic flourishes of many a *Bond* parody (with superb music to back up the visuals) might lure you into thinking this is happy-go-lucky and, a lot of the time, it really is. Yes, you're making plans to take over the world, but it's all done in such a *Planet Coaster*-style way it's easy to forget those aims are actually nefarious. And then you torture someone to death.

Strategy games like the original *Evil Genius* and stable-mates like *Dungeon Keeper* fell out of fashion a long time ago. Potentially even before *Evil Genius*' release in 2004. So there's a definite pang of nostalgia in being welcomed to your underground lair before ordering your dozens of minions to dig out rooms and populate them with all manner of beds, lockers, canteens, training equipment, and other items you need to keep an evil empire in good working order. And while in *Dungeon Keeper* you might slap an imp to get them to dig faster, here in *Evil Genius 2* you instead use the motivating, inspirational powers of your titular genius to make the workforce push that bit harder. And then you execute one of them in eyeshot of the others to re-establish dominance. It's just that kind of game.

"Honestly, my power plant was on fire for a *long* time"

Objectives keep on coming, and outside of the aimless sandbox mode, you're unlikely to run out of things to do for a long time. And with plenty of floors to build through, dozens of upgrades to research, and the forces of good trying to infiltrate your lair, it's the sort of game that keeps you sat at the desk for hours. You're also unlikely to turn it off out of frustration: *Evil Genius 2* isn't a *challenging* game per se, more one that can present the odd temporary setback for you to overcome either by figuring out what you need to do and implementing it quickly, or by muddling through in a slightly longer amount of time. Honestly, my power plant was on fire for a *long* time before I remembered to put some fire extinguishers in the hallway, and it barely slowed down my conquest of Earth.

A sequel some 15-plus years in the making is never going to live up to the expectations of those who loved the first game, and it's fair to say that's the case here. But that's reductive and, frankly, wrong-headed of me – because I enjoyed almost every second playing *Evil Genius 2*, and that's something no amount of hand-wringing about removing some perceived 'better' complexities from the original game can take away. This is a stylish and fun game that, while on a low rung of the challenge ladder, comes very much recommended as a lighter strategy title.



Review

I Saw Black Clouds

Alone in the dark

In brief glimpses, *I Saw Black Clouds* hints at potential in the interactive movie, especially for horror. When things go bump in the night and you're alone, vulnerable, and shoved into hurried dilemmas, you suddenly sympathise with the idiot victim in a slasher flick who does everything wrong. Should you sit in bed or poke your head into the corridor? Switch on the light? All those times you've shouted at the TV come flooding back. Not so easy now, is it, panicked, guessing in the dark?

Yet if ignorance gives these sequences a certain impact, everything else about *I Saw Black Clouds* is confusing in the wrong way. You are, after all, also a viewer following the story, and Ghost Dog Films' choppy execution all too often drags you out of it.

The initial premise is sound enough. Kristina (Nicole O'Neill) returns to her Shropshire hometown after the suicide of old friend Emily, and senses a ghostly presence – maybe Emily is trying to say something from beyond the grave, maybe it's a more sinister force. With that, Kristina starts sleuthing around, questioning people in their homes, or slowly exploring sites of interest, stalked by a tang of suspense. In fact, there's not much else, with little connecting tissue to clarify what she's up to, or introduce the supporting cast. Whether you're chatting to a sinister psychiatrist, a rude headmaster, or a friendly vicar who smiles his way through a talk about suicide, it feels disconnected.

"Whoever you're chatting to, it feels disconnected"

The way it handles player input only increases the feeling. Your involvement is inconsistent – in some scenes you direct Kristina's every move, in others you're a spectator, and decision-making is littered with fake choices and some options that fail to register at all. This muddiness is capped by a wonky character attribute system that supposedly reacts to your choices. Two separate bars marked 'denial' and 'acceptance' can both reach high values, and there are relationship ratings for just two characters, Charlotte and Jack, one of which you might never meet.

It's eventually clear that these symptoms stem from an identity crisis at the core of the plot. Based on decisions in the opening act, the story can progress in two diverse directions – one that dives into the supernatural, another that morphs into a conspiracy thriller. Not so much branching as split at the base of the trunk. Yet both still share scenes, multi-purposing dialogue, and action in a way that inevitably makes more sense in one context than the other. Until, inexplicably, they can handbrake-turn to converge on the same finale, ditching everything for a twist that does justice to neither.

I Saw Black Clouds' problems aren't intrinsic to its genre, or its low production values. Yes, it's cheap and performances are uneven, but it's the shoddy structure that kills it. There is some potential in the interactive movie, then, but aside from some fleeting tension, you won't find it realised here.

HIGHLIGHT

Nicole O'Neill does a decent job as Kristina, even if a lot of it involves mooching around empty buildings and looking concerned as she awaits your decisions. Her presence at least brings a level of reliability to proceedings when many other elements are having trouble staying afloat.

Info

GENRE
Interactive movie

FORMAT
PS4 (tested) / PC / Switch / XBO

DEVELOPER
Ghost Dog Films

PUBLISHER
Wales Interactive

PRICE
£9.99

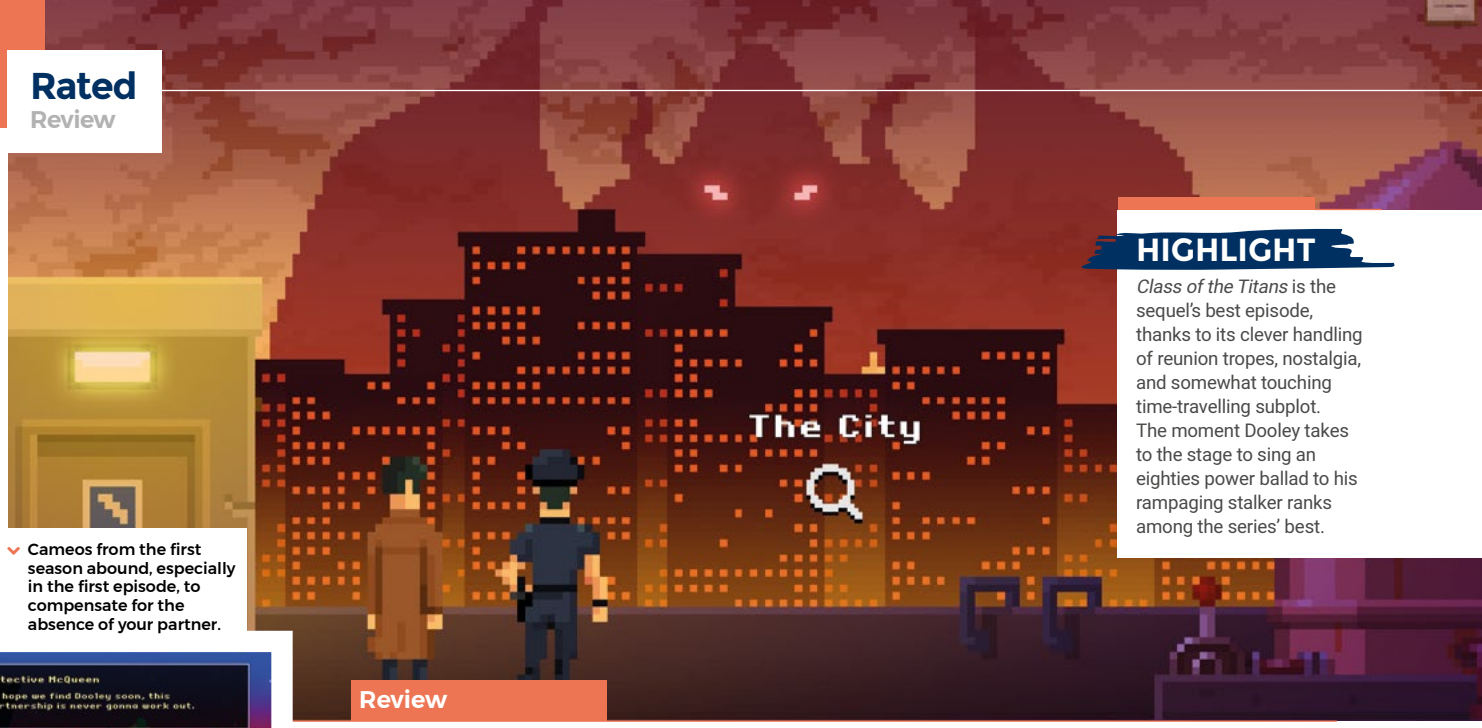
RELEASE
Out now

REVIEWED BY
Jon Bailes

VERDICT

A live-action interactive movie that struggles both mechanically and narratively.

34%



Cameos from the first season abound, especially in the first episode, to compensate for the absence of your partner.



HIGHLIGHT

Class of the Titans is the sequel's best episode, thanks to its clever handling of reunion tropes, nostalgia, and somewhat touching time-travelling subplot. The moment Dooley takes to the stage to sing an eighties power ballad to his rampaging stalker ranks among the series' best.

Review

The Darkside Detective: A Fumble in the Dark

Pixels, puns, and poltergeists

Info

GENRE
Point-and-click adventure

FORMAT
PC (tested) / PS4 / XBO/Switch / PS5 / XB X/S / Stadia

DEVELOPER
Spooky Doorway

PUBLISHER
Akupara Games

PRICE
£9.99

RELEASE
Out now

REVIEWED BY
Alexander Chatziioannou

VERDICT

Less focused and charming than its predecessor, but still a fun collection of mini-adventures that ends on a high note.

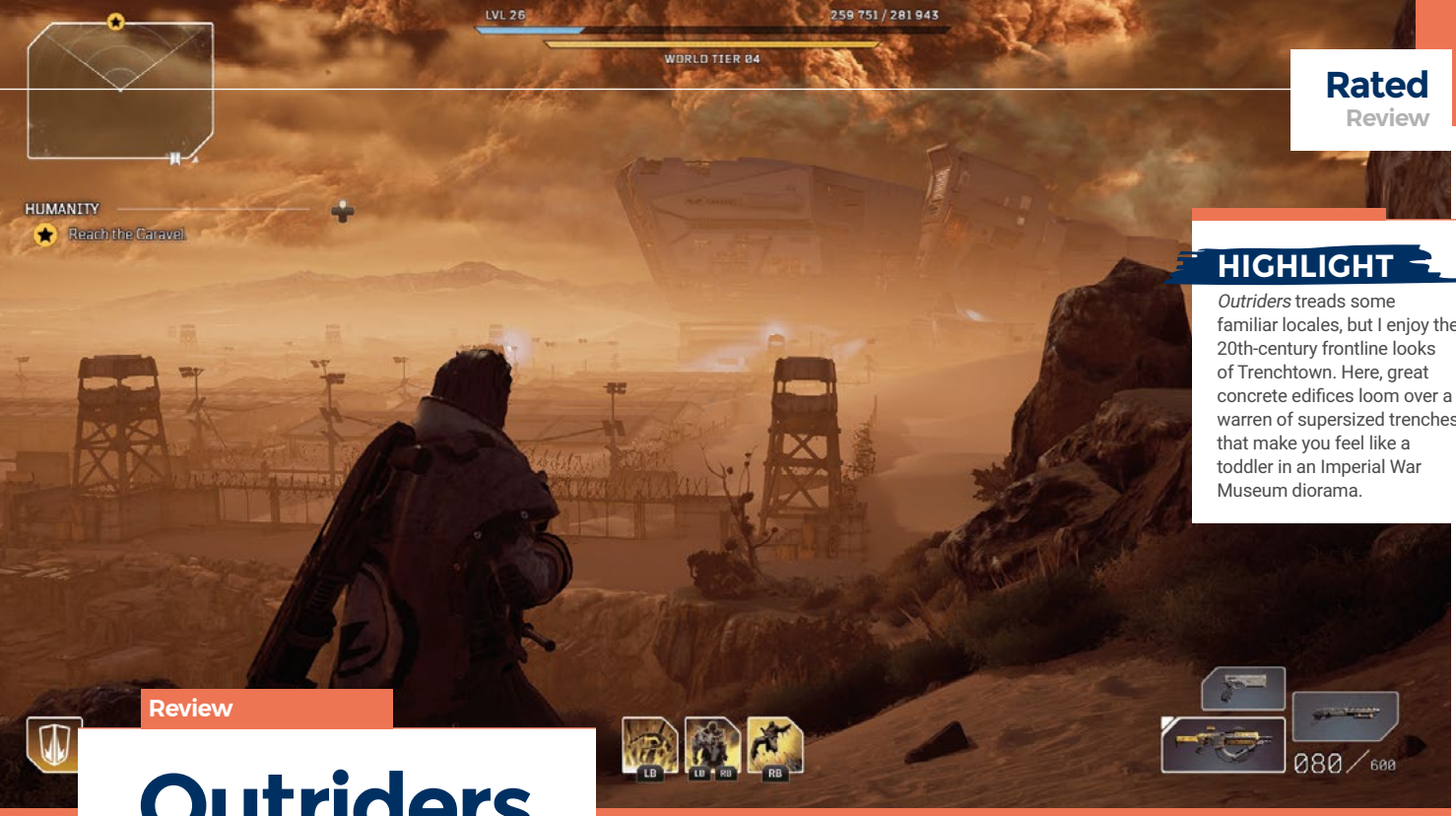
61%

Officer Dooley has got himself in trouble again. Your faithful partner and the Darkside Division's idiot savant (or just plain idiot) got sucked into a mysterious dimension during a routine investigation, prompting an inconsolable Detective McQueen to neglect all other duties and obsessively focus on tracking down his missing friend. If this were *Disco Elysium*, there would doubtless be heavy alcohol consumption and self-destructive behaviour involved. But it's not, so our protagonist opts for a heartfelt, locally broadcast plea on Dick Brickman's daytime talk show and allying with a talking squirrel in the first of six bizarre cases that comprise the sequel to 2017's enjoyable collection of spooky mini-adventures, *The Darkside Detective*.

Both the wonderfully expressive pixel art and the mercifully time-flexible episodic structure that felt so refreshing in the original are present in *A Fumble in the Dark*. But something is missing from these new scenarios, which take you from an Irish castle hosting a bitter feud between Druidic factions to a vampire-infested retirement home whose residents display a penchant for vandalism, and it's not just Dooley's buffoonery.

While still manageable in length, there's a new-found expansiveness in *A Fumble in the Dark* that serves to dilute the concise appeal of the first game. The room count has gone from about a dozen per scenario to more than 20, and the length of each episode has roughly doubled. The added duration isn't a problem, but Spooky Doorway seems unsure how to handle it. It's happy to ramp up the weirdness and fill the gaps with inventory fiddling and a stream of callbacks to the original. But in-jokes and pop culture references are poor substitutes for narrative cohesion, and so *A Fumble in the Dark* disappoints, even as it bombards you with sci-fi tropes: the fourth case sees you jump from a haunted circus to a reality governed by psychotic clowns, to the depths of a gooey ocean, to the innards of a mechanical beast within moments.

A Fumble in the Dark bounces back for the final acts: a demonic tag-team wrestling match with implications for the future of humankind, and a high school reunion crashed by Dooley's interdimensional abductor. It is not a coincidence that these are both the more spatially coherent episodes, and the ones that delve deeper into the duo's personalities and motivations. In the four years since *The Darkside Detective*'s release, the work of – among others – Octavi Navarro and Powerhoof has hammered a new focus onto the bite-sized adventure genre. While never less than an agreeable diversion, *A Fumble in the Dark*'s aspirations of scope feel like a step backwards for most of its length, before it finds its footing in a finale that rekindles hope for McQueen's and Dooley's future shenanigans.



HIGHLIGHT

Outriders treads some familiar locales, but I enjoy the 20th-century frontline looks of Trenchtown. Here, great concrete edifices loom over a warren of supersized trenches that make you feel like a toddler in an Imperial War Museum diorama.

Review

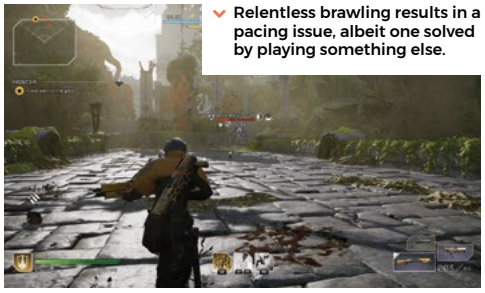
Outriders

Another lousy millennium

Fighting through *Outriders*' chambered open world in the first act feels much the same as it does in the last. Is that a problem? Not if shooting and looting sufficiently incentivise you to get through its overlong campaign. And it's a good thing the combat loop makes for such a strong hook.

Informed by *DOOM*, *Gears*, and *Destiny*, encounters are animated by an addictive pattern of risk and reward – "Think aggressive, kill to heal" being *Outriders*' maxim. A slow drip of upgrades improves the power fantasy at *Outriders*' core, while I enjoy the brawn behind its Gnasher-like shotguns. I never unequip the Devastator class's Gravity Leap ability, which metamorphoses me into a terrifying Katamari. The settings get mildly more interesting, too, as you push further into this alien world and approach the source of the – um, or the reason for the – er...

You see, in the absence of much innovation beyond its combat, *Outriders* lacks an emotive through line to see the player to its conclusion. You start newly put ashore on planet Enoch, settling survivors from a ravaged Earth. An hour later, you do a Fry from *Futurama*: end up in a freezer and wake up in the distant future. Things have not gone well. The verdant valleys are now ruins, and perpetual war rages within a region bounded by a mysterious geophysical 'Anomaly'. The same thing transforms you into an 'Altered', and rewires your central nervous system into an ability unlock tree for one of four classes. The Trickster can deploy slow-time bubbles, while the aforementioned Devastator can fling across levels like Spidey and soak punches like the Hulk. Do you mind that just yesterday you were in paradise? Not a whole lot, no.



Relentless brawling results in a pacing issue, albeit one solved by playing something else.

It's not just the story that feels like a victim of compromise. Some people worried that *Outriders* belonged to a previous generation. I wish it did. Combat is compelling but wearying, and anchored by the prevailing shortcut to player gratification in its many random item-spewing loot boxes. This relentless pattern of opening doors, beating enemies, and rinsing their pockets feels transparent and often hollow.

That's the big disappointment here. People Can Fly's *Bulletstorm* was also a science fiction romp, but one that effectively blended tone, novelty, and style while taking aim at its dour contemporaries. The studio chose not to fiddle with the same levers this time. The result is rather more routine and conservative, and attached to a tiresome creed that humanity is fated to run headlong into its own ruin.

Info

GENRE
Shooter/RPG

FORMAT
PC / PS4 / PS5 / XB X/S / XBO (tested)

DEVELOPER
People Can Fly

PUBLISHER
Square Enix

PRICE
£59.99

RELEASE
Out now

REVIEWED BY
Kyle Hoekstra

VERDICT

***Outriders* is a compelling brawler, but what's good is slim and the rest lacks spark.**

57%



Review

It Takes Two

Honey, I shrunk the genre

Info

GENRE
Co-op

FORMAT
PC (tested) / PS5 / XB S/X / PS4 / XBO

DEVELOPER
Hazelight Studios

PUBLISHER
Electronic Arts

PRICE
£34.99

RELEASE
Out now

REVIEWED BY
Jordan Oloman

"True or false, my birthday is on 17 April," my co-op partner asks me, holding back a sinister laugh. He knows it's been a few years and a series of lockdowns since we've had a proper chat, and I'm a little clay man trapped in a brass pneumatic chamber. Shame washes over me, and I squirm and make silly noises before letting out a meek "True?"

Without words, he slaps a button to incinerate me, and we both burst into laughter. We're playing *It Takes Two*, the latest offering from Josef Fares' Hazelight Studios. Hazelight is one of the very few development teams dedicated to reanimating the joys of couch co-op. You may be familiar with its previous work: the heart-rending stick-twiddler *Brothers: A Tale of Two Sons* and the half-baked-but-charming *A Way Out*.



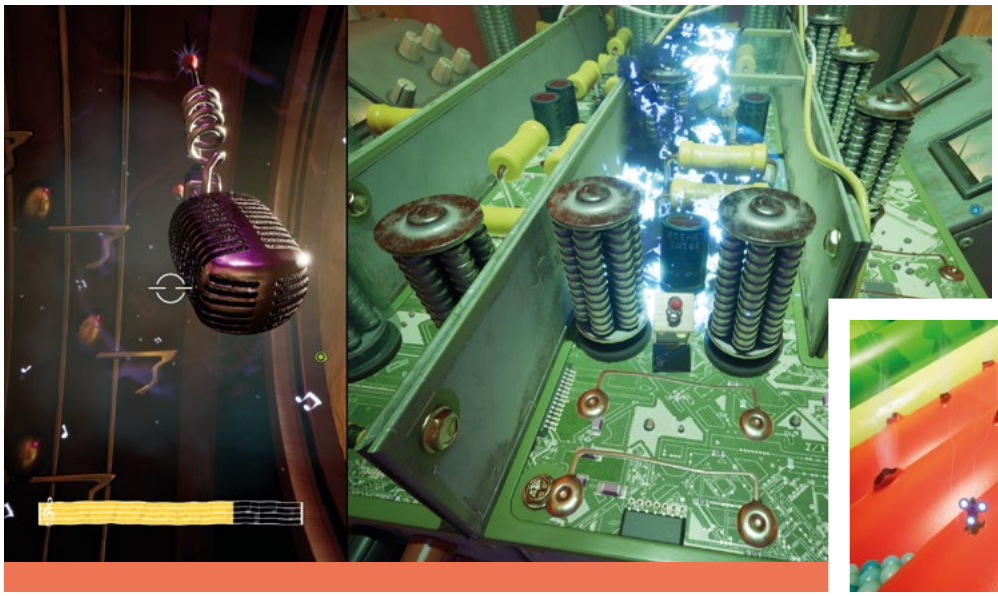
In this fun section, one player rides a long-necked dinosaur, moving and placing blocks to allow their partner through a platforming gauntlet.

Most of the levels feature an overlord, such as the space mission's Moon Baboon, one of Rose's toys brought to life.

Fares' laser focus on a forgotten genre ensures that the studio's games exist in their own unique, charming lane, reminding us of the days before online multiplayer really took hold. Ultimately, they're built to strengthen the relationships of the duos that play them, and *It Takes Two* feels like the product of a studio that has fully figured out its niche.

The premise revolves around a little girl called Rose who is caught in the middle of a looming divorce. Rose makes dolls of her parents Cody and May to pretend that they're going to stay together forever, but when her tears grace the patchwork guardians they are brought to life in fun-sized form. Players control Cody and May as they're forced to reconcile their differences in a different dimension, solving puzzles with communication. It's gamified couples therapy, an interactive romantic comedy with a much longer runtime, clocking in at about twelve hours tops.

Across those hours you'll visit fantasised worlds based on parts of the family home. The innards of an old oak tree becomes the setting for an armed conflict between squirrels and wasps that you must mediate, and a sentimental snow globe becomes a ski resort. The intimate scale of the game leads to countless striking details in the environment, from plastic beach-ball stretch marks to the bulging braided cords of microphone snakes



In the attic, you'll cross circuit boards and dodge capacitor hazards as May uses her voice to tame microphone snakes.



The material details in *It Takes Two* are eye-wateringly beautiful up close, even when you're flying around on a fidget spinner.

you have to dodge in the attic. It's the kind of texture work that really demands screenshots. I couldn't help but zoom in on stray capacitors or perforations in plastic that ripple carefully in the air, allowing players to float on their plumes.

Beyond the tools mapped to the triggers, the control scheme is simple: you can double jump, dash, butt slam, and smack, but the satisfying momentum of these inputs has been fine-tuned to allow for mistakes that feel like the player's fault, with little room for frustration at the game itself. To me, this is the mark of any good platformer, where failure goads you to get better. Consistent boss battles will push you to your limits, such as a toolbox demon that is raining nails and constantly slicing through a precarious platform. You're forced to put your heads together, combining hammer and nail to catapult into the air and pop an explosive can of WD-40 in its anthropomorphic brain.

Hazelight is always manipulating what you can do based on the introduced mechanics, so you're never far away from being flabbergasted. It can be frantic in the moment – one scene you're in a classroom trying to pass an exam on a time limit, solving mental maths with butt slams and carefully connecting a dot-to-dot drawing. Other puzzles are slow and careful head-scratchers where you're unravelling a code based on a solution only one shrunken player can see. You can also find optional competitive minigames that are peppered through each map – well worth dodging the story for to see who's the best at chess or Scalextric.

"It's gamified couples therapy; an interactive romantic comedy"

The mechanical variety is staggering, and *It Takes Two* is well worth its price for this aspect alone. But where it fell apart for me was in the pacing and narrative department. For about five hours it's in a stride, heading from one set piece to the next, with each level meaningful narratively, with smart side characters and a clear moral around repairing the failing relationship. Soon after though, it quietens down and forgets what it wants to say. Levels lose their meaning beyond being dragged-out puzzle parlours.

Here's an example – about halfway through the game, the parents violently chase down their daughter's favourite toy to further their ambitions to get back to normality, and *It Takes Two* starts teasing out this great moral about how warring parents can lose sight of their children's needs in the cold pragmatism of divorce. It was on the cusp of some very powerful emotions, I could feel the tears coming, but the story wasn't smart enough to bring this idea home, cutting in with daft quips instead.

This tracks for the remainder of the game, as at its climax, *It Takes Two* stage-dives into an abrupt happy ending and smacks headfirst into the concrete. Maybe I'm jaded from personal experience, but the last few levels weren't believable, and in spite of consistently funny voice acting, the closing dialogue felt particularly sickly. The way it resolved almost ruined the game for me and my co-op partner – the impression it left was that its main characters didn't learn anything despite all of the meaningful lessons it had taught us as players.

HIGHLIGHT

While the game's score isn't much to write home about, the sound design in *It Takes Two* is full of superb intricacies. Pounding plugs into place, slapping buttons, and cracking glass bottles are tactile experiences that serve to ground players in its magnificent miniature world.

VERDICT

***It Takes Two* is a singular co-op experience valuable to any duo with an unfortunately shoddy story.**

81%



Review

Ashwalkers: A Survival Journey

Baby, it's cold outside. No, seriously, it's incredibly cold

HIGHLIGHT

As per the title, there's a whole lot of walking here, and sometimes nothing else besides. Yet that stark, monochrome image of your squad – a quartet of minuscule figures silently braving the elements – does have a quiet, desolate beauty to it. It's *Death Stranding*, but with other people.

Info

GENRE
Narrative survival sim

FORMAT
PC

DEVELOPER
Nameless XIII

PUBLISHER
Dear Villagers

PRICE
£9.29

RELEASE
Out now

REVIEWED BY
Alan Wen

In a post-apocalypse where the planet's atmosphere has become filled with ash, remnants of humanity survive with few resources and some grim choices to make. As a four-member squad, you're tasked with setting off for a fabled location called the Dome of Domes as a potential new refuge for your community of survivors.

While the staples of managing gauges like hunger, heat, and fatigue are present and correct, *Ashwalkers* has more of a narrative slant, since it focuses on those aforementioned tough decisions. It immediately promises depth and plenty of branching paths, boasting 34 possible endings, but with this quantity also comes some awkwardly blunt execution.

Your four squad members are more one-note functions than characters – there's Petra the leader, Sinh the warrior, Kali the diplomat, and Nadir the scout – each able to take over and lead on the many choices that play out in text-based scenarios. Choices you have are also specifically tied to a character, so Sinh is direct and violent whereas Kali will try to find a peaceful solution. It also means if you're unfortunate enough to have one of your characters die partway through the journey, the choices available to you become limited.

As someone who wanted to find the most hopeful outcome, I didn't really find myself faced with any genuinely tough decisions. It just made sense to take the diplomatic route, like not killing the first person you come across. Rescue a boy from a wild beast and he'll pay it forward by helping you pass safely through his village, whose nomadic inhabitants are described as 'savages' – an outdated term made moreso in a post-apocalypse, when everyone's having it rough.

The survival elements never really bring up dilemmas like the ones you might find in, say, *This War of Mine* or *The Oregon Trail*. Indeed, my squad was almost always stuffed with resources (although overloading beyond what they can carry does mean they'll get fatigued more quickly), so why would I be compelled to dip into a moral quagmire to hoard more?

"I wasn't faced with any genuinely tough decisions"

That there are alternative destinations besides the Dome of Domes will at least justify a couple more runs, even if you don't plan to change how you approach your situation. But having more or less got my ideal outcome the first time, the remaining alternatives suddenly feel like a trivial flowchart, and perhaps the game is conscious of this, since it allows you to customise your next run and essentially skip certain sections. *Ashwalkers*' world may be a harsh one, but it mostly stems from an endgame that asks you to be cold and calculating in order to see all the lesser outcomes.

VERDICT

A decent premise and striking atmosphere, but this survival journey really lacks teeth.

56%

STREAM OF CONSCIOUSNESS

Musician, producer, and Twitch streamer **Katt Strike** spares some time to chat to us about video games

What's your favourite game?
Oh, that's a very hard question! I'd have to narrow it down between *Fallout: New Vegas* and *The Legend of Zelda: Majora's Mask*.

And why is that? What is it about those particular games that resonates so much with you?
For me, it's all about immersion, fun, and humour. I can get lost in both of those games for hours on end; they still entertain me greatly (plus, they're both amazing games, to boot). *Fallout: New Vegas* is quite leftfield at times. There are many moments you'd never expect, plus the dialogue is hilarious throughout.

Which game was it that got you into gaming to begin with? What are your enduring memories of it?
My parents were both gamers, so I started out around the age of four with *Street Fighter 2* (on the Sega Saturn). It wasn't until *Crash Bandicoot* that I really started to enjoy games; we would spend hours playing it with my mum as she angrily tried to get every gem on every level, frequently calling Crash a "wee b*****d".

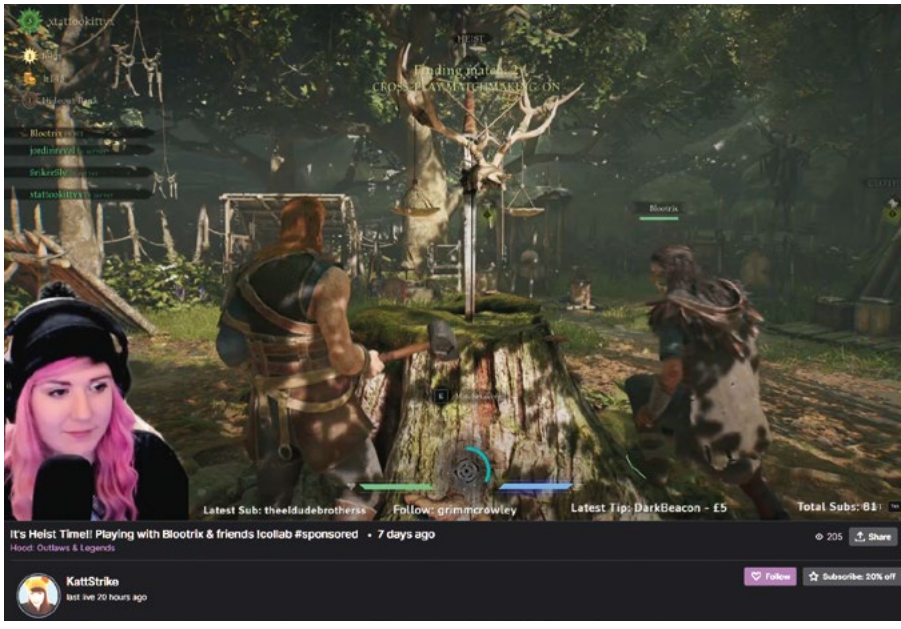
Has there ever been a point you've been put off gaming? If so, why?
To be honest, not really. For years, gaming was a very solitary thing to me, an escape. It's such a huge part of my life that I couldn't imagine not playing them. If I ever encounter toxicity online, I block and move on. I play games every day, and I could never imagine not having that in my life.

What's the appeal of playing games for an audience – whether that's pre-recorded or livestreaming?
I think there's a lot of reasons streaming appeals to me. Personally, I enjoy sharing games with people, and I've learned a lot about the games I play whilst streaming them (such as secrets, techniques, and facts). As someone with a chronic illness, I've struggled to make new friends because I was unable to work/go out for a long time – Twitch allowed me to connect with people very similar to me. There's something electric about a good stream, when you have a brilliant back and forth with the chat and the game you're playing is good; it's exciting.

Originally, I just wanted to play games and make friends, but now it fuels my ambition and creativity. I have a very supportive community, and they keep me coming back and wanting to improve.



You can watch Katt Strike streaming through the week over on Twitch: wfmag.cc/Striker



The Wireframe HOTLIST

The best PC games, according to Wireframe, catering for whatever your mood might be

The games for... BIG ADVENTURES



Assassin's Creed Odyssey / *Ubisoft* / **93%** (Issue 1)

Yakuza: Like a Dragon / *Ryu Ga Gotoku Studio* / **90%** (Issue 45)

^ **Amnesia: Rebirth** / *Frictional Games* / **87%** (Issue 46)

The Last Campfire / *Hello Games* / **86%** (Issue 47)

Resident Evil 2 / *Capcom* / **86%** (Issue 7)

Far Cry New Dawn / *Ubisoft* / **85%** (Issue 9)

Journey to the Savage Planet / *Typhoon Studios* / **84%** (Issue 33)

The Outer Worlds / *Obsidian Entertainment* / **84%** (Issue 28)

Monster Boy and the Cursed Kingdom / *Game Atelier* / **84%** (Issue 6)

Nioh 2 / *Koei Tecmo Games* / **80%** (Issue 38)

The games for... REPEATED PLAY

Hades / *Supergiant Games* / **94%** (Issue 44)

They Are Billions / *Numantian Games* / **88%** (Issue 20)

Sekiro: Shadows Die Twice / *FromSoftware* / **87%** (Issue 11)

Streets of Rage 4 / *DotEmu/Lizardcube/Guard Crush* / **86%** (Issue 40)

Trials of Fire / *Whatboy Games* / **84%** (Issue 50)

Katamari Damacy REROLL / *Monkeycraft* / **84%** (Issue 4)

Spelunky 2 / *Mossmouth* / **83%** (Issue 44)

Hitman 2 / *IO Interactive* / **82%** (Issue 3)

Alba: A Wildlife Adventure / *ustwo Games* / **82%** (Issue 46)

Slay the Spire / *Mega Crit Games* / **81%** (Issue 45)

The games for... SOLID STORY TIMES

Disco Elysium / *ZA/UM* / **94%** (Issue 28)

Mutazione / *Die Gute Fabrik* / **86%** (Issue 26)

Whispers of a Machine / *Clifftop Games/Faravid Interactive* / **85%** (Issue 14)

Mythic Ocean / *Paralune* / **84%** (Issue 36)

Sunless Skies / *Failbetter Games* / **83%** (Issue 7)

Arise: A Simple Story / *Piccolo Studio* / **82%** (Issue 31)

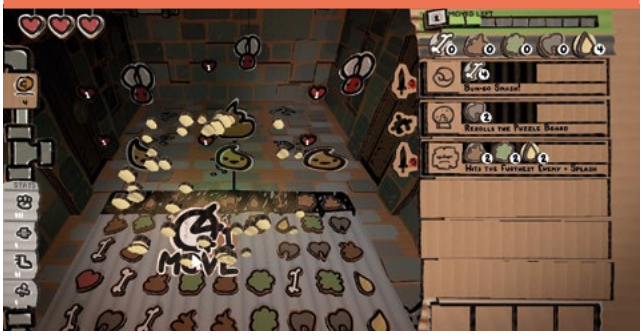
Assemble with Care / *ustwo Games* / **81%** (Issue 27)

The Walking Dead: The Final Season / *Telltale Games/Skybound Games* / **81%** (Issue 11)

The Procession to Calvary / *Joe Richardson* / **80%** (Issue 40)

Outer Wilds / *Mobius Digital* / **80%** (Issue 17)

The games for... FIRING UP BRAIN CELLS



Telling Lies / *Sam Barlow* / **92%** (Issue 24)

Kentucky Route Zero / *Cardboard Computer* / **90%** (Issue 33)

Heaven's Vault / *inkle* / **89%** (Issue 12)

The Pedestrian / *Skookum Arts* / **84%** (Issue 35)

^ **The Legend of Bum-Bo** / *Edmund McMillen* / **83%** (Issue 31)

A Monster's Expedition / *Draknek & Friends* / **82%** (Issue 47)

Total War: Three Kingdoms / *Creative Assembly/Feral Interactive* / **82%** (Issue 16)

Wanna Survive / *PINIX* / **80%** (Issue 42)

Superliminal / *Pillow Castle* / **80%** (Issue 34)

Automachef / *Hermes Interactive* / **80%** (Issue 19)

The games for... **HIGH-INTENSITY PLAY**



Tetris Effect / *Monstars Inc./Resonair* / **90%** (Issue 4)

Sayonara Wild Hearts / *Simogo* / **89%** (Issue 25)

Star Wars: Squadrons / *EA* / **86%** (Issue 45)

Devil May Cry 5 / *Capcom* / **84%** (Issue 10)

Black Bird / *Onion Games* / **84%** (Issue 3)

BPM: Bullets Per Minute / *Awe Interactive* / **83%** (Issue 45)

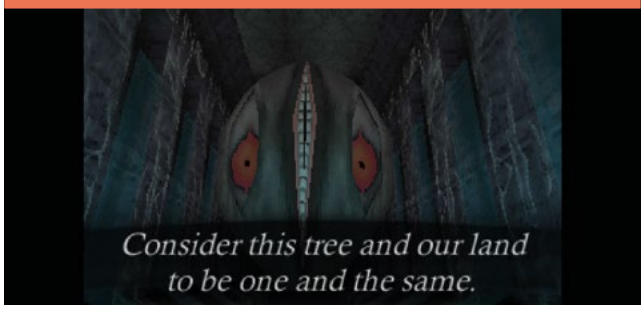
Catastronauts / *Inertia Game Studios* / **82%** (Issue 1)

Olija / *Skeleton Crew Studio/Thomas Olsson* / **81%** (Issue 48)

DUSK / *David Szymanski* / **81%** (Issue 7)

DOOM Eternal / *id Software* / **80%** (Issue 36)

The games for... **CURING THE INDIE ITCH**



If Found... / *DREAMFEEL* / **92%** (Issue 44)

Can Androids Pray
/ *Natalie Clayton/Priscilla Snow/Xalavier Nelson Jr.* / **90%** (Issue 21)

Tales From Off-Peak City Vol. 1 / *Cosmo D* / **89%** (Issue 39)

Baba Is You / *Hempuli Oy* / **88%** (Issue 10)

Afterparty / *Night School Studio* / **86%** (Issue 33)

Witcheye / *Moon Kid* / **86%** (Issue 30)

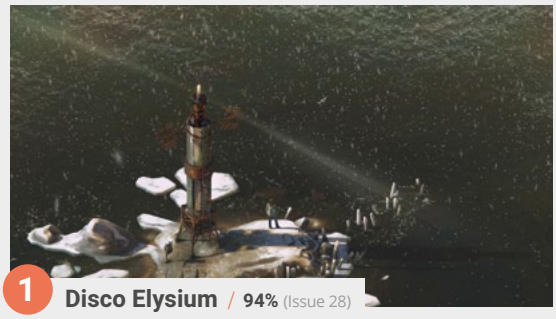
Hypnospace Outlaw
/ *Tendershoot/Michael Lasch/ThatWhichIs Media* / **86%** (Issue 11)

Haunted PS1 Demo Disc / *The Haunted* / **85%** (Issue 39)

Xeno Crisis / *Bitmap Bureau* / **81%** (Issue 33)

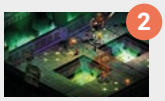
Art of Rally / *Funselektor Labs* / **80%** (Issue 45)

PC Top 10



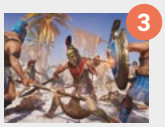
1 **Disco Elysium** / **94%** (Issue 28)

Smarter and deeper than anything else; truly an RPG in a class completely of its own.



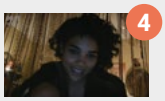
2 **Hades** / **94%** (Issue 44)

Proving 'roguelike' isn't a dirty word, learning-and-dying is a joy from start to finish.



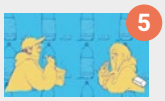
3 **Assassin's Creed Odyssey** / **93%** (Issue 1)

The point where Ubisoft realised over-the-top adventures were the right direction.



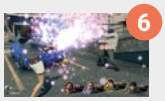
4 **Telling Lies** / **92%** (Issue 24)

This FMV mystery asks more of the player than most, with rewards to match.



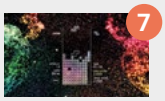
5 **If Found** / **92%** (Issue 44)

A compelling and beautifully illustrated narrative, as moving as it is memorable.



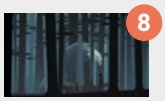
6 **Yakuza: Like a Dragon** / **90%** (Issue 45)

A bold, brash, and joyous rebirth for the long-running gangster series.



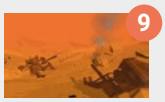
7 **Tetris Effect** / **90%** (Issue 4)

The question is 'how do you better *Tetris*?' The answer is: like this. This is how.



8 **Kentucky Route Zero** / **90%** (Issue 33)

Abstract style meets concrete commitments in this fantastic magical realist adventure.



9 **Can Androids Pray** / **90%** (Issue 21)

A healthy dose of existential anxiety in a minimalist, bite-sized package.



10 **Tales From Off-Peak City Vol. 1** / **89%** (Issue 39)

A walking sim/adventure; a work of remarkable imagination and humanity.

Backwards compatible

WRITTEN BY IAN "WITTY REFERENCE" DRANSFIELD

Fornever

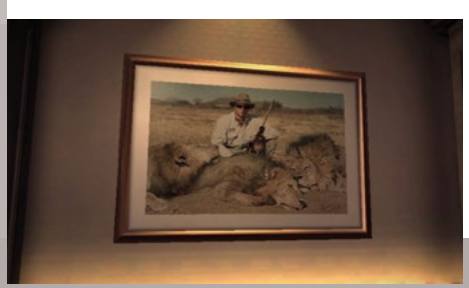
Well yes, it's now ten years since *Duke Nukem Forever* finally, actually came out. The game was around 15 years in the making, so it's not been out as long as it was being made – not yet – but it is still a milestone. An anniversary worth talking about? Hmm. 'Worth' isn't a word thrown around a lot with *Duke Nukem Forever*. An anniversary *that I feel for some reason compelled to talk about*. That's better.

In the ten years since Duke's last outing – barring re-releases of *Duke Nukem 3D*, the game that was (and is) actually good – we've heard the odd peep here and there that the flat-topped bewildering ball of misplaced machismo will be making a return, but either it was Gearbox chief Randy Pitchford with a hopeful glint in his eye, or what has become of 3D Realms trying to make a game based on a property it simply doesn't own anymore (which ended up as the awful *Bombshell*). There's been nothing official. I cannot think of a game – not one that I was paying so much attention to, that I was looking forward to so much – that has ever had a similar impact to *Duke Nukem Forever*. In that it absolutely killed a franchise stone-dead.

I played the game in a professional capacity, reviewing it in a past life. I was keen – a *Duke Nukem 3D* fan since that game's release, I was both qualified to take on the much-anticipated game *and* keen to see what 3D Realms (and Gearbox, and Triptych, and Piranha) had been able to put together over such an extended period of work. I don't remember the score I gave *Duke Nukem Forever*, but I know it was low. And I know I was actively annoyed. So with that memory – faded but legible – still rattling around in my brain, I loaded the game up for the first time in a decade, on the very same PS3 I first played it on, to find out how much a person can soften with age, and how much nostalgia can make something easier to get along with.

Nope. Not in the slightest. From the very first *second* of playing *Duke Nukem Forever*, it's clear that not only was past Ian right, he might not have been harsh enough in his assessment of this trash fire of a game.

The *hilarity* opens with the player controlling Duke as he... does a wee. Then you can fish a poo out of a toilet and throw it at the wall. Interactivity takes centre stage as you use markers to draw on a whiteboard, before you recreate the last boss battle from *Duke 3D* in a straightforward, dull intro fight. It's an









inauspicious start that continues into an inauspicious rest-of-game.

It's not just that it's crude. In 2011, Duke's 'babes' were embarrassing, in 2021 their presentation feels genuinely shameful. It's not just that there's not a single scintilla of self-awareness on display in how Duke is portrayed (hunting lions for trophy kills – *what a man*). No – *Duke Nukem Forever*'s biggest crime is that the game is extremely boring.

It's glorified, wave-based combat – go to a place, deal with a few waves of idiotic AI drones, interact with whatever thing is glowing orange in the area, go to the next place, rinse and repeat. There's the odd fixed gun emplacement thrown in to really test your patience. And all the while you're having to deal with *Disaster Movie*-levels of parody. Which is to say Duke, or someone else, says a line lifted exactly from another game/movie/TV show/pop culture reference, exactly as it was said, devoid of context, while (metaphorically) staring right at you and winking as if it's How Comedy Works.

I'm ashamed of myself for spending a couple of hours playing *Duke Nukem Forever* in 2021, to the point that I gave myself the task of writing about it here as a sort of penance. It was 15 years in the making and had been surpassed 15 years before it released. It's ten years old as of June 2021, and my brain has done such a thorough scrubbing job trying to get rid of it from my memory that it feels like it never *really* existed to begin with. *Duke Nukem Forever* was – and remains – absolutely horrible.

All that being said, I do still see there being potential for a new Duke game. The re-releases and remasters of *Duke Nukem 3D* were well received by the gaming public. Gearbox isn't a daft company, I'm sure it knows it'd be leaving money on the table to ignore the property. So I fully expect in the next few years these words won't ring as true because a sequel or follow-up in some form will be announced. But for the right now, in this very moment, it's fun to enjoy the milestone of ten years since *Duke Nukem Forever*. Ten years since we watched an entire series crash and burn, with cries of "The horror!" aimed squarely at the game's content, not its fate.

Make it again VIII



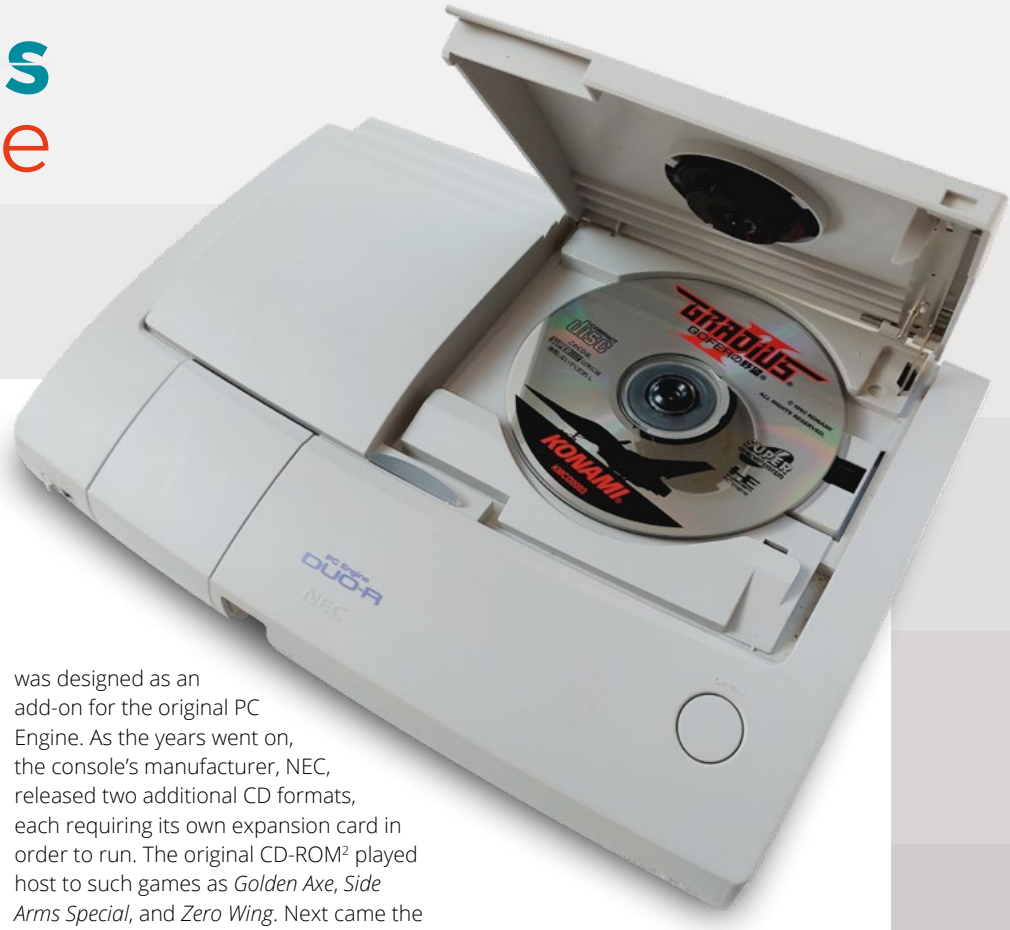
There's a host of Psygnosis/Sony properties that have lain dormant for a long time now, and I think it's about time someone got to work fixing that. If *Shadow of the Beast* can get a do-over, so can *Colony Wars*. Yes, *Shadow* was technically a Reflections game, and yes, its remake was bad, but the point stands.

Epic space opera action with a story you had a genuine impact on – fail a mission and the game continues, the outcome just becomes increasingly less optimistic the worse you do – *Colony Wars* was laser-shooty-whizzbang action done *right* for consoles. *Star Wars: Squadrons* has shown us there's an appetite for modern space shooters that veer out of the simulation realm, so why not give it a shot? All it would need is many millions of pounds in order to maintain the high production values of the first two games, it's not too much to ask.



Backwards compatible

WRITTEN BY RYAN LAMBIE



Dynamic Duo

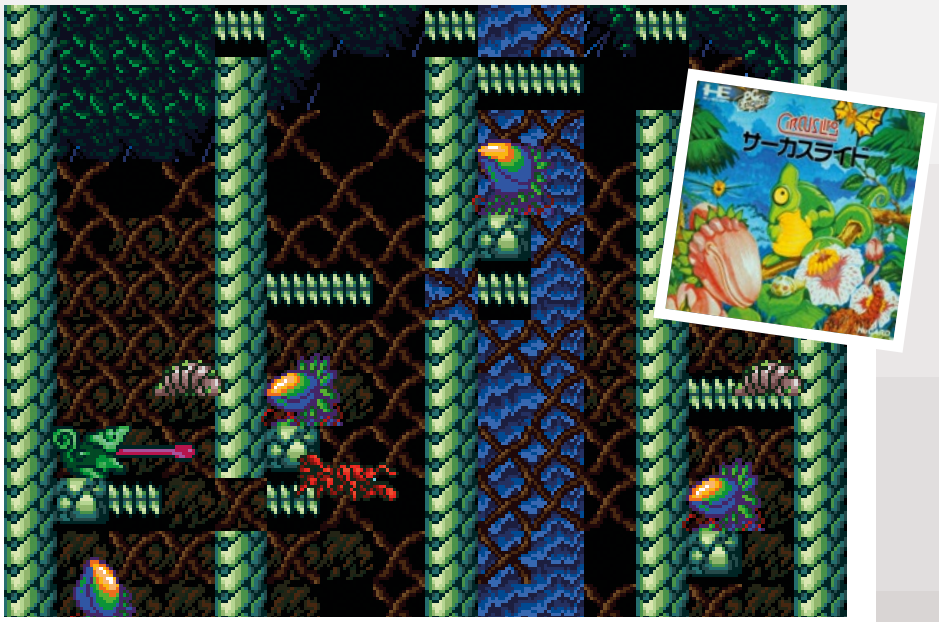
Buying anything second-hand is always a risk, and this is doubly true for ageing consoles. That's why, when I recently bought a somewhat tired-looking PC Engine Duo-R from an auction site this month, it was on the assumption that I'd quickly find problems with it – I even planned to write about my attempts to get the system working on this very page. To my surprise, though, the Duo-R turned up in much better condition than expected: its case is a bit yellowed in places, but what looked like deep, dark scratches in the photos turned out to be streaks of dirt which could easily be cleaned off with some detergent. Better yet, it all works perfectly: the Duo-R is designed to run both HuCards (the credit card-sized proprietary cartridges earlier iterations of the system used) and CD-based games – and both function just fine at the time of writing.

Given just how confusing the PC Engine's hardware lineage can be, I'd argue that the Duo-R is a good place to start if you're interested in playing the system's library of CD games. The original CD-ROM² unit was released in 1988, and was designed as an add-on for the original PC Engine. As the years went on, the console's manufacturer, NEC, released two additional CD formats, each requiring its own expansion card in order to run. The original CD-ROM² played host to such games as *Golden Axe*, *Side Arms Special*, and *Zero Wing*. Next came the Super CD-ROM² format, which debuted in 1991 and required its own expansion card to play; and then there was the Arcade CD-ROM², released in 1994, which had a smaller but sought-after selection of releases, such as the infamously rare *Ginga Fukei Densetsu Sapphire*.

If you can get your hands on a PC Engine Duo-R, it already has CD-ROM² and Super CD-ROM² compatibility built in. The only expansion you'll need is the Arcade CD-ROM² card – and that's assuming you're desperate to play the nine-or-so titles it supports. With the Duo-R, then, you're able to play the vast majority of the PC Engine's CD library right away, without worrying about CD-ROM add-ons or cards, which can often be expensive and difficult to track down by themselves. (It's also worth noting that the Duo-R is a really svelte, modern-looking system – it really is a lovely piece of 1990s industrial design.)



The usual caveats apply, obviously: if you aren't fussed about original hardware and collecting physical games, you can play all these titles quite easily via an emulator. If the fragility of old consoles doesn't appeal to you, then Analogue's upcoming Duo will allow you to play original HuCards and CDs on your modern HD telly. For me, though, there's a real thrill to having this hefty, cream-coloured chunk of console history join my gaming setup. Now I just have to see how long it lasts before it inevitably breaks...



Rare Beasts

If you want an illustration of how volatile the retro game collecting market can be, look no further than *Circus Lido*. Between the late 1990s and early 2000s, this was one of the rarest and most expensive titles on the PC Engine. It was so rare, in fact, that rumours abounded that it was never properly released, and that only a handful of copies existed. *Circus Lido*'s sheer oddness certainly seemed to back this up: it was the product of a little-known studio called Uni Post, and appeared to be its one and only release. You controlled a diminutive chameleon named Leon, and the game unfolded like a cross between *Bubble Bobble* and a fixed-screen puzzler like *Sokoban*: enemies had to be sucked up with Leon's sticky tongue, and then spat into the gaping maws of Venus flytraps dotted around the screen. Only once all the enemies were collected up and eaten by the carnivorous plants would the exit open for the next level.

Copies of *Circus Lido* regularly changed hands for thousands of pounds, until, after the turn of the millennium, something surprising happened: dozens, perhaps hundreds, of brand-new, unopened copies showed up for sale on Amazon Japan for their original retail price of around £40. It subsequently emerged that *Circus Lido* did get a commercial release after all – just at an unusual venue. For reasons we haven't been able to uncover, Uni Post sold *Circus Lido* exclusively in Japanese libraries – yes, those quiet places where people typically go to borrow books.

As you can imagine, sales were slow, and pallets of *Circus Lido* hung around for a few years in a warehouse somewhere before they were finally sold off on Amazon. Prices quickly plummeted, and even 20 years later, you can still pick up a tidy copy of the game for around its original retail price – though sealed copies sell for a bit more. *Circus Lido* is no longer the rarest game in the PC Engine's archives, then – but the story behind it is arguably the weirdest.



Loose Cannons

If you're looking for a modern beat-'em-up to play on your Amiga, you should keep an eye on *Metro Siege* – an upcoming brawler in the works over at indie developer BitBeamCannon. It's an action title firmly in the mould of *Final Fight* and *Streets of Rage*, and if it plays as nicely as it looks, we should be in for a treat. The team also have a couple of other retro projects in the works, including a fantasy-themed side-scroller, *DaemonClaw: Origins of Nnar* (also for the Amiga), and an 8-bit, NES-style platformer called *Cyber-Jack*. They're all slated for release on modern platforms, too. You can find out more about all three at **bitbeamcannon.com**.



Me? Nah, no golf

Getting back into the swing, Ian heads to perennial favourite Everybody's Golf

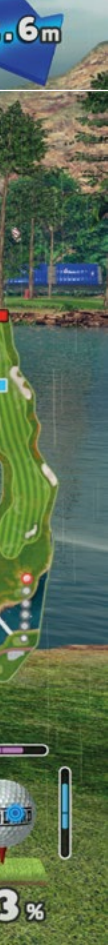
Clap Hanz Golf. I didn't know it was coming, then suddenly there it was on Apple Arcade. The developer – Clap Hanz, that is – had made a game for a non-Sony machine for the first time in a quarter of a century. The first time in the studio's *history*. It might not have been an exciting departure for a dev that had made ten golf games prior to this point, but that's why it's exciting: *it's a new Clap Hanz golf game!* The only problem is I have zero Apple products in the house, and so I'm entirely cut off from the next step in the best golfing series known to humankind.

Ah well, I think calmly – I can have a go at *Everybody's Golf* on PS5 (PS4) instead; it didn't come out too long ago (four years), and I've been itching to get back into it (I haven't). *Everybody's Golf* (known in Japan as *Minna no Gorufu*) is the long-running series that has been stewarded by Clap Hanz since the second instalment back in 1999. It's a bright and airy take on the best way to spoil a nice walk, and the removal of all those things like 'real people' and 'EA Sports logos' has gone a long way over the decades in endearing it to me. It is genuinely one of my most-played franchises – especially the handheld versions for both PSP and PS Vita – and has a guaranteed place in my own personal gaming pantheon.

I engage with all this setup to frame the picture; to set the scene. So it is when I say... I don't really like what they did to *Everybody's Golf* on PS4... you know where this comes from. There's a reason I immediately picked it up in 2017 when it released – because it was a new *EG* game. And there's a reason I gave up while still just a lowly level two player on it – it crammed a lot of extraneous nonsense in that diluted, and ultimately ruined, the experience for me. As a series, *Everybody's Golf* was always narrow



'Gimme' mode helped me quickly get back into the flow of things.



in scope, but with depth you'd still be trying to ascertain years later. *Everybody's Golf* 2017 was a game in which you could travel around your personal golf hub in a gyrocopter, going to the beach and talking to NPCs for literally no reason at all. It was *padded*, it's fair to say.

But this return, after a few years of ignoring the game, brought with it a refreshed focus. If that lot with Apple Arcade subscriptions could get to enjoy what was, in all but name, a new *Everybody's Golf* game, then I would at the very least get my money's worth from the last (non-VR) game in the series. So, with trepidation in my nine iron, I loaded the game up... and promptly played it for hours on end, because it's fantastic.

Oh, the 2017 game is absolutely stuffed to the gills with bloat, and I totally understand why the Dransfield of that year wasn't as keen to get involved – the Dransfield of 2021 isn't, either – but there's enough shortcuttery and hammering buttons to get through interminable dialogue to be done that can carry you through and get you to the core of the experience: golf for everybody. Because Clap Hanz had, at the point this game came out, been making golf games for 18 years, and the golf is still so very, very good.

Yes, you have an endless array of nonsense customisation options, there is that golf hub to trundle about for some reason, and the game *insists* on having other AI players on your course, playing the game, while you're trying to have a relaxing tournament experience. All of that still irks. But also: dressing yourself stupidly is funny, the hub can be sidestepped via menus, and... well, no, the AI players in tournaments are genuinely annoying. That part stands.

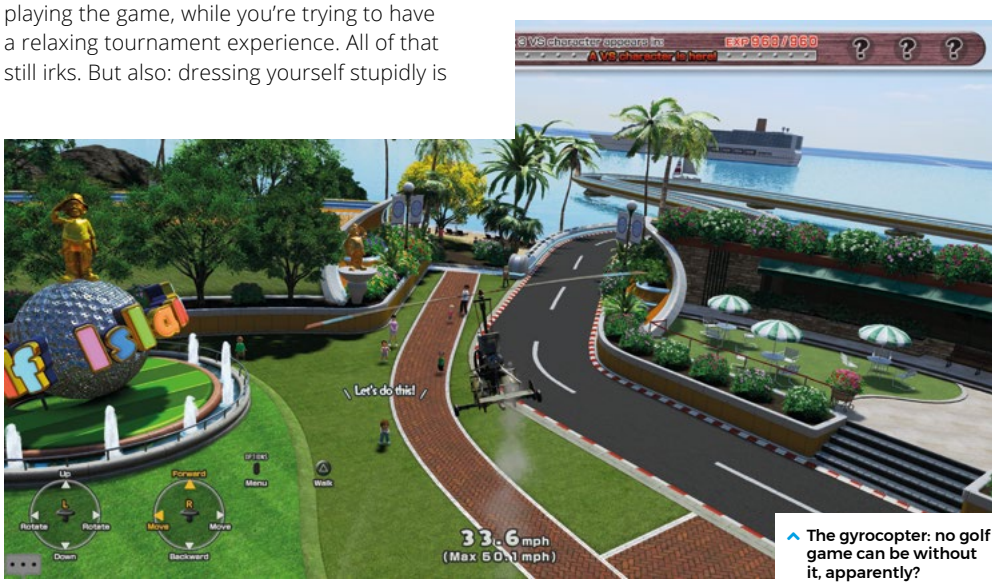


Look at that idiot, trying to get in the way of my chip-in glory.

Given a bit more patience on my part, it soon became apparent I'd been needlessly keeping myself away from another fantastic game of stick-ball-thwack, as nobody calls it. The characters don't feel as unique and vibrant as they did previously – especially as you don't specifically play *as* them, instead just able to wear their clothes after defeating them in a bizarre show of dominant cosplay. I'm not fond of being limited to one shot meter type, that being the traditional three-tap bar. And, more generally, it doesn't feel as focused as previous entries to the series.

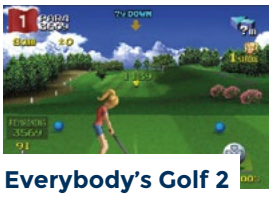
This return, after a few years of ignoring the game, brought with it a refreshed focus

But *Everybody's Golf* is still magnificent fun, and a wonderful game to pop on for ten minutes when you have time to fill with something, but not enough to get into anything particularly deep. Like, say, *The Last of Us Part II*, which I still haven't finished. One day. But for now I'm focusing on my bogeys and albatrosses.



The gyrocopter: no golf game can be without it, apparently?

Wireframe Recommends



Everybody's Golf 2
PSONE/PS3

Clap Hanz took over from Camelot (which went off to make the *Mario Golf* games), and came out running. A masterclass in how to make a golf game just different enough from the *PGA Tours* of the era.



Everybody's Golf Portable 2
PSP

The first *Portable* game was fantastic; the second edges it, though. Being able to take your tees on tour was a magnificent addition to the PSP's library and an essential golf-'em-up on the sorely overlooked system.



Everybody's Golf (2012)
PS VITA/PS3

We can ignore the inevitable PS3 re-release, because the 2012 game (2011 in Japan) was a Vita title through and through. It's still arguably the franchise's zenith, unless *Clap Hanz Golf* is somehow better.



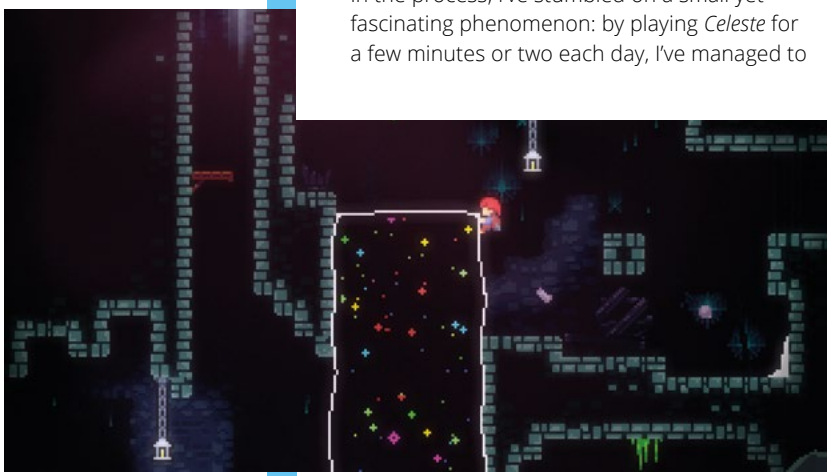
Climb every mountain

This month, Ryan attempts to improve his platforming and shooting prowess in Celeste and Gradius

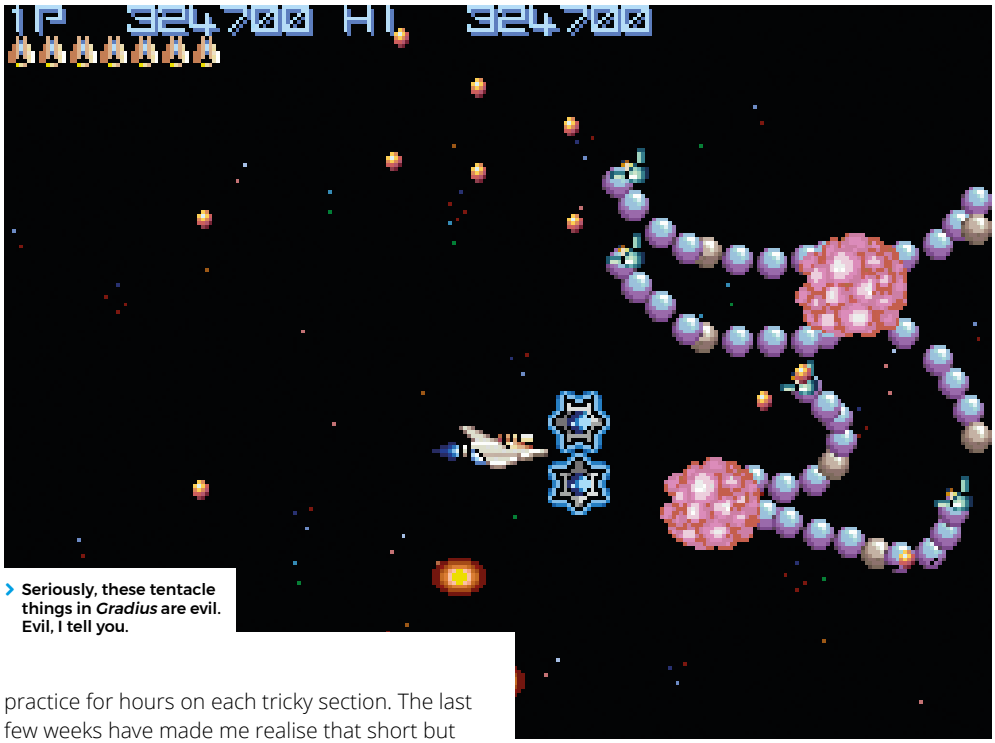
For one reason or another, I've had one of those months where I just haven't had as much time to devote to 'proper' gaming as I'd like. The multi-hour sessions that most modern games require simply haven't been available to me, and so I've wound up gravitating towards titles that I can just dip into for a few minutes. Extremely OK Games' chilly platformer *Celeste* has been my go-to over the past few weeks, then, since it's one of those experiences where I can simply turn it on, chip away at a screen or two, and then turn it off again when I'm suddenly called elsewhere. In the process, I've stumbled on a small yet fascinating phenomenon: by playing *Celeste* for a few minutes or two each day, I've managed to actually improve my skills – and get further in the game – than I did when I spent an hour or more trying and failing to bulldoze my way through its more difficult moments.

For the uninitiated, *Celeste* is a fixed-screen platformer that has a similar obsession with spikes, traps, and repeated, sudden deaths as *Super Meat Boy*. *Celeste* doesn't move at quite the same caffeinated tempo as that earlier indie darling, though, and there's a deviously intricate quality to its design that turns each discrete area into a miniature puzzle. *Celeste*'s retro stylings also belie some properly nuanced controls, and the game's stage designs demand absolute mastery of protagonist Madeline's abilities – as well as a mid-air dash, she has the ability to cling to and clamber up sheer faces, while gem-like items allow her to chain dashes in order to clear vast chasms. *Celeste* also adds an optional challenge in the shape of strawberries – as Don Everhart wrote in his piece on side paths in issue 49, these are bonus items that test your skills even further, since they're generally in locations that can't be reached without pulling off a series of pixel-perfect leaps and dashes over deadly obstacles.

Getting good at *Celeste* can be a slow and frustrating process, partly because even its early areas are filled with traps that require careful memorisation. In the past, I used to think that the most efficient way to master a challenge was to



***Celeste*'s tough, sure, but it has some of the most elegant and precise controls I've ever experienced in a platformer.**



Seriously, these tentacle things in *Gradius* are evil. Evil, I tell you.

practice for hours on each tricky section. The last few weeks have made me realise that short but regular play sessions are far more effective – each day, I've seen my skills slowly but visibly improve, and noticed that obstacle courses that I struggled with only a couple of days before could now be completed with ease.

Intrigued by this discovery, I applied the same process to *Gradius* – a 1985 shoot-'em-up I've played and enjoyed for decades, but never managed to complete. In the past, I'd take a brute-force approach to its more bullet-infested moments: after inevitably dying and losing all my power-ups, I'd keep trying to beat the problem area again and again until I ran out of lives.

This month, however, I gave myself a new rule: I could only play with one life. Once I lost that life, I'd turn the game off and wouldn't play it again until the next day. Again, it worked: areas that once left me gnawing my controller in frustration seemed to evaporate as the days rolled by. Only one life to play with focused my mind, and helped me remember exactly what I did wrong when I made a mistake. My old technique of attacking the same problem area again and again simply wasted time, since the repetition meant I'd forget why I'd landed in that tricky spot in the first place: often, it was simply because I'd chosen the wrong weapon for the stage, or I'd lost all my power-ups and didn't have a hope of progressing further with my basic pea-shooter.

"Short but regular play sessions are far more effective"

As the days rolled by, I found I could get to stage five without losing a life. Here, the screen fills with what look like throbbing chunks of gristle covered in tentacles; in the past, this stage proved to be my undoing, as the critters sprayed bullets in all directions. Thanks to my new play method, though, I realised that equipping myself with lasers and positioning my ship near the bottom right of the screen would destroy the aliens' tentacles as soon as they began to appear. In fact, if I were to provide one tip for getting further in *Gradius*, it's that preventing enemies from getting near the middle of the screen is key – the game's designed to push you back so that more enemies can crowd into view and hurl bullets at you. By pressing ahead, memorising attack patterns, and destroying enemies the second they enter the screen, once impossible-seeming stages start to feel manageable. At the time of writing, I've gotten to *Gradius*' seventh and final level for the first time. There's one final obstacle for me to overcome – a kind of gigantic cage that you need to either manoeuvre through or navigate around as it emerges from the screen's left. This isn't quite a success story yet, then, but given it's taken me two decades to even make it this far, I'm chalking it up as a win.

Wireframe Recommends



Manic Miner

ZX SPECTRUM/VARIOUS

Celeste's distant ancestor from the 8-bit era, *Manic Miner* demands the same level of precision jumping and mastery of each single-screen stage. The controls are less nuanced than *Celeste*, but the difficulty level is similarly steep. Also, the Grieg chiptune warbling will stick in your head for days.



Image Fight

ARCADE/PC ENGINE/VARIOUS

I've stuck this here because it's an example of a shooter where rote memorisation is the only hope of survival: enemies and bullets move far too quickly for most ordinary mortals to survive on pure reflexes alone.



Super Meat Boy

XBOX 360/PC/VARIOUS

The absolute epitome of a tough platformer designed to test your skill, memory, and patience. In other words, prepare to die – a lot. *SMB* is a frustrating, infuriating, but hugely rewarding classic of its kind.



Gradius II

Ryan revisits one of the most evil, despicable creations in video game history: the dreaded Option Hunter

KONAMI / 1988 / ARCADE, PC ENGINE, NES

In every issue up to this point, these Killer Feature articles have highlighted a particular mechanic that changed gaming, or, on occasions, were so clever that we can't believe more developers haven't borrowed them for their own works. The Option Hunter, on the other hand, is the total opposite: it's a mechanic so cruel, so irritating, so downright evil, we're relieved that a version of it hasn't reared its head in other games outside the *Gradius* series and its spin-offs. It's a mechanic that, although we can see why developer Konami came up with the idea, still feels like an act of trolling on the programmers' part.

Before we delve into what the Option Hunter is, here's a bit of context: *Gradius II* was a sequel to Konami's seminal 1985 shoot-'em-up, which differentiated itself from other arcade games of its kind thanks to a unique power-up system. By collecting the Power Capsules left behind by certain destroyed enemies, you could switch between a suite of power-ups lined up in a bar at the bottom of the screen. To upgrade your laser, for example, you had to collect four capsules; to equip your ship with a shield, you needed to collect six capsules. One of the most novel (and useful) weapons in *Gradius* was the Option – an indestructible satellite that hovered beside the player's ship and essentially doubled its firepower. You could equip multiple Options, too, up to a maximum of four (or fewer if you were playing some of the home computer and console versions), which resulted in the kind of firepower capable of eviscerating an end-of-level boss in seconds.

By 1988, Konami had already made one *Gradius* spin-off - *Salamander*, which also appeared in a slightly reworked guise as *Life Force* – and it evidently wanted to up the ante with *Gradius II*. The sequel was harsher and more aggressive, with level designs and attack patterns that punished the unwary at every turn. You had lives and continues, sure, but later levels were so fearsome that should you make a mistake and lose all the precious armaments you'd earned up to that point, you were almost better off simply starting the game again from the beginning.

"It's a mechanic so cruel, so downright evil, we're relieved a version of it hasn't appeared elsewhere"

The player's one comfort through all this bullet-infested brutality was those Options, orbiting your ship like loyal sheep-dogs. Konami got wise to this, though, and introduced the accursed Option Hunter – a small, indestructible enemy that attacked the player from behind. As its name suggests, the creature would make an immediate beeline for your Options. If you didn't move out of the way in time, the critter would gulp down one or even all of your faithful satellites, before exiting stage right. Even if you could move out of the way in time (no easy feat, given the speed at which the enemy glided through space), the Option Hunter would occasionally appear yet again for another attack – sometimes, even in the middle of a boss battle...







Admittedly, the Option Hunter wasn't Konami's first attempt at using cruel tactics to thwart the player's chances. The MSX version of *Salamander* introduced the Option Eater, which appeared in greater numbers and also gulped down the player's precious satellites, but these could at least be downed with a carefully aimed shot. The Option Hunter's indestructibility left the player with no such satisfaction; all they could do was hold their breath and pray that they could evade the wretched thing. Konami at least gave the player some warning – the Option Hunter's appearance would be preceded by an annoying siren, so it didn't exactly spring out of nowhere. Still, it's arguably one of the meanest design ideas to emerge from the arcade era – other developers had toyed with things that hurried the player along, like *Bubble Bobble*'s hectoring Baron von Blubba, but none were as plainly grim as the Option Hunter. It turned *Gradius II* into a game that actively punished you for being too powerful – one way of preventing the critter's appearance (at least in some versions of the game) was to simply avoid activating more than three Options.

Worryingly, Konami seemed to like its hellish creation, since it appeared in every *Gradius* game after 1988, and even showed up (albeit in cuter form) in some entries in the *Parodius* series of spin-offs. It was a mechanic capable of turning a once-flawless playthrough on its head; with your arsenal stripped down to one measly Option, you were left hopelessly vulnerable to attack. And, as anyone who's encountered the *Gradius* series' harsh universe will tell you, it's always good to have options.

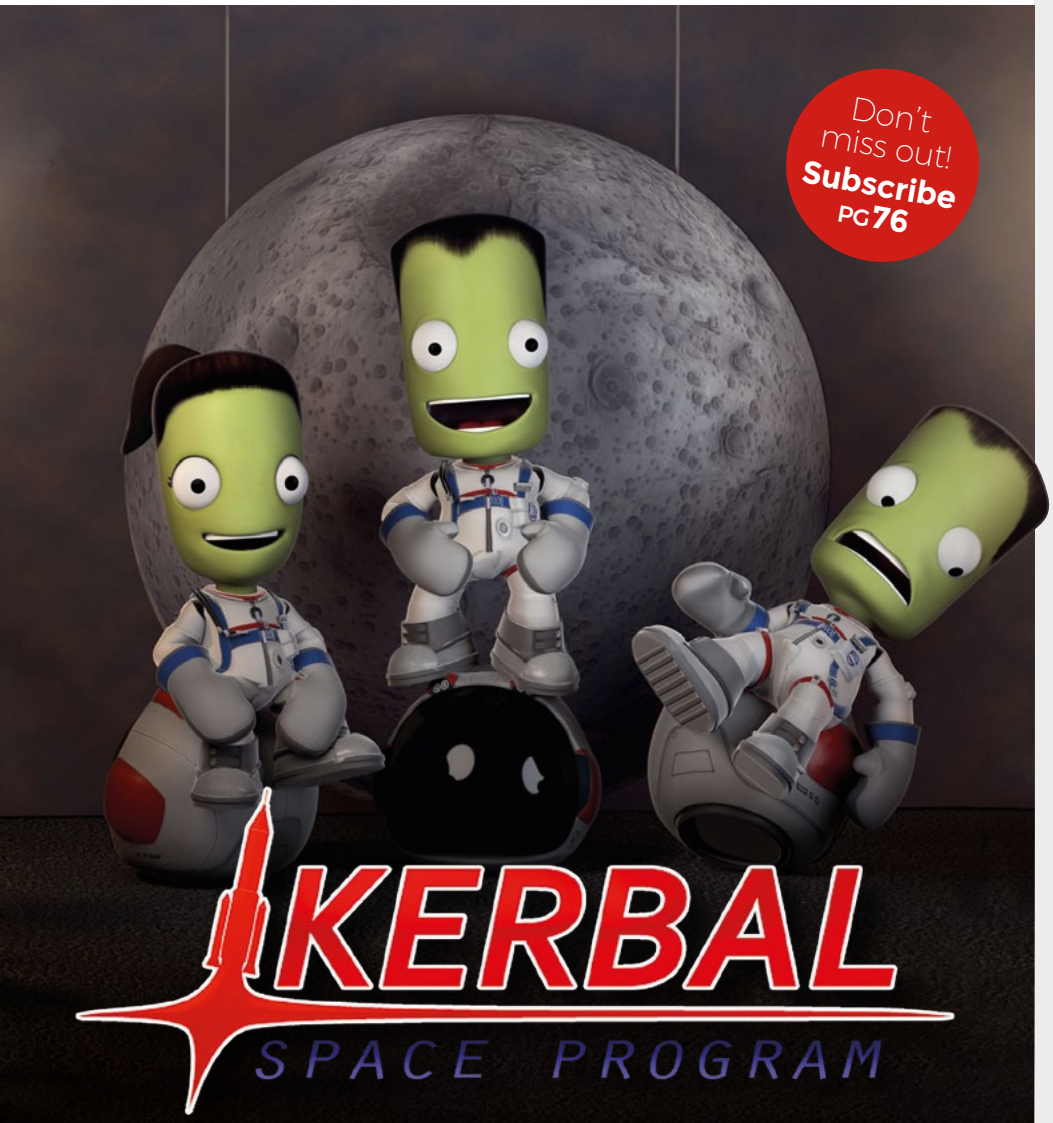
The Nuclear Option

Gradius Gaiden, released exclusively for the PSone in 1997, concluded with a rush of belligerent area bosses akin to *Gradius II*'s penultimate stage. At some point in *Gradius Gaiden*'s development, though, its designers thought, "You know what? This is way too easy". And so, not long after you'd beaten one hulking boss, one of those wretched Option Hunters came wiggling its way up behind you. Fail to evade it in time, and you could find yourself stripped of your precious friends – mere seconds before you're scheduled to face three further bosses in mortal combat. The age of the money-guzzling arcade game was on the wane by the late nineties, but the same cruel streak, it seemed, was still alive and well at Konami.



Next Issue

ON SALE 1 JULY



Private Division celebrates a decade of construction and exploding rockets

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